PANTHERA SOLUTIONS

INTRODUCTION TO THIRD GENERATION ASSET ALLOCATION

SLIDE-DECK

October 14th, 2016

BSE



INTRODUCTION

ABOUT
PANTHERA SOLUTIONS

ABOUT US

01

Panthera Solutions – based in the Principality of Monaco – is an advisory company offering independent analyses for professional investors, based on sound proprietary research and methodologies.

OUR SERVICES

02

We offer strategic asset allocation intelligence and investment process optimization for the management of multi-asset-portfolios. Our solutions are based on third generation asset allocation principles, reasoned by applied behavioral finance.

We are a team of internationally renowned specialists in different fields. Our assignments and publications have proven us to be innovation leaders in Europe.

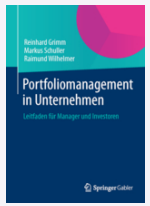
ABOUT THE FOUNDER

- 15+Y Investment Banking
- Adjunct Professor
- Book Author
- Keynote Speaker
- Monaco Trusted Advisor



MARKUS SCHULLER

Markus Schuller has 15+ years experience in trading, structuring and managing standard and alternative investment products. Prior to Panthera Solutions, Markus worked in executive roles for a Long/Short Equity Hedge Fund for which he developed the trading algorithm. He was one of the first in Europe to fit hedge fund strategies into UCITS III – compliant structures. Markus started his career by working for renowned banks as Equity/Derivatives Trader and Macro Analyst. Markus founded Panthera Solutions in 2009 in the Principality of Monaco, using his extensive sell-side know how for now advising professional investors. He is a regular speaker at international investment conferences on Asset Allocation and Risk Management topics. Markus acts as a regular commentary contributor to German/Austrian/Swiss quality media as financial markets expert. His co-authored book "Portfoliomanagement in Unternehmen" (Springer Verlag, 2014) received strong review scores beyond the investment community. His OECD Insights articles are regularly cited in international publications. Since 2009 Markus teaches the courses „Portfolio Theory & Alternative Assets“ and „Investment Banking“ at the International University of Monaco, the latter also at the Danube University in Austria.



"Let me thank you for your excellent keynote speech on “Third Generation Asset Allocation”, which I utmost enjoyed. It received strongly positive feedback from the audience and was definitely one of the highlights of the conference."

Prof. Mag. Otto Lucius, EFA®, CFP®, President of the Austrian Association of Financial Planners, organizer of the FINANZPLANER FORUM ´14



KEYNOTE SAMPLES

FINANZ PLANER FORUM

INSTITUTIONAL money – DER KONGRESS FÜR INSTITUTIONELLE ANLEGER – KONGRESS 2015

FRIENDS OF FUNDS – SFAMA

OECD – BETTER POLICIES FOR BETTER LIVES

EUROPEAN FAMILY OFFICE WINTER SYMPOSIUM

EUROPEAN ALTERNATIVE INVESTING SUMMIT

citywire

Hayek Institut

DEUTSCHE BÖRSE GROUP

Trust In The Digital World

YOUR BACKGROUND & INTEREST

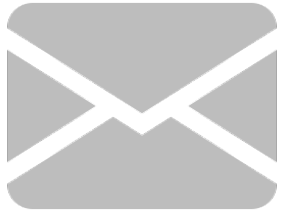
HOW TO REACH ME



https://www.linkedin.com/in/mhschuller

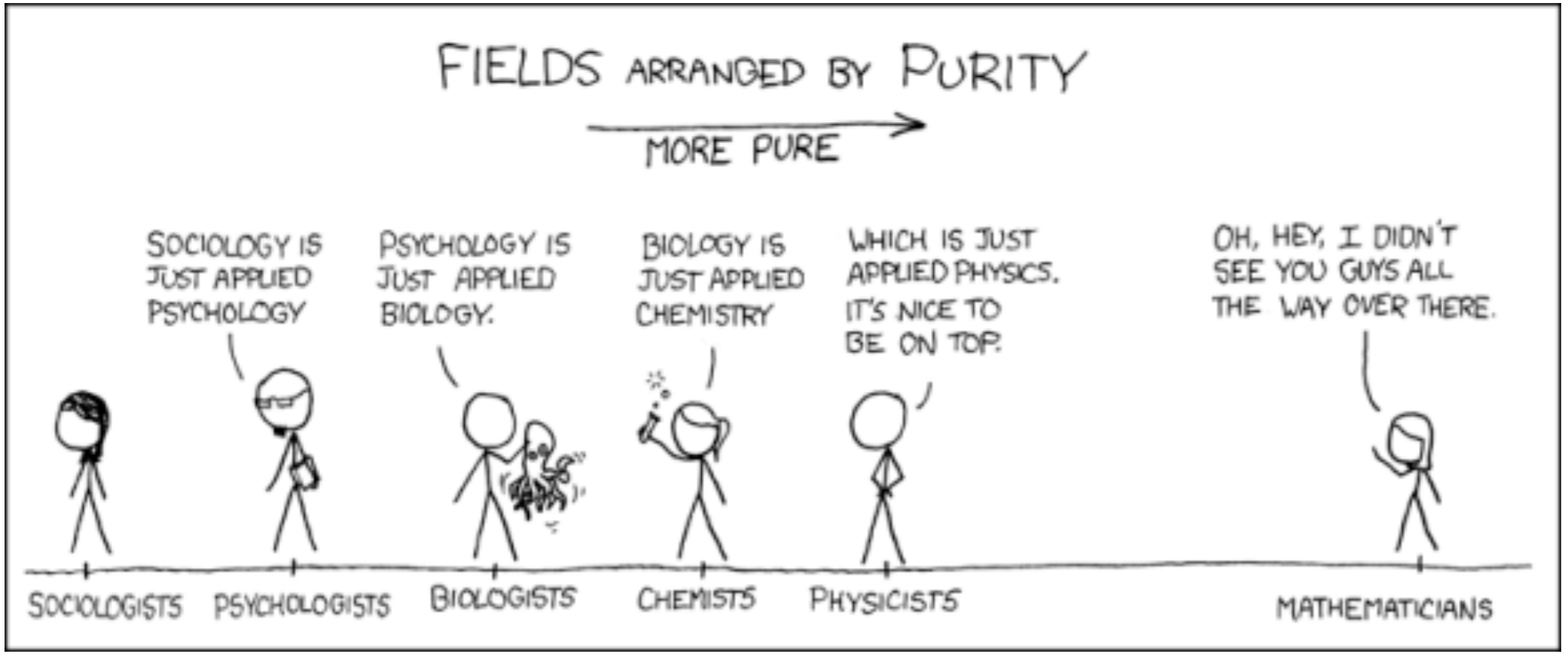


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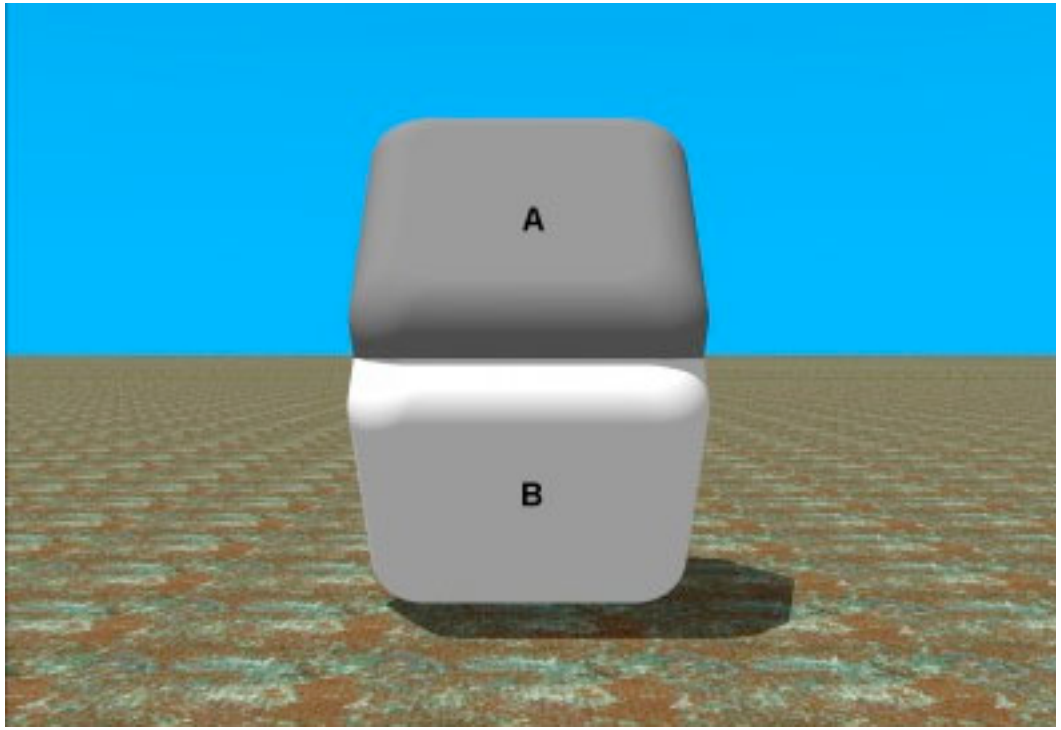


mhschuller@panthera.mc

ACADEMIC CATEGORIZATION



BACKGROUND COLOR OF A & B?

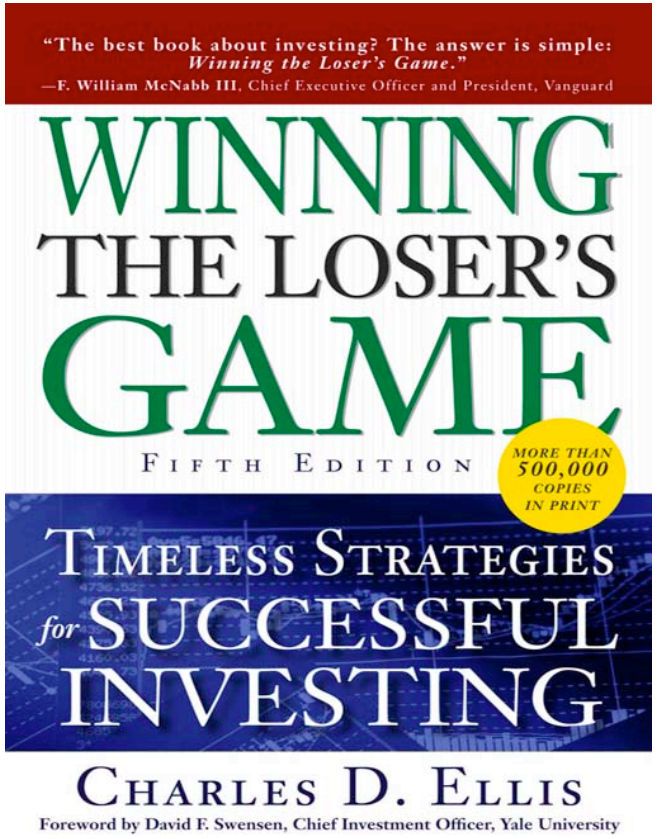


PROFESSIONAL TENNIS = A WINNERS GAME



INSTITUTIONAL INVESTING
= A LOSER´s GAME



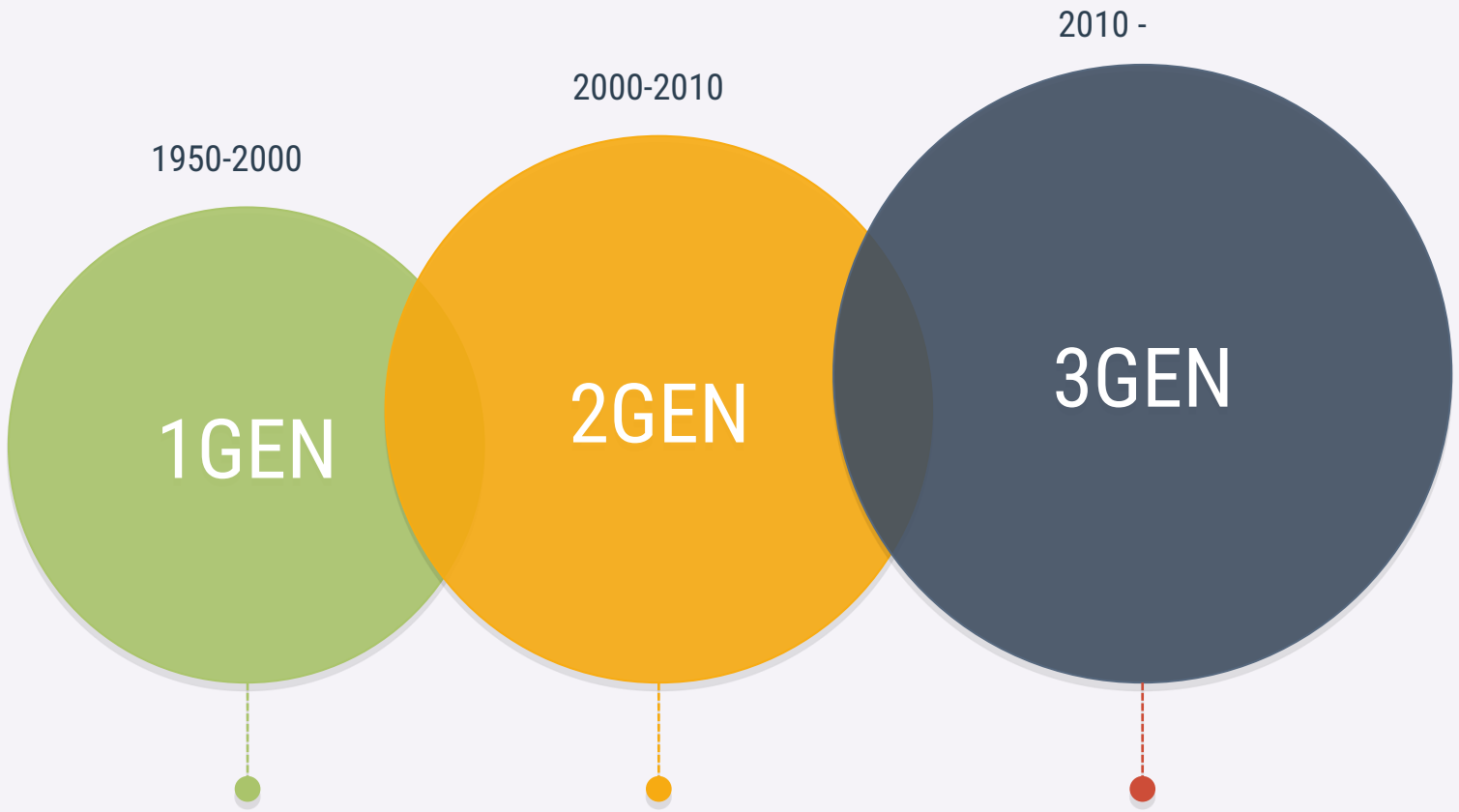


PARTNER VON WARREN BUFFETT

„It is remarkable how much long-term advantage people like us have gotten by trying to be consistently not stupid, instead of trying to be very intelligent.“

Charlie Munger
Berkshire Hathaway

ASSET ALLOCATION GENERATIONS



Single-Factor / Single-Period Models
Traditional Equity/Fixed Income Beta

Multi-Factor / Multi-Period Models
Globalized Multi-Asset-Diversification

Applied Behavioral Finance Techniques
Dynamization of Multi-Asset-Diversification, Risk Factor Allocation and proactive reduction of behavior gaps

INTRODUCTION TO THIRD GENERATION ASSET ALLOCATION

TIME	TOPIC	DESCRIPTION
09.00 – 10.30	**SEMINAR INTRODUCTION** **SINGLE-FACTOR MODELS (1GEN) & LIMITATIONS** **MULTI-FACTOR MODELS (2GEN) & LIMITATIONS**	▪ Asset Allocation History – overview of asset allocation &risk management techniques THE TRIUMVIRATE of Modern Portfolio Theory (MPT), Capital Asset Pricing Model (CAPM) and Efficient Market Hypothesis (EMH) – why has the triumvirate lasted for 50+ years and why has it become outdated since STRATEGIES INTENDING TO IMPROVE 1GEN MODELS ▪ Extending the Asset Class Universe ▪ Multiple-Regression Analysis / Forecasting Models
10.45 – 12.15	**THIRD GENERATION (3GEN) – NEW BASIC HYPOTHESIS** **3GEN BUILDING BLOCK I GLOBAL TRANSFORMATION PROCESSES**	Basic assumptions of the third asset allocation generation are introduced, distinguishing them from the previous ones a.k.a. why is the third generation the best we have for now? THE STARTING POINT / The Global Capital Stock in Portfolio Construction / Market Timing Limitations / The search for a robust starting point in Strategic Asset Allocation
13.15 – 14.45	**3GEN BUILDING BLOCK II RISK FACTOR DIVERSIFICATION** **3GEN BUILDING BLOCK III ANIMAL SPIRITS MANAGEMENT**	▪ Asset Class VS Risk Factor Diversification ▪ What are Risk Factors? How to isolate? How to invest? BEHAVIORAL ASPECTS IN INVESTMENT DECISIONS ▪ Pro-actively managing cognitive biases by creating High Performance Investment Teams © a.k.a. how to make more rational investment decisions?
15.00 – 16.30	**3GEN BUILDING BLOCK IV PRODUCT & JURISDICTION AGNOSTICISM** **3GEN BUILDING BLOCK V RULE-BASED DSAA PROCESS** **FINAL CASE STUDY**	▪ Active VS Passive Investing // Alpha VS Beta Investing // Global VS Local Diversification // Mutual Funds VS Alternative UCITS VS Hedge Funds ▪ Anti-cyclicality & Rebalancing ▪ How to combine the 3GEN building blocks to a coherent asset allocation process?

DAY ONE
CAPITAL MARKET DIMENSIONS / THE PLAYGROUND

CAPITAL MARKET DIMENSIONS

List by the International Monetary Fund (2014)[13]

Rank	Country/Region	GDP (Millions of US$)
	World	77,608.736[15]
	European Union[n 1]	18,398.669[15]
1	United States	17,416,253
2	China	10,355,350[n 2]
3	Japan	4,769,804
4	Germany	3,820,464
5	France	2,902,330
6	United Kingdom	2,847,604
7	Brazil	2,244,131
8	Italy	2,129,276
9	Russia	2,057,301
10	India	2,047,811
11	Canada	1,826,769
12	Australia	1,505,924
13	Spain	1,358,687
14	South Korea	1,304,468
15	Mexico	1,260,915
16	Indonesia	870,275
17	Netherlands	853,806
18	Turkey	819,990
19	Saudi Arabia	748,450
20	Switzerland	650,431

List by the International Monetary Fund (2015)[16]

Rank	Country/Region	GDP (Millions of US$)
	World[19]	73,170,986
1	United States	17,947,000
	European Union[n 1][19]	16,220,370
2	China	10,982,829
3	Japan	4,123,258
4	Germany	3,357,614
5	United Kingdom	2,849,345
6	France	2,421,560
7	India	2,090,706
8	Italy	1,815,757
9	Brazil	1,772,589
10	Canada	1,552,386
11	South Korea	1,376,868
12	Russia[n 2]	1,324,734
13	Australia	1,223,887
14	Spain	1,199,715
15	Mexico	1,144,334
16	Indonesia	858,953
17	Netherlands	738,419
18	Turkey	733,642
19	Switzerland	664,603
20	Saudi Arabia	653,219

List by the International Monetary Fund (Estimates for 2016)[5]

Rank	Country	GDP (millions of US$)
	World[8]	75,212,696
1	United States	18,561,930
—	*European Union*[n 1][8]	16,518,723
2	China[n 2]	11,391,619
3	Japan	4,730,300
4	Germany	3,494,900
5	United Kingdom	2,649,890
6	France	2,488,280
7	India	2,250,990
8	Italy	1,852,500
9	Brazil	1,769,600
10	Canada	1,532,340
11	South Korea	1,404,380
12	Russia[n 3]	1,267,750
13	Australia	1,256,640
14	Spain	1,252,160
15	Mexico	1,063,610
16	Indonesia	940,953
17	Netherlands	769,930
18	Turkey	735,716
19	Switzerland	662,483
20	Saudi Arabia	637,785

CAPITAL MARKET DIMENSIONS

Worldwide Number of Mutual Funds

Year-end

	2007	2008	2009	2010	2011	2012	2013	2014
World	66,362	69,049	67,533	69,492	72,607	73,235	76,206	79,669

Worldwide Total Net Assets of Mutual Funds

Millions of U.S. dollars, year-end

	2007	2008	2009	2010	2011	2012	2013	2014
World	$26,130,201	$18,919,299	$22,945,270	$24,711,508	$23,801,209	$26,844,414	$30,047,406	$31,381,425

Worldwide Total Net Assets of Regulated Open-End Funds

Millions of U.S. dollars, year-end

	2008	2009	2010	2011	2012	2013	2014	2015
World	$20,631,003	$25,088,939	$27,374,359	$26,578,593	$30,213,561	$34,462,543	$37,072,351	$37,190,528

Worldwide Number of Regulated Open-End Funds

Year-end

	2008	2009	2010	2011	2012	2013	2014	2015
World	76,519	75,293	77,836	81,429	82,410	88,747	98,832	100,494

Comparison of Net Assets and Number of Funds

	2014:Q4			
	Net assets *Billions of U.S. dollars*		Number of funds	
	New	Old	New	Old
All funds*	36,995	31,381	98,971	79,669
Long-term	32,447	26,851	93,134	76,207
Equity	16,039	13,891	32,797	29,367
Bond	8,270	7,413	17,609	15,813
Balanced/Mixed	4,921	3,979	22,757	18,856
Guaranteed	110	N/A	2,094	N/A
Real estate	448	N/A	2,127	N/A
Other	2,660	1,568	12,894	9,380
Money market	4,547	4,531	2,856	2,791
Memo items included above:				
	Net assets *Billions of U.S. dollars*		Number of funds	
	New	Old	New	Old
ETFs	2,451	N/A	2,897	N/A
Institutional	2,746	N/A	13,848	N/A
Sector equity	N/A	485	N/A	1,135
Fund of funds	3,059	2,970	12,855	11,931

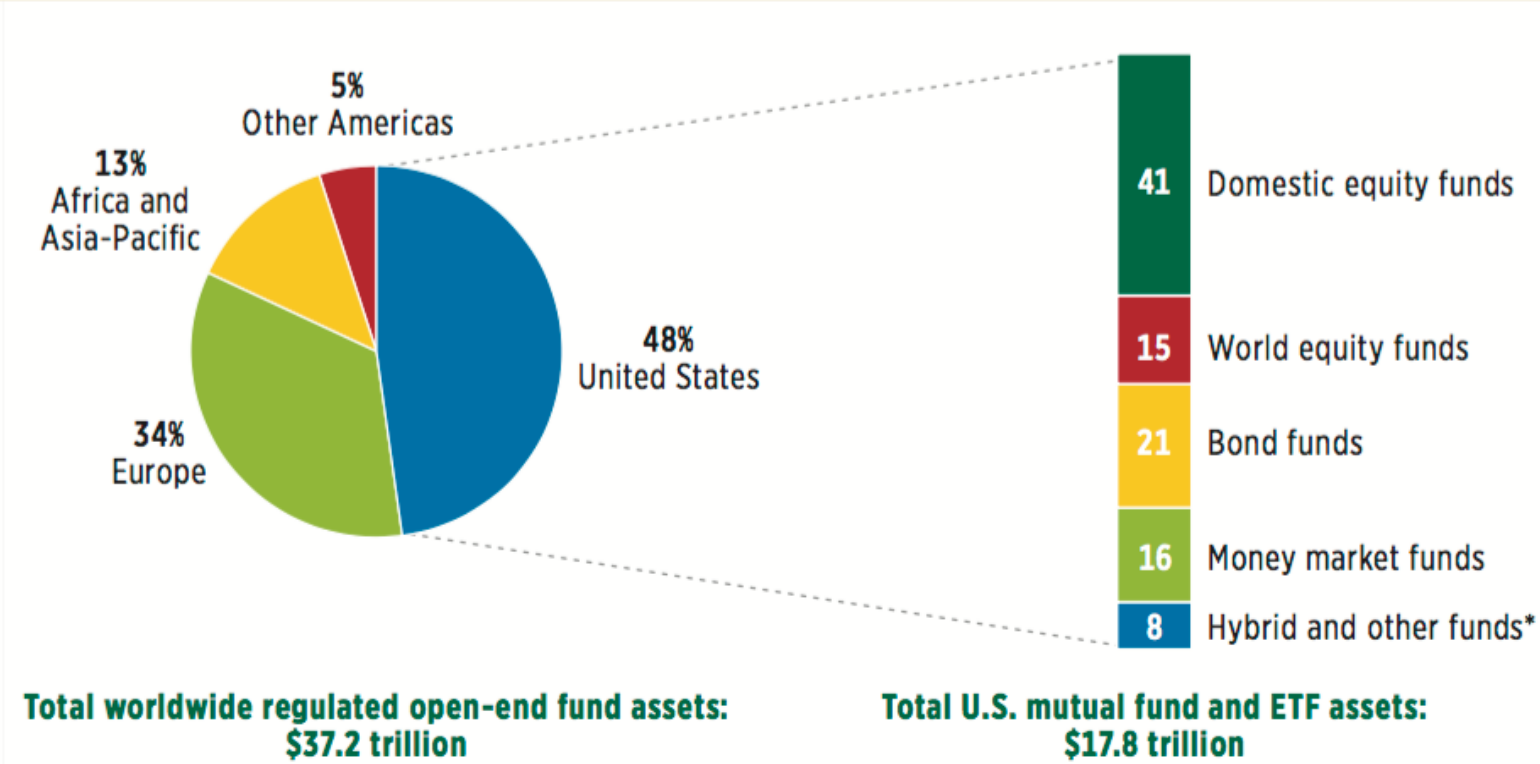
* Excludes funds of funds where possible.

CAPITAL MARKET DIMENSIONS

FIGURE 1.2

The United States Has the World's Largest Regulated Open-End Fund Market

Percentage of total net assets, year-end 2015



* This category includes ETFs—both registered and not registered under the Investment Company Act of 1940—that invest primarily in commodities, currencies, and futures.

Note: Regulated open-end funds include mutual funds, exchange-traded funds (ETFs), and institutional funds. Components may not add to 100 percent because of rounding.

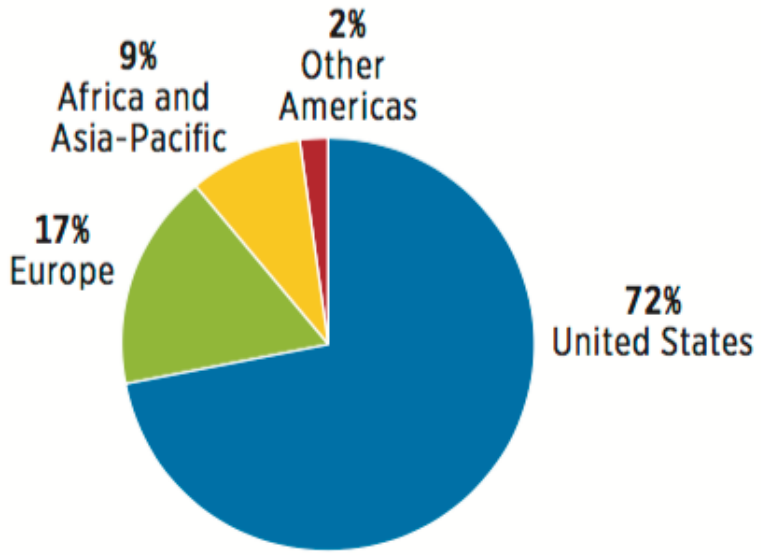
Sources: Investment Company Institute and International Investment Funds Association

CAPITAL MARKET DIMENSIONS

FIGURE 3.1

The United States Has the Largest ETF Market

Percentage of total net assets, year-end 2015



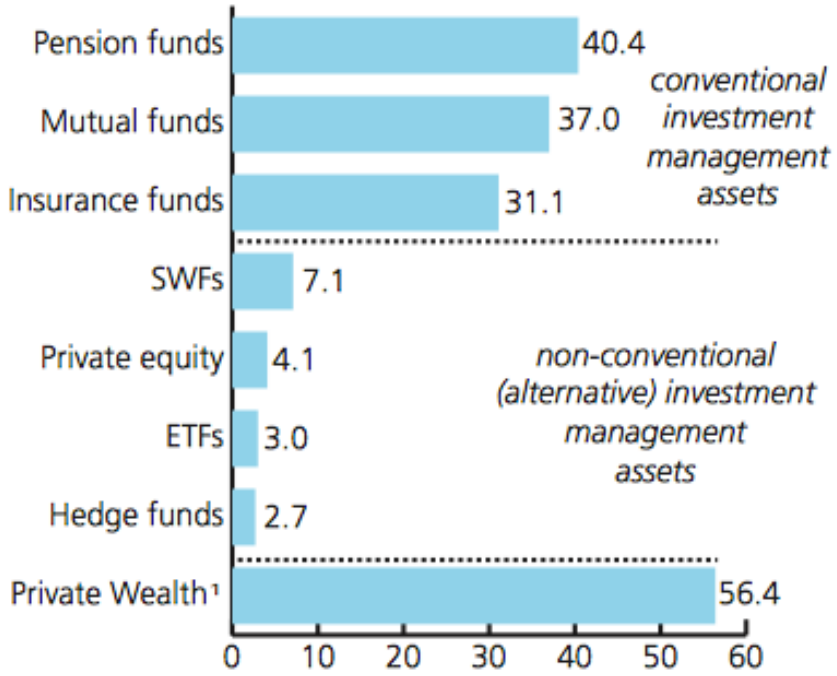
Total worldwide ETF assets: $2.9 trillion

Sources: Investment Company Institute and ETFGI

CAPITAL MARKET DIMENSIONS

GLOBAL FUND MANAGEMENT INDUSTRY

assets under management, $ trillion, end-2014

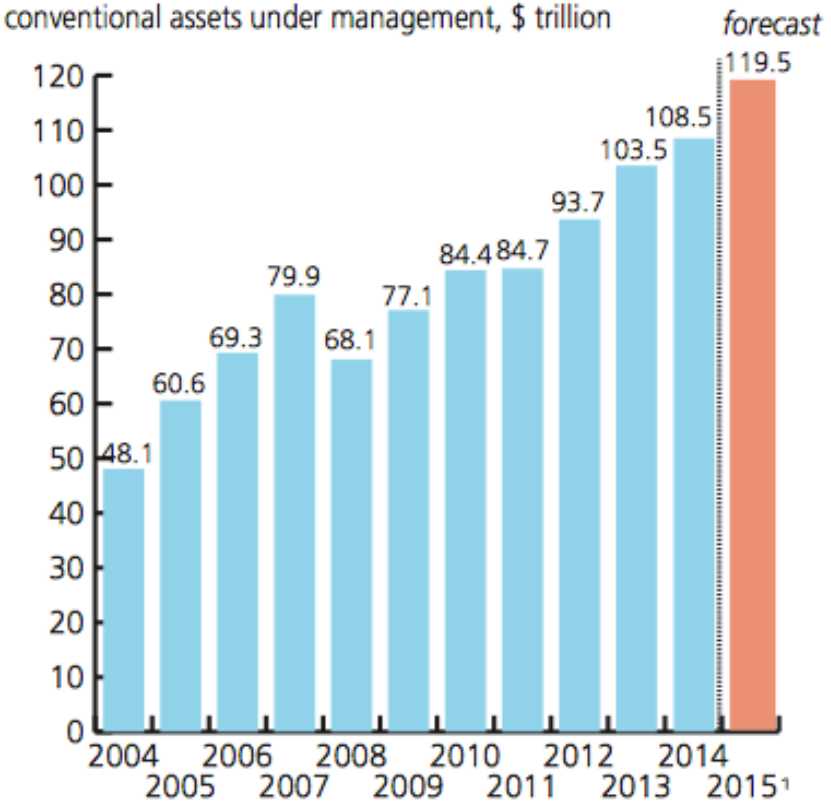


¹ Around one-third of private wealth is incorporated in conventional investment management

Source: TheCityUK estimates based on various sources

GLOBAL INSTITUTIONAL ASSETS UNDER MANAGEMENT

conventional assets under management, $ trillion

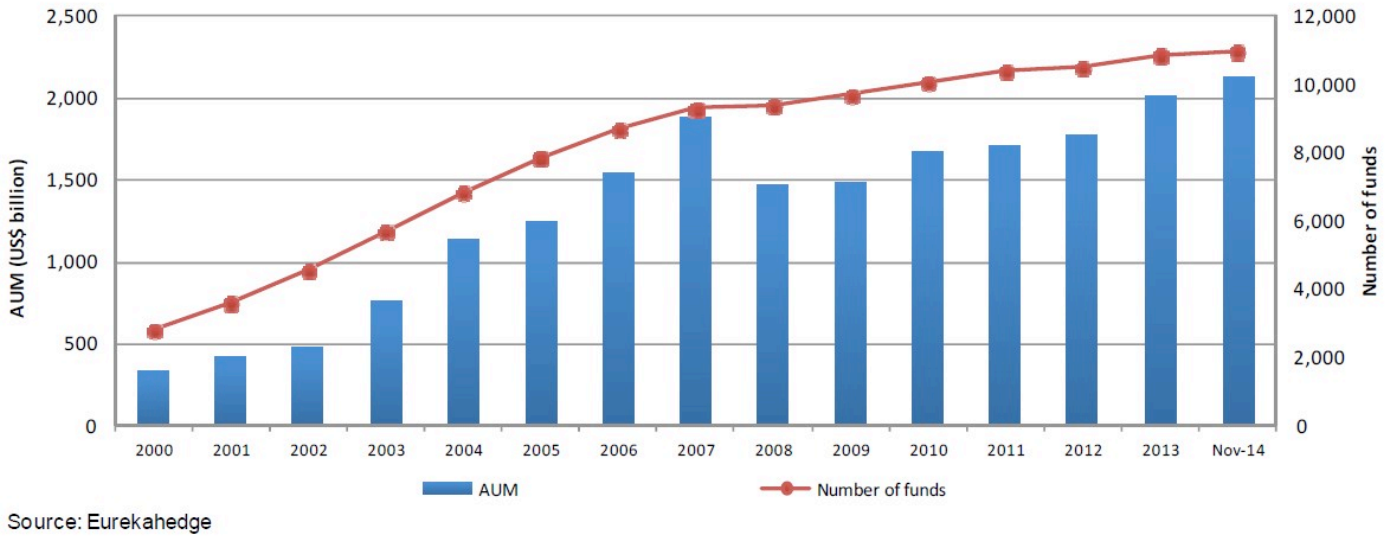


¹ TheCityUK forecast

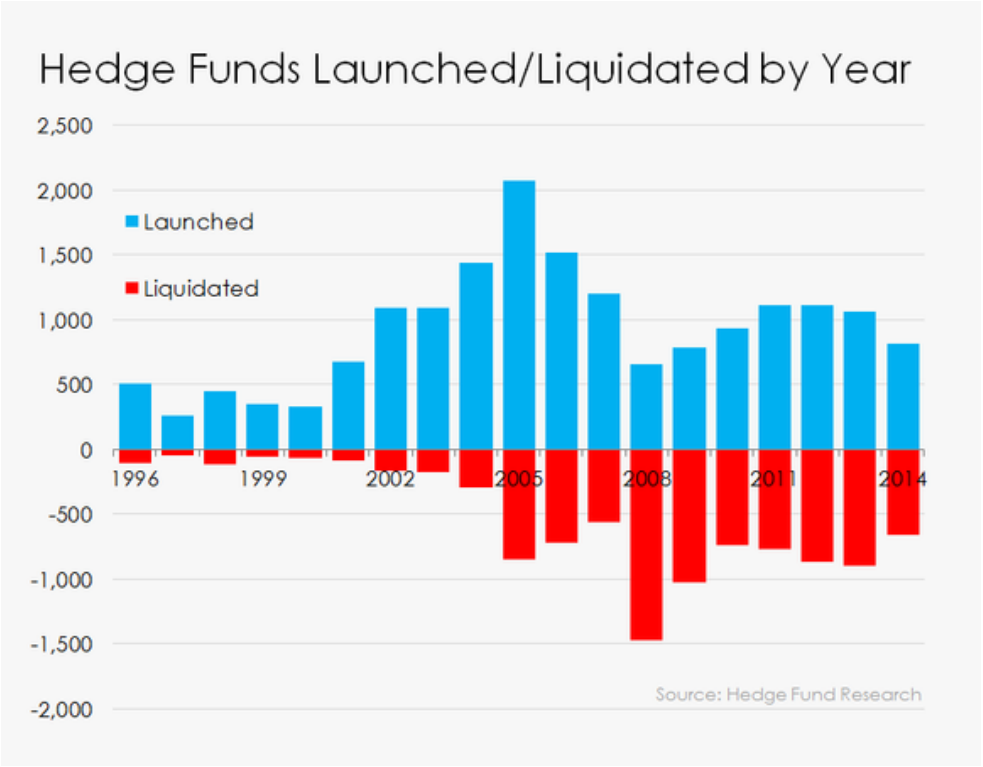
Source: TheCityUK estimates based on various sources

CAPITAL MARKET DIMENSIONS

Hedge Fund industry growth over the years

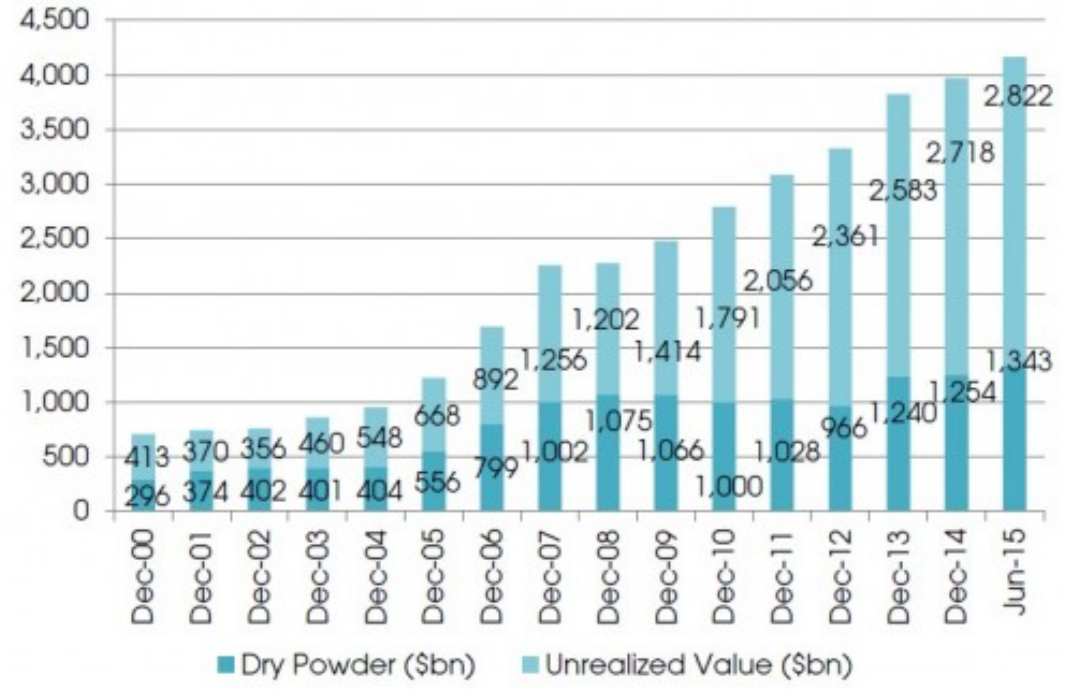


Source: Eurekahedge



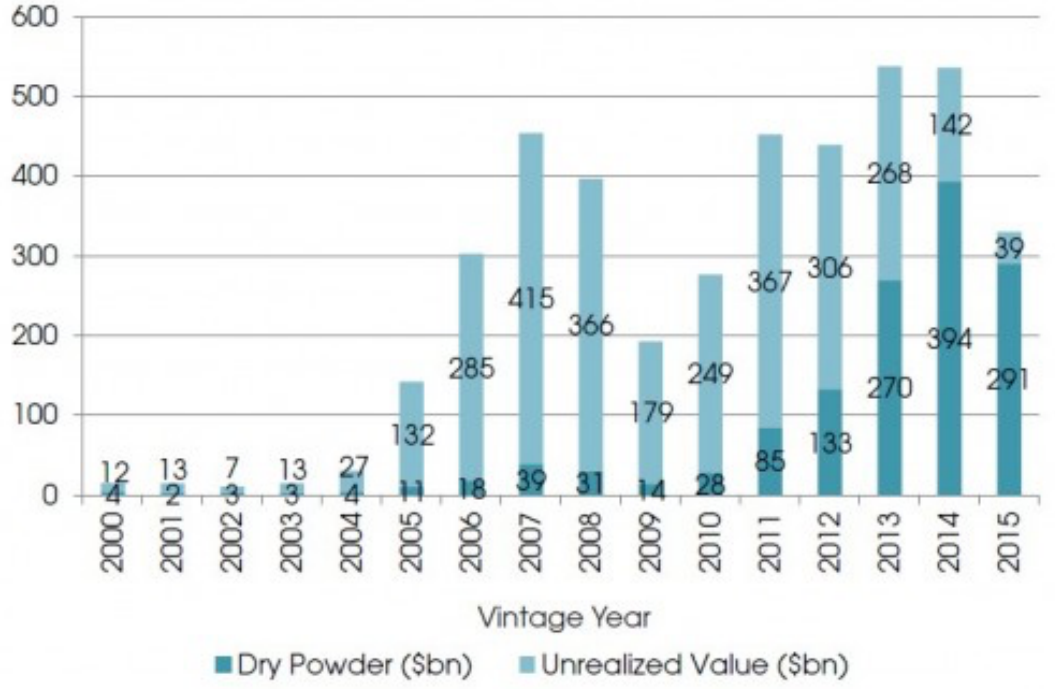
CAPITAL MARKET DIMENSIONS

Fig. 3.1: Private Capital Assets under Management, 2000 - 2015**



Source: Preqin Fund Manager Profiles and Preqin Performance Analyst

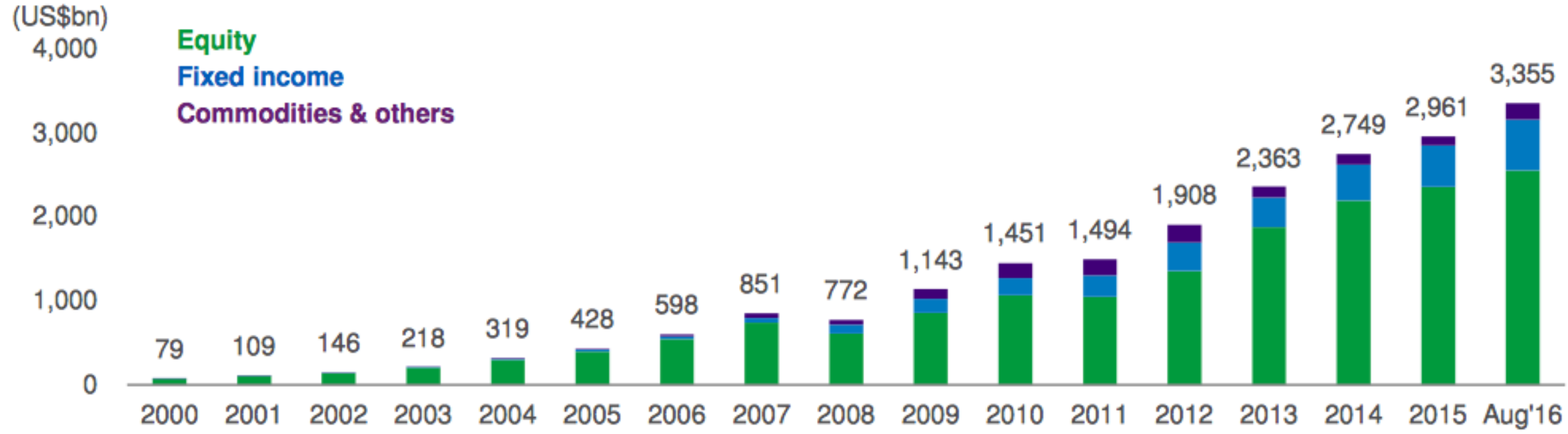
Fig. 3.2: Private Capital Assets under Management by Vintage Year as of June 2015**



Source: Preqin Fund Manager Profiles and Preqin Performance Analyst

CAPITAL MARKET DIMENSIONS

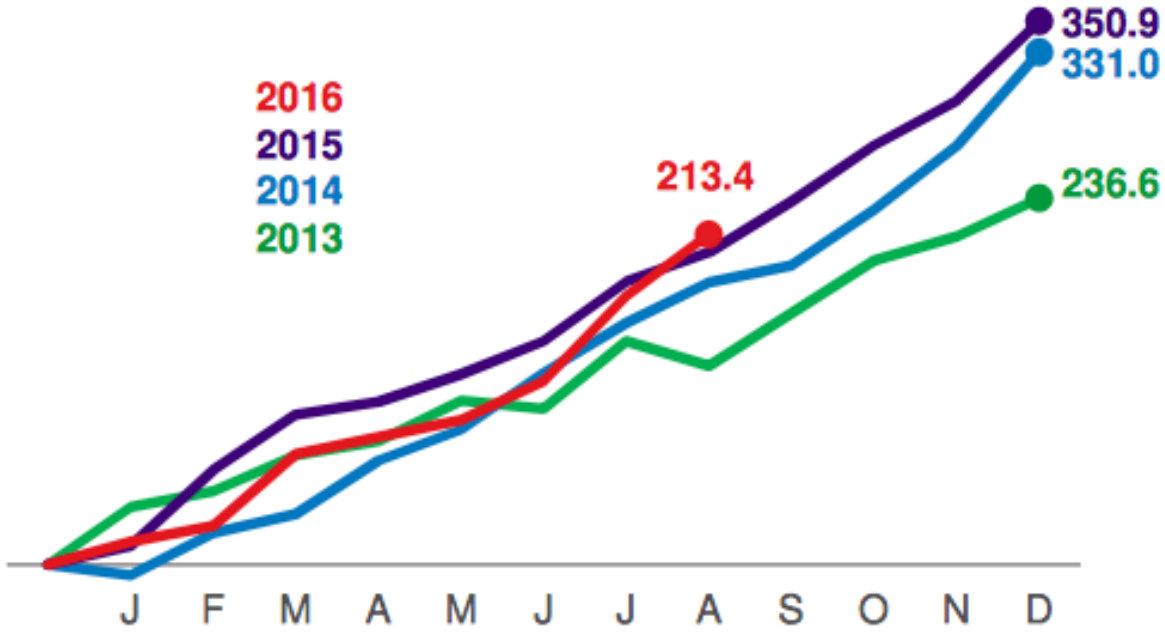
GLOBAL ETP ASSETS[1]



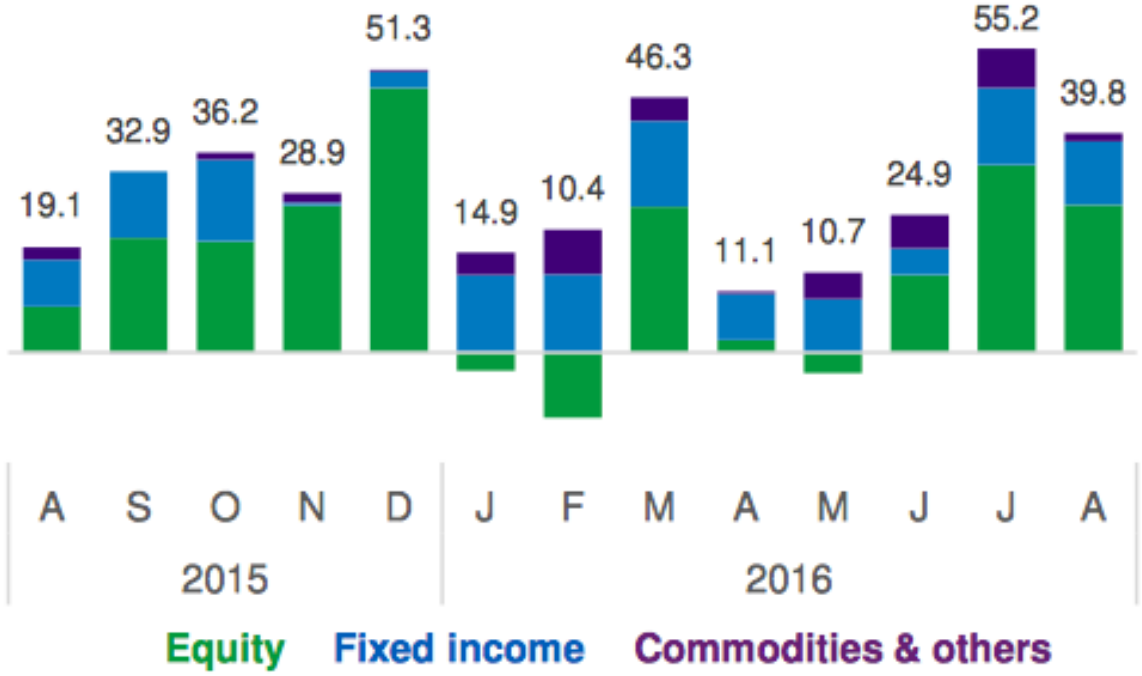
CAPITAL MARKET DIMENSIONS

CUMULATIVE ETP FLOWS[1]

Year-to-date flows: $213.4bn

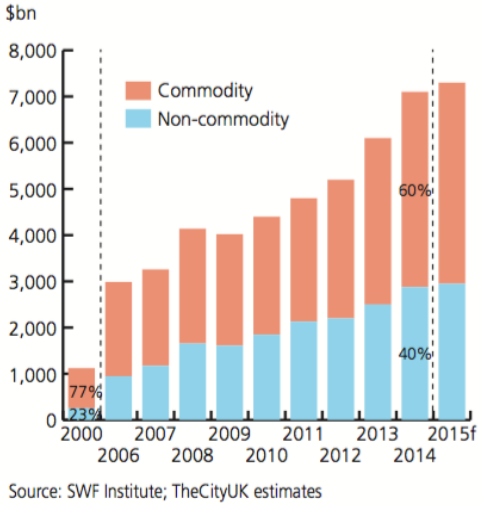


GLOBAL 13-MONTH ROLLING FLOWS[1]

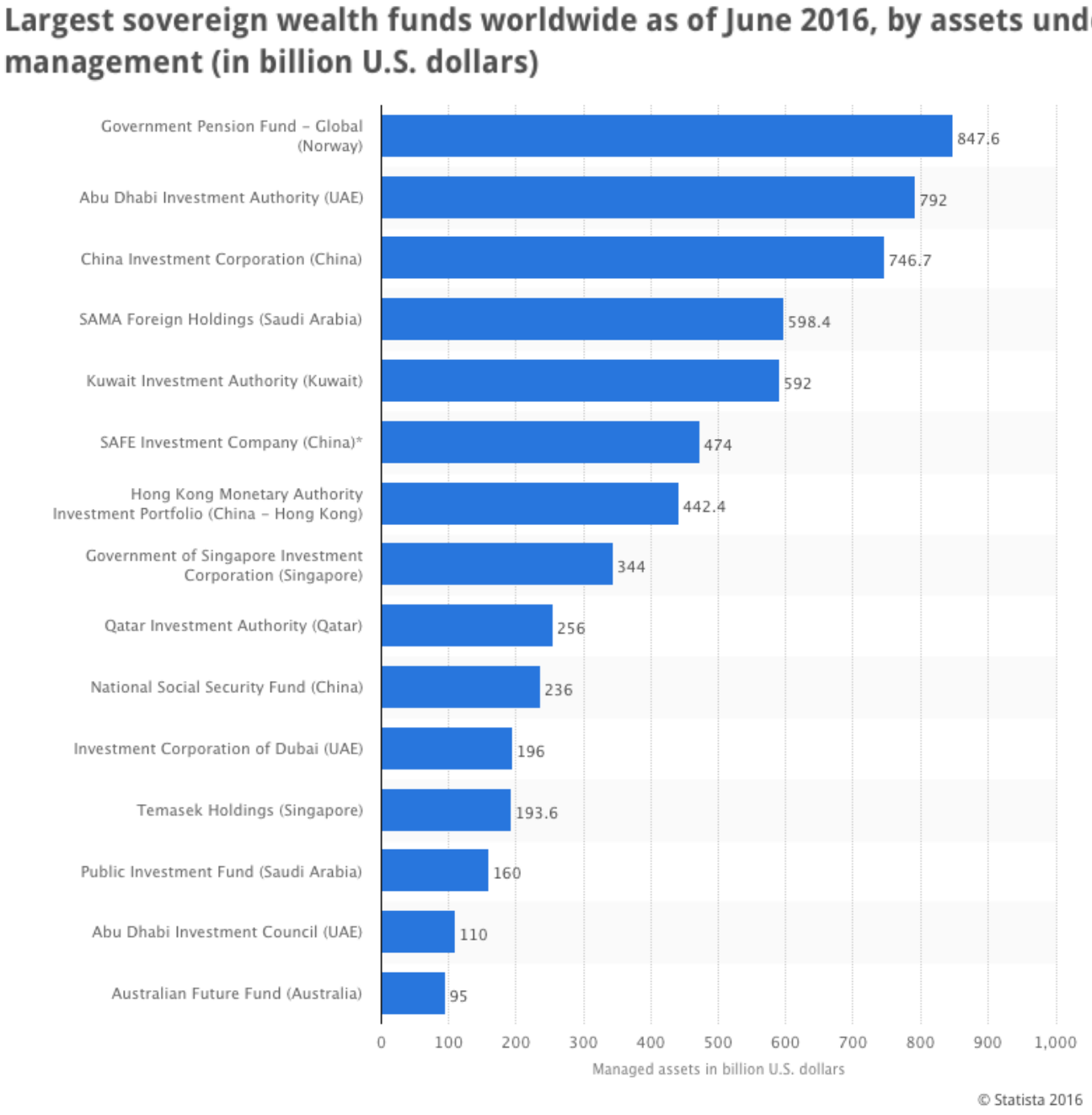


CAPITAL MARKET DIMENSIONS

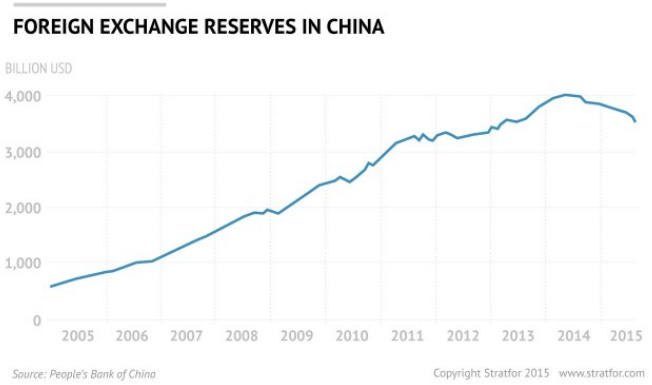
FIGURE 1
SWF's ASSETS UNDER MANAGEMENT

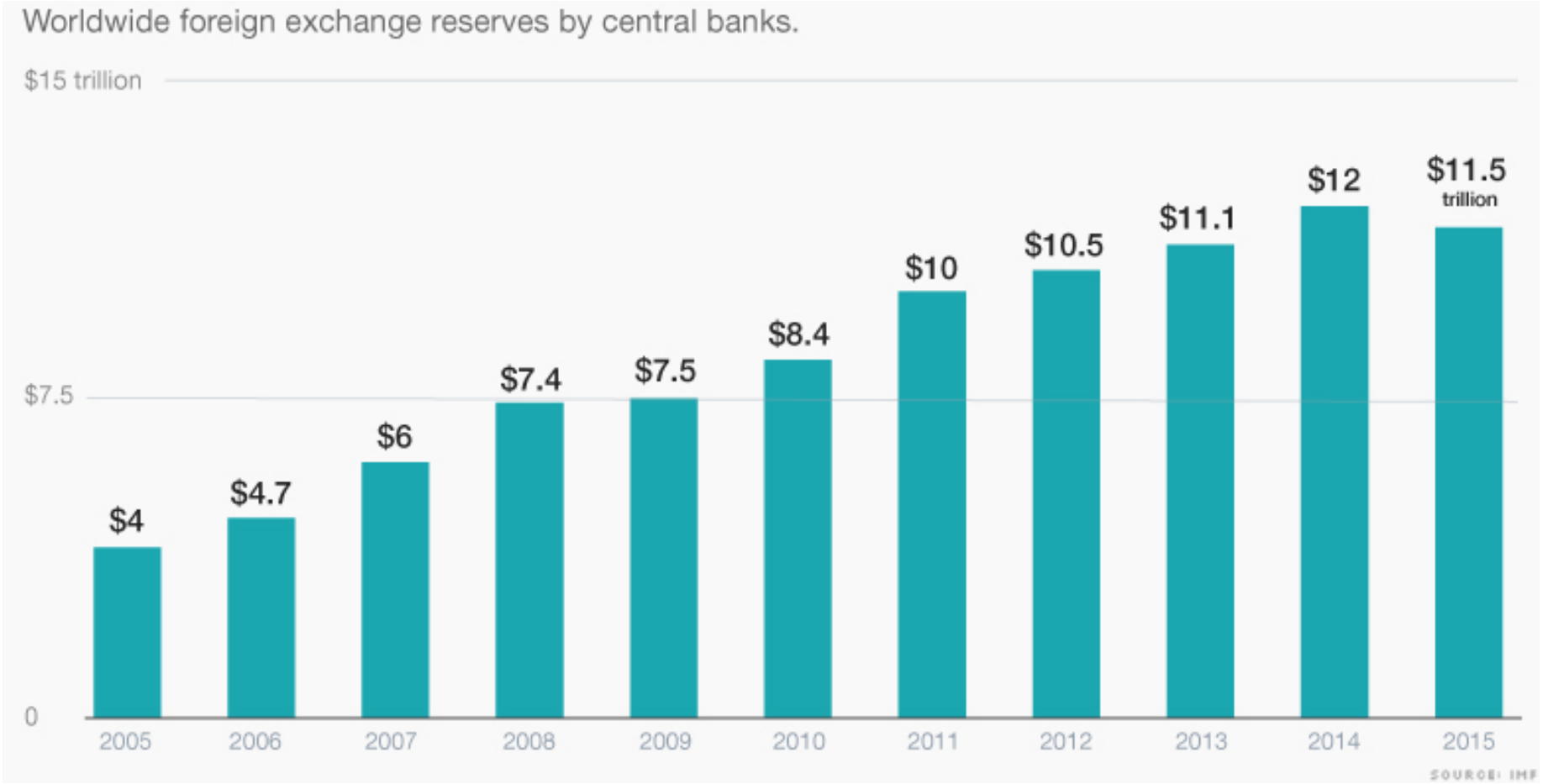


Source: SWF Institute; TheCityUK estimates



CAPITAL MARKET DIMENSIONS





CAPITAL MARKET DIMENSIONS

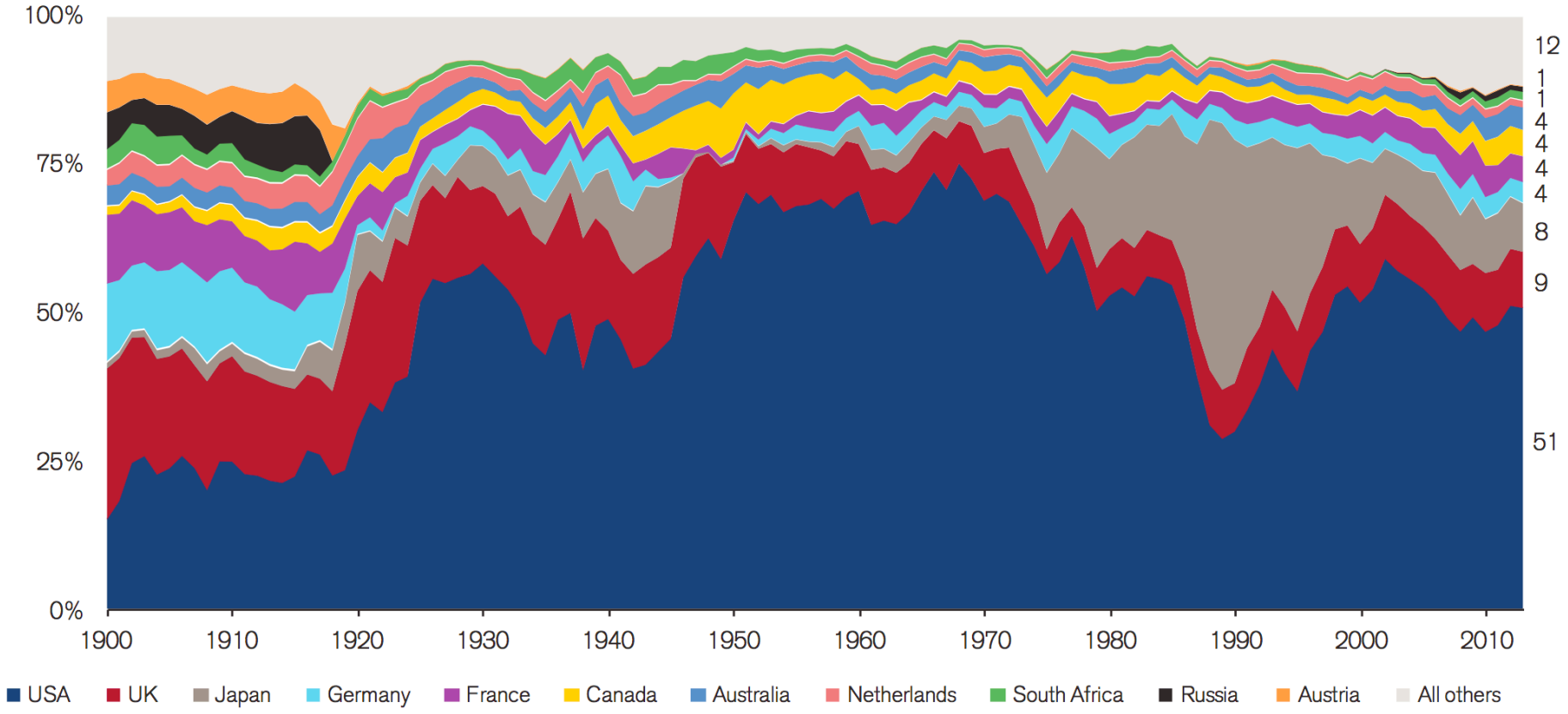
Top 400 Asset Managers 2016 (Top 25)

	Company	Country	Total 2016 31/12/15 (€m)	Total 2015 31/12/14 (€m)
1	BlackRock	US/UK	4,398,439	3,844,383
2	Vanguard Asset Management	US/UK	3,091,979	2,577,380
3	State Street Global Advisors	US/UK	2,066,479	2,023,149
4	Fidelity Investments	US	1,830,330	1,595,380
5	BNY Mellon Investment Management	US/UK	1,492,895	1,407,163
6	J.P. Morgan Asset Management	US/UK	1,361,178	1,266,805
7	PIMCO	US/Germany	1,321,158	1,162,583
8	Capital Group	US	1,272,080	1,167,231
9	Prudential Financial	US	1,089,737	968,628
10	Legal & General Investment Mngt.†	UK	1,012,389	893,900
11	Goldman Sachs Asset Management Int.	US/UK	996,651	846,182
12	Amundi	France	985,028	865,985
13	Wellington Management	US	853,274	755,108
14	Northern Trust Asset Management	US/UK	805,763	771,951
15	Natixis Global Asset Management	France/US	801,128	735,530
16	TIAA Global Asset Management	US	786,479	703,529
17	Deutsche Asset Management	Germany	777,091	721,747
18	Invesco	US/UK	714,070	654,645
19	Franklin Templeton Investments	US/UK	703,220	727,394
20	T. Rowe Price	UK	702,479	617,163
21	AXA Investment Managers	France	669,436	623,008
22	Legg Mason	US	618,397	586,004
23	Sumitomo Mitsui Trust Bank	Japan	614,762	512,279
24	UBS Asset Management	Switzerland/UK	597,234	552,089
25	Affiliated Managers Group	US	578,310	512,635

CAPITAL MARKET DIMENSIONS

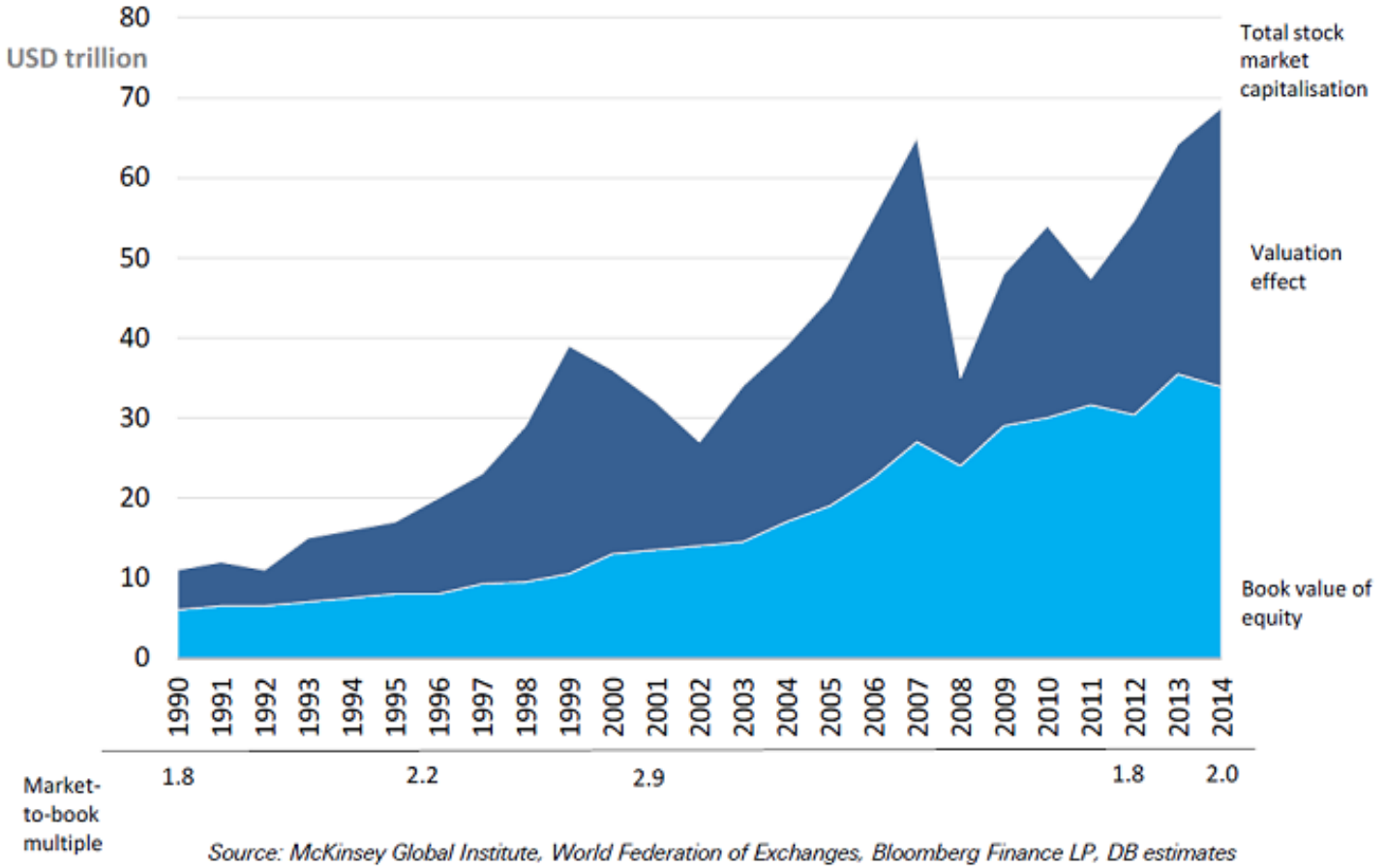
Country equity capitalization proportions in the 22-country world equity index, 1900–2012

Source: Elroy Dimson, Paul Marsh, and Mike Staunton, DMS database



CAPITAL MARKET DIMENSIONS

Impact of Market Fluctuations on Global Equity Market Capitalisation



Source: McKinsey Global Institute, World Federation of Exchanges, Bloomberg Finance LP, DB estimates

NOTE:
For calculating Book value of Equity, Market to Book multiple of Bloomberg World Index is used as a proxy
Bloomberg World Index has a market capitalisation, which is more than 80% of total equity market capitalisation of the world.

CAPITAL MARKET DIMENSIONS

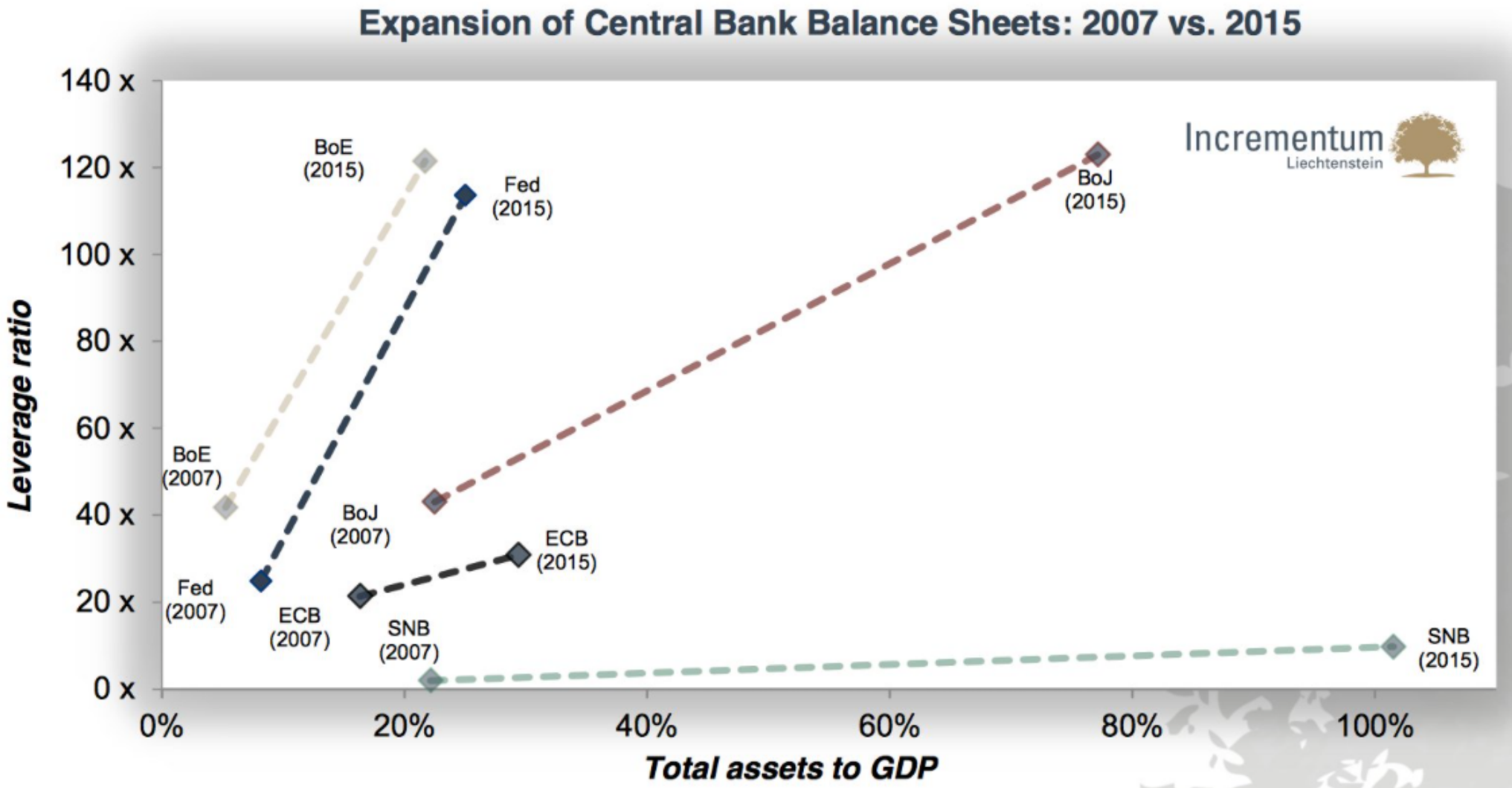


Markus Schuller @panthera_s 12.03.16
How much debt does the US government owe? 2000/2007/2014 compared. Official numbers by @ChicagoFed

1. Alternative measures of U.S. government debt and liabilities

	2000		2007		2014	
	$ billion	% GDP	$ billion	% GDP	$ billion	% GDP
Gross federal government debt						
1. Public debt outstanding	5,629	54.7	8,951	61.8	17,794	102.6
2. Debt subject to the limit	5,592	54.5	8,921	61.6	17,781	102.5
3. Debt in the hands of the public	3,410	33.2	5,035	34.8	12,780	73.7
4. Excl. debt held by Federal Reserve	2,898	28.2	4,255	29.4	10,328	59.5
5. Debt owned by foreign residents	1,015	9.9	2,353	16.3	6,156	35.5
Gross state and local government debt						
6. State and local government debt (OECD)	1,198	11.6	2,837	19.6	2,941*	17.7*
Nondebt liabilities						
7. Nondebt liabilities on balance sheet	1,358	13.2	2,710	18.7	4,528*	27.2*
a. Central	1,356	13.2	1,978	13.7	2,413*	14.5*
b. State and local	2	0.0	732	5.1	2,114*	12.7*
8. NPV of pension liabilities	N/A	N/A	N/A	N/A	6,349	36.6
9. NPV of health care liabilities	N/A	N/A	N/A	N/A	27,896	160.8
Gross government assets						
10. Central government assets	570	5.5	704	4.9	1,701*	10.2*
11. State government assets	1,661	16.2	2783	19.2	2,895*	17.4*
Overall measures						
12. Gross general government debt (3 + 6)	4,608	44.8	7,872	54.4	15,721	91.4
13. Gross general government liabilities (12 + 7)	5,966	58.0	10,582	73.1	20,249	118.6
14. Net general government liabilities (13 – 10 – 11)	3,735	36.3	7,095	49.0	15,652	91.0
15. Net general government liabilities, including pensions and health care	N/A	N/A	N/A	N/A	49,898	288.4

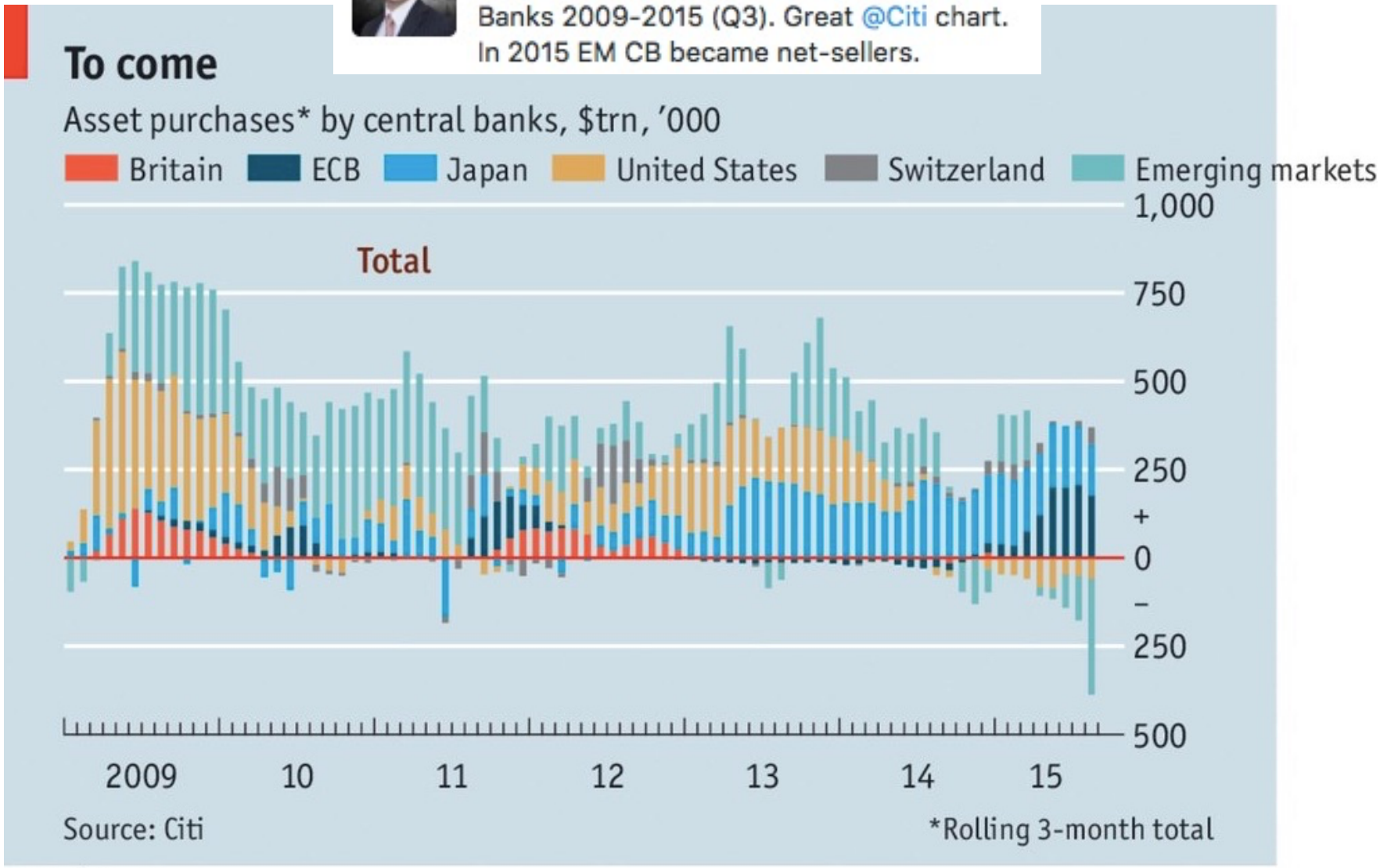
CAPITAL MARKET DIMENSIONS



CAPITAL MARKET DIMENSIONS



Markus Schuller @panthera_s 13.03.16
Aggregated Asset Purchases by Central Banks 2009-2015 (Q3). Great @Citi chart. In 2015 EM CB became net-sellers.



CAPITAL MARKET DIMENSIONS

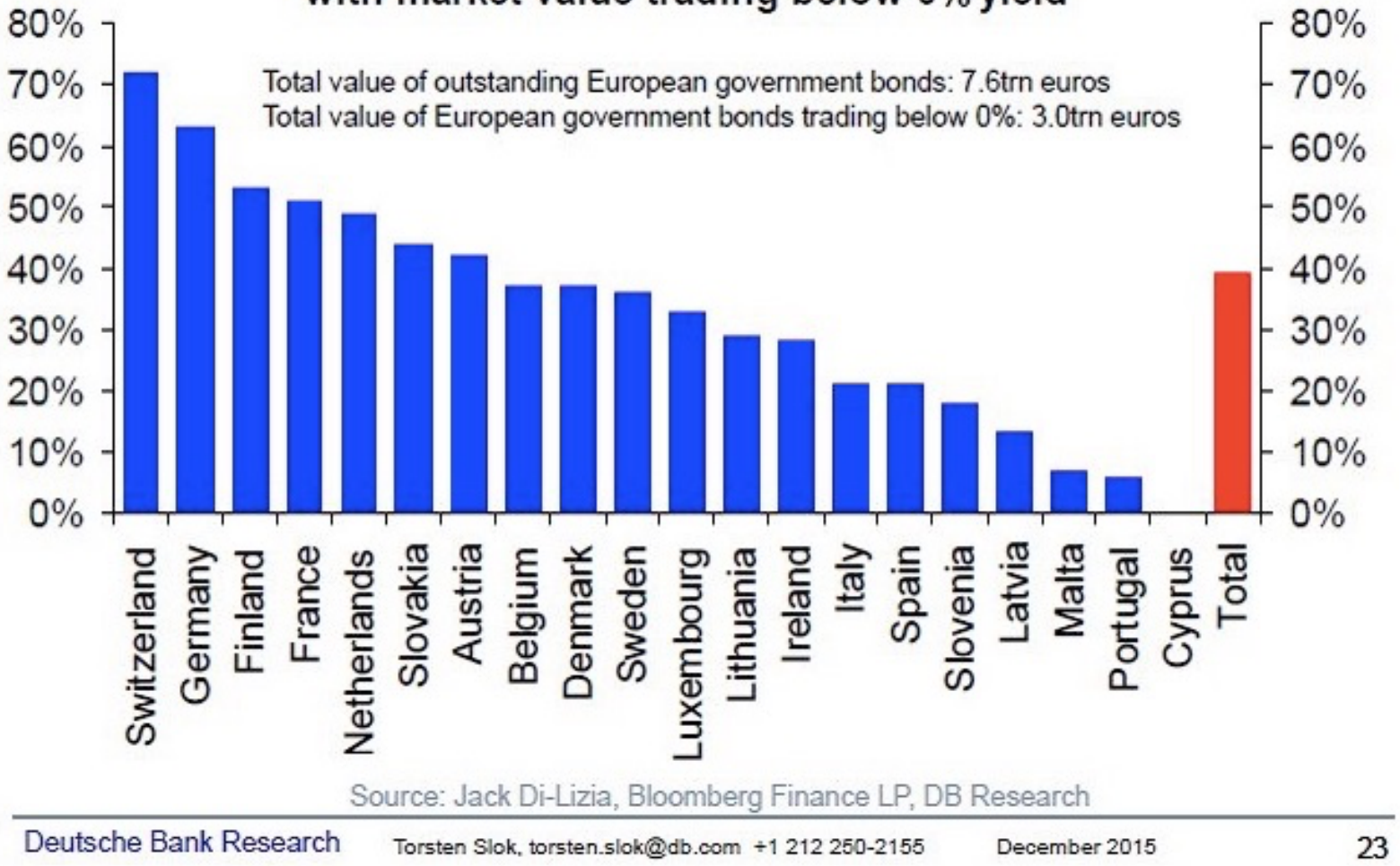


Markus Schuller @panthera_s 12.03.16

Incredible. In 12/2015 ca 70% of Swiss Gov Bonds ran on negative interest rates (YTM).

Negative interest rates on 40% of outstanding European government bonds

Percentage of marketable government bonds with market value trading below 0% yield



Source: Jack Di-Lizia, Bloomberg Finance LP, DB Research

Deutsche Bank Research Torsten Slok, torsten.slok@db.com +1 212 250-2155 December 2015 23

CAPITAL MARKET DIMENSIONS

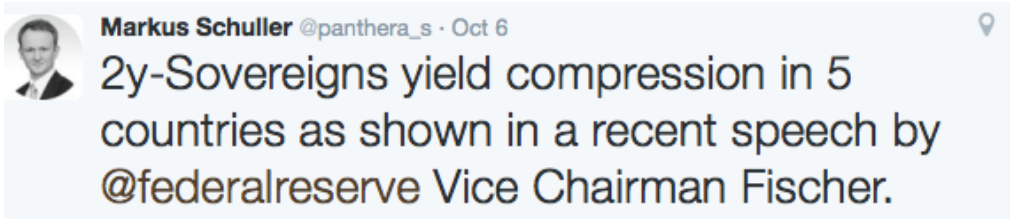
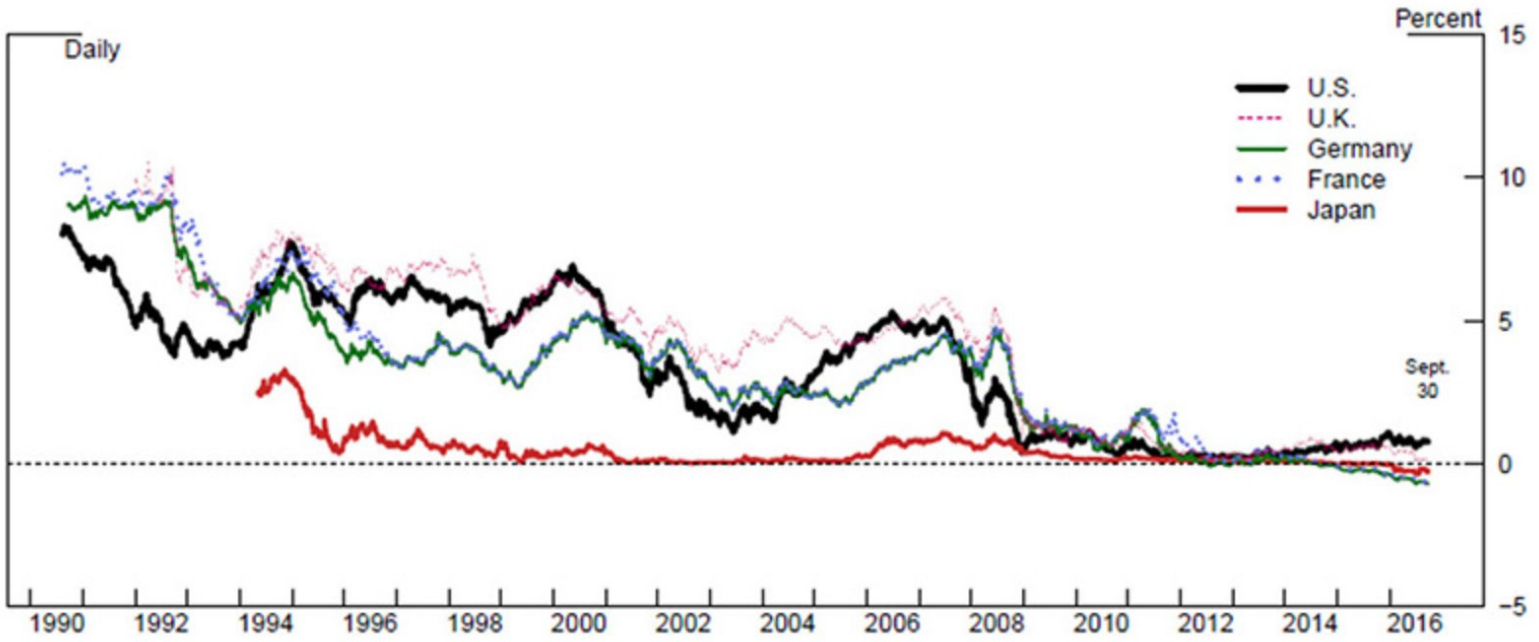


Figure 1: Two-Year Sovereign Yields



Note: The data start on August 8, 1990, except those for Germany, the United Kingdom, and Japan, which start, respectively, on September 18, 1990; January 2, 1992; and May 9, 1994.
Source: Bloomberg.

A DIVERSIFIED PORTFOLIO MAY REDUCE THE VOLATILITY

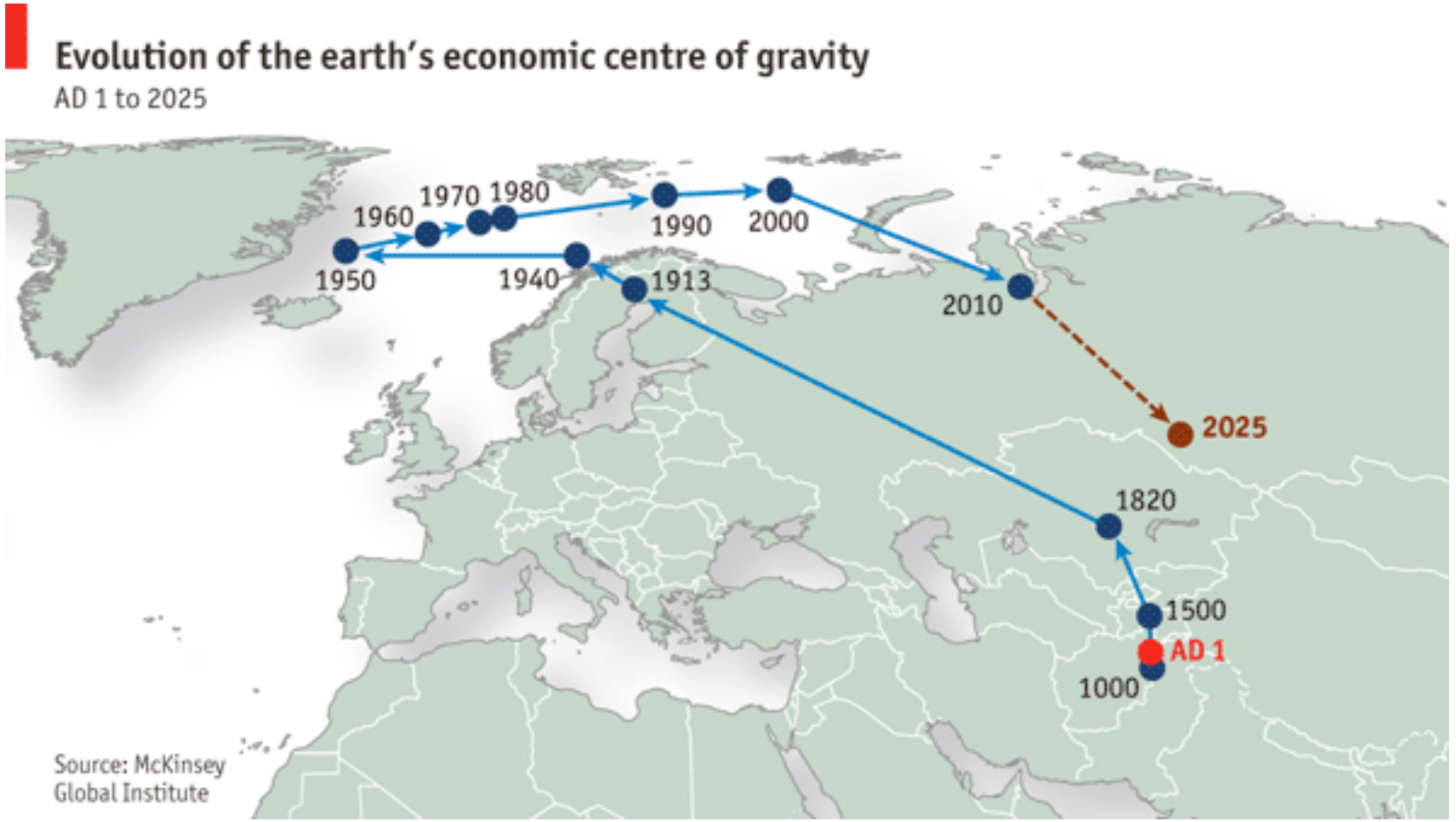
Ranked Annual Total Returns of Key Indices (1996–2015)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Best	Lg Cap Growth 23.1%	Lg Cap Value 35.2%	Lg Cap Growth 38.7%	Lg Cap Growth 33.2%	Fixed Income 11.6%	Fixed Income 8.4%	Fixed Income 10.3%	Sm Cap 47.3%	Int'l 20.3%	Int'l 13.5%	Int'l 26.3%	Lg Cap Growth 11.8%	Fixed Income 5.2%	Lg Cap Growth 37.2%	Sm Cap 26.9%	Fixed Income 7.8%	Lg Cap Value 17.5%	Sm Cap 38.8%	Lg Cap Core 13.7%	Lg Cap Growth 5.7%
	Lg Cap Core 23.0%	Lg Cap Core 33.4%	Lg Cap Core 28.6%	Int'l 27.0%	Lg Cap Value 7.0%	Cash 4.4%	Cash 1.8%	Int'l 38.6%	Sm Cap 18.3%	Lg Cap Value 7.1%	Lg Cap Value 22.3%	Int'l 11.2%	Cash 2.1%	Int'l 31.8%	Lg Cap Growth 16.7%	Lg Cap Growth 2.6%	Int'l 17.3%	Lg Cap Growth 33.5%	Lg Cap Value 13.5%	Lg Cap Core 1.4%
	Lg Cap Value 21.6%	Lg Cap Growth 30.5%	Int'l 20.0%	Sm Cap 21.3%	Cash 6.2%	Sm Cap 2.5%	Div Portfolio -9.8%	Lg Cap Value 30.0%	Lg Cap Value 16.5%	Div Portfolio 5.4%	Sm Cap 18.4%	Fixed Income 7.0%	Div Portfolio -22.8%	Sm Cap 27.2%	Lg Cap Value 15.5%	Lg Cap Core 2.1%	Sm Cap 16.4%	Lg Cap Value 32.5%	Lg Cap Growth 13.1%	Fixed Income 0.6%
	Sm Cap 16.5%	Sm Cap 22.4%	Div Portfolio 17.0%	Lg Cap Core 21.0%	Div Portfolio -1.1%	Div Portfolio -4.8%	Lg Cap Value -15.5%	Lg Cap Growth 29.8%	Lg Cap Core 10.9%	Lg Cap Growth 5.3%	Lg Cap Core 15.8%	Div Portfolio 6.0%	Sm Cap -33.8%	Lg Cap Core 26.5%	Lg Cap Core 15.1%	Div Portfolio 1.8%	Lg Cap Core 16.0%	Lg Cap Core 32.4%	Div Portfolio 8.1%	Div Portfolio 0.1%
	Div Portfolio 13.6%	Div Portfolio 20.6%	Lg Cap Value 15.6%	Div Portfolio 13.6%	Sm Cap -3.0%	Lg Cap Value -5.6%	Int'l -15.9%	Lg Cap Core 28.7%	Div Portfolio 10.5%	Lg Cap Core 4.9%	Div Portfolio 13.0%	Lg Cap Core 5.5%	Lg Cap Value -36.9%	Div Portfolio 20.8%	Div Portfolio 13.0%	Lg Cap Value 0.4%	Lg Cap Growth 15.3%	Int'l 22.8%	Fixed Income 6.0%	Cash 0.0%
	Int'l 6.1%	Fixed Income 9.7%	Fixed Income 8.7%	Lg Cap Value 7.4%	Lg Cap Core -9.1%	Lg Cap Core -11.9%	Sm Cap -20.5%	Div Portfolio 23.5%	Lg Cap Growth 6.3%	Sm Cap 4.6%	Lg Cap Growth 9.1%	Cash 5.0%	Lg Cap Core -37.0%	Lg Cap Value 19.7%	Int'l 7.8%	Cash 0.1%	Div Portfolio 12.2%	Div Portfolio 20.3%	Sm Cap 4.9%	Int'l -0.8%
	Cash 5.3%	Cash 5.3%	Cash 5.2%	Cash 4.9%	Int'l -14.2%	Lg Cap Growth -20.4%	Lg Cap Core -22.1%	Fixed Income 4.1%	Fixed Income 4.3%	Cash 3.1%	Cash 4.9%	Lg Cap Value -0.2%	Lg Cap Growth -38.4%	Fixed Income 5.9%	Fixed Income 6.5%	Sm Cap -4.2%	Fixed Income 4.2%	Cash 0.1%	Cash 0.0%	Lg Cap Value -3.8%
Worst	Fixed Income 3.6%	Int'l 1.8%	Sm Cap -2.6%	Fixed Income -0.8%	Lg Cap Growth -22.4%	Int'l -21.4%	Lg Cap Growth -27.9%	Cash 1.2%	Cash 1.3%	Fixed Income 2.4%	Fixed Income 4.3%	Sm Cap -1.6%	Int'l -43.4%	Cash 0.2%	Cash 0.1%	Int'l -12.1%	Cash 0.1%	Fixed Income -2.0%	Int'l -4.9%	Sm Cap -4.4%

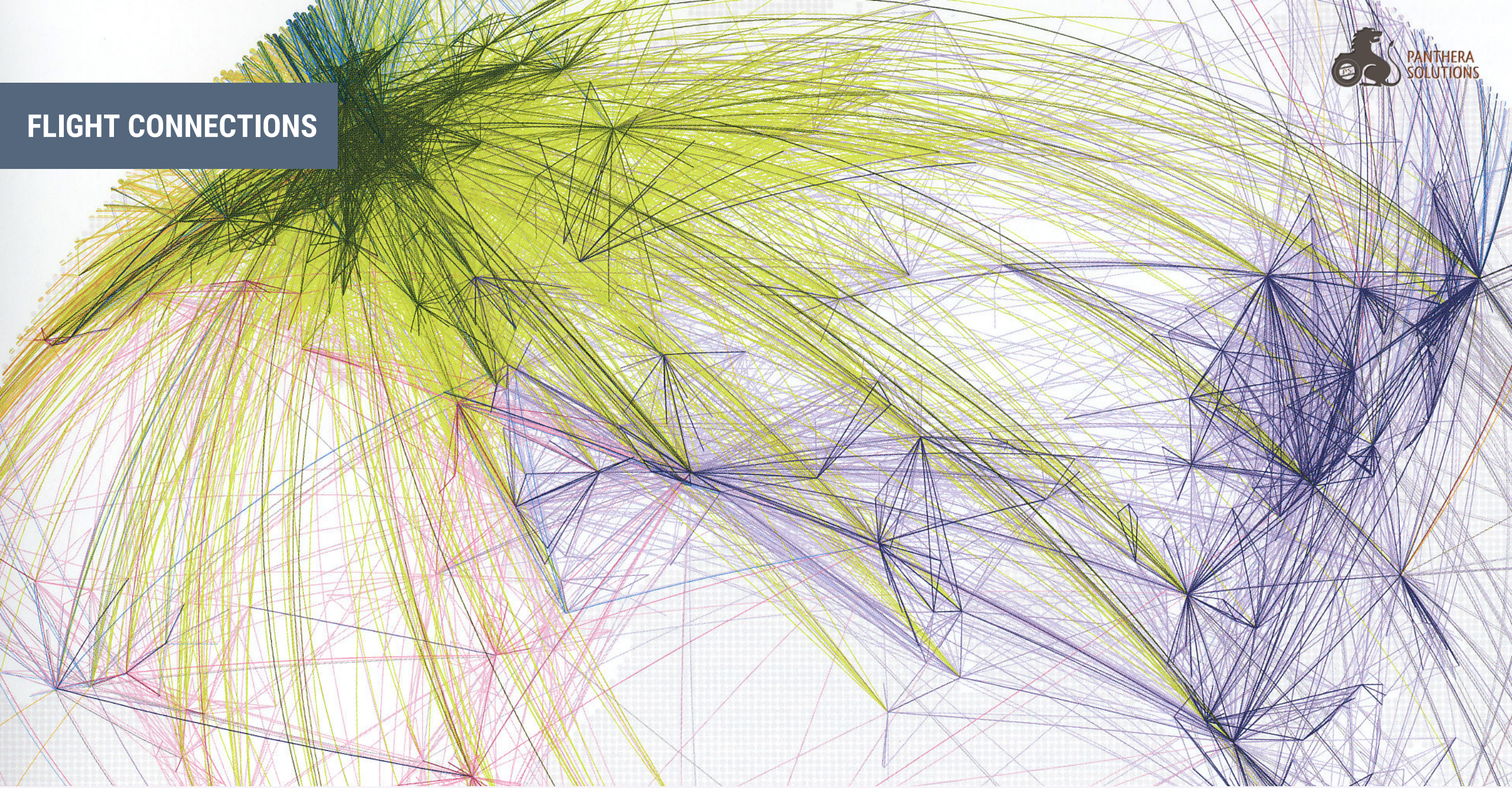
Source: Informa Investment Solutions. Past performance is no guarantee of future results. The information provided is for illustrative purposes and is not meant to represent the performance of any particular investment. Assumes reinvestment of all distributions. It is not possible to directly invest in an index. Diversification does not guarantee a profit or protect against loss.

■ **Large Cap Core** is represented by the S&P 500 Index, an unmanaged index that consists of the common stocks of 500 large capitalization companies, within various industrial sectors, most of which are listed on the New York Stock Exchange. ■ **Large Cap Growth** is represented by the Russell 1000 Growth Index, which consists of those Russell 1000 Index securities with higher price-to-book ratios and higher forecasted growth rates. ■ **Large Cap Value** is represented by the Russell 1000 Value Index, which consists of those Russell 1000 Index securities with lower price-to-book ratios and lower forecasted growth rates. ■ **Small Cap** is represented by the Russell 2000 Index, which is a market-weighted small capitalization index composed of the smaller 2,000 stocks, ranked by market capitalization, of the Russell 3000 Index. ■ **International** is represented by the Morgan Stanley Capital International (MSCI) EAFE Index, an unmanaged index that measures the total returns of developed foreign stock markets in Europe, Asia and the Far East. ■ **Fixed Income** is represented by the Barclays US Aggregate Bond Index, an unmanaged market-weighted index that consists of investment grade corporate bonds (rated BBB or better), mortgages and US Treasury and government agency issues with at least one year to maturity. ■ **Cash** is represented by the ML US Treasury Bill 3 Month Index, an unmanaged index based on the value of a 3-month Treasury Bill assumed to be purchased at the beginning of the month and rolled into another single issue at the end of the month. US Treasury securities are direct obligations of the US government and are backed by the "full faith and credit" of the US government if held to maturity. ☐ **Diversified Portfolio** is composed of 35% of the Barclays US Aggregate Bond Index, 10% of the MSCI EAFE Index, 10% of the Russell 2000 Index, 22.5% of the Russell 1000 Growth Index and 22.5% of the Russell 1000 Value Index.

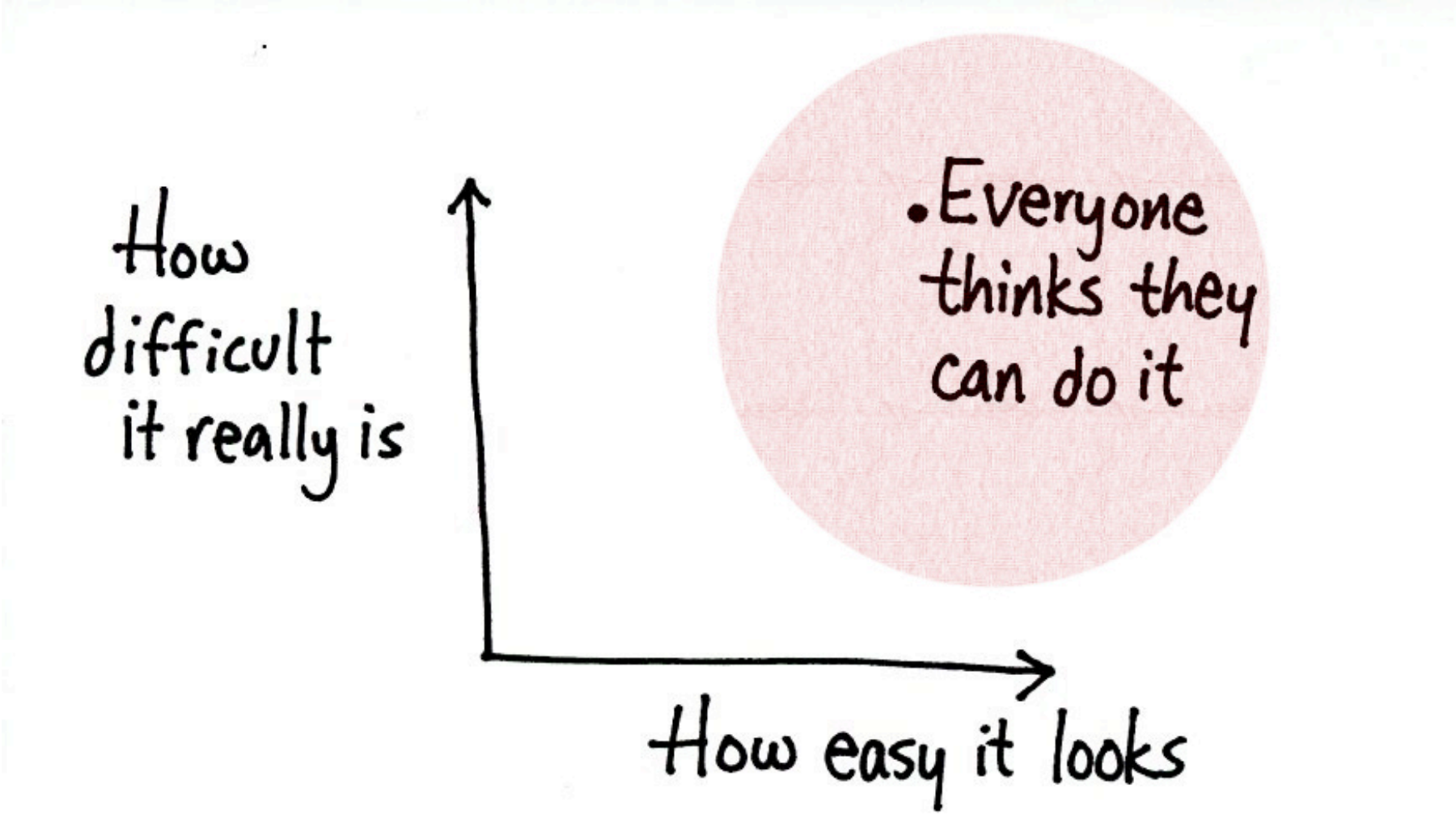
CAPITAL MARKET DIMENSIONS



FLIGHT CONNECTIONS

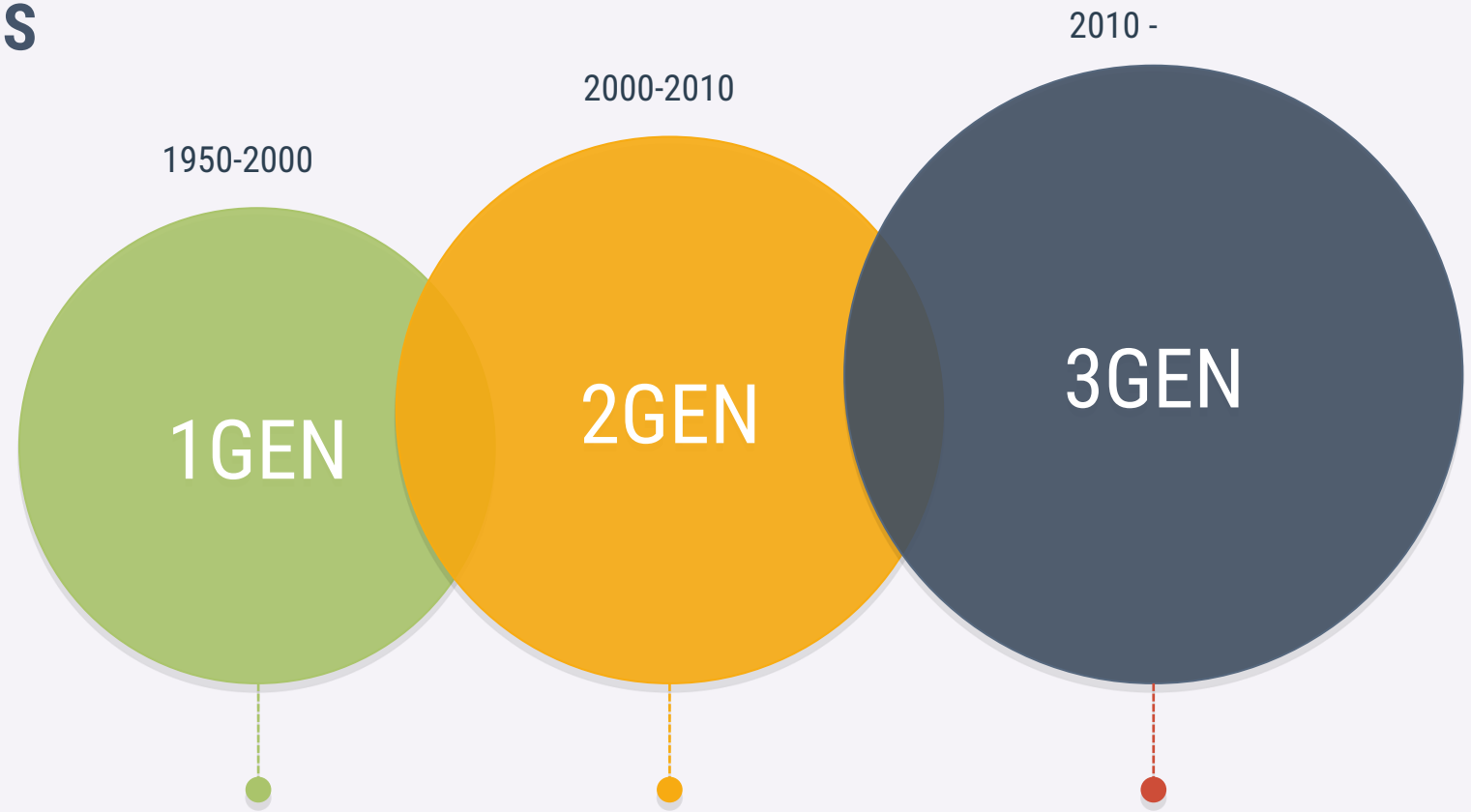


EVERYONE FEELS TO BE BETTER THAN THE AVERAGE



ASSET ALLOCATION GENERATIONS

ASSET ALLOCATION GENERATIONS

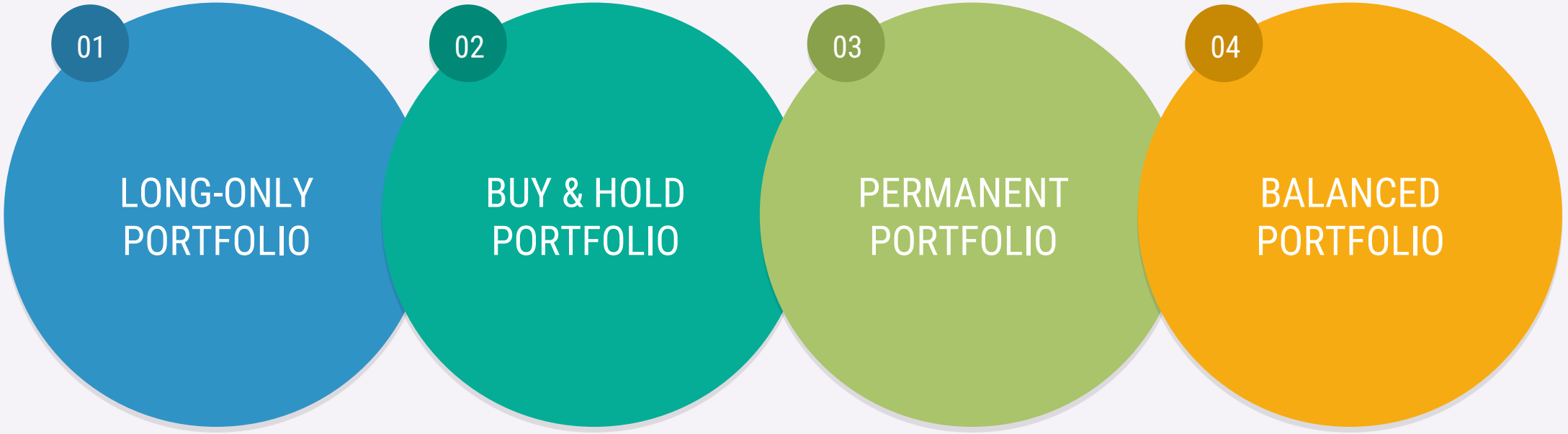


Single-Factor / Single Period Models
Traditional Equity-Fixed Income Beta

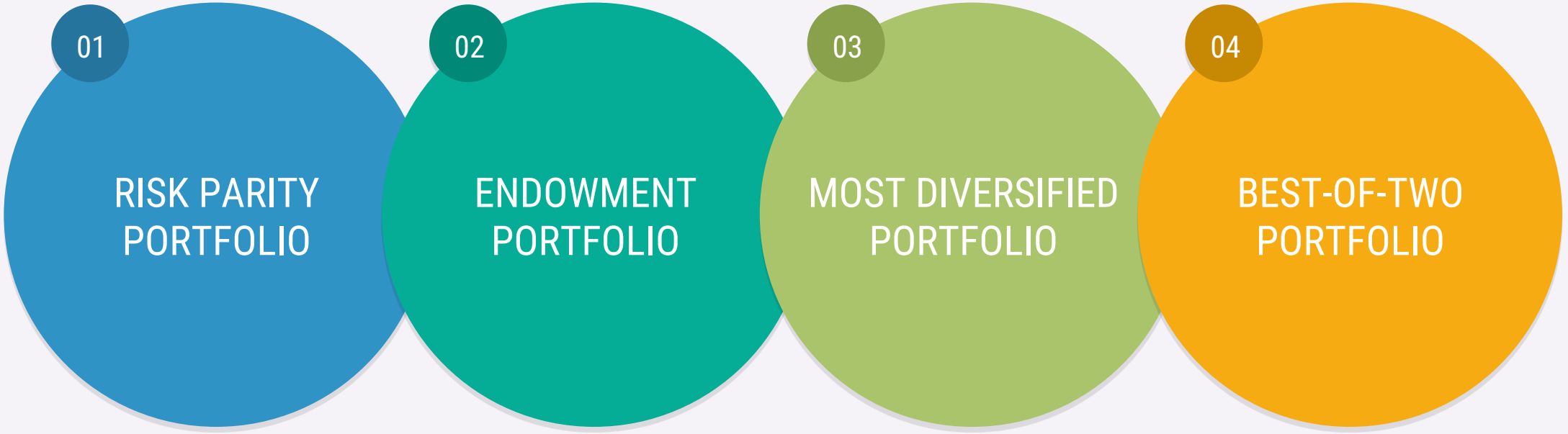
Multi-Factor / Multi-Period Models
Multi-Asset-Diversification and globalisation of asset allocation

Applied Behavioral Finance Methoden
Dynamisation of Multi-Asset-Diversification, Risk factor diversification and pro-active reduction of behavior gab

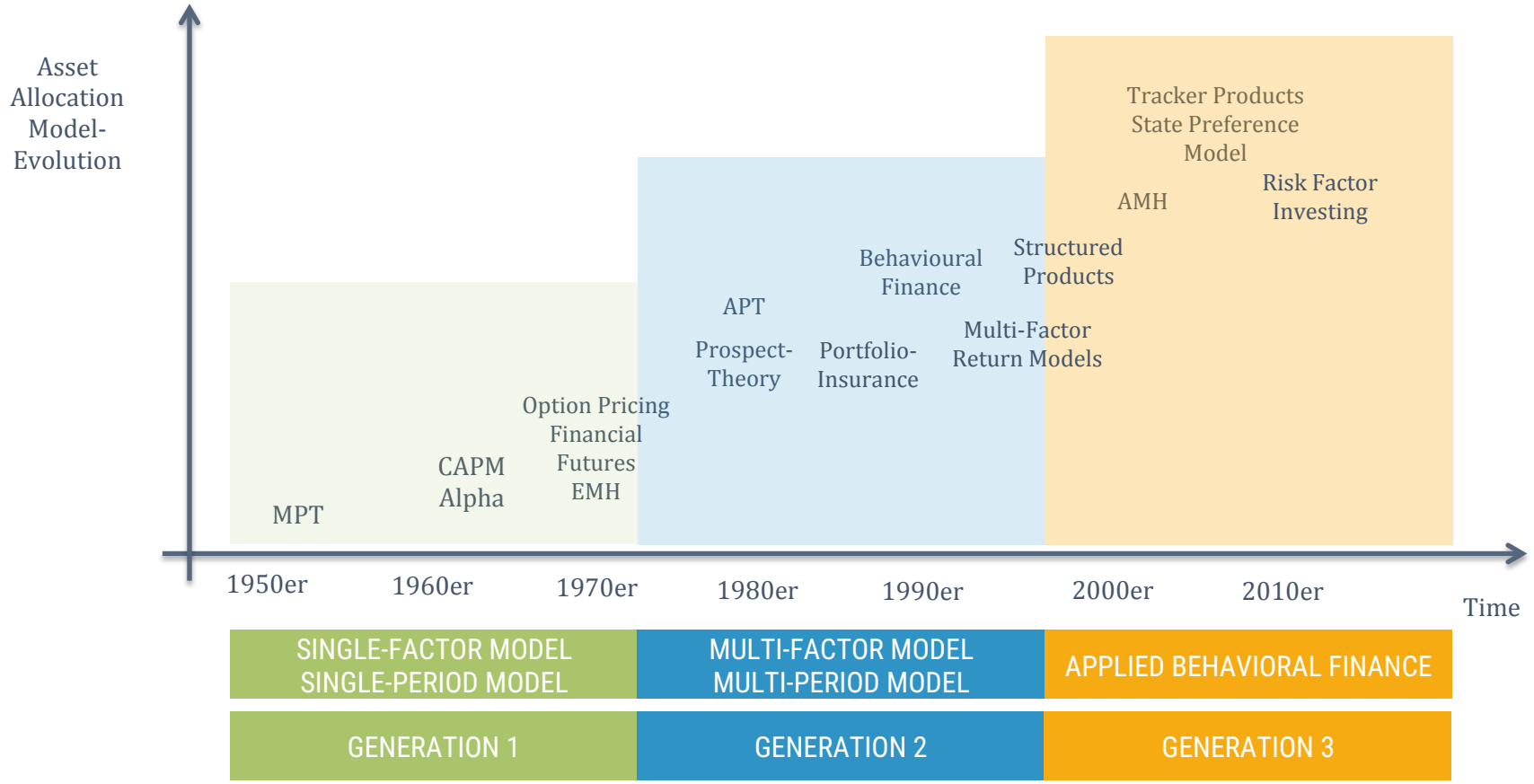
REPRESENTATIVE PORTFOLIO STRATEGIES GENERATION ONE



REPRESENTATIVE PORTFOLIO STRATEGIES GENERATION TWO



ACADEMIC BUILDING BLOCKS OF THIRD GENERATION ASSET ALLOCATION



GENERATIONS 1 & 2

NO CONSPIRACY AT WORK

The MIT 'Engineers'

Many of the world's leading central bankers and economic policy makers have roots that trace back to the economics department of the Massachusetts Institute of Technology.

Ben Bernanke
Federal Reserve Chairman
MIT Ph.D. 1979

Ph.D. ADVISER

SHARED MIT OFFICE SPACE

Stanley Fischer	**Mario Draghi**	**Mervyn King**	**Jeremy Stein**
Bank of Israel Governor	European Central Bank President	Bank of England Governor	Federal Reserve Governor
MIT professor 1973-1994	**MIT Ph.D. 1977**	**MIT visiting professor 1983-84**	**MIT Ph.D. 1986**

Massachusetts Institute of Technology

Directors of Fed divisions who report to Bernanke:

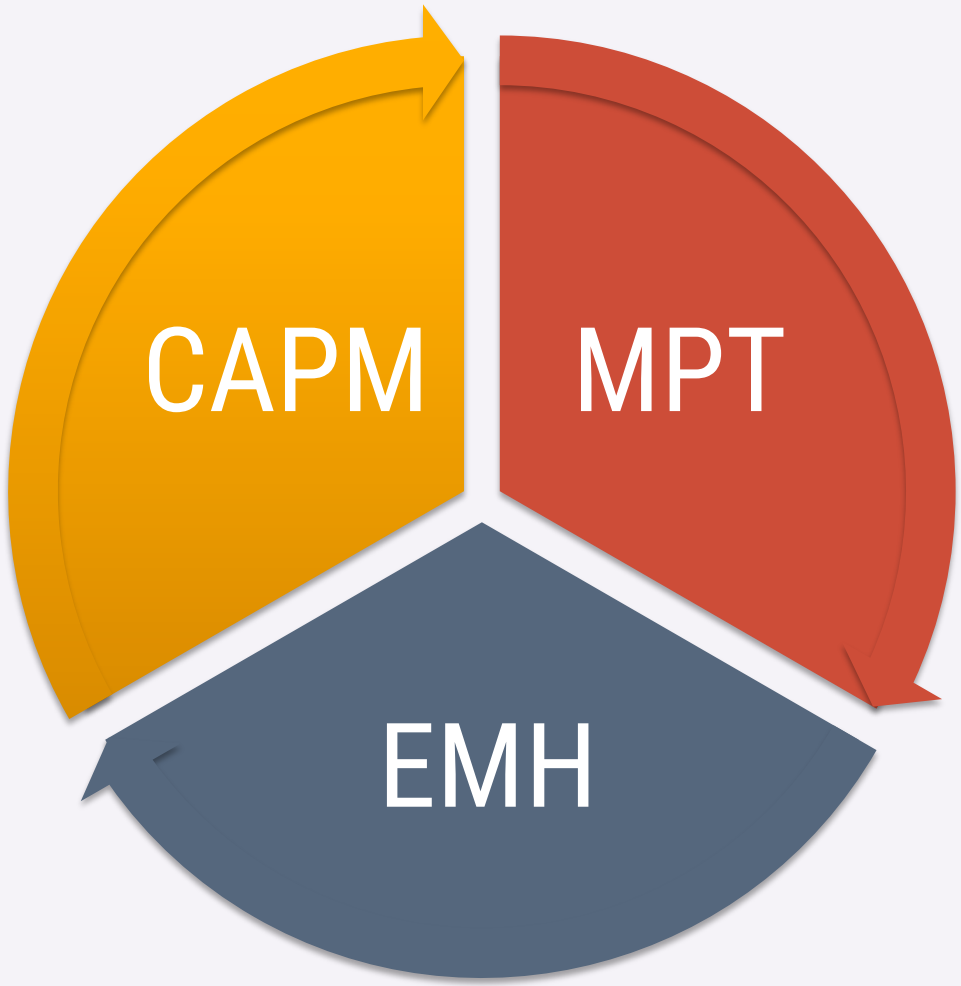
William English, Monetary Affairs **MIT Ph.D. 1986**	David Wilcox, Economic Research **MIT Ph.D. 1987**
Steven Kamin, International Affairs **MIT Ph.D. 1987**	Michael Gibson, Bank Supervision **MIT Ph.D. 1993**

Other notables		MIT connection
Charles Bean	Bank of England, deputy governor	1981 Ph.D.
Olivier Blanchard	IMF Chief economist	1977 Ph.D.; professor since 1983
Duvvuri Subbarao	Reserve Bank of India, Governor	1982 fellow
Jose De Gregorio	Central Bank of Chile, former governor	1990 Ph.D.
Athanasios Orphanides	Central Bank of Cyprus, former governor	1990 Ph.D.
Phillip Lowe	Reserve Bank of Australia, deputy governor	1991 Ph.D.

Photos: Bloomberg News (King, Fischer, Stein); Getty Images (Bernanke); Panoramic/Zuma Press (Draghi)
Sources: Federal Reserve; MIT

The Wall Street Journal

TRADITIONAL ASSET ALLOCATION
THE TRIUMVIRATE



MODERN PORTFOLIO THEORY

MODERN PORTFOLIO THEORY

Harry M. Markowitz

- Father of MPT
- PhD-Publicationen 1952 („Portfolio Selection“)
- 1959 („Portfolio Selection: Efficient Diversification of Investments“)
- 1990 Nobel Laureate

2 GOALS

- To academically reason and quantify an investor´s allocation decision
- To understand, which and how many securities should be added to a portfolio



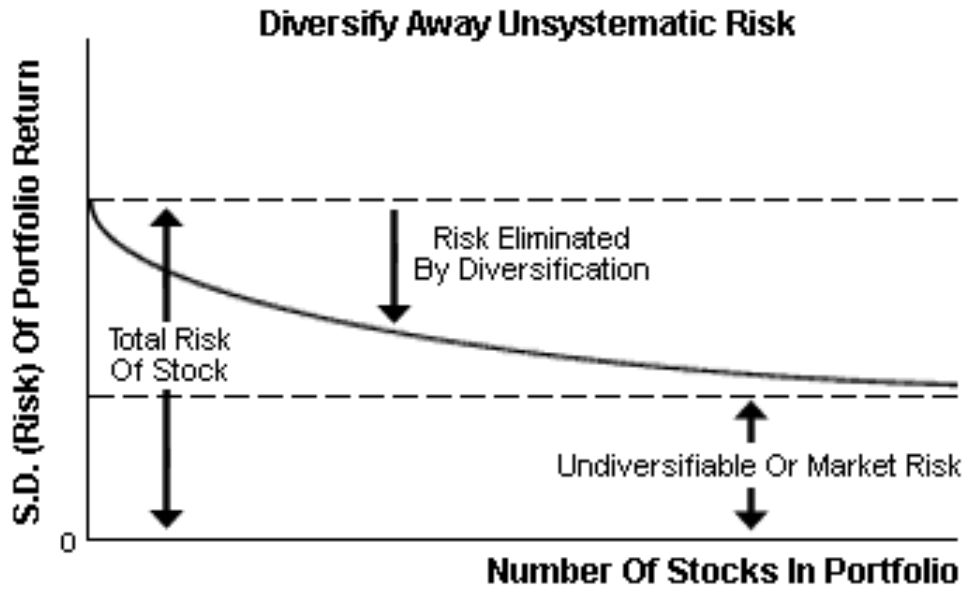
THE BEGINNING

MODERN PORTFOLIO THEORY

MPT on Diversification

Systematic Risk
= non-diversifiable market risk

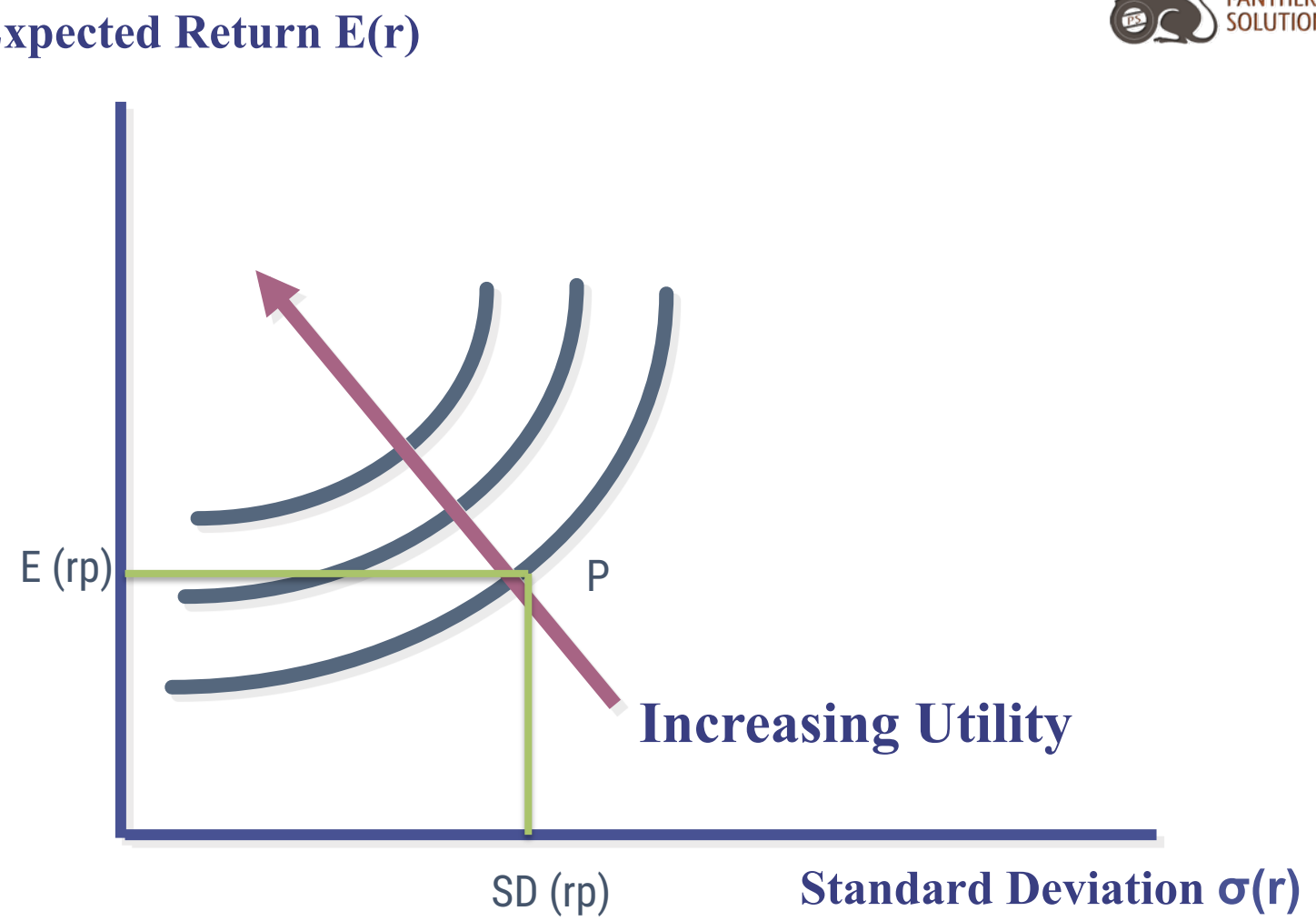
Unsystematic Risk
= diversifiable/specific risk



MODERN PORTFOLIO THEORY ASSUMPTIONS

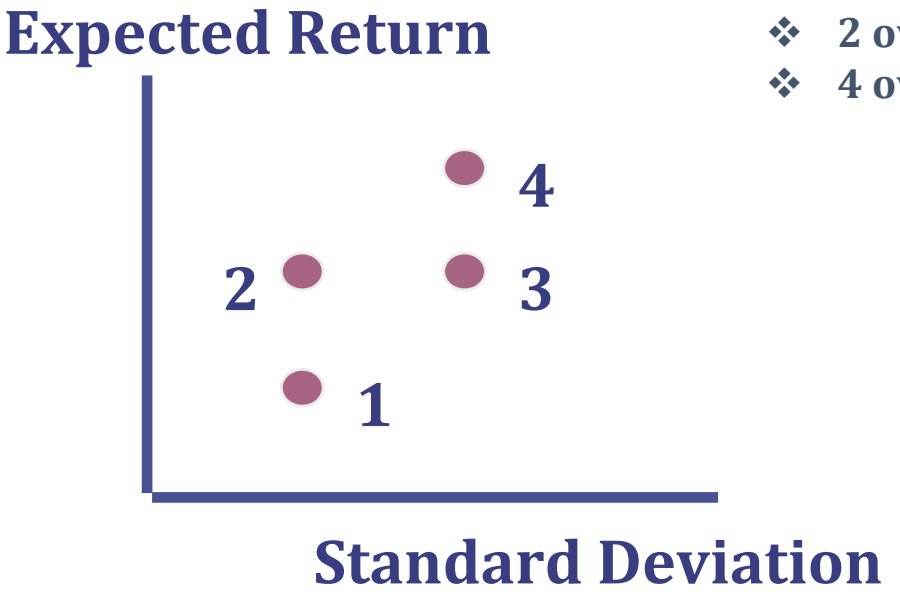
NORMAL DISTRIBUTION OF RETURNS	A
CONSTANT CORRELATION BETWEEN SECURITIES	B
ALL INVESTORS OPTIMIZE THEIR UTILITY FUNCTION (MAX MONEY, NO ALT)	C
ALL INVESTORS ACT RATIONAL AND RISK AVERSE (=MPT)	D
ALL INVESTORS HAVE ACCESS TO ALL INFORMATION AT ANY TIME	E
NO CONSIDERATION OF TRANSACTION COSTS AND TAXES	F
ALL INVESTORS ARE PRICE TAKERS	G
ALL INVESTORS CAN BORROW UNLIMITED AT RISK FREE RATE	H
ALL SECURITIES CAN BE TRADED IN ANY FRACTIONS	I

MODERN PORTFOLIO THEORY EXAMPLE – ASSUMPTION C



ALL INVESTORS OPTIMIZE THEIR UTILITY FUNCTION (MAX MONEY, NO ALT) C

MODERN PORTFOLIO THEORY
EXAMPLE – ASSUMPTION D



- 2 over 1; higher E(r)
- 2 over 3; lower SD
- 4 ove 3; higher E(r)

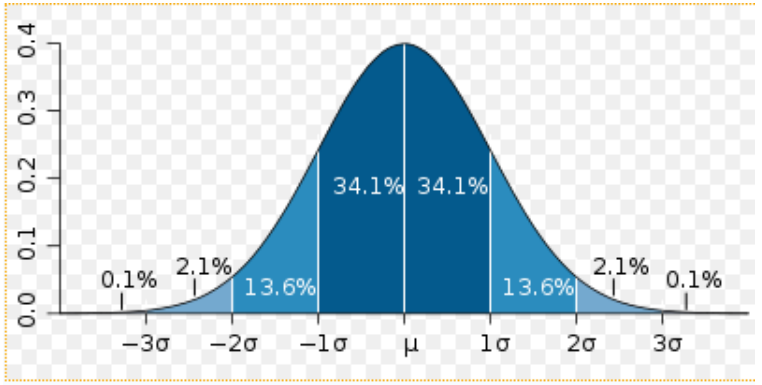
ALL INVESTORS ACT RATIONAL AND RISK AVERSE (=MPT) D

MODERN PORTFOLIO THEORY
RISK MEASURE – STANDARD DEVIATION

$$Var(X) = E\left(\left[X - E(X)\right]^2\right).$$

$$\frac{2+4+4+4+5+5+7+9}{8} = 5.$$

$$\begin{array}{ll} (2-5)^2 = (-3)^2 = 9 & (5-5)^2 = 0^2 = 0 \\ (4-5)^2 = (-1)^2 = 1 & (5-5)^2 = 0^2 = 0 \\ (4-5)^2 = (-1)^2 = 1 & (7-5)^2 = 2^2 = 4 \\ (4-5)^2 = (-1)^2 = 1 & (9-5)^2 = 4^2 = 16 \end{array}$$



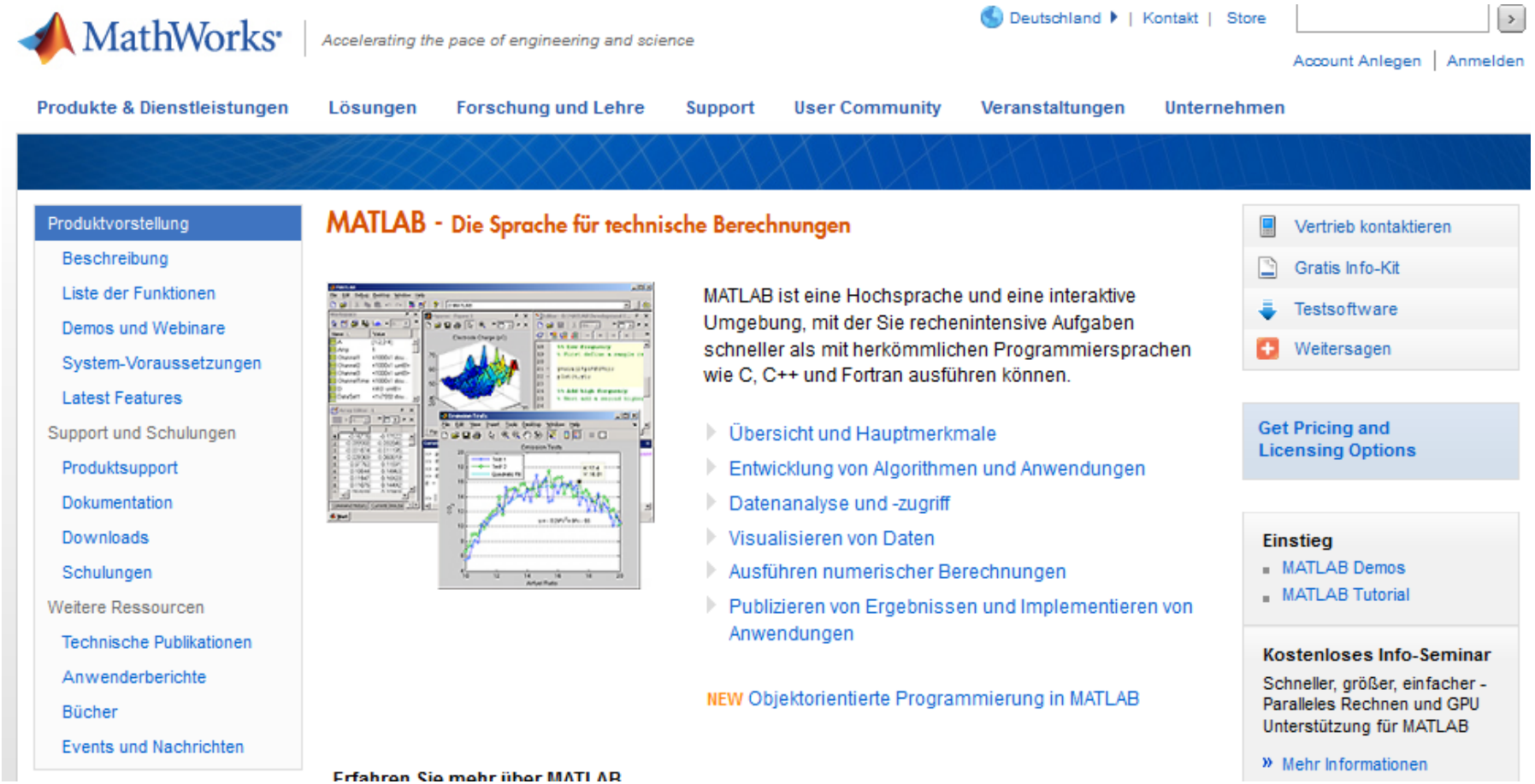
$$\sigma(X) = \sqrt{Var(X)}$$

$$\sqrt{\frac{9+1+1+1+0+0+4+16}{8}} = 2.$$

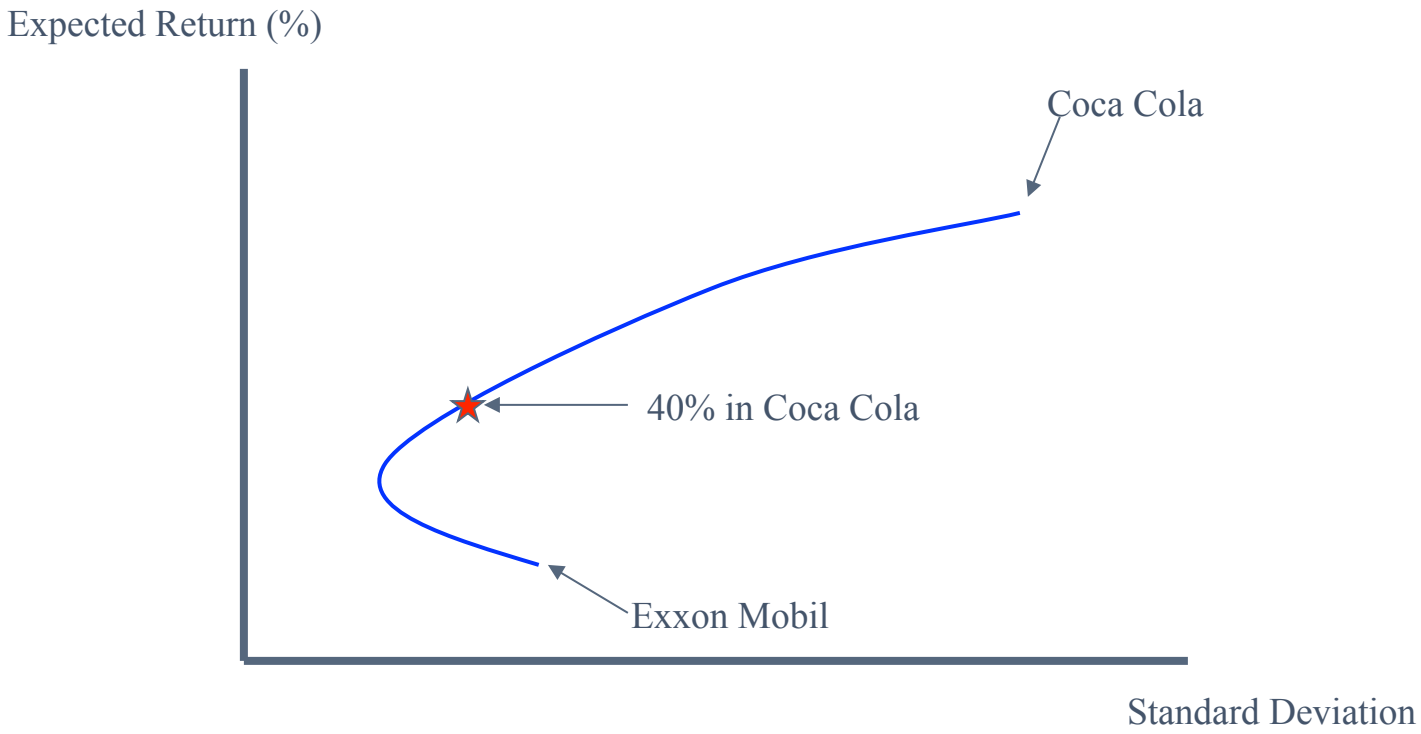
von X.

$$\sigma_p = \sqrt{\sigma_A^2 w_A^2 + \sigma_B^2 w_B^2 + 2 w_A w_B \rho_{A,B} \sigma_A \sigma_B}$$

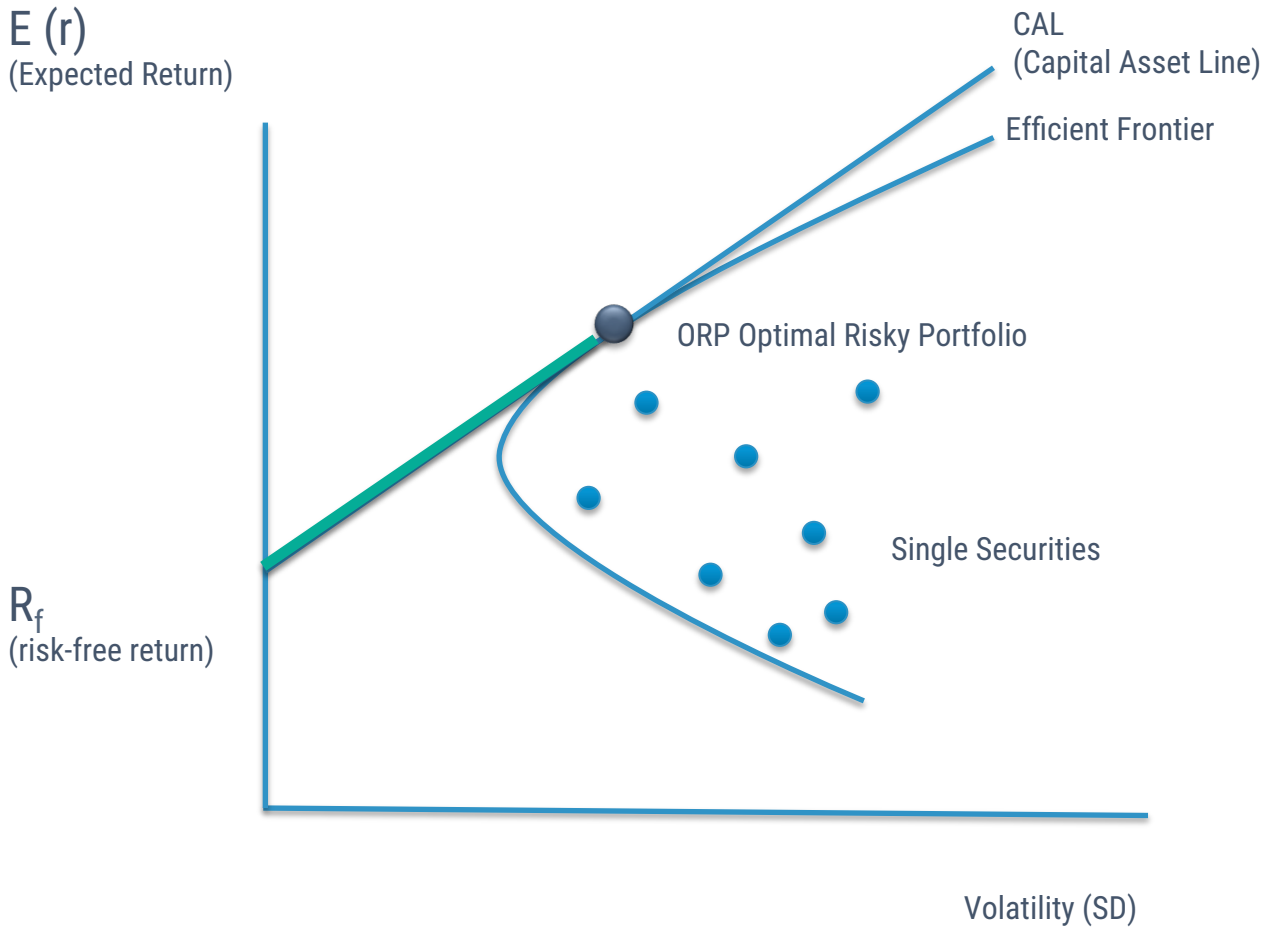
MODERN PORTFOLIO THEORY
IT SUPPORT TOOLS



MODERN PORTFOLIO THEORY
EFFICIENT FRONTIER



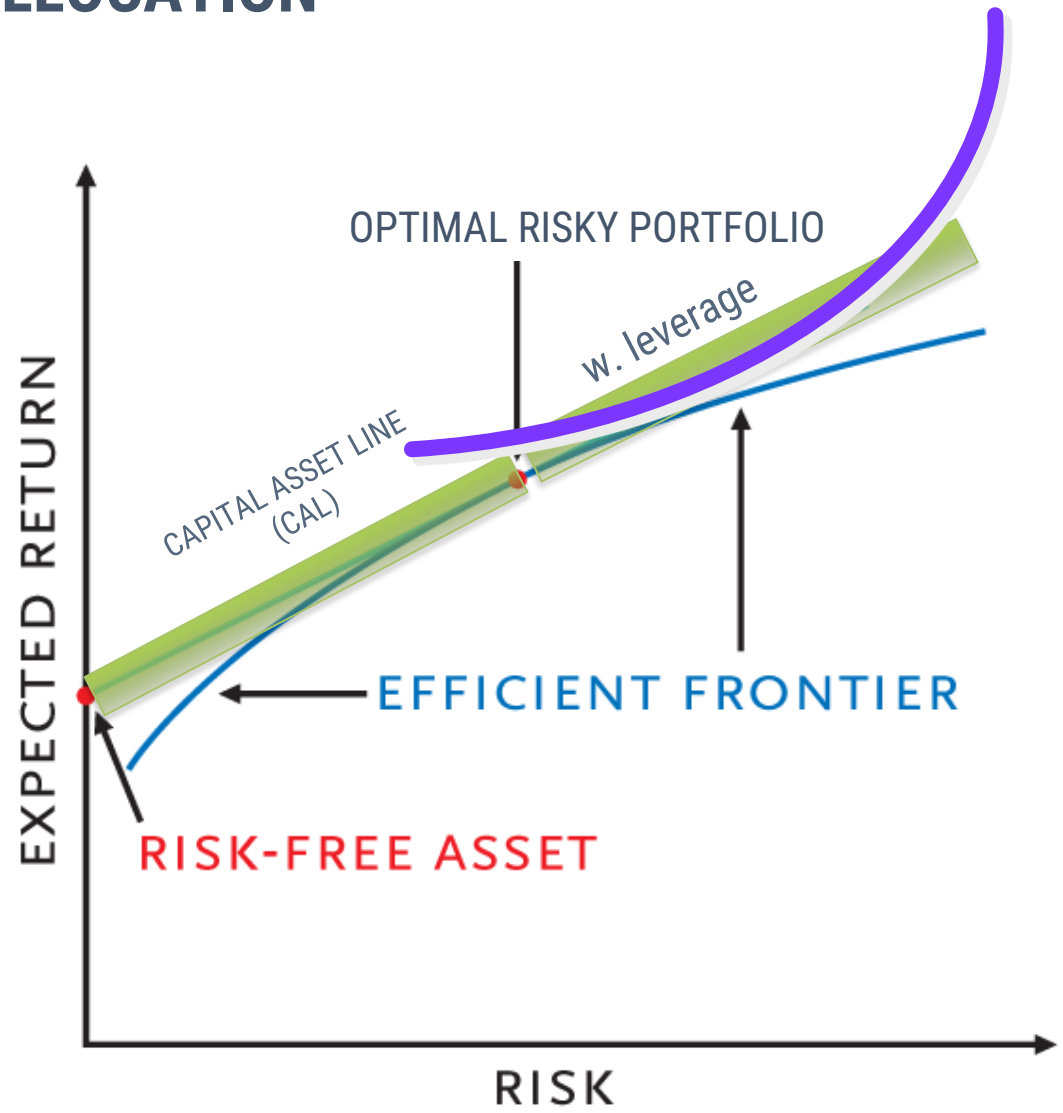
MODERN PORTFOLIO THEORY
MEAN VS MINIMUM VARIANCE



MODERN PORTFOLIO THEORY
UTILITY FUNCTION



TRADITIONAL ASSET ALLOCATION
THE TRIUMVIRATE



CAPITAL ASSET PRICING MODEL

CAPM

CAPM is an equilibrium model.

Are expected return and real return in balance?

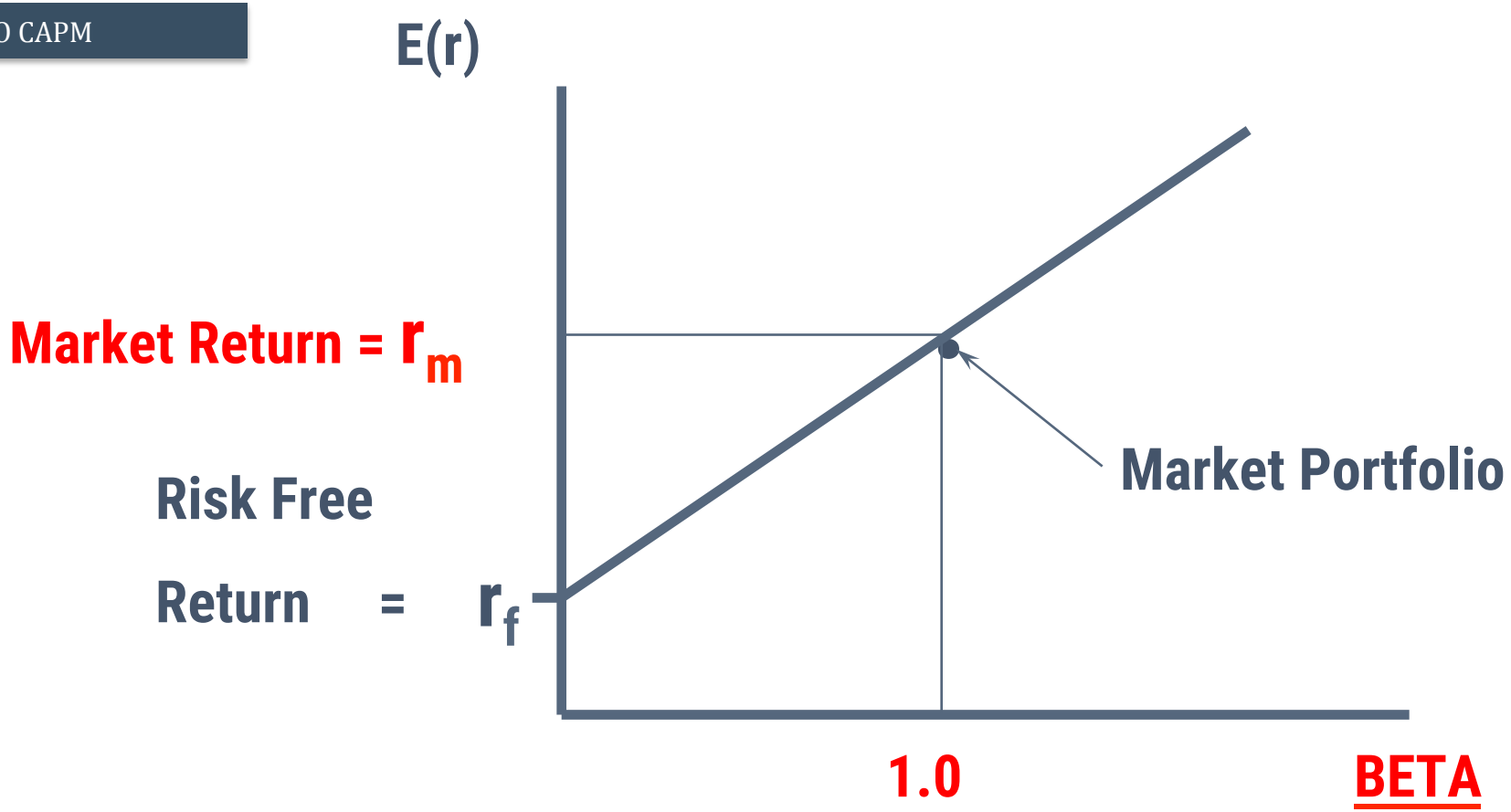
It is categorized as single-factor model as the SML-slope only depends on one risk parameter - BETA.

It is still heavily used in corporate finance and expected return estimations.

CAPM does not indicate a price, only a risk/return profile.

CAPM

CONVERSION FROM MPT TO CAPM



CAPM

$$E(r) = r_f + \beta (r_m - r_f)$$

CAPM

VALUE AT RISK

VALUE AT RISK

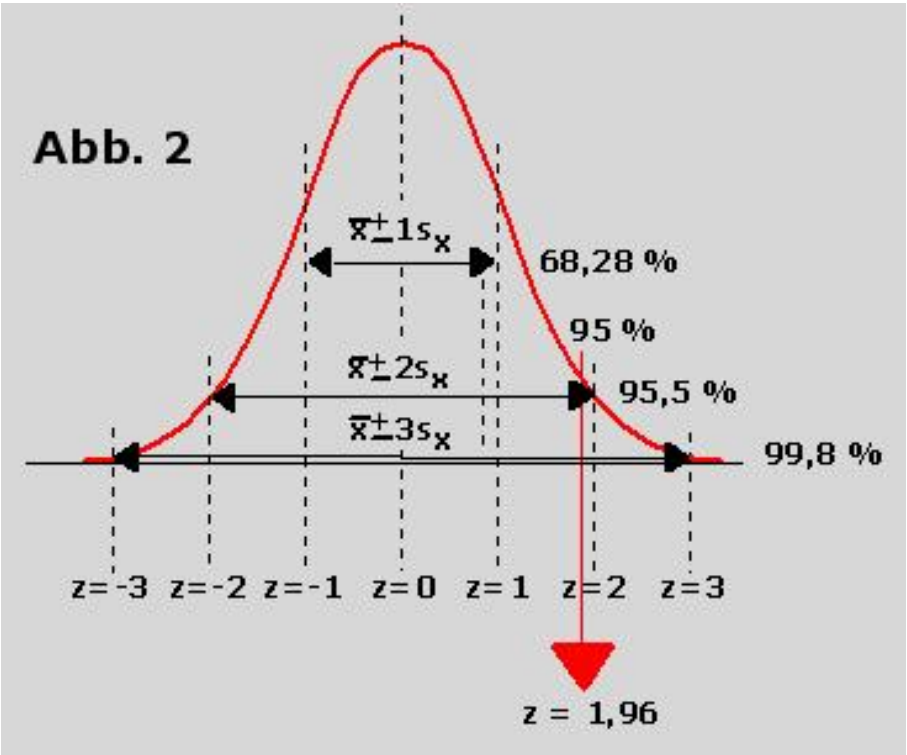
VaR answers the question: „How much can I lose?“

Value at Risk represents the maximum loss, given a certain holding period and a confidence interval.

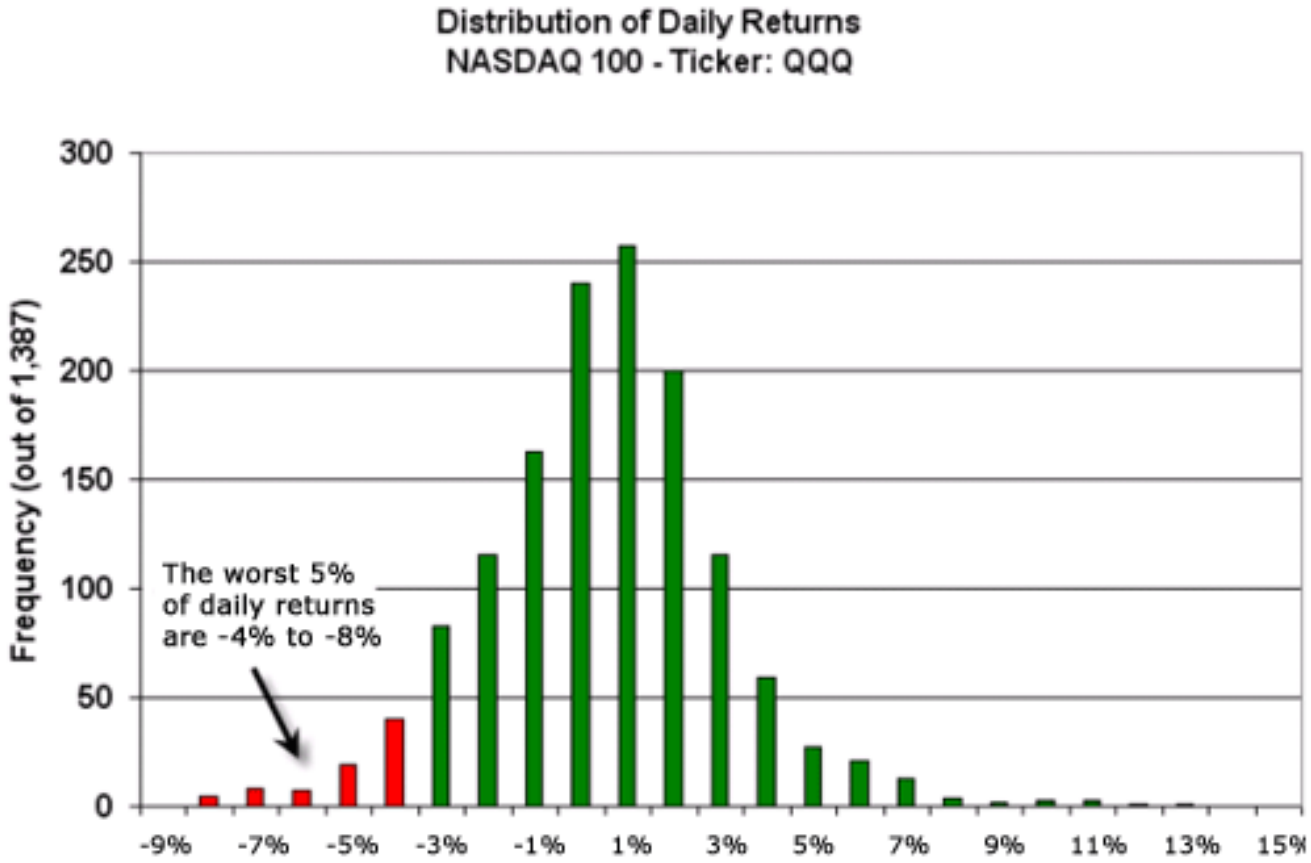
VaR was introduced early 1990s and increased its dominance ever since:

- Group of Thirty „Derivatives: Practices and Principles“
- J.P. Morgan Risk Metrics™

VALUE AT RISK
EXCURSION – CONFIDENCE INTERVAL



VALUE AT RISK
CALCULATION METHOD
HISTORICAL SIMULATION



VALUE AT RISK
CALCULATION METHOD
HISTORICAL SIMULATION

PANTHERA SOLUTIONS

Pros

- Intuitive
- No assumption on return distribution required
- Applicable for non-linear instruments

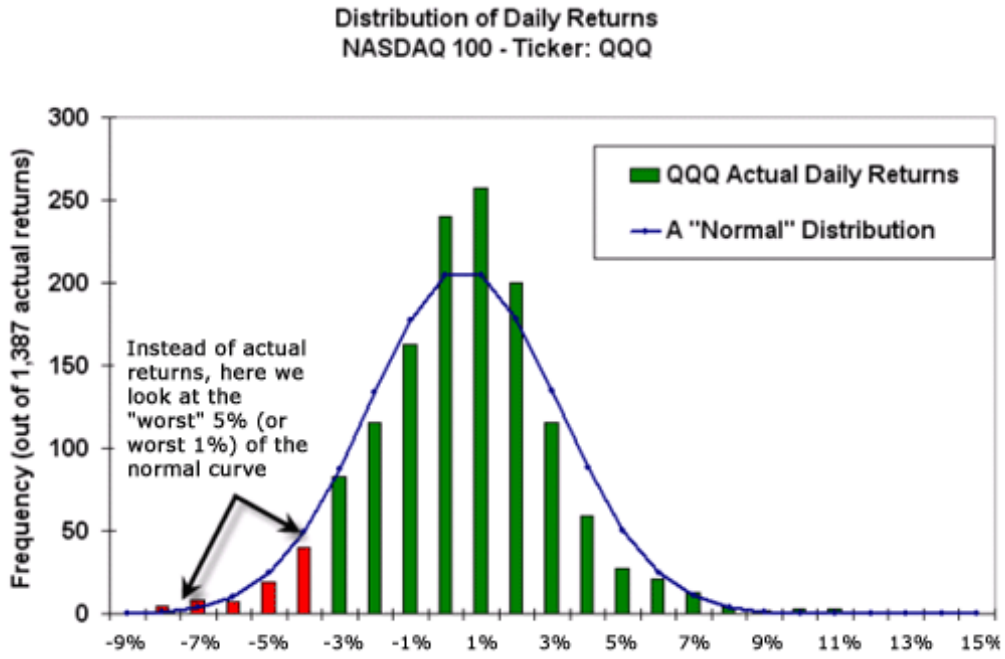
Cons

- Portfolio can change over time
- Last 100d might be non-representative
- All portfolio instruments require daily re-valuation

VALUE AT RISK CALCULATION METHOD VAR-COVAR

Assumes normal distribution of returns.

Requires assumptions on E(r) and SD of a security.



Example (QQQ)

The advantage of a normal distribution is to automatically know where to find the worst 1% or 5% of daily returns. Namely at z-scores of 2,33, respectively 1,65.

Confidence	# of Standard Deviations (σ)
95% (high)	- 1.65 × σ
99% (really high)	- 2.33 × σ

SD of QQQ during observation period at 2,64%.

Confidence	# of σ	Calculation	Equals:
95% (high)	- 1.65 × σ	- 1.65 × (2.64%) =	- 4.36%
99% (really high)	- 2.33 × σ	- 2.33× (2.64%) =	- 6.16%

	(rote/dunkle) Fläche (1-a)									
	0,65	0,7	0,75	0,8	0,85	0,9	0,95	0,975	0,99	0,995
z-Wert	0,385	0,524	0,674	0,842	1,036	1,282	1,645	1,960	2,326	2,576

VALUE AT RISK CALCULATION METHOD VAR-COVAR

PROS

- Simple calculation
- Risk Metrics has been improved significantly since – optionalities/ return assumptions

CONS

- Problems with non-linearity or return distributions beyond normal
- Assumption of static variance and covariance

VALUE AT RISK
CALCULATION METHOD
MONTE CARLO SIMULATION

PROS

- Flexible approach
- Any distribution can be assumed
- High number of scenarios can be created

CONS

- Garbage in – Garbage out!
- Significant computer power needed

VALUE AT RISK
ADVANCED VERSIONS

LITERATURE BOX

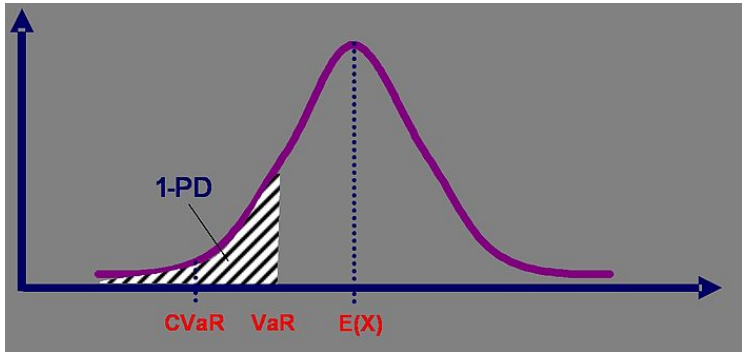
"Robustness of CVaR when measuring market risk across different asset classes" Letmark, 2010

„Modified Value-at-Risk", Finanalytics, 2010

Conditional Value at Risk | CVaR

Das Conditional Value at Risk (CVaR), auch als Expected Shortfall (ES) bzw. Expected Tail Loss (ETL) bezeichnet , wird immer häufiger als Alternative zum VaR angewandt.

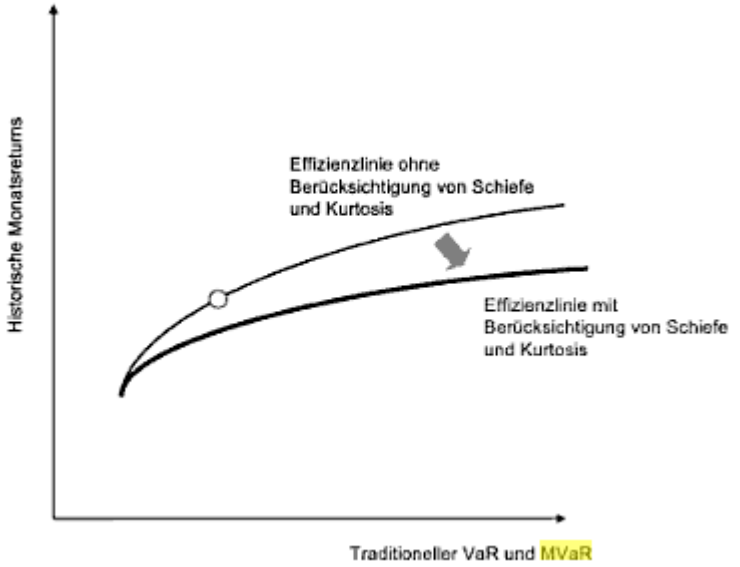
Der CVaR gibt an, welche Abweichung bei Eintritt des Extremfalls, d.h. bei Überschreitung des VaR, zu erwarten ist.



Modified Value at Risk | MVaR

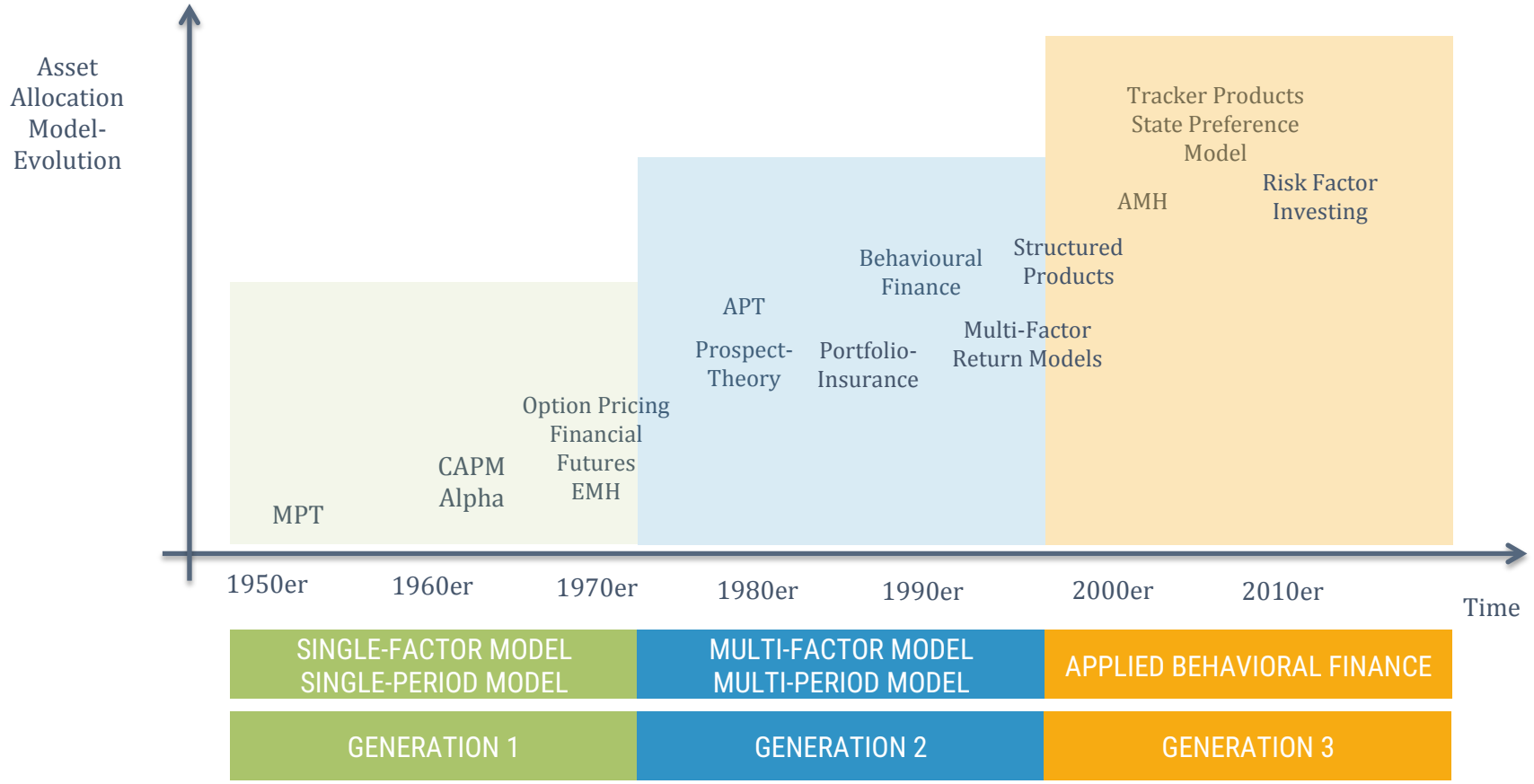
Um die Schwäche des VaR (Var/Kov) Modells, nämlich der Annahme einer Normalverteilung, zu eliminieren, basiert das MVaR auf keiner speziellen Verteilung, sondern auf einer non-parametrischen Schätzung des historischen VaR.

Hierzu wir die Cornish-Fisher-Methode (nach E. A. Cornish and Ronald Aylmer Fisher) verwendet.



2GEN METHODS
MULTI-FACTOR-RETURN-MODELS

ACADEMIC BUILDING BLOCKS OF THIRD GENERATION ASSET ALLOCATION



2GEN METHOD
MULTIPLE REGRESSION ANALYSIS

EXMAMPLE
Deutschen Bank Shares (1998 – 2008)

$$\text{Rendite}_i = \alpha_0 + \alpha_1 \nabla Dax_i + \alpha_2 \nabla BIP_i + \alpha_3 \nabla Leitzins_i + \varepsilon_i .$$

	Erklärende Variablen			Zu erklärende Variable
Jahr	DAX	▼BIP in %	Leitzins in %	Renditen der Deutsche Bank Aktie
2008	-50,0000%	2,6000%	3,2258%	-63,3500%
2007	19,0380%	2,5000%	29,1667%	-12,2700%
2006	19,4502%	2,5000%	33,3333%	22,8300%
2005	31,6993%	0,9000%	0,0000%	27,1100%
2004	3,5993%	1,2000%	0,0000%	1,9700%
2003	32,2505%	-0,2000%	-18,1818%	44,0400%
2002	-41,0098%	0,0000%	-30,1587%	-45,0000%
2001	-21,2355%	1,2000%	-1,5625%	-11,0000%
2000	-6,9984%	3,2000%	45,4545%	13,0000%
1999	32,6199%	2,0000%	-8,3333%	21,0000%
1998	23,5749%	2,0000%	5,2944%	6,1680%

Linear Regression Results for:
Y = Rendite "Deutsche Bank Aktie"
X = DAX, BIP, Leitzins

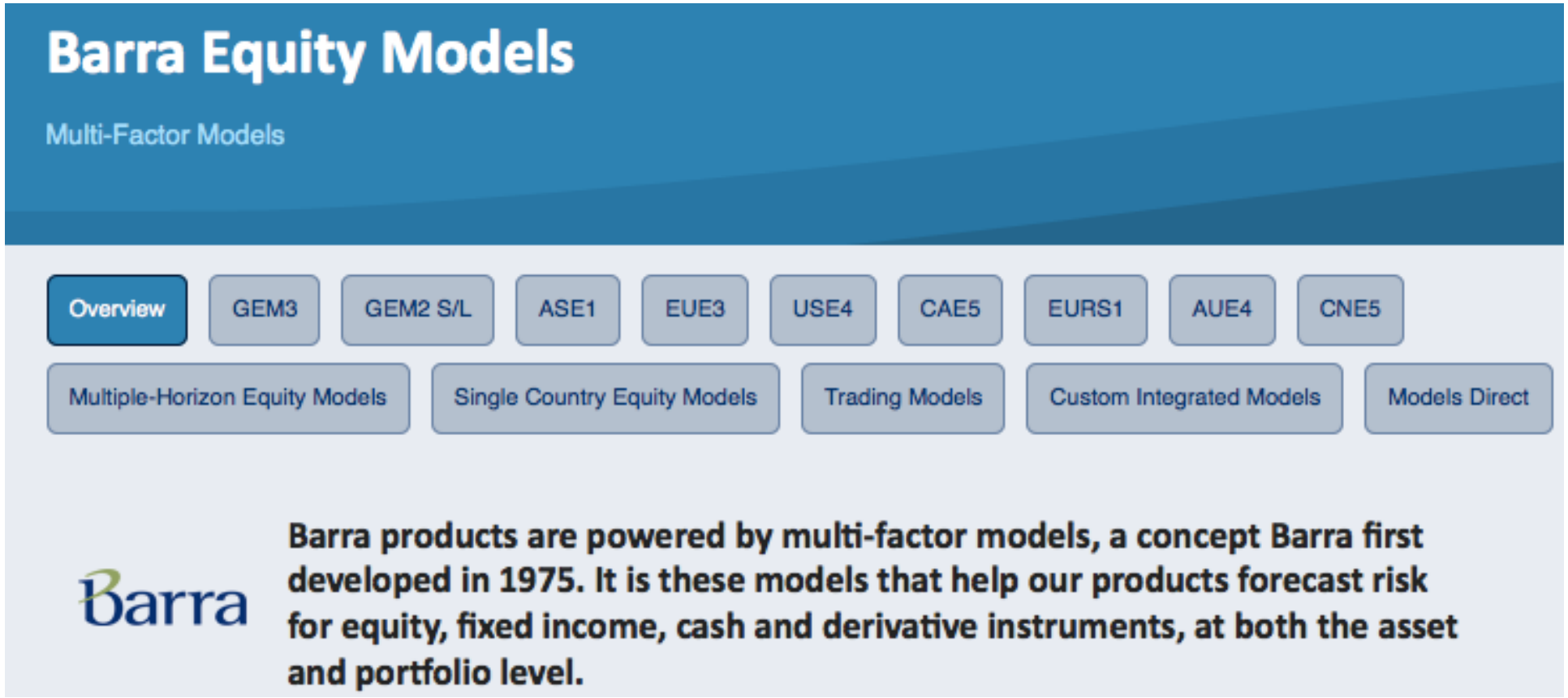
Summary

R^2	R	Adj. R^2	S.E. of Estimate
0,850	0,922	0,786	0,148

Regression Coeffi-cients

Source	Coefficient	Std Error	Std Beta	-95% C.I.	+95% C.I.	t	Prob.
Mittelwert (α_1)	0,168	0,131		-0,141	0,476	1,284	0,240
DAX	0,852	0,167	0,799	0,456	1,247	5,093	0,001
BIP	-14,222	8,570	-0,491	-34,487	6,043	-1,659	0,141
Leitzins	0,654	0,423	0,462	-0,347	1,656	1,546	0,166

2GEN METHOD
MULTIPLE REGRESSION ANALYSIS



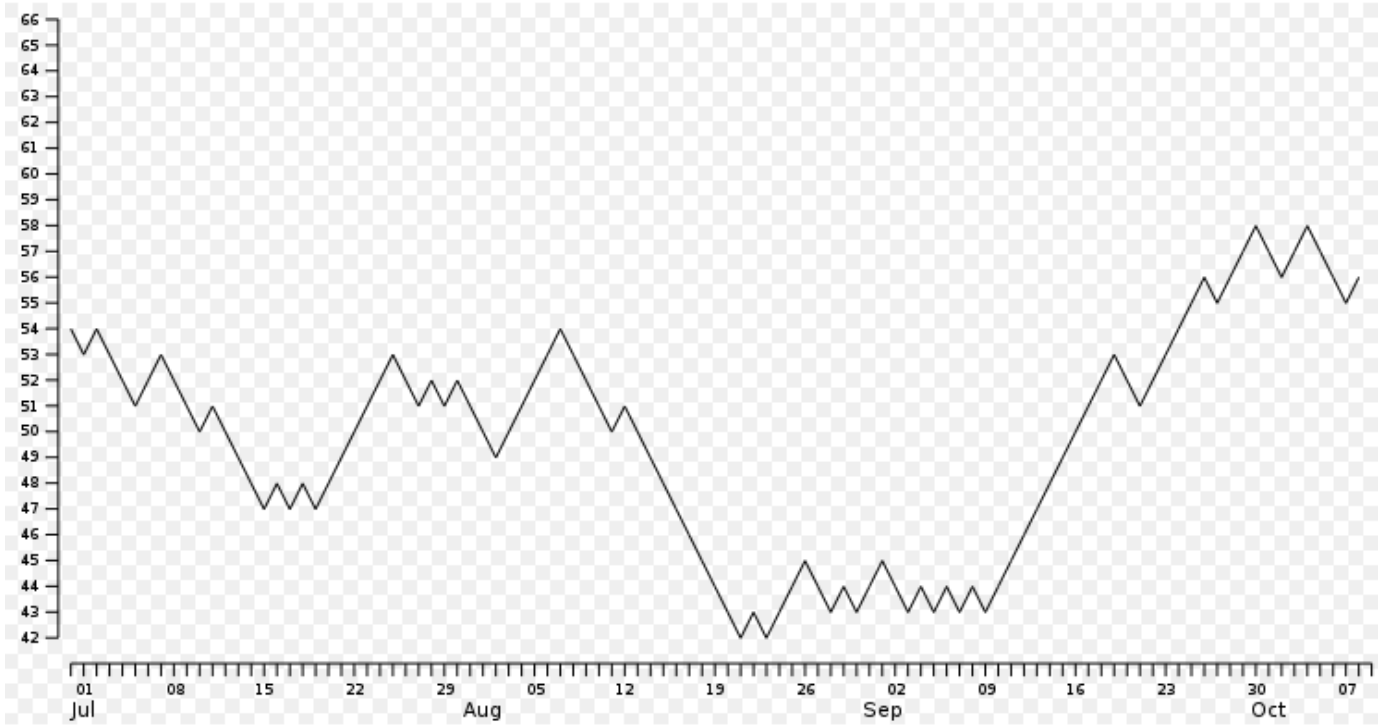
2GEN METHOD
ARCH-GARCH MODELS

The **random walk hypothesis** follows the assumption that stock prices move randomly over time. As a consequence, they cannot be predicted (confirming EMH).

Originally mentioned by Jules Regnault (1863) and academically postulated by Louis Bachelier ("The Theory of Speculation", 1900). Paul Cootner, MIT Professor, confirmed the assumption in 1964 in his publication: "The Random Character of Stock Market Prices."

The RWH celebrated a breakthrough in1973 thanks to Princeton Professor Burton Malkiel´s famous book: "**A Random Walk Down Wall Street".**

Infobox: BEHAVIOURAL FINANCE
BF marked a RWT counter-movement – see Andrew Lo´s „A NON-RANDOM WALK DOWN WALL STREET"

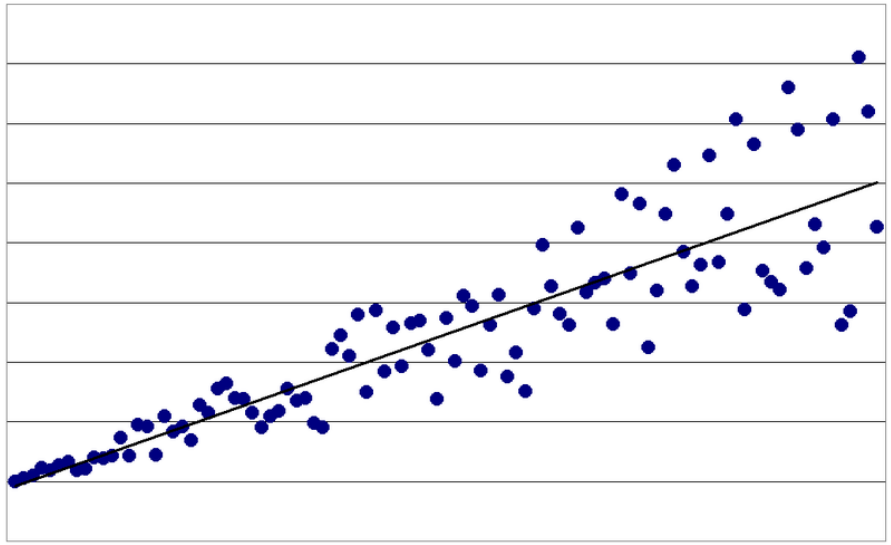


2GEN METHOD
ARCH-GARCH MODELS

HETEROSKEDASTICITY

= changing dispersion to trend-line in a time series (weather)

ARCH = AutoRegressive Conditional Heteroskedasticity (Engle, 1982, Nobel Price)

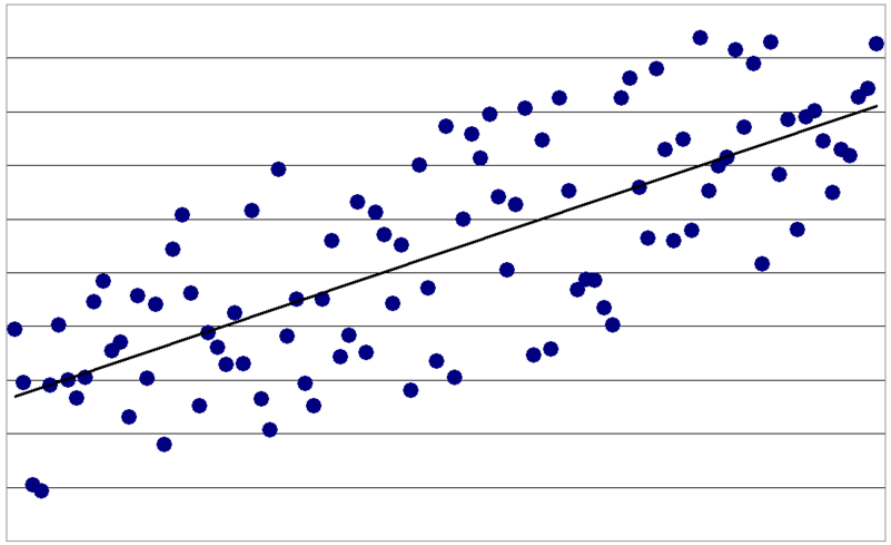


HOMOSKEDASTICITY

= constant dispersion to trend-line in a time series

GARCH = Generalized AutorRegressive Conditional Heteroskedasticity (Bollerslev, 1986)

Some more: NGARCH, IGARCH, EGARCH, QGARCH



2GEN METHODS
MULTI-ASSET-CONCEPT
THE YALE ENDOWMENT PLAN

MULTI-ASSET-CONCEPT
YALE ENDOWMENT PLAN



The Illiquidity Premium: International Evidence

Yakov Amihud
New York University - Stern School of Business

Allaudeen Hameed
National University of Singapore (NUS) - Department of Finance

Wenjin Kang
National University of Singapore (NUS) - Department of Accounting

Huiping Zhang
Shanghai University of Finance and Economics

December 19, 2012

Abstract:
This paper examines the illiquidity premium in stock markets in 45 countries. The premium is the excess return on high-illiquidity stocks minus low-illiquidity stocks across volatility portfolios, after controlling for volatility.

The average monthly premium is 0.95% (0.44%) for equally-weighted (value-weighted) portfolio return. After controlling for six common global and regional risk factors, **the monthly alpha is 1.04% (0.54%).**

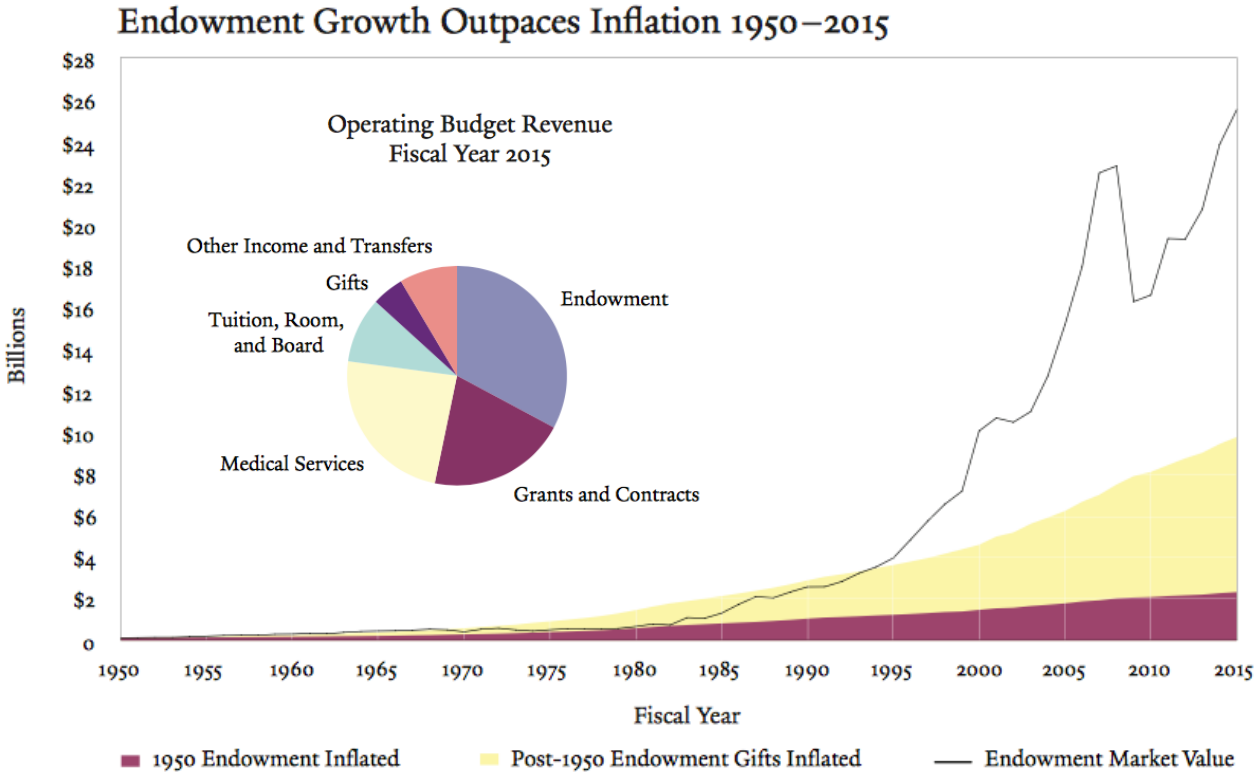
The **premium is much higher for emerging markets** than it is for developed ones and it is lower in countries with better disclosure and legal\governance rules. We document significant comovement of country illiquidity premium with both the global and regional average illiquidity premiums.

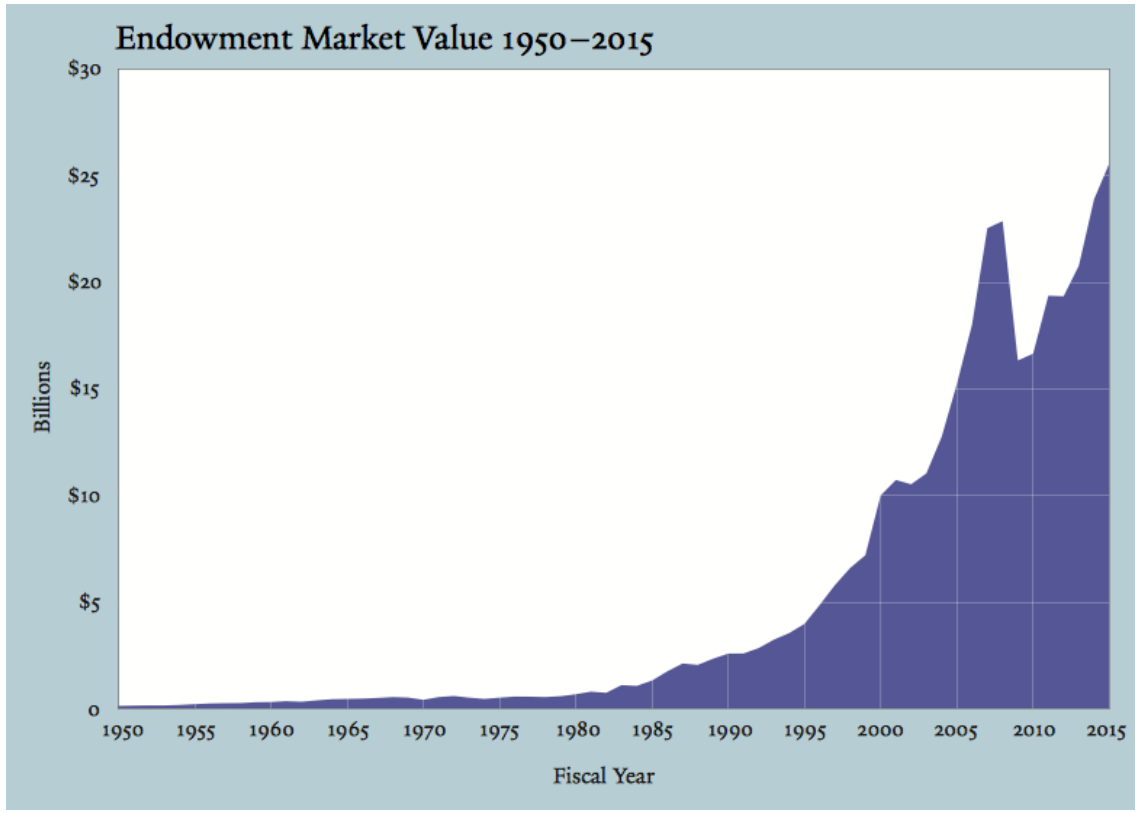
Source

MULTI-ASSET-CONCEPT YALE ENDOWMENT PLAN

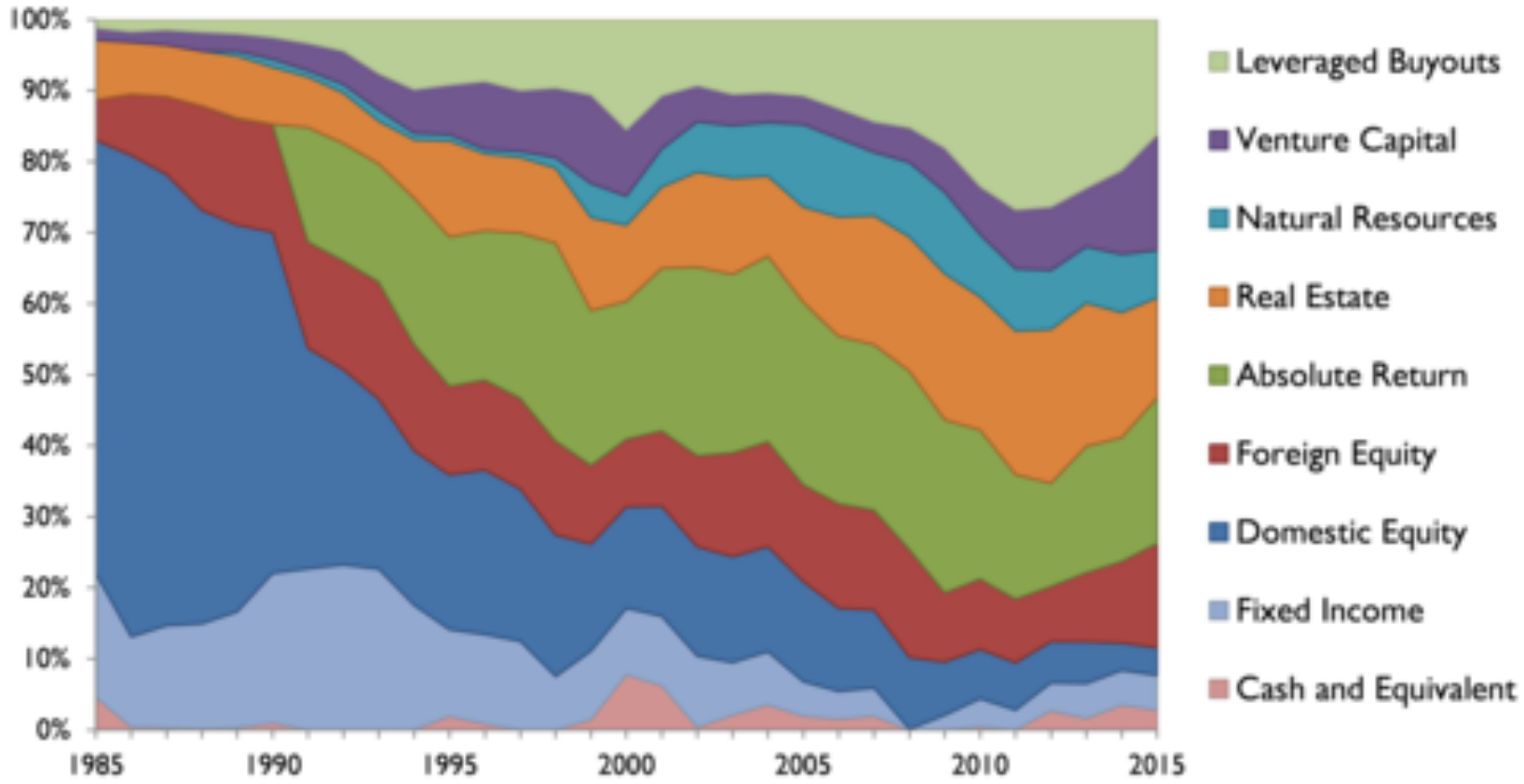
LITERATURE BOX

"Yale Endowment Report", 2015





MULTI-ASSET-CONCEPT
YALE ENDOWMENT PLAN



MULTI-ASSET-CONCEPT
YALE ENDOWMENT PLAN

	Fiscal Year				
	2015	2014	2013	2012	2011
Market Value (in millions)	$25,572.1	$23,894.8	$20,780.0	$19,344.6	$19,374.4
Return	11.5%	20.2%	12.5%	4.7%	21.9%
Spending (in millions)	$1,082.5	$ 1,041.5	$1,024.0	$994.2	$986.8
Operating Budget Revenues (in millions)	$3,297.7	$3,116.1	$2,968.6	$2,847.8	$2,681.3
Endowment Percentage	32.8%	33.4%	34.5%	34.9%	36.1%

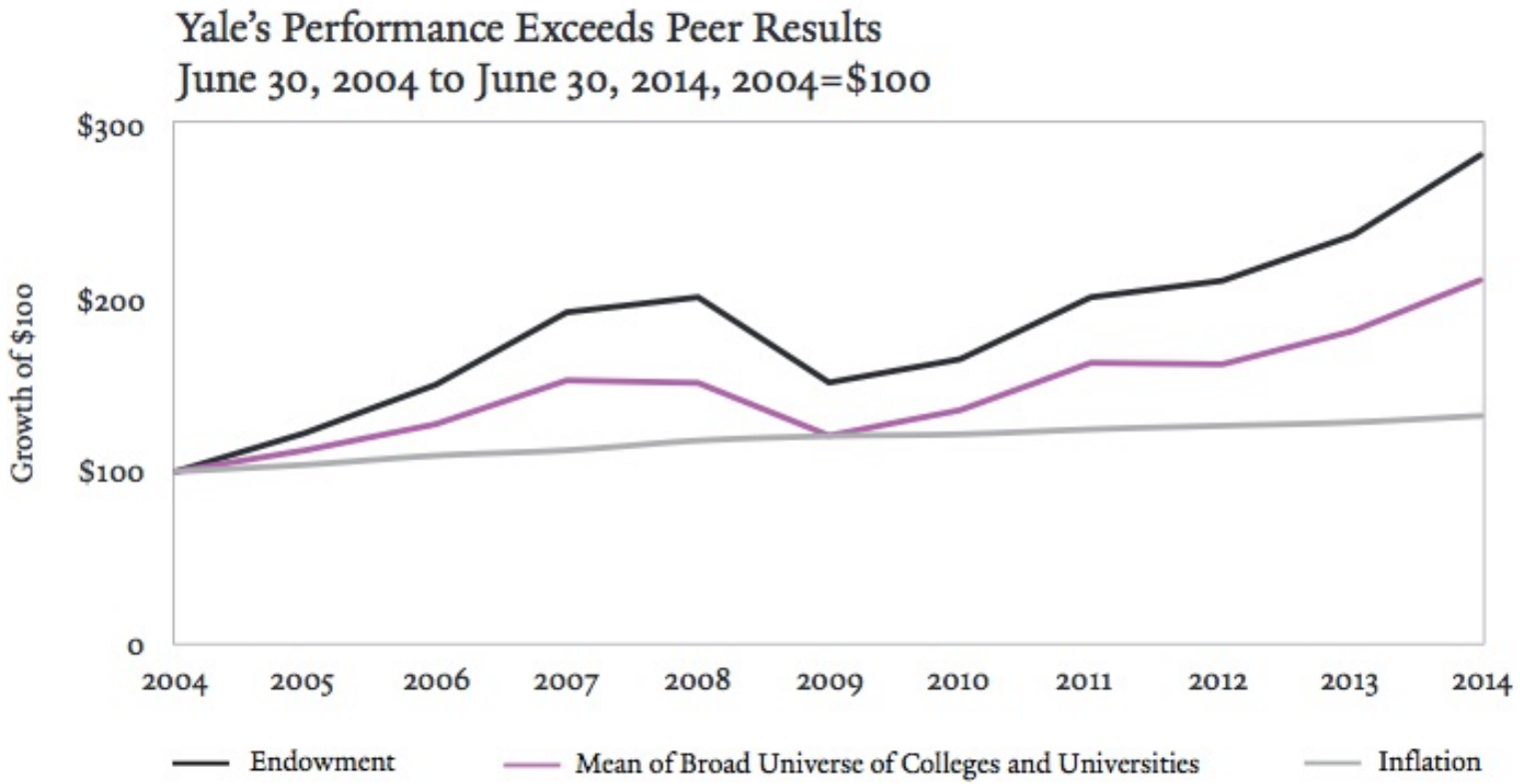
	Fiscal Year				
	2010	2009	2008	2007	2006
Market Value (in millions)	$16,652.1	$16,326.6	$22,869.7	$22,530.2	$18,030.6
Return	8.9%	-24.6%	4.5%	28.0%	22.9%
Spending (in millions)	$ 1,108.4	$ 1,175.2	$ 849.9	$ 684.0	$ 616.0
Operating Budget Revenues (in millions)	2,681.3	2,559.8	2,280.2	2,075.0	1,932.0
Endowment Percentage	41.3%	45.9%	37.3%	33.0%	31.9%

MULTI-ASSET-CONCEPT YALE ENDOWMENT PLAN

	Fiscal Year				
	2015	2014	2013	2012	2011
Asset Allocation (as of June 30)					
Absolute Return	20.5%	17.4%	17.8%	14.5%	17.5 %
Domestic Equity	3.9	3.9	5.9	5.8	6.7
Fixed Income	4.9	4.9	4.9	3.9	3.9
Foreign Equity	14.7	11.5	9.8	7.8	9.0
Leveraged Buyouts	16.2	19.3	21.9	24.3	24.8
Natural Resources	6.7	8.2	7.9	8.3	8.7
Real Estate	14.0	17.6	20.2	21.7	20.2
Venture Capital	16.3	13.7	10.0	11.0	10.3
Cash	2.8	3.5	1.6	2.7	-1.1

	Fiscal Year				
	2012	2011	2010	2009	2008
Asset Allocation (as of June 30)					
Absolute Return	14.5%	17.5%	21.0%	24.3%	25.1%
Domestic Equity	5.8	6.7	7.0	7.5	10.1
Fixed Income	3.9	3.9	4.0	4.0	4.0
Foreign Equity	7.8	9.0	9.9	9.8	15.2
Natural Resources	8.3	8.7	8.8	11.5	10.4
Private Equity	35.3	35.1	30.3	24.3	20.2
Real Estate	21.7	20.2	18.7	20.6	18.9
Cash	2.7	-1.1	0.4	-1.9	-3.9

MULTI-ASSET-CONCEPT
YALE ENDOWMENT PLAN



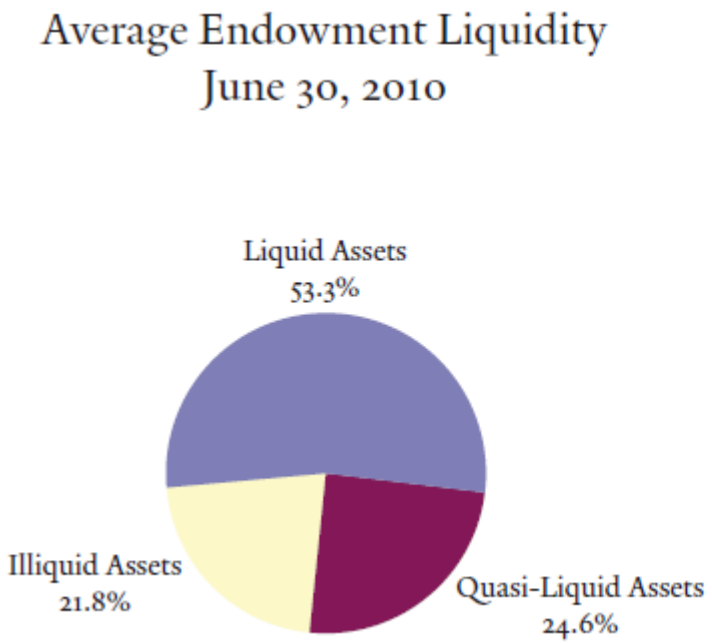
MULTI-ASSET-CONCEPT
YALE ENDOWMENT PLAN

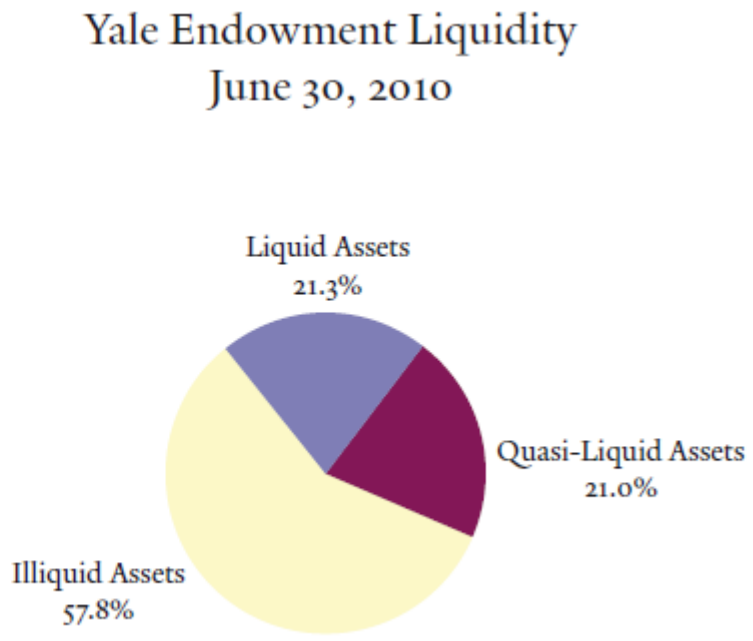
HIGH PERFORMANCE
INVESTMENT TEAM

In June 2009 Yale´s Investment Committee voted for a significant SAA change:

- „The Committee approved an increase in the private equity target from **21 percent to 26 percent** to accommodate anticipated growth in private equity."
- "For similar reasons, the University increased the **real assets allocation from 29 percent to 37 percent exposure**."
- "The increases in the illiquid asset classes were funded by a 6 percentage point decrease in the absolute return target allocation to 15 percent, a 5 percentage point decrease in the foreign equity target allocation to 10 percent, and a 2.5 percentage."

MULTI-ASSET-CONCEPT
YALE ENDOWMENT PLAN





MULTI-ASSET-CONCEPT
YALE ENDOWMENT PLAN

2013 Yale Endowment Report
Warning not to copy Yale if you don´t have the capacities

"Few institutions and even fewer individuals exhibit the ability and commit the resources to produce risk-adjusted excess returns.

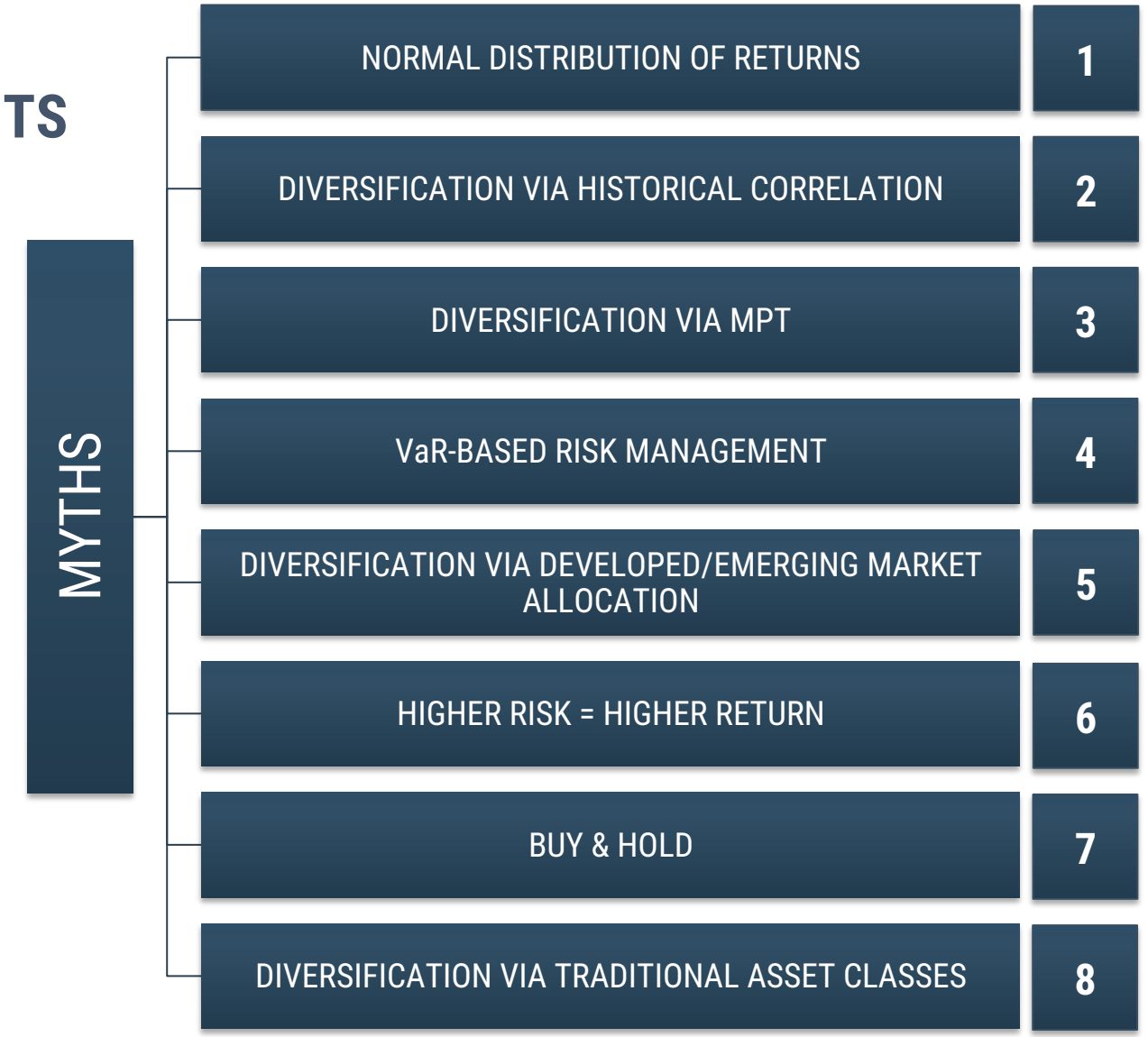
"... No middle ground exists. Low-cost passive strategies suit the overwhelming number of individual and institutional investors without the time, resources, and ability to make high-quality active management decisions. The framework of the Yale model applies to only a small number of investors with the resources and temperament to pursue the grail of risk-adjusted excess returns."

LET´S DECONSTRUCT SOME MYTHS OF 1GEN & 2GEN MODELS

CONGRATULATIONS. YOU ARE FULLY RATIONAL.



1GEN & 2GEN
ASSET ALLOCATION MYHTS



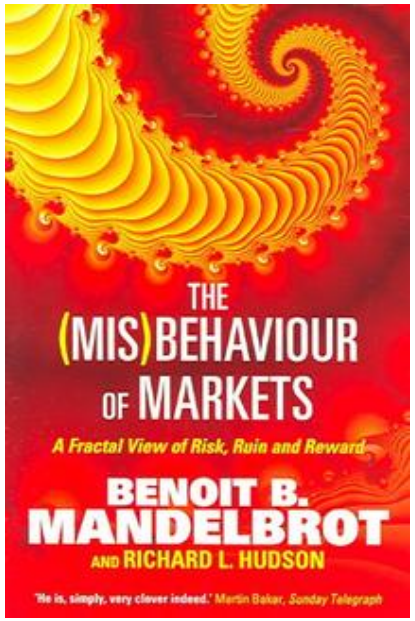
DECONSTRUCTION OF MYTHS
MYTH A – NORMAL DISTRIBUTION OF RETURNS

1



Benoit Mandelbrot - "Misbehaviour of Markets", 2004

> "Theory suggests over that time [1916-2002], there should be fifty-eight days when the Dow moved more than 3.4 percent; in fact, there were 1'001. Theory predicts six days of index swings beyond 4.5 percent; in fact three were 366. And index swings of more than 7 percent should come once every 300'000 years; in fact, the twentieth century saw forty-eight such days."



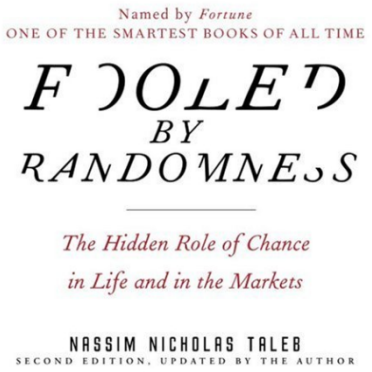
DECONSTRUCTION OF MYTHS
MYTH A – NORMAL DISTRIBUTION OF RETURNS

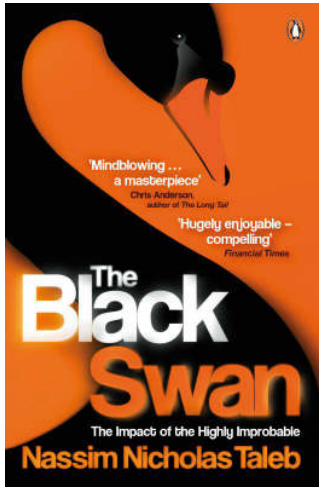
LITERATURE BOX

„Fooled by Randomness“ Taleb 2001/2006

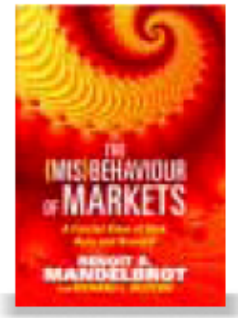
„The Black Swan“ Taleb, 2007/2010

1





Nassim Taleb



Mandelbrot Makes Sense: A Book Review Essay

A discussion of Benoit Mandelbrot's *The (Mis)Behavior of Markets* by Nassim Nicholas Taleb

I closed this book feeling that it was the first book in economics that spoke directly to me. Not only that, but the astonishing simplicity, realism, and relevance of the subject makes it the *only* general work in finance I've ever read that seemed to *make sense*.



DECONSTRUCTION OF MYTHS
MYTH A – NORMAL DISTRIBUTION OF RETURNS

LITERATURE BOX

„WSJ Interview“ N. Taleb 2013

1

Nassim Taleb

Learning to Love Volatility

In a world that constantly throws big, unexpected events our way, we must learn to benefit from disorder, writes Nassim Nicholas Taleb.

„We never see black swans coming, but when they do arrive, they profoundly shape our world: Think of World War I, 9/11, the Internet, the rise of Google, ...

Some made the mistake of thinking that I hoped to see us develop better methods for predicting black swans. Others asked if we should just give up and throw our hands in the air: If we could not measure the risks of potential blowups, what were we to do?

The answer is simple: We should try to create institutions that won't fall apart when we encounter black swans—or that might even gain from these unexpected events.“

DECONSTRUCTION OF MYTHS
MYTH A – NORMAL DISTRIBUTION OF RETURNS

1

LITERATURE BOX

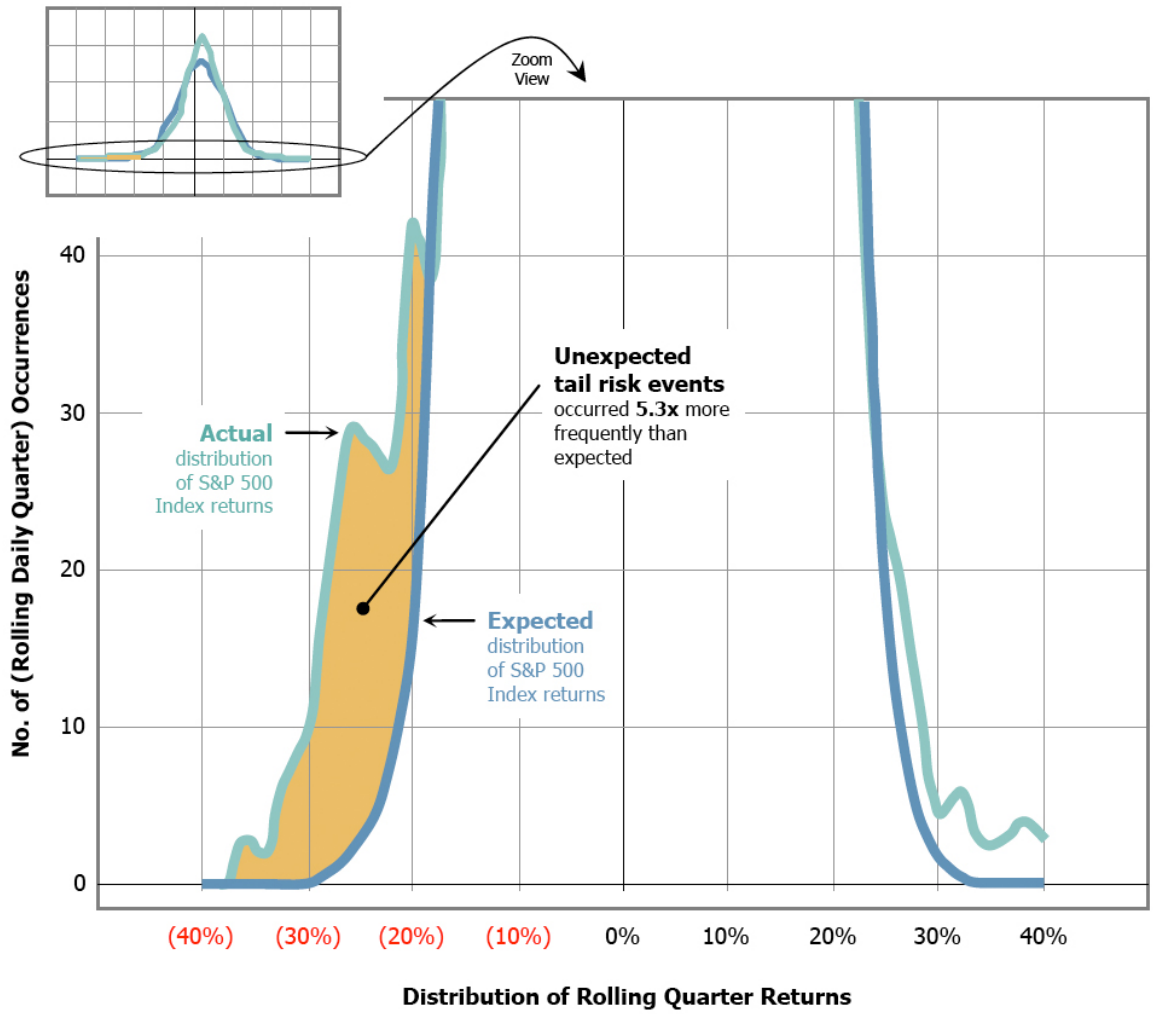
"Tail Risk About 5x Wores Than You May Think" Welton, 2010

Welton Investment Corp.

Empirical Study - S&P 500

S&P500-Index from 1960-2010
Effective distributino of returns (quarterly)

A multiple of 5,3x vs normal distribution.

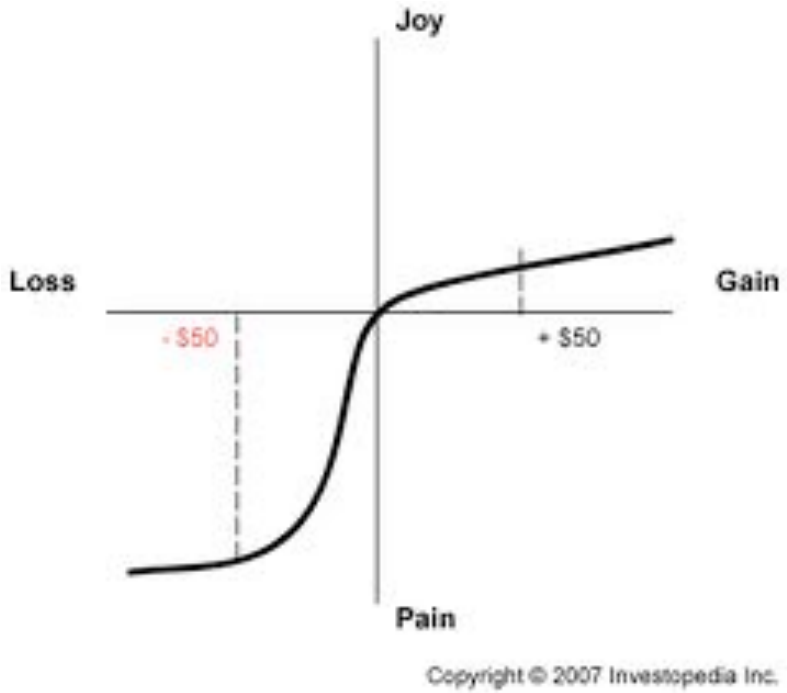


MYTH
DIVERSIFICATION VIA HISTORICAL CORRELATION

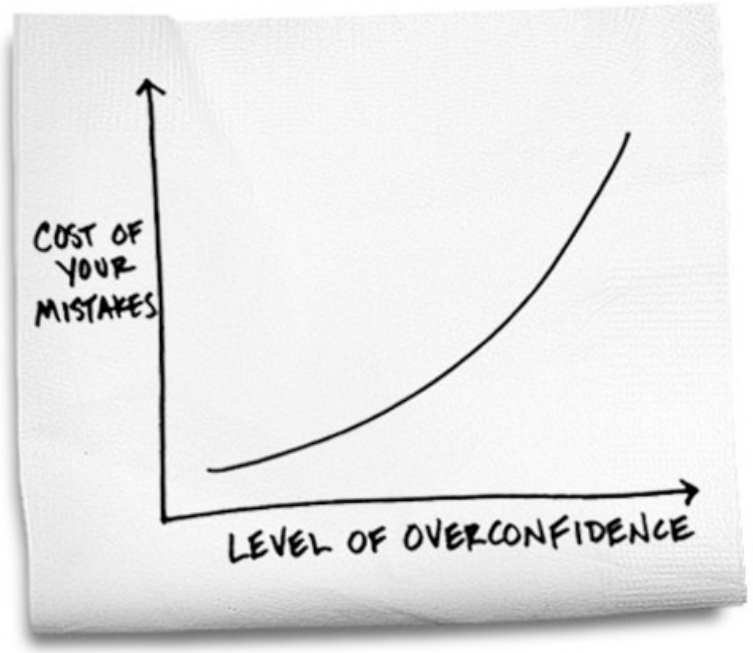
Eine Fortschreibung historischer Korrelationen ist falsch. Und doch beeinflussen historische Daten das Gegenwartsverhalten von Investoren.

2

Dispositionseffekt
Der Dispositionseffekt besagt, dass Anleger tendenziell dazu neigen kleine Gewinne zu <realisieren und Verluste zu vergrößern.

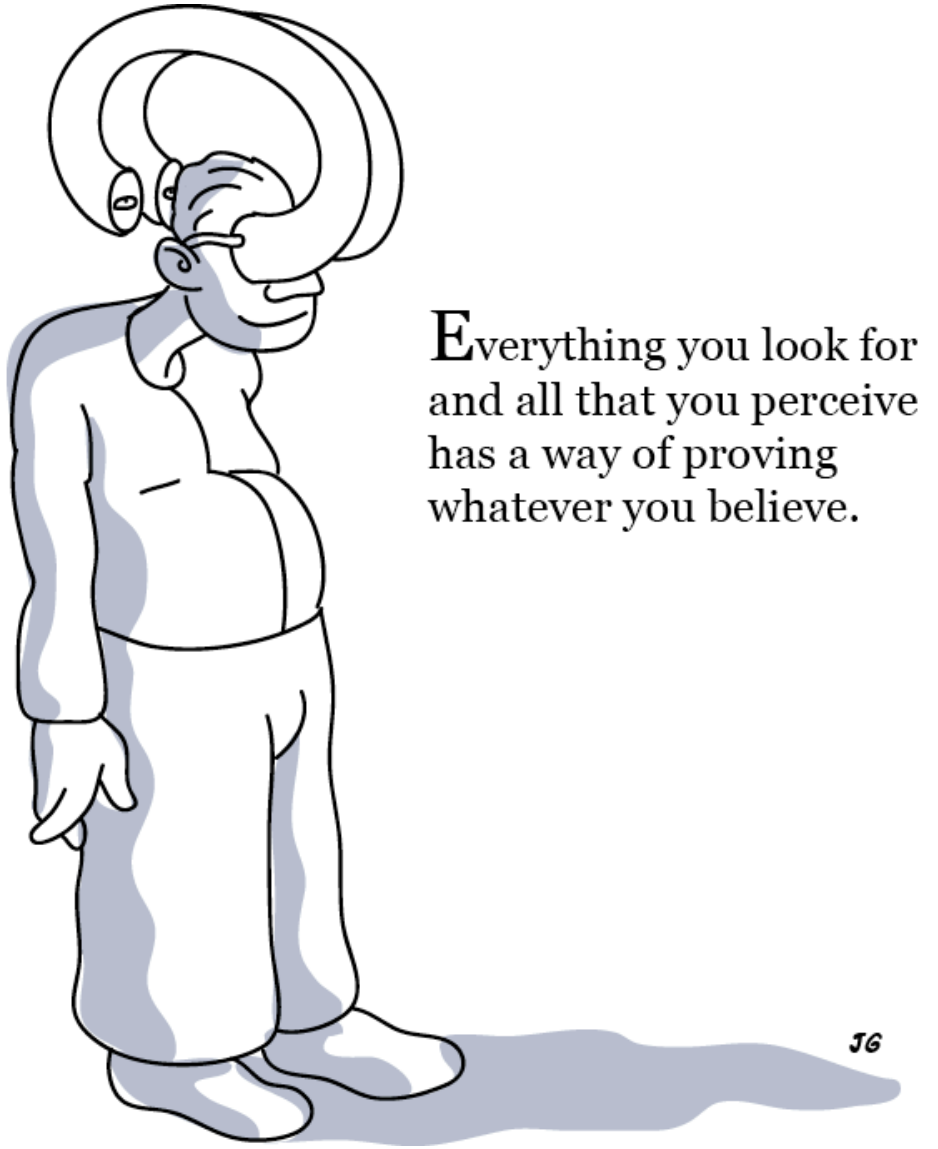


Overconfidence
Menschen neigen generell dazu ihre eigenen Fähigkeiten zu überschätzen<<<.



MYTH
DIVERSIFICATION VIA HISTORICAL CORRELATION

2



DECONSTRUCTION OF MYTHS
MPT et al = DIVERSIFICATION

3

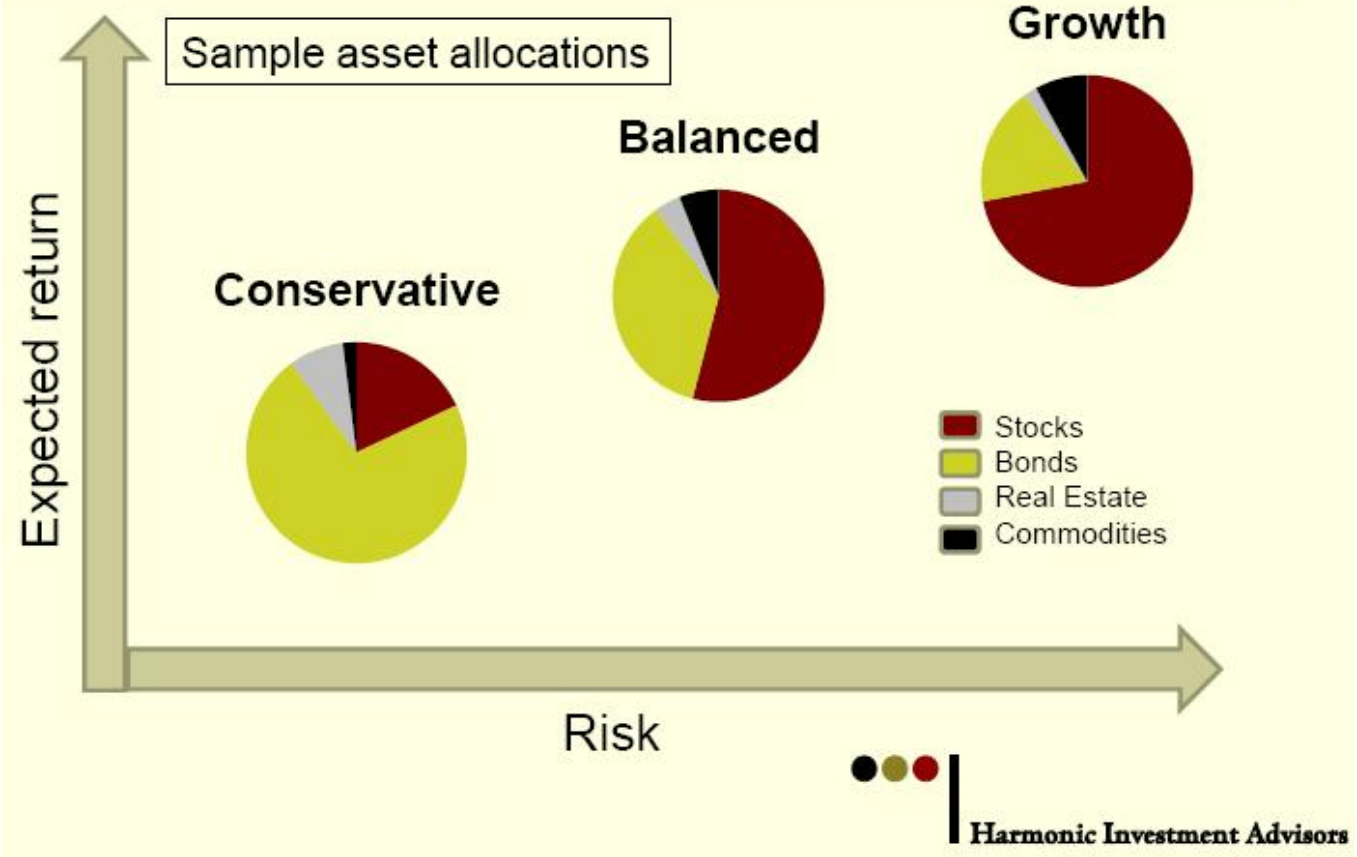
NORM… …BUTION OF RETURNS	A
CONSTANT CO… …ON BETWEEN SECURITIES	B
ALL INVESTORS OPTIMIZE THEIR UT… …NCTION (MAX MONEY, NO ALT)	C
ALL INVESTOR… …ATIONAL AND RISK AVERSE (=MPT)	D
ALL INVESTORS HA… …FORMATION AT ANY TIME	E
NO CONSIDERATION … …NSACTION COSTS AND TAXES	F
…L INVESTORS ARE PRICE TAKERS	G
ALL INVESTORS CAN … …ROW UNLIMITED AT RISK FREE RATE	H
ALL S… …TIES CAN BE TRADED IN ANY FRACTIONS	I

LITERATURE BOX

"Is Portfolio Theory Harming Your Portfolio?" Vincent, 2011

DECONSTRUCTION OF MYTHS
MPT et al = DIVERSIFICATION

3

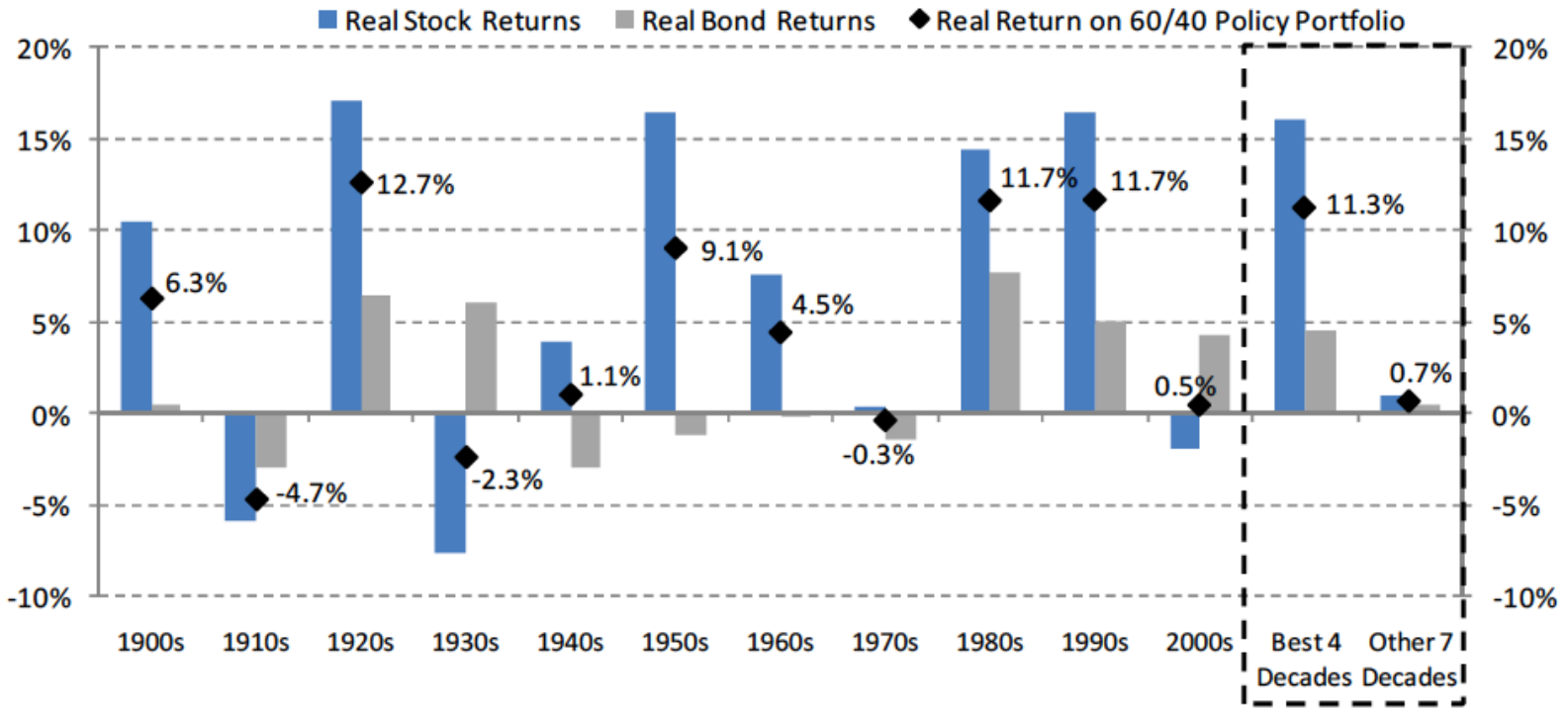


DECONSTRUCTION OF MYTHS
MPT et al = DIVERSIFICATION

3

But All the Returns Were Concentrated in Four Decades

… Each of Which is Unrepeatable – the 1920s and '50s were Post-War Recoveries, while the 1980s and '90s were Windfall Gains



PERFECT VS GOOD ENOUGH

3

RESEARCH ARTICLE

AESTIMATIO, THE IEB INTERNATIONAL JOURNAL OF FINANCE, 2012. 4: 8-27
© 2012 AESTIMATIO, THE IEB INTERNATIONAL JOURNAL OF FINANCE

The "Great Confusion" concerning MPT

Markowitz, Harry

▸ RECEIVED: 20 FEBRUARY 2012
▸ ACCEPTED: 16 MARCH 2012

Other measures of risk

The results of Markowitz (2012a) raise the question: Could an approximation based on a different risk-measure have done better? This is the topic of Markowitz (2013) which considers the following risk-measures

Variance (V)
Mean Absolute Deviation (MAD)
Semivariance (SV)
Value at Risk (VaR)
Conditional Value at Risk (CVaR)

MYTH
VaR BASED RISK MANAGEMENT

4

David Einhorn (HF Manager, Greenlight Cap)

"VaR is like an Airbag that works all the time, except when you have a car accident."

Nassim Taleb

"VaR ignores 2500 years of experience in favor of untested models built by non-traders. It claims to estimate the risk of rare events, which is impossible. As such it gave false confidence."

Joe Nocera (NYT)

"VaR was very useful to risk experts, but nevertheless exacerbated the crisis by giving false security to bank executives and regulators. It is easy to misunderstand and dangerous when being misunderstood."

MYTH
VaR BASED RISK MANAGEMENT

4

KILLING VaR

Killing VaR

Joseph Cotterill Author alerts | May 03 2012 18:40 | Share

Hopefully that headline gets your attention for the Basel Committee on Banking Supervision's latest review of capital rules for banks' trading books.

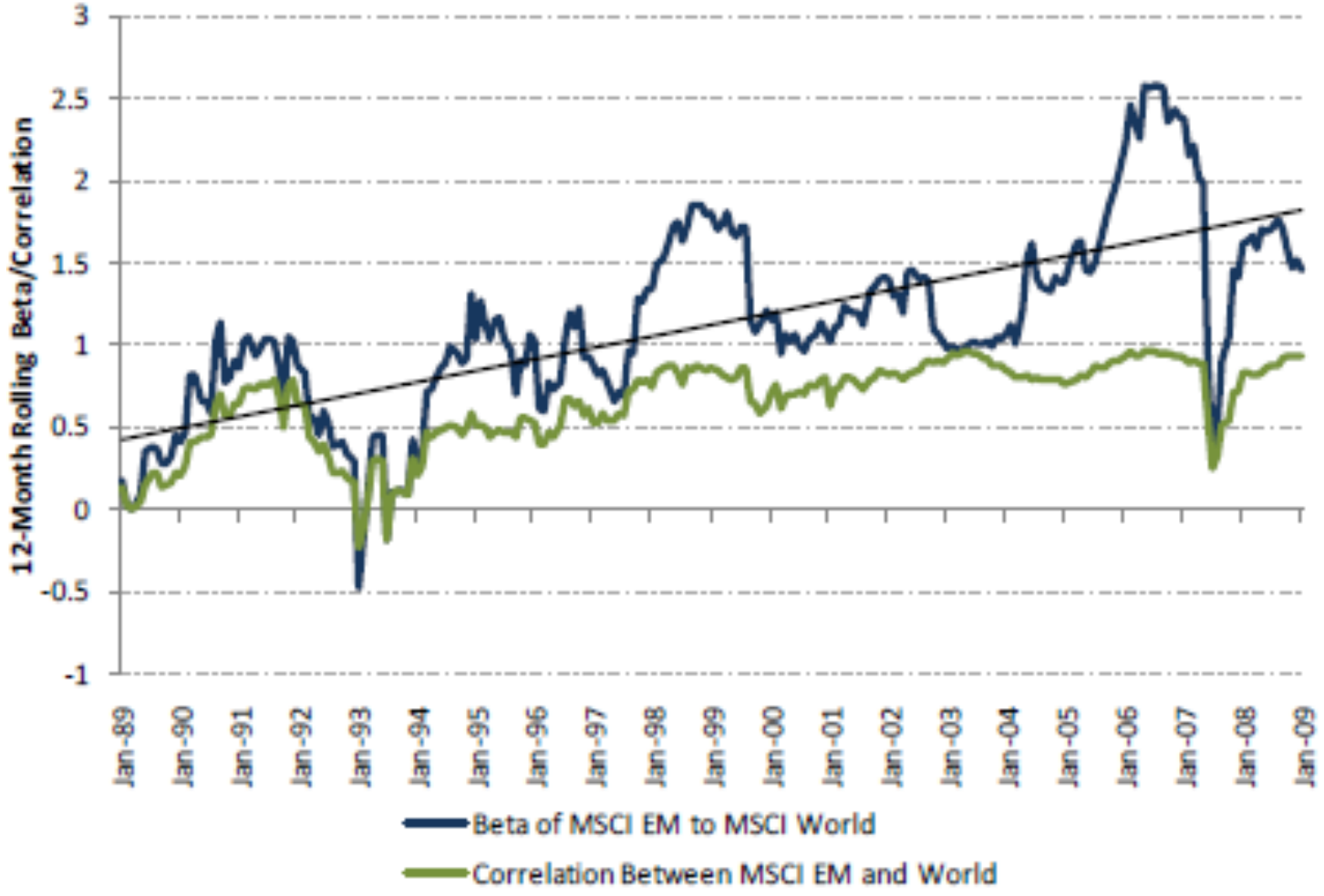
There is a lot in it — the Committee has been tinkering with trading books since the crisis exposed serious mismatches between the capital that banks' models said they needed for trading structured credit, and the losses they ended up experiencing. In fact this review follows up on the 2009 rule-set dubbed 'Basel 2.5'.

But the VaR-killing idea is here:

> A number of weaknesses have been identified with using value-at-risk (VaR) for determining regulatory capital requirements, including its inability to capture "tail risk". For this reason, the Committee has considered alternative risk metrics, in particular **expected shortfall** (ES). **ES measures the riskiness of a position by considering both the size and the likelihood of losses above a certain confidence level. In other words, it is the expected value of those losses beyond a given confidence level.** The Committee recognises that moving to ES could entail certain operational challenges; nonetheless it believes that these are outweighed by the benefits of replacing VaR with a measure that better captures tail risk. Accordingly, the Committee is proposing the use of ES for the internal models-based approach and also intends to determine risk weights for the standardised approach using an ES methodology.

MYTH
DIVERSIFICATION VIA DEVELOPED/EMERGING MARKET ALLOCATION

5



MYTH
DIVERSIFICATION VIA DEVELOPED/EMERGING MARKET ALLOCATION

5

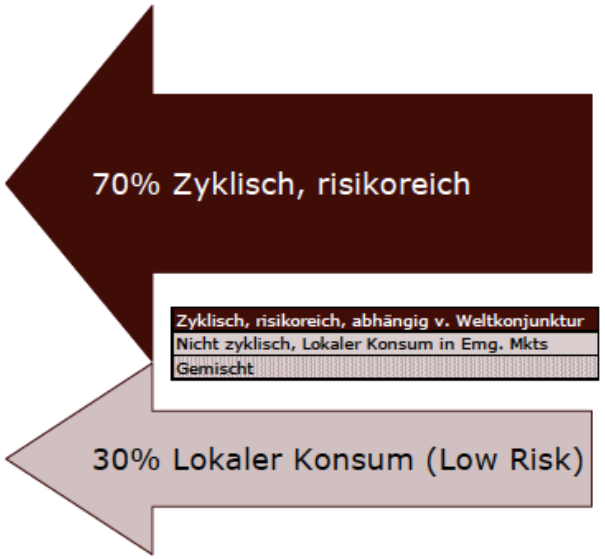
Der Emerging Markets Index ist schlecht diversifiziert

MSCI Emerging Markets: Hohes Gewicht in Risiko

- Abhängig von Weltkonjunktur, wenig Exposure auf lokales Wachstum

Name	Ctry	Sector	% Wgt
PETROBRAS PN	BR	Energy	1.24
PETROBRAS ON	BR	Energy	0.91
GAZPROM	RU	Energy	1.46
CNOOC	CN	Energy	1.01
PETROCHINA CO H	CN	Energy	0.83
LUKOIL HOLDING	RU	Energy	0.82
SASOL LTD	ZA	Energy	0.72
CHINA CONSTRUCTION BANK-H	CN	Financials	1.30
ICBC H	CN	Financials	1.15
ITAU UNIBANCO PN	BR	Financials	1.03
BANCO BRADESCO PN	BR	Financials	0.87
BANK OF CHINA	CN	Financials	0.80
SBERBANK RUSSIA	RU	Financials	0.66
VALE - PREF A	BR	Materials	1.13
VALE - ON	BR	Materials	0.75
SAMSUNG ELECTRONICS	KR	Technology	3.53
TAIWAN SEMICONDUCTOR MFG	TW	Technology	2.19
TENCENT HOLDINGS	CN	Technology	0.87
HON HAI PRECISION IND CO	TW	Technology	0.83
HYUNDAI MOTOR CO	KR	Consumer Discretionary	0.99
NASPERS N	ZA	Consumer Discretionary	0.63
AMBEV PN	BR	Consumer Staples	0.89
CHINA MOBILE	CN	Telecommunication	1.90
AMERICA MOVIL L	MX	Telecommunication	1.45
MTN GROUP	ZA	Telecommunication	0.83

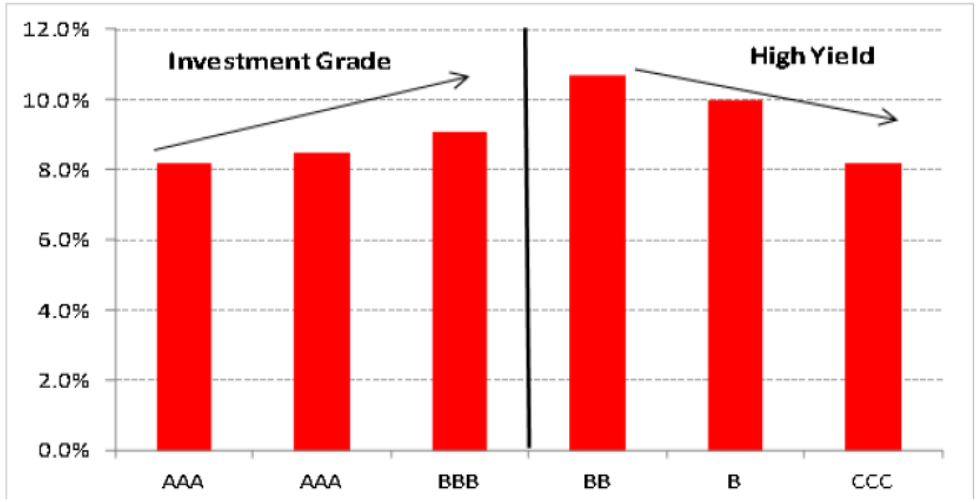
31 May 2012



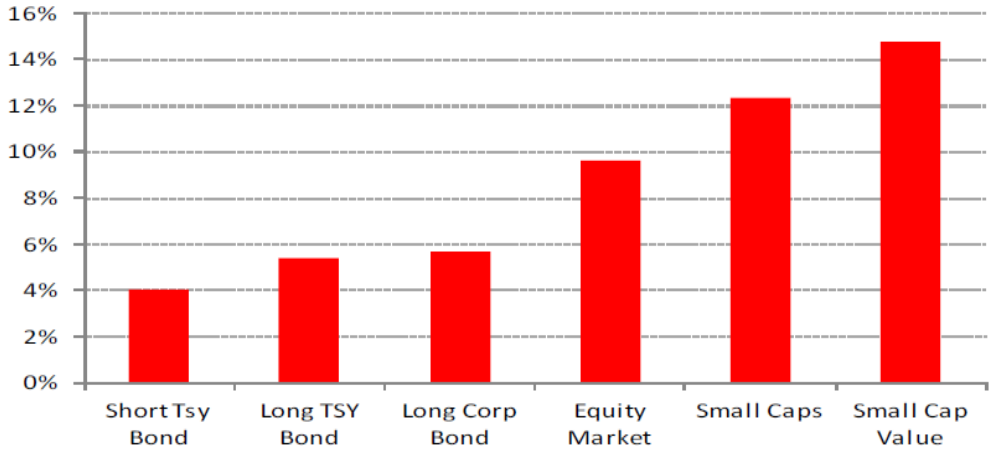
MYTH
HIGHER RISK = HIGHER RETURN

6

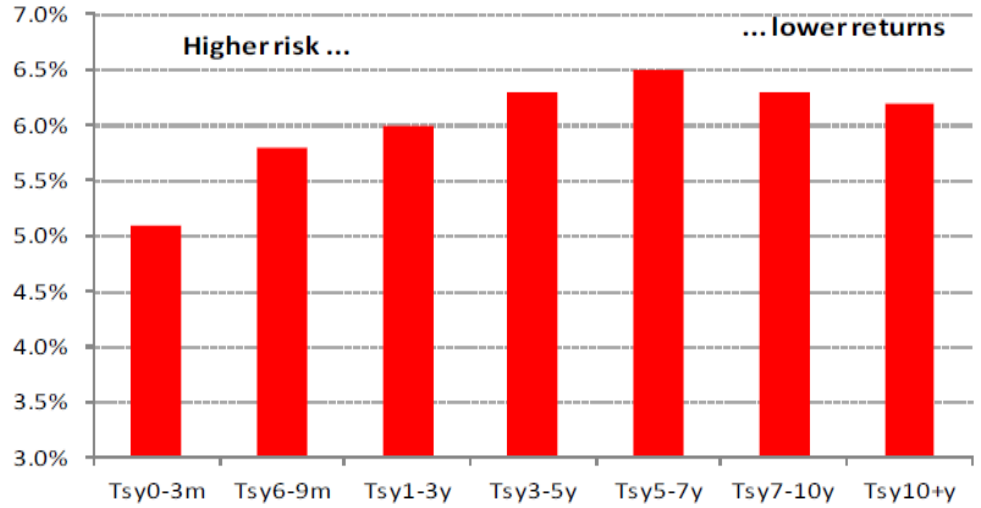
Kinky risk curves in the credit market (1990-2009)



High risk=high return: compound returns of broad US asset classes (1926-2009, compound %)



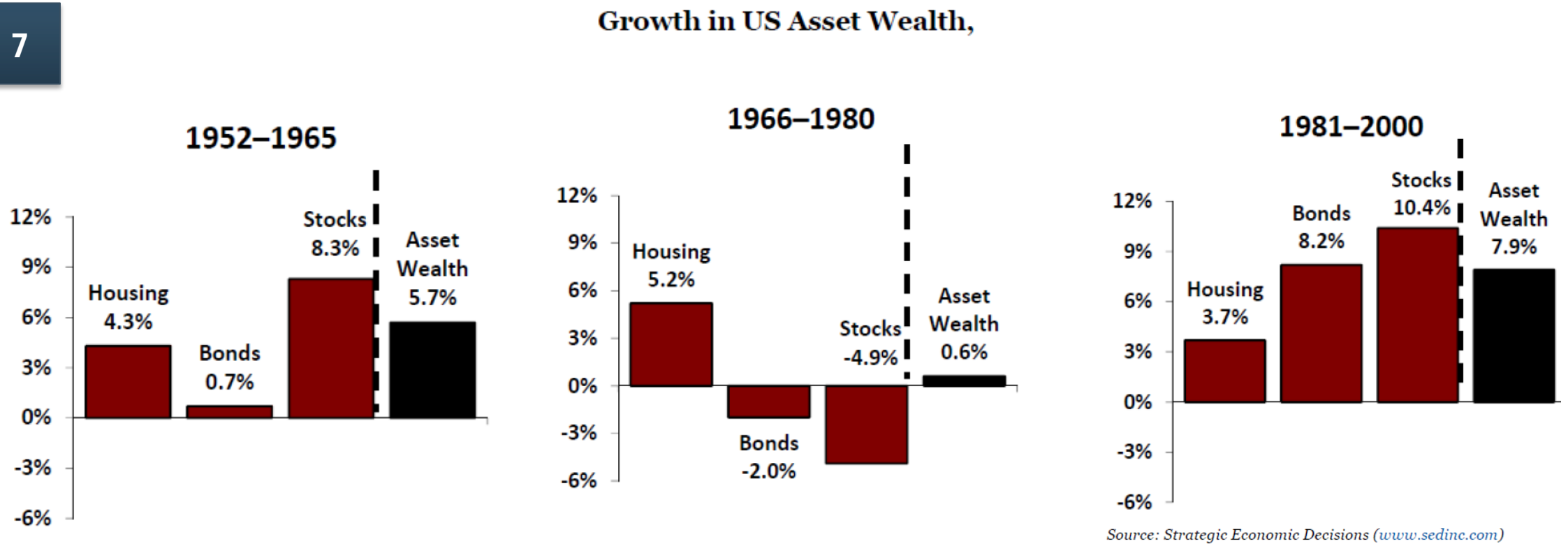
Kinky risk curves in the Treasury market (1952-2009)



Source: ' Popular Delusions', SocGen Oct2011

MYTH
BUY & HOLD

7



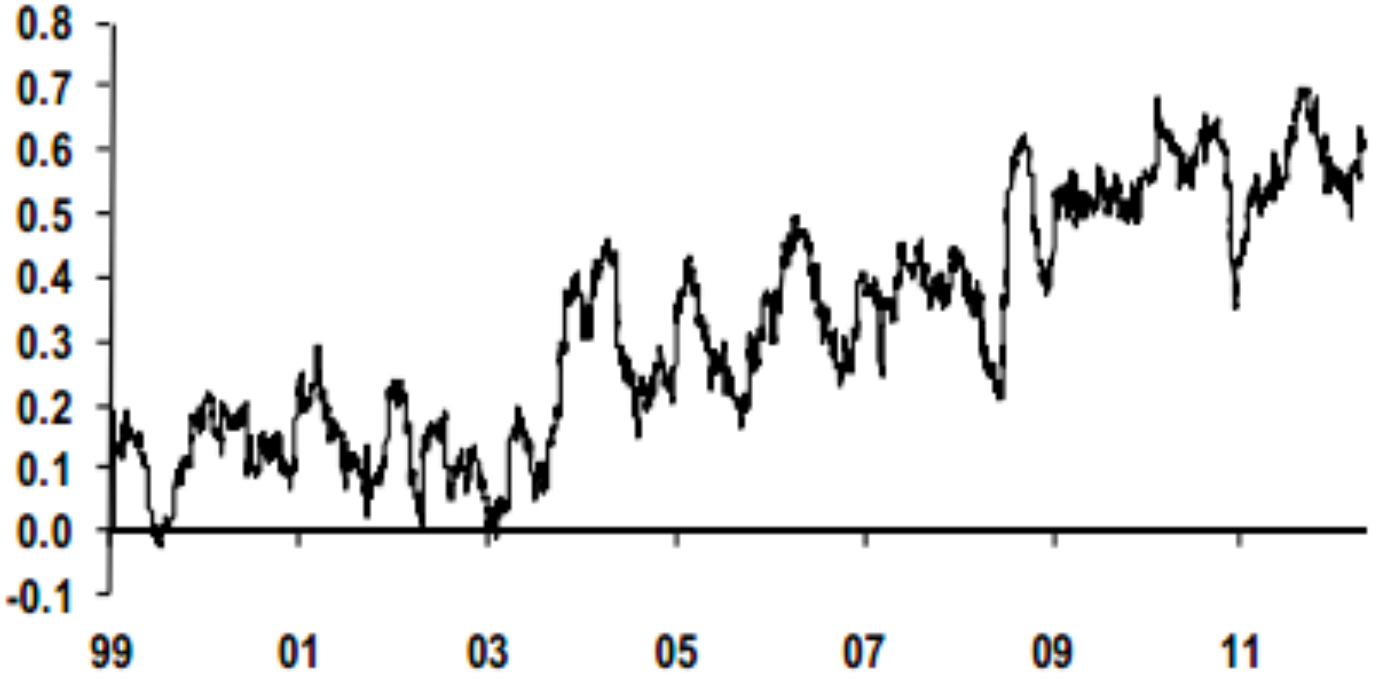
Source: Strategic Economic Decisions (www.sedinc.com)

MYTH
DIVERSIFICATION VIA TRADITIONAL ASSET CLASSES

8

Average correlation between risky assets

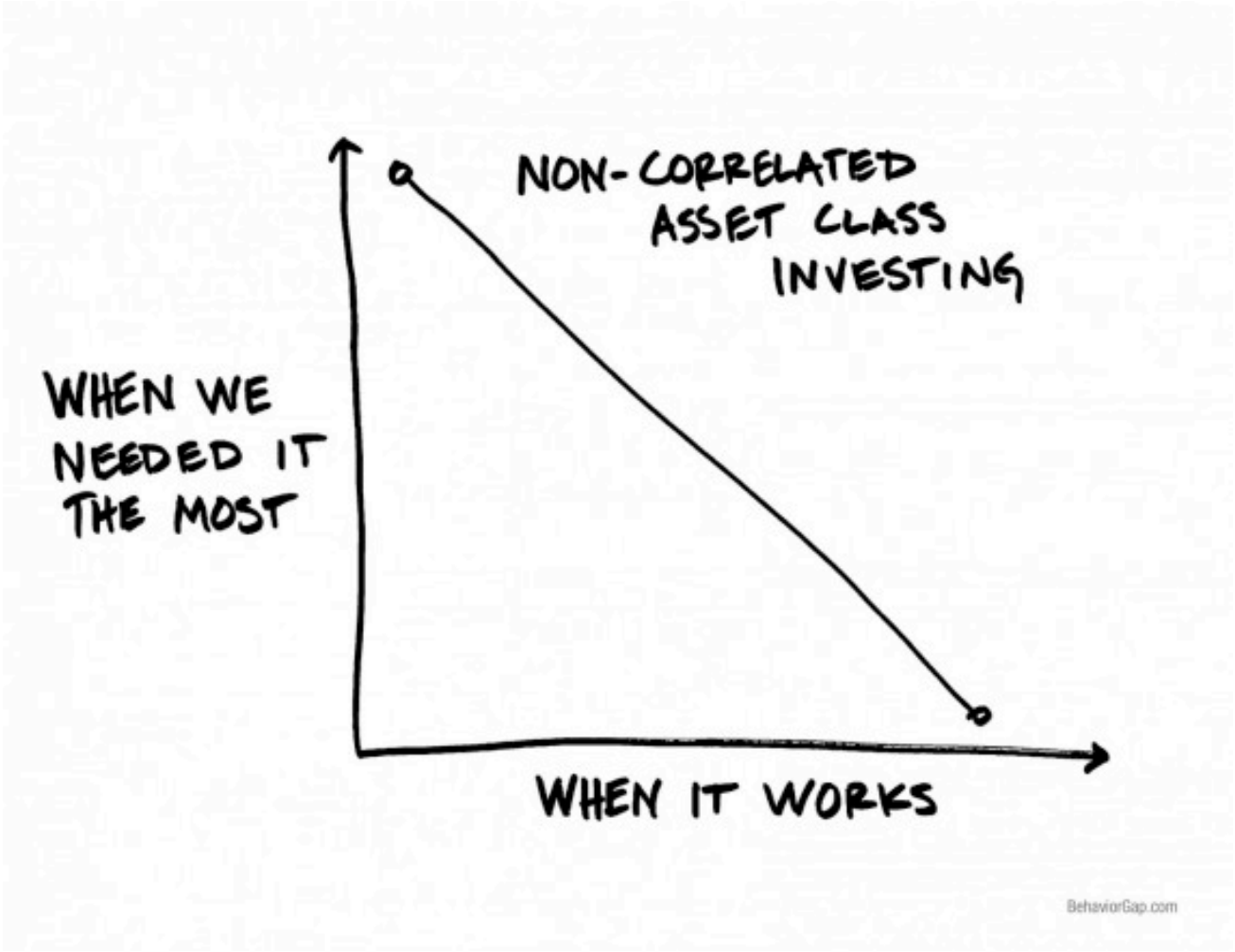
3-month rolling correlation of daily returns between S&P500, DXY(inverse), GSCI, EM FX, MSCI EM and US HY



SOURCE

MYTH
DIVERSIFICATION VIA TRADITIONAL ASSET CLASSES

8



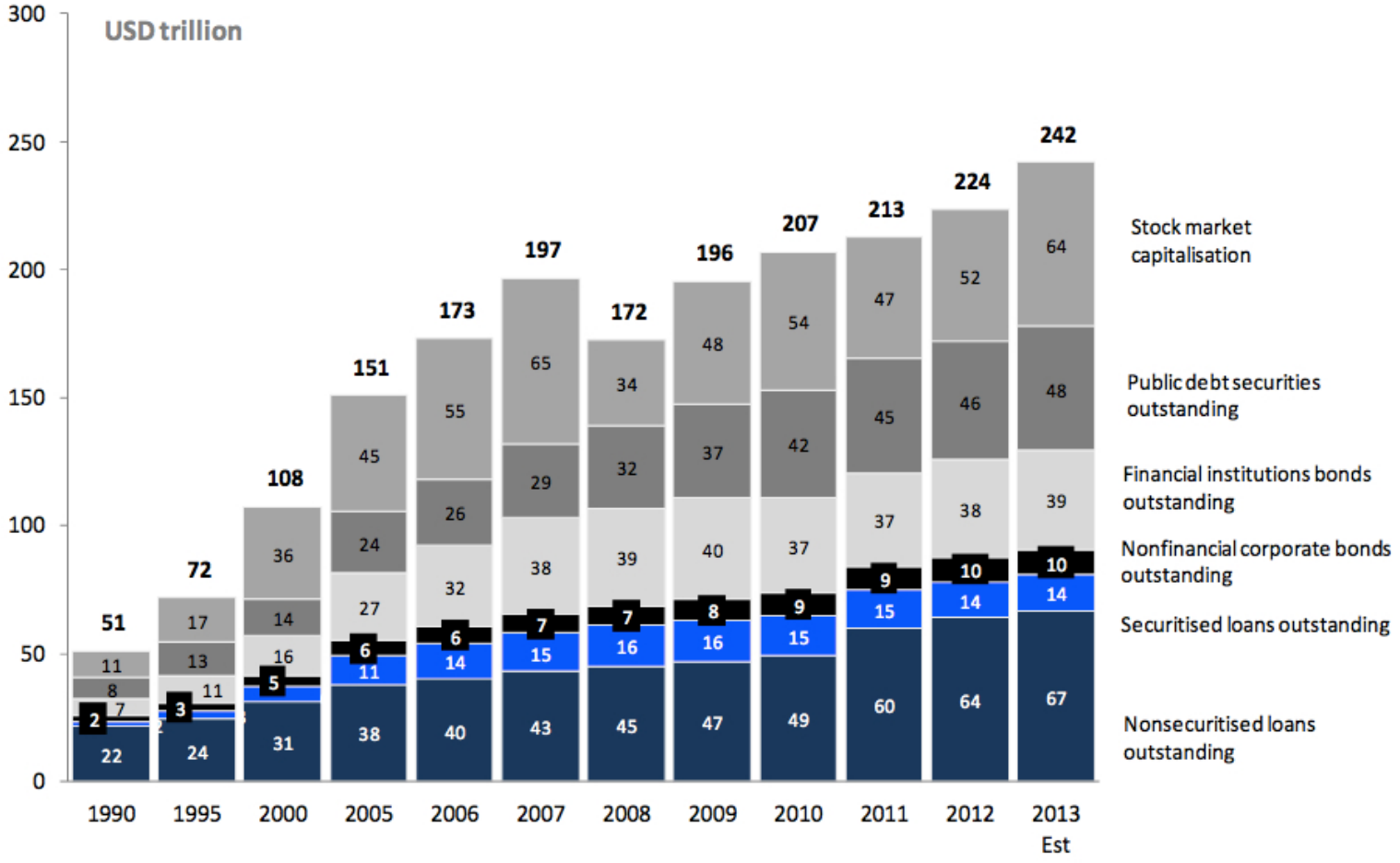
ASSET ALLOCATION TAKE AWAYS



THE THIRD GENERATION BUILDING BLOCK 1

THE STARTING POINT
POLICY PORTFOLIO & TRANSFORMATION PROCESSES

THE GLOBAL CAPITAL STOCK



Source: McKinsey Global Institute, Haver, BIS, DB estimates

THE GLOBAL CAPITAL STOCK

LEVEL ONE - Global Capital Stock

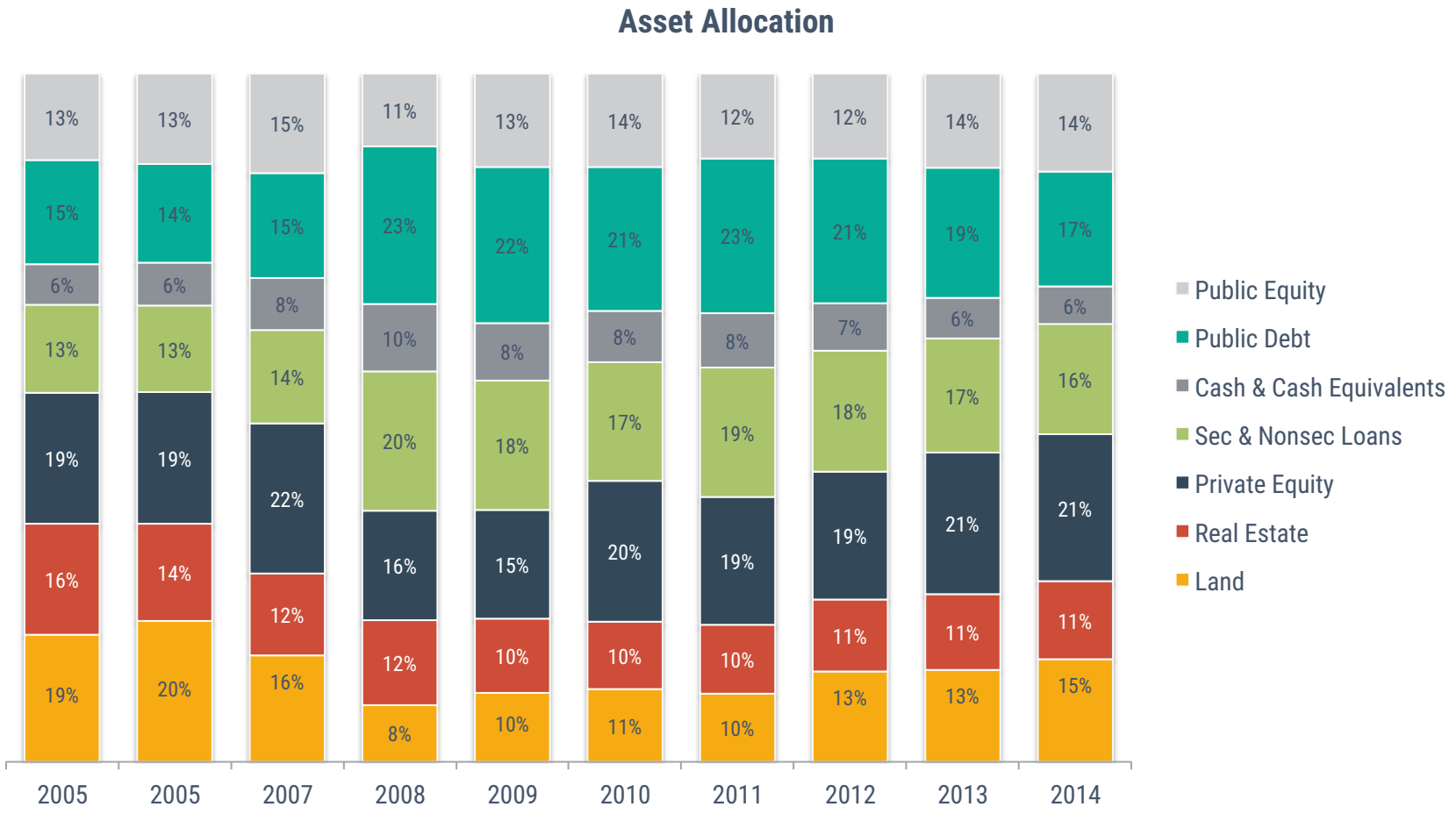
LEVEL TWO - Policy Portfolio

LEVEL THREE - Investable Policy Portfolio



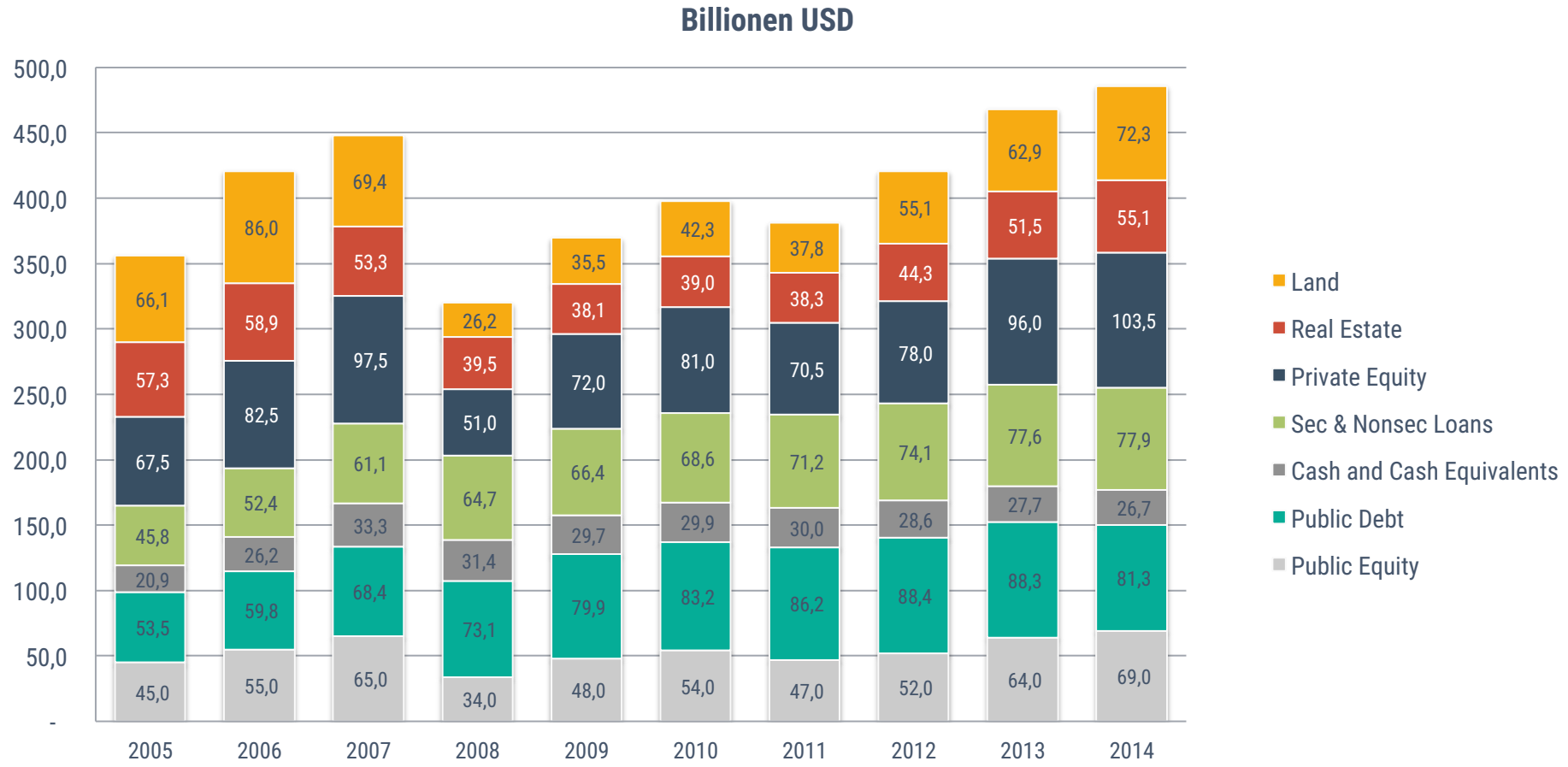
Panthera Solutions ©

THE GLOBAL CAPITAL STOCK

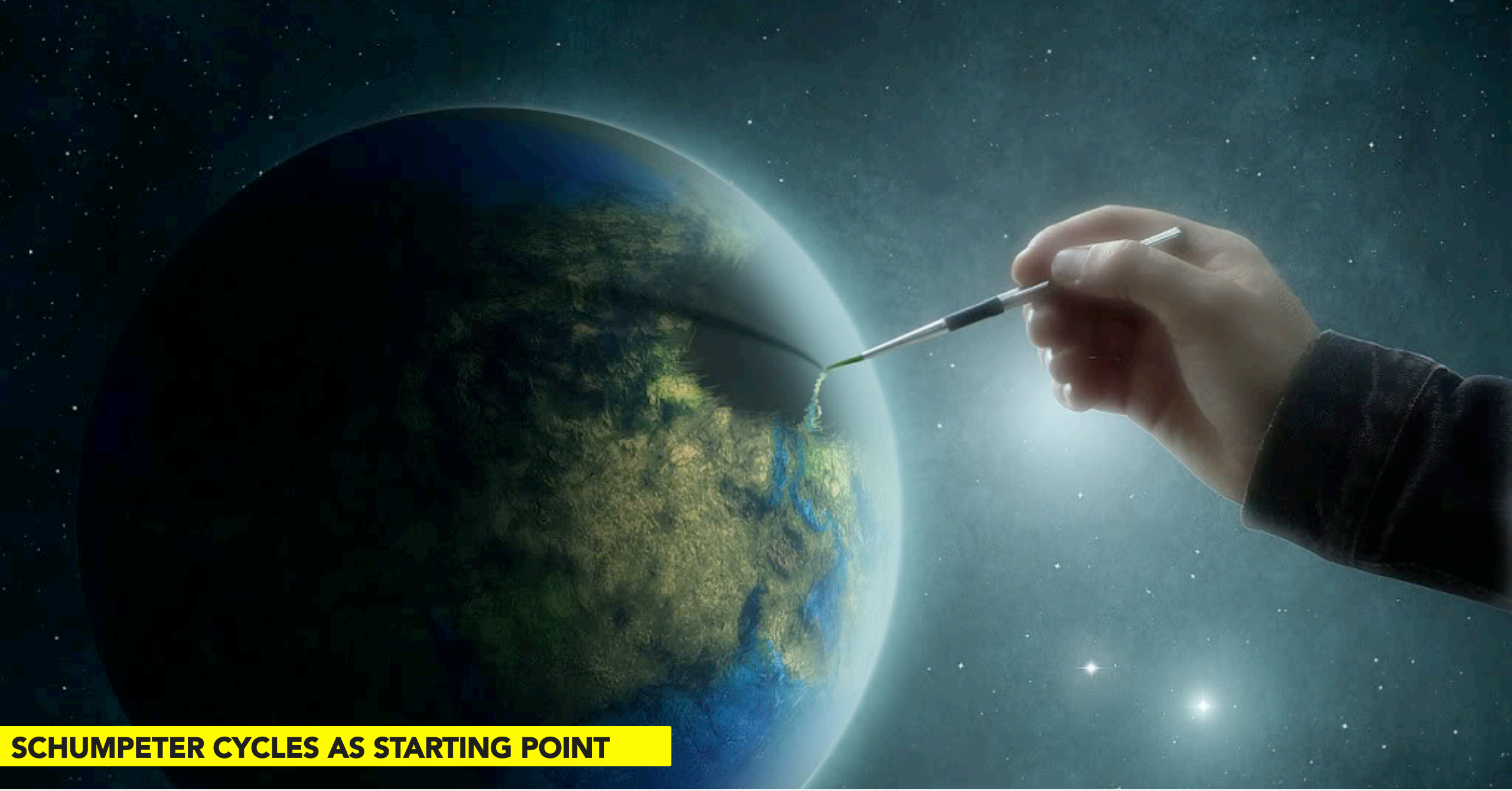


Source: Panthera Solutions computations on McKinsey, Deutsche Bank, BIS, OECD, La Salle, data.

THE GLOBAL CAPITAL STOCK

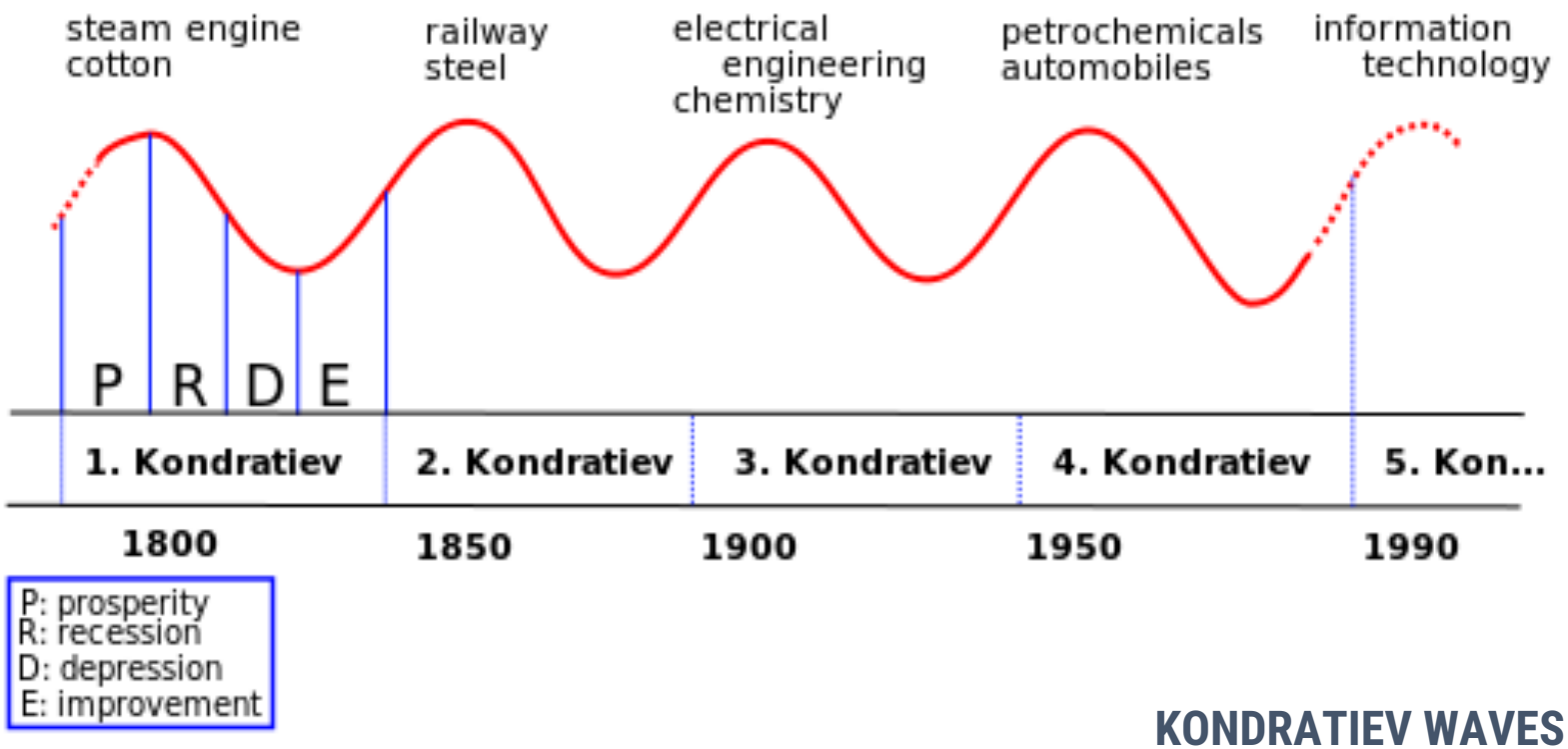


Source: Panthera Solutions computations on McKinsey, Deutsche Bank, BIS, OECD, La Salle, data.



SCHUMPETER CYCLES AS STARTING POINT

THE GLOBAL CAPITAL STOCK TRANSFORMATION PROCESSES



KONDRATIEV WAVES

THE GLOBAL CAPITAL STOCK TRANSFORMATION PROCESSES

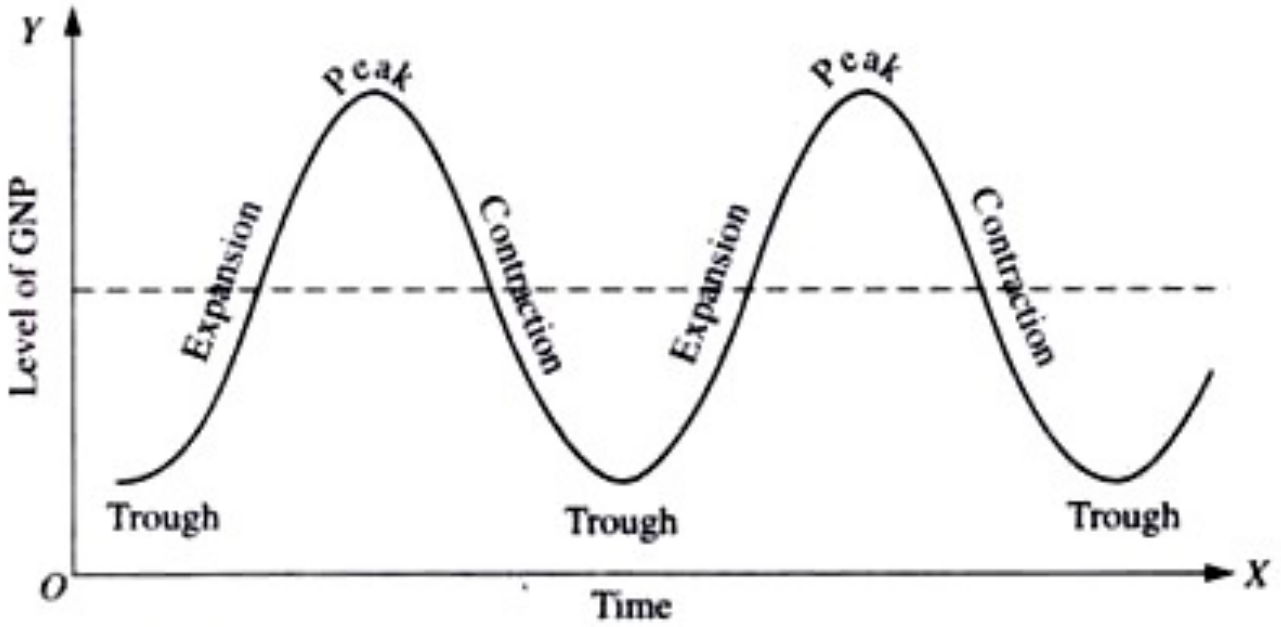


Fig. 27.1. *Four Phases of Business Cycles without Growth Trend*

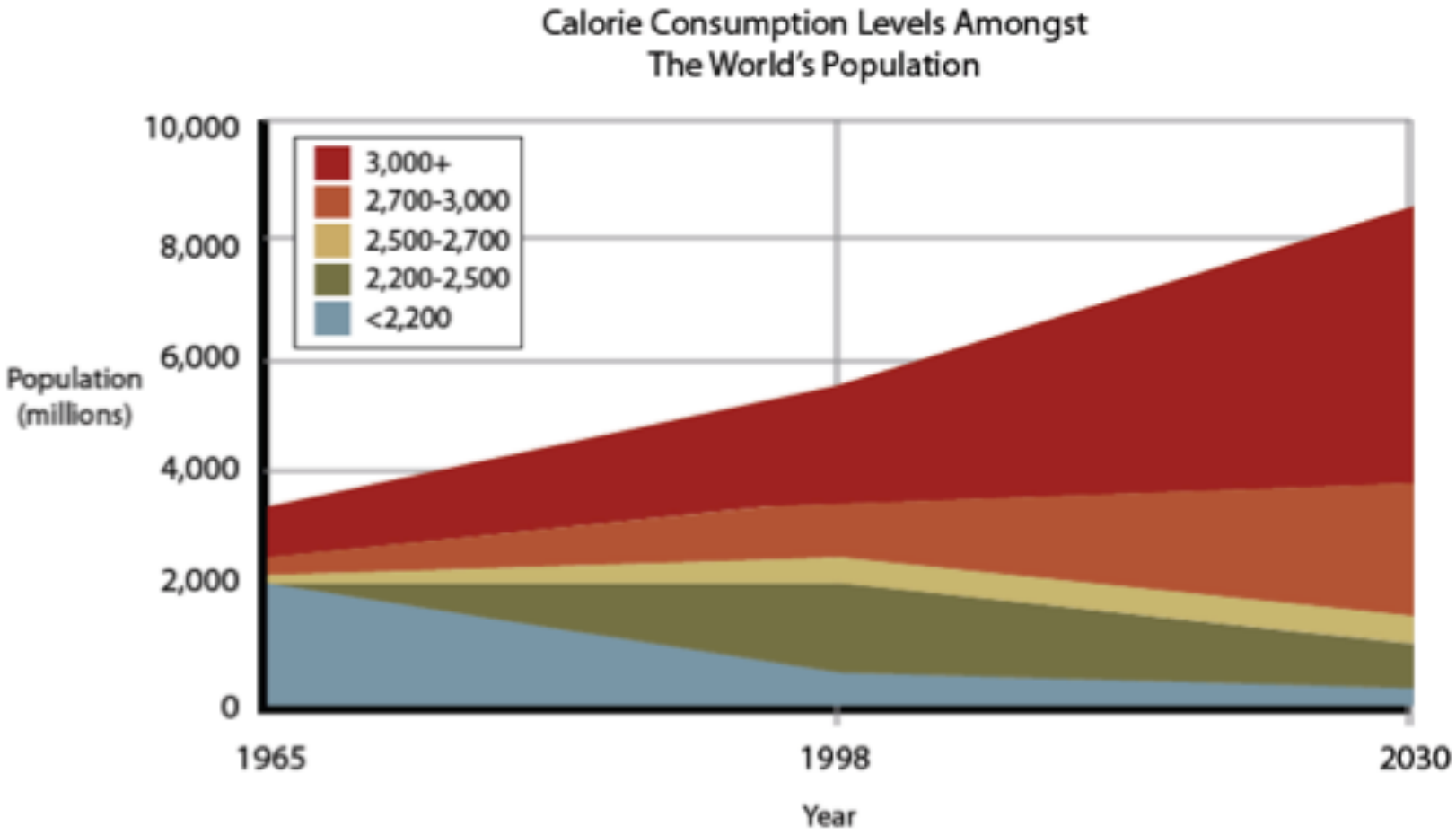
THE GLOBAL CAPITAL STOCK TRANSFORMATION PROCESSES

BETWEEN KONDRATIEV AND BUSINESS CYCLES WE FIND THE

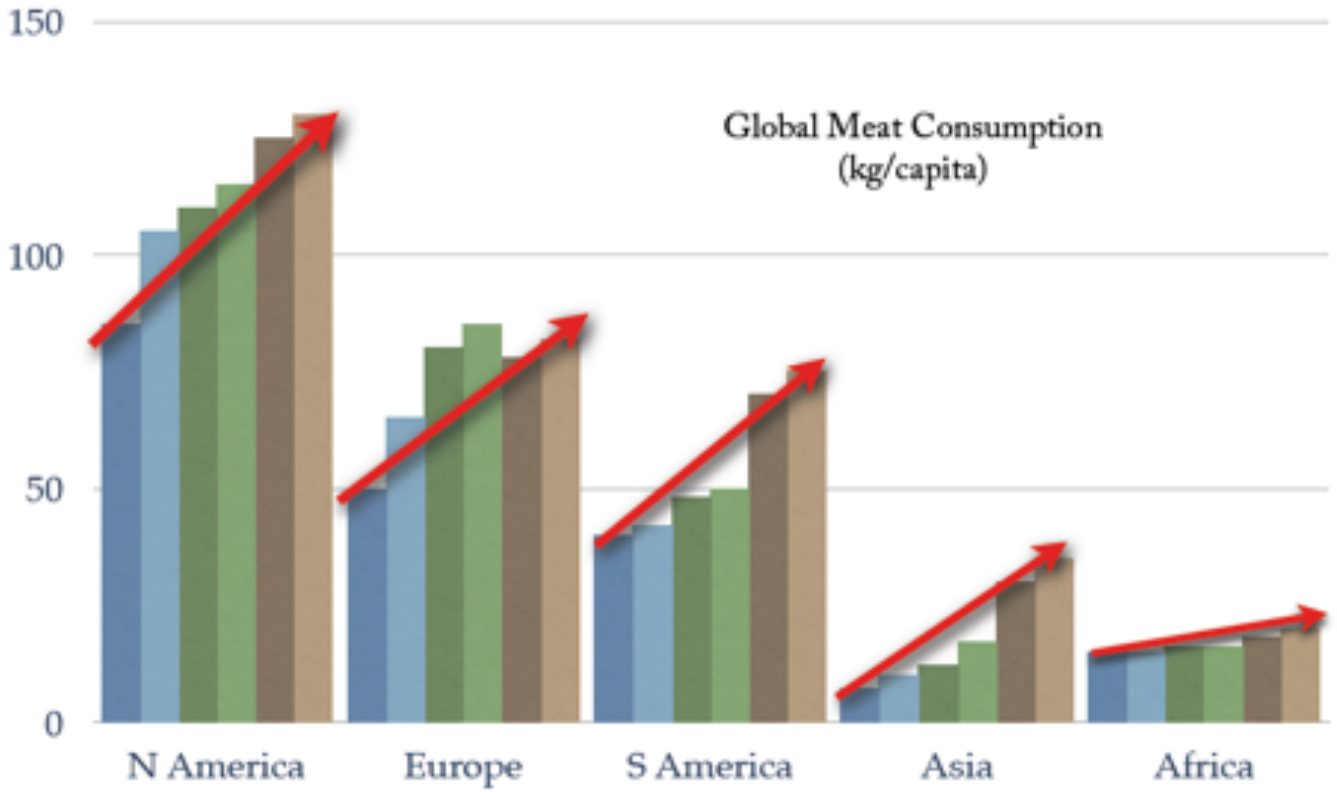
SCHUMPETER WAVES = TRANSFORMATION PROCESSES = MEGATRENDS

10-15Y / CREATIVE DESTRUCTION

REAL ECONOMIC TRANSFORMATION PROCESSES AT WORK



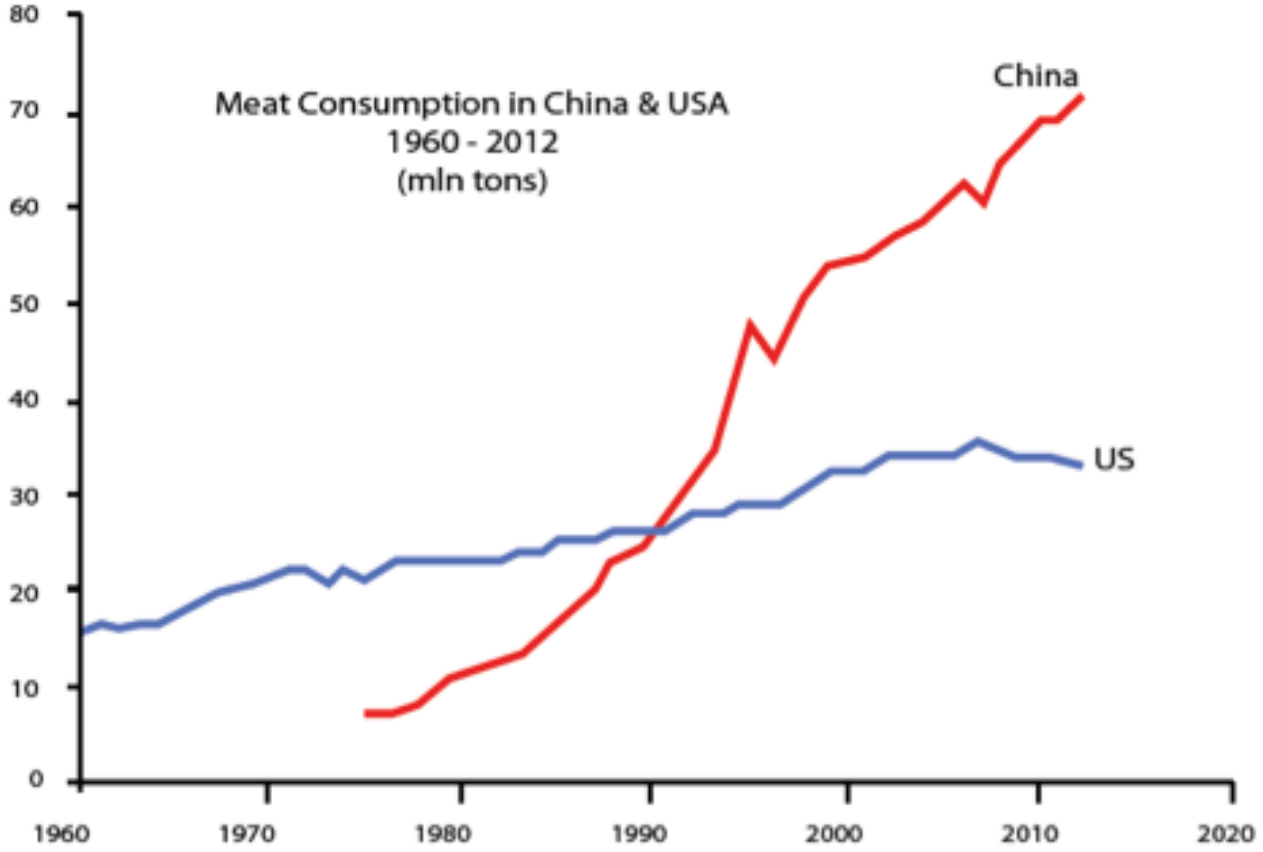
REAL ECONOMIC TRANSFORMATION PROCESSES AT WORK



Global Meat Consumption (kg/capita)
1961, 1970, 1980, 1990, 2000, 2007

Increased meat consumption is a global phenomenon

REAL ECONOMIC TRANSFORMATION PROCESSES AT WORK



Increasing Emerging World Meat Consumption

China overtook the US in meat consumption two decades ago

REAL ECONOMIC TRANSFORMATION PROCESSES AT WORK

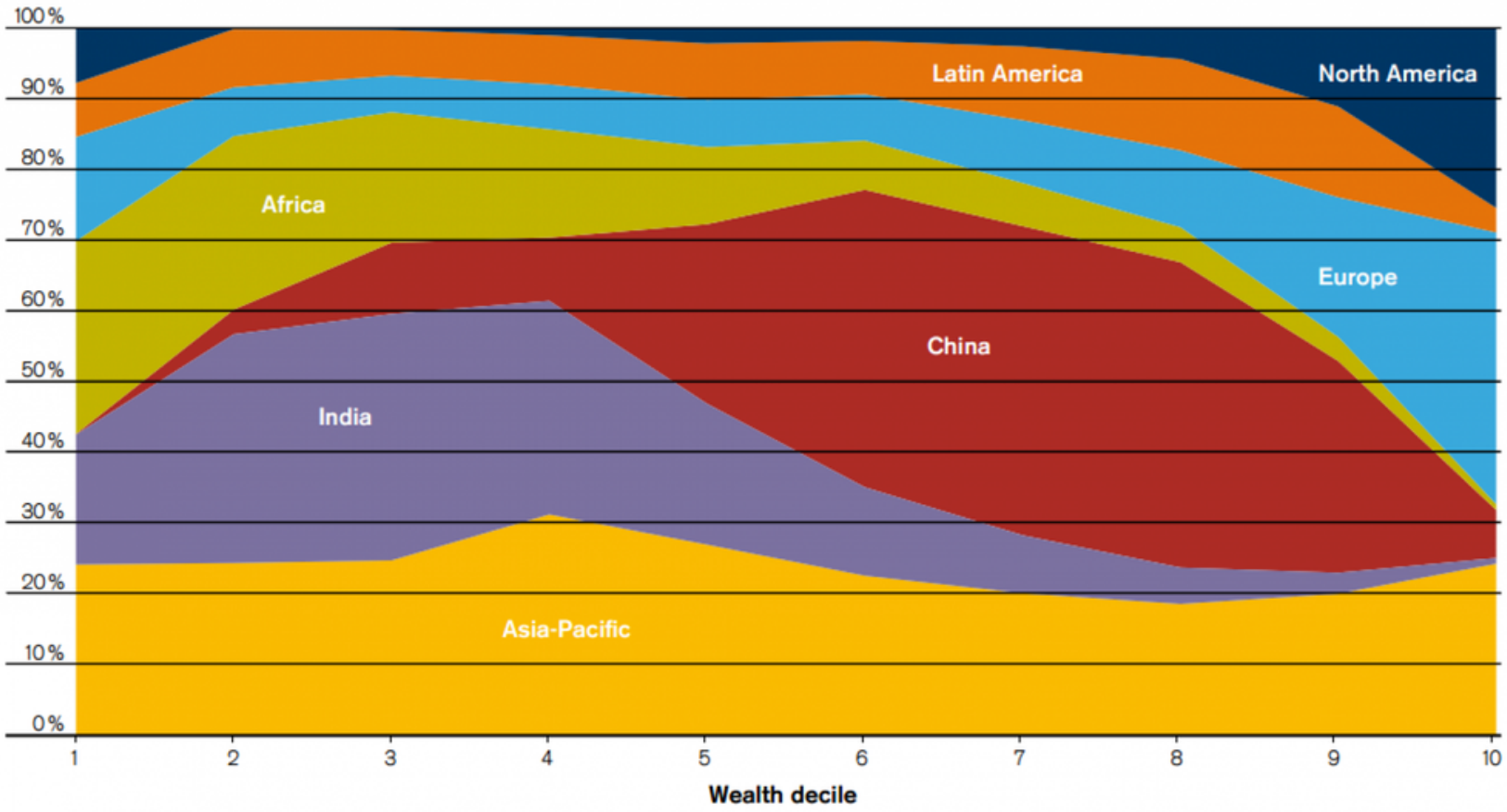


Markus Schuller @pant... 28.09.15
The Chinese are now basically the global middle class.
#WealthDistribution
@washingtonpost via
@CreditSuisse

Figure 8

Regional composition of global wealth distribution 2014

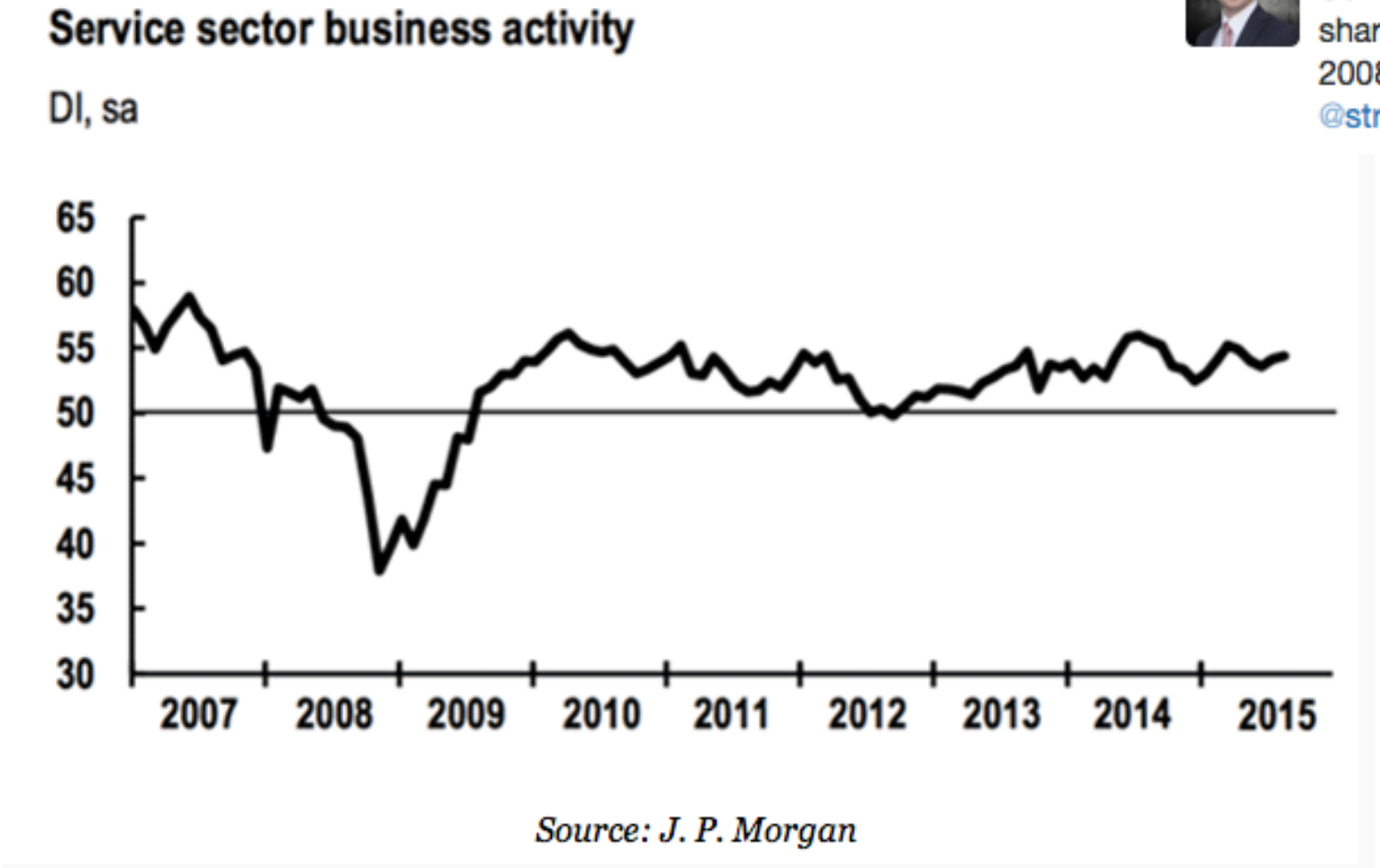
Source: James Davies, Rodrigo Lluberas and Anthony Shorrocks, Credit Suisse Global Wealth Databook 2014



REAL ECONOMIC TRANSFORMATION PROCESSES AT WORK



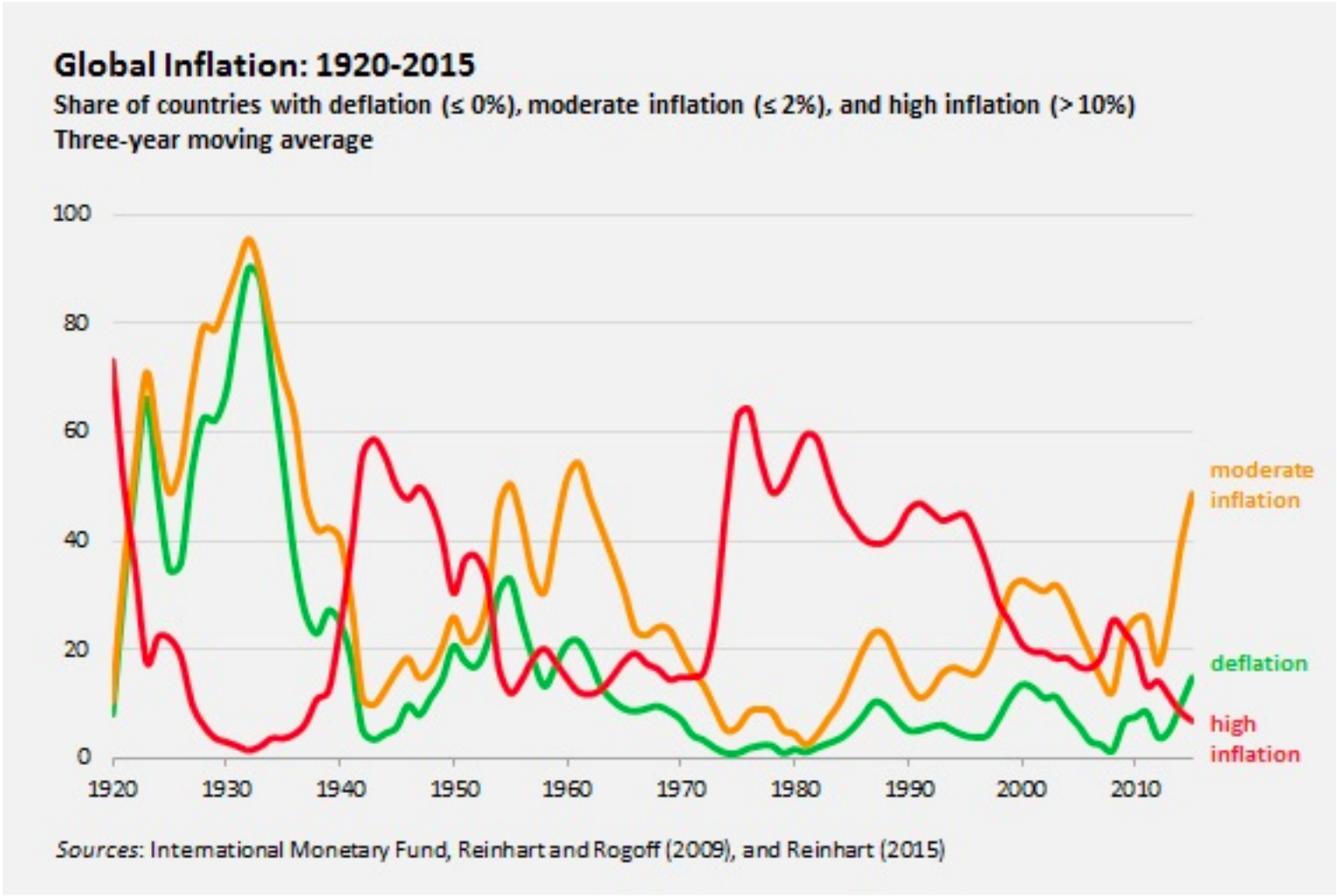
Markus Schuller @pant... 23.10.15
Service sector contributed its fair share to global recovery post 2008. Via @JohnFMauldin & @strayreflect



REAL ECONOMIC TRANSFORMATION PROCESSES AT WORK



Markus Schuller @pant… 16.09.15
#Inflation in nearly half of 189 countries (advanced & emerging, large & small) is now at or below 2%. via @ProSyn



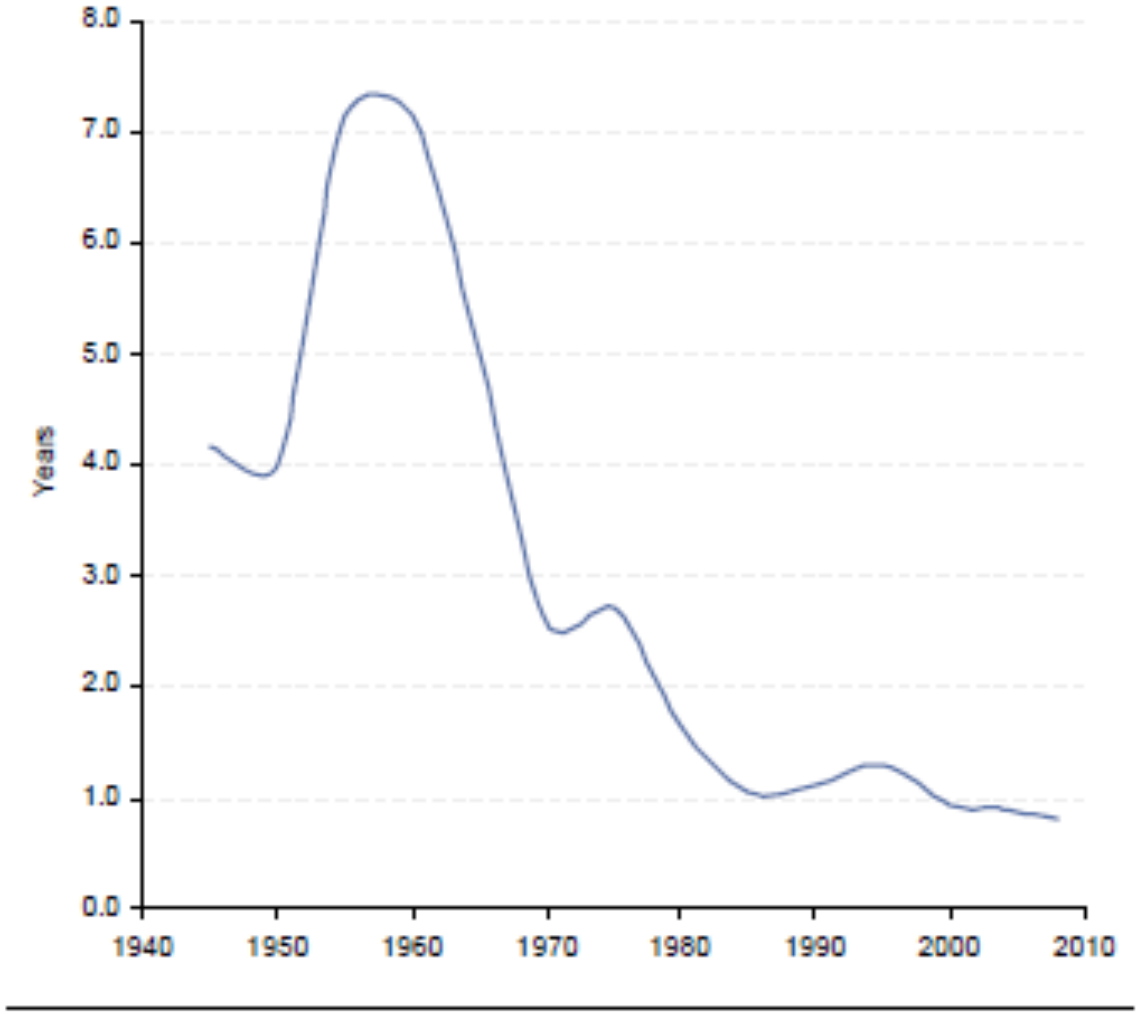
REAL ECONOMIC TRANSFORMATION PROCESSES AT WORK

SHORT-TERM-ISM IN CAPITAL MARKETS

A recent research study on UK pension funds found that in 2008 the pensions would typically give underperforming managers 20 months to recover from their poor performance before firing them. These days the window has dropped to just 12 months. The long-term is becoming shorter and shorter all the time.

QUELLE

Exhibit 129: Equity markets have become increasingly short term
Average US institutional equity fund holding periods (years)



Source: Based on Morningstar and NYSE data, Goldman Sachs Research estimates.

TRANSFORMATION PROCESSES / IMPLEMENTATION

Long-Term Structural Changes

#	Master Trends		Subtrends Level I		Subtrends Level II
A	**Technologischer Wandel**	A.1	Beschleunigung im technologischen Fortschritt	A.1.1	Schwarmintelligenz: Neue soziale Organisationsformen
				A.1.2	Weltweit steigende Durchdringung an Informations- und Kommunikationstechnologien
				A.1.3	Web 2.0: Neue Medien erobern den Alltag
				A.1.4	Digitaler Lebensstil: Virtuelle Realität wird real (auch für virtuelle Business Welten)
				A.1.3	Transparent Society: Überwachung und Kontrolle (incl Quantifizierung des Individuums durch Self-Tracking)
		A.2	Neue Basisinnovationen	A.2.1	Graphene
				A.2.2	Bionik
		A.3	Technologische Konvergenz	A.3.1	Ambient Intelligence: Neue Schnittstellen und Oberflächen
				A.3.2	Neurowissenschaften, Künstliche Intelligenz und Robotik
				A.3.3	Biologie wird zur Leitwissenschaft (see A.2.2)
				A.3.4	IT & Nanotechnologie als zentrale Konvergenztreiber (Impulse in Feldern wie Medizin, Energie, Materialien)
				A.3.5	NBIC-Konvergenz (NBIC = Nanotech, Biotech, Infotech & Cognitive Science
B	**Ökonomischer Wandel**	B.1	Wissensbasierte Ökonomie	B.1.1	Bildung und Lernen als Fundament für neue, globale Wissenselite - kreative Klasse
				B.1.2	Innovation als zentraler Treiber und Wettbewerbsfaktor
				B.1.3	Fortschreitende Automatisierung (Vom Produktions- über den Service- in den Wissenssektor)
				B.1.4	Dynamisierung der Arbeit (orts- und zeitungebunden); flexible interaktive Arbeitsstrukturen
		B.2	Business Ökosysteme	B.2.1	Offene Systeme und Netzwerke: Grenzen von Branchen, Märkten und Unternehmen lösen sich auf
				B.2.2	Neue Wertschöpfungsnetze (Kundenintegration, Coopetition)
				B.2.3	Business Mashups: Schnittstellen produzieren neue Märkte
				B.2.4	New Power Brokers
C	**Demographischer Wandel**	C.1	Globales Bevölkerungswachstum	C.1.1	Geburtenboom in Entwicklungsländern
				C.1.2	Bevölkerungsschrumpfung im Westen
				C.1.3	Steigender Altenquotient in Industrienationen
				C.1.4	Urbanisierung / Starkes Wachstum von Megacitys / Open Source City
				C.1.5	Entwicklung angepasster Infrastrukturlösungen
				C.1.6	Neue Wohn-, Lebens- und Partizipationsformen
				C.1.7	Anwachsende Migrationsströme
		C.2	Gesundheit	C.2.1	Steigendes Gesundheitsbewusstsein und zunehmende Selbstverantwortung
				C.2.2	Health Tech - Health Style
				C.2.3	Neue Nahrungsmittel (Functional Food, Gen Food, Novel Food)
				C.2.4	Neue Konvergenzmärkte (Ernährung - Pharma - Medizin - Kosmetik)
D	**Ökologischer Wandel**	D.1	Green Energy	D.1.1	Energieeffizienz-Revolution
				D.1.2	Dezentrale Energieversorgung
				D.1.3	Alternative Energiequellen
		D.2	Endliches Okosystem	D.2.1	Wasserknappheit
				D.2.2	Steigende non-renewable Ressourcenknappheit
				D.2.3	Umweltschaeden durch wachsenden Rohstoffverbrauch
E	**Globalisierung**	E.1	Steigende Interdependenz von Volkswirtschaften	E.1.1	Integration von Welthandel und Finanzmarkt
				E.1.2	Steigende Mobilität von Individuen und Ideen
				E.1.3	Oekonomische Machtbalance verschiebt sich Richtung EM
				E.1.4	Abbau von weltweiten Schuldenbergen und Imbalances
				E.1.5	Global Champions
				E.1.6	Wachsende Mittelschicht in Entwicklungslaendern
		E.2	Weltrisikogesellschaft	E.2.1	Schwelende soziale/kulturelle Konflikte und gescheiterte Staaten
				E.2.2	Globaler Terrorismus
				E.2.3	Verbreitung von Massenvernichtungswaffen
		E.3	Globalisierter Individualismus	E.3.1	Verändertes Beziehungsgeflecht: Wenige starke, viele lose Bindungen
				E.3.2	Vom Massenmarkt zum Mikromarkt
				E.3.3	Selbstversorgung und Do-it-Yourself-Ökonomie

TRANSFORMATION PROCESSES

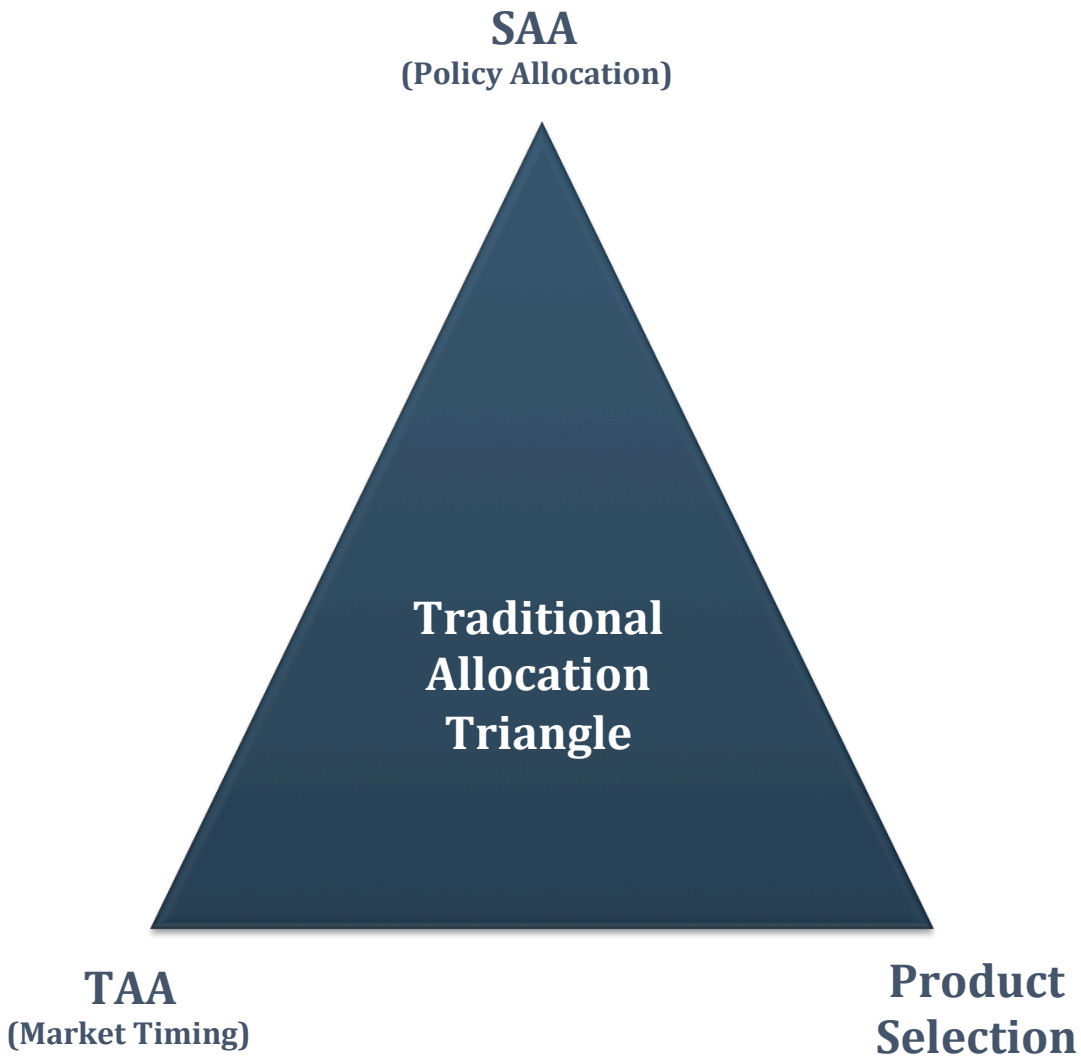
TWO SELECTION CRITERA FOR TRANSFORMATION PROCESSES

MEASURABLE

REPLICABLE

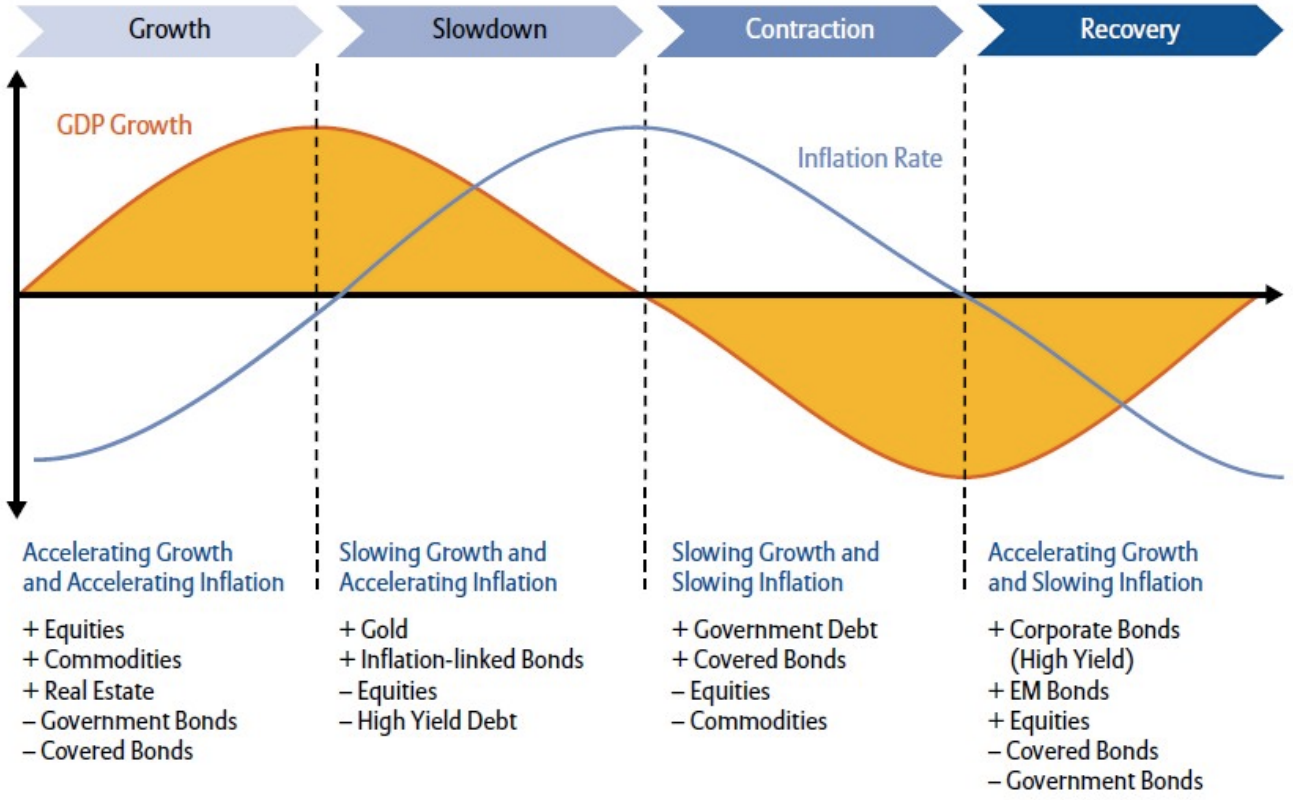
BUILDING BLOCK 1
AVOID MARKET TIMING

TRADITIONAL TRIANGLE ON MARKET TIMING



ON MARKET TIMING

Figure 1: Outline of an economic cycle and inflation

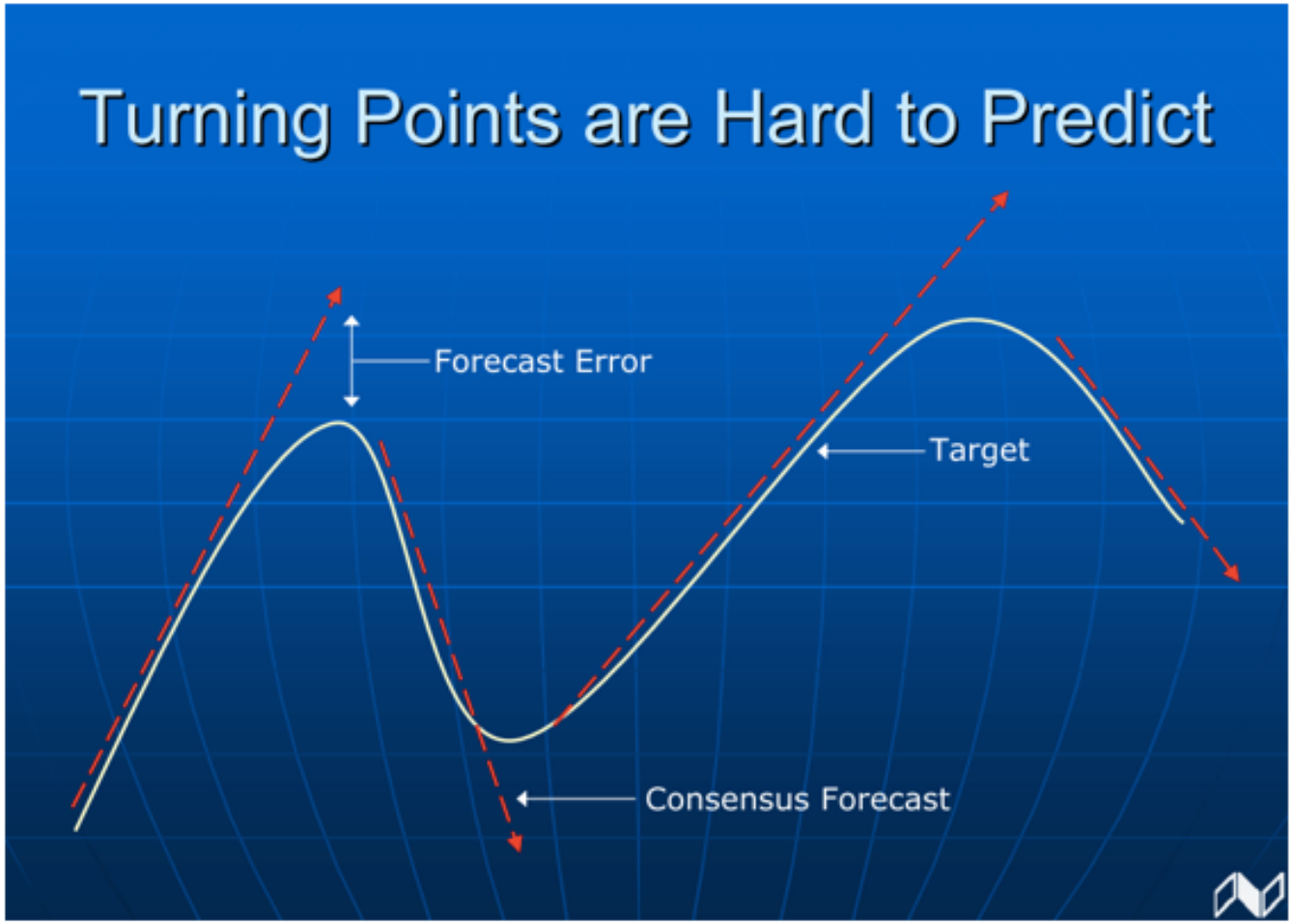


Relative asset class performance since 1970

Source: Allianz Global Investors Capital Markets & Thematic Research;
The hypothetical performance and simulations shown are for illustrative purposes only and do not represent actual performance; they are not a reliable indicator for future results.

ON MARKET TIMING

Why Are Economists So Bad at Forecasting Recessions?



Source: ECRI

SOURCE

ON MARKET TIMING

HOW WELL DO MARKET PREDICTIONS WORK?

The best and most comprehensive study of expert judgment was performed by Philip Tetlock. In 1985 Tetlock, fascinated by his previous experience serving on political intelligence committees in the early 1980s, set out to discover just how accurate expert forecasters were in their predictions of future events. Over a span of almost 20 years, he interviewed 284 experts about their level of confidence that a certain outcome would come to pass. Forecasts were solicited across a wide variety of domains, including economics, politics, climate, military strategy, financial markets, legal opinions, and other complex domains with uncertain outcomes. In all, Tetlock accumulated an astounding 82,000 forecasts.

This represents an incredible body of evidence about expert judgment, and Tetlock's analysis rendered several astounding conclusions:

- Expert forecasts were less well calibrated than one would expect from random guesses
- Aggregated forecasts were better than any individual forecasts, but were still worse than random guesses
- Experts who appeared in the media most regularly were the least accurate
- Experts with the most extreme views were also the least accurate
- Experts exhibited higher forecast calibration outside of their field of expertise
- Among all 284 experts, not one demonstrated forecast accuracy beyond random guesses

In short, experts would have delivered better forecasts by flipping coins. But there was a silver lining.

ON MARKET TIMING

HOW WELL DO MARKET PREDICTIONS WORK?

William Sherden, "The Fortune Sellers", Wiley, 1998
Sherden reviewed the leading research and forecasting accuracy from 1979 to 1995 and forecasts made from 1970 to 1995. He concluded:

- Economists cannot predict the turning points in the economy. **Of the 48 predictions made by economists, 46 missed the turning points.**
- Economists´ forecasting skill is about as good as guessing. For example, even the economists who directly or indirectly run the economy, the Fed, the Council of Economic Advisors and the CBO, had forecasting records that were worse than pure chance.
- There are no economic forecasters who consistently lead the pack in forecasting accuracy.
- There are no economic ideologies whose adherents produce consistently superior economic forecasts.
- **Increased sophistication provides no improvement in economic forecasting accuracy.**
- Consensus forecasts offer little improvement
- Forecasts may be affected by psychological bias. Some economists are perpetually optimistic and others perpetually pessimistic

ON MARKET TIMING

Source: Behavioural Investing (2007, James Montier)

Chart 1. Consensus bond yields forecasts 1 year out vs. actual

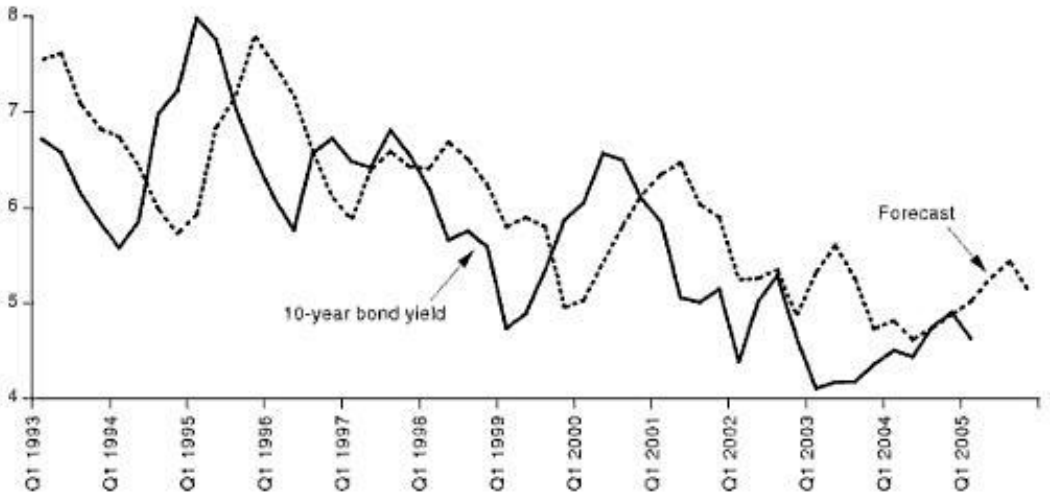
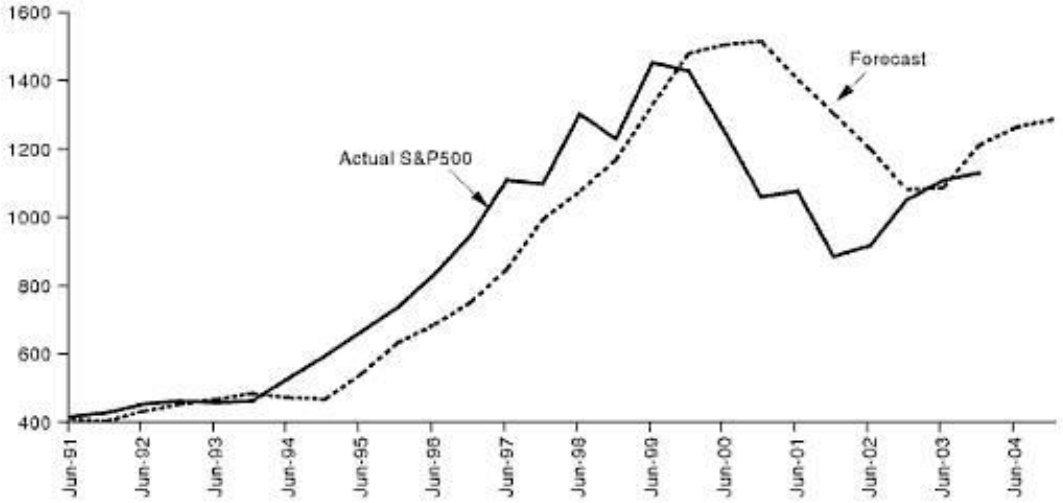


Chart 2. Consensus S&P500 level 1 year forecasts vs. actual



ON MARKET TIMING



Michael McCracken,"How Accurate are forecasts in a recession", Federal Reserve Bank of St Louis, 2009

He provided further evidence on the failure of economic forecasts to get it right when it is most important. He reviewed 26y of quarterly, one-year-ahead mean SPF forecasts from Q3/1981 until Q3/2007. He found that forecaster errors were 4x larger when the economy was in recession than when it was not.

Stephen Gould, "Full House", Harmony, 1996

Probably more intellectual energy has been invested in discovering (and exploiting) trends in the stock market than in any other subject – for the obvious reason that stakes are so high, as measured in the currency of our culture. **The fact that no one has ever come close to finding a consistent way to beat the system – despite intense efforts by some of the smartest people in the world – probably indicates that such causal trends do not exist, and that sequences are effectively random.**

ON MARKET TIMING

10 things economists won't tell you

1. "We can't predict the next crisis..."
2. "...but we may help cause it."
3. "We're not above a little guesswork."
4. "Those bold predictions? Blame the testosterone."
5. "Our measures of prosperity don't work."
6. "Ours is a dismal science, but not an exact one."
7. "We lean to the left."
8. "We might have an agenda."
9. "We may as well be speaking Klingon."
10. "We sell you what you already know."

ON MARKET TIMING

IEO
Independent Evaluation Office
of the International Monetary Fund

EVALUATION REPORT

IMF Forecasts

Process, Quality, and Country Perspectives

(...) that the accuracy of IMF short-term forecasts is comparable to that of private forecasts. Both tend to overpredict GDP growth significantly during regional or global recessions, as well as during crises in individual countries" (IMF 2014)

QUELLE

QUELLE

Last updated: February 11, 2014 5:58 pm

OECD admits to forecasting errors during eurozone crisis

By Chris Giles in London

The OECD has admitted that its repeatedly false assumption that governments would take effective steps to ease the eurozone crisis was to blame for the international organisation's overly optimistic forecasts, not the impact of austerity.

The findings from the Organisation for Economic Cooperation and Development's postmortem exercise on its forecasting record lie in stark contrast to those of the International Monetary Fund, which said controversially in 2012 that all forecasters had underestimated the effect of austerity on the recovery – known as fiscal multipliers.

More

ON THIS TOPIC

Michael Skapinker The citizen war on corruption

John Kay Pisa tests lean in the right direction

Health spending hit since global crisis

UK a star performer amid OECD gloom

Pier Carlo Padoan, the OECD's chief economist, rejected that view on Tuesday, in findings that will bolster Germany and other governments that have always said fiscal consolidation was a necessary part of the response to the crisis, rather than a mistake that consigned millions to unemployment and poverty.

"The OECD did not underestimate fiscal multipliers," he said. "It was the repeated assumption that the euro crisis would dissipate over time, and that sovereign bond yield differentials would narrow, they turned out to have been the most important source of error."

ON MARKET TIMING

Hites Ahir and Prakash Loungani, IMF

Prepared for presentation at *George Washington University Research Program in Forecasting Seminar*
January 30, 2014

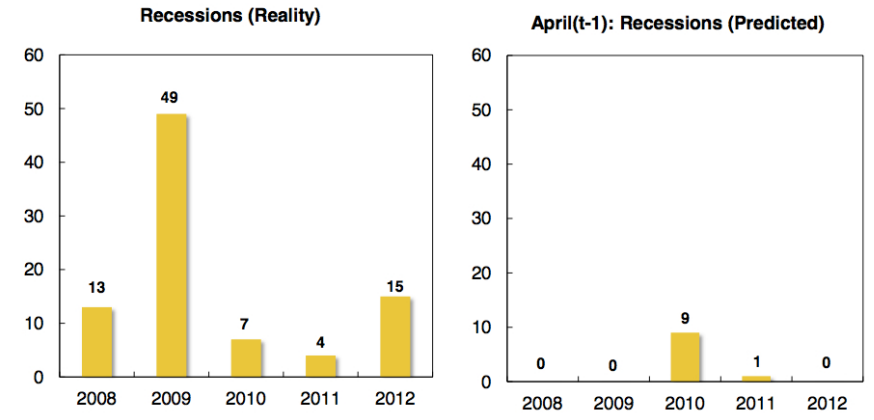
PANTHERA SOLUTIONS

From three sources
- – Consensus Economics ("private sector forecasts")
- – IMF's World Economic Outlook (WEO)
- – OECD's Economic Outlook

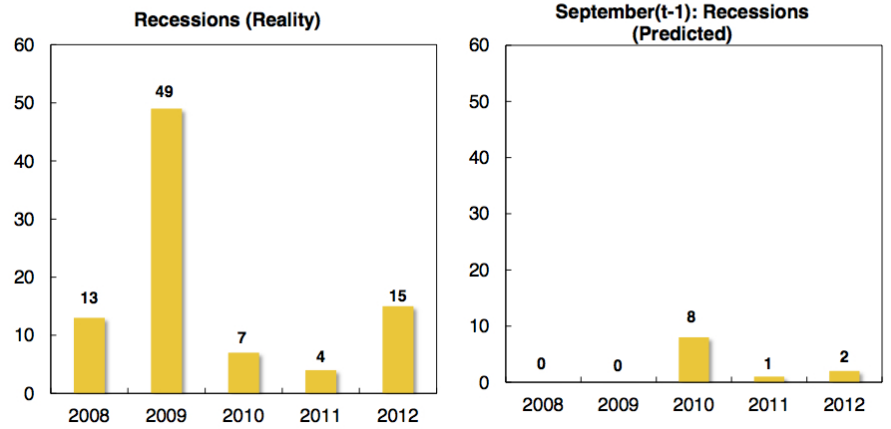
- Statistical photo-finish:
  - Consensus, WEO and OECD forecasts are virtually identical

- Ability to predict recessions
  - **Fail Again:** *Economists were not able to predict too many recessions over this period, particularly in advance. Generally, recessions arrived before they were forecast*
  - **Fail Better:** *though recessions occurring in 2009 were not predicted a year in advance, the number of recessions was actually over-predicted over the course of 2009. Herman Stekler would argue that this is progress because in the past economists have been too timid about calling recessions.*

Number of recessions predicted by April of the previous year



Number of recessions predicted by September of the previous year



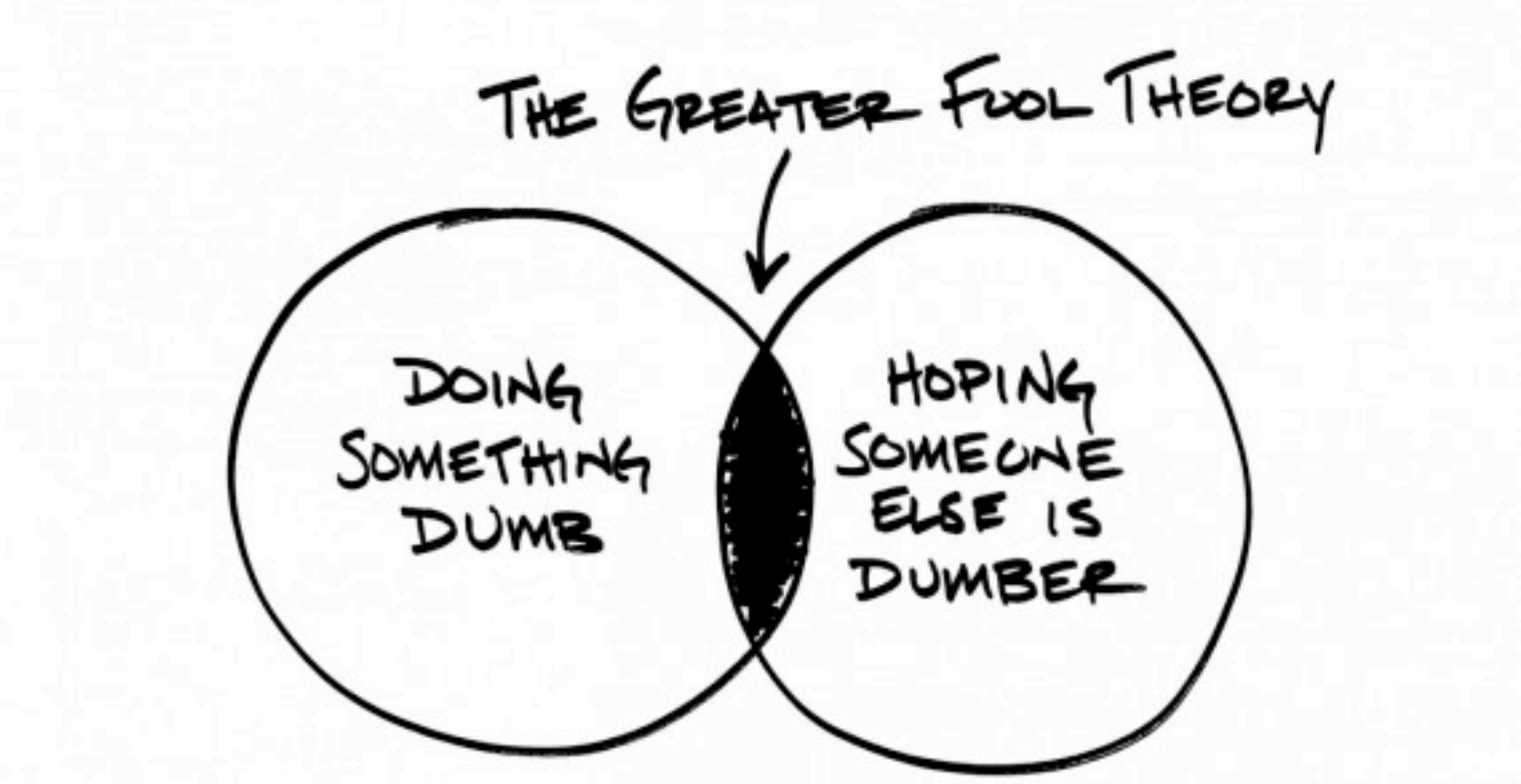
QUELLE

Number of "recessions"
in a sample of 77 countries, 2008-12

ON MARKET TIMING SOLDIERS OF FORTUNE



ON MARKET TIMING
SOLDIERS OF FORTUNE



ON MARKET TIMING AT A GLANCE

PEOPLE WHO CANNOT PREDICT MARKETS
1. Hedge Funds Manager
2. Wall Street's Top Strategists
3. Technical Analysts
4. Day-trader
5. Swing-trader
6. Authors of Newslettes and Books
7. Journalists
8. Wealth Manager
9. Your Dentist
10. Leading Finance Professors
11. Renowned Economists
12. Bloggers and Columnists
13. Tweeters
14. Horses that tap with their hooves
15. Astrologists
16. Value Investors
17. Investment clubs
18. Message board Aficionados
19. TV Hosts
20. Mutual Fund Manager
21. Sell-side Analysts
22. ETF Structurers
23. Institutional Investors
24. Me
25. You

ON MARKET TIMING
BUT SOME TRY AND TRY ..

Asset Class Returns

2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
REIT 26.4%	REIT 13.9%	HG Bnd 10.3%	EM 56.3%	REIT 31.6%	EM 34.5%	REIT 35.1%	EM 39.8%	HG Bnd 5.2%	EM 79.0%	REIT 28.0%	REIT 8.3%	REIT 19.7%	Sm Cap 38.8%	REIT 28.0%
HG Bnd 11.6%	HG Bnd 8.4%	REIT 3.8%	Sm Cap 47.3%	EM 26.0%	Int'l Stk 14.0%	EM 32.6%	Int'l Stk 11.6%	Cash 1.4%	HY Bnd 57.5%	Sm Cap 26.9%	HG Bnd 7.8%	EM 18.6%	Lg Cap 32.4%	Lg Cap 13.7%
Cash 5.8%	HY Bnd 4.5%	Cash 1.6%	Int'l Stk 39.2%	Int'l Stk 20.7%	REIT 12.2%	Int'l Stk 26.9%	AA 7.6%	AA -22.4%	Int'l Stk 32.5%	EM 19.2%	HY Bnd 4.4%	Int'l Stk 17.9%	Int'l Stk 23.3%	AA 6.9%
AA 0.5%	Cash 3.4%	HY Bnd -1.9%	REIT 37.1%	Sm Cap 18.3%	AA 8.9%	Sm Cap 18.4%	HG Bnd 7.0%	HY Bnd -26.4%	REIT 28.0%	HY Bnd 15.2%	Lg Cap 2.1%	Sm Cap 16.4%	AA 11.5%	HG Bnd 6.0%
Sm Cap -3.0%	Sm Cap 2.5%	AA -3.8%	Lg Cap 28.7%	AA 14.1%	Lg Cap 4.9%	AA 16.7%	Lg Cap 5.5%	Sm Cap -33.8%	Sm Cap 27.2%	Lg Cap 15.1%	AA 0.3%	Lg Cap 16.0%	HY Bnd 7.4%	Sm Cap 4.9%
HY Bnd -5.1%	AA -0.2%	EM -6.0%	HY Bnd 28.2%	Lg Cap 10.9%	Sm Cap 4.6%	Lg Cap 15.8%	Cash 4.4%	Lg Cap -37.0%	Lg Cap 26.5%	AA 13.5%	Cash 0.1%	HY Bnd 15.6%	REIT 2.9%	HY Bnd 2.5%
Lg Cap -9.1%	EM -2.4%	Int'l Stk -15.7%	AA 25.9%	HY Bnd 10.9%	Cash 3.2%	HY Bnd 11.8%	HY Bnd 2.2%	REIT -37.7%	AA 24.6%	Int'l Stk 8.2%	Sm Cap -4.2%	AA 12.2%	Cash 0.1%	Cash 0.0%
Int'l Stk -14.0%	Lg Cap -11.9%	Sm Cap -20.5%	HG Bnd 4.1%	HG Bnd 4.3%	HY Bnd 2.7%	Cash 4.7%	Sm Cap -1.6%	Int'l Stk -43.1%	HG Bnd 5.9%	HG Bnd 6.5%	Int'l Stk -11.7%	HG Bnd 4.2%	HG Bnd -2.0%	EM -1.8%
EM -30.6%	Int'l Stk -21.2%	Lg Cap -22.1%	Cash 1.0%	Cash 1.4%	HG Bnd 2.4%	HG Bnd 4.3%	REIT -15.7%	EM -53.2%	Cash 0.2%	Cash 0.2%	EM -18.2%	Cash 0.1%	EM -2.3%	Int'l Stk -4.5%

Abbr.	Asset Class – Index	Annual	Best	Worst
Lg Cap	Large Caps Stocks – S&P 500 Index	4.24%	32.4%	-37.0%
Sm Cap	Small Cap Stocks – Russell 2000 Index	7.38%	47.3%	-33.8%
Int'l Stk	International Developed Stocks – MSCI EAFE Index	2.97%	39.2%	-43.1%
EM	Emerging Market Stocks – MSCI Emerging Markets Index	7.38%	79.0%	-53.2%
REIT	REITs – FTSE NAREIT All Equity Index	12.68%	37.1%	-37.7%
HG Bnd	High Grade Bonds – Barclay's U.S. Aggregate Bond Index	5.70%	11.6%	-2.0%
HY Bnd	High Yield Bonds – BofAML US High Yield Master II Index	7.54%	57.5%	-26.4%
Cash	Cash – 3 Month Treasury Bill Rate	1.24%	5.8%	0.0%
AA	Asset Allocation Portfolio*	7.08%	25.9%	-22.4%

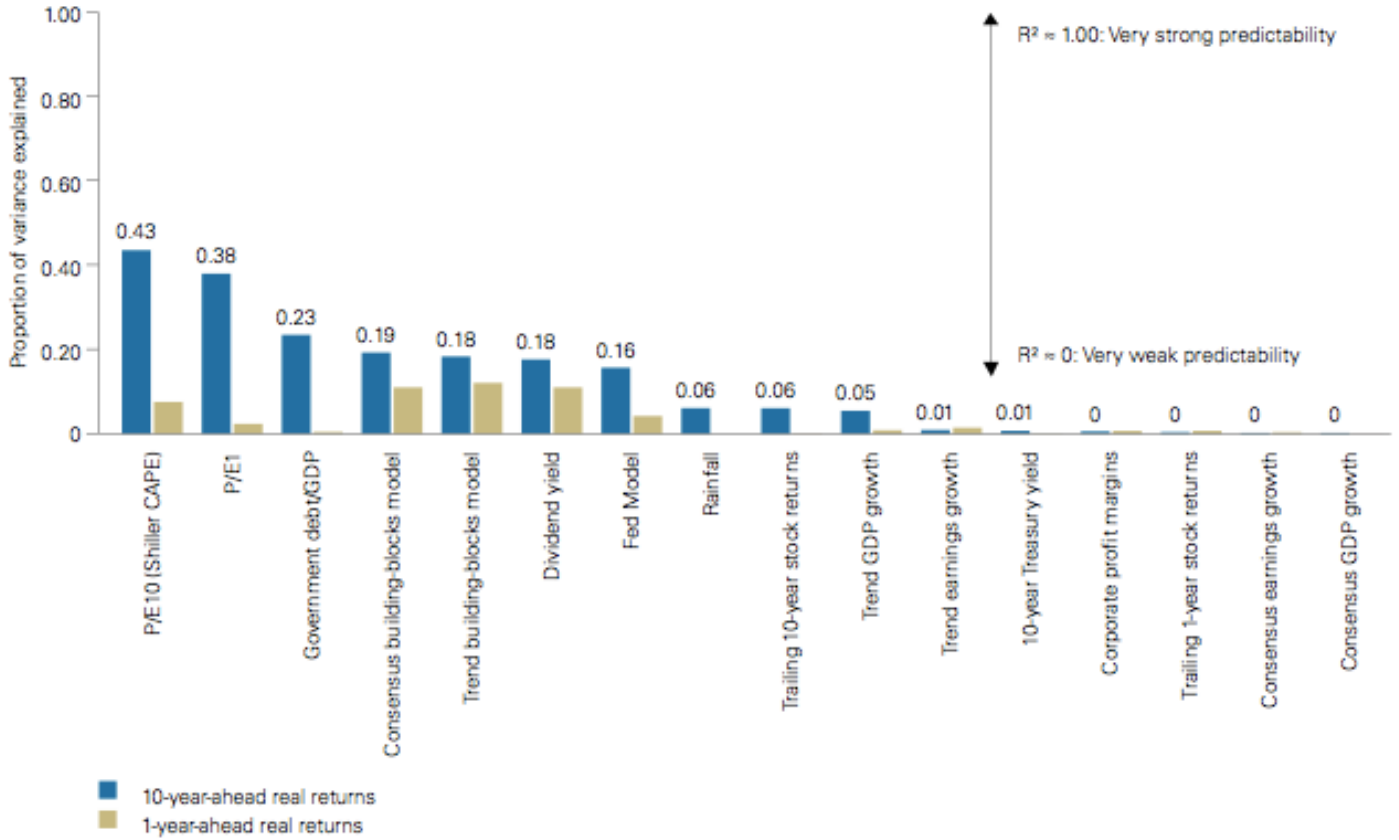
Past performance does not guarantee future returns. The historical performance shows changes in market trends across several asset classes over the past fifteen years. Returns represent total annual returns (reinvestment of all distributions) and does not include fees and expenses. The investments you choose should reflect your financial goals and risk tolerance. For assistance, talk to a financial professional. All data are as of 12/31/14.
*Asset Allocation Portfolio is made up of 15% large cap stocks, 15% international stocks, 10% small cap stocks, 10% emerging market stocks, 10% REITs, 40% high-grade bonds, and annual rebalancing.

ON MARKET TIMING
BUT SOME TRY AND TRY ..

SOURCE

Figure 2. Most popular metrics have had little or no correlation with future stock returns

Proportion of variance of future real stock returns that is explained by various metrics, 1926-2011



Forecasting stock returns:
What signals matter,
and what do they say now?

Vanguard research — October 2012

We expand on previous Vanguard research in using US stock returns since 1926 to assess the predictive power of more than a dozen metrics that investors would know ahead of time. We find that many commonly cited signals have had very weak and erratic correlations with actual subsequent returns, even at long investment horizons. These poor predictors include trailing values for dividend yields and economic growth, the difference between the stock market's earnings yield and Treasury bond yields (the so-called Fed Model), profit margins, and past stock returns.

Commonly used ratios hardly provide forecasting accuracy

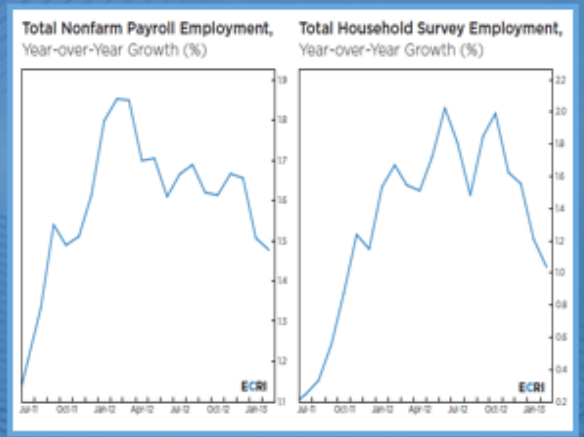
ON MARKET TIMING
BUT SOME TRY AND TRY ..

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VIEW CHART

MARCH 8, 2013 | ECRI

Recession in the Yo-Yo Years

Year-over-year growth in nonfarm payroll jobs has now dropped to an 18-month low, and household job growth has dropped to a 16-month low. See images and notes on the state of the business cycle.

READ MORE

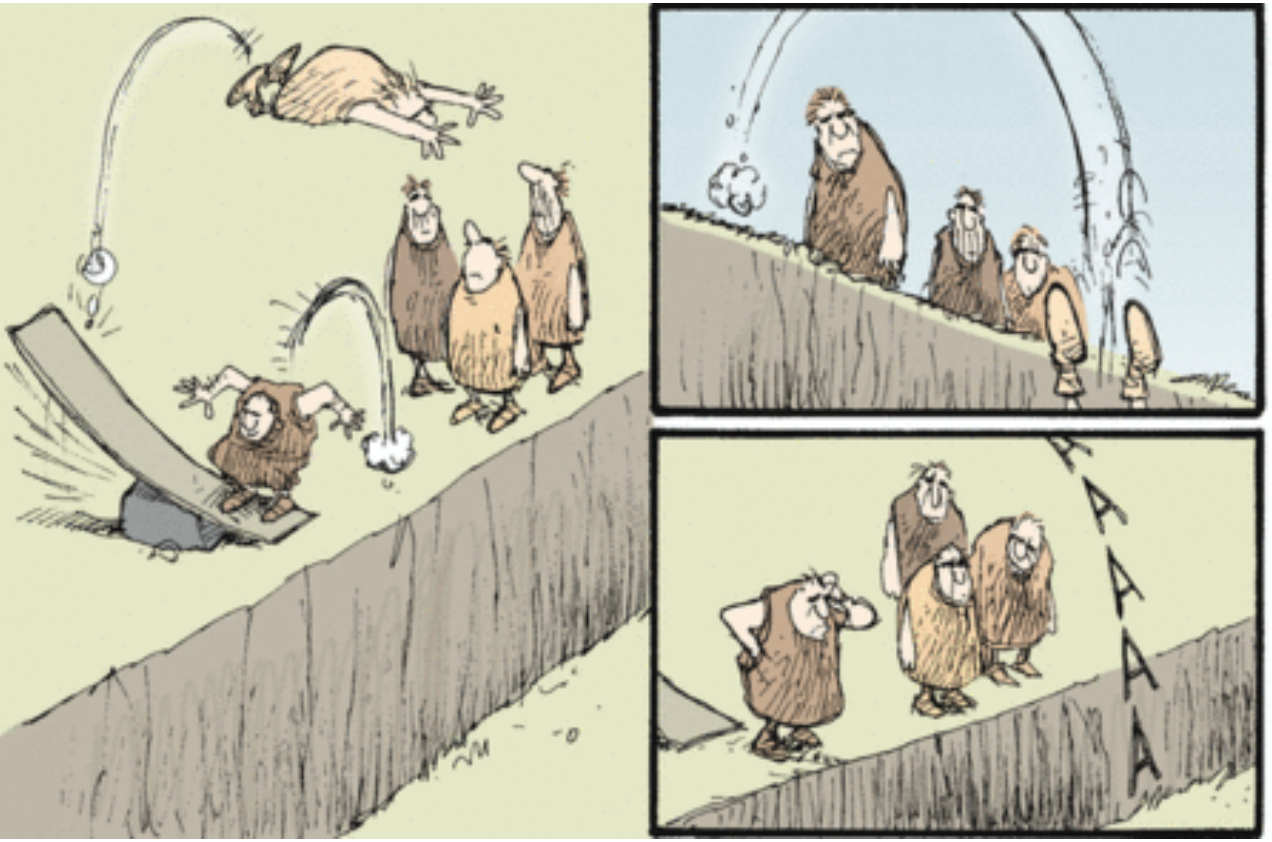
ECRI is the world's leading authority on business cycles.

Our state-of-the-art analytical framework is unmatched in its ability to forecast cycle turning points.

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» VIEW OUR TRACK RECORD

ON MARKET TIMING
BUT SOME TRY AND TRY ..





ON MARKET TIMING

"The only function of economic forecasting is to make astrology look respectable."

Daryl Jones
Hedgeye Risk Management

TAKE AWAYS

MACRO ESSENTIALS	
	Interconnectivity of the world economy will further increase
	Liquidity disappears when needed the most
	Complex systems require safety nets
	Specialisation implicitly carries a tipping point towards instability
	Anlage-Unterscheidung von Developed & Emerging Markets nicht mehr adäquat
	Coverage of structural inefficiencies of the world economy as starting point in portfolio construction
	Timing of business and economic cycles = dysfunctional

DISLOCATION OF INVESTMENTS

DISLOCATION OF INVESTMENTS MUTUAL FUNDS

Mark Carhard, "On Persistence in Mutual Fund Performance," Journal of Finance, March 1997

Carhard Conclusions:
There **was no persistence in performance beyond what would be randomly expected** – the past performance of active managers is a poor predictor of their future performance.

Expenses both reduce returns on a one-for-one basis and explain much of the persistent long-term under-performance of mutual funds Turnover reduces pretax returns by almost 1% of the value of trade

Mark Carhart, Jennifer Carpenter, "Mutual Fund Survivorship," Review of Fin. Studies, 2002

Analyzed the performance of **2071 equity funds for the period 1962-1995.** They found that the average actively managed mutual fund underperformed its appropriate passive benchmark on a pretax basis by **about 1.8% per annum**.

DISLOCATION OF INVESTMENTS MUTUAL FUNDS

Christopher Philips, Francis Kinnery, "Mutual Fund Ratings and Future Performance", Vanguard Institute, Feb10

They examined the excess returns over the 3y period following a given rating. They chose the 3y rating period because Morningstar requires at least 3y of performance data to generate a rating and investment committees typically use a 3y window to evaluate the perf of their managers. Period covered was June 30, 1992 through August 31, 2009. Their summary:

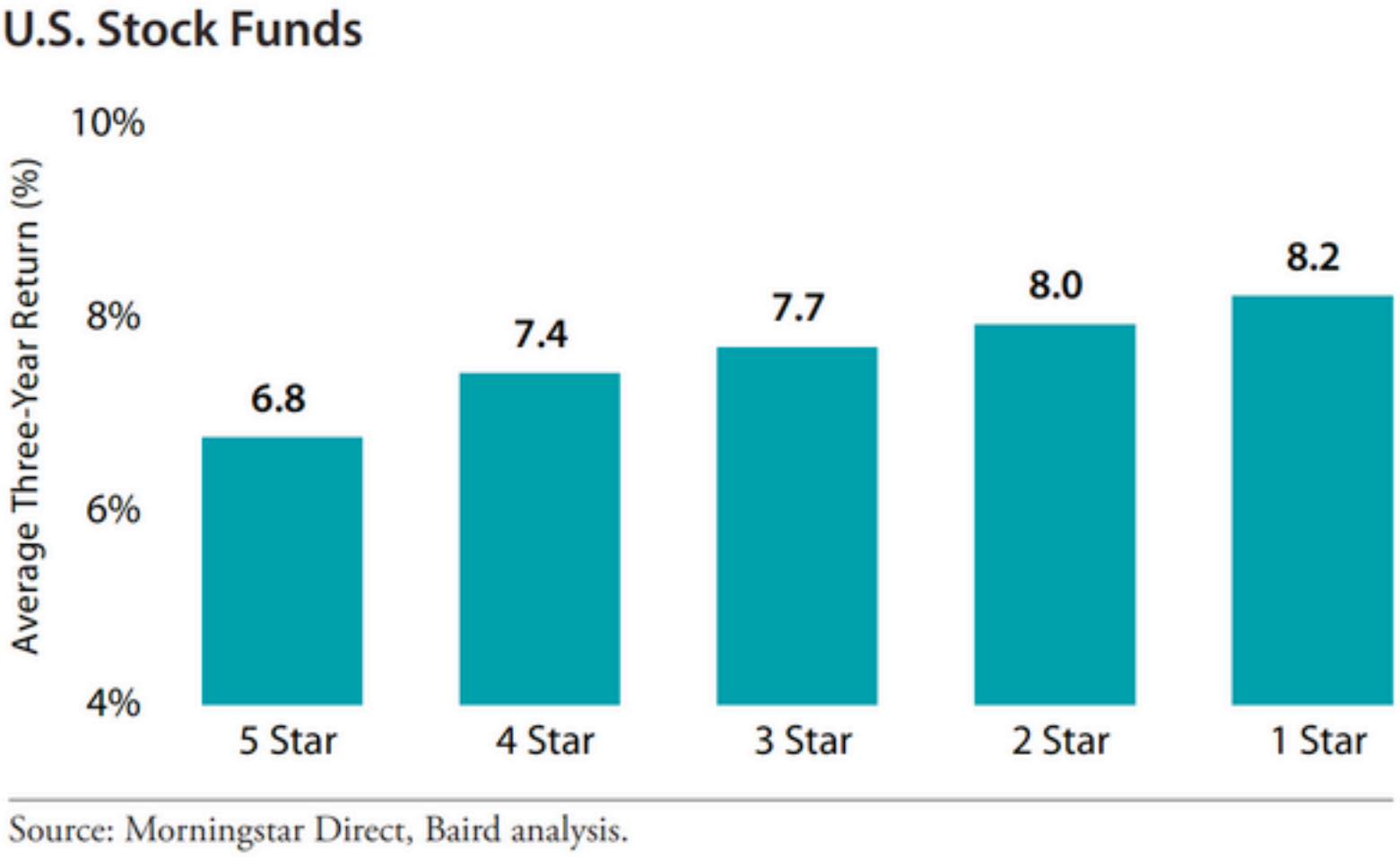
- 39% of funds with 5* ratings outperformed their style benchmarks for the 36 months following the rating, while 46% of 1* funds did.
- Most of the star-rating groups produced negative excess returns in the succeeding 3y. Even worse, the 4* and 5* figures were more negative than those of lower-rated groups.
- Higher ratings in no way ensure that an investor would increase his or her odds of outperforming a style benchmark in subsequent years.

Morningstar "FundInvestor", Nov2009

About its 5 star funds

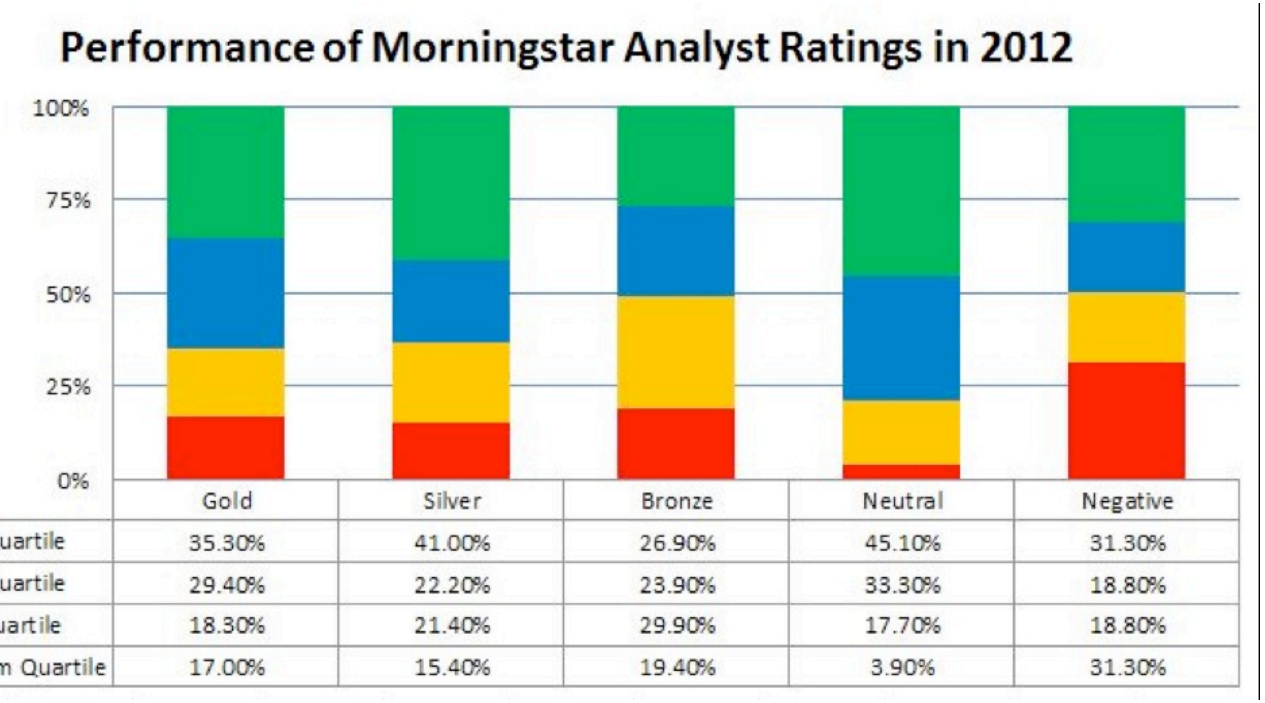
- The 2004 class of 5* domestic funds had a five-year rating of just 3.2, just slightly above average. And, as we have seen. The average fund has **underperformed its risk adjusted benchmark by close to 2%.**
- The 2005 group of 5* funds had a 3y rating of just 3.1
- The 2006 group had a 3y rating of just 2.9

DISLOCATION OF INVESTMENTS MUTUAL FUNDS



DISLOCATION OF INVESTMENTS
MUTUAL FUNDS

How Did Morningstar's New Ranking System Fare in 2012?



	Gold	Silver	Bronze	Neutral	Negative
Top Quartile	35.30%	41.00%	26.90%	45.10%	31.30%
2nd Quartile	29.40%	22.20%	23.90%	33.30%	18.80%
3rd Quartile	18.30%	21.40%	29.90%	17.70%	18.80%
Bottom Quartile	17.00%	15.40%	19.40%	3.90%	31.30%

	Gold	Silver	Bronze	Neutral	Negative
Average Rank in Category	40.9%	39.5%	48.2%	31.6%	52.0%
Median Rank in Category	38%	36%	48%	27%	50%

DISLOCATION OF INVESTMENTS
MUTUAL FUNDS

Marlena Lee, "Is there skill among active bond managers?", December 2009

Lee studied the performance of **2353 bond funds over the period 1991-2008**, which included investment grade, high-yield and gov bond funds. Her findings:

- Actively managed bond funds **underperformed by an amount roughly equal to fees**
- Expense ratios were a good predictor of performance
- Good past performance did not predict good future performance. There was **no evidence of positive after-cost expected alphas**, even n the top percentile of funds
- Underperformance of loser funds persisted for several years. Most of the persistence in loser returns could be attributed to fees.
- Collectively, investors in active bond funds lose about 90 bps per year.

The percentage of active funds that beat their benchmark index is pretty slim indeed. David Swensen agrees. "A miniscule 4% of funds produce market-beating after-tax results with a scant 0.6% (annual) margin of gain. The 96% of funds that fail to meet or beat the Vanguard 500 Index Fund lose by a wealth-destroying margin of 4.8% per annum." (Bogle, 2007)

SWENSEN agrees

DISLOCATION OF INVESTMENTS
MUTUAL FUNDS

Outperformance, Underperformance and Mutual Fund Flows in up and down Markets

Aron A. Gottesman
Pace University - Lubin School of Business - Department of Finance and Economics

Matthew R. Morey
Pace University - Lubin School of Business - Department of Finance and Economics

Menahem Rosenberg
Pace University

January 5, 2013

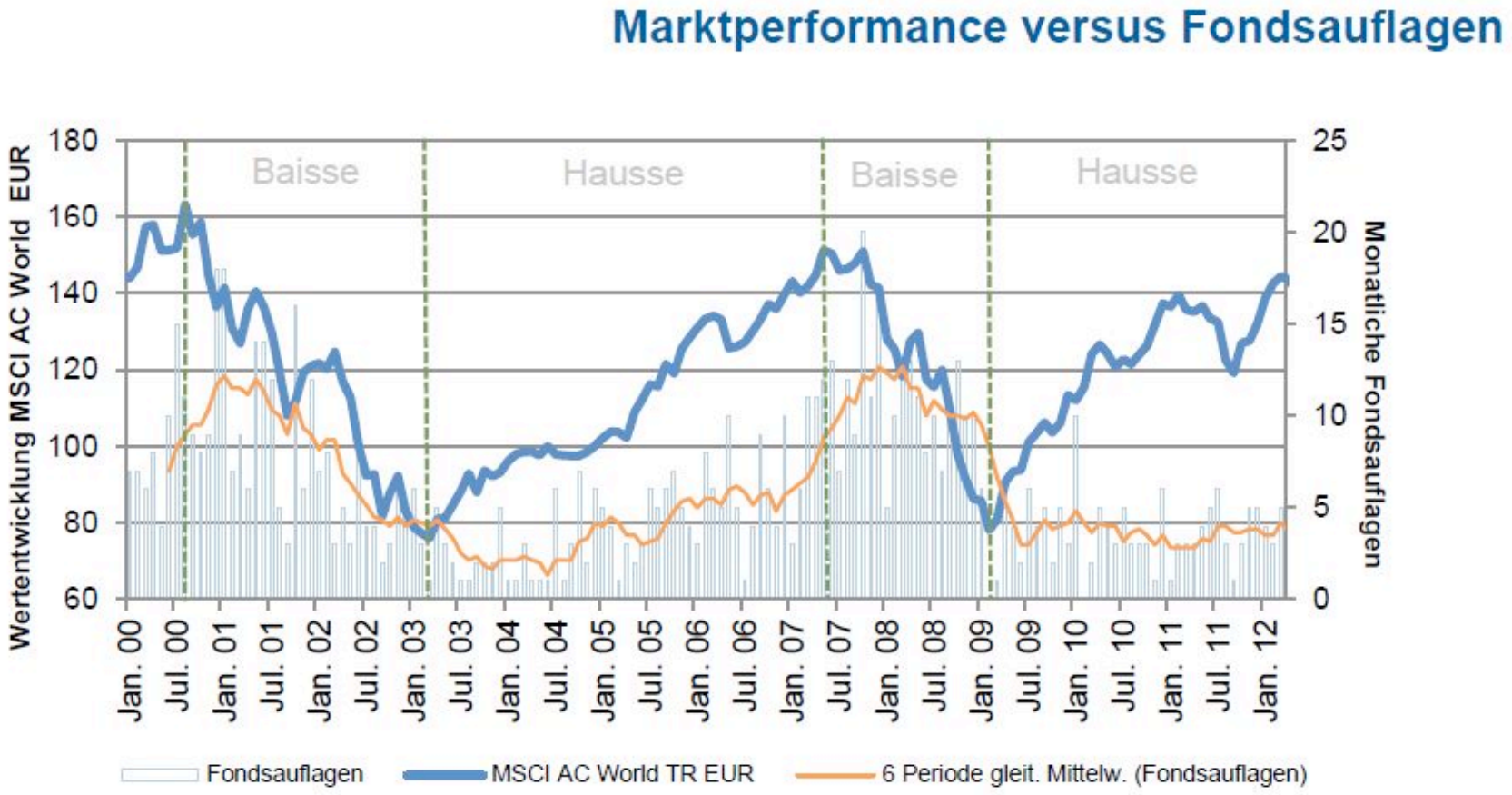
Abstract:
In this paper we examine how the relationship between mutual fund benchmark returns and subsequent net annual flows differs in up and down markets.

We also find that that funds that underperform their benchmark index in down markets have significantly less net flows than similarly underperforming funds do in up markets.

In down markets the incentive for active mutual fund managers is to closet index as the benefits of outperforming the benchmark in terms of net flows are low and the costs of underperforming the benchmark in terms of net flows are high.

Conversely, active management makes more sense in up markets as the
benefits of outperforming the benchmark in terms of net flows are large and the costs of underperforming the benchmark in terms of net flows are relatively low.

DISLOCATION OF INVESTMENTS MUTUAL FUNDS



DISLOCATION OF INVESTMENTS MUTUAL FUNDS

ACTIVE SHARE RULES - LITERATURE

Numerous studies show that funds which are truly actively managed and more concentrated outperform indices and do so with persistence. *See, e.g.*, Kacperczyk, Sialm & Zheng, "Unobserved Actions of Mutual Funds" (2005); Cohen, Polk & Silli, "Best Ideas" (2010); Wermers, "Is Money Really 'Smart'? New Evidence on the Relation Between Mutual Fund Flows, Manager Behavior, and Performance Persistence" (2003); Brands, Brown & Gallagher, "Portfolio Concentration and Investment Manager Performance" (2005); and Cremers & Petajisto, "How Active Is Your Fund Manager? A New Measure That Predicts Performance," (2007). As summarized by Cremers and Petajisto:

> *"Funds with the highest Active Share [most active management] outperform their benchmarks both before and after expenses, while funds with the lowest Active Share underperform after expenses .... The best performers are concentrated stock pickers ....We also find strong evidence for performance persistence for the funds with the highest Active Share, even after controlling for momentum. From an investor's point of view, funds with the highest Active Share, smallest assets, and best one-year performance seem very attractive, outperforming their benchmarks by 6.5% per year net of fees and expenses."*

Active Management Required

DISLOCATION OF INVESTMENTS
MUTUAL FUNDS

SMART MONEY

March 12, 2014 10:39 am

Active fund managers are closet index huggers

By John Authers Author alerts

Study finds 'closet indexing' is rife in US active funds

How active is your fund manager, and what chance do they really have of beating the market?

These questions are linked. A crude measure of how much fund managers deviate from their benchmark can help predict which funds will outperform. That measure is "active share" – the percentage of a fund's portfolio that differs from its benchmark. Thus a well-managed index fund will have an active share of 0 and an esoteric fund that holds no stocks in its index has an active share of 100.

But it rams home a message all investors should understand. There is no eminent point in paying a small fee for a fund that merely matches an index (which need not be based on market capitalisations), or in spending good money to unleash an active manager to attempt to find performance, matched against an absolute return benchmark, and perhaps being allowed to use short selling or derivatives. There is little or no case for what lies in between – and that middle ground includes much of the traditional regulated fund management industry in the US.



Markus Schuller
@panthera_s

@johnauthers (via @FT) unmasks @Fidelity´s obviously distracting contribution to the #activeshare debate. Well done. on.ft.com/1qvtYsV

22.08.14 17:18

DISLOCATION OF INVESTMENTS
MUTUAL FUNDS

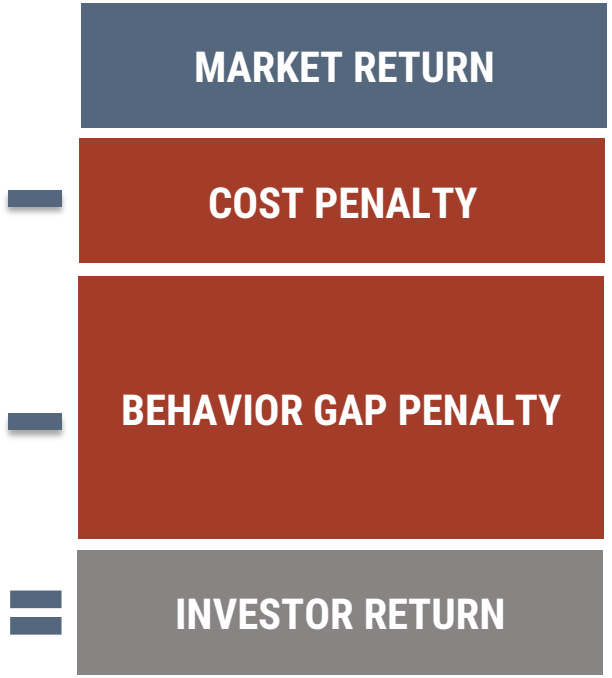
10 things, a Mutual Fund Manager will not say to you ..

1. *"Cheap funds often outperform pricey ones."*
2. *"We can't beat the market."*
3. *"When skill fails, we just double (or quintuple) our odds."*
4. "People aren't buying our product..."

5. *"...except when we pay them kickbacks."*
6. *"Hedge funds are our idols."*
7. *"Our boards are rubber stamps."*
8. *"Blame us for runaway CEO pay."*
9. *"We played a starring role in the financial crisis."*
10. *"Our lobby crushed bipartisan efforts at reform."*



DISLOCATION OF INVESTMENTS
MUTUAL FUNDS



THE THIRD GENERATION BUILDING BLOCK 2

REDEFINING RISK

REDEFINING RISK

You Are Your Own Worst Enemy

Investing is not a game where the guy with the 160 IQ beats the guy with the 130 IQ. . . . Once you have ordinary intelligence, what you need is the temperament to control the urges that get other people into trouble in investing.

—WARREN BUFFETT

REDEFINING RISK

A NEW DEFINITION OF RISK WILL HAVE TO INCORPORATE MULTIPLE QUANTITATIVE AND QUALITATIVE RISK FACTORS



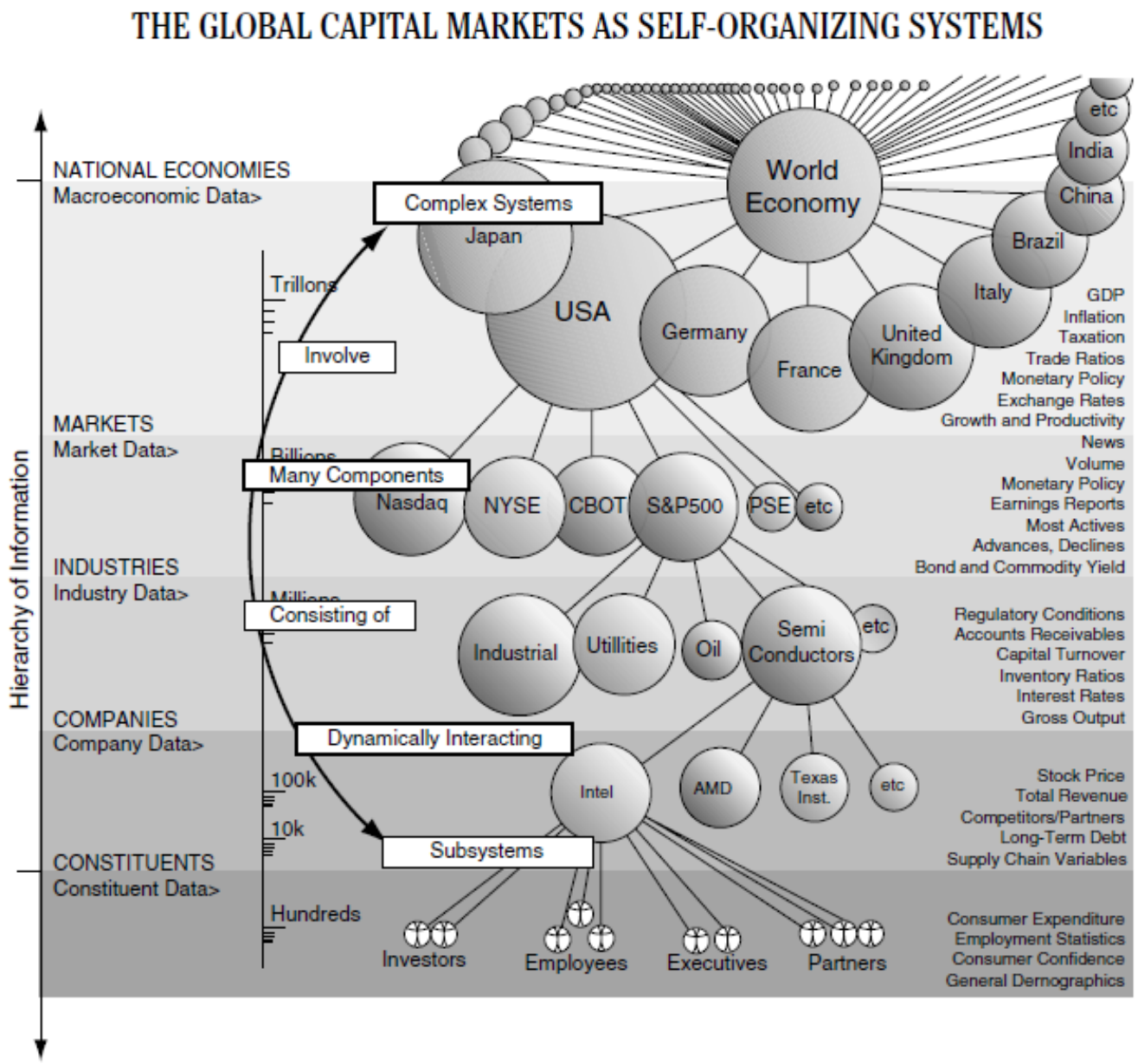
REDEFINING RISK
NEW HYPOTHESES

H1 A DYNAMIC STRATEGIC ASSET ALLOCATION (DSAA) IS THE BEST RISK MANAGEMENT

H2 RISK MANAGEMENT DOES NOT ONLY BEGIN AFTER AN ALLOCATION DECISION

H3 TAIL RISK MANAGEMENT IS PART OF DSAA

REDEFINING RISK SYSTEM THEORY



REDEFINING RISK



RISK
Defined as possibility that an outcome will not turn out as you expect it.

Uncertainty
Defined as situation where the consequences, extent or magnitude of circumstances, conditions or events are unknown.

REDEFINING RISK
STATE PREFERENCE MODEL

FINANCIAL ADVISOR MAGAZINE

SHARETHIS
PRINT |

July 2007 issue

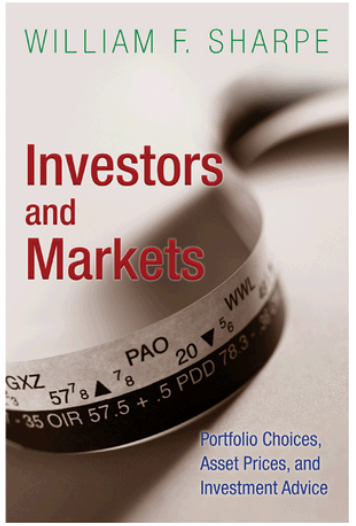
STATING A PREFERENCE

The Nobel Prize winning creator of the Capital Asset Pricing Model takes another look at his work.

By Andrew Gluck

The Nobel Prize winning creator of the Capital Asset Pricing Model takes another look at his work.

Gluck: So then, what you're saying is we knew the CAPM system was imperfect. And now this is an effort to make it more real-world?
Sharpe: Yeah, that's fair. No theory will be fully real-world. There's no way you can bring all of the elements of the real world into a set of equations or a computer program and get it all in there. So the question is, at what point do you have enough of the real world in your theory or your computer program so that you're comfortable going ahead with the implications as a matter of how you run portfolios?





REDEFINING RISK
ADAPTIVE MARKETS

Professor Andrew Lo (MIT):

“The Adaptive Markets Hypothesis: Market Efficiency from an Evolutionary Perspective” (2004)

Combination of neuro-science, evolution and econometrics.



REDEFINING RISK
ADAPTIVE MARKETS

"Risk management is always and everywhere multi-faceted. But before you decide what's important, and what's not, it's critical to recognize that you're destined to oversee, or at least suffer, multiple risks."

Andrew Lo
MIT Sloan School of Management

Efficient Market Hypothesis	Adaptive Market Hypothesis
Rational Expectations	Adaptive Expectations
Optimizing Behaviour	Satisficing Behaviour
No Free Lunch	No Free Lunchplans
Risk/Reward Relation	Fear/Greed vs Logic
Static Linear Models	Dynamic Nonlinear Models
Homogeneous Agents	Heterogeneous Agents
Mathematical Rigor	Biological Rigor
Empirical Rejections	Empirical Confirmations

RISK FACTOR DIVERSIFICATION VS FACTOR BASED INVESTING



HOW TO ISOLATE RISK FACTORS?

RISK FACTOR DIVERSIFICATION

Box 2.2. A New Asset Allocation Framework Using Risk Factors

Some institutional investors are using a new method of asset allocation, described here.

Asset allocation based on risk factors is gaining recognition among institutional investors. After the financial crisis, some institutional investors started to group investments on the basis of their risk and return profiles rather than according to traditional asset classes such as equities, bonds, and alternative assets. By doing so, asset managers say they are seeking to better understand the risks they are taking and therefore to better manage portfolio risk.

One case in point is the "new alternative asset classification" of the California Public Employees' Retirement System (CalPERS), which became effective in July 2011. The new asset classification consists of five categories—income, growth, real, inflation-linked, and liquidity (see first table). Compared with the traditional classification, this approach provides more information about the risk exposures of the pension fund. The new classification has not immediately changed the overall asset allocation except that the target share of real estate in the portfolio is 3 percentage points higher, cash 2 percentage points higher, and fixed income assets 4 percentage points lower.

Another case of note is that of the Alaska Permanent Fund Corporation, which in 2009 moved away from traditional asset classifications to group its investments by their risk and return profiles (see second table). The fund did not change the long-term target of achieving a 5 percent real rate of return on the assets in which the fund invests, but it judged that the new classification could help it better understand the risk profile of its portfolio. For example, corporate bonds and stocks are grouped together, given that in adverse economic conditions they may perform similarly to each other. Under the

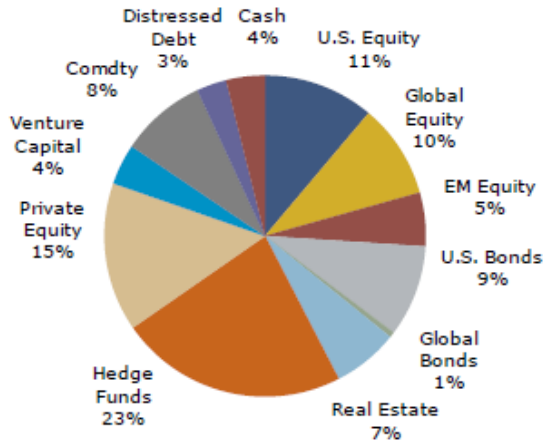
LITERATURE BOX

"Long Term Investors And Their Asset Allocation" IMF, 2011

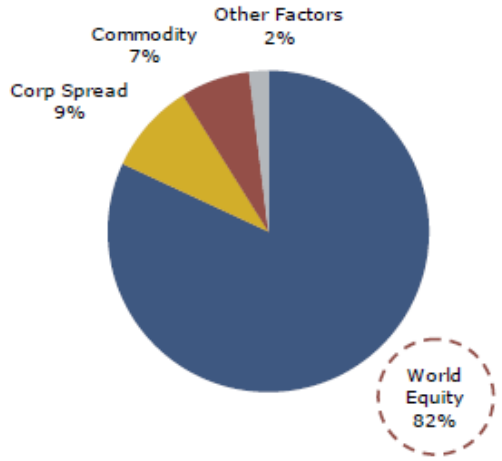
RISK FACTOR DIVERSIFICATION

Asset Class Diversification does not Equate to Risk Diversification

"Endowment Style" Portfolio Asset Allocation
(by market value weight)



Risk Allocation
(by contribution to estimated volatility)



SOURCE: "Endowment Style" portfolio represents the asset allocation of US University Endowments with >$1bn in assets, published by 2010 NACUBO-Commonfund Study of Endowments, PIMCO
Hypothetical example for illustrative purposes only.
Refer to Appendix for additional hypothetical example and portfolio analysis information.

PIMCO

RISK FACTOR DIVERSIFICATION

RISK FACTOR DEFINITION

"Factors are the smallest systematic (or nonidiosyncratic) units that influence investment return and risk characteristics.

They include such elements as inflation, GDP growth, currency, and convexity of returns,“

(CFA Institute)

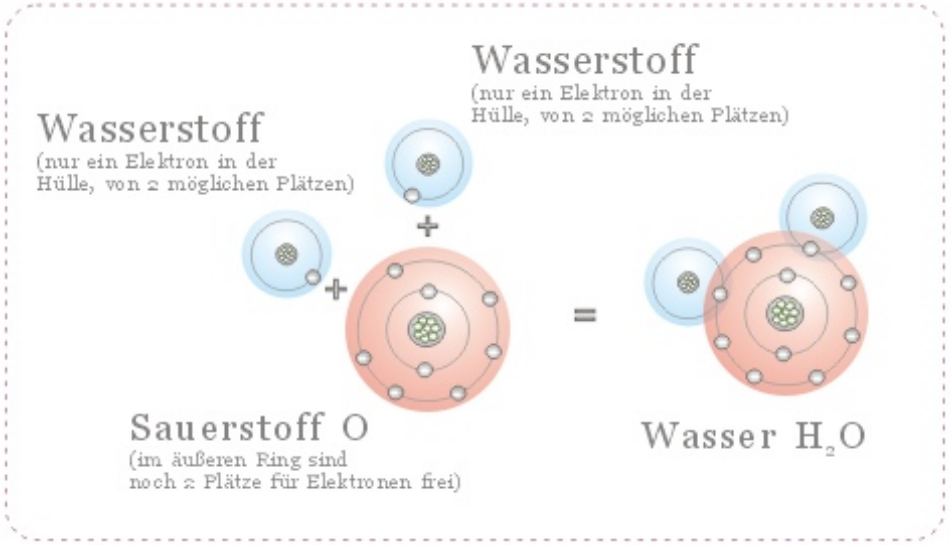
RISK FACTOR DIVERSIFICATION

Atom (ancient greek: ἄτομος, „the undividable“; 450 BC / Demokrit)

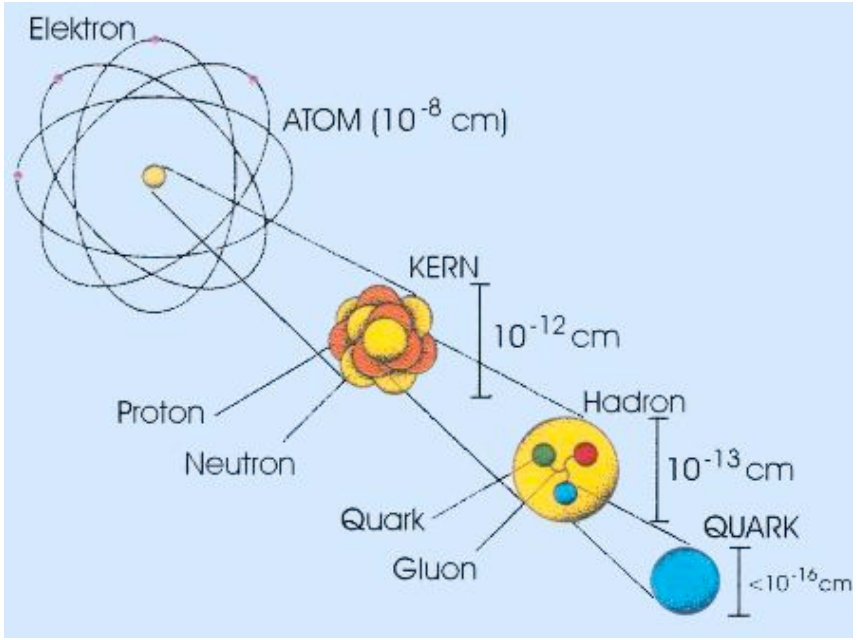


Analogy
Asset Class = Molecule
Risk Factor = Atom

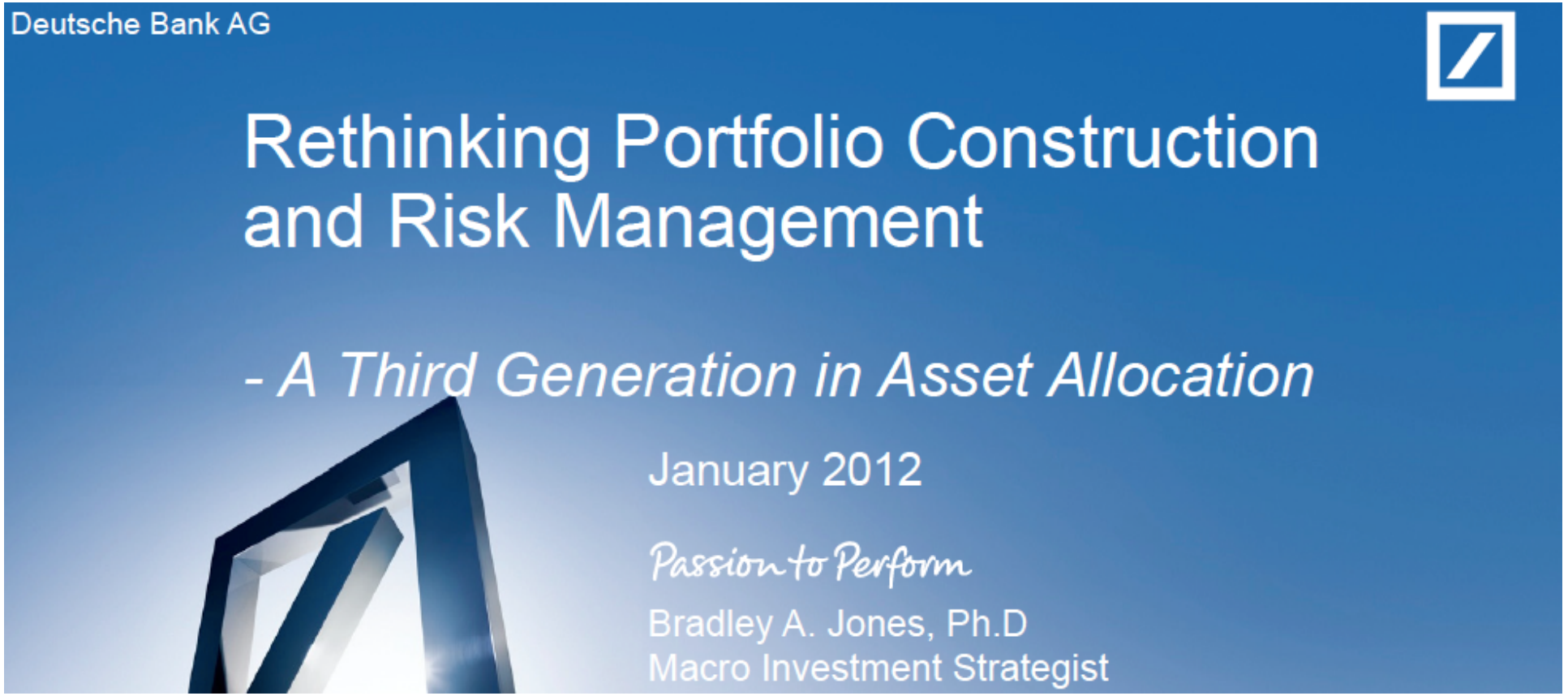
Level II



Level III



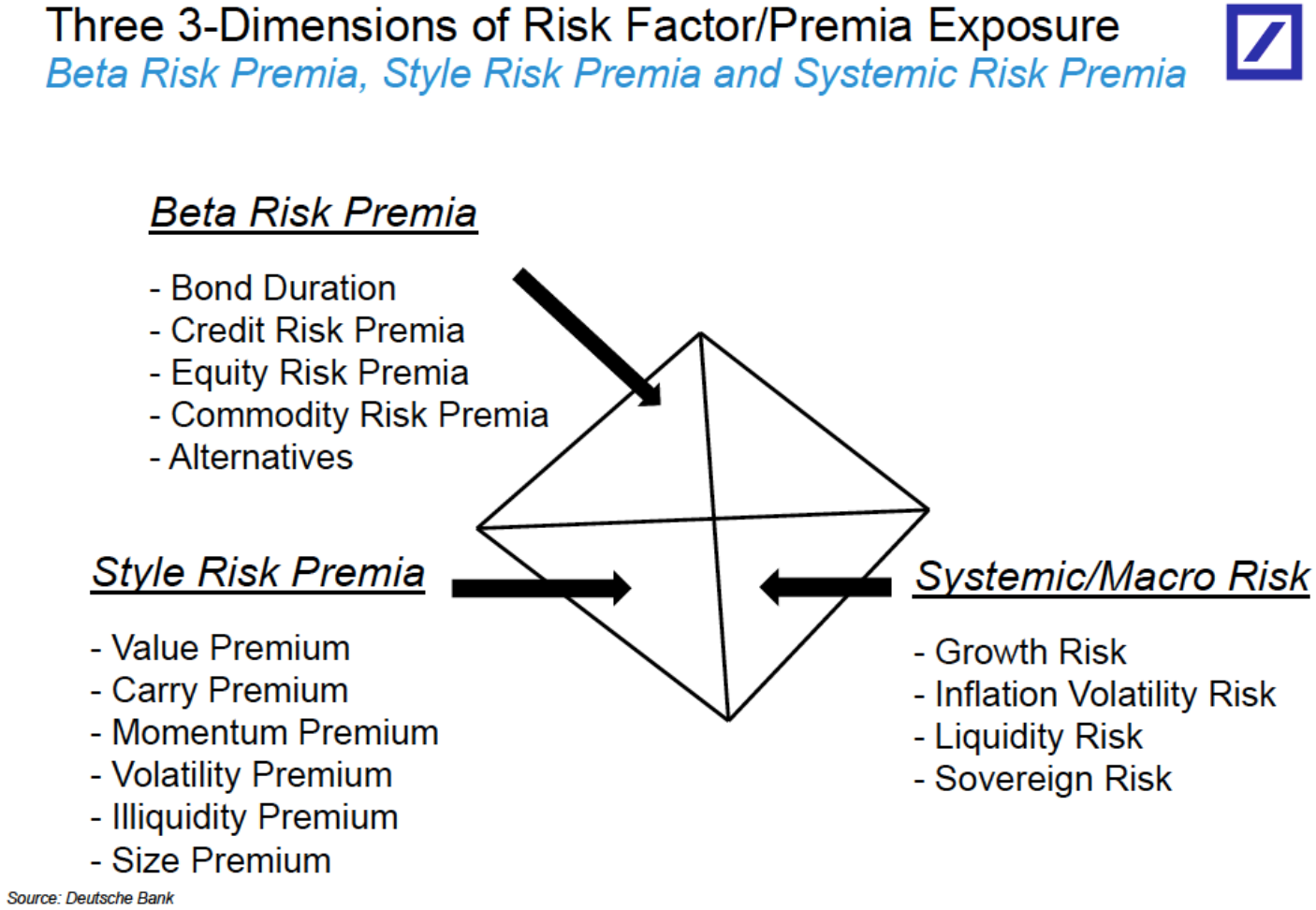
RISK FACTOR DIVERSIFICATION



RISK FACTOR DIVERSIFICATION

Three 3-Dimensions of Risk Factor/Premia Exposure

Beta Risk Premia, Style Risk Premia and Systemic Risk Premia

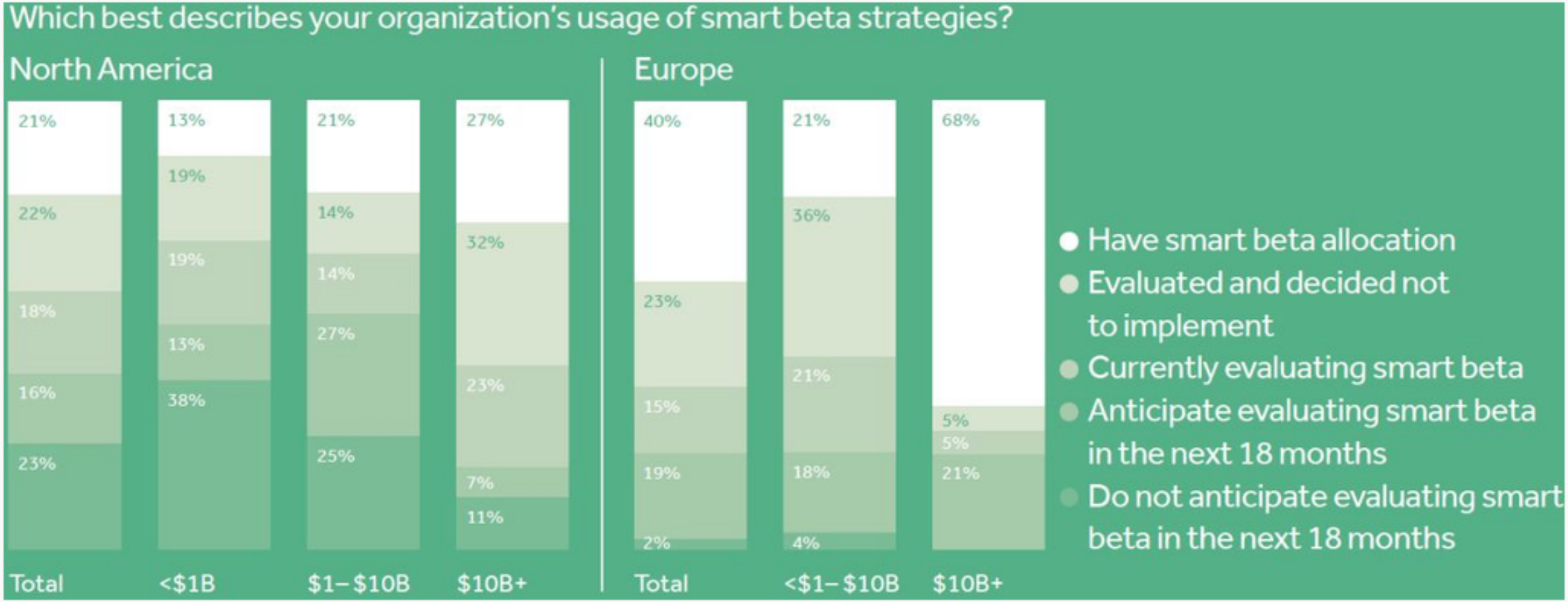


Source: Deutsche Bank

RISK FACTOR DIVERSIFICATION



Markus Schuller @pant… 16.09.15
Not necessarily a good sign. European institutional investors increasingly bet on #SmartBeta. Source: @FTSERussell)



RISK FACTOR DIVERSIFICATION

SEP
29th

In PSC 2014



PSC #9/14 – SMART BETA DEKONSTRUKTION

von Mag. Markus Schuller, MBA, MScFE und Mag. Gökhan Kula CFA, FRM

RISK FACTOR DIVERSIFICATION

...and the Cross-Section of Expected Returns

Campbell R. Harvey
Duke University - Fuqua School of Business; National Bureau of Economic Research (NBER)

Yan Liu
Texas A&M University, Department of Finance

Heqing Zhu
Duke University - Fuqua School of Business

February 3, 2015

Abstract:
Hundreds of papers and hundreds of factors attempt to explain the cross-section of expected returns. Given this extensive data mining, it does not make any economic or statistical sense to use the usual significance criteria for a newly discovered factor, e.g., a t-ratio greater than 2.0. However, what hurdle should be used for current research? Our paper introduces a multiple testing framework and provides a time series of historical significance cutoffs from the first empirical tests in 1967 to today. Our new method allows for correlation among the tests as well as publication bias. We also project forward 20 years assuming the rate of factor production remains similar to the experience of the last few years. The estimation of our model suggests that today a newly discovered factor needs to clear a much higher hurdle, with a t-ratio greater than 3.0. Echoing a recent disturbing conclusion in the medical literature, we argue that most claimed research findings in financial economics are likely false.

DATA SNOOPING 1
Meta-Study on 315 Factors, collected in 312 publications of Top Tier Journals. Only between 2010-2012 literature came up with 59 (!) new factors.

Long-Term Capital Budgeting

Yaron Levi
University of California, Los Angeles (UCLA) - Finance Area

Ivo Welch
University of California, Los Angeles (UCLA); National Bureau of Economic Research (NBER)

March 29, 2014

Abstract:
Our paper tests whether the expected rate-of-return estimates for long-term capital budgeting from the FFM and CAPM could outperform those from a simpler risk-neutral term-structure-based model. Our paper first estimates reasonable shrinkage (input parameters) based on historical data.

We find
1. Factor exposures drift(ed) significantly over longer horizons
2. Since 1970, the arithmetic (geometric) equity premium relative to long- term Treasuries has been only 1.7% (0.8%) per year. This decline was primarily due to higher long-term Treasury yields, not lower average stock returns.

DATA SNOOPING 2
Meta-Study on 600 (!) in popular science journals. In 49% of all factors, out-of-sample tests have shown NO or even NEGATIVE premia.

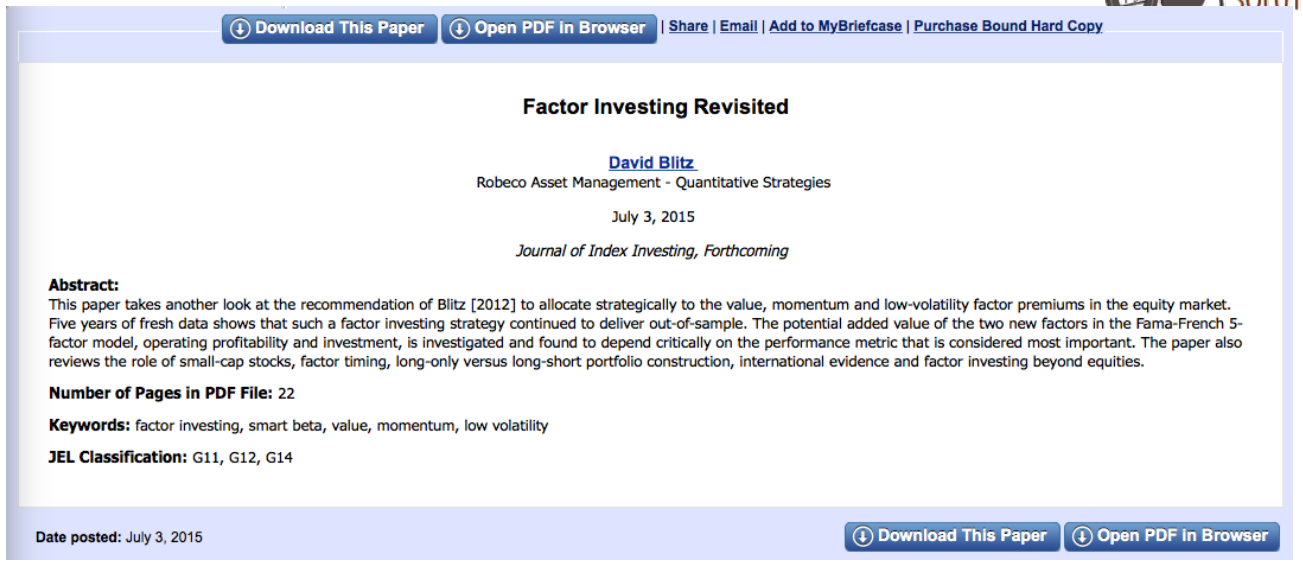
RISK FACTOR DIVERSIFICATION



RISK FACTOR DIVERSIFICATION

Value, momentum and low-volatility factor premiums in the equity market still deliver out of sample

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2626336



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Factor Investing Revisited

David Blitz
Robeco Asset Management - Quantitative Strategies

July 3, 2015

Journal of Index Investing, Forthcoming

Abstract:
This paper takes another look at the recommendation of Blitz [2012] to allocate strategically to the value, momentum and low-volatility factor premiums in the equity market. Five years of fresh data shows that such a factor investing strategy continued to deliver out-of-sample. The potential added value of the two new factors in the Fama-French 5-factor model, operating profitability and investment, is investigated and found to depend critically on the performance metric that is considered most important. The paper also reviews the role of small-cap stocks, factor timing, long-only versus long-short portfolio construction, international evidence and factor investing beyond equities.

Number of Pages in PDF File: 22

Keywords: factor investing, smart beta, value, momentum, low volatility

JEL Classification: G11, G12, G14

Date posted: July 3, 2015

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Fama/French confirm the above in a 2015 paper on international scope

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2622782



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International Tests of a Five-Factor Asset Pricing Model

Eugene F. Fama
University of Chicago - Finance

Kenneth R. French
Dartmouth College - Tuck School of Business; National Bureau of Economic Research (NBER)

June 24, 2015

Fama-Miller Working Paper
Tuck School of Business Working Paper No. 2622782

Abstract:
Average stock returns for North America, Europe, and Asia Pacific increase with the book-to-market ratio (B/M) and profitability and are negatively related to investment. These patterns are strong for small stocks but weaker for big stocks. For Japan the relation between average returns and B/M is strong in all Size groups, but average returns show little relation to profitability or investment. Especially for big stocks, a five-factor model that adds profitability and investment factors to the three-factor model of Fama and French (1993) largely absorbs the patterns in average returns. As in Fama and French (2015a,b), the model's prime problem is failure to capture fully the low average returns of small stocks whose returns behave like those of unprofitable firms that invest aggressively.

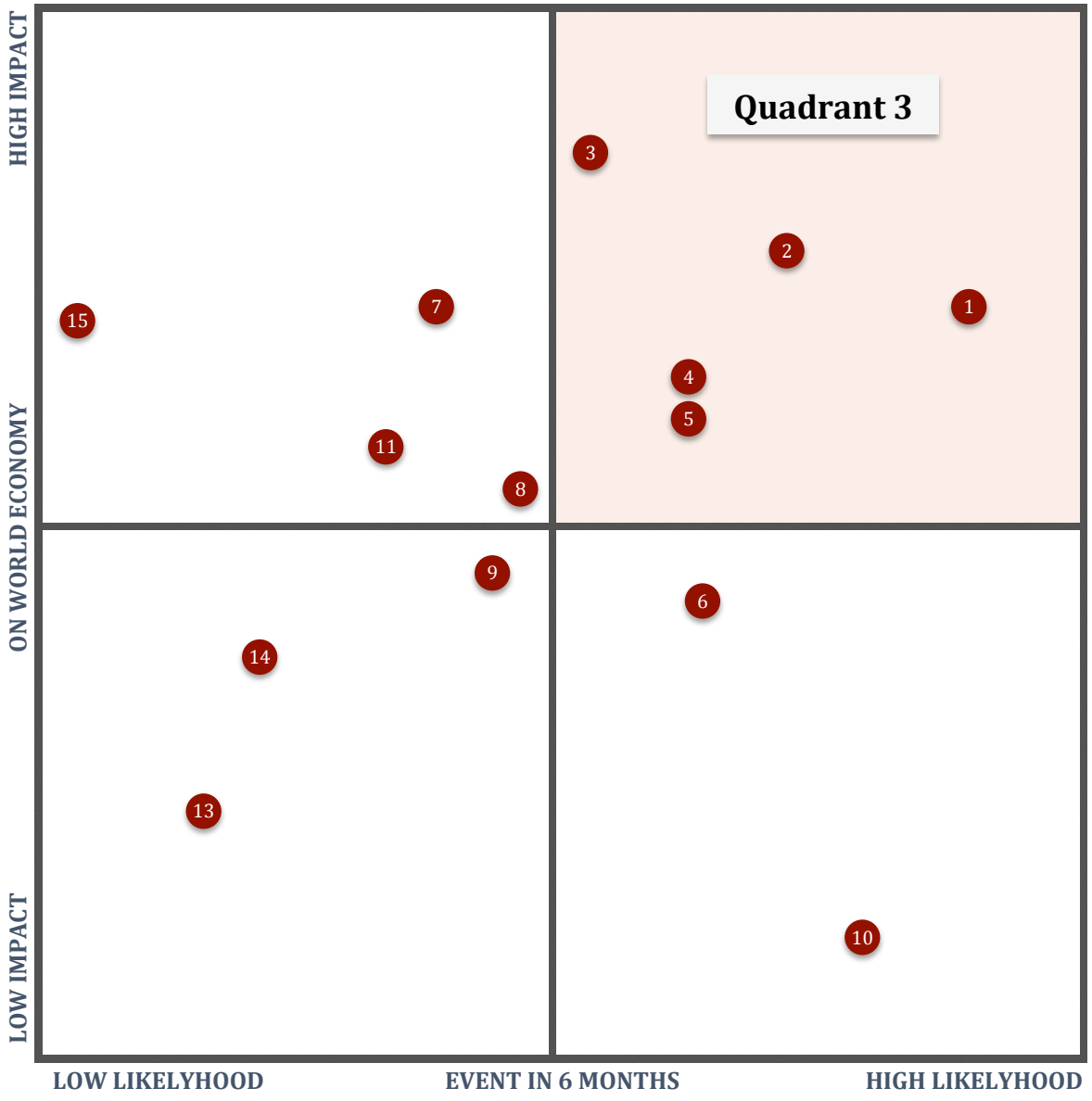
Number of Pages in PDF File: 63

Date posted: June 26, 2015

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CAUSALITY INSTEAD OF CORRELATION





FAKTORENREIHUNG

1. China - Immobilienmarkt Korrektur
2. Wachstumsdelle Weltwirtschaft
3. Bank Run Italien
4. Bank Run Spanien
5. Fiscal Cliff USA
6. EUR Austritt Griechenland
7. Chinesisches Hard Landing
8. Japan fällt in Rezession zurück
9. EU17 Austerity Ratifikation stoppt
10. Rezession in UK hält an
11. Inflationdynamik in Industrieländern
12. Zerfall der Eurozone
13. Kein US Real Estate Market Turnaround
14. Israel Angriff auf Iran
15. EUR Austritt Deutschland

N NEW C CHANGED

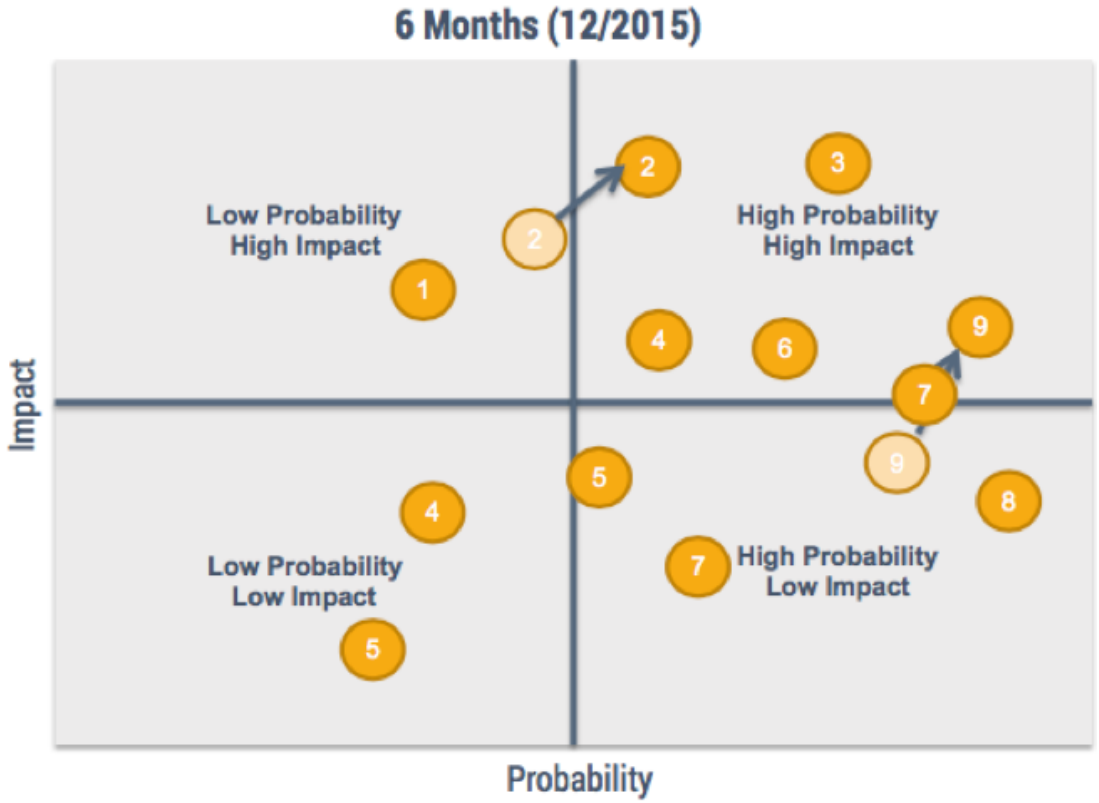
CAUSALITY ANALYSIS

1. Chinese hard landing
2. Double dipping in NA
3. ...

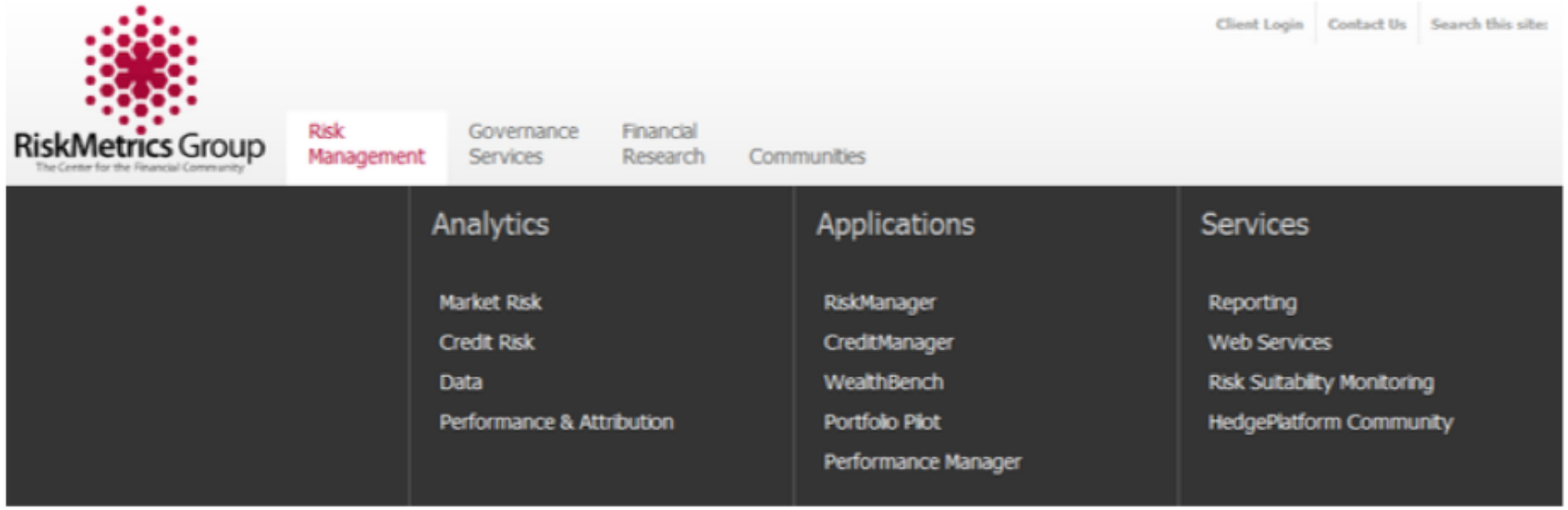
GREY SWAN MATRIX

The whole world of economics is enormously more complex than the world of physics. Even though economics is a very old subject, it has not truly come to grips with the main difficulty, which is the inordinate practical importance of a few extreme events.

Benoit Mandelbrot, 2004



CAUSALITY ANALYSIS
FINTECH SUPPORT



RiskMetrics

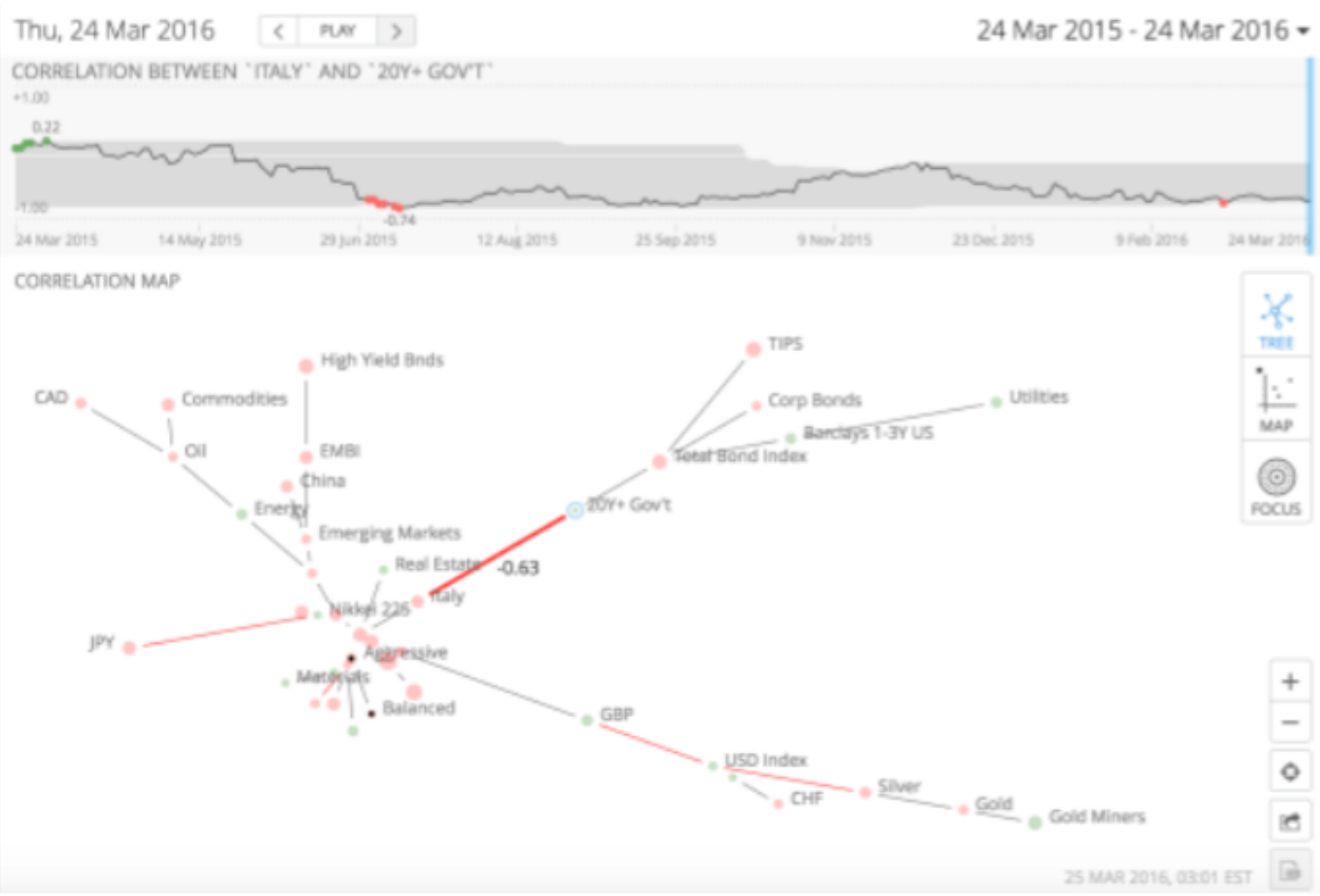
RiskMetrics RiskManager provides market exposures and sensitivities across a broad range of instruments including, Commodities, Equities, Fixed Income, FX, Mortgages and Structured Credit, using multiple Value at Risk (VaR) methodologies and flexible stress-testing.

CAUSALITY ANALYSIS
FINTECH SUPPORT

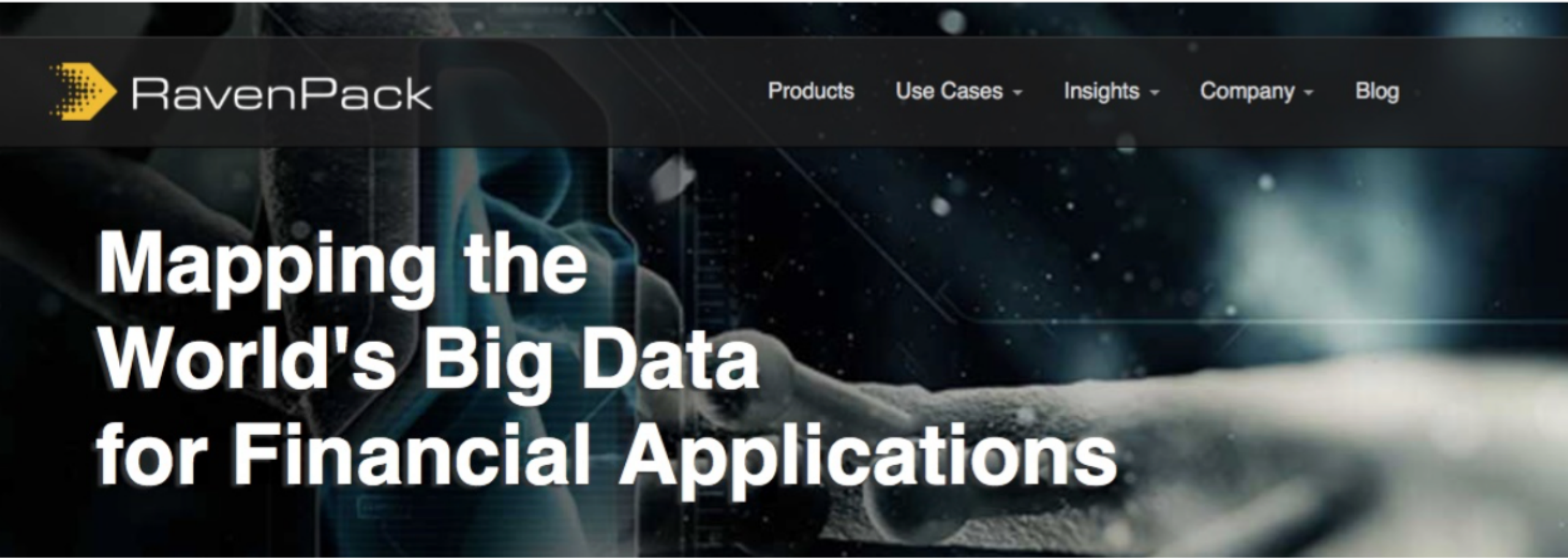
FNA

CORRELATION DYNAMICS VIA GRANGER CAUSALITY





CAUSALITY ANALYSIS
FINTECH SUPPORT



CAUSALITY ANALYSIS FINTECH SUPPORT

PANTHERA SOLUTIONS

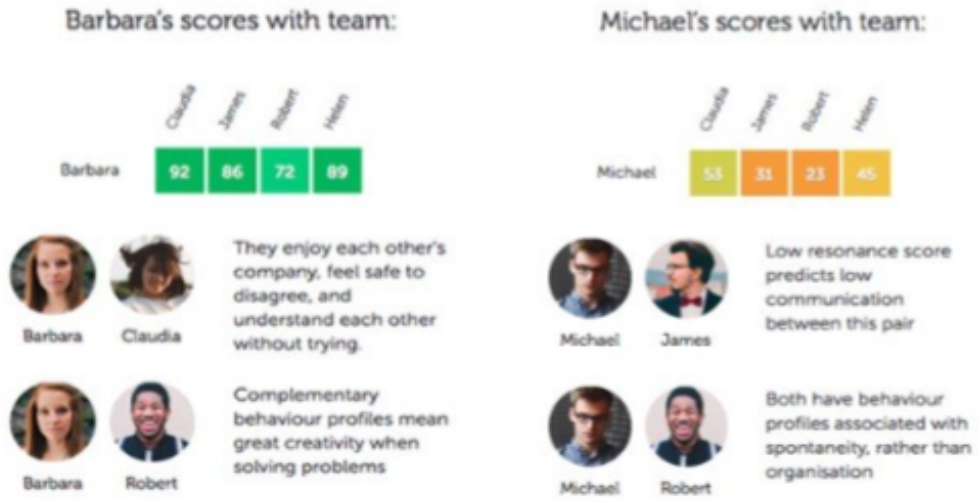
Recruitment platform profiles personalities for team fit

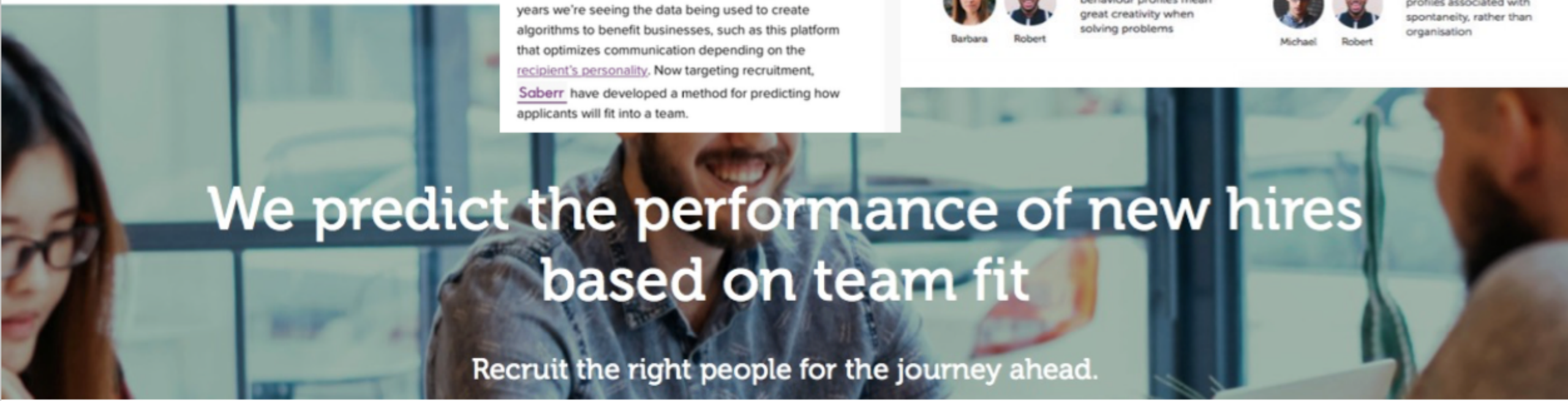
Saberr's software uses personality analysis algorithms to suggest how well potential recruits will fit a team.

5 Jan 2016

Personality tests have existed for decades, but in recent years we're seeing the data being used to create algorithms to benefit businesses, such as this platform that optimizes communication depending on the recipient's personality. Now targeting recruitment, Saberr have developed a method for predicting how applicants will fit into a team.

Saberr

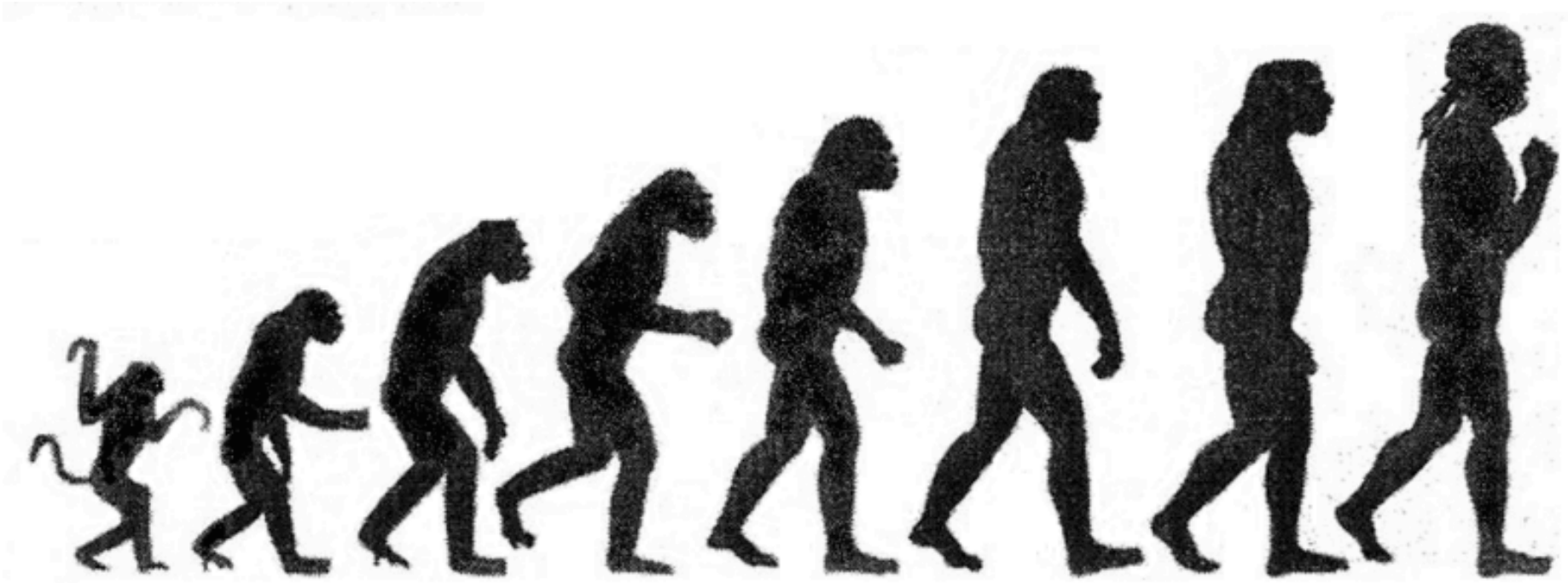




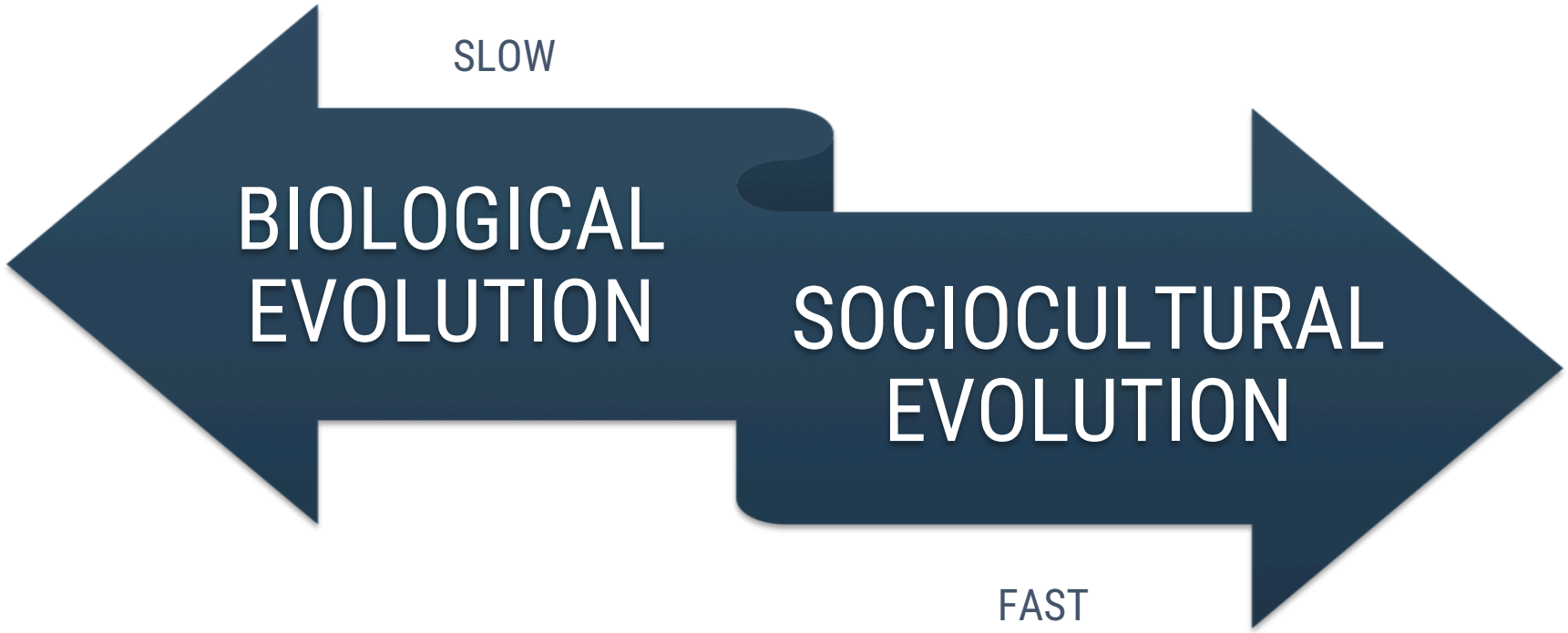
THE THIRD GENERATION BUILDING BLOCK 3

ON THE EXISTANCE OF COGNITIVE BIASES

ON THE EXISTENCE OF OF COGNITIVE BIASES



ON THE EXISTENCE OF OF COGNITIVE BIASES



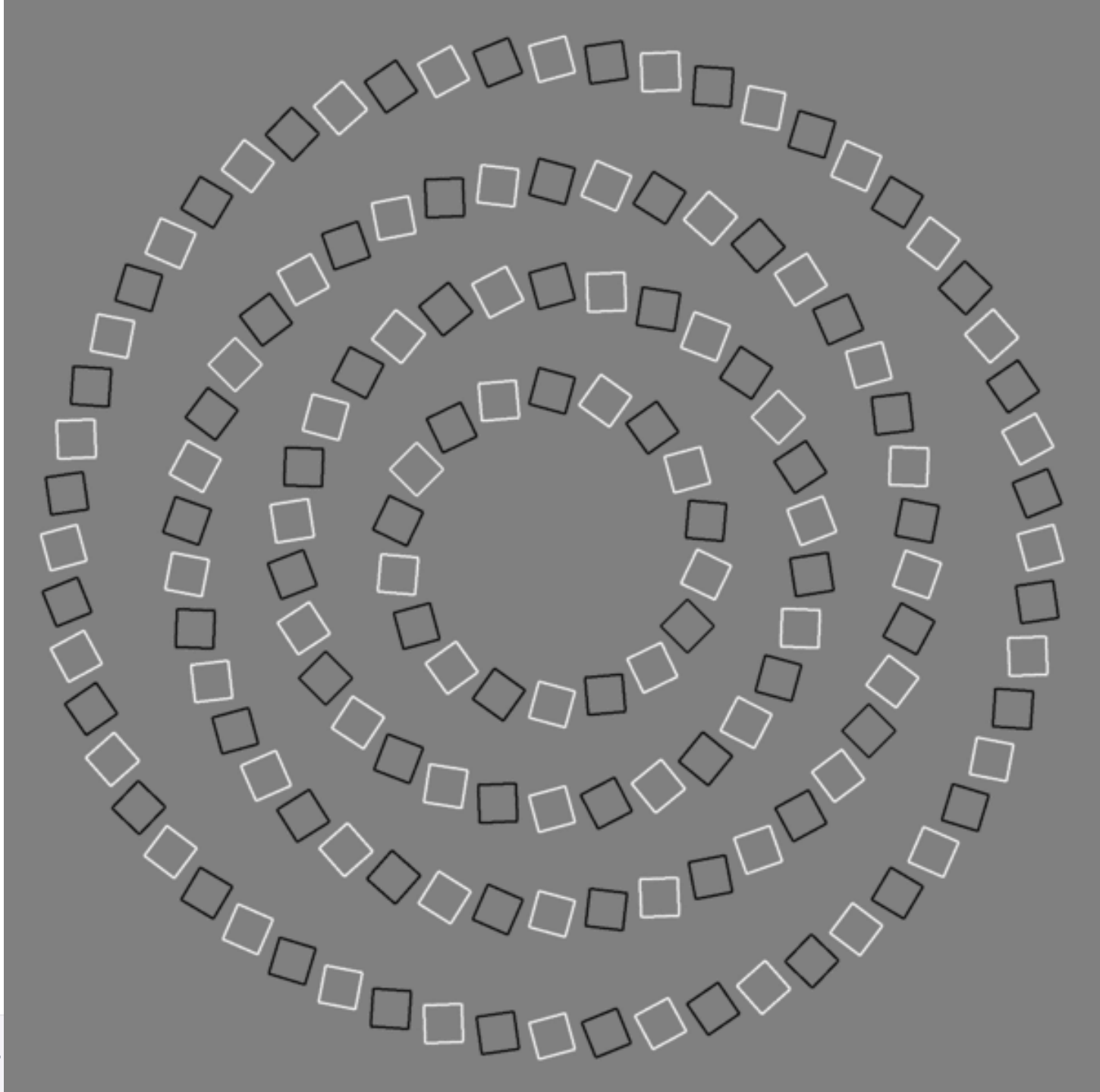


Our rationality is located in the prefrontal cortex.

Scientists have overestimated the relevance of the prefrontal cortex in our decision making process.

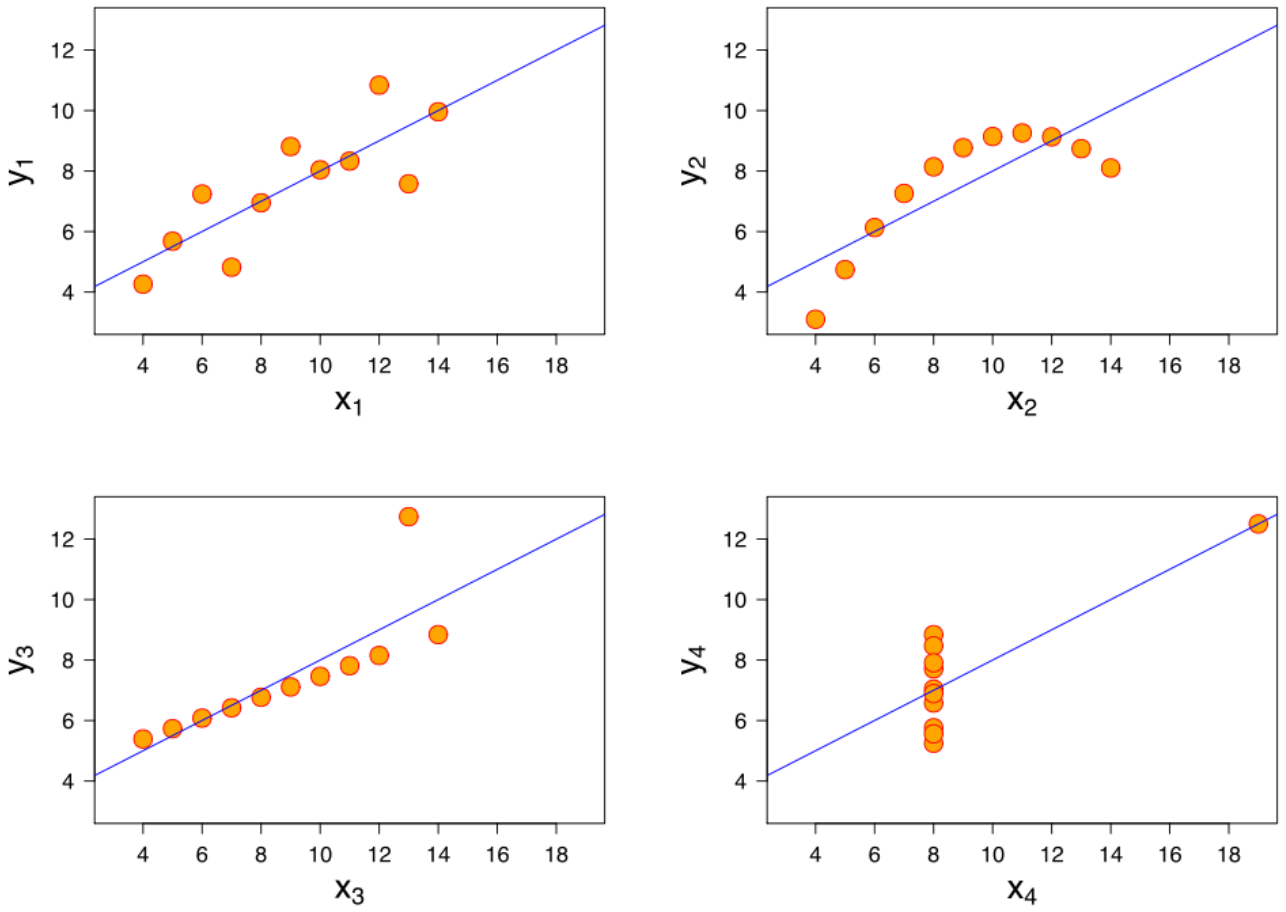
No human being acts fully rational.

ON THE EXISTENCE OF OF COGNITIVE BIASES



In Pinna's illusory intertwining effect, shown here in an illustration by Jochen Burghardt, colors give the illusion that circles are intertwining (they are actually concentric).

ON THE EXISTENCE OF OF COGNITIVE BIASES



Anscombe's quartet comprises four datasets that have nearly identical simple statistical properties, yet appear very different when graphed. Each dataset consists of eleven (*x*,*y*) points. They were constructed in 1973 by the statistician Francis Anscombe to demonstrate both the importance of graphing data before analyzing it and the effect of outliers on statistical properties.

For all four datasets:

Property	Value
Mean of *x* in each case	9 (exact)
Sample variance of *x* in each case	11 (exact)
Mean of *y* in each case	7.50 (to 2 decimal places)
Sample variance of *y* in each case	4.122 or 4.127 (to 3 decimal places)
Correlation between *x* and *y* in each case	0.816 (to 3 decimal places)
Linear regression line in each case	$y = 3.00 + 0.500x$ (to 2 and 3 decimal places, respectively)

ON THE EXISTENCE OF OF COGNITIVE BIASES

DEFINITION

Cognitive dissonance occurs in the mind of an individual when a theoretical belief system is confronted by factual evidence demonstrating outcomes contrary to what theories dictate should occur.

MANAGING COGNITIVE BIASES

PRO-ACTIVE MANAGEMENT OF COGNITIVE BIASES



ANIMAL SPIRITS MANAGEMENT

PRO-ACTIVE MANAGEMENT OF COGNITIVE BIASES

IT IS GETTING PERSONAL. INEVITABLY.



PRO-ACTIVE MANAGEMENT OF COGNITIVE BIASES

"Faced with the choice between changing one's mind and proving that there is no need to do so, almost everyone gets busy on the proof."

— John Kenneth Galbraith

PRO-ACTIVE MANAGEMENT OF COGNITIVE BIASES

Behavioral Finance is seen as en vogue. Just a fashion?



PANTHERA SOLUTIONS

RISK TAKING ATTITUDE
TRAINED AND NOT GENETICALLY DETERMINED

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On the Origins of Risk-Taking

Sandra E. Black
University of Texas at Austin - Center for Law, Business, and Economics; National Bureau of Economic Research (NBER); Institute for the Study of Labor (IZA); Norwegian School of Economics (NHH) - Department of Economics

Paul J. Devereux
University College Dublin - Department of Economics; Institute for the Study of Labor (IZA)

Petter Lundborg
Lund University School of Economics and Management; Tinbergen Institute; Institute for the Study of Labor (IZA)

Kaveh Majlesi
Lund University

July 2015

NBER Working Paper No. w21332

Abstract:
Risk-taking behavior is highly correlated between parents and their children; however, little is known about the extent to which these relationships are genetic or determined by environmental factors. We use data on stock market participation of Swedish adoptees and relate this to the investment behavior of both their biological and adoptive parents. We find that stock market participation of parents increases that of children by about 34% and that both pre-birth and post-birth factors are important. However, once we condition on having positive financial wealth, we find that nurture has a much stronger influence on risk-taking by children, and the evidence of a relationship between stock-holding of biological parents and their adoptive children becomes very weak. We find similar results when we study the share of financial wealth that is invested in stocks. This suggests that a substantial proportion of risk-attitudes and behavior is environmentally determined.

Institutional subscribers to the NBER working paper series, and residents of developing countries may download this paper without additional charge at www.nber.org.

Number of Pages in PDF File: 44

Date posted: July 13, 2015

CHANGING INVESTOR BEHAVIOR
FEAR AND GREED ARE STRONGER THAN LONG-TERM RESOLVE



EVIDENCE UNEQUALS EVIDENCE

Pseudo-Mathematics and Financial Charlatanism: The Effects of Backtest Overfitting on Out-of-Sample Performance

David H. Bailey, Jonathan M. Borwein,
Marcos López de Prado, and Qiji Jim Zhu

EVIDENCE UNEQUALS EVIDENCE
STOP HARKing!

(Hypothesising After Results are Known)

SOLUTION Pre-Register

The best solution to this we've yet found is known as pre-registration: studies have to be registered in advance, and the hypotheses under investigation stated up front before the research is done.

Confirmation comes from repetition. Any attempt to avoid this statement leads to failure and more probably to destruction.

If we truly wanted to become better investors then we'd pre-register our hypotheses - including our expected timescales - and then measure our results against the results. Doubtless the outcome would frequently be embarrassing, but the evidence that we do have suggests that getting real feedback about our performance is the only way to improve predictive capability in complex systems like the stockmarket.

The other thing this would do would be to force us to face up to the reality that we can be successful by luck and can fail through no fault of our own. In complex adaptive systems we simply cannot predict every possible situation, we can only hope to be able to predict a little better than average. But a little better is enough to make a turn, so every percentage point improvement we can make is worth it.

EVIDENCE UNEQUALS EVIDENCE
STOP HARKing!

(Hypothesising After Results are Known

OVERALL REPLICATION RATE 1.07%

Perspectives on Psychological Science
7(6) 537–542
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DOI: 10.1177/1745691612460688
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Replications in Psychology Research: How Often Do They Really Occur?

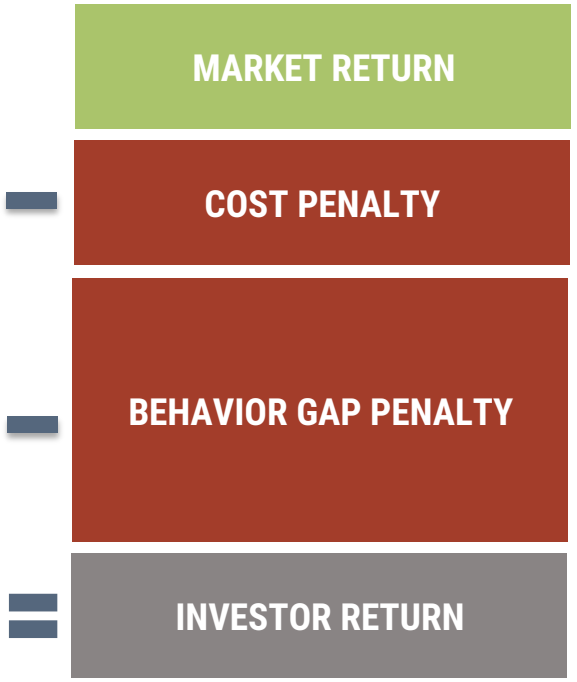
http://pps.sagepub.com/content/7/6/537.full.pdf+html

Matthew C. Makel[1], Jonathan A. Plucker[2], and Boyd Hegarty[3]
[1]Duke University, [2]University of Connecticut, and [3]University of New Hampshire

Abstract

Recent controversies in psychology have spurred conversations about the nature and quality of psychological research. One topic receiving substantial attention is the role of replication in psychological science. Using the complete publication history of the 100 psychology journals with the highest 5-year impact factors, the current article provides an overview of replications in psychological research since 1900. This investigation revealed that roughly 1.6% of all psychology publications used the term *replication* in text. A more thorough analysis of 500 randomly selected articles revealed that only 68% of articles using the term *replication* were actual replications, resulting in an overall replication rate of 1.07%. Contrary to previous findings in other fields, this study found that the majority of replications in psychology journals reported similar findings to their original studies (i.e., they were successful replications). However, replications were significantly less likely to be successful when there was no overlap in authorship between the original and replicating articles. Moreover, despite numerous systemic biases, the rate at which replications are being published has increased in recent decades.

PRO-ACTIVE MANAGEMENT OF COGNITIVE BIASES

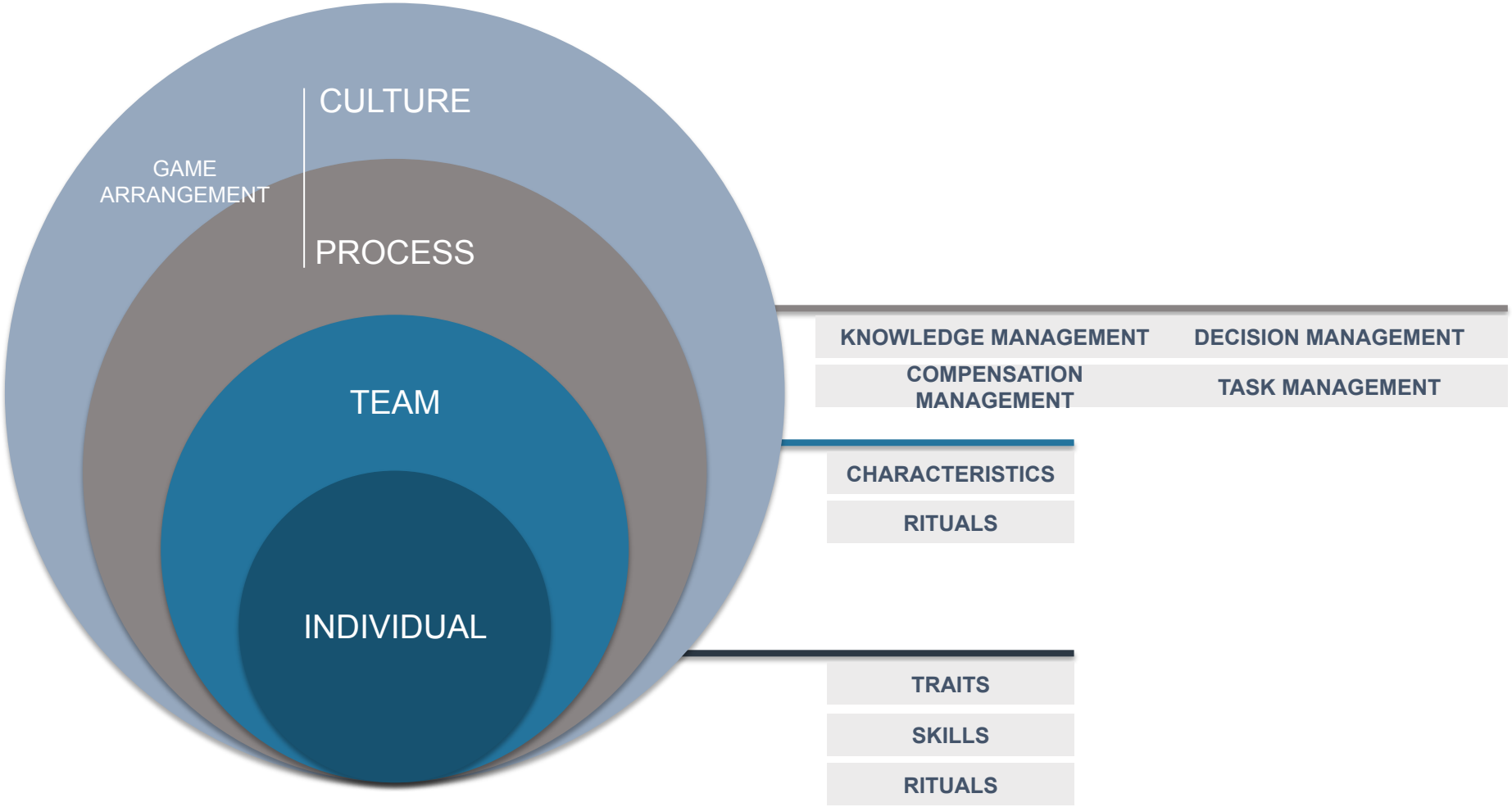


Grafik A Strukturelle Faktoren für Underperformance
Quelle: Panthera Solutions, Vanguard, Carl Richards

CHANGING INVESTOR BEHAVIOR
HIGH PERFORMANCE INVESTMENT TEAMS

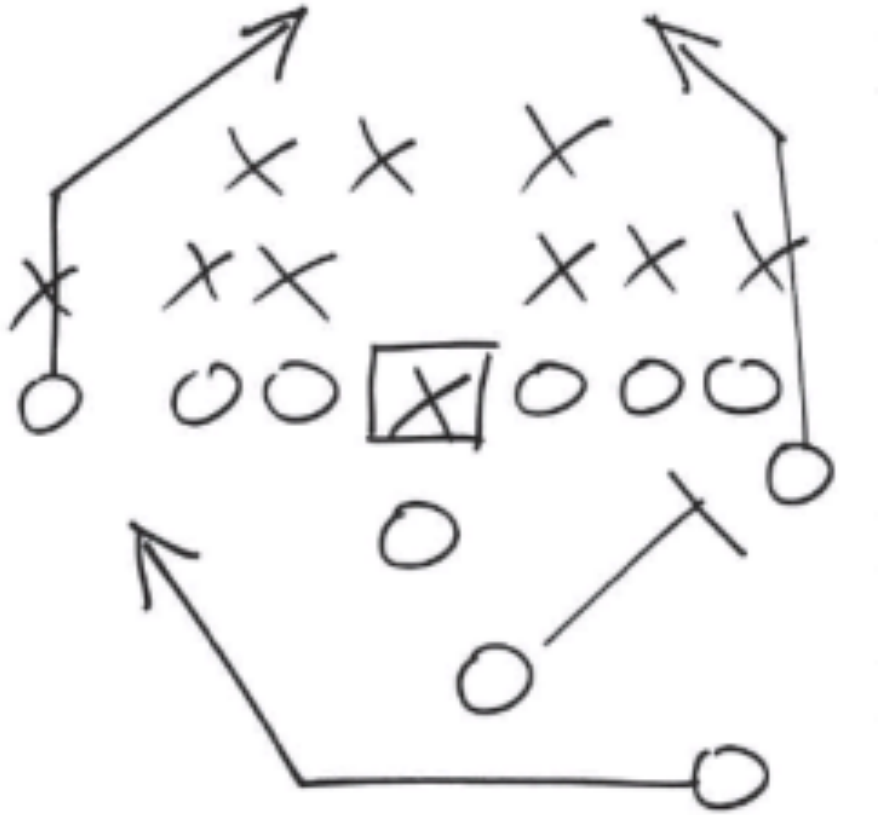
TO BE MAXIMIZED	
CULTURE	ABILITY TO INNOVATE
TEAM / PROCESS	SELF-ORGANIZATION
INDIVIDUAL	SELF-RESPONSIBILITY

CHANGING INVESTOR BEHAVIOR
HIGH PERFORMANCE INVESTMENT TEAMS



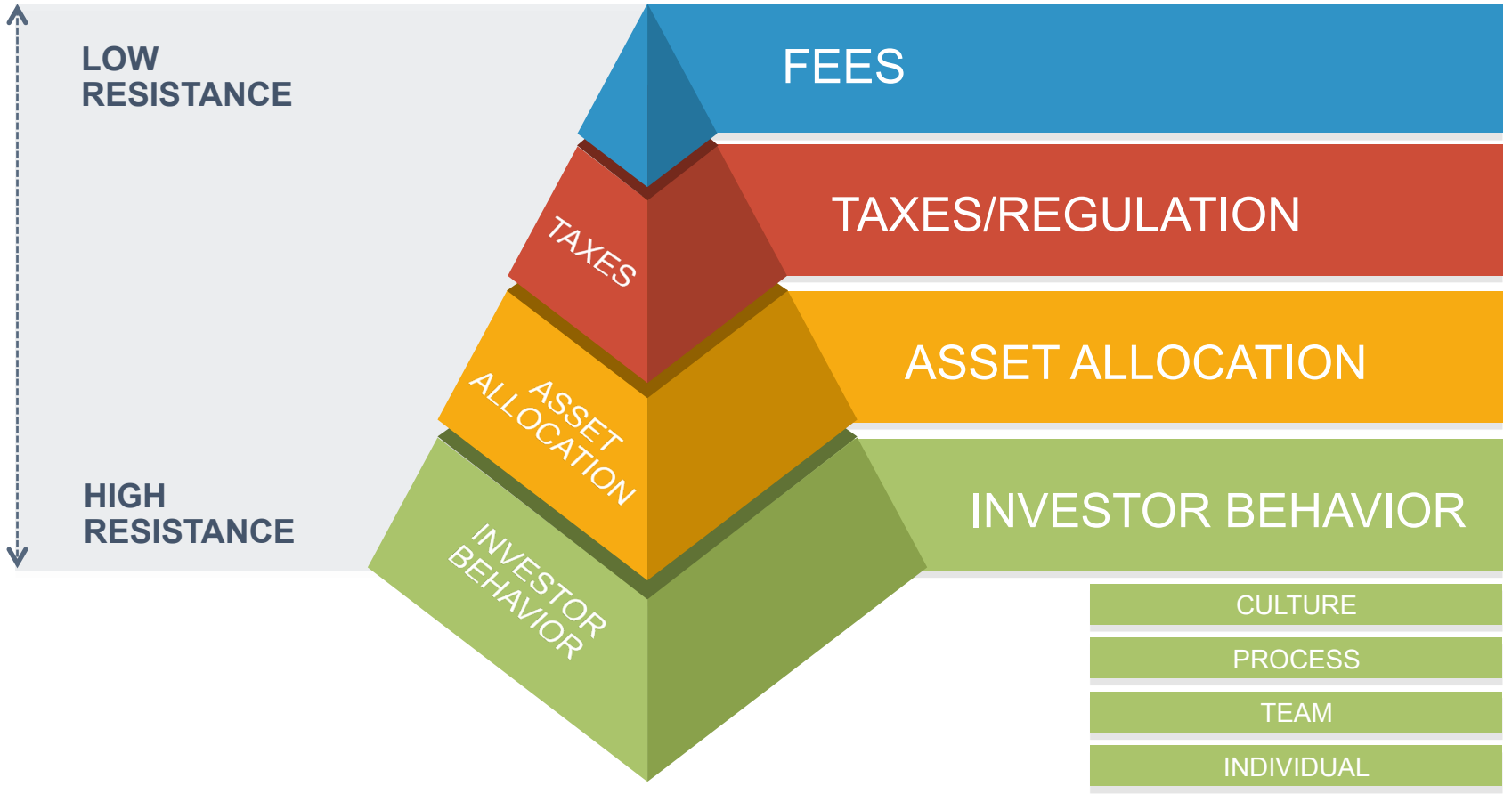
CHANGING INVESTOR BEHAVIOR
HIGH PERFORMANCE INVESTMENT TEAMS

Here´s why paying more attention to process pays off:



In sports terms, think of process as your playbook. In investing, process is your approach, investment style, discipline and consistency.

ORGNANISATIONAL PERSISTENCE IN CHANGE MANAGEMENT



FOR WHIMPS ONLY?
GETTING SERIOUS ABOUT INTERNAL RULES – EVEN IF IT HURTS

HEDGE FUNDS

Ray Dalio's No. 2 Is Trying To Impeach Him

By JON SHAZAR

http://dealbreaker.com/2016/02/ray-dalios-no-2-is-trying-to-impeach-him/

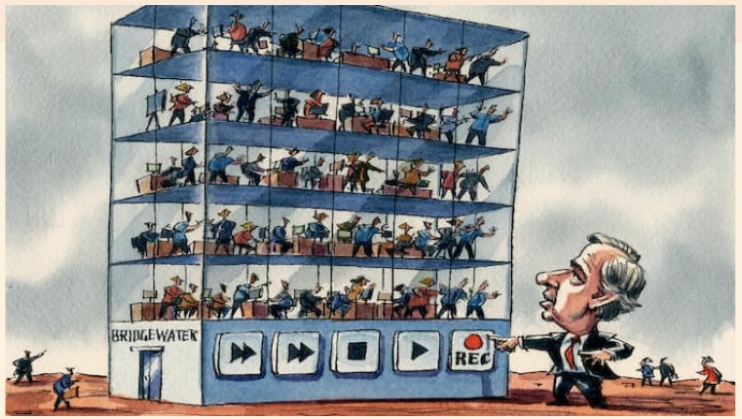
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Bridgewater Associates + Follow

Bridgewater is troubled over 'radical transparency'

Dalio's method of running his hedge fund seems weird, which reflects badly on dishonesty elsewhere

John Gapper



© Ingram Pinn

PRINCIPLES

BY RAY DALIO

http://www.bwater.com/Uploads/FileManager/Principles/Bridgewater-Associates-Ray-Dalio-Principles.pdf

"The dispute between Messrs. Dalio and Jensen will be voted on by about a dozen top employees and stakeholders in the investment firm. Those people are reviewing video recordings of meetings, transcripts and other material to prepare for the votes, according to people familiar with the matter....

The vote results and each person's individual votes will be made available to the rest of Bridgewater. "All employees see what would be hidden in most companies," Mr. Dalio said.

ESTABLISHING NEW RITUALS

ESTABLISHING NEW RITUALS I SKIN IN THE GAME

Warren Buffett on Active Vs Passive
(concepts learned from Benjamin Graham):

"The determining trait of the **enterprising [active] investor** is his willingness to devote time and care to the selection of securities that are both sound and more attractive than the average. Over many decades, an **enterprising investor of this sort could expect a worthwhile reward for his extra skill and effort** in the form of a better average return than that realized by the passive investor."

SOURCE

ESTABLISHING NEW RITUALS I
SKIN IN THE GAME / ENTERPRISING INVESTOR

Before diving head long into the new year I wanted to point out a a paper that came out last month. A paper by **Paul Woolley** and **Dimitri Vayanos** at the *London School of Economics* entitled "Taming the finance monster" attracted a fair bit of attention. In it they take to task the owners of capital for essentially putting up with the ongoing shenanigans of fund managers on their behalf. In addition to taking to task efficient markets they try to tackle the principal-agent problem in fund management.

This is surely an overlooked topic in finance. The separation of actual fund management from capital owners presents all sorts of issues. One could argue that market failures, broadly defined, occur because of the mismatch in incentives for the parties. Woolley and Vayanos write:

> *Agents have learnt that financial markets do not function like goods markets, and that the usual laws of competition do not apply under asymmetric information. Moral hazard, complexity and opacity all help them capture rents. They also benefit from mispricing, volatility and the proliferation of products. The costs and fees of intermediation go hand in hand with pricing inefficiencies in contributing to the erosion of the returns on savings.*

From Central Banking Journal, December, 2012 Issue.

Taming the finance monster

The best way to resolve global financial instability is for the owners of capital to assert themselves, with sovereign funds well positioned to take the lead, say Paul Woolley and Dimitri Vayanos.

ESTABLISHING NEW RITUALS I
SKIN IN THE GAME / ENTERPRISING INVESTOR





IT´S ALL ABOUT HAVING SKIN IN THE GAME

ESTABLISHING NEW RITUALS I SKIN IN THE GAME



DOES THE INVESTMENT MANAGER OF YOUR CHOICE HAVE SKIN IN THE GAME?

ESTABLISHING NEW RITUALS I SKIN IN THE GAME



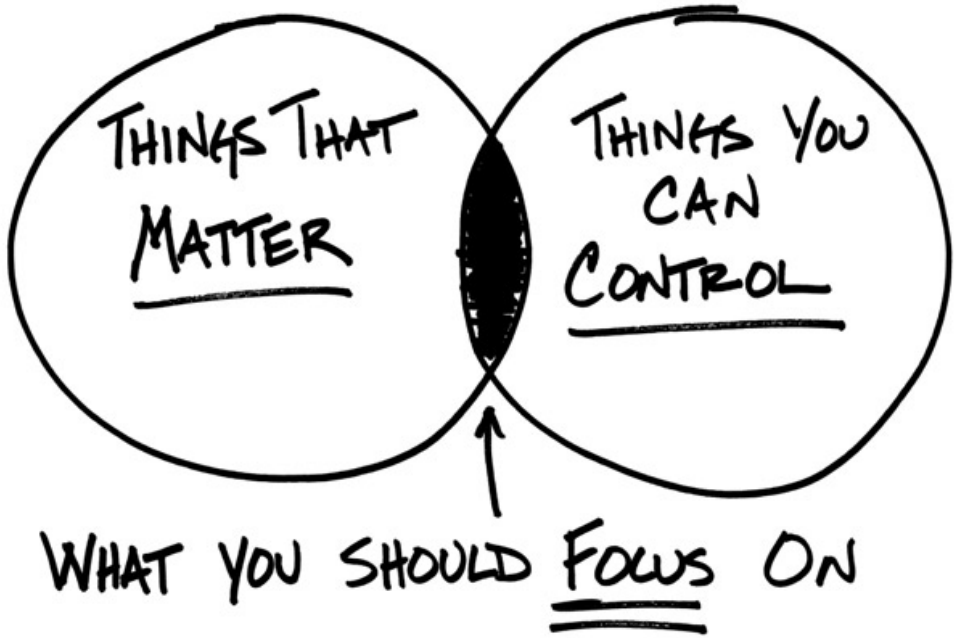
ESTABLISHING NEW RITUALS II

PARTITION YOUR WORKING DAY

SOCIAL NETWORKING ONLY DURING RESERVED TIME SLOTS

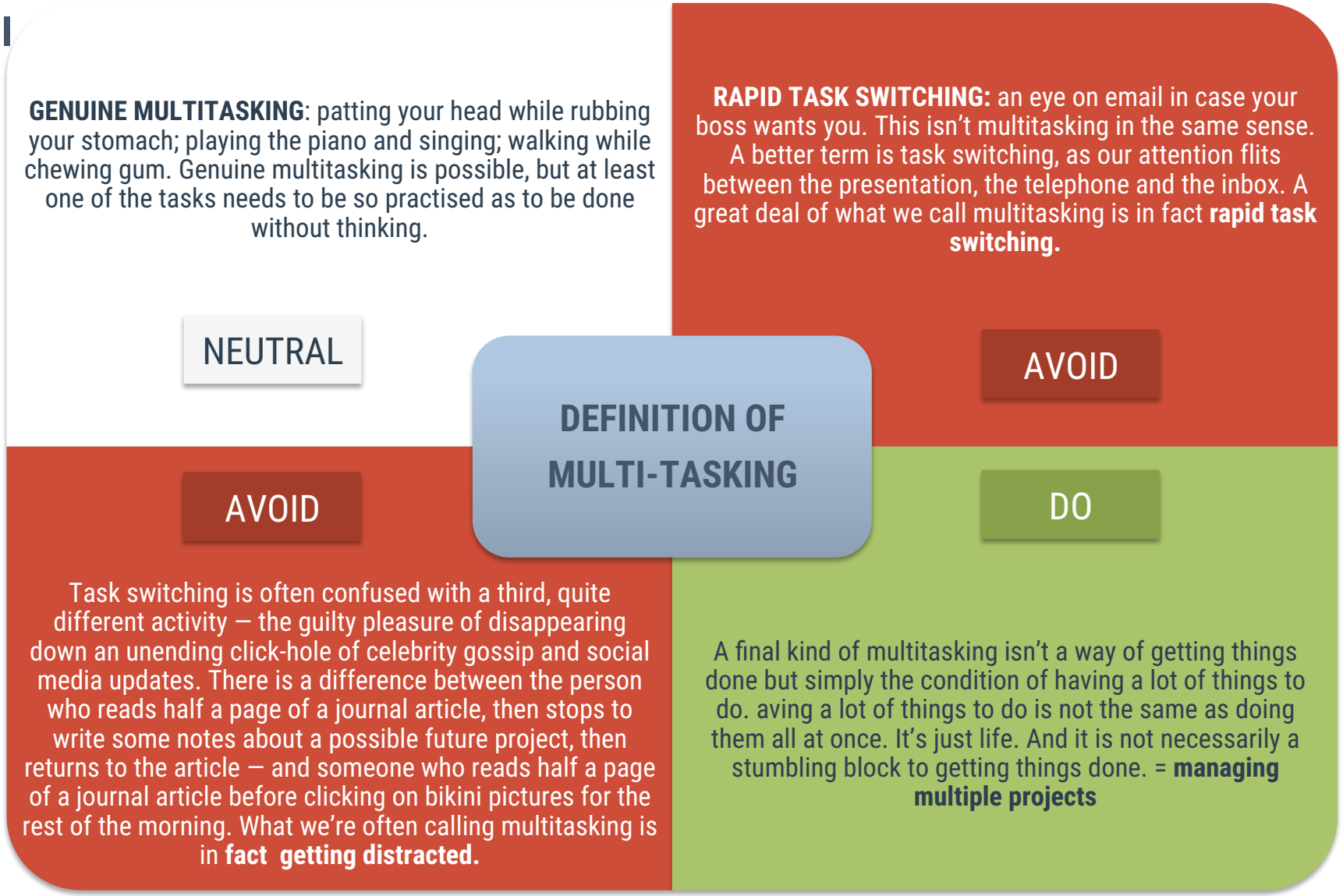
EMAILING ONLY DURING RESERVED TIME SLOTS

AVOID MULTI-TASKING



ESTABLISHING NEW RITUALS II ON THE AVOIDANCE OF MULTI-TASKING

There are at 4 different things we might mean when we talk about multitasking. These four practices — **multitasking, task switching, getting distracted and managing multiple projects** — all fit under the label “multitasking”.



ESTABLISH NEW RITUALS III
MOMENTS OF LEISURE



„For we are busy that we may have leisure.“

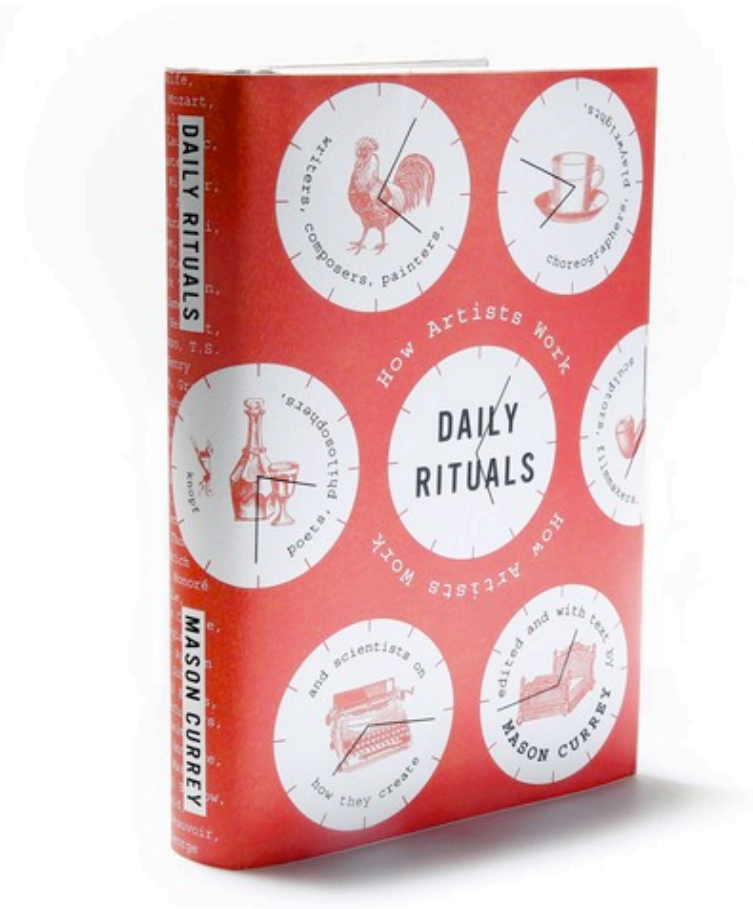
-- ARISTOTLE

ESTABLISHING NEW RITUALS III
MOMENTS OF LEISURE AS CREATIVE SOURCE

During a regular 8-10 office day, a systematic generation of creative moments is unlikely to achieve.

In the context of creativity, teamwork is a questionable form of collaboration.

Ingmar Bergman
Morton Feldman
Wolfgang Amadeus Mozart
Ludwig van Beethoven
Søren Kierkegaard
Voltaire
Benjamin Franklin
Anthony Trollope
Jane Austen
Frédéric Chopin
Gustave Flaubert
Henri de Toulouse-Lautrec
Thomas Mann
Karl Marx
Sigmund Freud
Carl Jung
Gustav Mahler



ESTABLISHING NEW RITUALS IV QUALITY JOB ROUTINE

Navy SEAL Commander and U.S. Admiral Bill McRaven, delivered the commencement speech at the University of Texas, Austin.



1. Start Off by Making Your Bed Every Morning

No great company is ever built without discipline, focus and good habits. These things are all required and are developed one small step at a time. Make a quality job done properly and promptly, no matter how small or trivial, a part of your culture. Then small wins will become big wins, naturally and repeatedly. The point is, developing regular good habits sets the stage for bigger accomplishments.

ESTABLISHING NEW RITUALS V
MINIMIZING THE ZEIGARNIK EFFECT

The Zeigarnik Effect is the tendency to experience intrusive thoughts about an objective that was once pursued and left incomplete.

When we leave things unfinished, we can't quite let go of them mentally.



Bljuma Wulfowna Seigarnik

ESTABLISHING NEW RITUALS VI
FEES & LOYALTY

Ritholtz Wealth Management Celebrates Second Anniversary with a Reward for its Clients

Investment advisory firm launches groundbreaking initiative to recognize the prudent behavior and long-term outlook of its customers

NEW YORK, Sept. 16, 2015 /PRNewswire/ — Ritholtz Wealth Management today announced its groundbreaking Milestone Rewards initiative, which reduces the management fees its clients pay based upon the length of time they remain committed to the firm's disciplined investment strategy. Milestone Rewards is being rolled as RWM celebrates its second anniversary.

Effective immediately, all Ritholtz Wealth Management clients are eligible for the lowered management fee upon the completion of their 36th month with the firm. This reduction in management fees will result in approximately 16% average annual savings for clients, according to internal calculations.

ESTABLISHING NEW RITUALS VII
AVOID CHRONIK OVERWORK

There's a large body of research that suggests that regardless of our reasons for working long hours, overwork does not help us. For starters, it doesn't seem to result in more output. In a study of consultants by Erin Reid, a professor at Boston University's Questrom School of Business, managers could not tell the difference between employees who actually worked 80 hours a week and those who just pretended to. While managers did penalize employees who were transparent about working less, Reid was not able to find any evidence that those employees actually accomplished less, or any sign that the overworking employees accomplished more.

Considerable evidence shows that overwork is not just neutral – it hurts us and the companies we work for. Numerous studies by Marianna Virtanen of the Finnish Institute of Occupational Health and her colleagues (as well as other studies) have found that overwork and the resulting stress can lead to all sorts of health problems, including impaired sleep, depression, heavy drinking, diabetes, impaired memory, and heart disease. Of course, those are bad on their own. But they're also terrible for a company's bottom line, showing up as absenteeism, turnover, and rising health insurance costs. Even the Scroogiest of employers, who cared nothing for his employees' well-being, should find strong evidence here that there are real, balance-sheet costs incurred when employees log crazy hours.

Harvard Business Review

PANTHERA SOLUTIONS

ORGANIZATIONAL CULTURE

The Research Is Clear: Long Hours Backfire for People and for Companies

by Sarah Green Carmichael

AUGUST 19, 2015

SOURCE

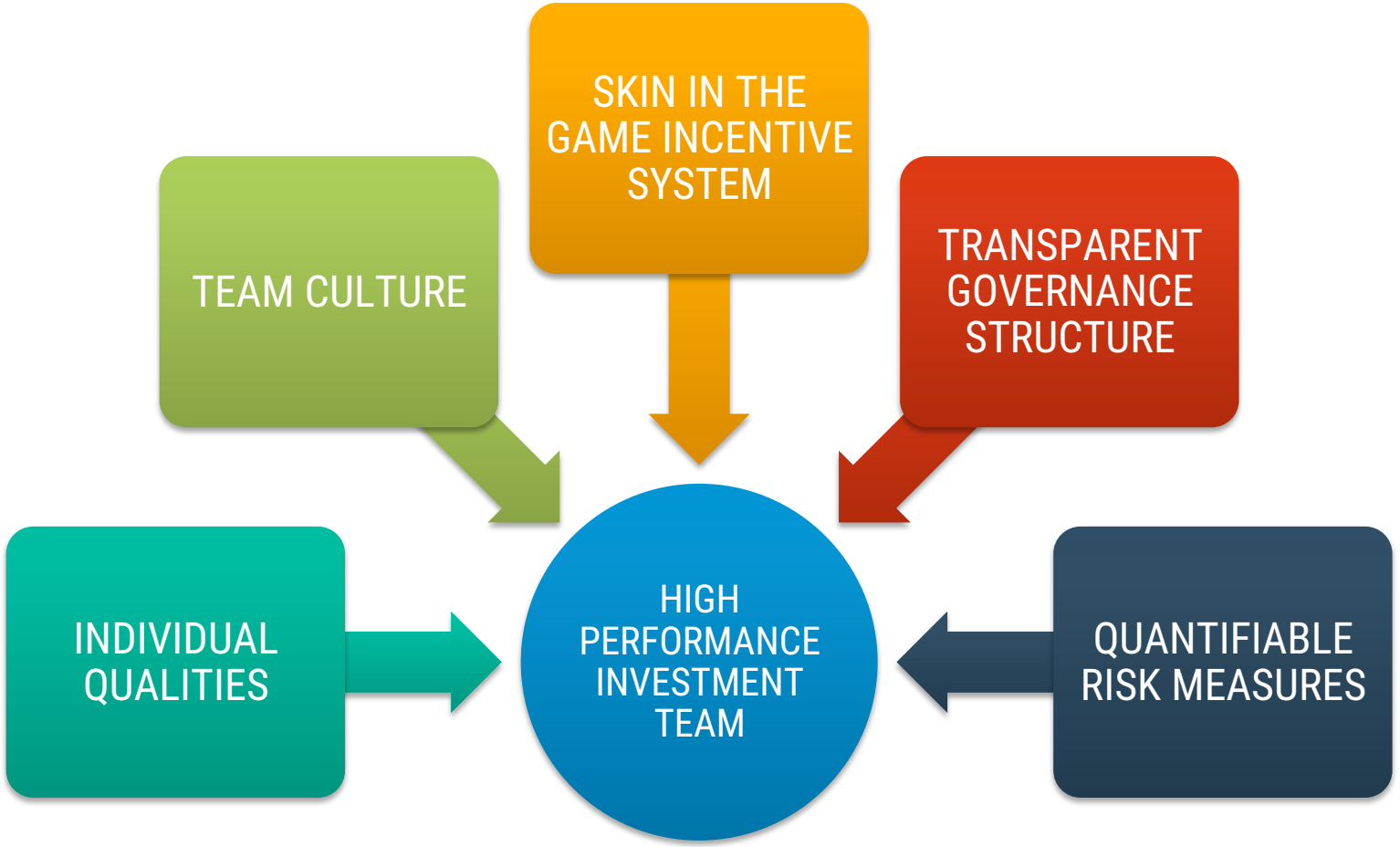
Then there's the version that looks at our psychology. In this one, we log too many hours because of a mix of inner drivers, like ambition, machismo, greed, anxiety, guilt, enjoyment, pride, the pull of short-term rewards, a desire to prove we're important, or an overdeveloped sense of duty. Some of these are negative (see: guilt, anxiety) but many are positive. In fact, multiple researchers have actually found that work is *less* stressful than our home lives. For some, work can be a haven, a place to feel confident and in control.

Now, this is not to say we can never pull a long day. We just can't do it routinely. Most of the research suggests that people can put in a week or two of 60 hours to resolve a true crisis. But that's different from chronic overwork.

ESTABLISHING NEW RITUALS
GOAL – HIGH PERFORMANCE INVESTMENT TEAM

"Constantly probe the people who report to you, and encourage them to probe you."

-- Ray Dalio



HIGH PERFORMANCE INVESTMENT TEAMS



DOABLE - NOT A WALK IN THE PARK

EXERCISE

DEFINE YOUR OWN INVESTMENT PHILOSOPHY

These 10 questions can help you sort through the noise and create a personalized investment philosophy:

1. What are your core investment beliefs?
2. Do you understand your philosophy and why do you believe in it?
3. Do you know the potential risks?
4. Does it suit your personality and individual circumstances?
5. Will your philosophy help you follow whatever strategy you implement?
6. What constraints are necessary for turning your philosophy into a portfolio?
7. What will you own and why will you own it?
8. What will cause you buy or sell?
9. What will cause you to make changes in your portfolio over time?
10. What types of investments or strategies will you avoid?

THE THIRD GENERATION BUILDING BLOCK 4

PRODUCT DUE DILIGENCE & SELECTION



INCOHERENCE IN DEFINITION OF ASSET CLASSES
PASSIVE REPLICATION + ASYMMETRY AS DEFAULT SETTING

PRODUCT AGNOSTICISM

"Given that I'm never sure, I don't want to have any concentrated bets."

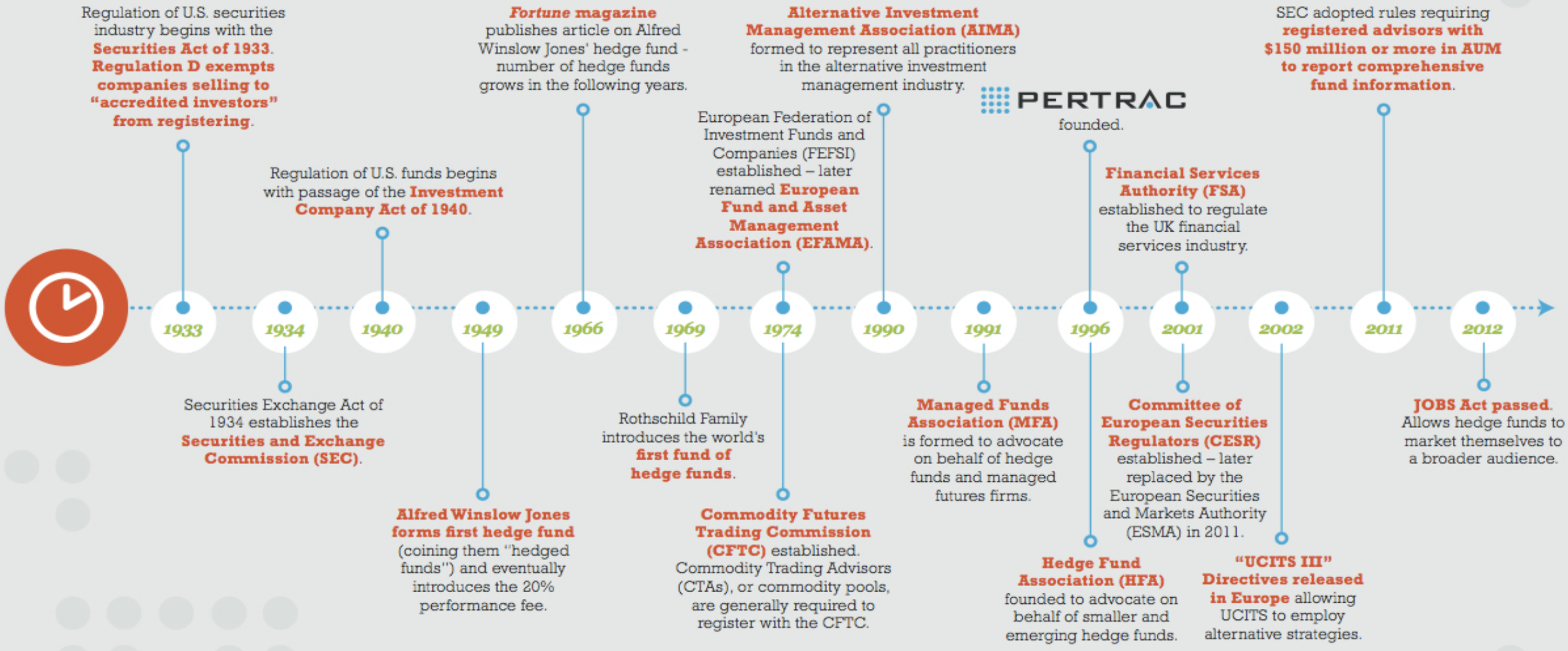
- Ray Dalio

DUE DILIGENCE PROCESS

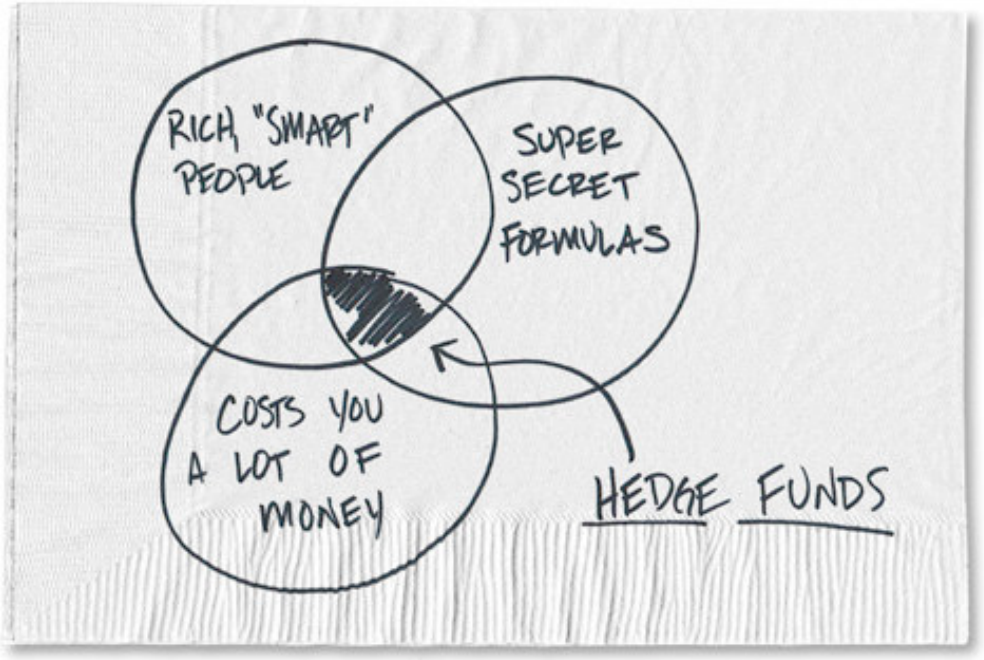
1. STRATEGY
2. TEAM
3. STRUCTURE

HEDGE FUNDS

BRIEF HISTORY of HEDGE FUNDS



HEDGE FUNDS



Keynes, the hedge fund pioneer

By Gavyn Davies

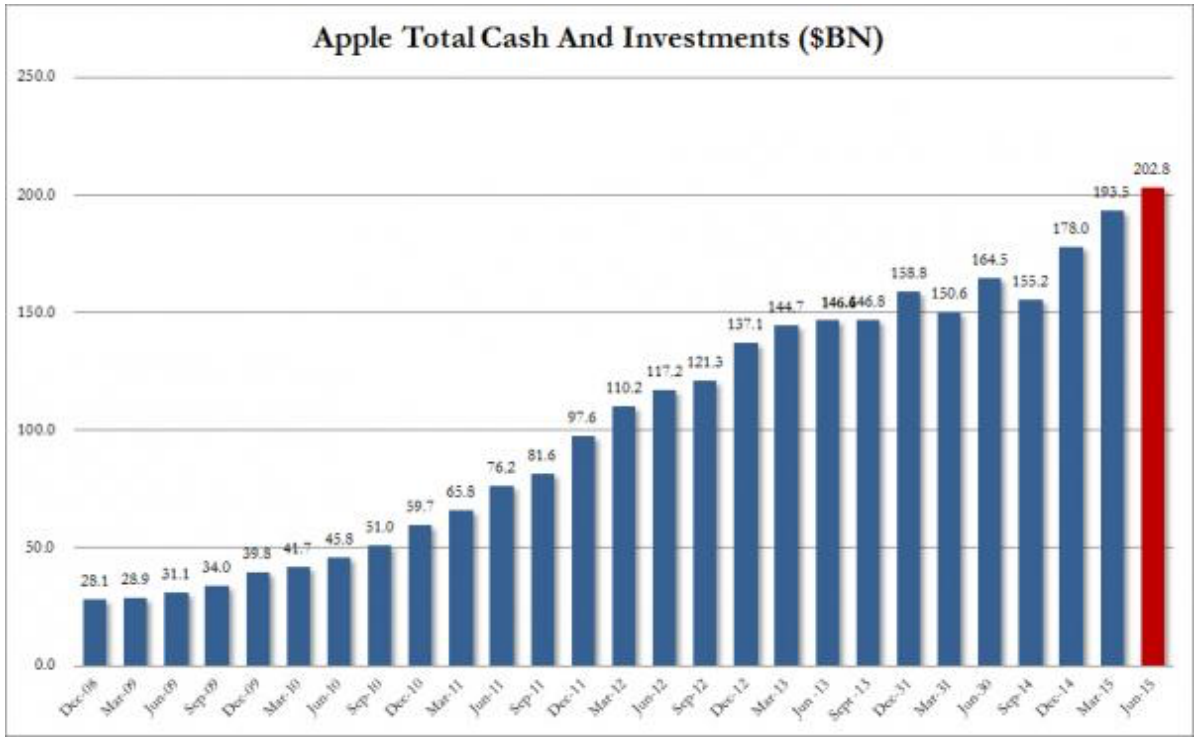
The macroeconomics of John Maynard Keynes continue to dominate the global economic policy debate to this very day. But many have forgotten that the great intellectual was also one of the most active investors of his era.

He made and lost several fortunes, for himself, his friends, his college (King's, Cambridge) and for City institutions which he chaired or founded. In some respects, he was an early hedge fund investor, first in macro in the 1920s, and then in equities in the 1930s. He ended as one of the most successful investors of the first half of the last century, but along the way he learnt many lessons which resonate to this day.

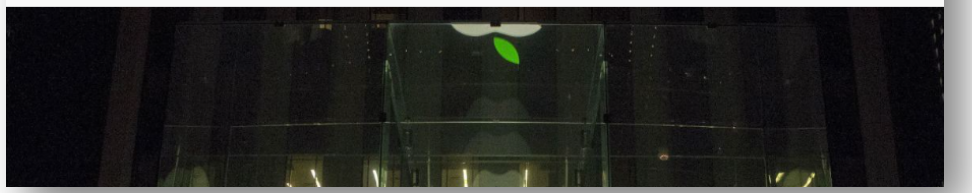
SOURCE

HEDGE FUNDS
THE BIGGEST HF YOU HAVE NEVER HEARD OF

Today, sections of Apple's annual report read more like the balance sheets of an investment bank than a computer maker.



The mysterious fund in the desert that manages Apple's cash



Thursday, March 07, 2013, 12:54 pm PT (03:54 pm ET)

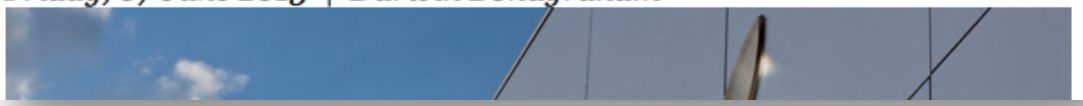
Apple's Braeburn Capital leaves Reno office, doesn't update address [u]

By Daniel Eran Dilger

Apple's Braeburn Capital subsidiary, which manages the company's vast cash reserves as its "asset management corporation," is no longer located at its last reported address.

Is Apple a Tech Firm or Hedge Fund?

Friday, 07 June 2013 | Darwin Bondgraham



The World's Biggest "Hedge Fund", $30 Billion Bigger Than Bridgewater, Remains Mysterious As Ever

Submitted by Tyler Durden on 07/23/2015 10:42 -0400

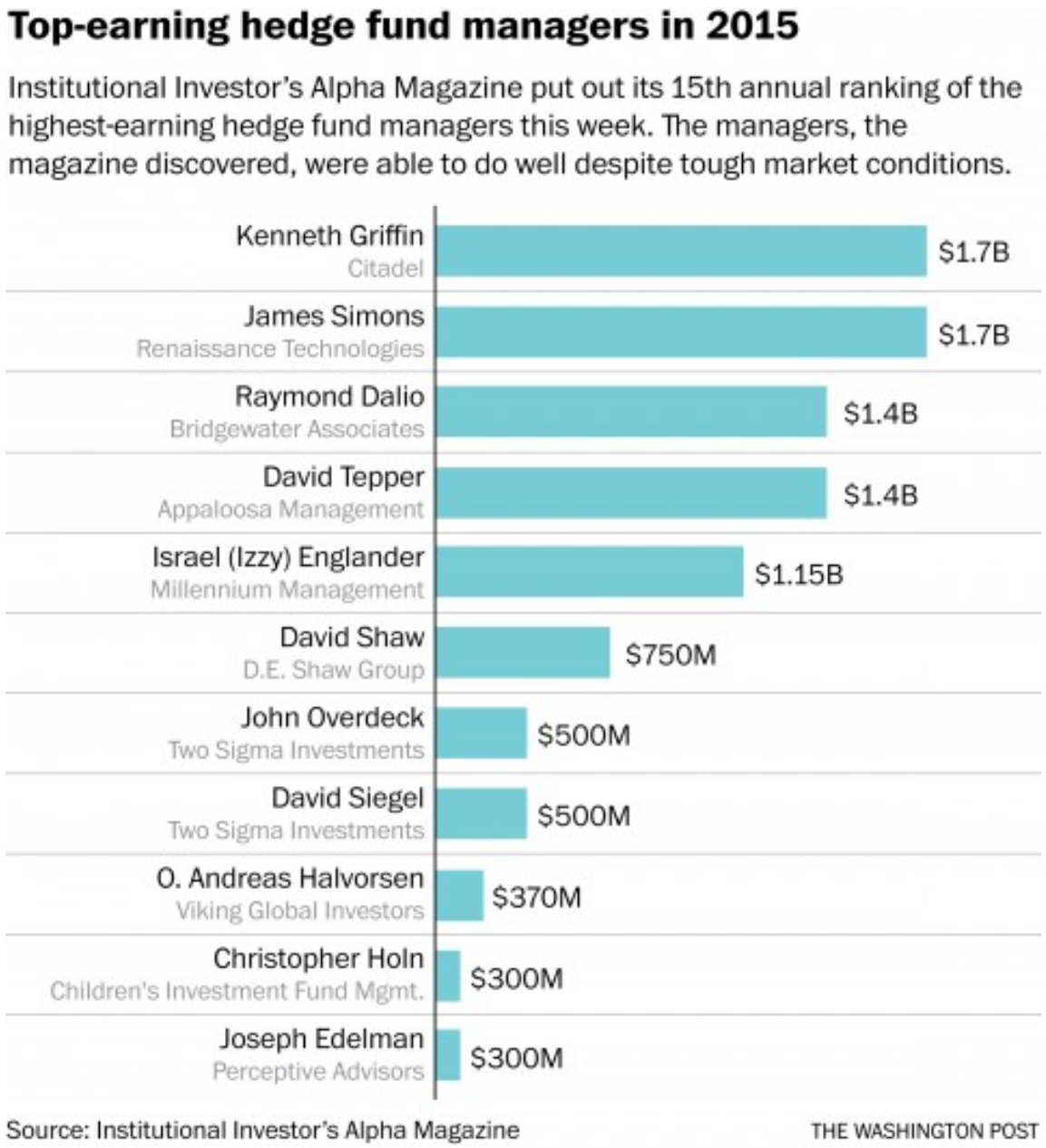
HEDGE FUNDS

The World's Top Hedge Funds:

Source: Institutional Investor

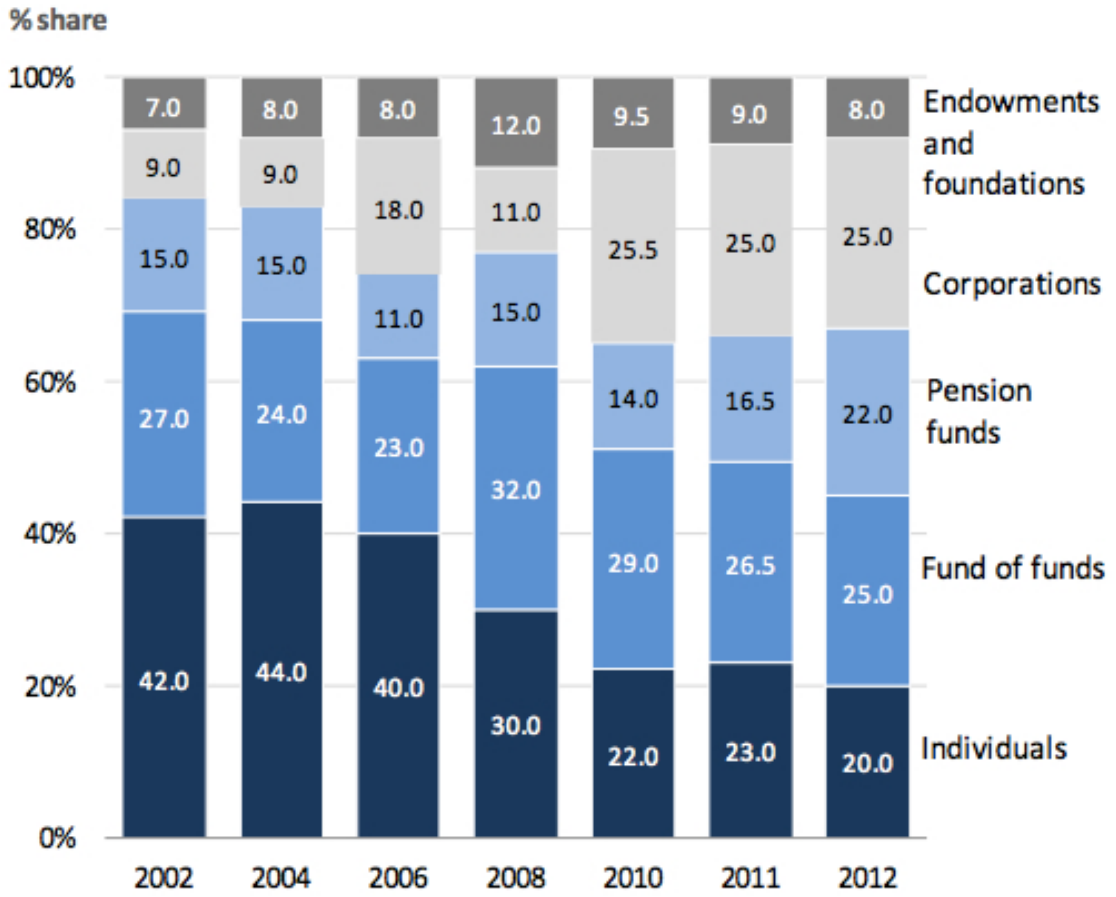
Rank	Firm	Headquarters	AUM as of first quarter 2016 (billions of USD)
1	Bridgewater Associates	Westport, CT	$104.2
2	Man Group	London	$76.4
3	AQR Capital Management	Greenwich, CT	$47.2
4	Och-Ziff Capital Management	New York	$44.6
5	Two Sigma Investments	New York	$35.0
6	Millennium Management	New York	$34.0
6	Winton Capital Management	London	$34.0
8	D.E. Shaw & Co.	New York	$33.1
9	Viking Global Investors	Greenwich, CT	$33.1
10	BlackRock Advisors	New York	$31.1

HEDGE FUNDS
HIGHEST PAID MANAGERS



HEDGE FUNDS

Figure 28: Global Hedge Funds by Source of Capital



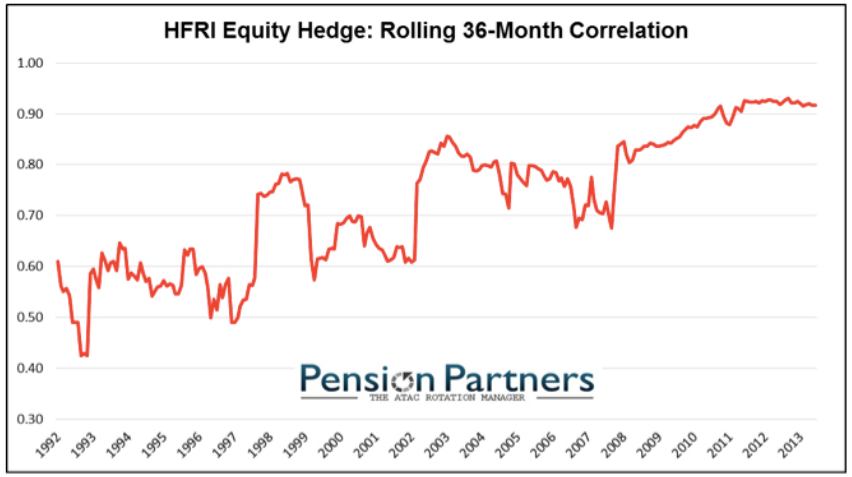
Source: TheCityUK estimates

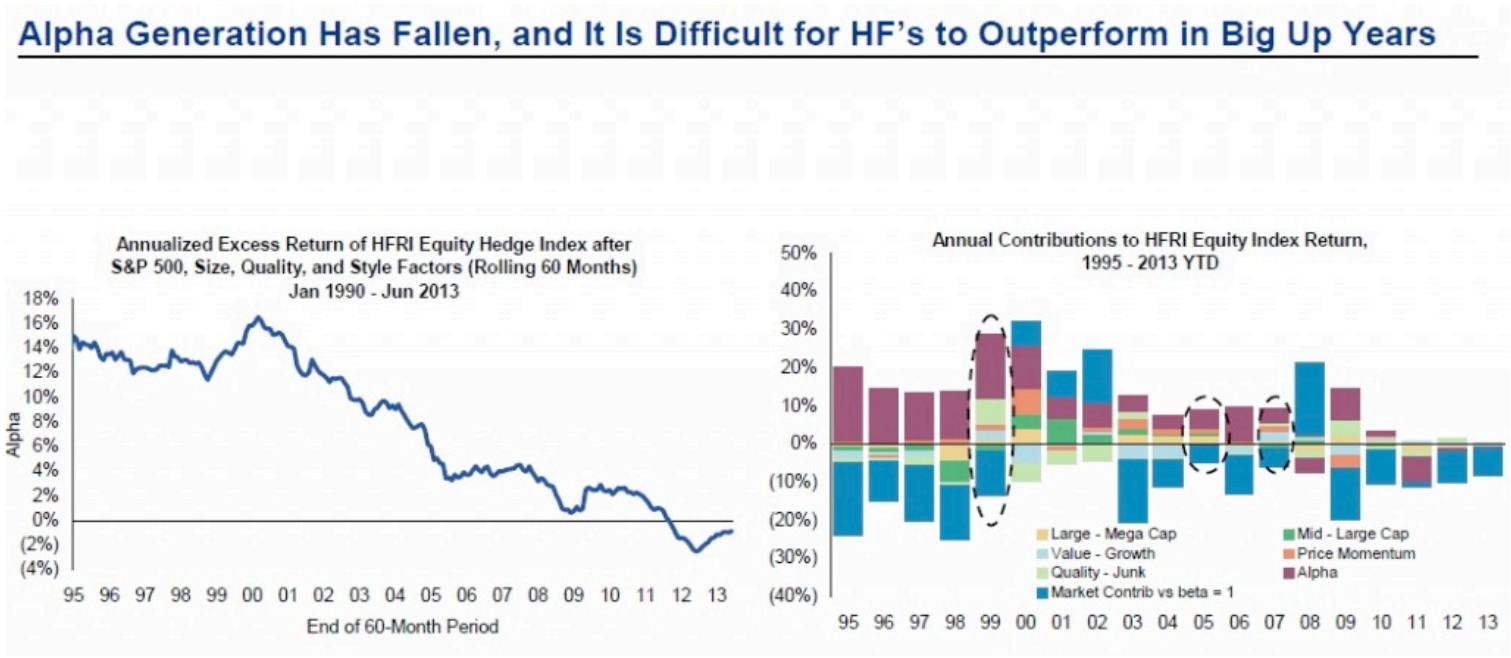
HEDGE FUNDS

SOURCE
Adam S. Parker, Ph.D.,
Chief US Equity Strategist,
Morgan Stanley

Increased Correlation/Beta

Long/short funds have been gradually transformed over time into a lower beta version of the equity market. Over the past three years, the rolling correlation with the S&P 500 has been consistently over .90. This is a markedly different profile than what existed in the early 1990's.





INCOHERENT DEFINITIONS OF HEDGE FUNDS

HEDGE FUNDS

"A loosely regulated private pooled investment vehicle that can invest in both cash and derivative markets on leveraged basis for the benefits of its investors"

Thomas Schneeweis, University of Massachusetts

Some common ground:

Can be less regulated	Can take more risk	Can follow a more flexible investment policy (short selling, leverage, …)	Should offer less correlation
Mainly for ´Qualified Investors´	Can charge higher, more complex structured fees	Can have limited liquidity and transparency ("black box")	Can be run in unusual legal structures

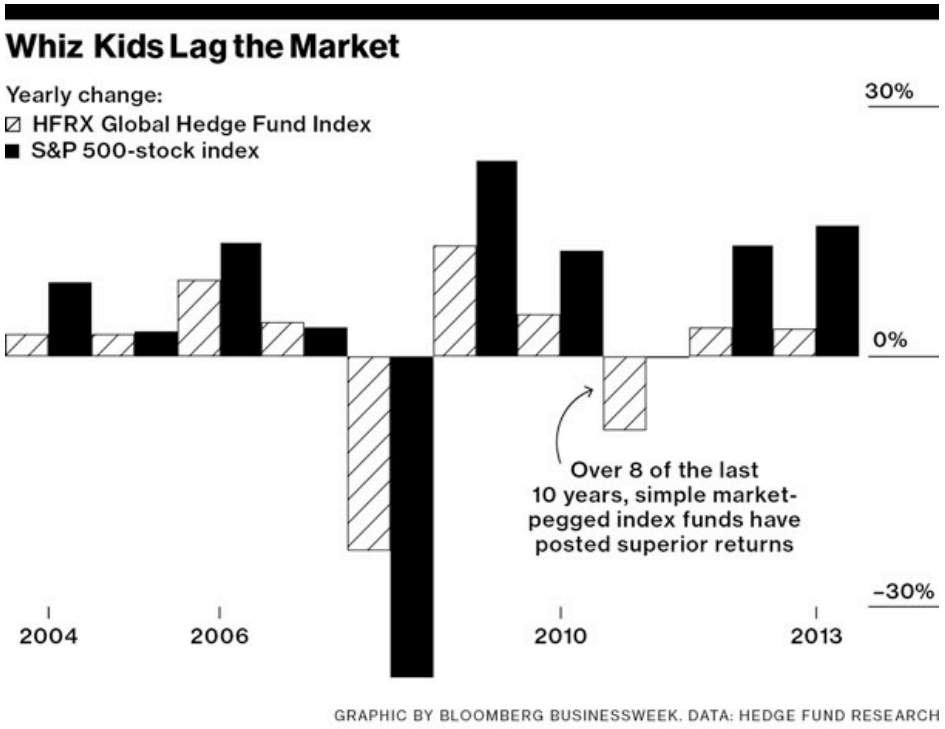
HEDGE FUNDS
2008 REALITY CHECK

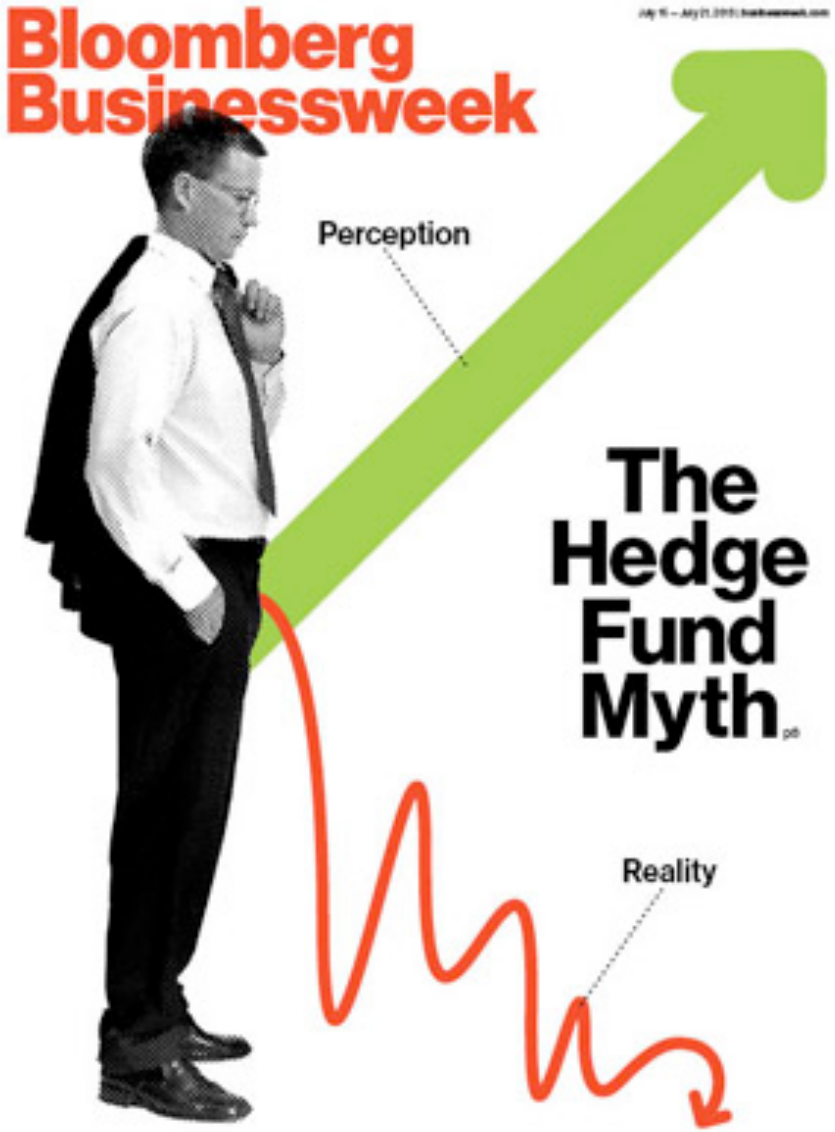


What the hell did YOU get me into?

And now you tell me I should add even more?!!!

HEDGE FUNDS
2008 REALITY CHECK





HEDGE FUNDS

Macro Hedge Funds Stink at Market Timing

10/10/2012 3:34 PM SOBER LOOK 1 COMMENT

By Walter Kurtz, Sober Look

In spite of improved hedge fund performance during Q3-2012, hedge funds with Macro strategy focus continued to struggle (as **discussed earlier**).

> ***HedgeWeek***: *– Macro hedge funds detracted from industry wide gains on weakness in trend following and commodity exposures, with the HFRI Macro Index posting a decline of 0.26 per cent; the September decline was the second consecutive monthly decline for macro. Systematic macro funds posted declines on short exposures to equities and commodity metals, as the HFRI Macro: Systematic/CTA Index posted a decline of 0.9 per cent. Discretionary macro and currency focused strategies had positive contributions from positions concentrated in Dollar/Euro, global equities and short fixed income.*

Their poor performance can be explained in one sentence: Macro hedge funds are terrible at timing financial markets. The chart below shows Macro hedge funds' positioning in equities over time. "1" means maximum long allocation to equities (on a net basis) and "-1" means maximum short allocation. These investment "professionals" missed the rally from late last year into early this year (in spite of **signs pointing to markets being oversold at the time**). They also missed the correction this spring and early summer (in spite of **signs pointing to froth** in the markets) and then again missed the ECB-induced rally.



HEDGE FUNDS
FEES = ALPHA KILLER

Calpers, Citi, Merrill Lynch, Morgan Stanley: Most hedge funds not worth the fees

May 02, 2012 Lawrence Delevingne
Read more: Calpers Citi Morgan Stanley Fees

Professional portfolio consultants dish on alternatives at the Milken Institute Global Conference.

LOS ANGELES -- Top portfolio consultants questioned the need for large allocations to hedge funds at Milken Institute Global Conference, saying only a fraction of the industry deserved the high fees they charge.

Lisa Shalett

Lisa Shalett, chief investment officer of Merrill Lynch Global Wealth Management, pointed out an inherent problem: hedge funds may pitch themselves as low-correlation investments, but they are paid on performance even if they simply mimic the markets. In other words, investors often pay dearly for beta.

"It's a massive misalignment of incentives," said Shalett, speaking on the "Diversifying Portfolio Risk Through Asset Allocation" panel Tuesday. "For...

Soros Says Hedge Funds Can't Beat Market Because of Fees

By Katherine Burton - Jan 25, 2013 8:25 PM GMT+0100

George Soros, the billionaire philanthropist and former hedge-fund manager, said institutions that invest in the industry should expect poor performance, in part because managers charge high fees.

Enlarge image



"Outperforming the market with low volatility on a consistent basis is an impossibility," said Soros. "I outperformed the market for 30-odd years, but not with low volatility." Photographer: Chris Ratcliffe/Bloomberg



Jan. 25 (Bloomberg) -- Soros Fund Founder and Chairman talks about the European economy from the World Economic Forum in Davos, Switzerland. (Source: Bloomberg)

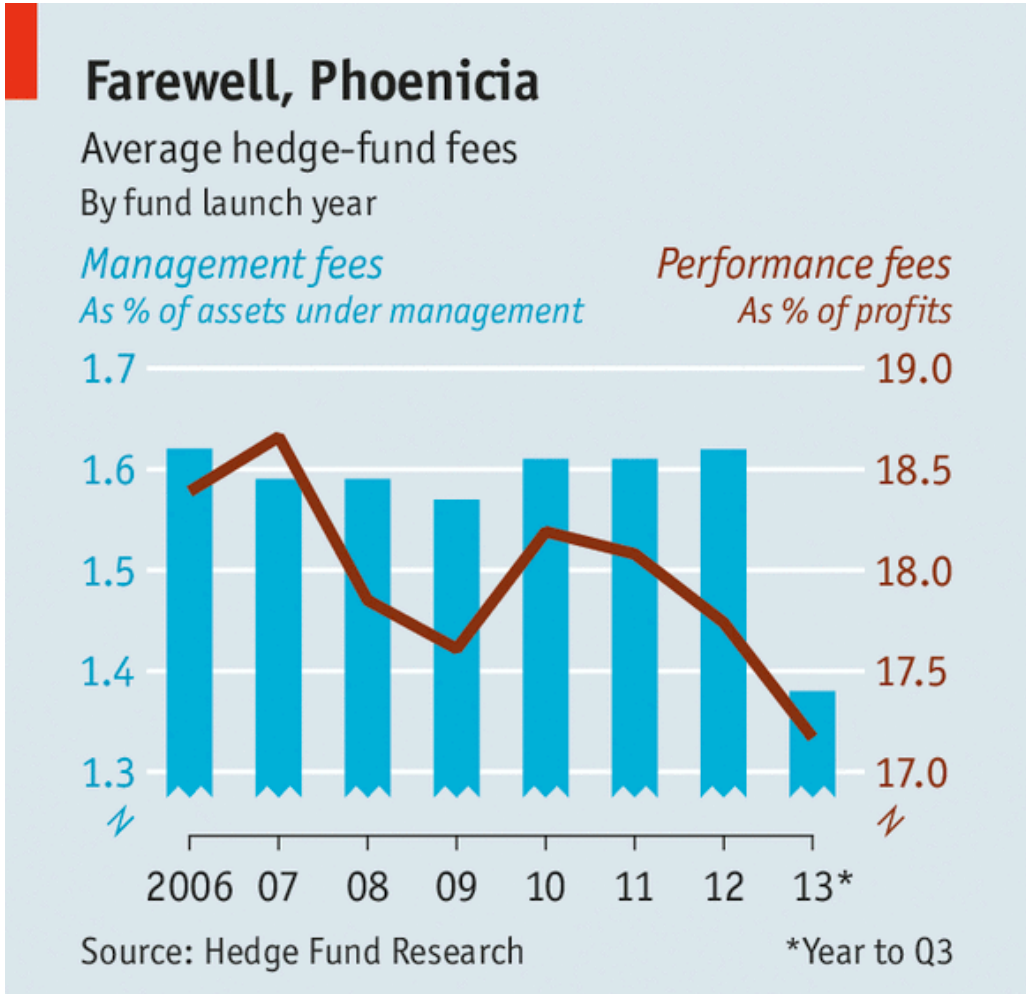
"Since hedge funds are now a dominant force in the market, they can't, as a group, outperform the market," Soros said today in a Bloomberg Television interview with Erik Schatzker from the World Economic Forum in Davos, Switzerland. The funds' fees, typically 2 percent of assets and 20 percent of returns, eat into profits, Soros said.

Soros's hedge fund operated until 2011, when he turned New York-based Soros Fund Management LLC into a family office that now oversees $24 billion. He averaged returns of about 20 percent a year since 1969 at the firm and its predecessor.

Hedge-fund performance will also be impeded because managers and investors are reluctant to take risks, Soros said.

"Outperforming the market with low volatility on a consistent basis is an impossibility," said Soros, 82. "I outperformed the market for 30-odd years, but not with low volatility."

HEDGE FUNDS
2/20 ADE



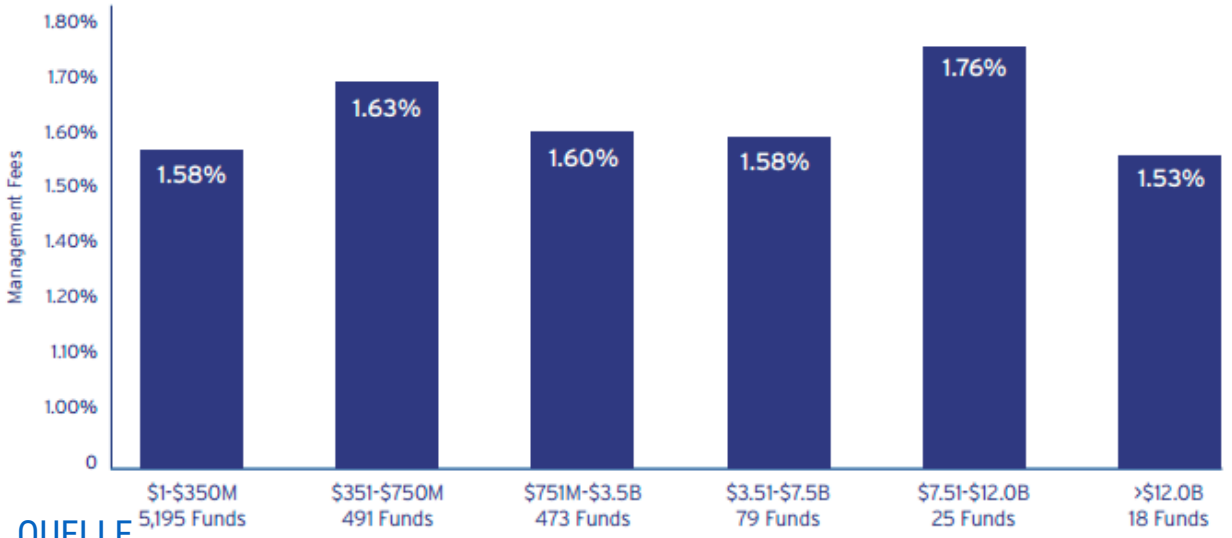
WALL STREET

Hedge Fund Investors Aren't as Dumb as They Look

3 MAY 30, 2014 4:24 PM EDT

By Matt Levine

Chart 13: Average Management Fees by Fund Size: 2013



Source: Citi Investor Services analysis based on firms reporting across the HFR & HFI data set.

QUELLE

HEDGE FUNDS
REGULATION & RETURNS ENFORCE CLOSING

More Hedge Funds Close Up Shop as Returns Fizzle

Published: Friday, 2 Nov 2012 | 1:33 PM ET Text Size

By: Reuters

Generating strong returns is getting so tough for hedge fund managers, supposedly the high-earning masters of any market, that some are shutting up shop and more look poised to follow.



LWA | Image Bank | Getty Images

Years of choppy markets whipsawed by political risk have crippled performance and left many firms with little in the way of income earned by hefty fees.

(*Read More:* **Track Stock Funds, Bond Funds, Money Market Funds and ETFs Here**)

Now, with an investor base increasingly ready to pull out, several are calling it quits.

Edoma Partners, one of the most talked about hedge fund launches since the financial crisis, said on Thursday it was closing just two years after it started, hit by poor performance and a flurry of investor redemptions.

Pierre Henri-Flamand, the ex-**Goldman Sachs** [GS 123.25 ▼ -1.60 (-1.28%)] trader turned founder, blamed "unprecedented market conditions".

Other, more veteran managers, have also decided to exit.

Greg Coffey, one of the industry's best known figures, decided to retire early and liquidate one of his funds at **Moore Capital**, sources said earlier this month.

That followed Driss Ben-Brahim's decision to retire from **GLG**, the hedge fund he joined in 2008 and now owned by **Man Group**.

"It's been too long that hedge funds haven't delivered what they promised," said one investor, asking not to be named.

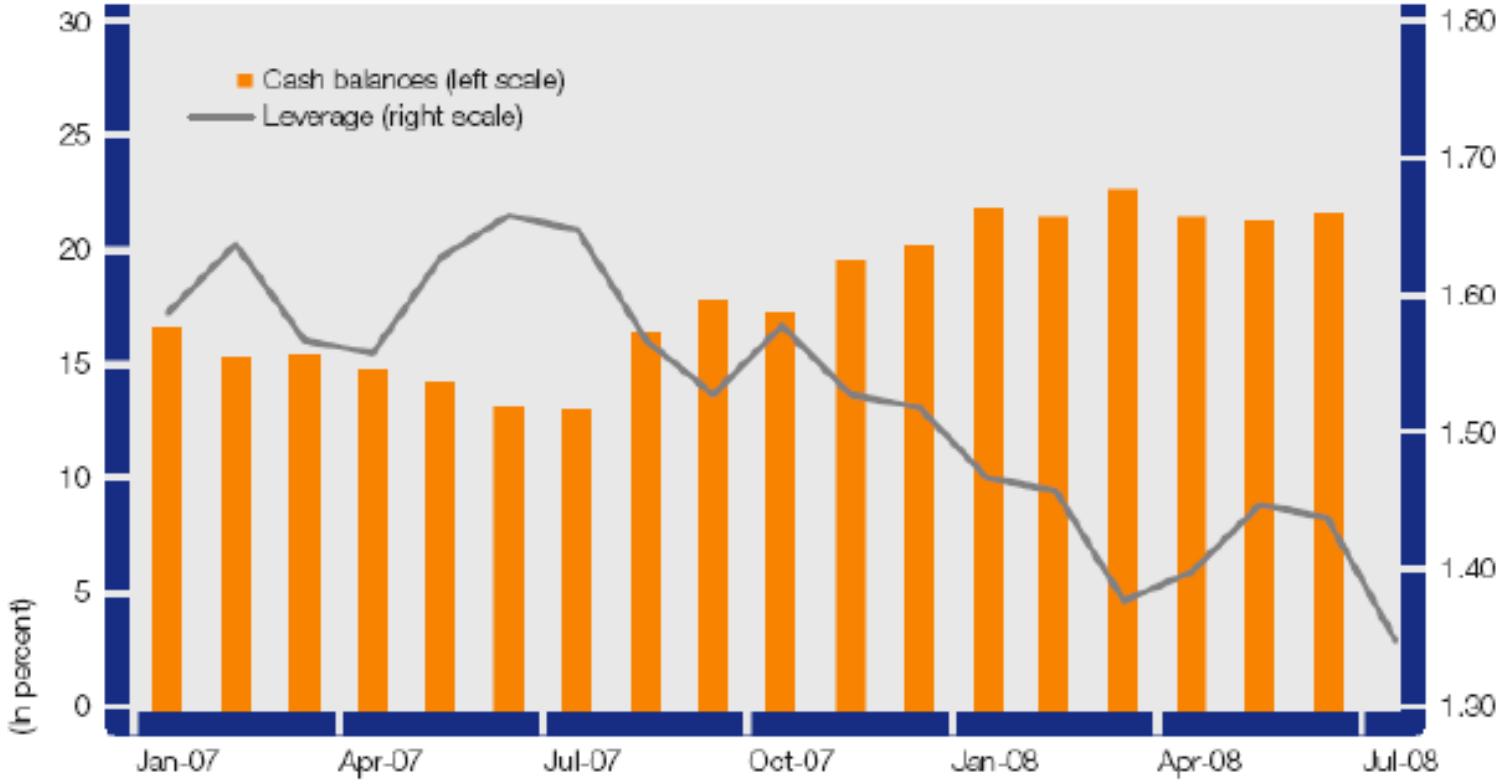
3 HEDGE FUND MYTHS

HEDGE FUNDS
MYTH A – NON-CORRELATION

Benchmark Performance Summary

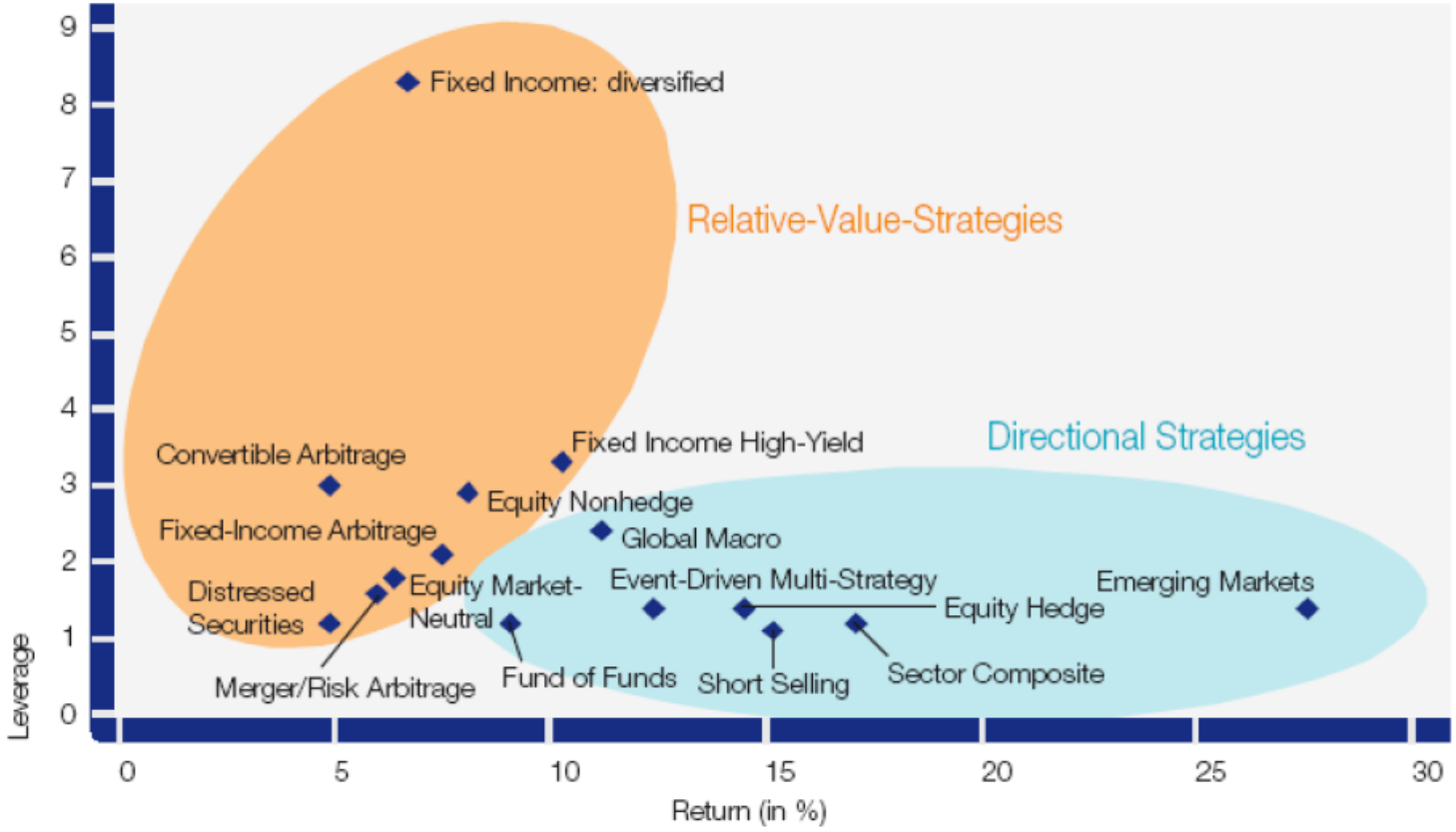
	Currency	Index Value Nov 08	Index Value Oct 08	Return Nov 08	Return Oct 08	Return YTD
Credit Suisse/Tremont Hedge Fund Index	USD	351.20	366.39	-4.15%	-6.30%	-19.04%
Convertible Arbitrage	USD	223.82	228.10	-1.88%	-12.59%	-30.92%
Dedicated Short Bias	USD	90.46	87.79	3.04%	9.66%	16.83%
Emerging Markets	USD	263.92	268.95	-1.87%	-13.63%	-30.56%
Equity Market Neutral	USD	224.54	377.08	-40.45%	-1.83%	-40.56%
Event Driven	USD	400.56	413.85	-3.21%	-5.09%	-16.69%
Distressed	USD	463.96	488.38	-5.00%	-5.66%	-18.41%
Multi-Strategy	USD	372.86	381.13	-2.17%	-4.77%	-15.83%
Risk Arbitrage	USD	273.26	273.31	-0.02%	-3.06%	-4.79%
Fixed Income Arbitrage	USD	168.13	178.11	-5.60%	-14.04%	-28.24%
Global Macro	USD	576.30	567.56	1.54%	-5.13%	-5.67%
Long/Short Equity	USD	397.78	403.48	-1.41%	-7.13%	-20.60%
Managed Futures	USD	277.61	268.96	3.22%	4.96%	15.59%
Multi-Strategy	USD	280.04	293.63	-4.63%	-6.94%	-22.45%

HEDGE FUNDS
MYTH B – HIGHLY LEVERAGED



Source: Morgan Stanley Prime Brokerage. [L]
Note: Leveraged defined as assets divided by equity capital. Cash balances as a percent of total assets.

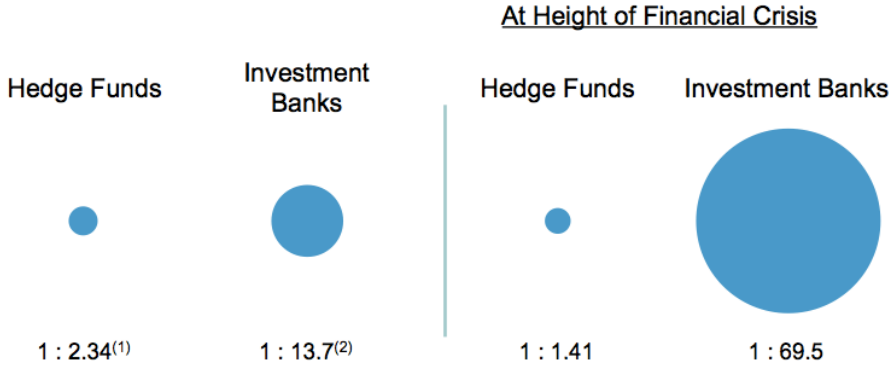
HEDGE FUNDS
MYTH B – HIGHLY LEVERAGED



Source: Credit Suisse, Beurteilung der De-leveraging-Risiken für Hedge-Fonds, 20 March 2008.

Hedge funds' leverage risk is low.

Hedge fund leverage is governed largely by private relationships with its prime brokers. A fund posts collateral with this prime broker to secure its trades and the broker uses its own risk matrix to determine how much to lend.

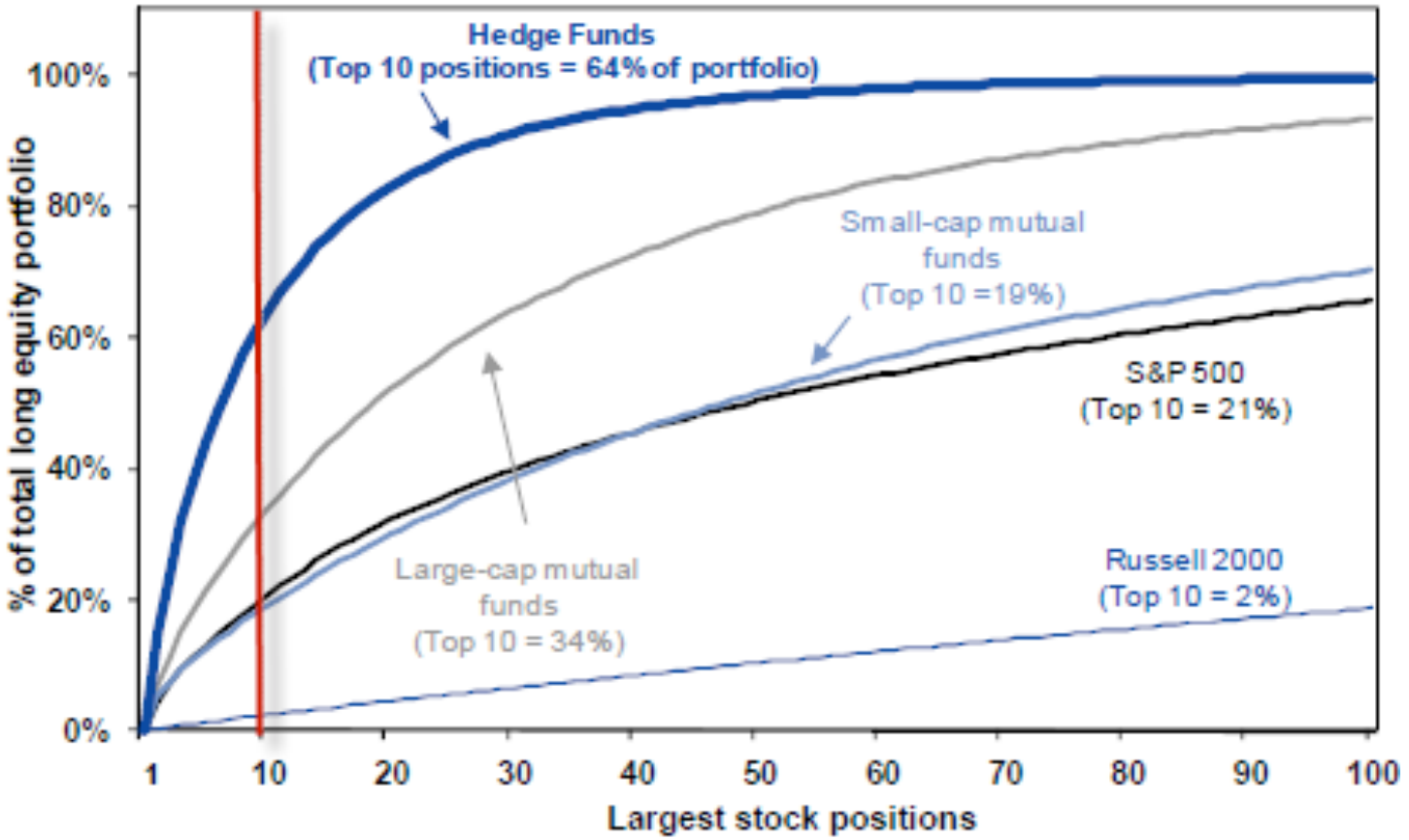


(1) "Hedge Fund Market Update," Bank of America Merrill Lynch Global Markets Financing & Futures, December 2011.
(1) Forbes.com

32

HEDGE FUNDS
MYTH C – DIVERSIFIED PORTFOLIOS

2. Hedge funds run highly concentrated portfolios. The latest numbers from Goldman indicate that top 10 positions make up some 64% of hedge fund equity portfolios. That compares to 34% for large-cap mutual funds. Such concentrations indicate that hedge fund overall performance is driven by just a few stocks.



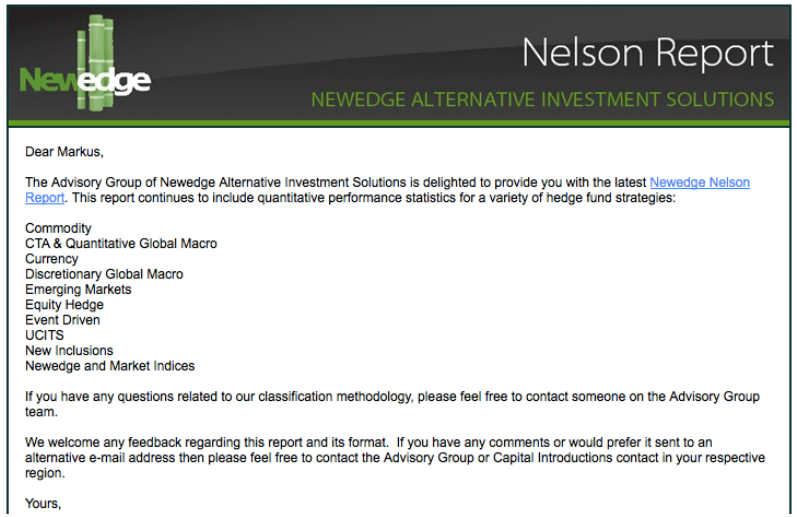
PANTHERA SOLUTIONS

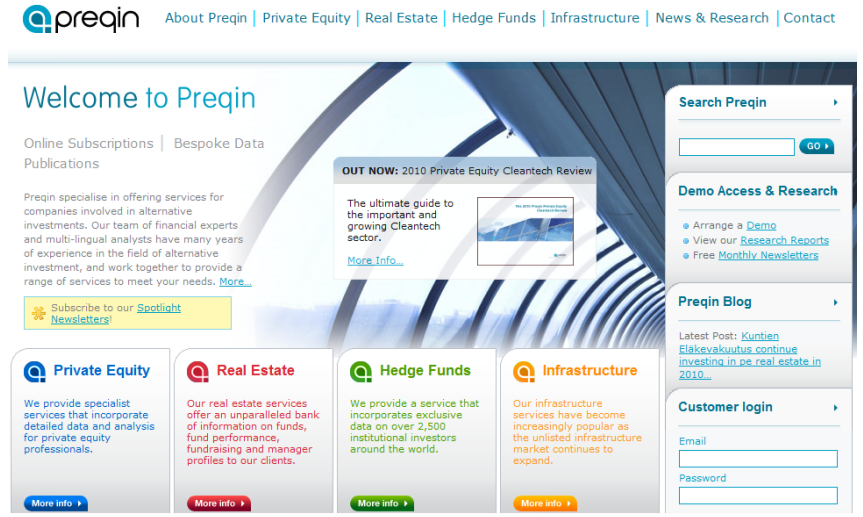
DIFFERENTIATION IS KEY

WHO/WHAT HELPS?

HEDGE FUNDS SELECTION SUPPORT

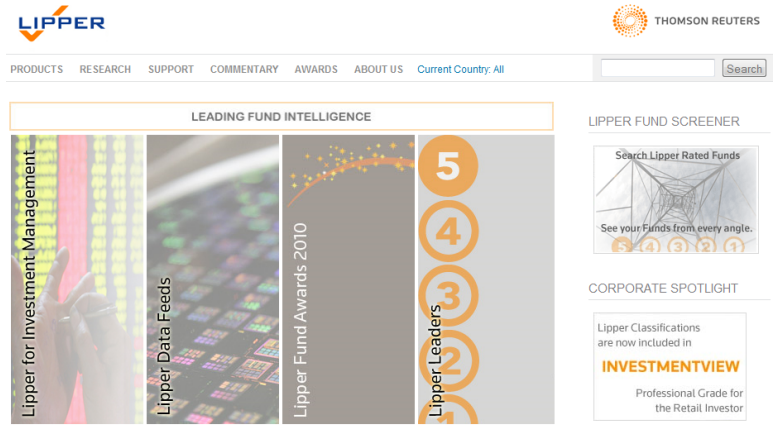
www.prequin.com







www.eurekahedge.com



www.lipperweb.com



www.barclayhedge.com

HEDGE FUNDS
PASSIVE REPLICATION?

EVENT-DRIVEN INDEX PERFORMANCE BY PROVIDER, PAST FIVE CALENDAR YEARS[7, 8, 10]

Index	2006	2007	2008	2009	2010
HFRI Event-Driven Index	15.33%	6.61%	-21.82%	25.04%	11.87%
HFRX Event-Driven Index	10.32%	4.88%	-22.11%	16.59%	1.98%
Dow Jones Credit Suisse Event-Driven Index	15.73%	13.20%	-17.74%	20.38%	12.63%
Hennessee Event-Driven Index	12.57%	4.70%	-24.30%	42.07%	16.20%
Largest Spread	5.41%	8.50%	6.56%	25.48%	14.22%

Fung, W. and D.A. Hsieh. 2009. "Measurement Biases in Hedge Fund Studies: An Update," *Financial Analysts Journal*, 65(3), 36-38.

Grecu, A., B.G. Malkiel, and A. Saha. 2007. "Why Do Hedge Funds Stop Reporting Performance?" *Journal of Portfolio Management*, 34, 119-126.

Bollen, N.P.B. and V.K. Pool. 2009. "Do Hedge Fund Managers Misreport Returns? Evidence from the Pooled Distribution," *Journal of Finance*, 64, 2257-2288.

Wie weitläufig die einzelnen Indexanbieter in ihren SBs verteilt sind, zeigt das White Paper von Mesirow Financial (2011) und dessen Vergleich von Event Driven Indices.

HEDGE FUNDS
SMALL MANAGER ALPHA

LITERATURE BOX

"Impact of Fund Size and Age on Hedge Fund Performance" PerTrac, 2011

Young:	*Less than two years*	*Small:*	*Less than $100 million AUM*
Mid-Age:	*Between two and four years*	*Mid-Size:*	*$100 million AUM to $500 million AUM*
Tenured:	*More than four years*	*Large:*	*More than $500 million AUM*

6,299 funds

By Size

- Small funds outperformed mid-size and large funds in every year except for 2008 and 2009. Small funds were the worst performers in 2008 and they came in second to mid-size funds in 2009, returning 21.50%, while mid-size funds gained 22.61%, and large funds gained 18.72%.

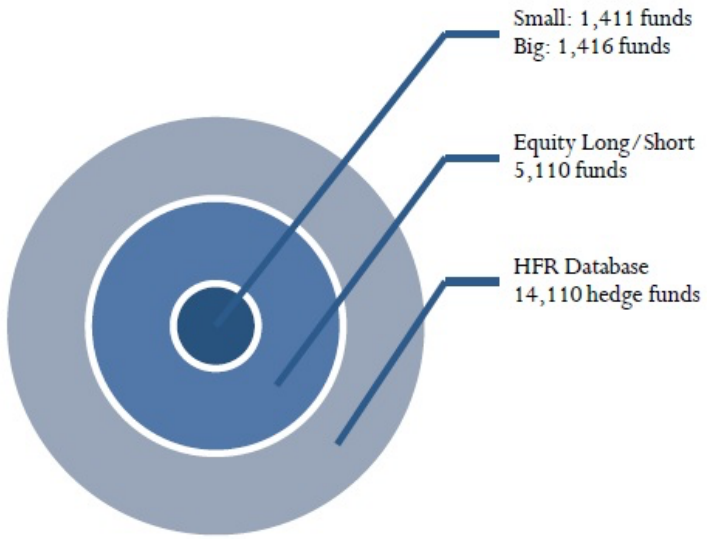
- Mid-size funds outperformed large funds in 10 out of 15 years since 1996, all but one year since 2002.

- The best performance year for small and mid-size funds was 1999, when small funds returned 32.18% and mid-size 26.54%. The best performance year for large funds was 2009 when they returned 18.72%. The worst performance year for all three fund sizes, and the only one in which any of the funds finished the year in negative territory, was 2008. Large funds fared best, declining -14.10%, followed by mid-size funds at -16.04%, and small funds at -17.03%.

- The cumulative total return for small funds is 576.91%, mid-size 370.12%, and large 317.74% since 1996.

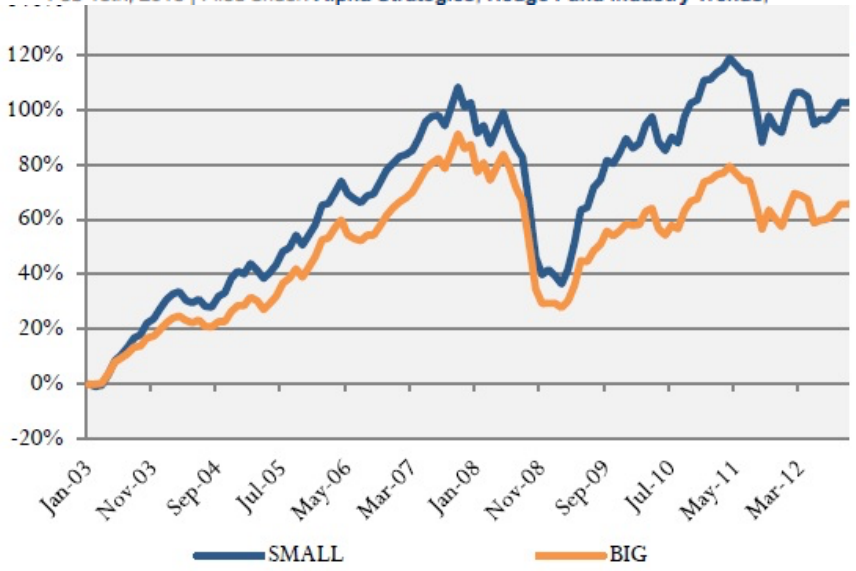
HEDGE FUNDS
SMALL MANAGER ALPHA

In our study, we divided the universe into firms that managed $50 million to $500 million in equity long/short AUMs ("Small") and those that managed more ("Big").

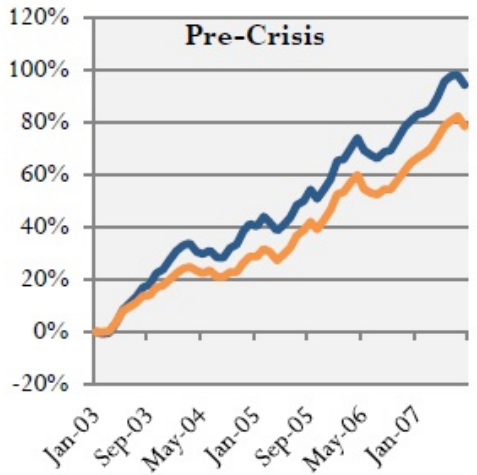


Smaller Hedge Fund Managers Outperform: A Study of Nearly 3,000 Equity Long/Short Hedge Funds

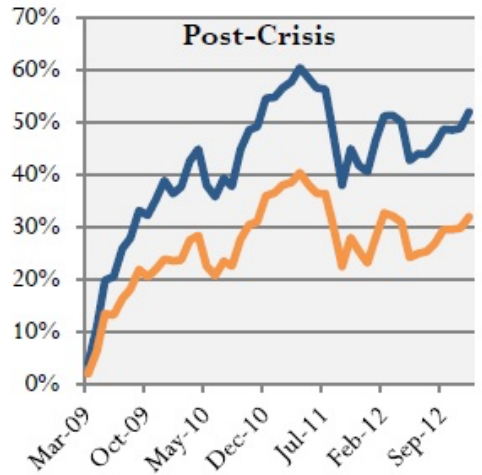
Feb 18th, 2013 | Filed under: **Alpha Strategies**, **Hedge Fund Industry Trends**,



	10 Years	
	SMALL	BIG
Compounded Annual Return	7.56%	5.36%
Cumulative Compounded Return	107.24%	68.56%
Largest Monthly Gain	8.03%	6.70%
Largest Monthly Loss	-11.47%	-10.94%
Percent Up Months	65.83%	66.67%
Max Drawdown	-34.53%	-33.17%
Annualized Standard Deviation	10.33%	9.31%
Sharpe Ratio	0.57	0.39
Correlation	97.86%	-

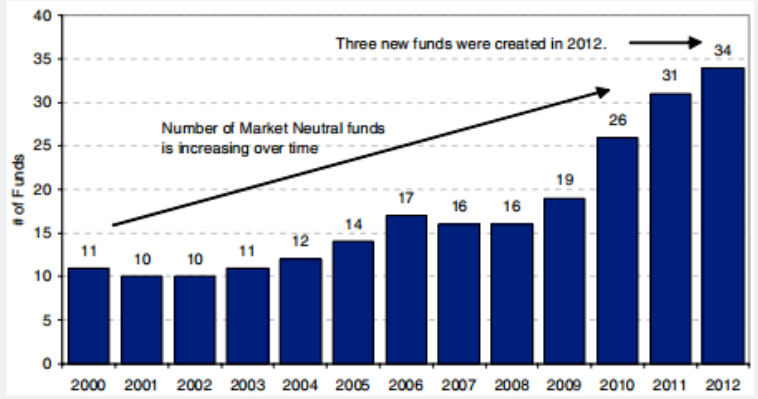




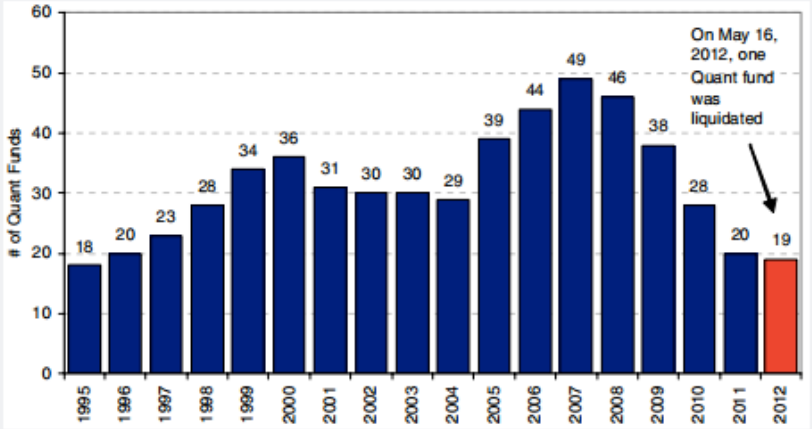


SMALL BIG

HEDGE FUNDS
SMALL MANAGER ALPHA



Number of Surviving Market Neutral Funds, Annually, 2000 – 2012 (source: Credit Suisse)



Number of Surviving Quant Funds, Annually, 1995 – 2012 (source: Credit Suisse)

Last updated: November 4, 2012 4:53 am

Small hedge funds hit by closures

By Ruth Sullivan

A rising number of small hedge funds are shutting their doors, with houses run by former investment bank proprietary traders being particularly badly hit by rising costs and difficulty in attracting assets.

The mounting burden of regulatory compliance is proving particularly damaging to smaller hedge funds, said Paula Smith, head of asset management at PwC in the UK, and previously PwC's alternatives investments assurance leader in the US.

More

ON THIS STORY

Push for European property

Carmignac looks at opening in Asia

It is in our interest to educate investors

Profits surge for focused US managers

Ireland relaxes non-Ucits funds rules

ON THIS TOPIC

Algebris coco fund swells

Managers traded on Dell tips,

"People just can't afford to keep going if they don't have a certain level of assets. The SEC [Securities and Exchange Commission] forces hedge funds to have a chief compliance officer and lawyers and internal staff they may not have had in the past," she said.

Without the necessary infrastructure and assets, "the future in the US is the big guys will get bigger and the small guys...are really going to find it difficult to continue to bear the cost of technology [and personnel]," Ms Smith added.

Figures from Preqin, the alternatives data provider, show that 50 per cent of hedge funds that closed globally since January 2011 had less than $49m of assets under management.

HEDGE FUNDS
SMALL MANAGER ALPHA

Academic backing.

Barclay's Study: Smaller manager outperform their larger peers over the last decade by 131 bps:

Barclays Capital, *Hedge Fund Pulse*, **"Emerging Managers: Good Buy or Good Bye?"**, April 2011.

Smaller Manager Studies

Stan Beckers and Greg Vaughan. **"Small is Beautiful"** *Journal of Portfolio Management*. Summer 2001.

Lazard Freres. **"Alternative Asset Strategies: Early Performance in Hedge Fund Managers"** November 2001.

Cross Border Capital. **"Absolute Return Fund Research"** April 2001.

James R. Hedges. **"Size vs. Performance in the Hedge Fund Industry"** *The Journal of Financial Transformation*. 2004.

Manuel Amman & Patrick Moerth. **"Impact of Fund Size on Hedge Fund Performance"** *Working Paper Series in Finance – Paper No. 11*, University of St. Gallen, September 2005

James Xiong, Ph. D., CFA, Thomas Idzorek, CFA, Peng Chen, Ph. D., CFA, and Roger G. Ibbotson, Ph. D., **"Dynamics of Fund of Hedge Funds: Flow, Size, and Performance"** *Ibbotson Associates Research Paper*, October 2007.

Rajesh K. Aggarwal and Philippe Jorion. **"The Performance of Emerging Hedge Fund Managers"** January 23, 2008.

Chris Riley. **"Selecting Investment Managers"** April 2008.

PerTrac Financial Solutions. **"Emerging Hedge Fund Managers Outperform Larger, Older Managers"**, May 2008

Chris Argyrople, CFA. **"Large vs. Small Hedge Funds: Where Should You Invest?"** Concentric Investment Management, LLC. June 2008.

John Detrixhe. **"Small Hedge Funds Still Outperform"** *Medill Reports*, Northwestern University, August 14, 2008.

Rajesh K. Aggarwal and Philippe Jorion. **"The Performance of Emerging Hedge Fund Managers"** August 7, 2009.

Commentary on Smaller Manager Thesis

David F. Swensen. **Pioneering Portfolio Management**. New York: Free Press, 2000.

Byron Wien. **"The Inherent Instability of Hedge Funds"** Morgan Stanley Equity Research, April 29, 2002

Jenny Anderson. **"The Triumphs, and Obsession of New Hedge Fund Managers"**, The New York Times, May 12, 2006

Christopher Holt. **"Is There a Small-Cap Bias in Hedge Funds?"**, Seeking Alpha, May 22, 2008

SEI. **"Hedge Funds: Bigger Is Not Always Better"**, August 2008

Stanley Druckenmiller. Duquesne Capital Management, **"Druckenmiller Quits Hedge Fund Trading to Manage Own Family Office"**, Infovest21, August 18, 2010

ALTERNATIVE UCITS

ALTERNATIVE UCITS REGULATION HELPS

U.S. SEC Gets Wave of Hedge Fund Adviser Registrations

By Reuters
Friday, October 19, 2012

Email this story | News Tracker | Reprints | Printable Version

WASHINGTON (Reuters)—More than 1,500 hedge fund and private equity funds have registered with the U.S. Securities and Exchange Commission since the 2010 Dodd-Frank Wall Street reform law was enacted.

The law for the first time required hedge fund and private equity funds to register with the SEC, giving the agency a better view of the size of the fund industry and the identity of those involved. Including the 2,557 private advisers who previously registered voluntarily, the SEC said on Friday [Oct. 19] it now has a total of 4,061 private fund advisers on file.

"Prior to the Dodd-Frank Act, regulators only saw a slice of the pie but didn't know how big the pie even was," said SEC Chairman Mary Schapiro in a statement. "The law enables regulators to better protect investors by providing a more comprehensive view of who's out there and what they're doing."

SEC examiners last week launched a new initiative to conduct risk-based exams of fund advisers over the next two years to ensure compliance with the law. Among the areas being examined include marketing materials, portfolio management, conflicts of interest, safety of client assets and valuation.

Although the SEC gained a lot of additional responsibility for overseeing private fund advisers from Dodd-Frank, the law also required oversight of mid-sized advisers to be shifted to the states.

The SEC said that 2,300 of these mid-sized advisers managing less than $100 million have made the transition to state regulation.

Heath Abshure, the Arkansas Securities Commissioner and president of the North American Securities Administrators Association, said in a statement that the switch has been "smooth" for the vast majority of advisers.

The agency also issued a notice identifying another 293 advisers who are no longer eligible for SEC registration because they manage less than $100 million or have failed to comply with other SEC requirements.

By Sarah N. Lynch

Quellenlink

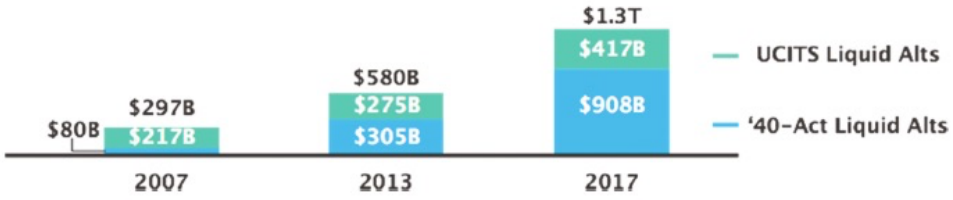
ALTERNATIVE UCITS

Defining Liquid Alternative Investments

KEITH BLACK

EXHIBIT 1

Global Liquid Alternative AUM Expected to Grow ~19% a Year between 2013 and 2017

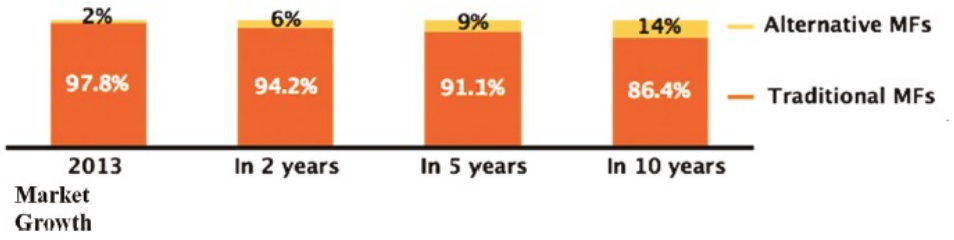


Notes: Expected growth rates per Citi Prime Finance. UCITS expected to grow ~11% a year, U.S. liquid alts expected to grow ~24% a year. The 2007 figure for U.S. liquid alternatives includes ETFs.

Sources: Booz & Company analysis, Morningstar, Citi Prime Finance, McKinsey Financial Services Practice.

EXHIBIT 2

U.S.: Expected Allocation of Traditional and Alternative Mutual Funds in 2, 5, and 10 Years, from 2013



Source: Cerulli Associates [2013].

The Journal of Alternative Investments
Winter 2015, Vol. 17, No. 3: pp. 6-25
DOI: 10.3905/jai.2014.17.3.006

Categorization of Liquid Alternative Investments

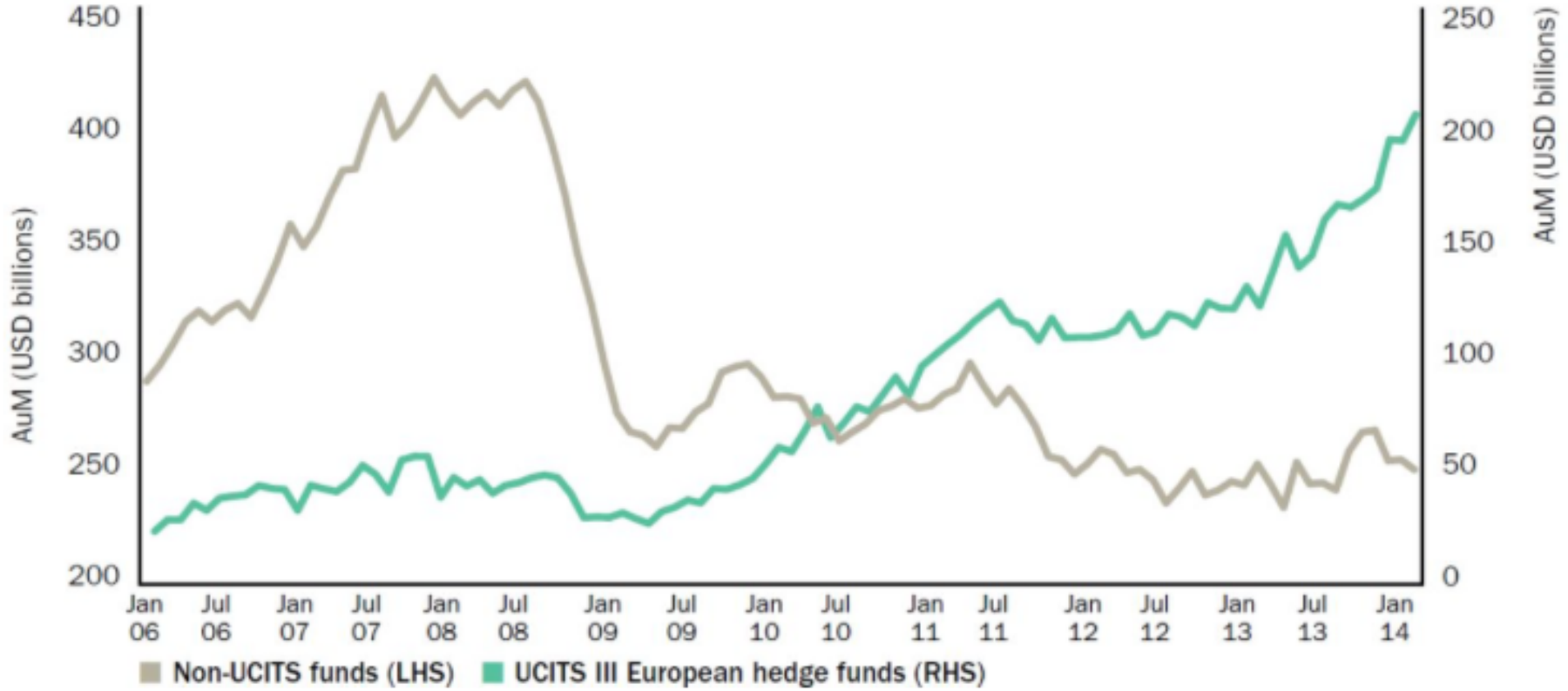
Definitely Liquid Alts	Potentially Liquid Alts	Not Liquid Alts
Hedge Fund Strategies	Long-only non-traditional bonds with floating rate or bank loan holdings	Long-only equity funds, including smart beta and fundamental indexing
Managed Futures Strategies	Currency funds	Long-only equity sector funds, including infrastructure and commodity stocks
Multi-Manager Hedge Fund Strategies	Commodity futures and physicals	Long-only balanced funds, including tactical asset allocation and target-date funds
Non-Traditional Bond Funds with Short and/or Derivatives Positions	Traded business development companies (BDCs)	
Volatility Exchange-Traded Products (ETPs)	Traded REITs	
	Traded MLPs	
	Levered/Inverse ETPs	
	Separate accounts holding levered, short, and/or derivatives positions	

ALTERNATIVE UCITS



Markus Schuller @pant... 18.09.15
Alternative #UCITS vs non-UCITS Hedge Funds. #LiquidAlts are taking over. Source: @TowersWatson via @absresearch

Figure 1. Comparison of assets in UCITS and non-UCITS European hedge funds since 2006



Quelle: Towers Watson

ALTERNATIVE UCITS



Markus Schuller @pant... 18.09.15
Good overview of Alternative #UCITS product platforms via IAM Investments. #LiquidAlts

Investment Bank Platforms	Asset Management Platforms	Independent/ Boutique Platforms
Deutsche Bank	**IAM Investments**	Alceda UCITS Platform
Goldman Sachs	Schroder GAIA	Alpha UCITS
JP Morgan Mansart Investments	E.I. Sturdza Strategic Management Ltd	Independent UCITS
Merrill Lynch Investment Solutions	GAM Star	Milltrust EMMA Platform
Morgan Stanley FundLogic	Guggenheim	Montlake UCITS Platform
SEB Prime Solutions UCITS	Lyxor Asset Management	SIG Global
UBS Liquid Alpha		Trium UCITS
		Universal Investments

MUTUAL FUNDS

MUTUAL FUNDS



MUTUAL FUNDS
TIME FOR ACTION



ETF.COM ANALYST BLOGS

Inside Robo Advisor Asset Allocation

By Elisabeth Kashner | August 22, 2014

Related ETFs: VT | VIG | SPY | IWM | AGG | LQD

Share:

This is the third blog in a multiple-blog series by ETF.com's Director of Research Elisabeth Kashner on the new "robo-advisory" industry. The first, **"Which Robo Advisor For My Teen,"** *was an overview, and the second,* **"Ghosts In The Robo Advisor Machine,"** *began to reveal the human hand in each firm's approach.*

"'I wonder what makes us build inefficiently shaped human robots instead of nice streamlined machines.'

`Pride, sir,' said the robot."

—Terry Pratchett ("The Dark Side of the Sun")

- Wealthfront
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MUTUAL FUNDS
TIME FOR ACTION

Vanguard



MUTUAL FUNDS
TIME FOR ACTION

March 15, 2015 7:18 am

Norway takes action against closet-tracking

Madison Marriage Author alerts

The Norwegian regulator has become the first in Europe to accuse a bank of mis-selling a "closet tracking" fund — products that charge high fees for active management but mimic an index.

The regulator has ordered DNB , Norway's largest bank by market capitalisation, to lower the pricing of one of its best-selling equity funds or "bring it in line with the characteristics of active management". DNB must also inform its investors of the regulator's decision.



Markus Schuller
@panthera_s

#Sweden #Norway & #Denkmark are 1st again in doing it right: actions against closet-tracking on.ft.com/1CjfTHR @FT #DNB @Finanstilsynet

25.03.15 07:43

ETP

ETF

Race to cut ETF costs may leave investors in the dark

Recommend Be the first of your friends to recommend this.

By Jessica Toonkel

NEW YORK | Thu Oct 4, 2012 9:43am EDT

NOT YOUR FATHER'S INDEX

Other firms are launching ETFs tracking their own or customized indexes, sometimes at a lower cost. While most ETFs are based on well-known indexes like those offered by Standard & Poor's and Russell Investments, more fund providers are creating their own or using ones designed by others.

WisdomTree Investments Inc, Van Eck Funds and IndexIQ use their own indexes. Other firms, including BlackRock, have filed with the U.S. Securities and Exchange Commission to introduce their own indexes.

Do-it-yourself indexing allows firms to create products where there may not be a relevant index, said Daniel Gamba, Head of iShares Americas Institutional Business at BlackRock. In some cases, this may be at lower cost, but not always.

Indexanbieter basteln eigene Indizes um Kosten senken zu können. Aufgepasst.

- welche Securities wurden ausgewählt?
- nach welchem System?
- Chinese Wall zwischen fund advisor & index provider?

ETF

ETP Closures Hit 300

October 19, 2012 by Ron Rowland
Filed under Commentary, ETF Closings



ETP closure activity this week pushed the lifetime death toll to 300 and the year-to-date count to 89. Early October action from iPath, Russell, and Global X resulted in 30 delistings so far this month.

If a tree falls in the forest and no one is there to hear it, does it still make a sound? If an ETF closes and no shares are there to be redeemed, does it still need to liquidate? That second philosophical question has now been answered by two Russell ETFs. The Russell Low P/E ETF (LWPE) and Russell Small Cap

Here is the Complete List of 335 Products on ETF Deathwatch for Oc
objective ETF Deathwatch Criteria.

The 21 ETPs added to ETF Deathwatch for October:

1. AdvisorShares STAR Global Buy-Write (VEGA)
2. BLDRS Asia 50 ADR (ADRA)
3. DB 3x Long 25+ Year Treasury Bond ETN (LBND)
4. DB Inverse Japanese Gov't Bond Futures ETN (JGBS)
5. Deutsche X-trackers Emerging Markets Bond Interest Hedged (EMIH)
6. Deutsche X-trackers High Yield Corporate Interest Hedged (HYIH)
7. Deutsche X-trackers Investment Grade Bond Interest Hedged (IGIH)
8. Direxion Value Line Conservative Equity (VLLV)
9. Direxion Value Line Mid-Large-Cap High Dividend (VLML)

ETF Deathwatch Criteria

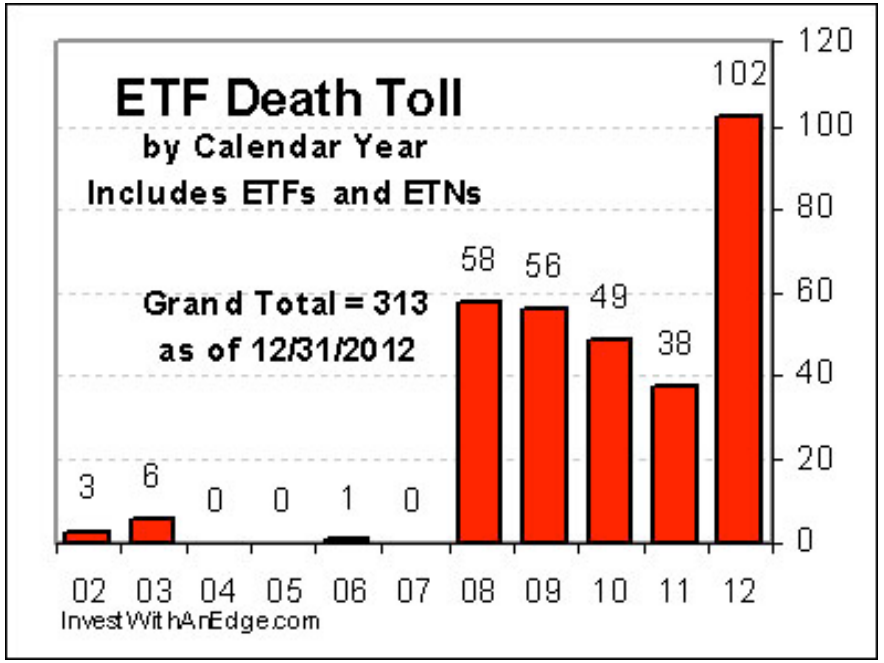
The following criteria is used (since January 2011) to objectively determine the members of ETF Deathwatch each month based on the most recent month-end data:

1. Products (ETFs and ETNs) less than six months of age receive an automatic exclusion from consideration (incubation period).
2. Products with more than $25 million AUM in either of the past two months get a free pass (they will be not be added to the list and will removed if currently on the list).
3. Products will be added to ETF Deathwatch list if: Average daily dollar volume for a given month is less than $100,000 for three consecutive months *-or-* AUM is below $5 million for three consecutive months.
4. Products will be removed from ETF Deathwatch if: Average daily dollar volume for a given month is greater than $100,000 for three consecutive months *-and-* AUM is greater than $5 million for three consecutive months.

Here is the Complete List of 335 Products on ETF Deathwatch for October 2015 compiled using the objective ETF Deathwatch Criteria.

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9. Direxion Value Line Mid-Large-Cap High Dividend (VLML)
10. Direxion Value Line Small-Mid-Cap High Dividend (VLSM)
11. ETRACS Alerian Natural Gas MLP ETN (MLPG)
12. Global X SuperDividend Emerging Markets (SDEM)
13. Global X SuperDividend REIT (SRET)
14. IQ Hedge Event-Driven Tracker ETF (QED)
15. IQ Hedge Long/Short Tracker ETF (QLS)
16. iShares iBonds Dec 2023 Corporate (IBDO)
17. iShares iBonds Dec 2024 Corporate (IBDP)
18. iShares iBonds Dec 2025 Corporate (IBDQ)
19. Lattice Global Small Cap Strategy ETF (ROGS)
20. Validea Market Legends ETF (VALX)
21. WisdomTree Europe Quality Dividend Growth (EUDG)

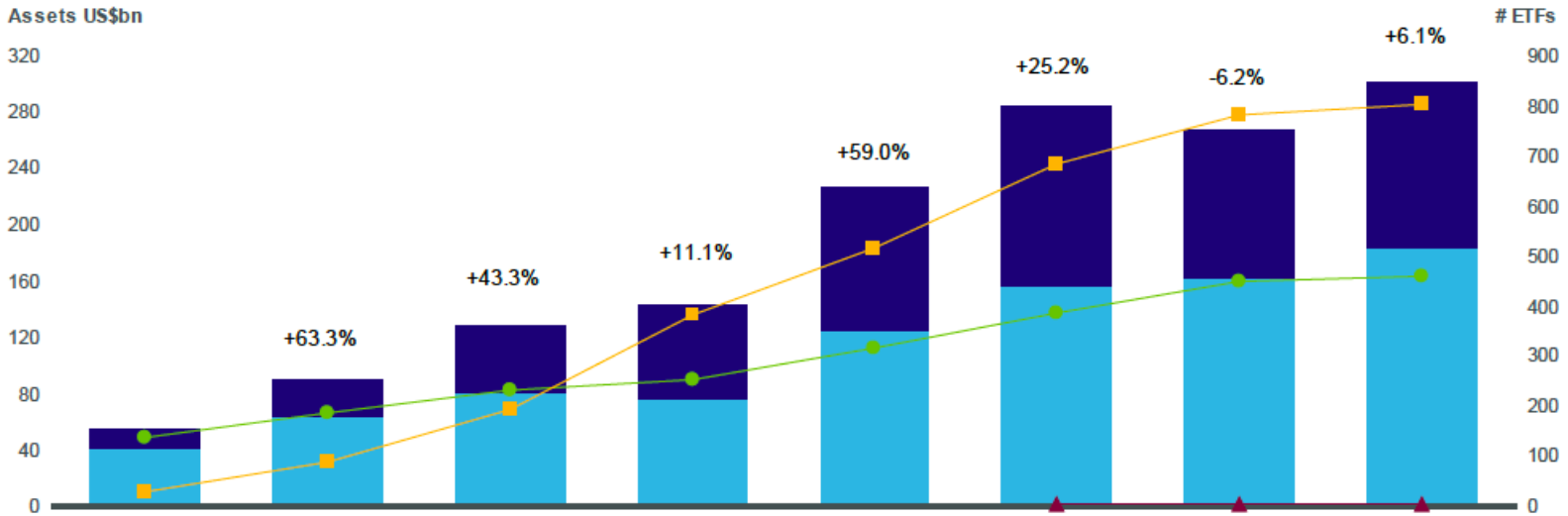


78/102 waren auf death-watch Liste

ETP
SWAP-BASED / SYNTHETIC

SWAP BASED ETFs – EINE GEFAHRENQUELLE?

STICHWORT COUNTERPARTY RISK.



Assets (US$bn)	2005	2006	2007	2008	2009	2010	2011	Feb-12
Physical	41.3	64.1	80.6	76.4	125.0	155.1	162.0	183.5
Synthetic	13.6	25.6	48.0	66.4	101.9	128.6	104.3	117.9
Hybrid	–	–	–	–	–	0.3	0.2	0.0
ETF AUM total	**54.9**	**89.7**	**128.5**	**142.7**	**226.9**	**284.0**	**266.6**	**301.4**
# physical	138	184	231	252	314	385	447	460
# synthetic	27	89	192	383	515	683	782	803
# hybrid	–	–	–	–	–	3	3	2
# ETFs total	**165**	**273**	**423**	**635**	**829**	**1,072**	**1,232**	**1,265**

Note: Synthetic replication refers to the use of derivatives to replicate the index performance such as swaps, futures, forwards, options etc. Physical replication refers to the use of physical securities such as stocks, bonds and commodities to generate the index performance. Hybrid replication refers to a combination of both physical and synthetic products.
Data as at end February 2012 or the most recent period available.
Source: BlackRock Investment Institute, Bloomberg.

ETF

22.11.2012

Strategieschwenk: Lyxor führt physisch replizierte ETFs ein

Der Trend, dass Anbieter von Swap-ETFs auf Druck von Investoren auch - oder verstärkt - physisch replizierte ETFs anbieten, gewinnt rasant an Bedeutung: Nachdem vor wenigen Tagen db X-trackers entsprechende Absichten äußerte, geht bei diesem Thema auch Lyxor International Asset Management in die Offensive. Am 6. und 11. Dezember werden (wie vor einiger Zeit angekündigt) vier ETFs aus der EuroMTS Macro Weighted AAA Government Index-Serie auf die physische Replikation umgestellt.

Für die Fonds ist dabei eine vollständige Nachbildung (Full Replication) vorgesehen: Jeder Fonds investiert direkt in die Staatsanleihen, die im jeweiligen EuroMTS Macro Weighted AAA Government Index enthalten sind. Auf die Sampling-Methode wird dabei verzichtet. Mit diesem Vorgehen wird die größtmögliche Korrelation zwischen der Fondsperformance und der Performance der Indizes erreicht.

Es wird keine Wertpapierleihe vorgenommen, denn der damit erreichte Performancevorteil für Investoren ist vernachlässigbar und rechtfertigt nicht die zusätzlichen Kontrahentenrisiken, die der Fonds bei einer Wertpapierleihe eingeht. Wie bereits bekanntgegeben, diversifiziert Lyxor mit den physischen ETFs sein Angebot, um Investorenbedürfnisse vollumfänglich zu bedienen. Lyxor betont zudem, dass alle Lyxor ETFs, unabhängig von ihrer Replizierungsmethode, höchste Qualitätsstandards in Bezug auf Transparenz, Effizienz (Performance und geringer Tracking-Error) und überdurchschnittliche Liquidität erfüllen.

SOURCE

25.06.2013

Lyxors neuer ETF-Chef: "Wir verzichten auf Wertpapierleihegeschäfte"

Beim Indexfondsanbieter Lyxor ETF lief in den vergangenen Jahren nicht alles rund. 2011 verlor die Tochter der französischen Großbank Société Générale den Platz des zweitgrößten europäischen ETF-Hauses hinter Marktführer iShares an die Deutsche-Bank-Tochter DB X-Trackers. Der jüngsten Blackrock-Marktstatistik zufolge kommt Lyxor gemessen am ausstehenden Volumen nur noch auf einen Marktanteil von 10,8 Prozent, der Abstand zur Deutschen Bank beläuft sich inzwischen auf fast drei Prozentpunkte.

Doch das soll sich ändern, und zuletzt war bei Lyxor ETF tatsächlich einiges in Bewegung: Die Sparte gehört innerhalb des Société-Générale-Konzerns inzwischen nicht mehr zur Investmentbank, sondern ist Teil der Vermögensverwaltung Lyxor Asset Management. Außerdem fusionierten die Franzosen im vergangenen Jahr ihr ETF-Geschäft mit der Indexing-Sparte, in der sie schon seit mehr als zehn Jahren institutionellen Kunden die physische Replikation von Finanzmarktbarometern anbieten. Lyxor ETF dagegen hatte Indizes bis vor Kurzem ausschließlich über Derivate (Swaps) abgebildet.

SOURCE

ETP WARNING

Warning on high-yield ETF returns

By Steve Johnson



Investors are pouring money into high-yield bond funds as they move to embrace higher risk against a backdrop of desultory yields on investment grade corporate and sovereign bonds.

But some industry figures have warned investors that returns are likely to be significantly lower than those posted by the mainstream high-yield bond indices due to high trading costs and inefficiencies in the market.

The fears are particularly acute for high-yield exchange traded funds, which have attracted net inflows of $6.6bn already this year, compared to $8.4bn in the whole of 2011, according to BlackRock.

Data from Lipper indicate that over the past five years the average high-yield ETF has undershot its index by 46 basis points a month, or 552bps a year, well above the typical management fee of 40-50bps.

High-yield mutual funds have also struggled to replicate their respective indices, underperforming by 192bps a year over the same period on average, according to Lipper, again far larger than their fees.

Industry figures blame the poor performance on high turnover and transaction costs that may be particularly problematic for ETFs.

ETP WARNING

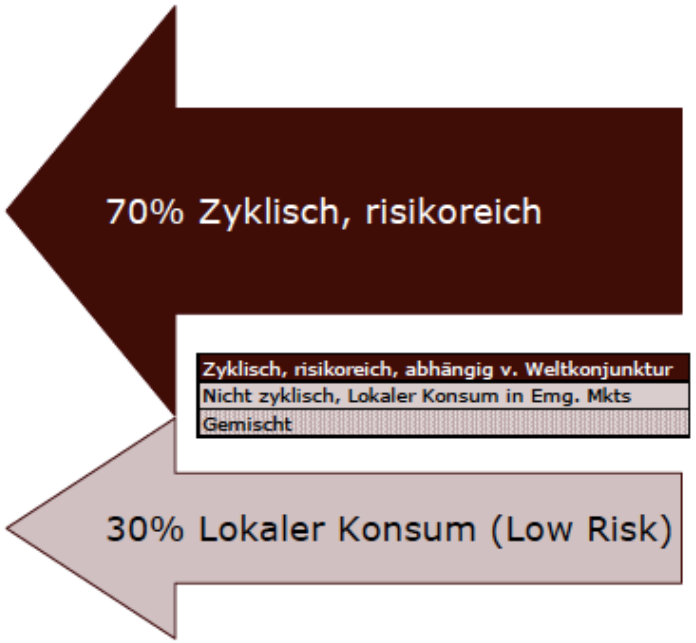
Der Emerging Markets Index ist schlecht diversifiziert

MSCI Emerging Markets: Hohes Gewicht in Risiko

- Abhängig von Weltkonjunktur, wenig Exposure auf lokales Wachstum

Name	Ctry	Sector	% Wgt
PETROBRAS PN	BR	Energy	1.24
PETROBRAS ON	BR	Energy	0.91
GAZPROM	RU	Energy	1.46
CNOOC	CN	Energy	1.01
PETROCHINA CO H	CN	Energy	0.83
LUKOIL HOLDING	RU	Energy	0.82
SASOL LTD	ZA	Energy	0.72
CHINA CONSTRUCTION BANK-H	CN	Financials	1.30
ICBC H	CN	Financials	1.15
ITAU UNIBANCO PN	BR	Financials	1.03
BANCO BRADESCO PN	BR	Financials	0.87
BANK OF CHINA	CN	Financials	0.80
SBERBANK RUSSIA	RU	Financials	0.66
VALE - PREF A	BR	Materials	1.13
VALE - ON	BR	Materials	0.75
SAMSUNG ELECTRONICS	KR	Technology	3.53
TAIWAN SEMICONDUCTOR MFG	TW	Technology	2.19
TENCENT HOLDINGS	CN	Technology	0.87
HON HAI PRECISION IND CO	TW	Technology	0.83
HYUNDAI MOTOR CO	KR	Consumer Discretionary	0.99
NASPERS N	ZA	Consumer Discretionary	0.63
AMBEV PN	BR	Consumer Staples	0.89
CHINA MOBILE	CN	Telecommunication	1.90
AMERICA MOVIL L	MX	Telecommunication	1.45
MTN GROUP	ZA	Telecommunication	0.83

31 May 2012



ETP WARNING

The World's Most Misleading ETF Names

By Ana Kostioukova | November 07, 2012

Related ETFs: EEB / FRN / GDX / KBE / GAF / XHB / XME / ARGT

Sometimes the name of an ETF doesn't mean what you'd think it does.

Be aware that most of the time, ETFs are the victims of their own underlying indexes and classification methodologies, and those details can be missed if investors aren't careful.

Let's begin with the SPDR S&P Emerging Middle East & Africa ETF (NYSEArca: GAF), which allocates 90 percent of the portfolio to South Africa. The remainder is split between Egypt and Morocco. As such, GAF pretty much lacks the Middle Eastern exposure its name advertises.

BUILDING BLOCK 5
EVIDENCE-DRIVEN, RULE-BASED DSAA PROCESS

DSAA PROCESS

WIE GUT FUNKTIONIERT STRATEGISCHE ASSET ALLOKATION?

LITERATURE BOX

"Determinants of Portfolio Performance", Brinson, Hood, Beebower, 1985

Does Asset Allocation Policy Explain 40, 90 or 100 % of Performance", R. Ibbotson, 2000

Determinants of Portfolio Performance

Gary P. Brinson, L. Randolph Hood, and Gilbert L. Beebower

90% of performance variability (vola) is explained by SAA

Does Asset Allocation Policy Explain 40, 90, or 100 Percent of Performance?

Roger G. Ibbotson and Paul D. Kaplan

Disagreement over the importance of asset allocation policy stems from asking different questions. We used balanced mutual fund and pension fund data to answer the three relevant questions. We found that about 90 percent of the variability in returns of a typical fund across time is explained by policy, about 40 percent of the variation of returns among funds is explained by policy, and on average about 100 percent of the return level is explained by the policy return level.

40% of performance variability (vola) is explained by SAA

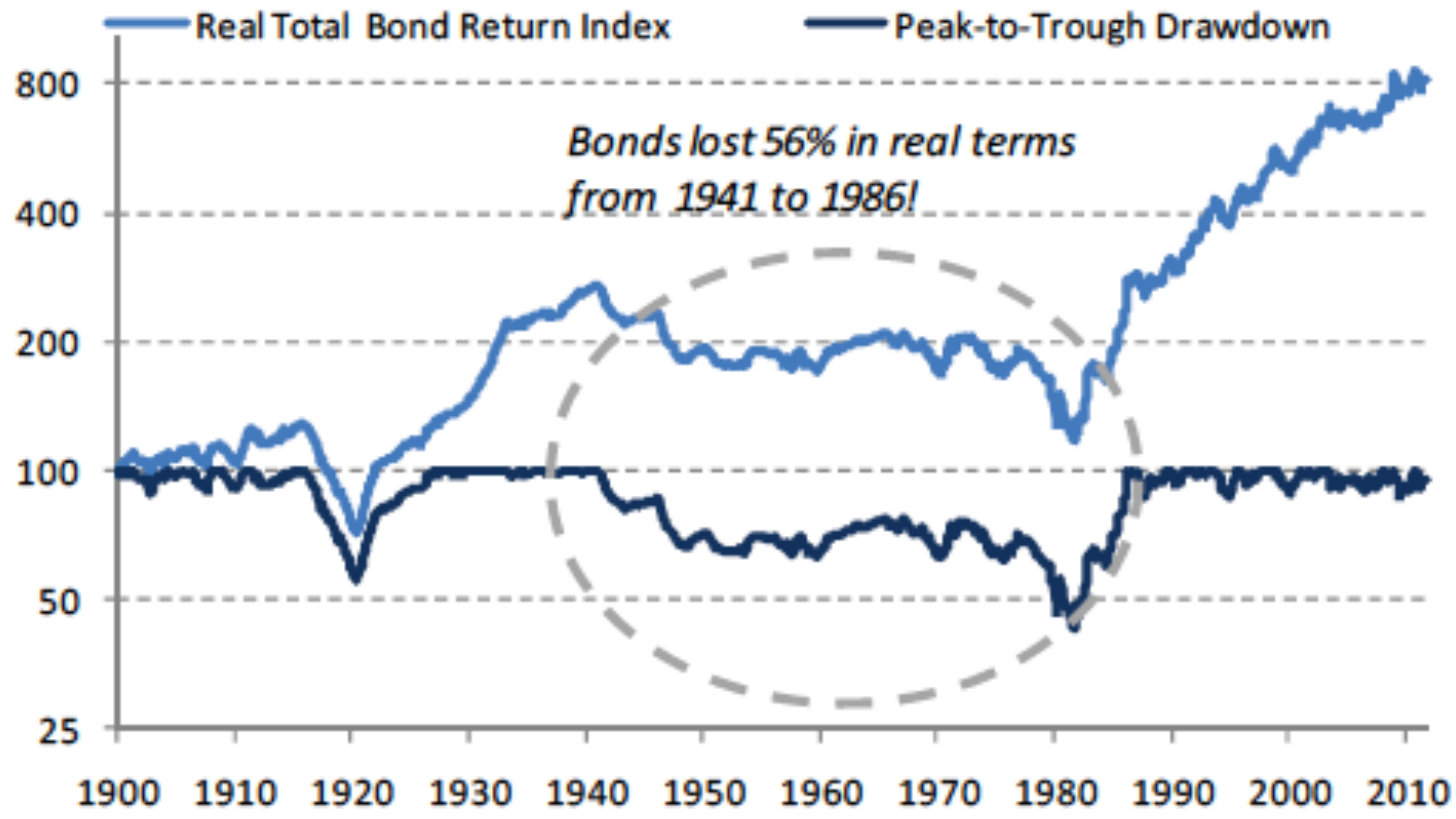
100 % of performance variability (vola) is explained by SAA

DSAA PROCESS
STATIC SAA - OUTDATED

CONCLUSION

SAA NEEDS TO BE DYNAMIZED

Figure 19: Real Bond Returns and Drawdowns



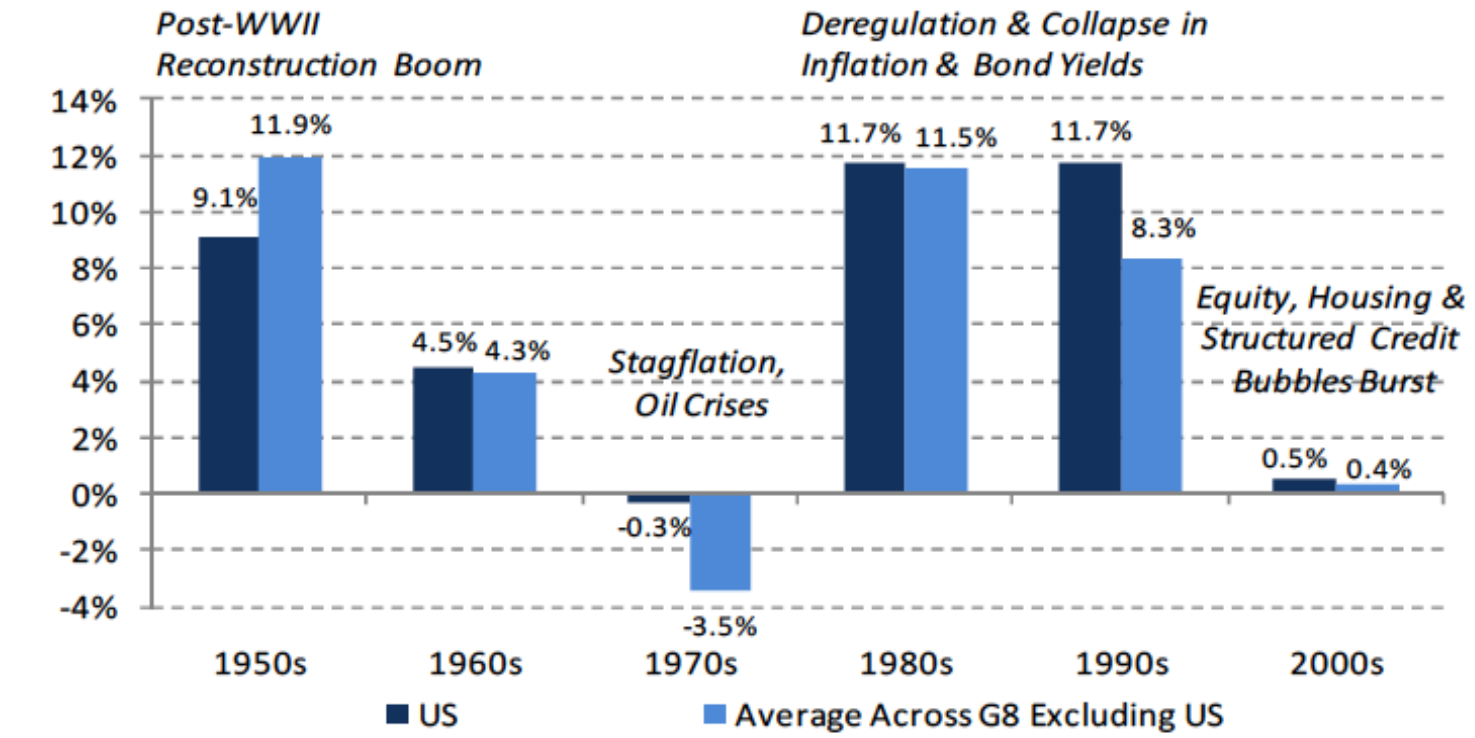
Source: Deutsche Bank, Robert Shiller database

DSAA PROCESS
STATIC SAA - OUTDATED

LITERATURE BOX

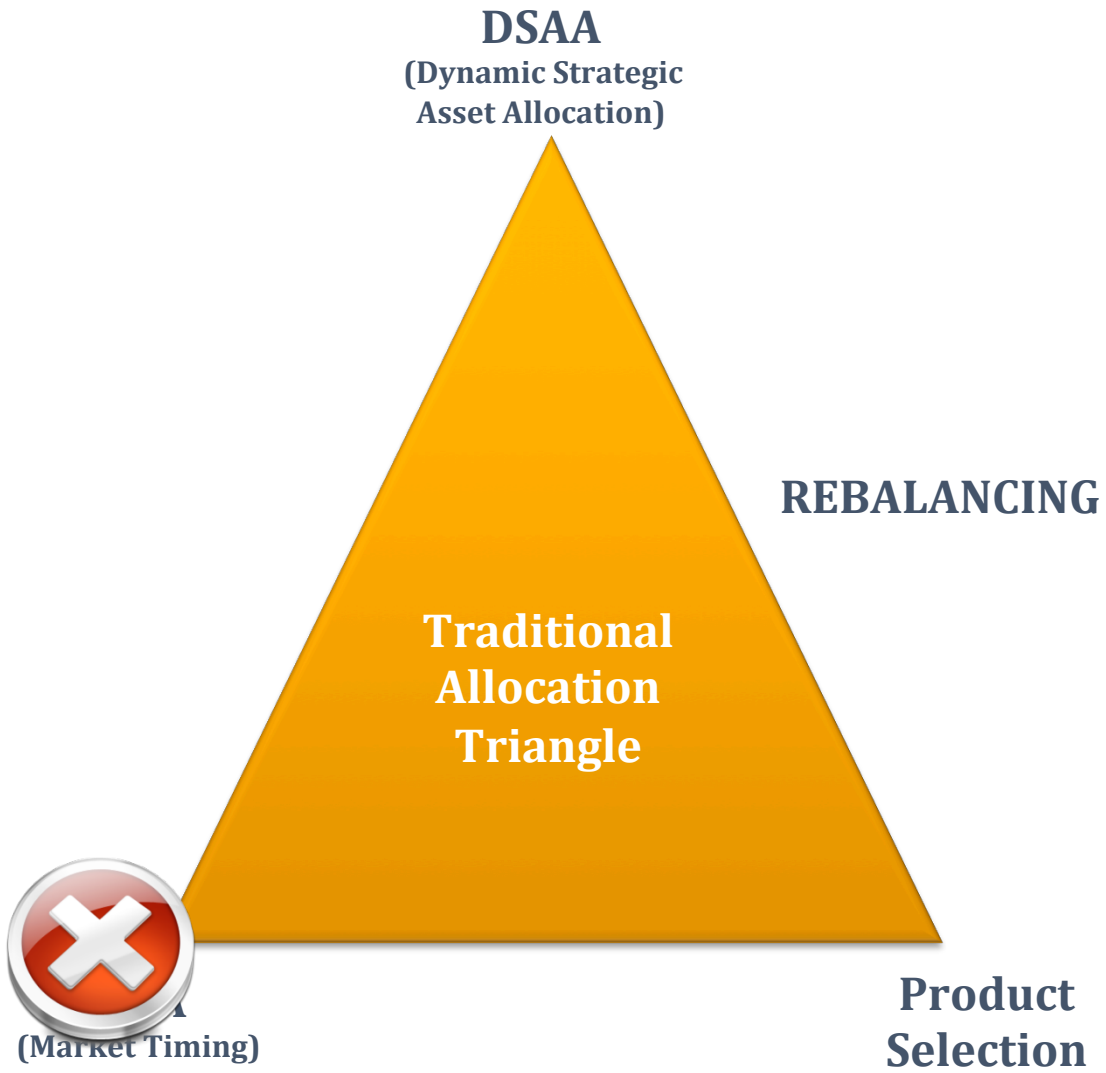
"The Importance of Asset Allocation", Roger Ibberstson, 2010

Figure 11: Real Returns to the 60/40 Portfolio – Time Varying Risk Premia Everywhere



Source: Deutsche Bank. Sample countries for the G8 excluding the US include the UK, Japan, Germany, France, Italy, Spain and Canada. For non-US countries, see "A Roadmap for the Grey Age", September 2011, Reid and Burns, Deutsche Bank.

DSAA PROCESS
STATIC SAA - OUTDATED



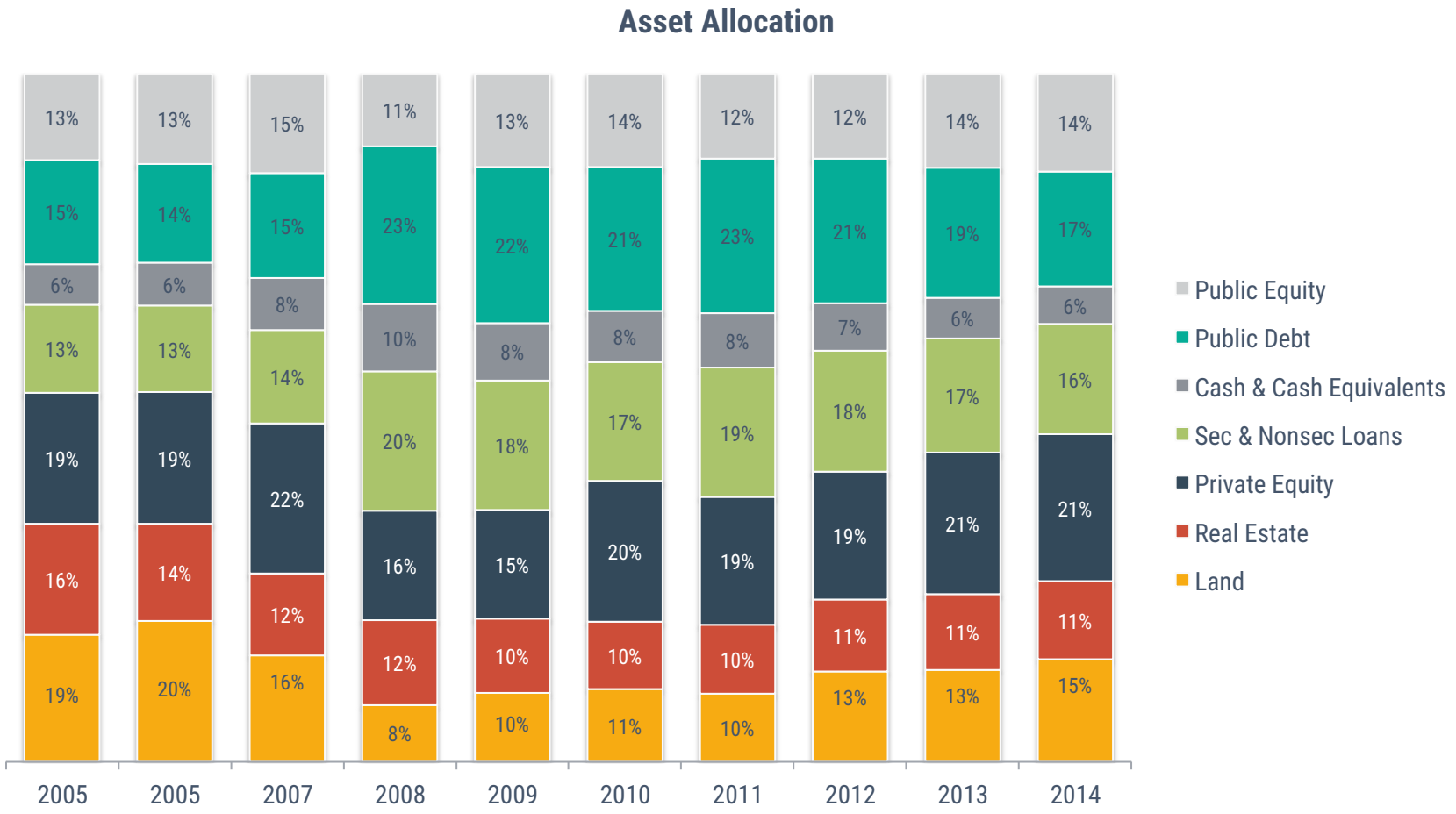
DSAA PROCESS

"The three most important words in investing are "margin of safety," which means always building a 15,000 pound bridge if you're going to be driving 10,000 pound trucks across it."

—Warren Buffett[2]

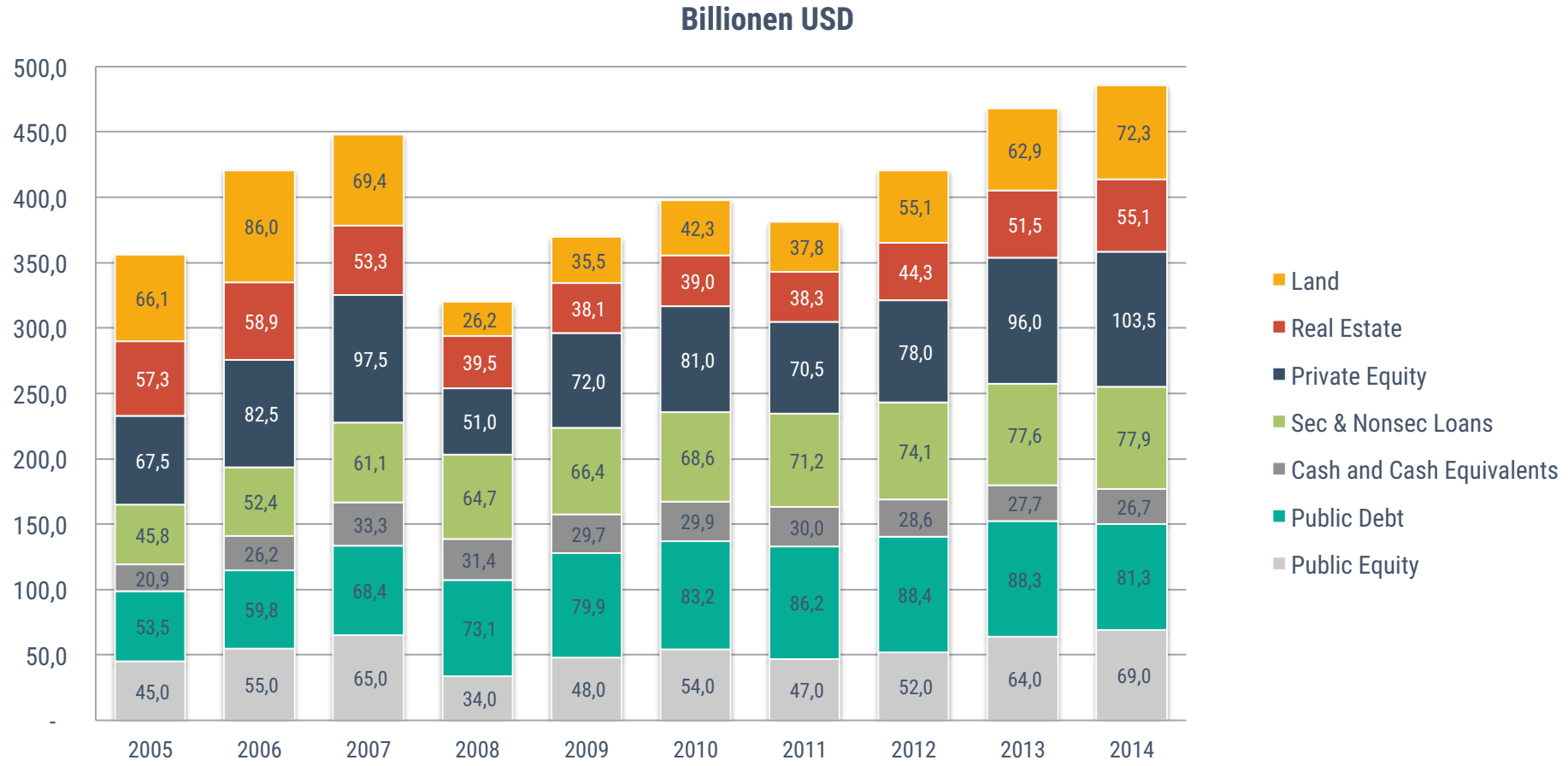
SUMMARY
HOW TO INCREASE YOUR CHANCES IN WINNING THE *LOSER GAMES*

GLOBAL CAPITAL STOCK AS STARTING POINT



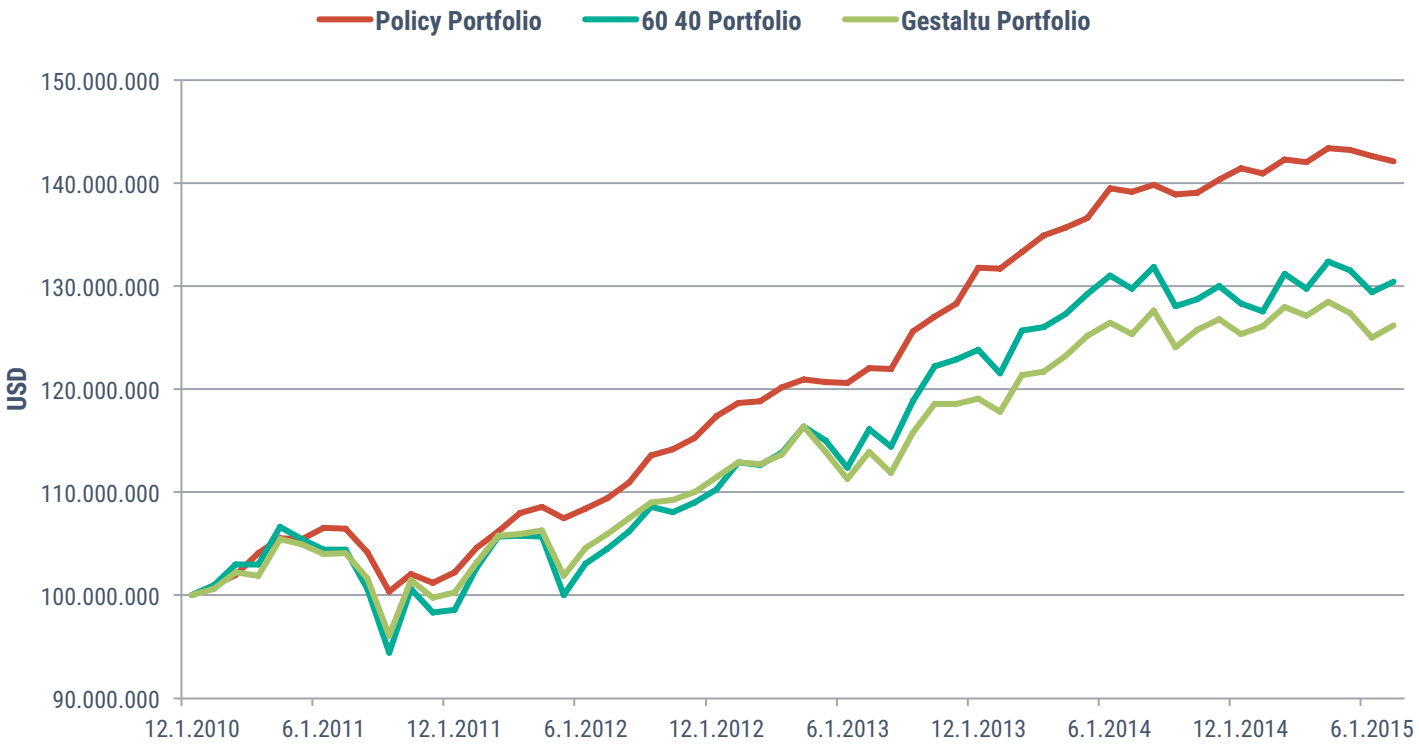
Source: Panthera Solutions computations on McKinsey, Deutsche Bank, BIS, OECD, La Salle, data.

GLOBAL CAPITAL STOCK AS STARTING POINT



Source: Panthera Solutions computations on McKinsey, Deutsche Bank, BIS, OECD, La Salle, data.

GLOBAL CAPITAL STOCK AS STARTING POINT



Source: Panthera Solutions computations on McKinsey, Deutsche Bank, BIS, OECD, La Salle, Bloomberg data.

EXEMPLARILY LISTED 3GEN PRINCIPLES

DIVERSIFY RISK FACTORS	USE ETFs AS CORE	FOLLOW COUNTER-CYCLICALITY
USE ILLIQUIDITY	USE ALTERNATIVE RISK/RETURN SOURCES AS CORE	CAPITAL STOCK AS STARTING POINT
APPLY EVIDENCE-DRIVEN, RULE-BASED AA-PROCESS	APPLY AGNOSTIC USE OF ASSET CLASSES	APPLY REBALANCING
CHANGE SAA ONLY WHEN RISK FACTORS CHANGE	FOCUS ON DSAA & PROD. SELECTION / NO MAKRET TIMING	FOCUS ON CAUSALITY ANALYSIS

3GEN APPLICATION

Long-Term Structural Changes

#	Master Trends		Subtrends Level I		Subtrends Level II
A	**Technologischer Wandel**	A.1	Beschleunigung im technologischen Fortschritt	A.1.1	Schwarmintelligenz: Neue soziale Organisationsformen
				A.1.2	Weltweit steigende Durchdringung an Informations- und Kommunikationstechnologien
				A.1.3	Web 2.0: Neue Medien erobern den Alltag
				A.1.4	Digitaler Lebensstil: Virtuelle Realität wird real (auch für virtuelle Business Welten)
				A.1.3	Transparent Society: Überwachung und Kontrolle (incl Quantifizierung des Individuums durch Self-Tracking)
		A.2	Neue Basisinnovationen	A.2.1	Graphene
				A.2.2	Bionik
		A.3	Technologische Konvergenz	A.3.1	Ambient Intelligence: Neue Schnittstellen und Oberflächen
				A.3.2	Neurowissenschaften, Künstliche Intelligenz und Robotik
				A.3.3	Biologie wird zur Leitwissenschaft (see A.2.2)
				A.3.4	IT & Nanotechnologie als zentrale Konvergenztreiber (Impulse in Feldern wie Medizin, Energie, Materialien)
				A.3.5	NBIC-Konvergenz (NBIC = Nanotech, Biotech, Infotech & Cognitive Science
B	**Ökonomischer Wandel**	B.1	Wissensbasierte Ökonomie	B.1.1	Bildung und Lernen als Fundament für neue, globale Wissenselite - kreative Klasse
				B.1.2	Innovation als zentraler Treiber und Wettbewerbsfaktor
				B.1.3	Fortschreitende Automatisierung (Vom Produktions- über den Service- in den Wissenssektor)
				B.1.4	Dynamisierung der Arbeit (orts- und zeitungebunden); flexible interaktive Arbeitsstrukturen
		B.2	Business Ökosysteme	B.2.1	Offene Systeme und Netzwerke: Grenzen von Branchen, Märkten und Unternehmen lösen sich auf
				B.2.2	Neue Wertschöpfungsnetze (Kundenintegration, Coopetition)
				B.2.3	Business Mashups: Schnittstellen produzieren neue Märkte
				B.2.4	New Power Brokers
C	**Demographischer Wandel**	C.1	Globales Bevölkerungswachstum	C.1.1	Geburtenboom in Entwicklungsländern
				C.1.2	Bevölkerungsschrumpfung im Westen
				C.1.3	Steigender Altenquotient in Industrienationen
				C.1.4	Urbanisierung / Starkes Wachstum von Megacitys / Open Source City
				C.1.5	Entwicklung angepasster Infrastrukturlösungen
				C.1.6	Neue Wohn-, Lebens- und Partizipationsformen
				C.1.7	Anwachsende Migrationsströme
		C.2	Gesundheit	C.2.1	Steigendes Gesundheitsbewusstsein und zunehmende Selbstverantwortung
				C.2.2	Health Tech - Health Style
				C.2.3	Neue Nahrungsmittel (Functional Food, Gen Food, Novel Food)
				C.2.4	Neue Konvergenzmärkte (Ernährung - Pharma - Medizin - Kosmetik)
D	**Ökologischer Wandel**	D.1	Green Energy	D.1.1	Energieeffizienz-Revolution
				D.1.2	Dezentrale Energieversorgung
				D.1.3	Alternative Energiequellen
		D.2	Endliches Ökosystem	D.2.1	Wasserknappheit
				D.2.2	Steigende non-renewable Ressourcenknappheit
				D.2.3	Umweltschaeden durch wachsenden Rohstoffverbrauch
E	**Globalisierung**	E.1	Steigende Interdependenz von Volkswirtschaften	E.1.1	Integration von Welthandel und Finanzmarkt
				E.1.2	Steigende Mobilität von Individuen und Ideen
				E.1.3	Oekonomische Machtbalance verschiebt sich Richtung EM
				E.1.4	Abbau von weltweiten Schuldenbergen und Imbalances
				E.1.5	Global Champions
				E.1.6	Wachsende Mittelschicht in Entwicklungslaendern
		E.2	Weltrisikogesellschaft	E.2.1	Schwelende soziale/kulturelle Konflikte und gescheiterte Staaten
				E.2.2	Globaler Terrorismus
				E.2.3	Verbreitung von Massenvernichtungswaffen
		E.3	Globalisierter Individualismus	E.3.1	Verändertes Beziehungsgeflecht: Wenige starke, viele lose Bindungen
				E.3.2	Vom Massenmarkt zum Mikromarkt
				E.3.3	Selbstversorgung und Do-it-Yourself-Ökonomie

3GEN APPLICATION

xxx (Name)
PRODUCT JOURNAL

Manager		Type	HF	MF	ETC	PE	xxx
ISIN				X			
Subscription	Monthly	Strategy					
Sub. Notice	10d	Domicile		LUX			
Redemption	Monthly	Structure					
Red. Notice	20d	Contact					
Min. Investment	EUR 10	Email					
Transaction	Direct	Phone					
§ 166 Compliant	Y	Gate Provision					
Watchlist since	01.01.1900	Side-Pockets					
Master I4 since	01.01.1900						
Master I8 since	01.01.1900	DD Red Flag I		-			
Theme I	#1 Emerging Consumer	DD Red Flag II		-			
Theme II	-						
Theme III	-						

REASONING

Date 01.01.1900
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RISK FACTOR COVERAGE

Date 01.01.1900
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SELL IF

3GEN APPLICATION

Inhaltsverzeichnis

1. Dynamische Strategische Asset Allokation .....
1.1 DSAA Grundsätze .....
1.2 DSAA Prozess .....
1.2.1 Zeitlose Erkenntnisse .....
1.2.2 Falsifizierte Modelle .....

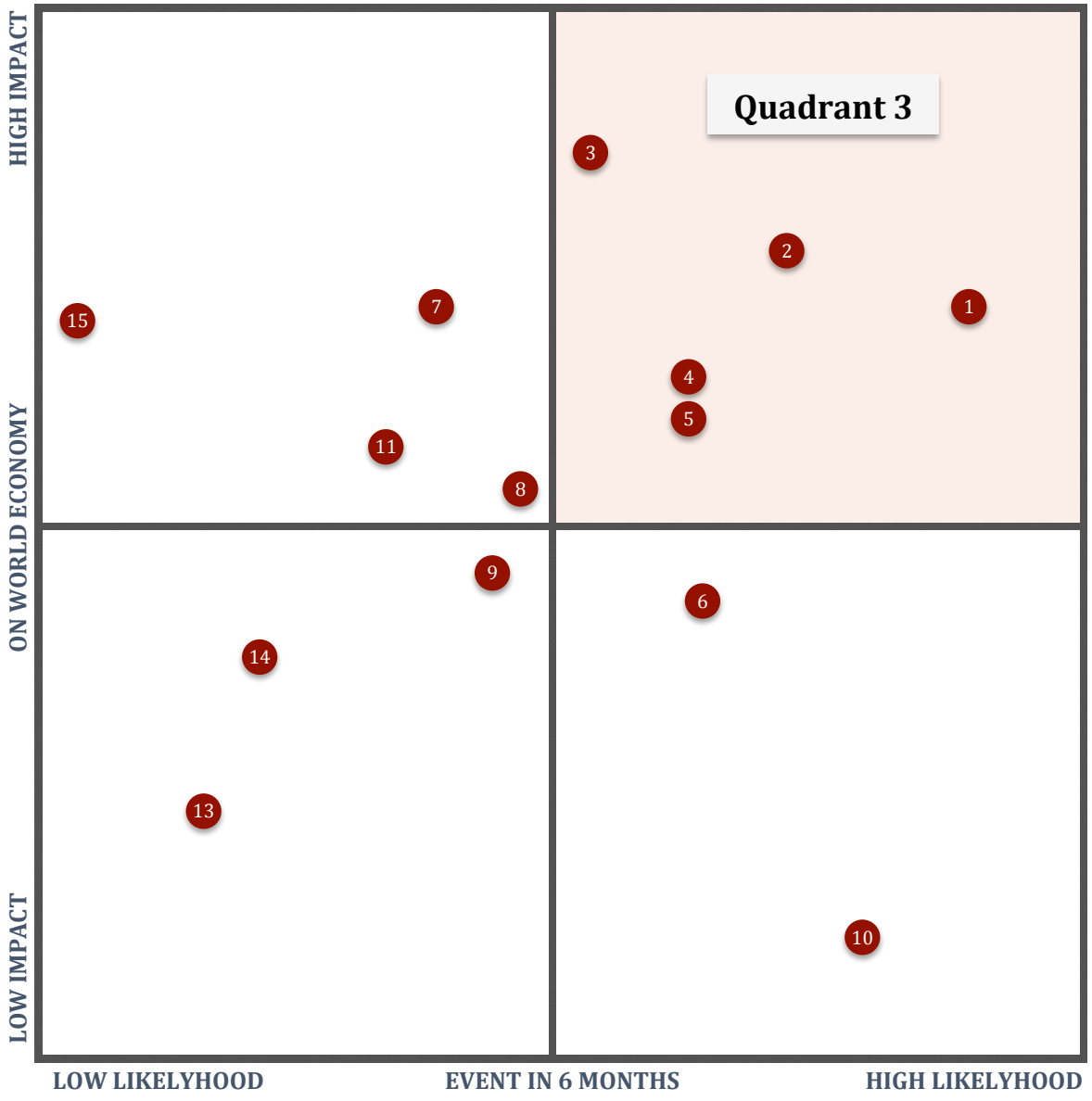
2. Market Insights .....
2.1 Market Trends .....
2.2 Investor Behaviour .....
2.3 Market Experts .....

3. Animal Spirits Management .....
3.1 Understand the system .....
3.2 Beware of your own animal spirits .....
3.3 Lesen, lesen und nochmals lesen .....
3.4 There are no short-cuts .....
3.5 Process simplicity .....
3.6 Have skin in the game .....
3.7 Decide evidence-based .....
3.8 A learning investment style .....

4. Asset Allocation Rules .....
4.1 Strategie-Zielbestimmungen .....
4.2 Monatliche Routine .....

5. Product Selection Rules .....
5.1 Grundsätzliches .....
5.1.1 SYSTEMATIC MISTAKES .....
5.1.2 CYCLES OF FRAUD .....
5.1.3 REBALANCING .....
5.1.4 AVOIDING LIQUIDITY FAILURES (IOSCO) .....
5.2 Due Diligence Checklisten .....
5.2.1 Single Securities .....
5.2.2 Mutual Funds .....
5.2.3 Real Asset Funds .....
5.2.4 Alternative UCITS .....
5.2.5 Hedge Funds .....
5.2.6 ETF .....

Panthera Solutions
RULEBOOK



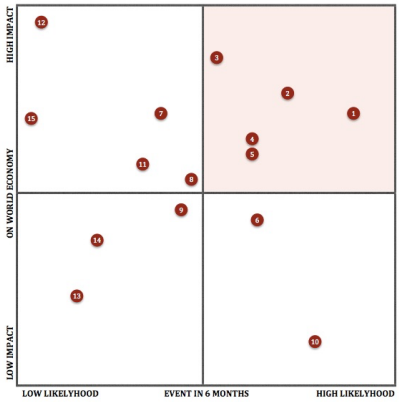
FAKTORENREIHUNG

1. China - Immobilienmarkt Korrektur
2. Wachstumsdelle Weltwirtschaft
3. Bank Run Italien
4. Bank Run Spanien
5. Fiscal Cliff USA
6. EUR Austritt Griechenland
7. Chinesisches Hard Landing
8. Japan fällt in Rezession zurück
9. EU17 Austerity Ratifikation stoppt
10. Rezession in UK hält an
11. Inflationdynamik in Industrieländern
12. Zerfall der Eurozone
13. Kein US Real Estate Market Turnaround
14. Israel Angriff auf Iran
15. EUR Austritt Deutschland

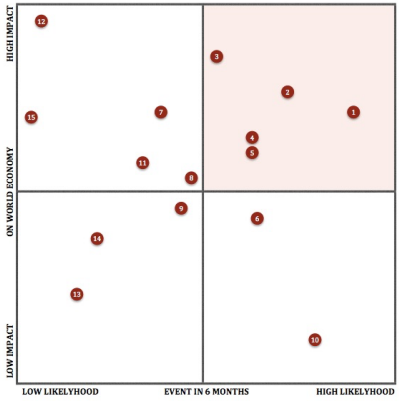
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TEAM EXERCISE

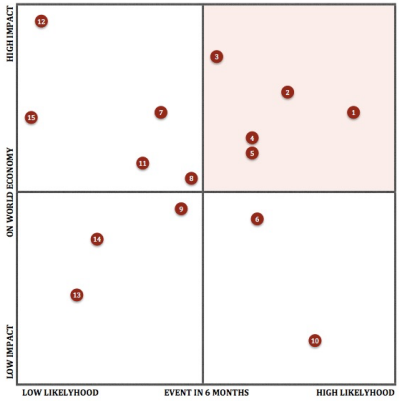
MACRO



MESO



MICRO



TASK

STEP 1 // Define for the transformation process "EMERGING CONSUMER" at least 2 risk factors (1x QN & 1x QL) per Macro & Meso-level.

STEP 2 // Find at least 1 financial instrument and add 2 RF (QN+QL) at Micro-level.

STEP 3// Fill-in all RF in RISK FACTOR MATRIX.

STEP 4 // Reason your decision

1h Preparation + 1h Presentation

