Asociación Internacional de Organismos de Supervisión de Fondos de Pensiones

SUPERINTENDENCIA DE BANCA, SEGUROS Y AFP

SEMINAR

DEVELOPMENT AND CHALLENGES OF DEFINED CONTRIBUTION PENSION SYSTEMS: A COMPREHENSIVE APPROACH

Lima, Peru 10th – 11th June 2010

Alternative Investment Assets

Opportunities and Risks for Pension Funds

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Alternative Investment Assets
Opportunities and Risks for Pension Funds

Outline

- Framework for Pension Fund Asset Management
- Pension Fund Regulatory Limits
- Pension Fund Asset Allocation
- Asset Allocation Trends
- Factors Driving Asset Allocation To Alternatives
- Reducing Risks Associated With Alternative Assets

Framework for Pension Fund Asset Management

Asset Allocation Within An Asset Management Framework

Optimal asset allocation for pension fund should be based on:

- long term investment horizon based on the principle of life-cycle savings
- risk management techniques such as asset liability management (ALM)
- benchmarks that are based on acceptable risk over the life-cycle

The use of risk management techniques has led to a shift in pension funds' investment strategies globally:

- a move towards greater duration to match liabilities and
- diversification by geography and asset class, including greater investment in alternative instruments, such as private equity, real estate and hedge funds in search of "alpha"

Framework for Pension Fund Asset Management

Suboptimal Asset Allocation From Reliance on Investment Limits

As noted in a talk in Rio de Janeiro last year by Solange Berstein, augments against relying on investment limits—rather than ALM--as a regulatory tool include:

- investment limits may lead to suboptimal portfolio holdings by *restricting portfolios choices unnecessarily*
- assets are evaluated by their *individual risk level* rather than by their contribution to the overall portfolio risk
- investment limits are *inflexible* and cannot accommodate rapid changes in financial conditions in financial markets

As a result, pension funds have been biased to overweight government securities beyond what an optimal asset allocation rule will dictate and alternative assets have largely been prohibited

Pension Fund Regulatory Limits

Regulatory Quantitative Limits on Alternative Assets

Worldwide trend to risk-based regulation

Country	Domestic	Specific External Limit
AUSTRALIA	No Limit	No
CANADA	No Limit	No
GERMANY	No Limit	No
IRELAND	No Limit	No
JAPAN	No Limit	No
KOREA	Corporate: DB – 50% MAX DC – 0% Other: No Limit	Not Permitted Not Permitted
NETHERLANDS	No Limit	No
SPAIN	30%	No

Pension Fund Regulatory Limits

Regulatory Quantitative Limits on Alternative Assets

However quantitative limits remain an important regulatory feature in Latin America

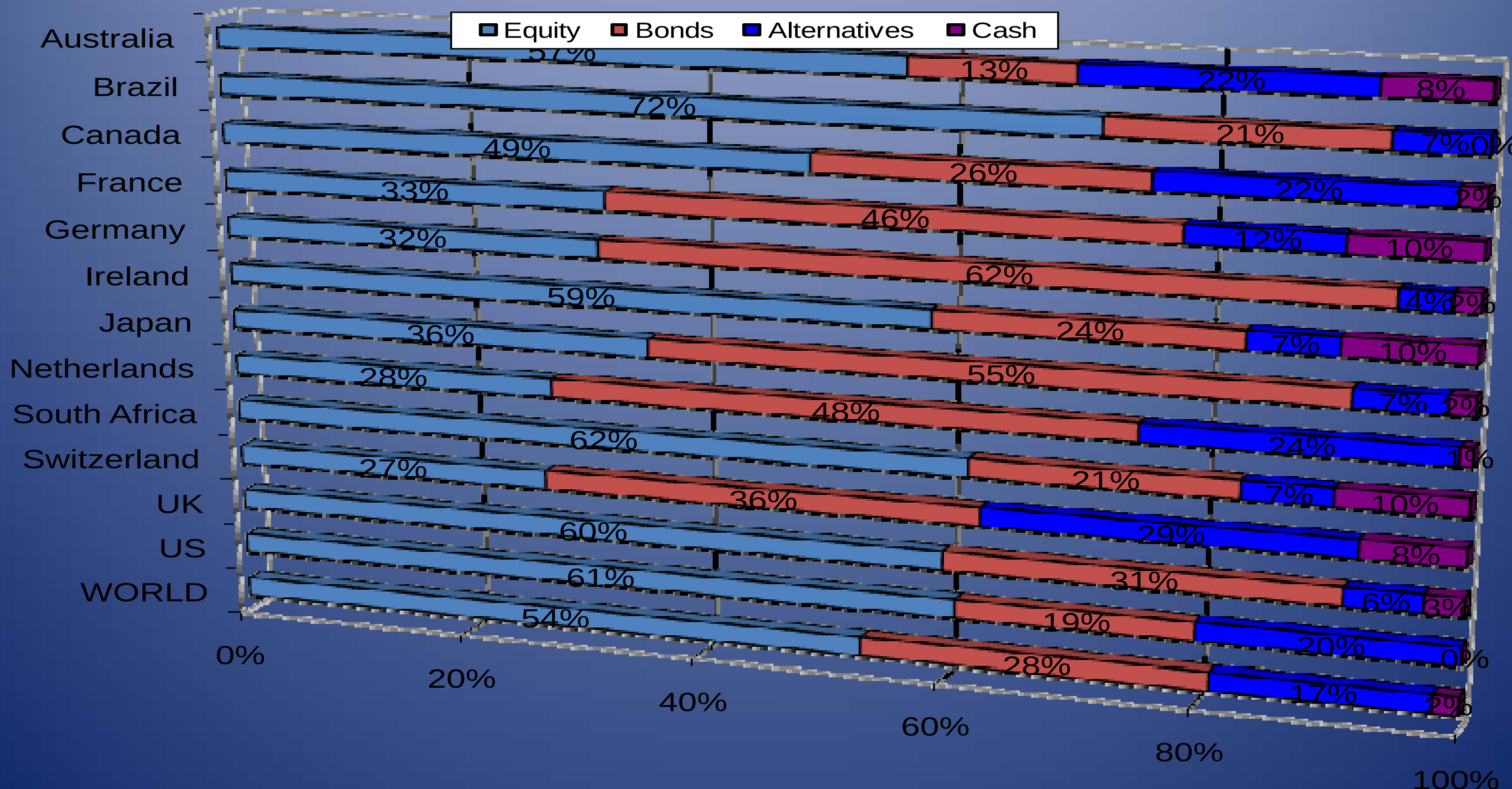
Country	Domestic	Specific External Limit
UNITED STATES	No Limit	No
UNITED KINGDOM	No Limit	No
ESTONIA	No Limit	No
PORTUGAL	No limit (Liability Matching Provisions)	No
MEXICO	0% - 10% (Structured Product)	Not Permitted
BRAZIL	Closed Funds: 20% of Reserves	10% with qualitative restriction (OECD classifies as not permitted)
COLOMBIA	5%	5%
CHILE	0% - 20% (Risk Related Provisions)	Structured Product

Pension Fund Asset Allocation

Global Asset Allocation 2009

Asset allocation to equities, bonds and alternatives varies across countries with:

- highest proportion of equities in Brazil, South Africa, the U.S. and the U.K.
- highest proportion of bonds in Germany, Japan, Netherlands and France



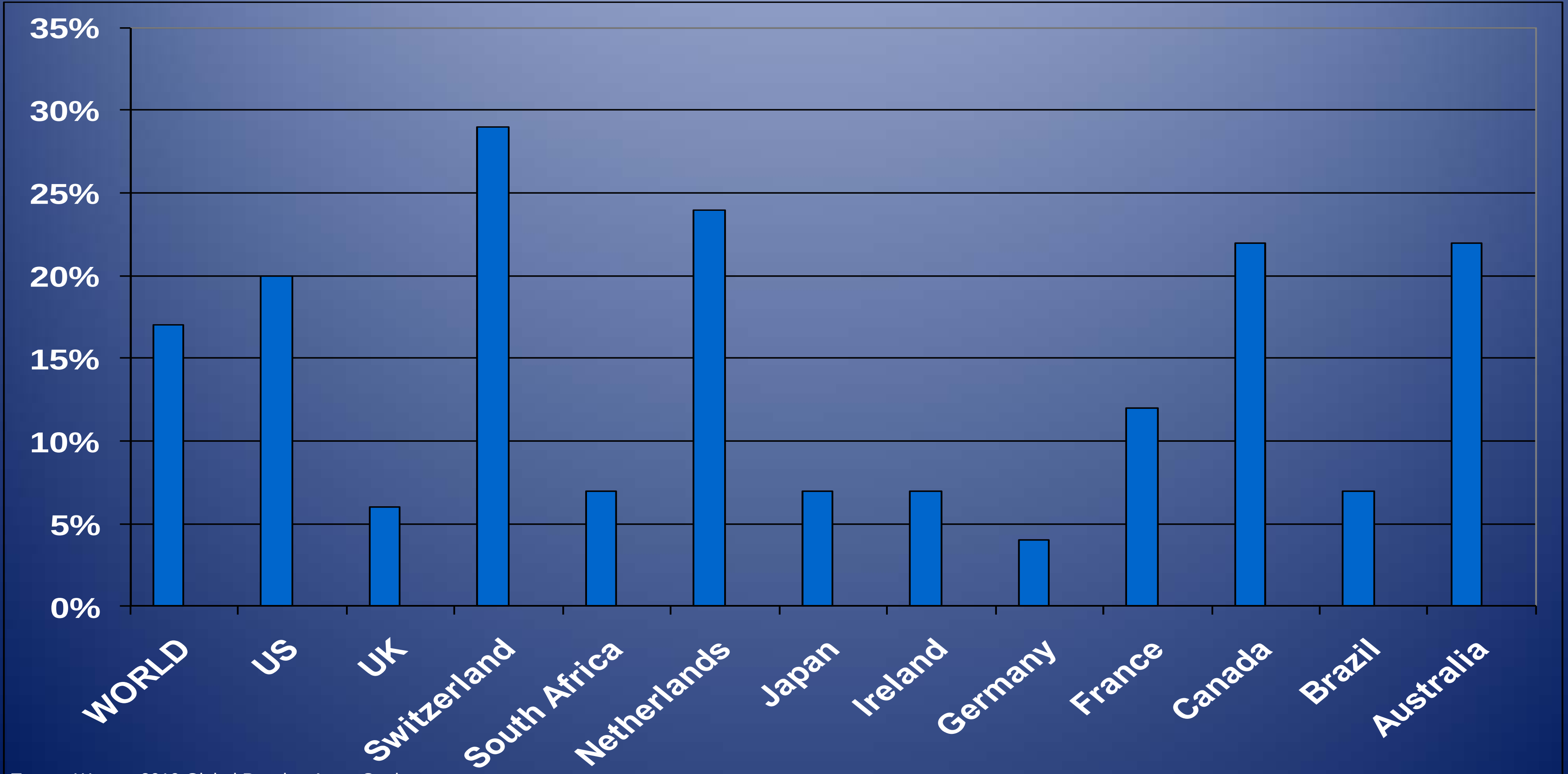
Towers Watson 2010 Global Pension Asset Study

Pension Fund Asset Allocation

Global Allocation to Alternative Assets 2009

Global allocation to alternative assets averaged 17 percent lead by:

❖ Switzerland, Netherlands, Canada, Australia and the United States



Towers Watson 2010 Global Pension Asset Study

Pension Fund Asset Allocation

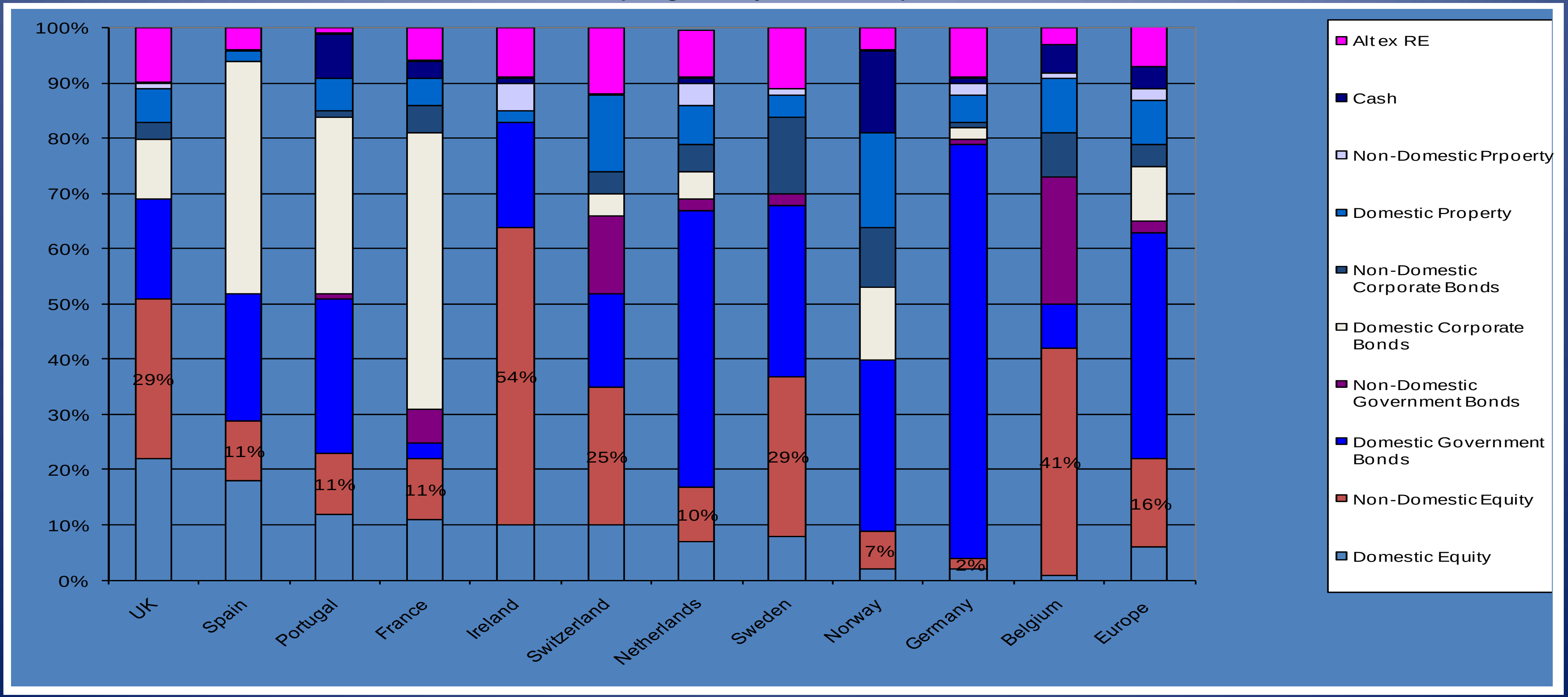
EU Country Asset Allocation Strategy 2009

Main elements of asset allocation by EU countries include:

❖ largest average allocation to domestic bonds (either government or corporate)

❖ followed by non-domestic equity and alternatives

(weighted by size of fund)



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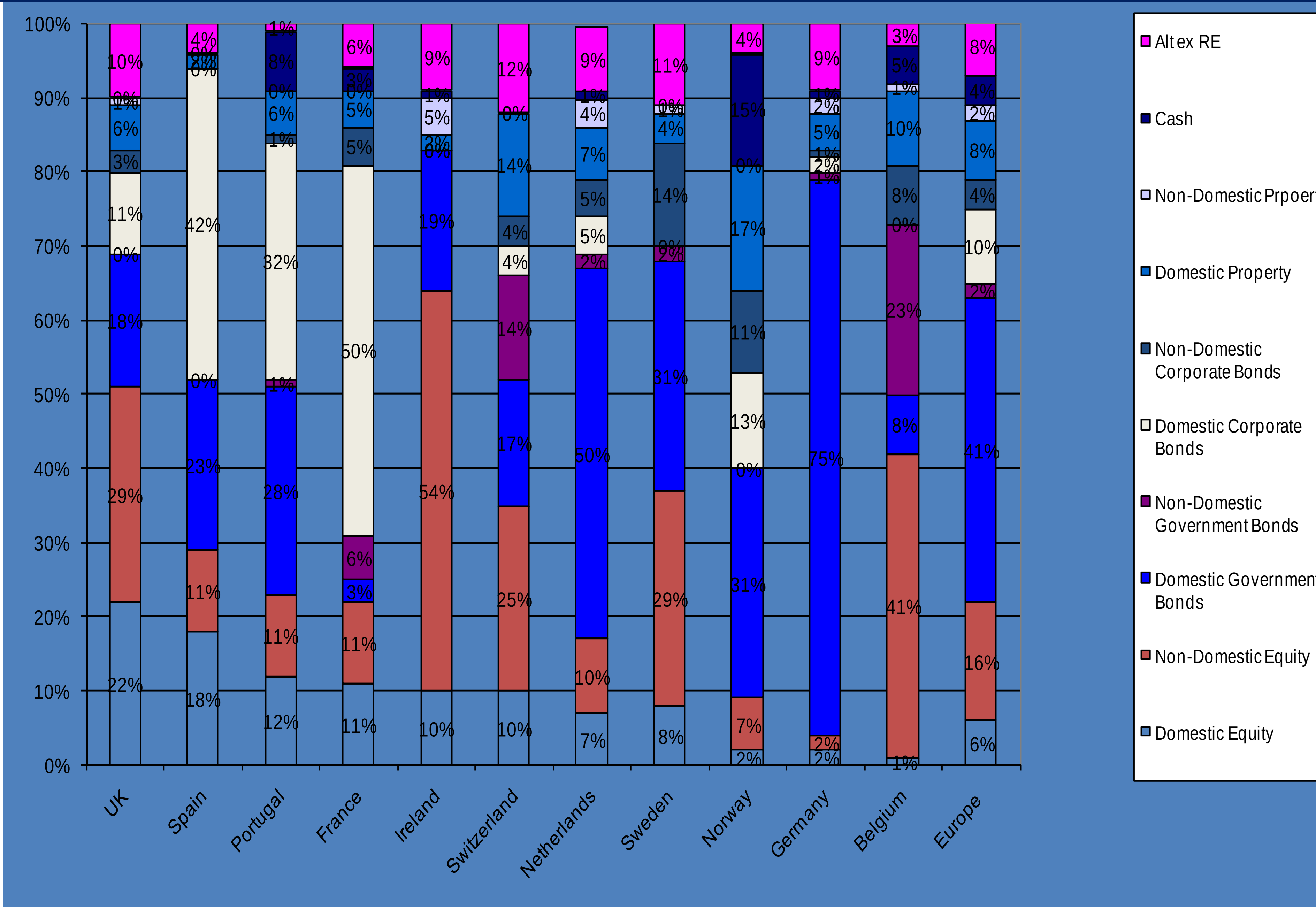
Pension Fund Asset Allocation

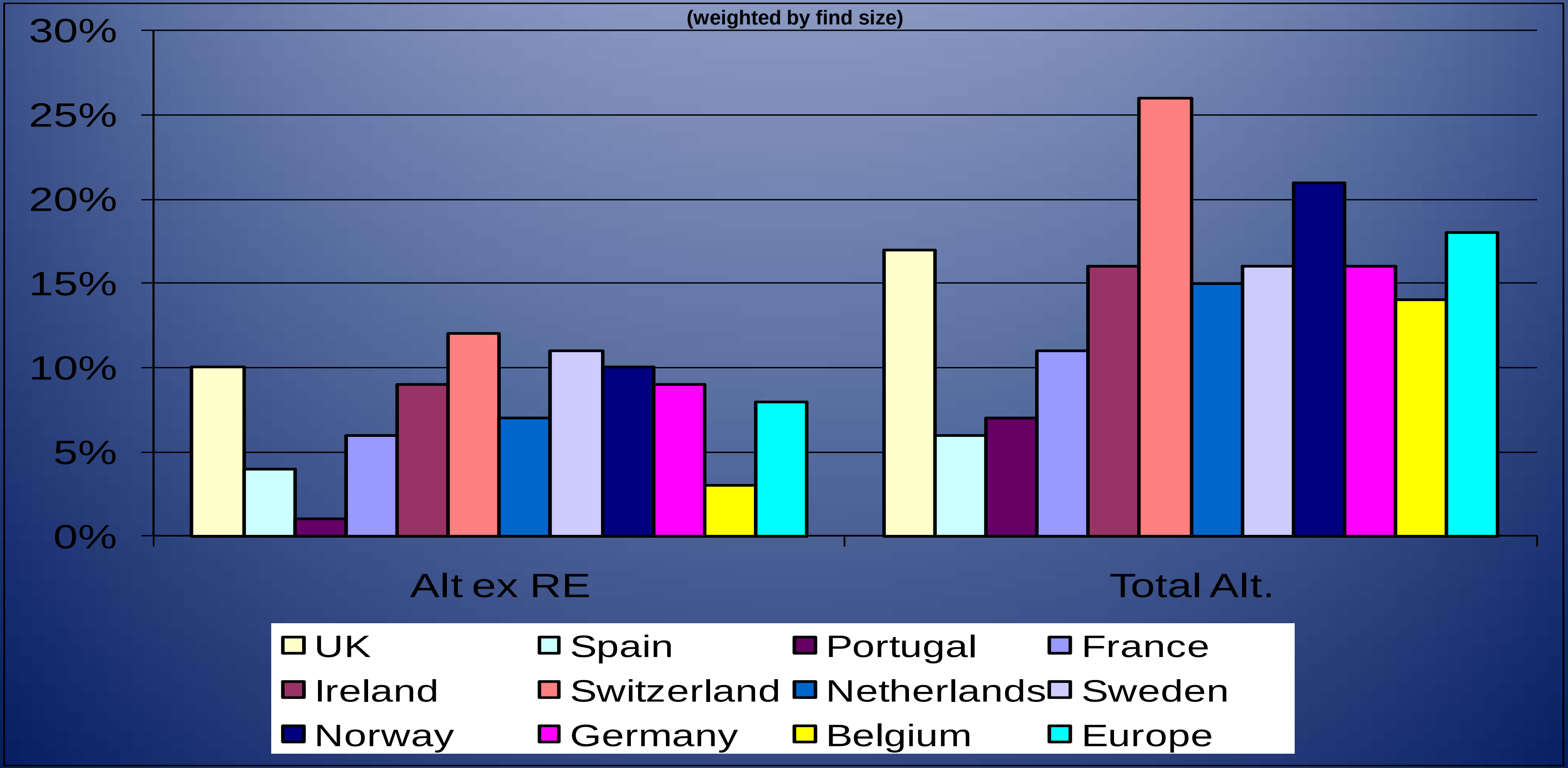


Pension Fund Asset Allocation

EU Country Allocation to Alternative Assets 2009

EU country allocation to alternative assets averaged 18 percent led by:

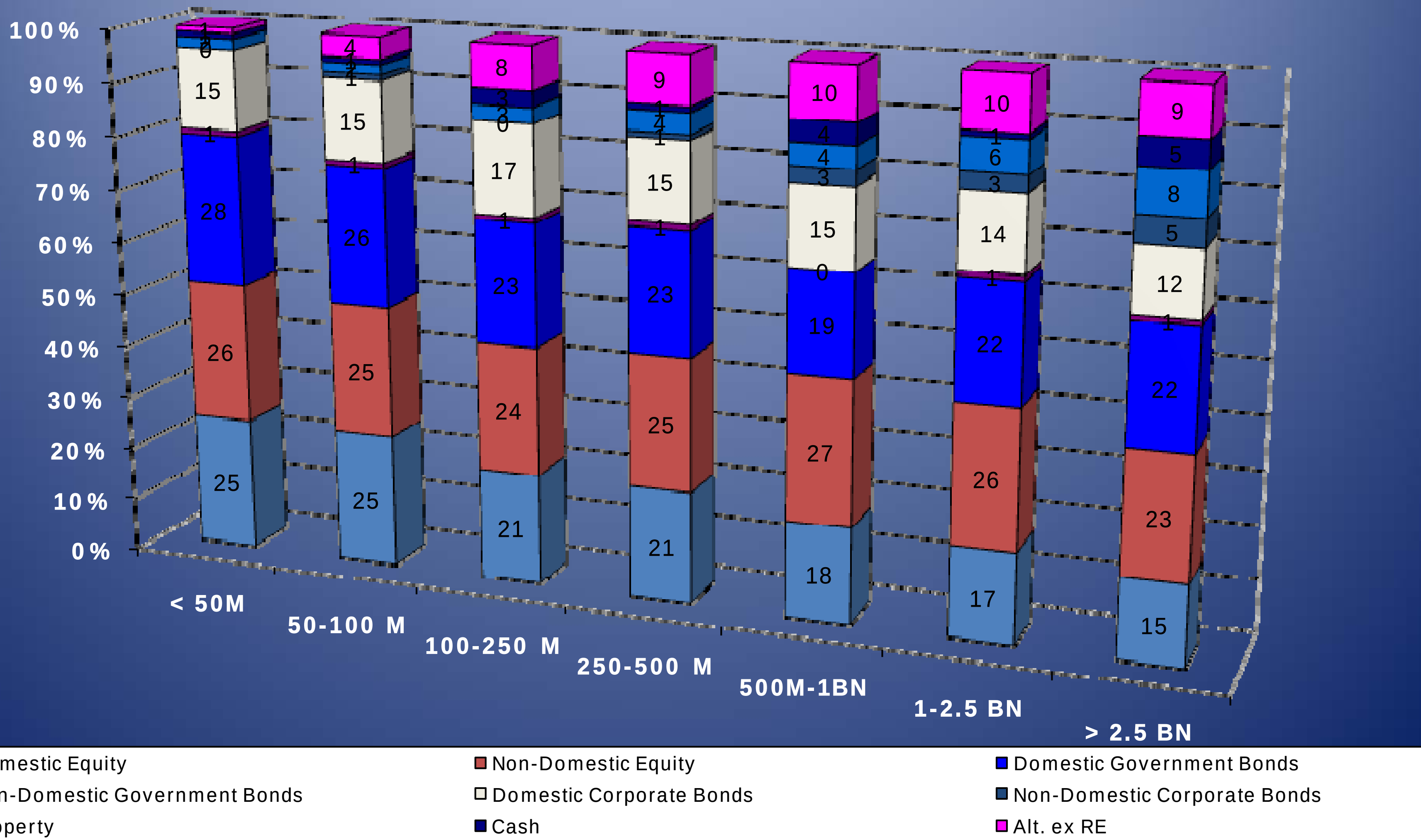
- Switzerland, Norway, the United Kingdom, Netherlands and Sweden
- with half of alternative assets allocated to real estate



Pension Fund Asset Allocation

EU Country Asset Allocation Strategy by Fund Size

Larger pension funds allocate a higher percent of assets to non-domestic corporate bonds, real estate and other alternative assets



Asset Allocation Trends

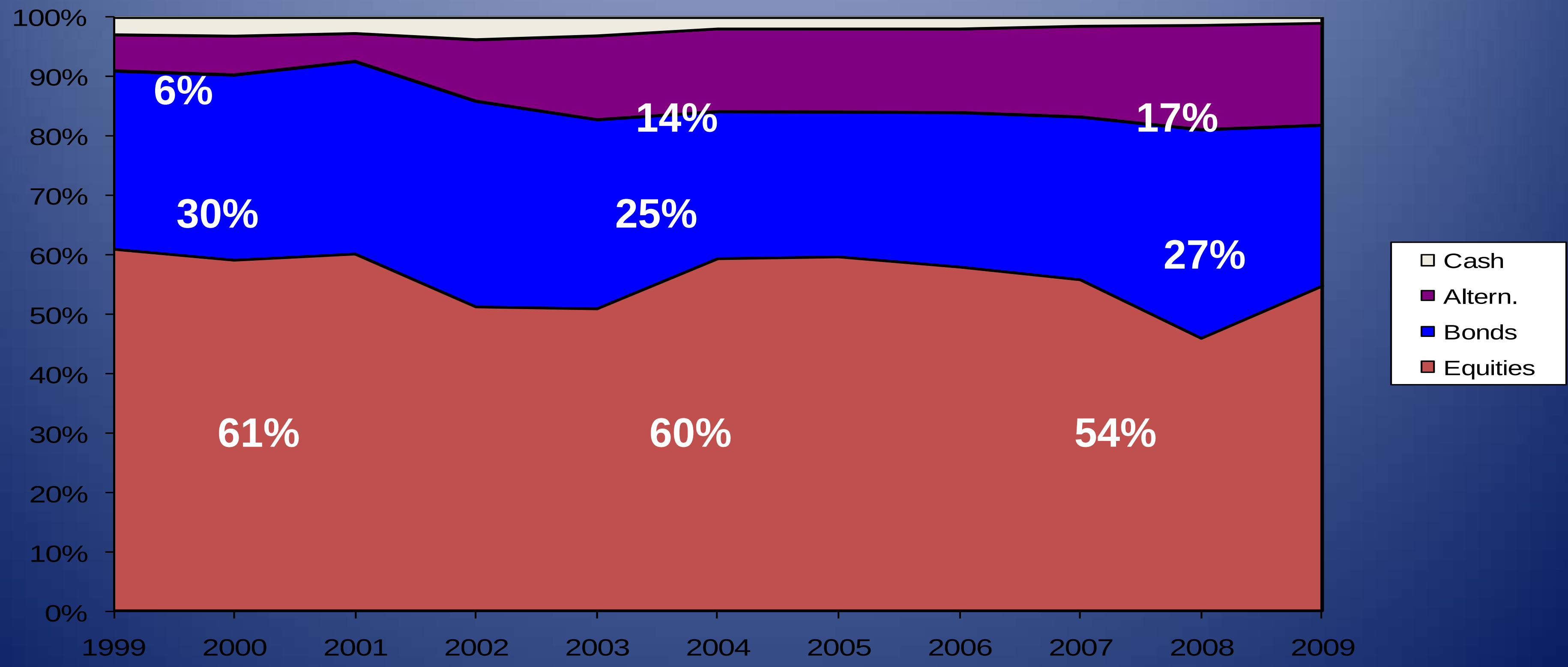
Global Asset Allocation Tends 1999 - 2009

Throughout the period, asset allocation:

❖declined for equities and increased for alternative assets

❖a fall earlier in the decade in the allocation to bonds reversed in recent years

❖overall, risk management included the increased exposure to alternative assets mainly coming out of equity investments



Countries included: Australia, Canada, Japan, Netherlands, Switzerland, UK, US

Towers Watson 2010 Global Pension Asset Study

Asset Allocation Trends

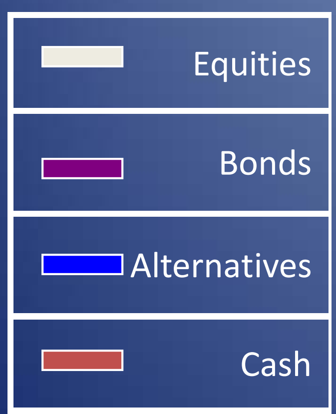
Global Asset Allocation By Country

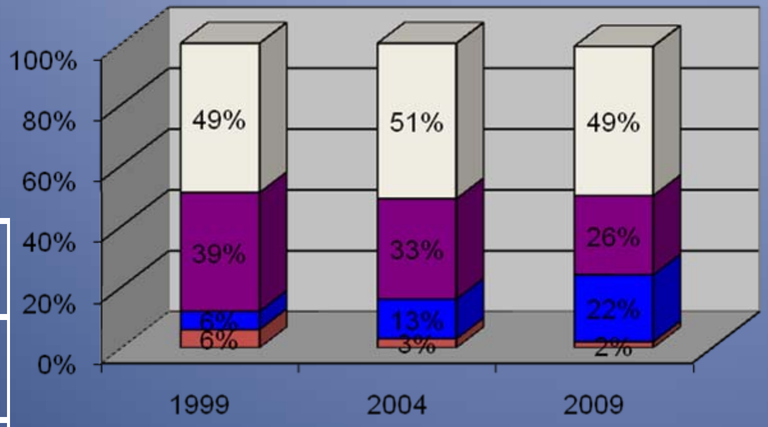
(end -1999 versus end -2004 versus end -2009)

Throughout the period, asset allocation:

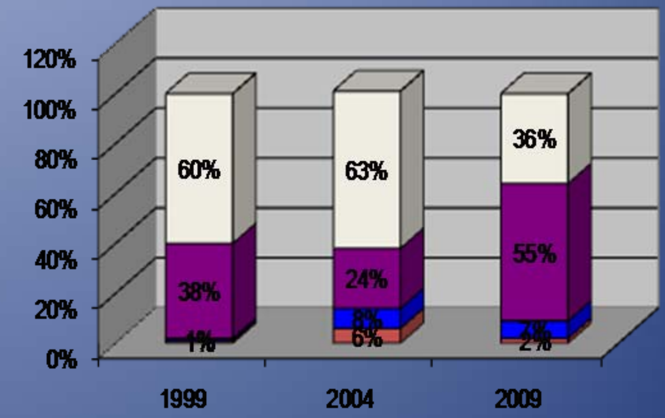
❖alternatives increased for all countries

❖less reliance on equities in most countries, with Japan having highest reliance on bonds

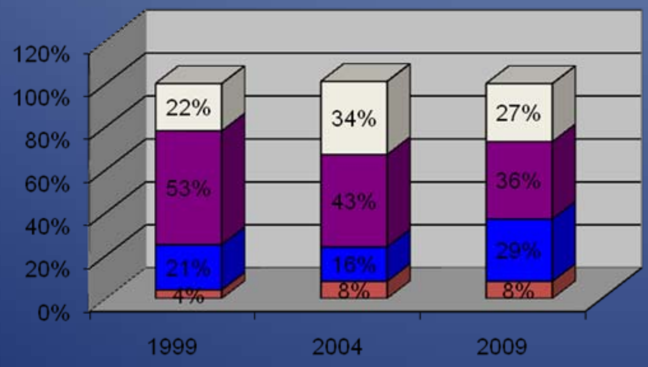




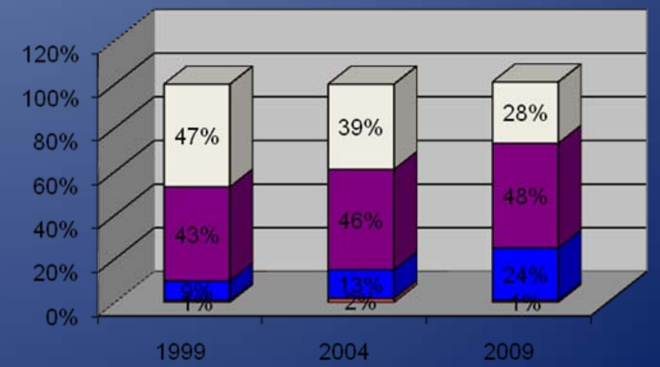
Canada



Japan



Switzerland



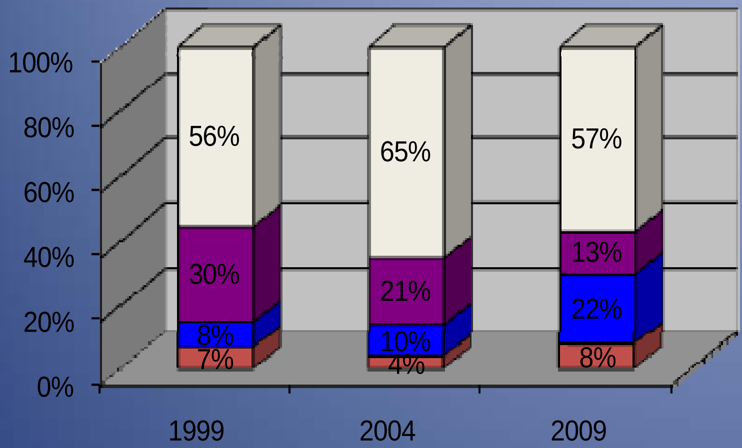
Netherlands

Asset Allocation Trends

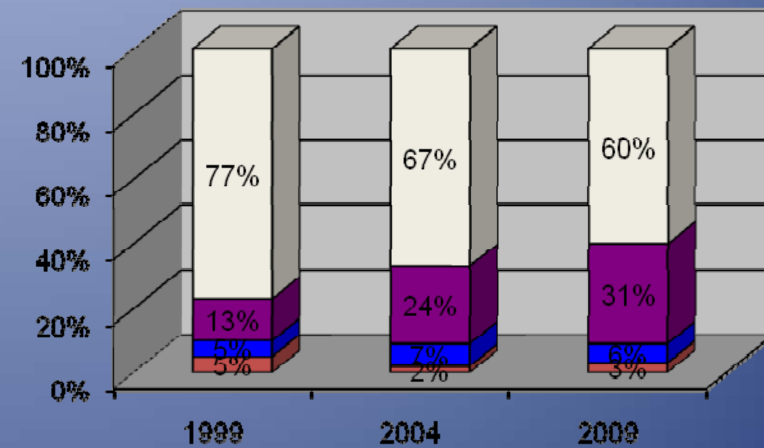
Global Asset Allocation By Country

(end -1999 versus end -2004 versus end -2009)

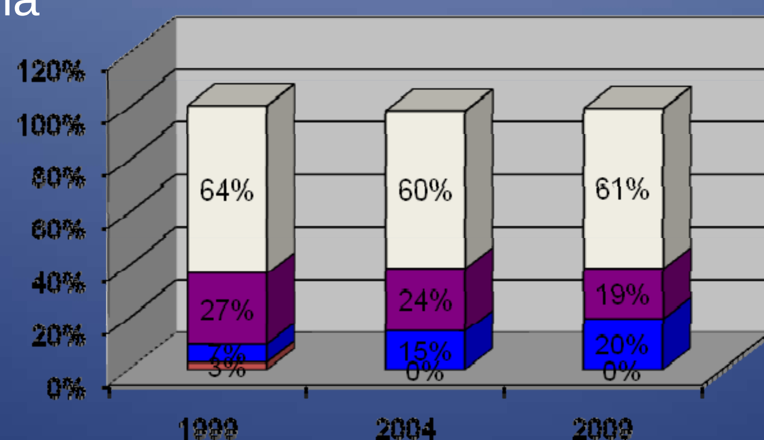
❖and Australia, the U.S. , U.K and Canada with the highest (though declining) allocation to equities



Australia



United Kingdom



United States

Equities

Bonds

Alternatives

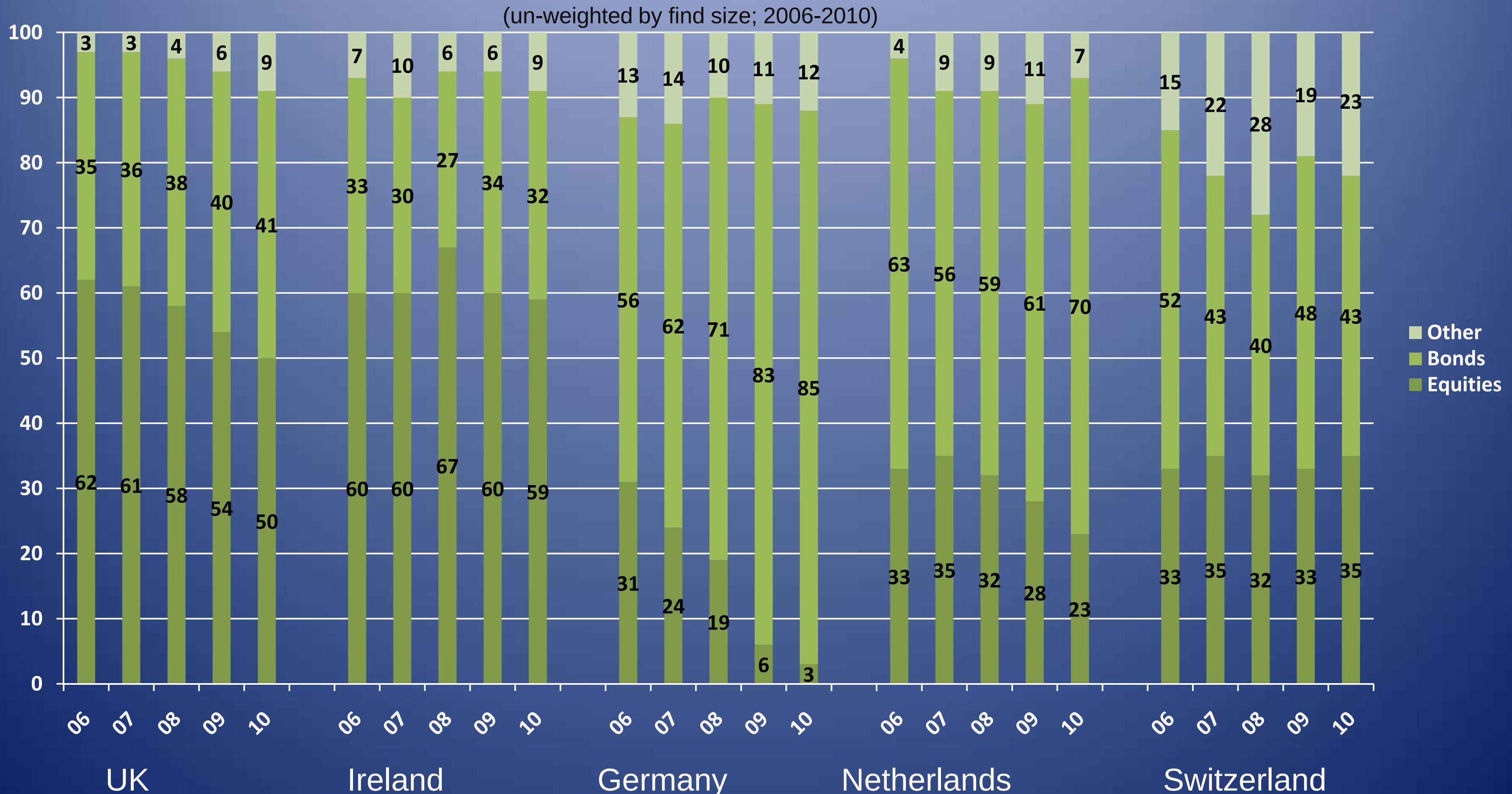
Cash

Asset Allocation Trends

More Recent Asset Allocation Trends for Selected Countries

Throughout the period, asset allocation:

❖greater reliance on alternative assets and bonds for a number of countries in the EU



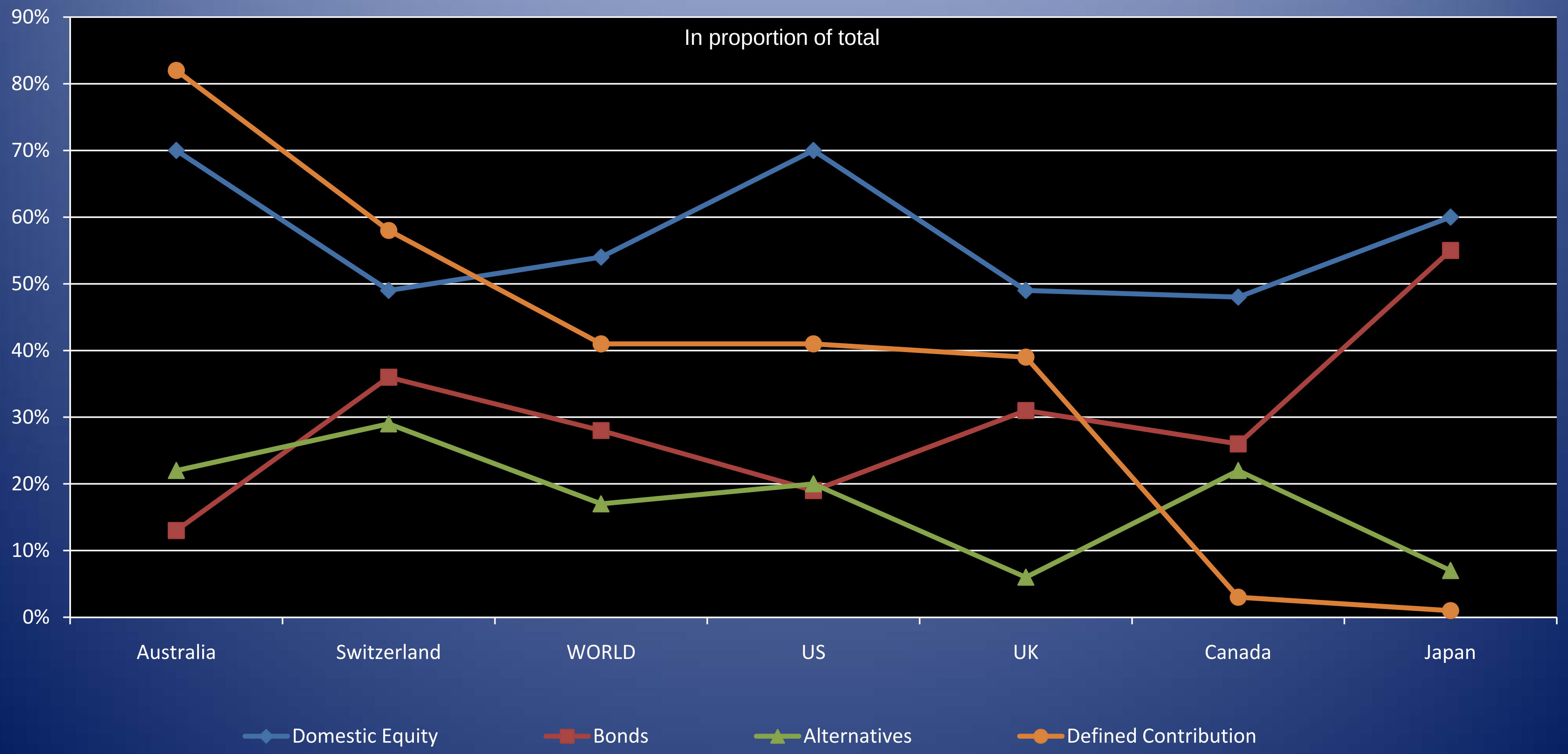
		Equities	Bonds	Other
UK	06	62	35	3
UK	07	61	36	3
UK	08	58	38	4
UK	09	54	40	6
UK	10	50	41	9
Ireland	06	60	33	7
Ireland	07	60	30	10
Ireland	08	67	27	6
Ireland	09	60	34	6
Ireland	10	59	32	9
Germany	06	31	56	13
Germany	07	24	62	14
Germany	08	19	71	10
Germany	09	6	83	11
Germany	10	3	85	12
Netherlands	06	33	63	4
Netherlands	07	35	56	9
Netherlands	08	32	59	9
Netherlands	09	28	61	11
Netherlands	10	23	70	7
Switzerland	06	33	52	15
Switzerland	07	35	43	22
Switzerland	08	32	40	28
Switzerland	09	33	48	19
Switzerland	10	35	43	23

Mercer 2010 Pension Asset Allocation Study

Asset Allocation Trends

Impact of Defined Contribution Pension Plan On Asset Allocation

Global asset diversification appears independent of type of pension plan



Asset Allocation Trends

Diversification as a Driving Force

Pension fund asset allocation diversification trends are:

- Overall decline in allocation to total equities and increase to bonds
- Broad-based increase in proportion of external to total equities
- Uniform increase in allocation to alternative assets
- Geographic diversification also taking place, with higher proportion going to emerging markets
- Asset allocation trends appear dominated by drive for diversification and not by defined benefit/contribution split

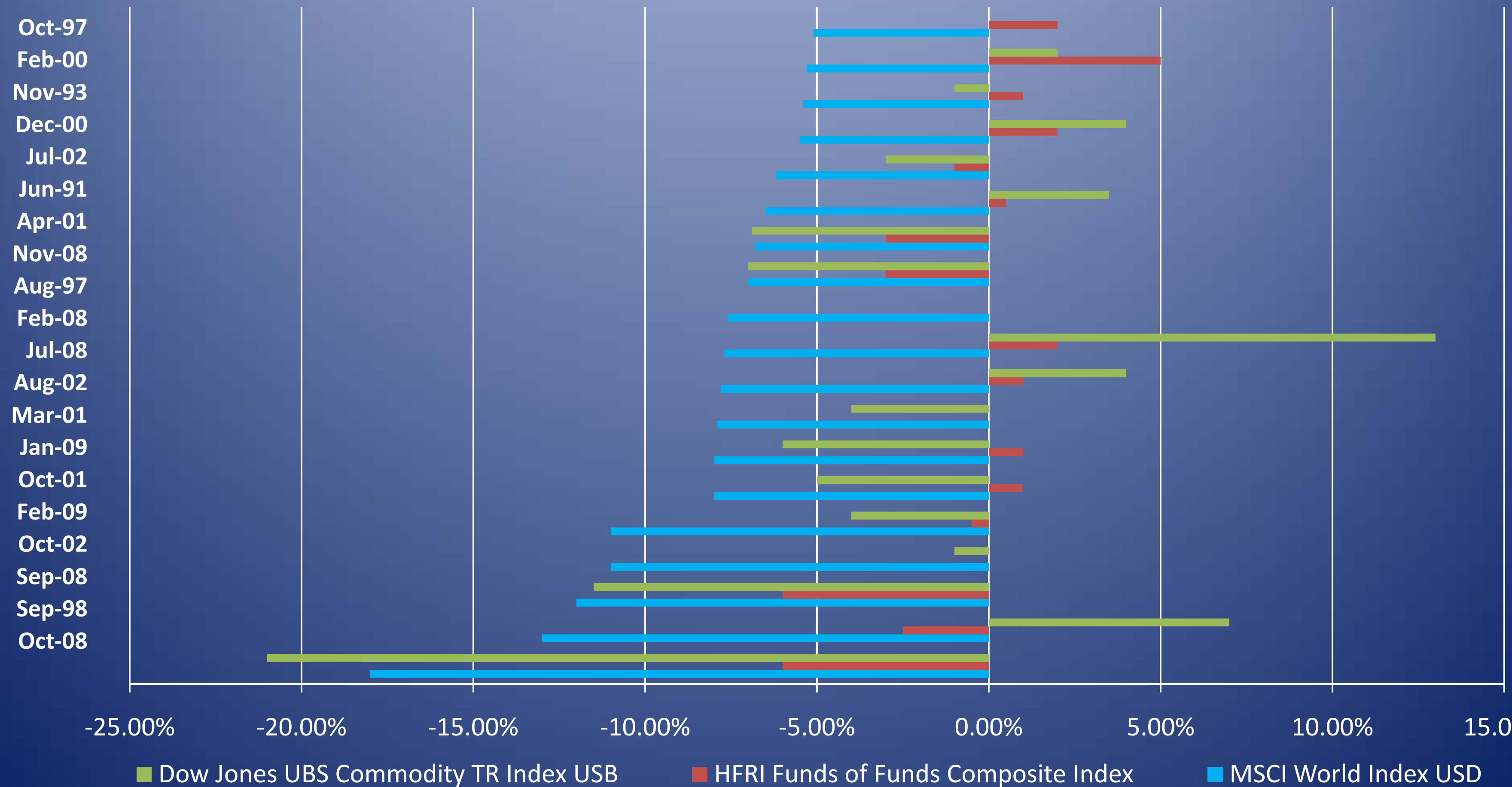
Factors Driving Asset Allocation To Alternatives

Alternatives Remain a Low-Correlated Asset

Despite experience in QIV 2008, alternatives remain a low-correlated asset

❖Positive returns for alternatives in half of the equities' worst-performing months

❖Alternatives moderated losses in equities in all cases except October 2008

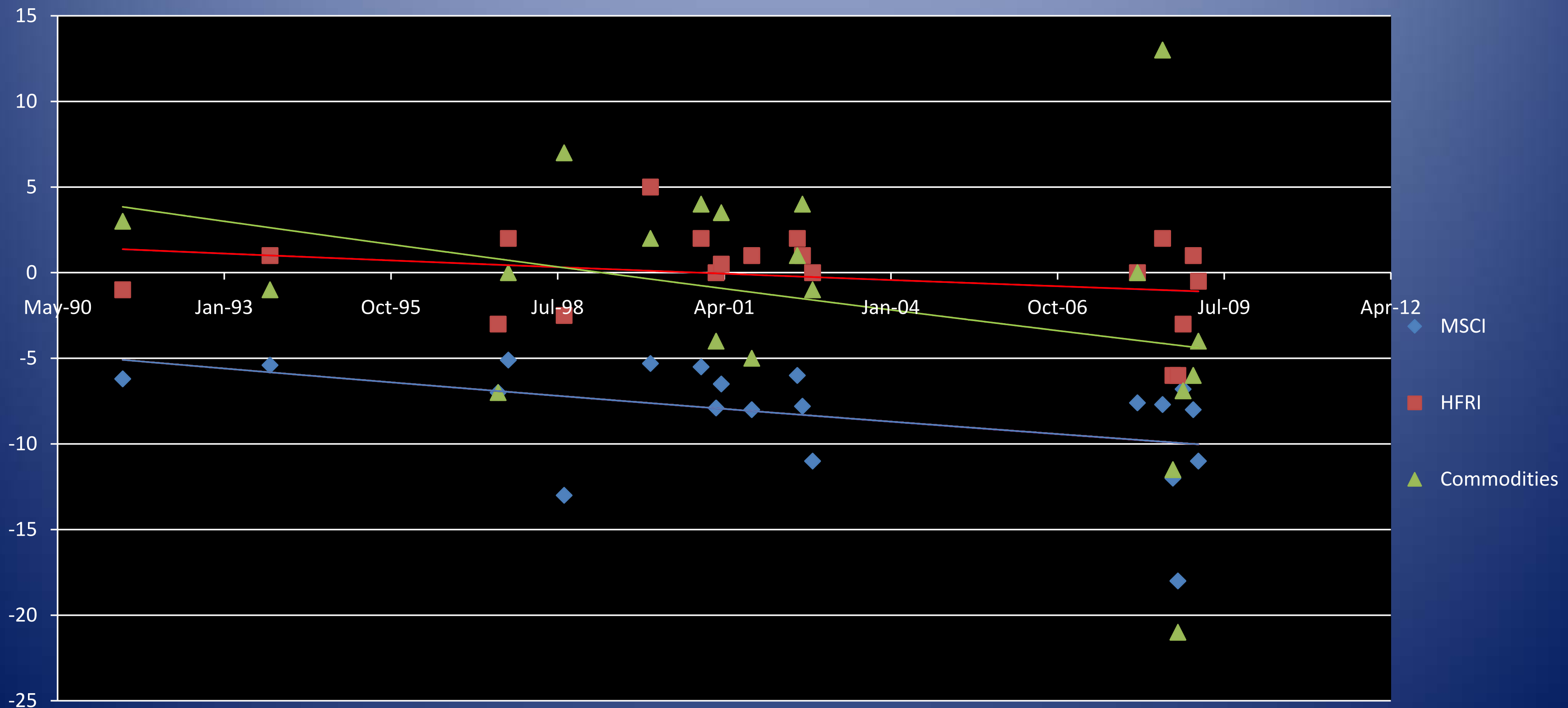


Source: Ibbotson/MSCI World Index in US dollars

Factors Driving Asset Allocation To Alternatives

Alternatives Remain A Low-Correlated Asset

- “worst- month” returns of equities experiencing lower-lows over past 20 years
- while returns of alternatives were steadier and consistently higher than for equities



Source: Ibbotson and World MCCI Index

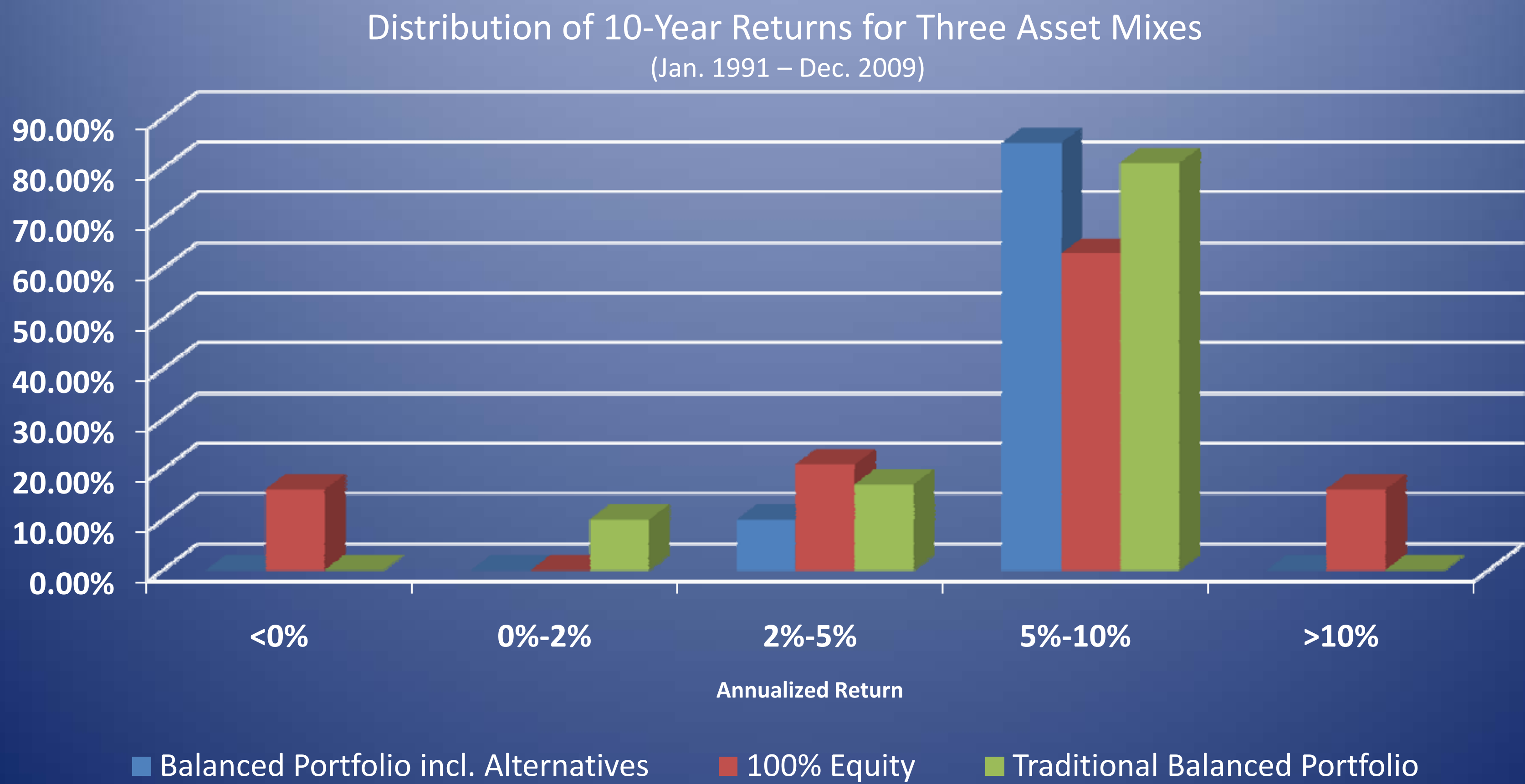
Factors Driving Asset Allocation To Alternatives

Higher Absolute Returns with Lower Risk

Diversification with a low-correlated asset with higher absolute returns gives:

❖higher returns

❖lower risk



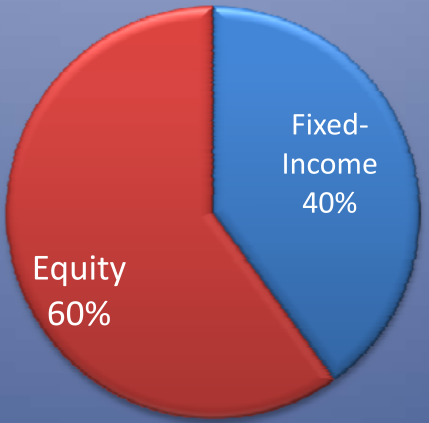
Source: Ibbotson. The MSCI World Index was used as a proxy for equities; the Citigroup World Government Bond Index was used as a proxy for global bonds. The DJ-UBS Commodity Total Return Index proxies commodities, the HFRI Fund of Fund Composite Index proxies hedge funds and the FTSE NAREIT All REITS proxies real estate.

Factors Driving Asset Allocation To Alternatives

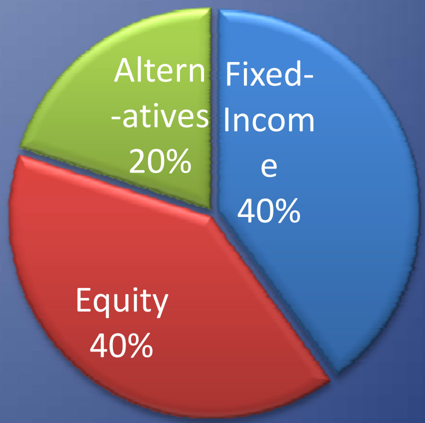
Another Example of Higher Absolute Returns with Lower Risk

Comparison of Hypothetical Asset Allocation
(12/1/1999 to 11/30/2009)

Traditional Core Portfolio



With Alternatives Exposure



Average Annual Return	0.64%	2.49%
Average Annual Standard Deviation*	12.98%	8.48%
Maximum Drawdown**	-41.69%	-29.08%

*Standard Deviation - Measures Total Volatility; **Maximum Drawdown - Measures Worst Cast Performance

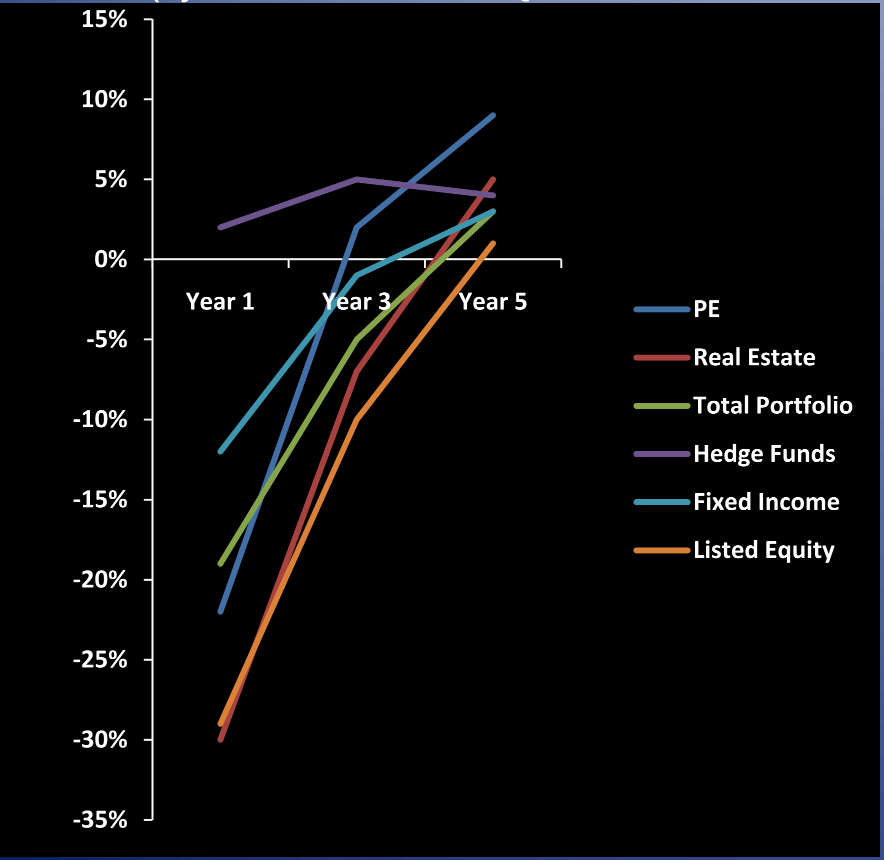
Source: Natixis Global Associates, S&P 500 Index, Barclays Capital Aggregate Bond Index, HFRI Fund of Funds Index.

Factors Driving Asset Allocation To Alternatives

Private Equity Outperformed Equities and Other Alternative Assets

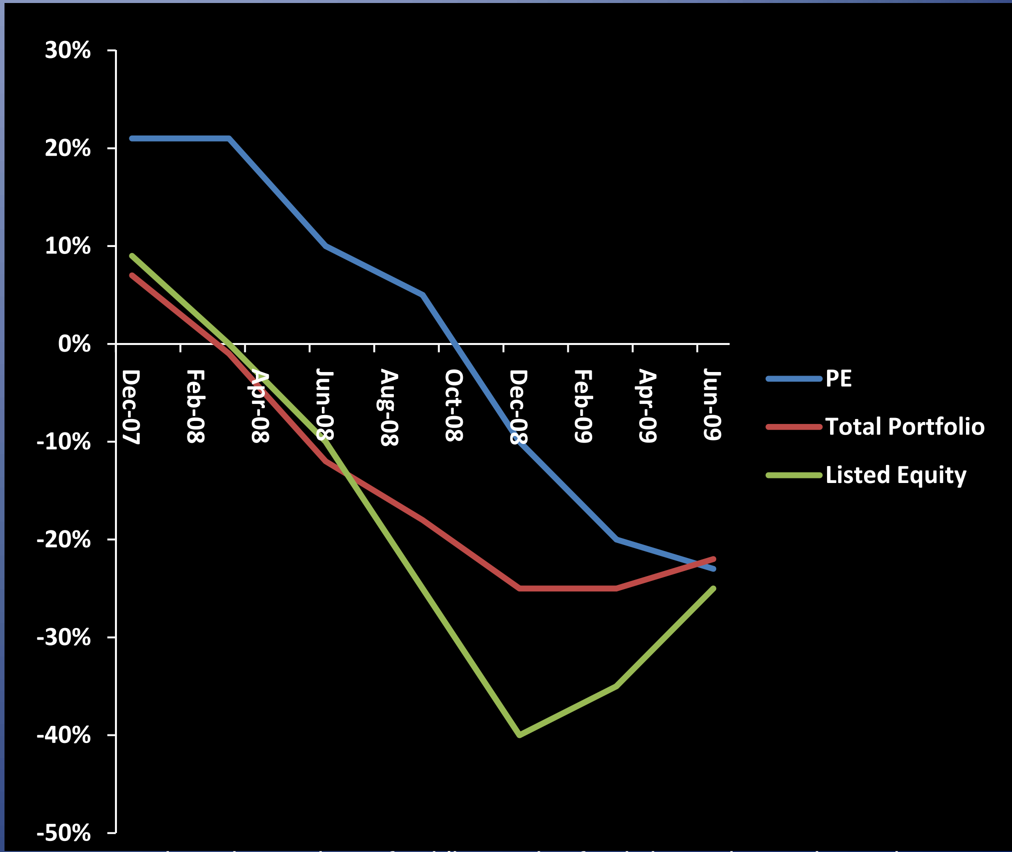
Public Pension Funds'
Returns by Asset Class

Public Pension funds median returns
(by asset class, as of Q2 2009



Public Pension Funds'
PE vs. Overall Portfolio Returns

Public Pension Funds' One-Year Median



Note: Data based on review of public pension funds in North America and Europe
Source: Preqin

Reducing Risks Associated With Alternative Assets

Pension Funds And Their Supervisors Need To Take Into Account Alternative Assets’ Increased Risks And Act Accordingly

Investing in alternative assets can be dangerous without appropriate risk management procedures in place. Increased risks potentially could result from:

- Less liquidity than publicly traded stocks and bonds
- Higher volatility than fixed income
- Less regulation in countries of origin with reduced transparency and accountability
- Poor governance by asset managers/change in management during “lock up” period

Reducing Risks Associated With Alternative Assets

Best Practices in Risk Management

As asset management globally is increasingly implemented within an ALM framework, international regulators have been developing best practices in risk management for alternative assets. These include:

- *Characteristics of alternative investments*: ensure that pension fund takes appropriate account of specific risk-return characteristics

- *Investment strategy and risk assessment*: need for diversified alternatives strategy that fits within pension fund's overall strategy; avoid undesirable concentrations

- *Due diligence and control systems*: assess quality of asset manager's risk management; contract terms and monitoring of adequate disclosure, fees, etc.

- *Information and reporting*: transparent, frequent communication by fund manager

International Organization of Pension Supervisors (IOPS), and OECD Core Principles for Pension Regulation

Reducing Risks Associated With Alternative Assets

A Few Key Lessons

Within this comprehensive risk management framework, a few areas to highlight:

❖ *Extensive due diligence and analysis* to find appropriate type of alternative asset and "best of class" asset manager are critical for success

❖ *Diversification across alternative assets* is as critical as use of alternatives to diversify portfolio

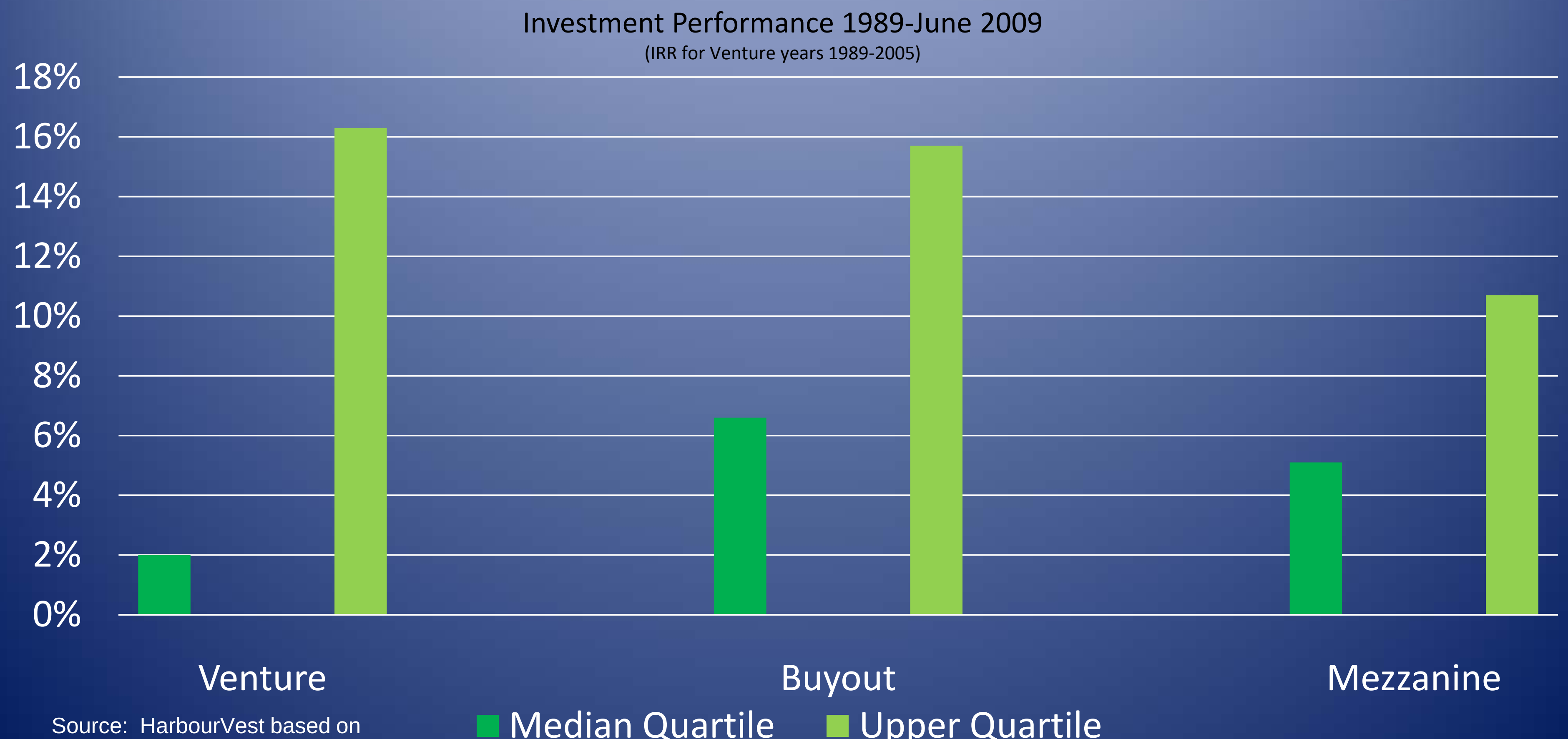
❖ Setting regulatory *limits on alternative assets for domestic purposes* broader than optimum asset liability management can have unintended negative consequences

Reducing Risks Associated With Alternative Assets

A Few Key Lessons

Extensive Due Diligence and Analysis Critical for Success

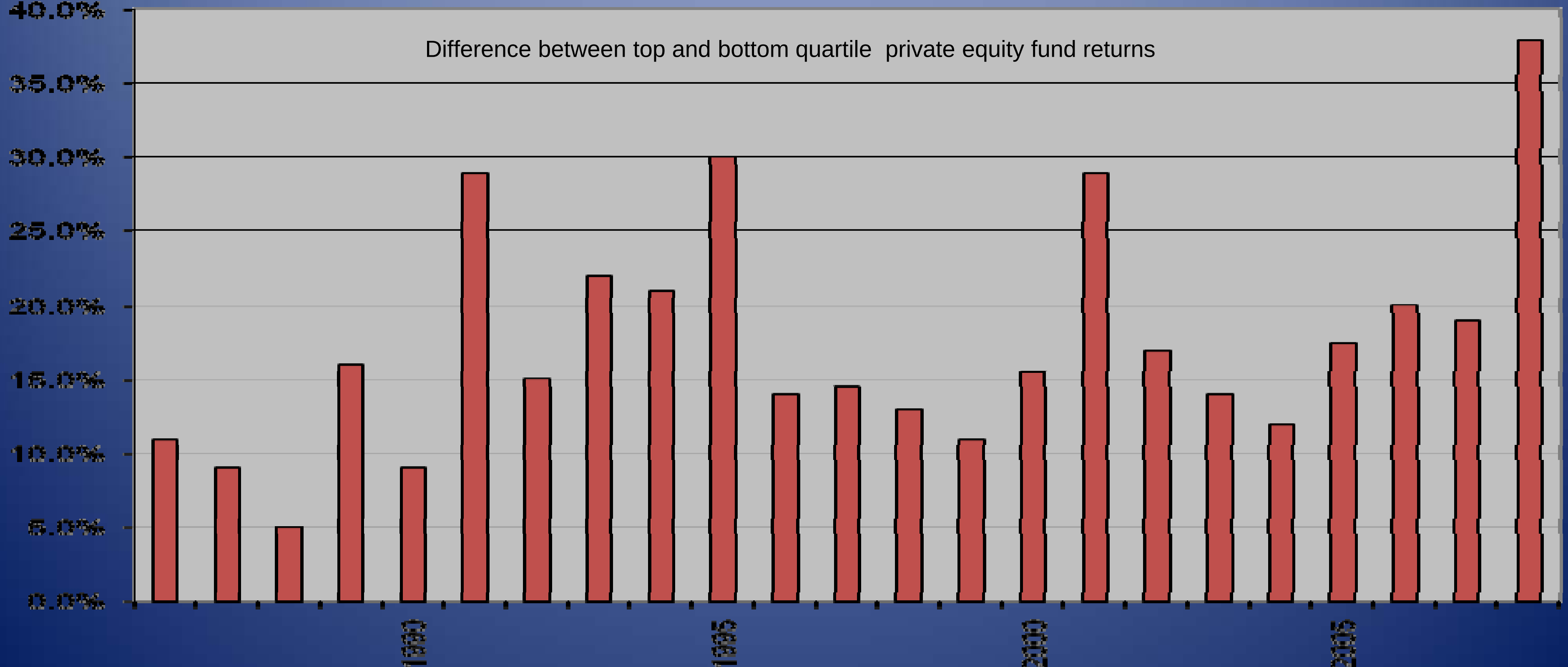
Pension funds should only invest in alternative asset funds, and fund of funds, with a history of first quartile performance where managers responsible for past performance are still active



Source: HarbourVest based on Thomson Reuters, VentureXpert

Reducing Risks Associated With Alternative Assets

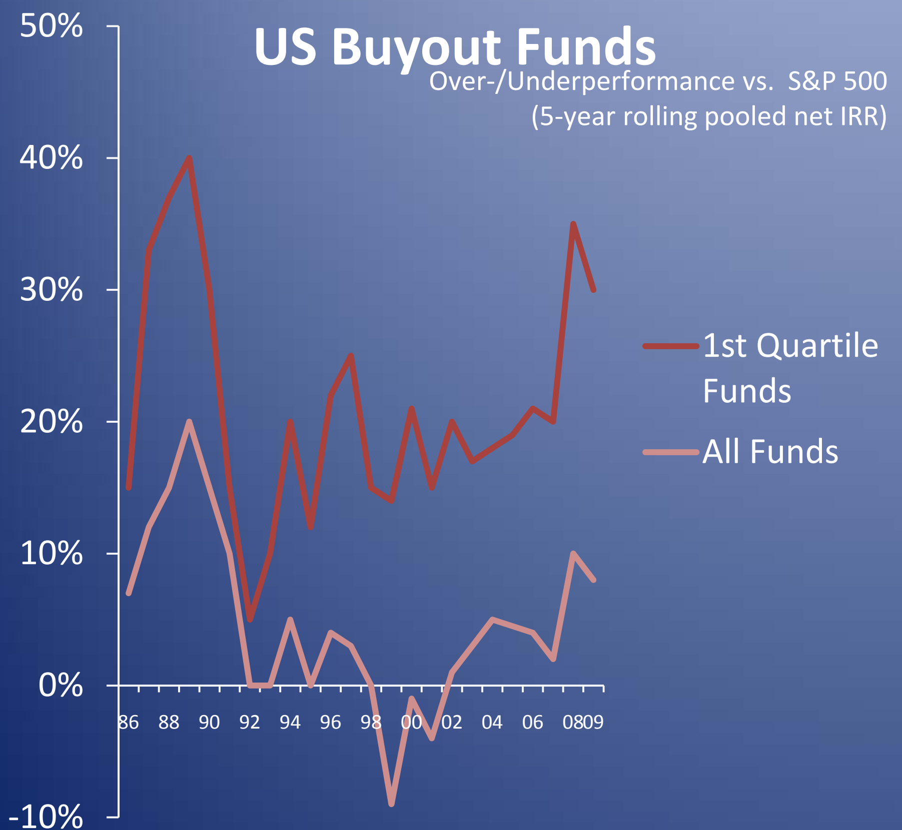
A Few Key Lessons
Extensive Due Diligence and Analysis Critical for Success

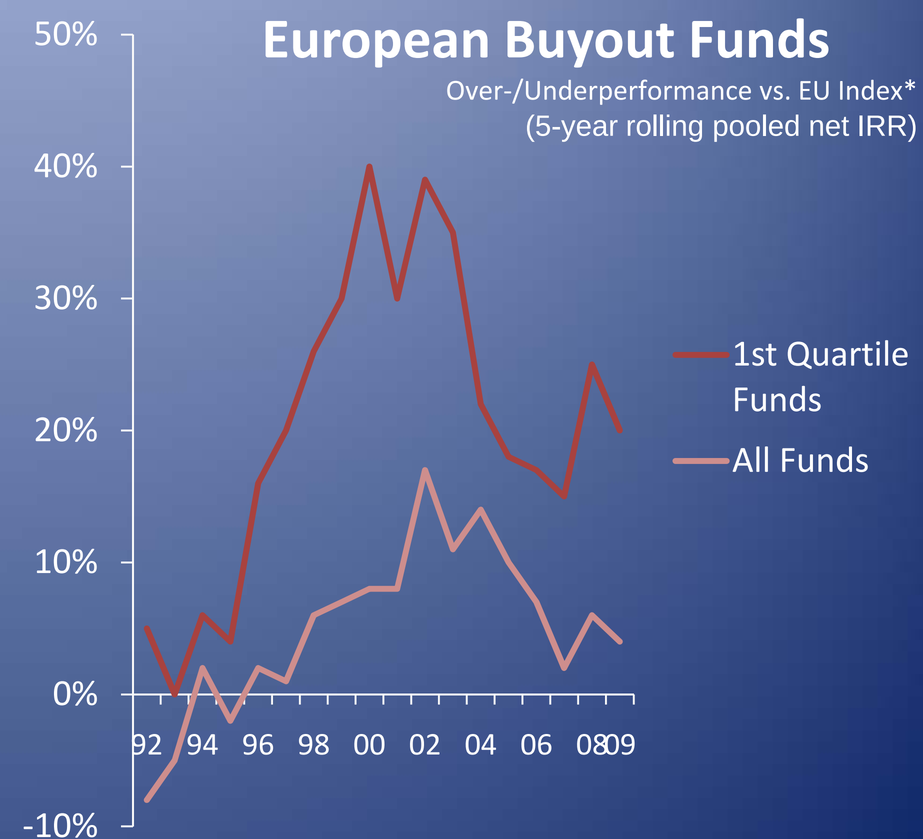


Cambridge Associates LLC

Reducing Risks Associated With Alternative Assets

A Few Key Lessons
Extensive Due Diligence and Analysis Critical for Success





*Composite of FTSE, CAC, and DAX (equally weighted)

Note: Quartile position assigned based on ranking within region, fund type, and vintage year

Source: Thomson Reuters

Reducing Risks Associated With Alternative Assets

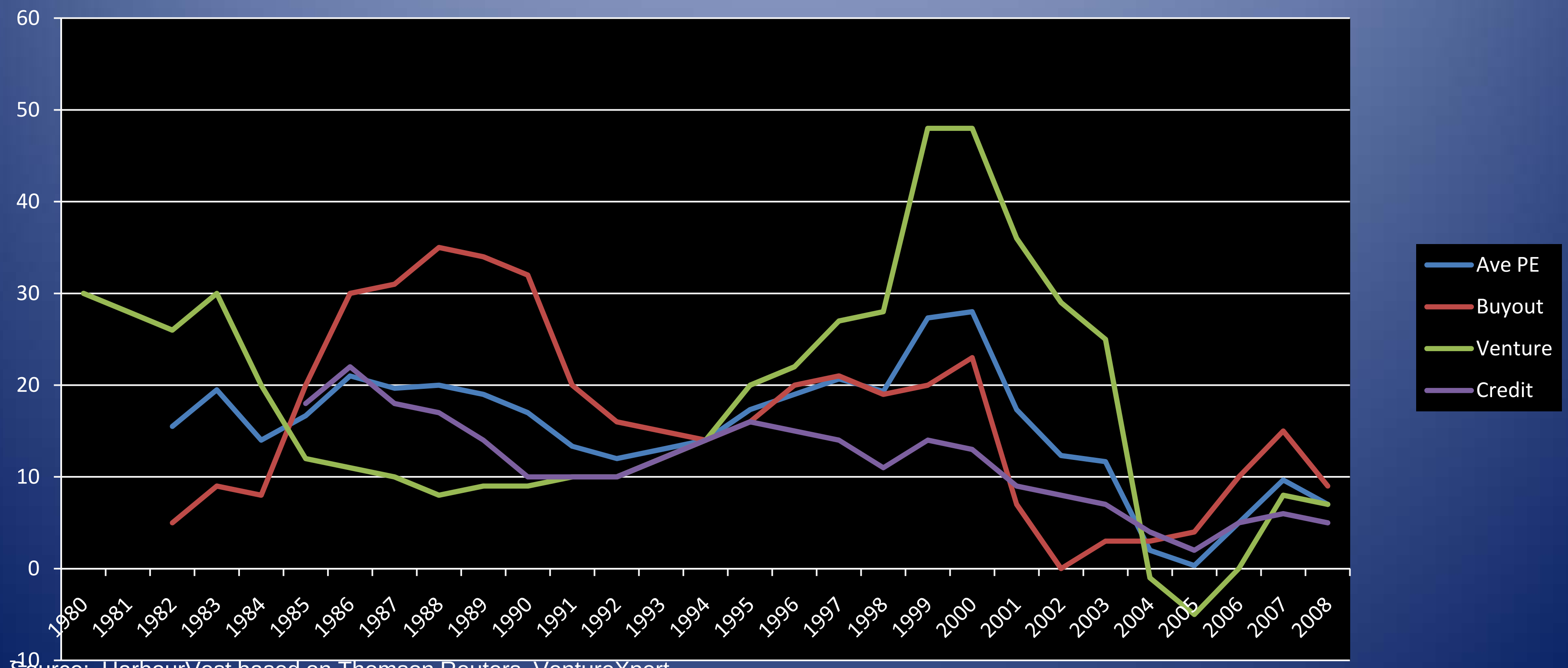
A Few Key Lessons

Diversification Across Alternative Assets Is Critical

The use of alternative assets to diversify an overall portfolio should be accompanied by diversification across alternative assets

❖investment in funds, or fund of funds products, should take priority over investment in single products

Five-year rolling average internal rate of returns



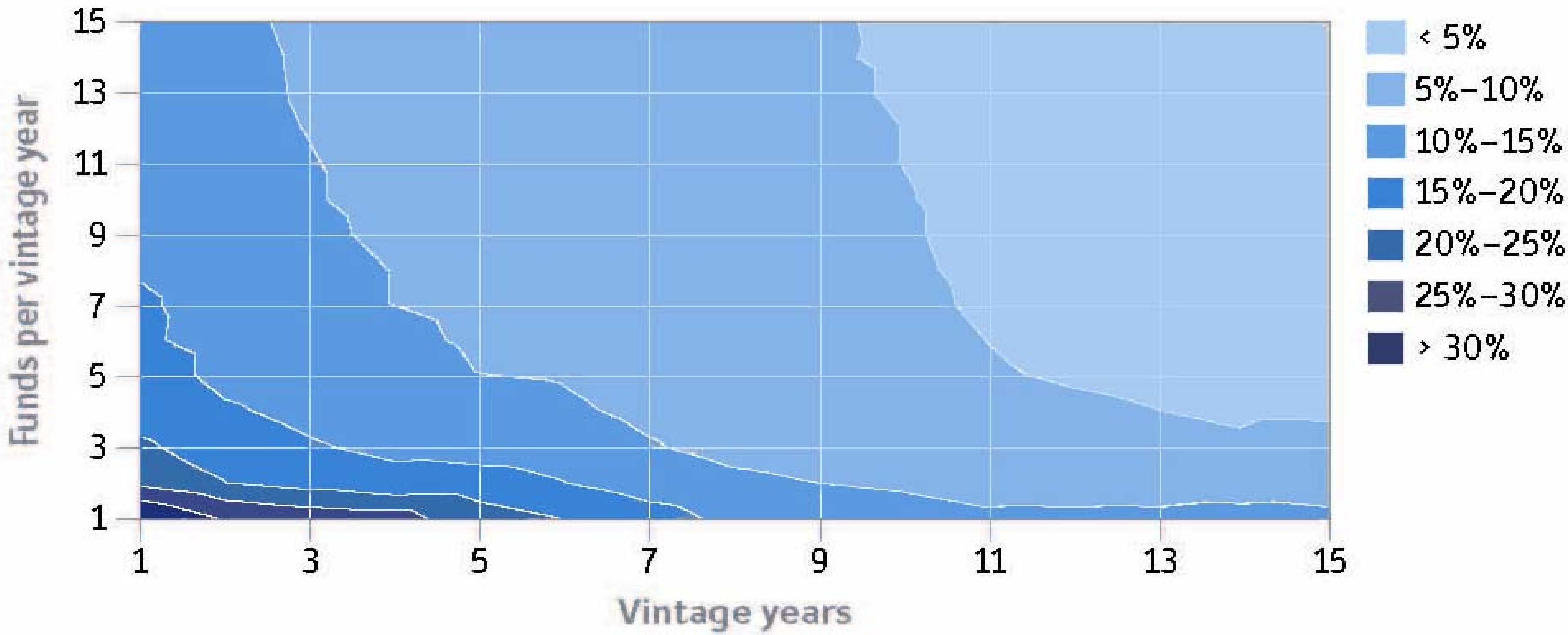
Source: HarbourVest based on Thomson Reuters, VentureXpert

Reducing Risks Associated With Alternative Assets

A Few Key Lessons

Standard Deviation of a Diversified Private Equity Portfolio

Increasing pe funds per vintage year dramatically reduces standard deviation of performance

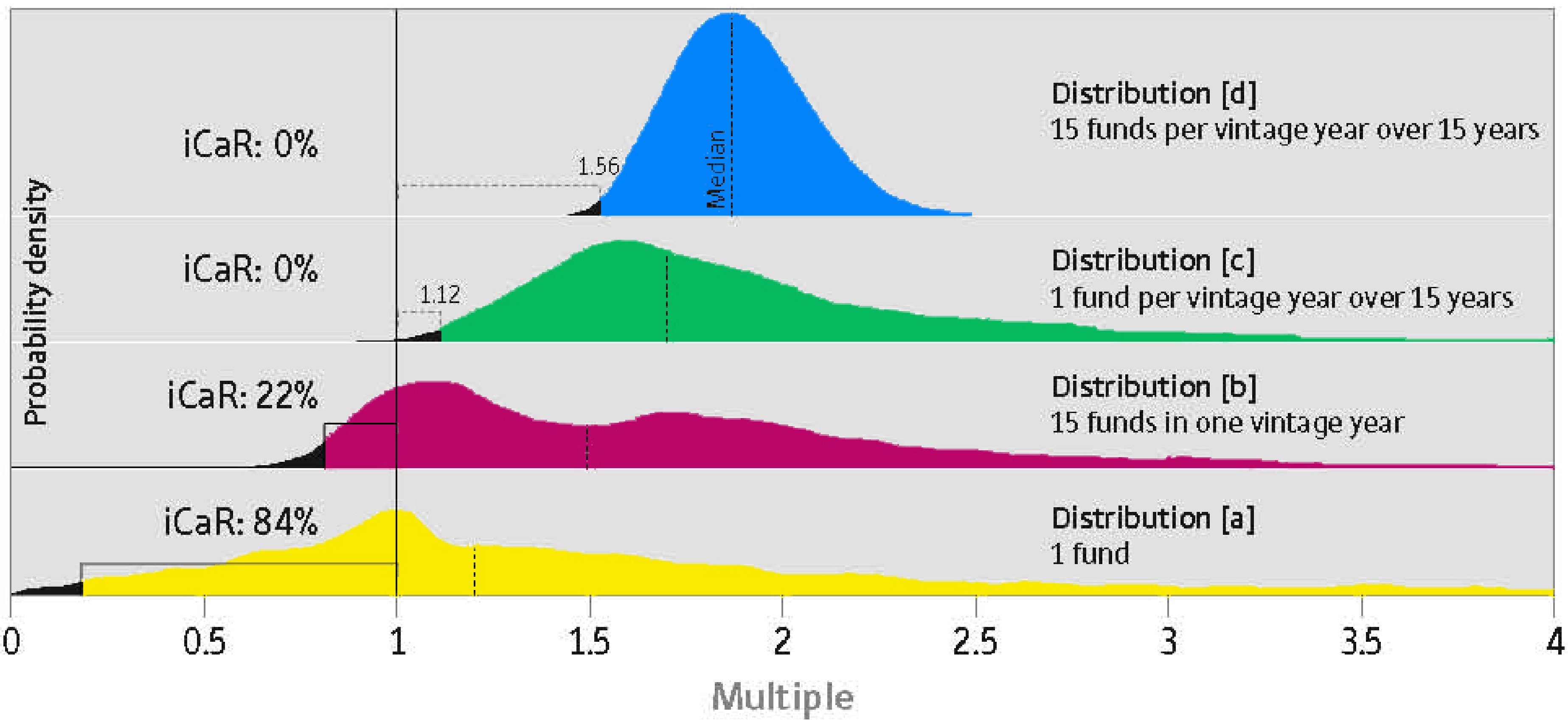


Source: Capital Dynamics analysis based on Venture Economics data up to 30 June 2007; well diversified portfolio allocated to European and US funds as well as to buyout and venture capital funds with vintage years from 1983 to 2003: data up to 30 June 2007.

Reducing Risks Associated With Alternative Assets

Diversification Reduces Risk and Increases Return

Risk of capital loss declines and expected returns increase as number of vintage years and number of funds per vintage year increase



Source: Capital Dynamics analysis based on Venture Economics data up to 30 June 2007 including European and US funds as well as VC and buyout funds with vintage years 1983 to 2003 (2,699 funds), Monte Carlo Simulation with random selection.

Reducing Risks Associated With Alternative Assets

A Few Key Lessons

Unintended Consequences of Regulatory Limits on Alternative Assets C

Setting regulatory limits on alternative assets for domestic purposes broader than asset liability management can have unintended negative consequences

❖regulations that limit alternative investments to domestic markets for development purposes also limit diversification of asset allocation with resulting:

- ➢ asset allocation concentration risk and returns herding risk
- ➢ and also limit intellectual transfer of best practices from abroad

❖regulations that require alternative investments to be intermediated through a domestic financial vehicle can:

- ➢ place additional costs on pension funds for low-priority services
- ➢ may give incentives for sub-optimal investment practices such as favoring rapid over careful investment decisions

This implies that supervisory authorities should give care to assess both benefits and costs of regulatory limitations placed on pension funds' asset management

Reducing Risks Associated With Alternative Assets

A Few Key Lessons

Benchmarks needed that are based on acceptable risk over the life-cycle :

- should not be based on short-term performance which is not meaningful in absolute terms
- lifestyle funds are a step forward in recognizing the heterogeneity in the preferences and needs of individuals
- model set of life-cycle pension funds includes in earlier life stages a wider spectrum of asset choices
- need wide basket of assets, including alternative assets, for benchmarks

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