

Association of Financial Mutual's Solvency II seminar
Changing landscapes – Solvency II and Financial Markets

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Agenda

- **Solvency II - a changing landscape**
- Financial Markets – a changing landscape
- Conclusion
- Appendix – JPMorgan Asset Management

Solvency II – A major change for insurers (and their partners)

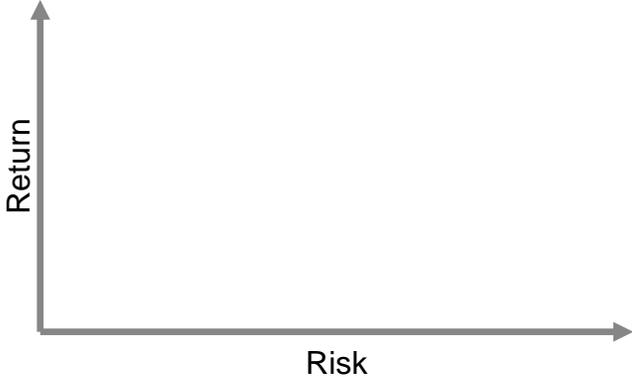
Solvency II is a new regulatory framework being introduced by The European Insurance and Occupational Pensions Authority (“EIOPA”) and due to be implemented by January 2014 . The measures will overhaul risk and capital management practices within the insurance industry and aims to harmonise the EU regulatory environment.

- Asset Management = Capital Management
 - QIS 5 results show investments consume 54% of total capital (~35% for P&C, ~65% for Life).
 - ALM mismatches account for almost 50% of total investment capital requirement.
- Asset Allocation
 - Must consider liabilities – the line between the A and the L on the balance sheet disappears.
 - Current risk / return frameworks are insufficient - Modern Portfolio Theory no longer asks the right question.
 - New emphasis on capital adjusted returns i.e., capital friendly solutions that capture diversification benefit.
 - Redefines a low risk portfolio.
- Engagement with regulators and industry bodies is key – regulation is a moving target.

Solvency II – Whole balance sheet approach with capital as a new dimension

Solvency I

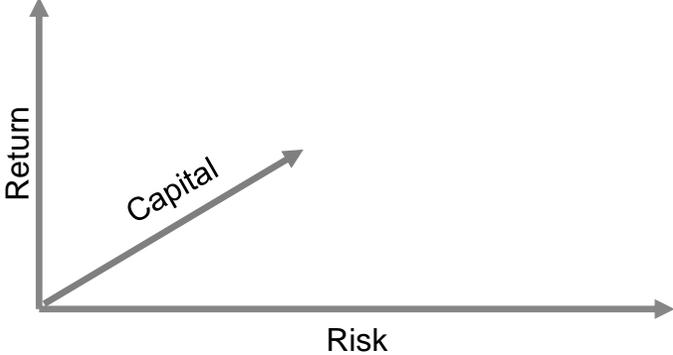
Assets only



Risk / Return optimisation delivers asset allocation X ...

Solvency II

Assets & Liabilities in aggregate



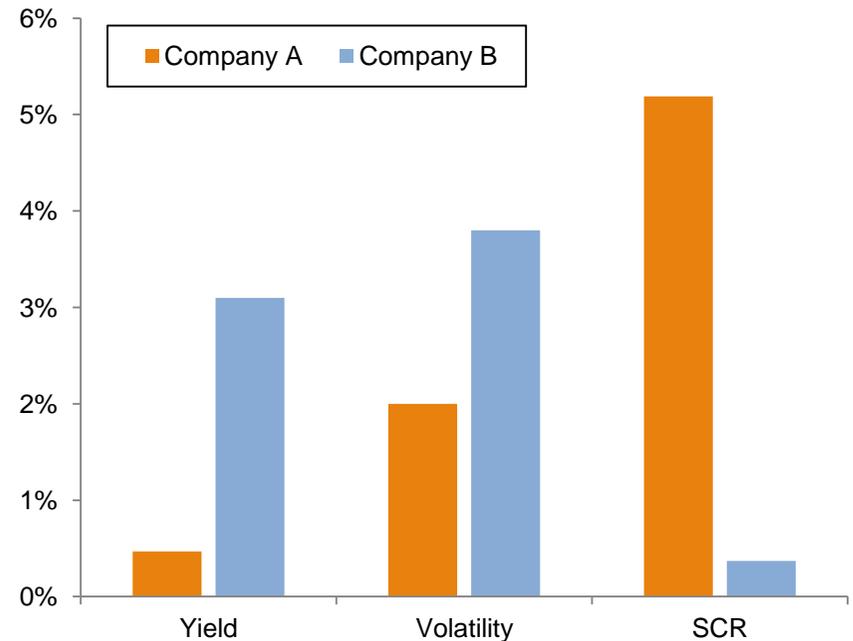
... but asset allocation X may be inefficient under Solvency II

Conclusions: Current risk / return framework insufficient
New framework based on capital adjusted returns required

Example 1 – Redefining a low risk portfolio (part 1)

Scenario

- Two insurance companies – A and B
- Both have liabilities with duration of 5 years
- A is ‘very cautious’ and invests 100% in AAA-rated liquidity funds with duration of 0.6 years
- B is ‘duration matched’ and invests 100% in bonds funds with duration of 5 years



Conclusion: matching liability duration reduces capital requirement (and can increase yield)

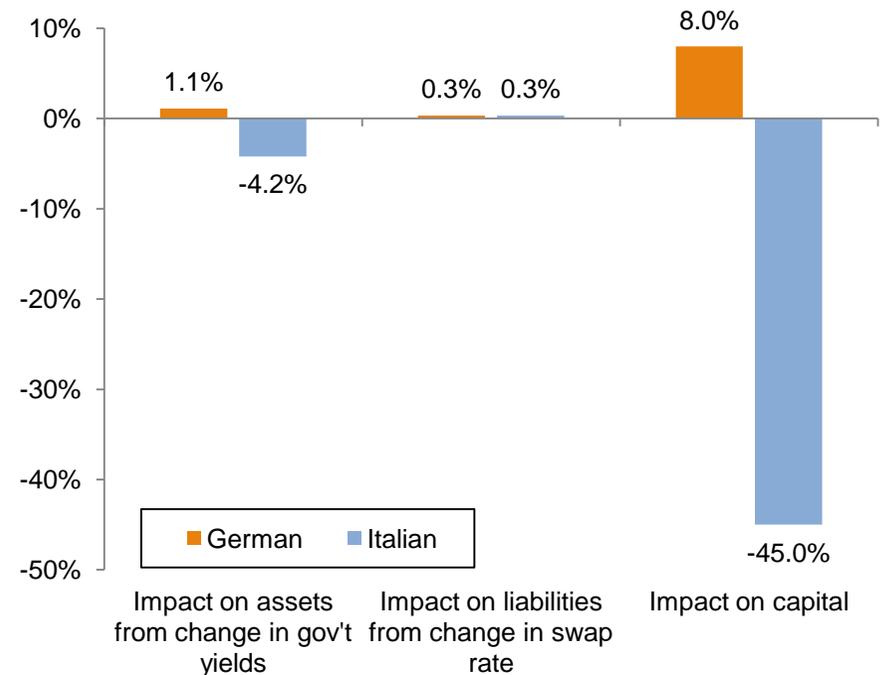
Source: J.P.Morgan Asset Management

Company A invests 50% in JPM Eur Liquidity fund, 50% in JPM Eur Gov. Liquidity fund. Company B invests 60% JPM Eur Corp Bond fund, 30% Eur Gov. Bond fund, 5% JPM Eur Short Duration Bond fund, 5% JPM Eur Liquidity fund. Volatility based on 10 year historic return. Data as at March 2011

Example 2 – Redefining a low risk portfolio (part 2)

Scenario

- Two insurance companies – one German, one Italian
- Both are fully interest rate matched – ie the duration of assets and liabilities is the same at 5 years
- Each invests 50% in their own government debt and 50% in identical Eurozone corporate bonds
- Each starts with:
 - Assets =100, Liabilities = 90 and Capital =10
- Market movements in 2011
 - German government bond prices have risen by 5.5%
 - Italian government bond prices have fallen by 5.1%
 - Corporate bond prices have fallen by 3.2%
 - Euro swap rate has fallen by 0.1%



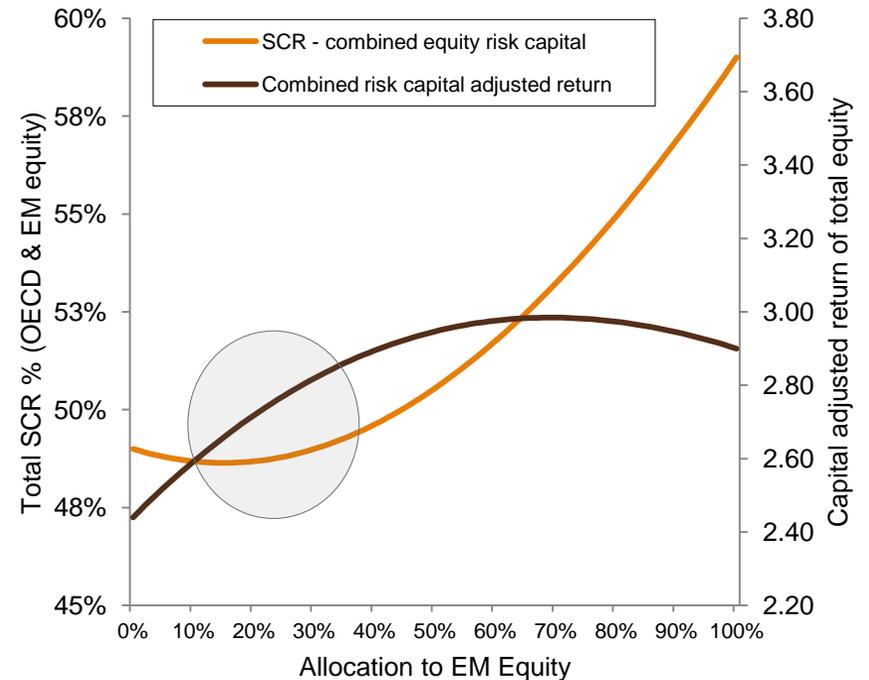
Conclusion: Basis risk between government bonds (ie assets) and swap rates (ie liabilities) remains

Source: J.P. Morgan Cazenove

Example 3 – Capturing the diversification benefit

Solvency II standard formula:

- SCR rate:
 - EEA/OECD equity 39% +/- 10%
 - Other equity 49% +/- 10%
- 0.75 correlation between EEA/OECD and Other equity
- Expected return assumptions:
 - EEA/OECD equity 6.4%
 - Other Equity (EM): 7.6%



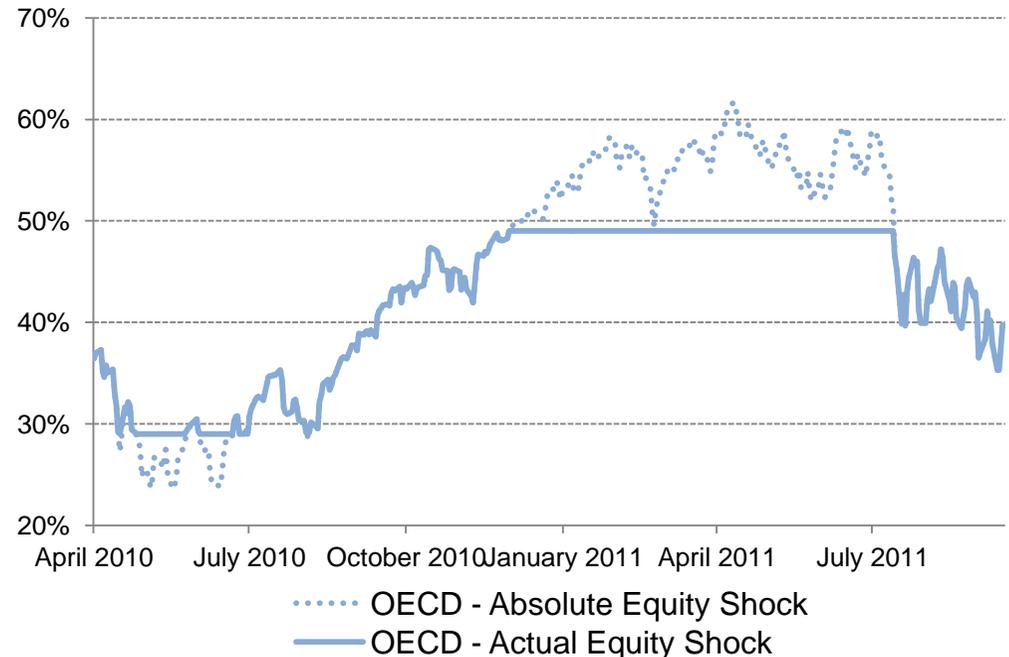
Conclusion: Including an allocation to emerging market can capture the diversification benefit

Source: J.P. Morgan Asset Management. Analysis assumes highest SCR rate for EEA/OECD equity (49%) and Other equity (59%)

Example 4 – Why the nuances of regulation matter

Solvency II standard formula:

- Equity risk capital for EEA/OECD equity set at 39% +/- risk dampener
- Dampener dependent on prior 3 years equity market performance, capped at +/-10%
- Reduces equity risk capital after sustained bear market
- Increases equity risk capital after sustained bull market



Conclusion – the equity dampener helps but makes the charge for equity risk capital volatile and so probably need to assume the worst case for planning purposes

Themes

- Solvency II:
 - Asset allocation must consider liabilities – the line between the A and the L on the balance sheet disappears.
 - Current risk / return frameworks are insufficient - Modern Portfolio Theory no longer asks the right question.
 - New emphasis on capital adjusted returns i.e., capital friendly solutions that capture diversification benefit.
 - Redefines a low risk portfolio.

- Requires new and tailored solutions

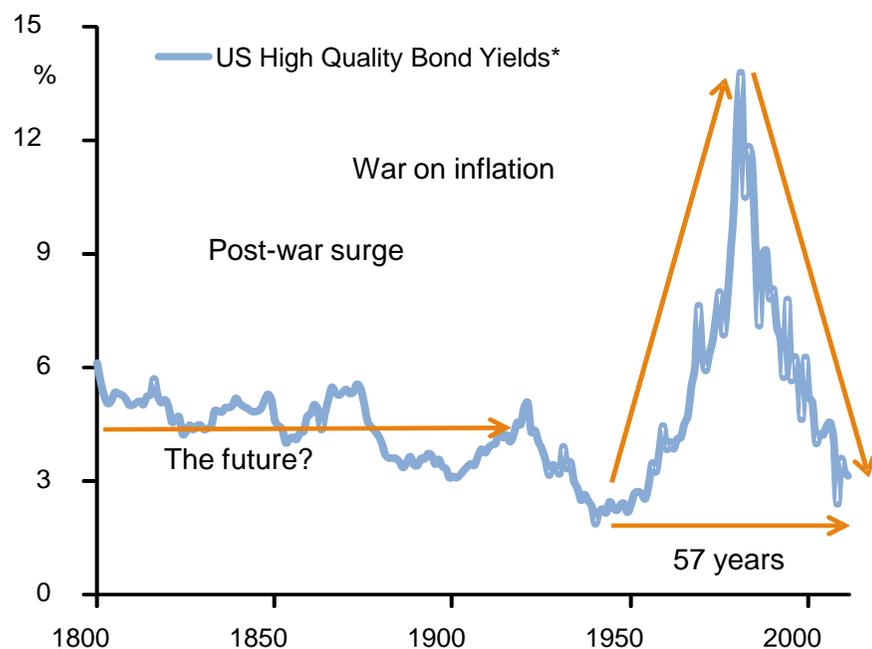
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Changing landscape

The moderation in bond yields is over

US Government Bond Yields



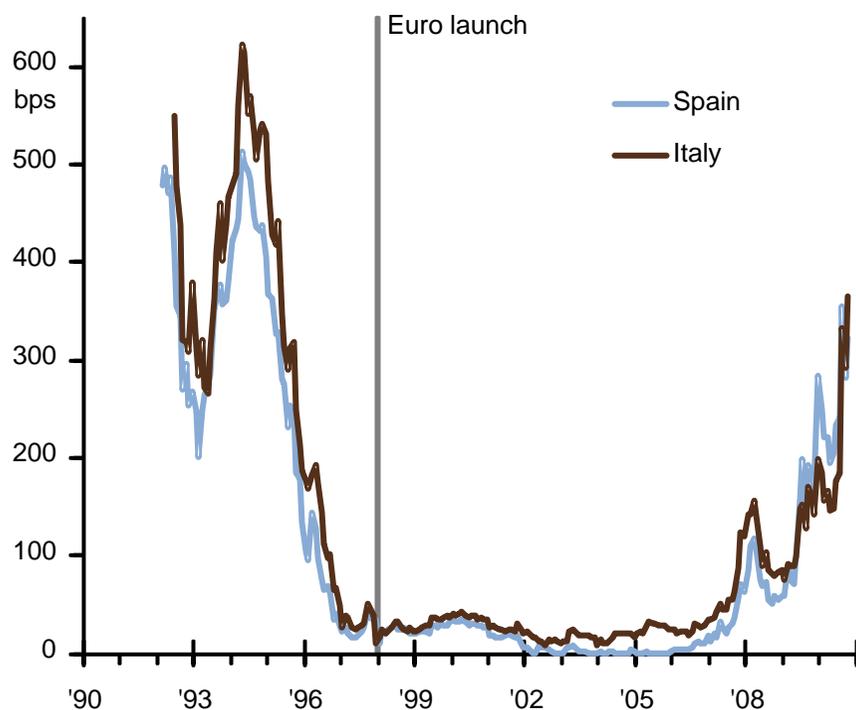
- Developed market central banks have won their war against inflation over the last 30 years
- Fixed income returns from government debt until now have come from
 - High nominal (and real) yields
 - Plus price appreciation
- Now neither is likely

Latest data 5 May 2011. *High-grade municipal bond yields used for certain years between 1800 and 1920. Source: Jeremy Siegel, "The real rate of interest from 1800-1990", Homer & Sylla, "A History of Interest Rates", Ibbotson SIBI, Federal Reserve, J.P. Morgan Asset Management.

Changing landscape

Sovereign debt involves credit risk – just like it used to ...

Government 10-year bond spreads over German bunds

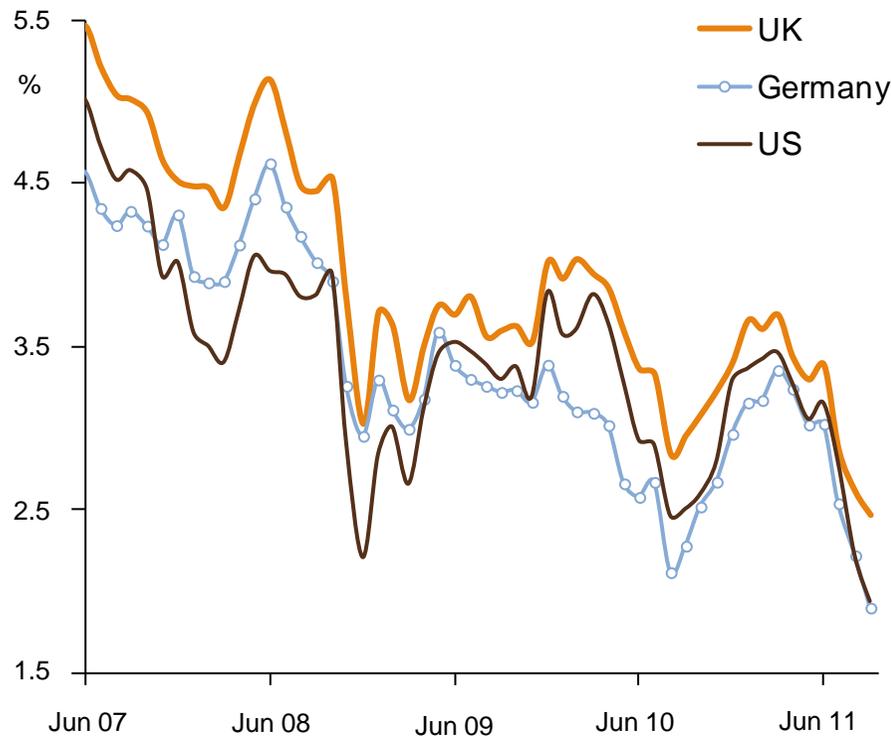


- Prior to euro launch and convergence, Italian and Spanish debt averaged 300+ bps over Germany, about the same as now
- Adjustments in markets now are simply a reappraisal of country risk

Latest data 29 September 2011. Source: Bloomberg, J.P. Morgan Asset Management.

... but the Eurozone crisis is pushing yields ever lower for some

Government Bond Yields (10-year)

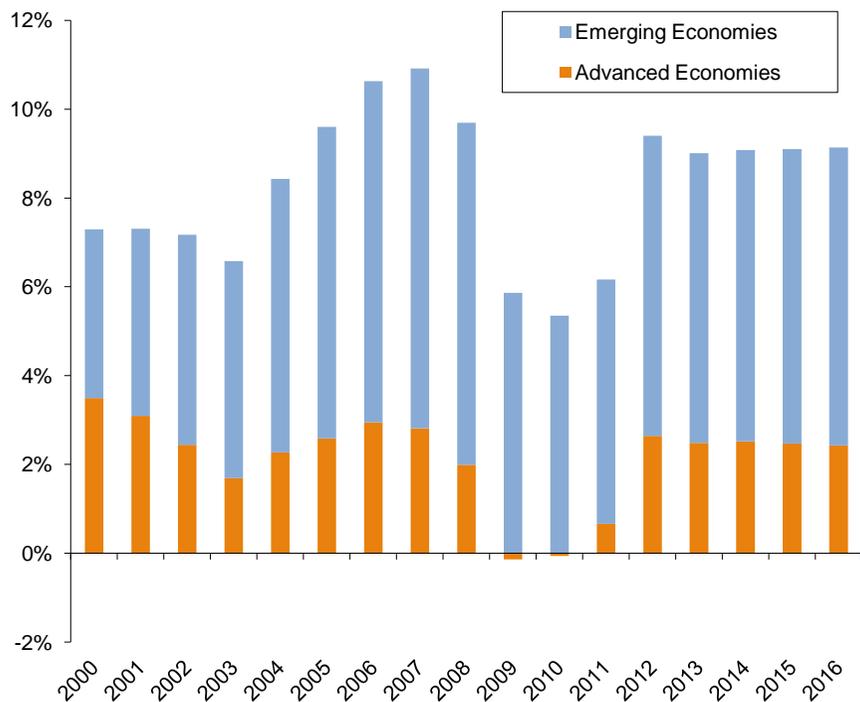


Latest data 29 September 2011. Source: Bloomberg, J.P. Morgan Asset Management.

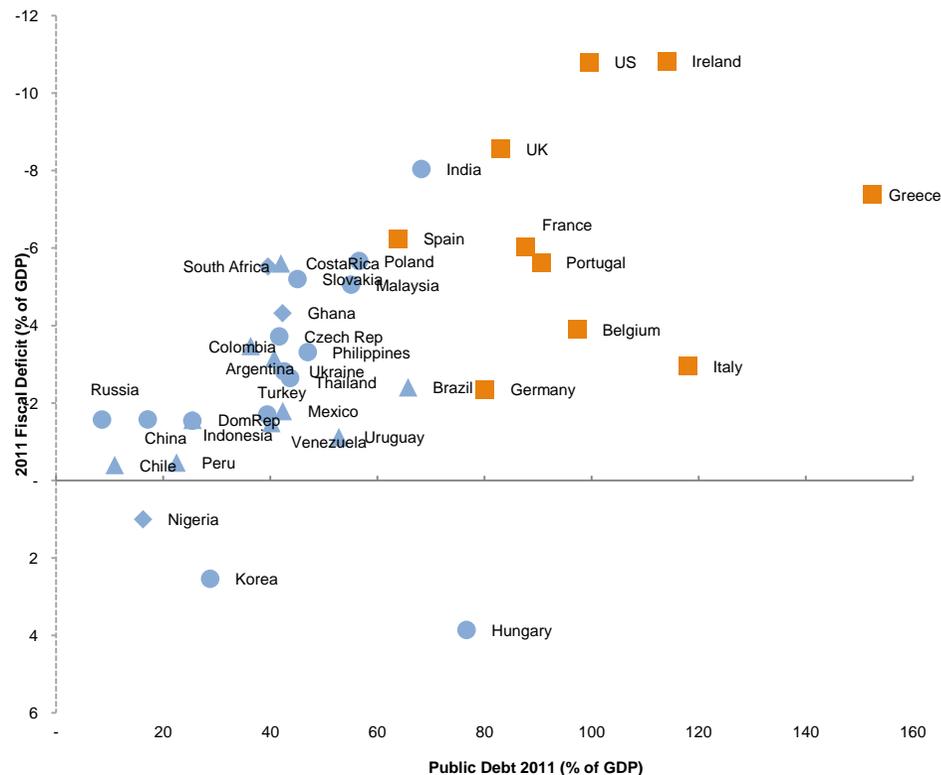
- Dedicated eurozone fixed income investors have few options outside of German bunds, driving yields unreasonably low
- UK also benefiting from flight to quality but yields also held down by low growth — 2011 GDP forecast just 1.1% (and falling)

Changing landscape – EM countries are generally in a stronger position than developed markets

Contributions to Global GDP Growth, 2000-2016
– 3 year moving average



Public Debt vs Fiscal Deficit

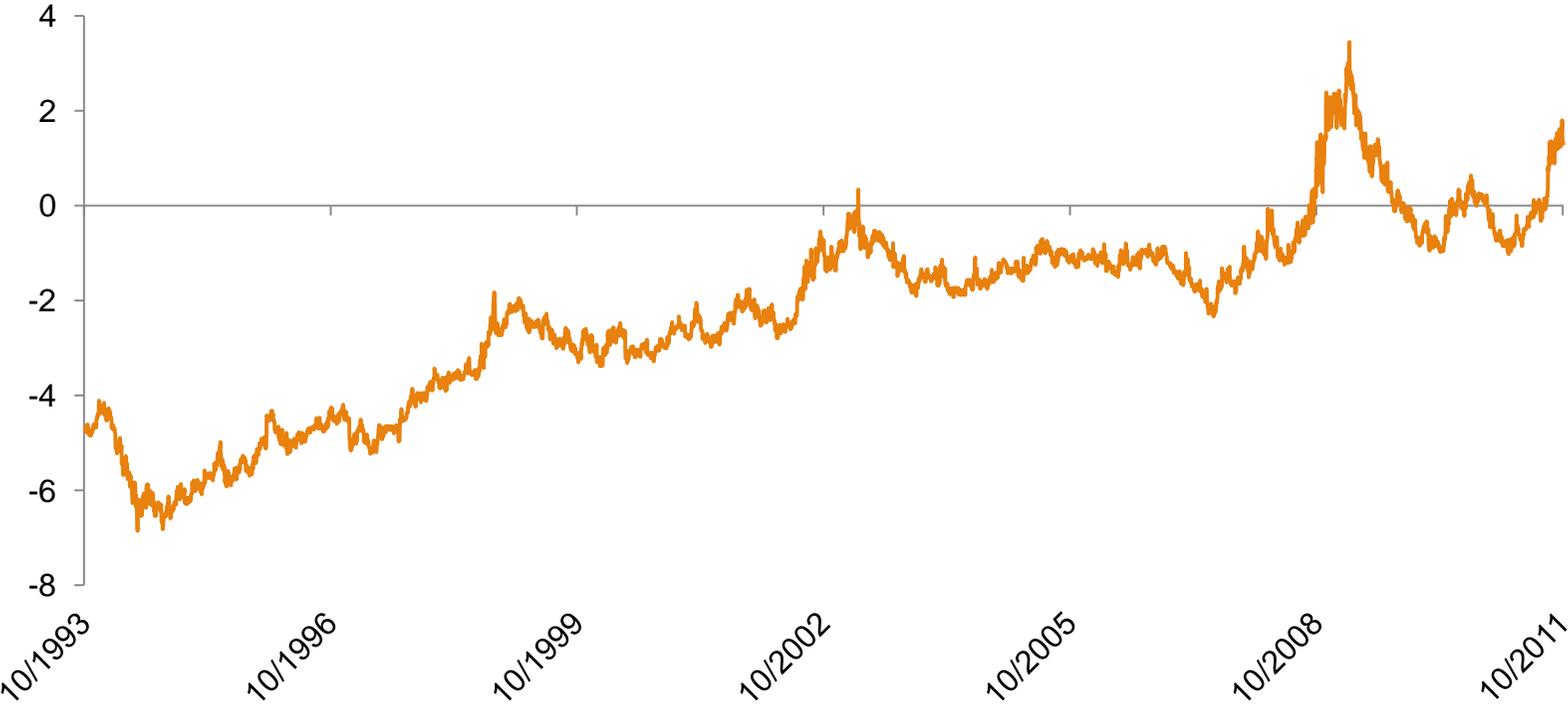


Source: IMF, September 2011

Note: Data for 2011-2016 are forecasts. Forecasts are based on current market conditions and are subject to change without notice.

Changing landscape - Equity dividend yields above real bond yields

Dividend yield less Bond yield in UK Market



Source: Bloomberg. Data shown fro FTSE 100 and 10 year gilts

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Conclusion – the landscape is changing

- Solvency II:
 - Asset allocation must consider liabilities – the line between the A and the L on the balance sheet disappears.
 - Current risk / return frameworks are insufficient - Modern Portfolio Theory no longer asks the right question.
 - New emphasis on capital adjusted returns i.e., capital friendly solutions that capture diversification benefit.
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- Financial markets:
 - Government bond yields are very low for safe haven countries ...
 - ... but sovereign credit risk is real.
 - Emerging and Asian markets are in a stronger position than many developed markets.
 - Dividend yields are above bond yields in many markets – rare recently but the norm in the past.

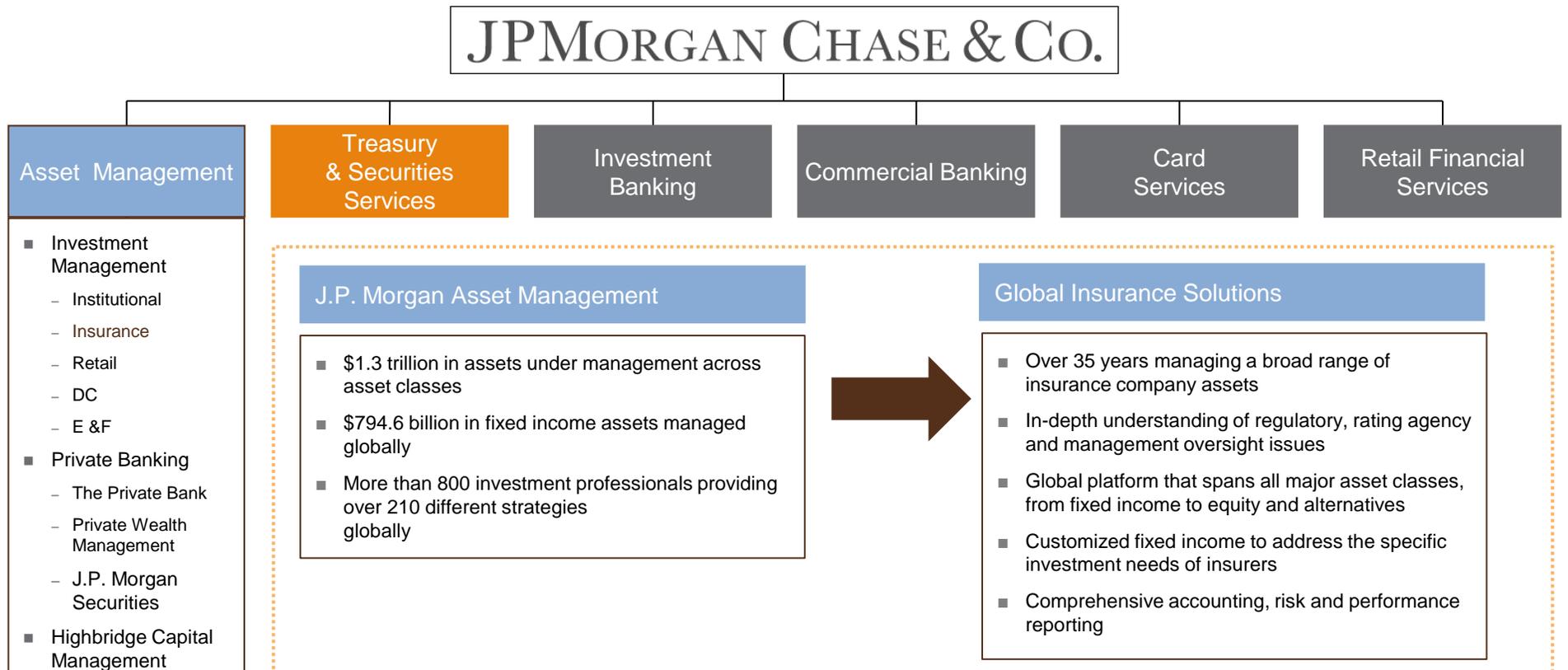
Navigating this landscape requires new and tailored solutions

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JPMorgan Chase & Co: a committed and stable partner for insurers

- Strategic diversification and financial strength - Tier 1 Capital Ratio 12.1%, strong liquidity positions across our businesses.
- Geographic diversification – half of revenues generated outside the US.
- Committed to serving insurers across asset management, investment banking, treasury services and commercial banking.



Source: JPMorgan Chase & Co.

A comprehensive investment platform for tailored solutions

J.P.Morgan Asset Management

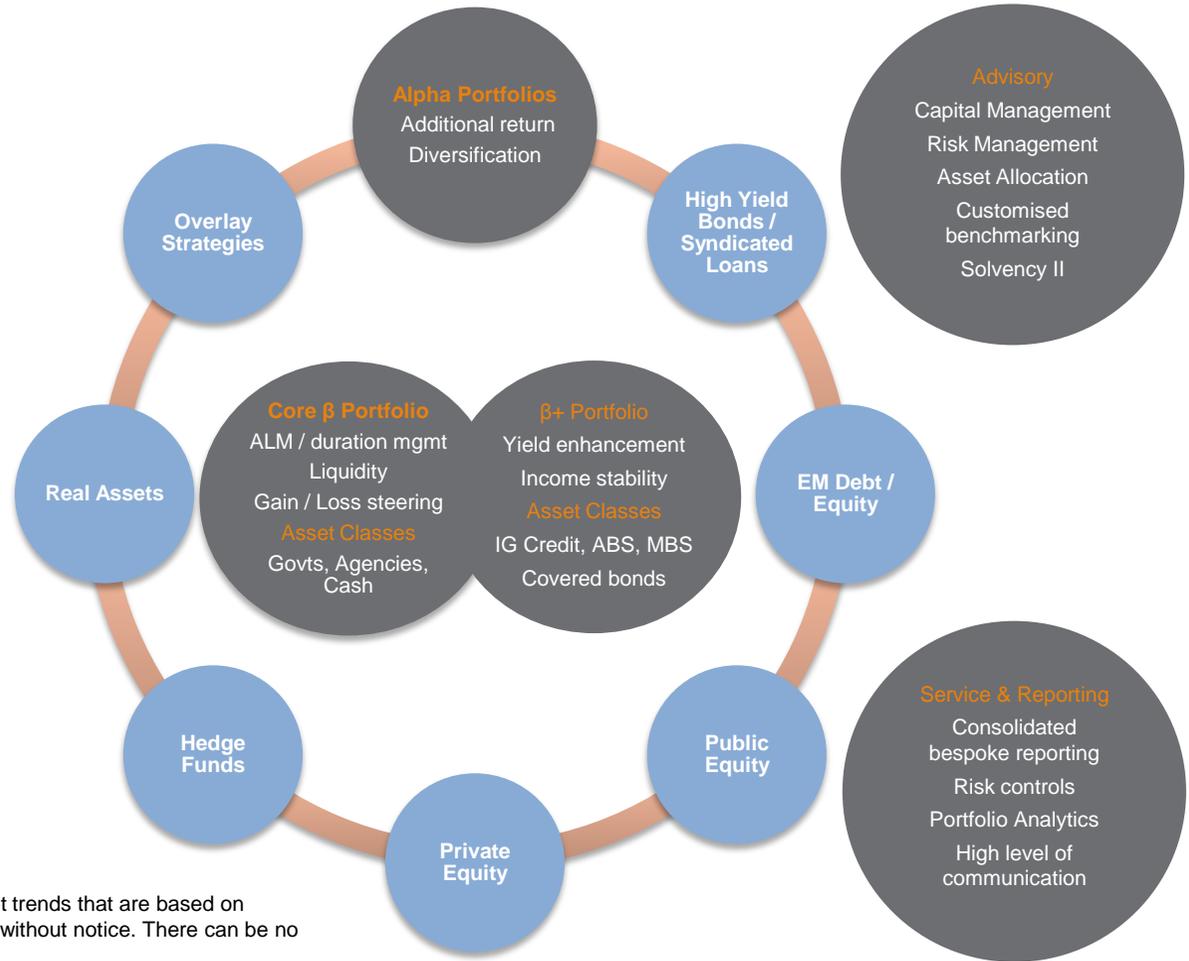
Fixed Income \$786.0bn	U.S. Equity \$146.1bn	Intl. & Global Equity \$210.4bn	Alternatives \$76.3bn	Global Real Assets \$49.3bn	Multi-Asset Class Solutions \$47.6bn
<ul style="list-style-type: none"> ■ Short/Long duration ■ Stable value ■ Core strategies ■ Core-plus strategies ■ Customized Insurance ■ High yield; distressed debt ■ Global liquidity ■ International and emerging markets ■ Sector-specific strategies ■ Absolute return strategies ■ Convertibles 	<ul style="list-style-type: none"> ■ Fundamental, research driven equity strategies ■ Value, Core and Growth ■ Behavioral management ■ Quantitative management ■ All capitalizations: large, mid, small, micro ■ Long/short strategies ■ Market neutral and absolute return strategies 	<ul style="list-style-type: none"> ■ Global: core and concentrated ■ International: enhanced index, core, core plus, value and growth ■ Emerging markets: core and concentrated ■ Regional strategies: Asia, Europe and Latin America ■ Absolute return strategies ■ Access to 300+ analysts worldwide 	<ul style="list-style-type: none"> ■ Hedge fund of funds: core and specialized absolute return ■ Hedge funds: single strategy and multi-strategy ■ Private equity: venture capital, corporate finance, senior loans and mezzanine debt ■ Private equity: Global, U.S., Europe and Asia ■ Private equity distribution management ■ Currency overlay 	<ul style="list-style-type: none"> ■ Core, value-added and opportunistic real estate strategies ■ Global & regional Infrastructure ■ Commercial mortgage-backed securities ■ Blended public and private real estate ■ U.S., Europe and Asia Real estate investment trusts: U.S., International and Global 	<ul style="list-style-type: none"> ■ Diversified portfolios ■ Multi-product portfolio construction ■ Strategic and tactical asset allocation ■ Target date DC strategies ■ Bundled DB and DC solutions ■ Absolute return strategies

AUM information as of 31 December 2010.

Data may differ from J.P. Morgan's official financial reports due to the following: Real Estate AUM is shown on a gross asset value basis; Private Equity AUM includes unfunded commitments and uncommitted capital; Currency is not included in Alternatives. Hedge fund of funds includes JPMAAM hedge fund of funds and single strategy hedge funds in equities and fixed income. Also includes PB, PCS and JF Absolute Return Funds (JF Asia Absolute Return Trust, JF Greater China Absolute Return Fund, JF India Absolute Return Fund, JF Japan Absolute Return Fund, JF Korea Absolute Return Fund, JF Macro Absolute Return Fund, JF South Asia Absolute Return Fund)

Insurance investment strategy – a different view of alpha & beta

- Alpha is typically defined as investment return above a benchmark
- We believe value-added for insurance companies is much broader, and encompasses services as well as investment performance
- Solvency II will redefine alpha as excess capital-adjusted return over liabilities (with the right reporting)
- Differentiated investment approach between core portfolios and alpha portfolio – balancing income and total return requirements
- Comprehensive reporting capability with a high-touch client service approach



Opinions, estimates, forecasts, projections and statements of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. There can be no guarantee they will be met.

J.P. Morgan Asset Management

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