

**Emerging Markets Debt and it's solvency  
capital requirements under QIS5 / Solvency II**

**Emerging Market Investment Grade Strategy**

Emerging Market Local Currency Fund  
Emerging Market Corporate Bond Fund  
Emerging Market Bond Fund  
Emerging Market "A Strategy"

**September 2010**

# Executive Summary

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- Goal: Increase target yield of fixed income portfolio, keeping risk control in mind, i.e. risk-return-optimization
- Background: Developed markets bond yields are currently insufficient to meet return targets of around 4%
- Emerging Markets Debt may be an alternative source for yield diversification
  - EMD is moving towards becoming an Investment Grade asset class
  - EMD can already be implemented as Investment Grade only
- Advantages of EMD as an Investment Grade only Strategy
  - Invest in a continuously developing asset class
  - Diversifier in developed markets bond portfolio
  - Risk controlled EMD strategy
  - Efficient use of capital regarding Solvency II
- J.P. Morgan Asset Management
  - Leading manager in Emerging Markets Debt
    - Global team with single investment process
  - Extensive experience with institutional clients in this asset class

# Agenda

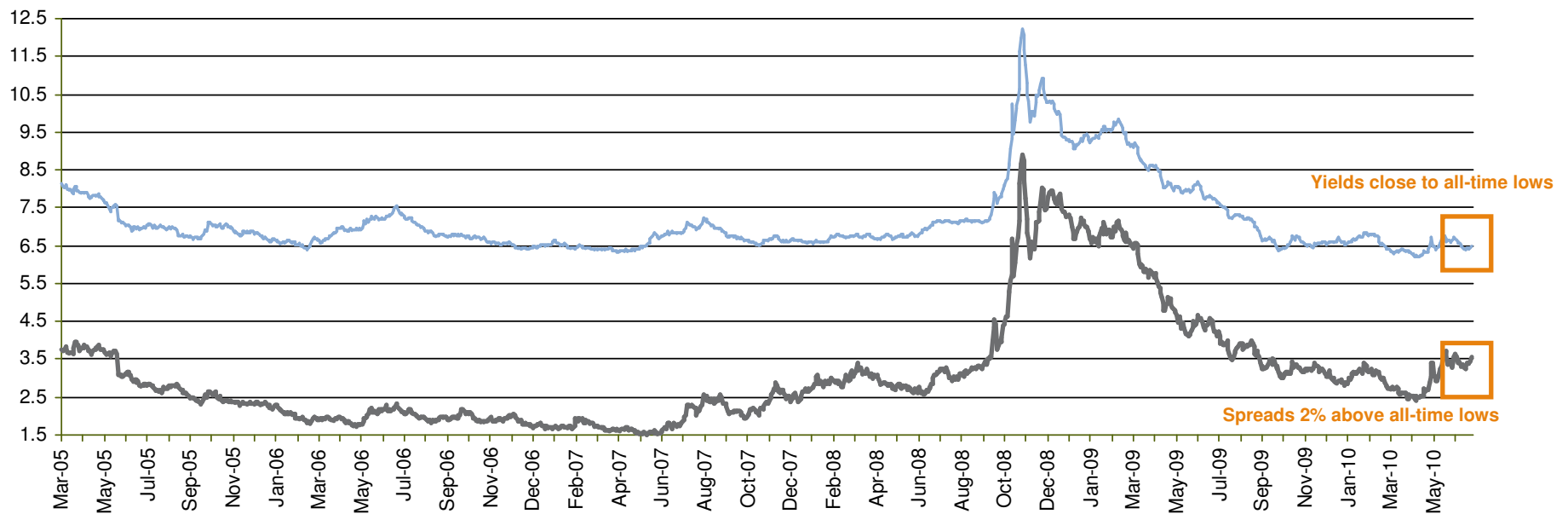
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- Why consider Emerging Markets Debt?
- EMD Investment Grade Strategy
- Strategy Proposal and Investment Process

# Emerging Markets: After the recent rally – where do we stand ?

EMBI Global Sovereign Spread and Yield

In %



Source: J.P. Morgan Securities Inc., June 2010

The above information is shown for illustrative purposes only and should not be relied upon by you in evaluating the merits of investing in any securities or strategies mentioned herein.

## Conclusion - Yield Compression in all fixed income asset classes

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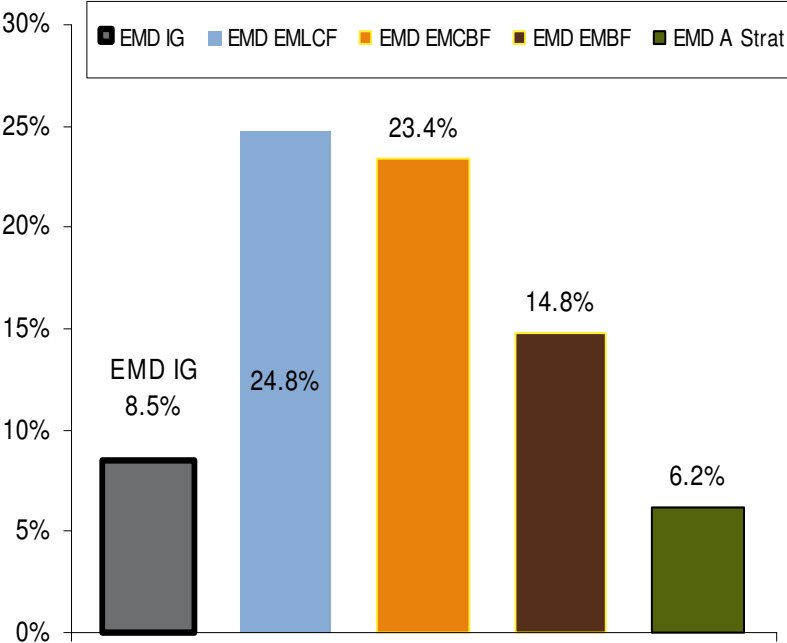
- Reasons – Developed Markets:
  - Slow growth, low inflation, low interest rates
  - Decrease of event-risks; Increase of credit quality in many sectors
- Increase in Credit quality especially true for Emerging Markets
  - 2000 Rating average for EMBI Global was B+/BB-
  - 2010 Rating average for EMBI Global is BB+/BBB-
- Trend for further credit improvement in Emerging Markets bonds
  - Stronger Growth, mostly independent Central Banks, focus on inflation
  - Development of social security systems, stronger democracies, greater fiscal discipline
- Is Emerging Markets Debt becoming a pure Investment Grade investment class?

Source: J.P. Morgan Securities Inc., June 2010

# Summary – Solvency capital charges (SCR) under QIS5

## Fund calculation for the Emerging Market accounts

### Estimated market SCR requirements\*1



**EMD IG :** Holds only investment grade securities and is fully hedged\*2. The biggest contributor is spread risk

**EMD EMLCF :** Holds mainly investment grade securities however is unhedged\*3. The biggest contributor is currency risk

**EMD EMCBF :** Fully hedged into USD, holds more lower grade securities\*4: biggest driver is spread risk

**EMD EMBF :** Hedged into USD, holds mainly lower grade securities\*5: biggest driver is spread risk.

**EMD A Strat :** Hedged into USD Holds Upper Grade securities\*6 and fully hedged currency exposure

Spread Charge was calculated as a function of the credit rating and duration\*7 of the position distinguishing between Corporate and Government bonds.

<b>Yield</b>	4.8%	6.4%	5.8%	5.7%	4.2%
<b>Risk Adjusted Yield</b>	4.3%	4.8%	4.5%	4.8%	3.9%

\*1 Calculations are based on holdings as of the 18<sup>th</sup> of August 2010, SCR is correlated  
 \*2 EMIG: Holds Government and Corporate bonds  
 \*3 EMLCF: Holds Government and Corporate bonds  
 \*4 EMCBF: Holds Corporate bonds  
 \*5 EMBF: Holds Government, Corporate bonds and Futures  
 \*6 A Strat: Holds Government and Corporate bonds  
 \*7 Duration was based on modified duration derived by JPMorgan Fixed income System FIS II

## Optimum Portfolio – Risk Adjusted Yield



- EMD IG is the optimum portfolio y risk adjusted yield.\*1
- Both EMD IG and EMD BF have lower exposure to corporates as compared to Government bonds. Ratios of Corporate bonds to Government bonds; EMD IG (30:70) and EMD BF (18:78) .\*2
- EMD IG holds 14% of OECD Government bonds and EMD BF hold 9% of OECD Government bonds.\*3
- The key determinant for the lower charge is the quality of bonds held in the EMD IG

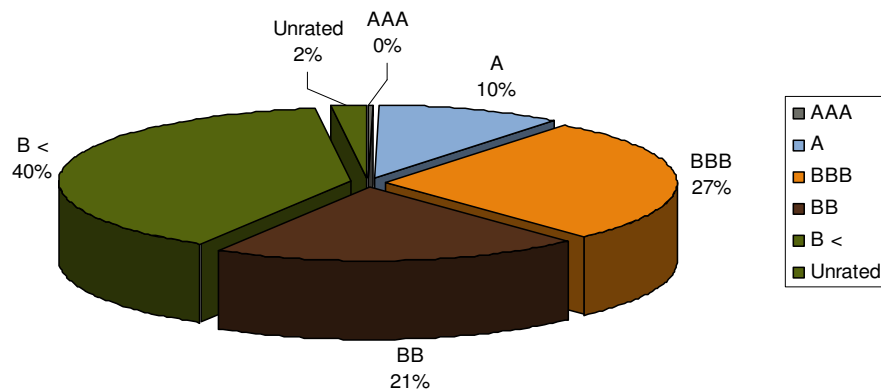
\*1 Risk adjusted Yield is a proportional reduction in yield by the SCR calculated as  $Y_r = Y(1-SCR)$  where  $Y_r$  is the risk adjusted return and  $Y$  the yield

\*2 QIS5 has higher SCR for Corporate bonds than for Government Bonds

\*3 OECD Government bonds have no spread charge

## Emerging Market Corporate Bond fund – Spread risk

Fund composition - Corp Bonds Credit exposure



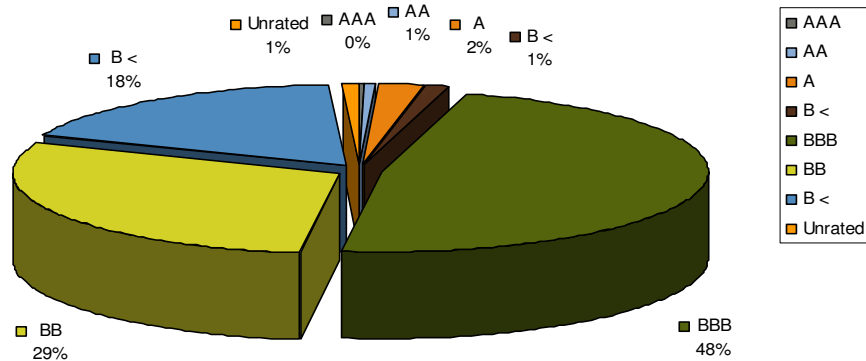
- Investing in this fund will require **23.4% capital charge**
- The Yield = 5.8%
- Risk Adjusted Yield\*1 = 4.5%
- There is no Govt bond exposure
- Corporate bonds make up 90% of Portfolio
- Portfolio is fully hedged hence no currency exposure
- 37% of bonds are investment grade

\*1 Risk adjusted Yield is a proportional reduction in yield by the SCR calculated as  $Y_r = Y(1 - SCR)$  where  $Y_r$  is the risk adjusted return and  $Y$  the yield

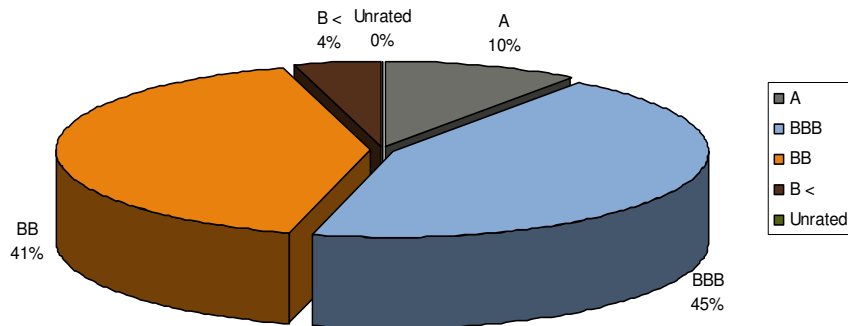


# Emerging Market Bond fund

Fund composition – Government Bonds Credit exposure

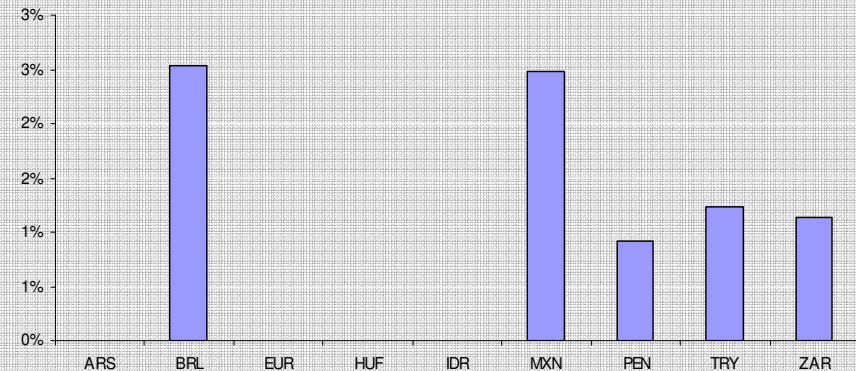


Fund composition – Corporate Bonds Credit exposure



- Investing in this fund will require **14.8% capital charge**
- The Yield = 5.7%
- Risk Adjusted Yield\*1 = 4.8%
- Government bonds make up 78% of Portfolio
- Corporate bonds make up 18% of Portfolio
- Portfolio is not fully hedged. There is a 2% charge for the currency exposure

Unhedged Currency Exposure (8% of portfolio)

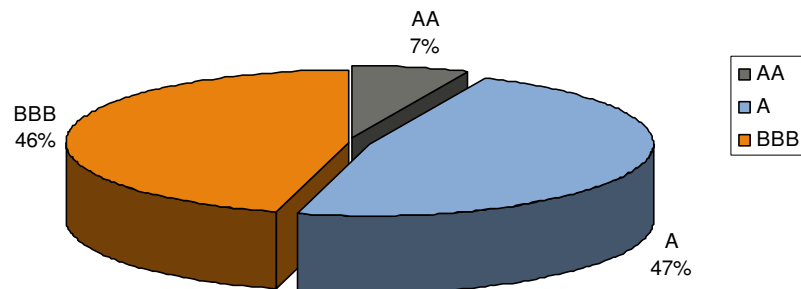


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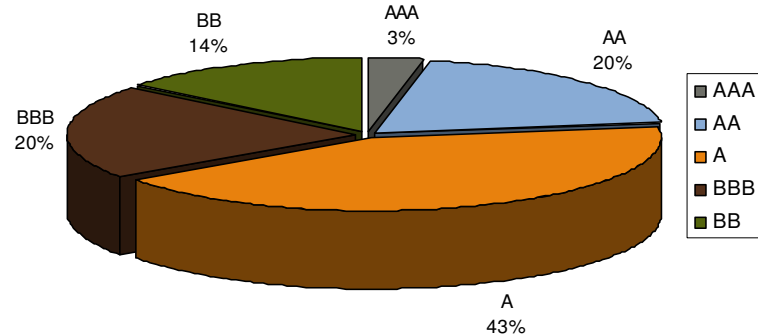
Source: JPMAM calculations; Positions based on fund/portfolio holdings as of 18<sup>th</sup> August 2010,

## Emerging Market “A Strategy” mandate – Spread risk

Fund composition – Government Bonds Credit exposure



Fund composition – Corporate Bonds Credit exposure

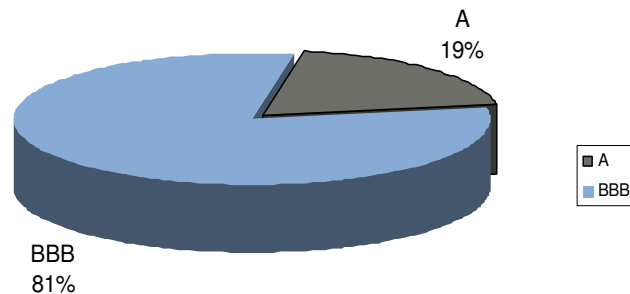


- Investing in this fund will require **6.2% capital charge**
- The Yield = 4.2%
- Risk Adjusted Yield\*<sup>1</sup> = 3.9
- Government bonds make up 64% of Portfolio
- Corporate bonds make up 33% of Portfolio
- Portfolio is fully hedged hence no currency exposure

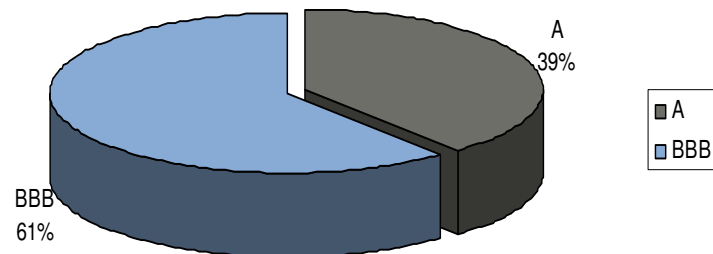
\*<sup>1</sup> Risk adjusted Yield is a proportional reduction in yield by the SCR calculated as  $Y_r = Y(1 - SCR)$  where  $Y_r$  is the risk adjusted return and  $Y$  the yield

## Emerging Market IG Strategy / Mandate / Fund – Spread risk

Fund composition – Government Bonds Credit exposure

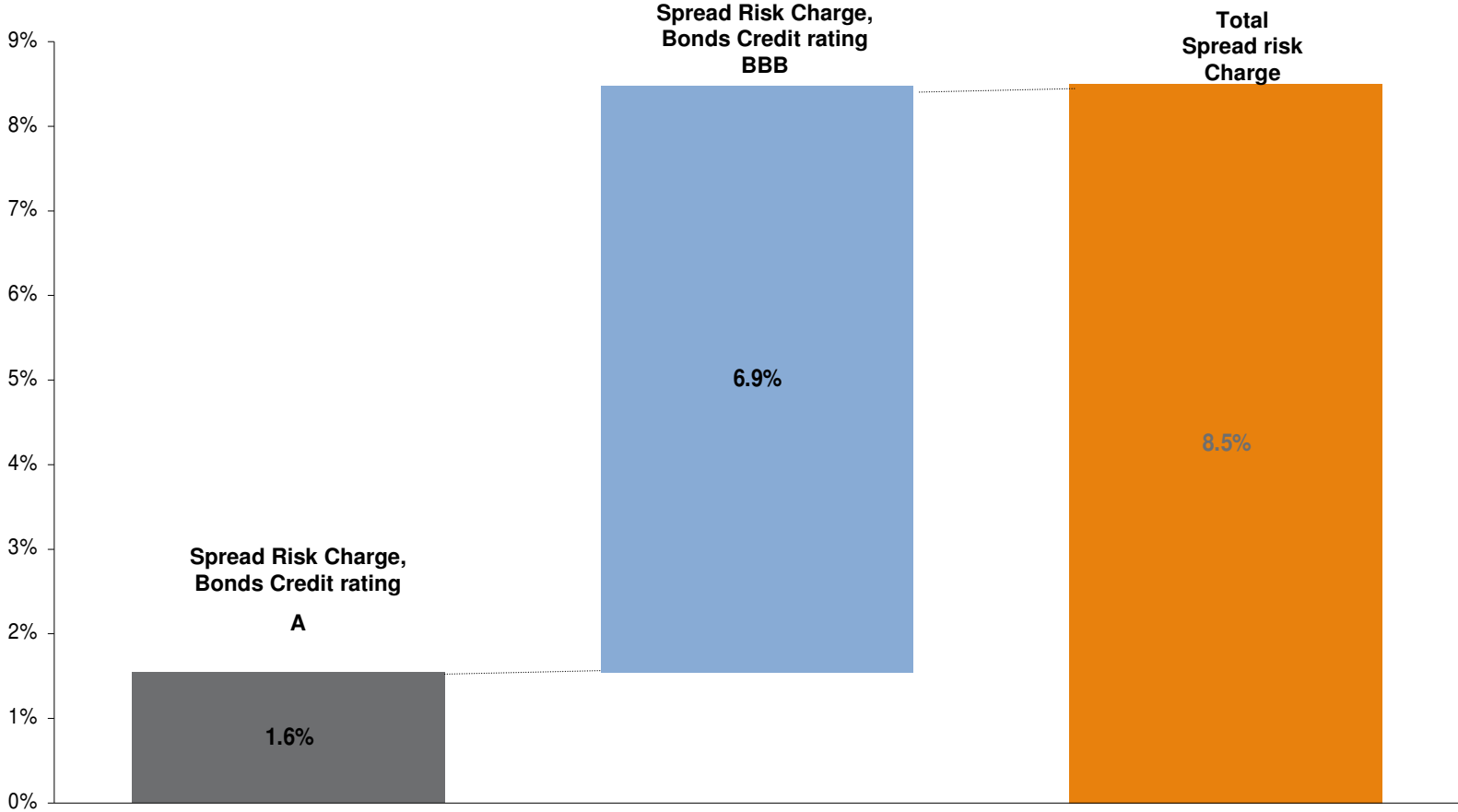


Fund composition - Corporate Bonds Credit exposure



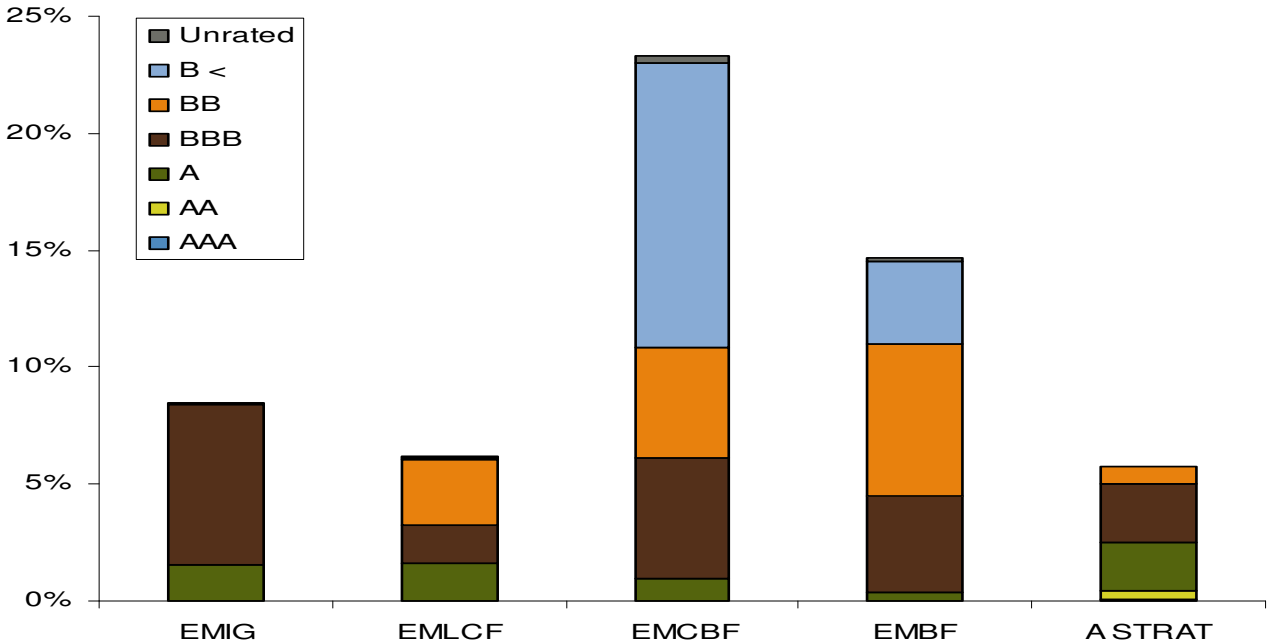
- Investing in this fund will require **8.5% capital charge**
- The Yield = 4.8%
- Risk Adjusted Yield\*1 = 4.3%
- Govt bonds make up 70% of portfolio
- Corporate bonds make up 30% of Portfolio
- Portfolio is fully hedged hence no currency exposure

# Emerging Market Investment Grade fund / mandate – Spread risk



Source: JPMAM calculations; Positions based on fund/portfolio holdings as of 18<sup>th</sup> August 2010,

# Summary – SCR Charge by Credit Grade Exposure (EX – currency)



<b>Spread Charge</b>	8.5%	6.2%	23.4%	14.7%	6.2%
<b>Currency</b>	-	24.0%	-	2%	-
<b>Total Charge*1</b>	8.5%	24.8%	23.4%	14.8%	6.2%
<b>Yield</b>	5.3%	6.4%	5.8%	5.7%	4.2%
<b>Duration</b>	6.30	8.38	5.89	7.23	6.54

\*1 Total Charge includes the benefits of correlations

Source: JPMAM calculations; Positions based on fund/portfolio holdings as of 18<sup>th</sup> August 2010,

## Solvency capital (SCR) - sub market modules

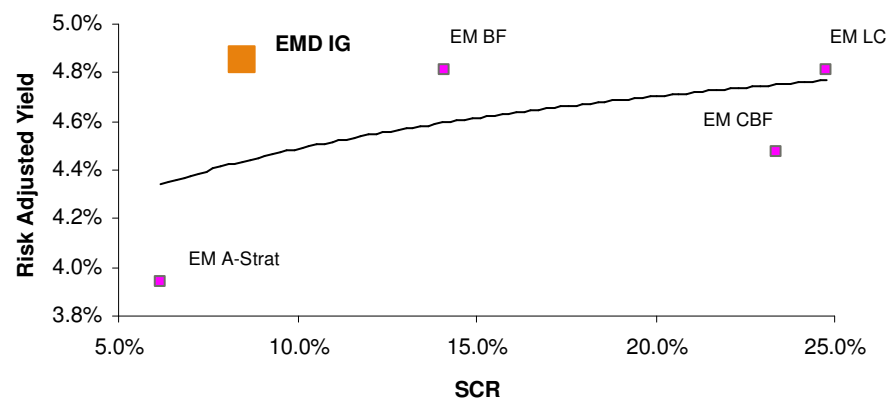
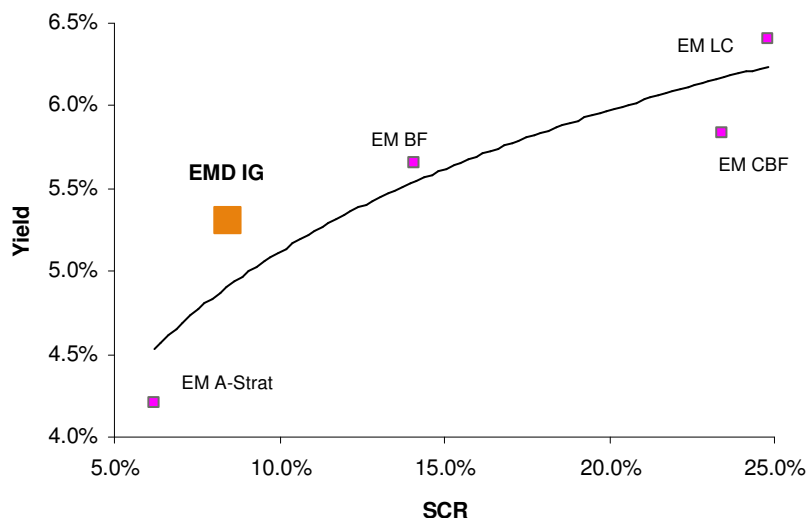
	EMD IG	EMD EMLCF	EMD EMCBF	EMD EMBF	EMD A Strat
<b>Duration*1</b>	6.3	8.38	5.89	7.23	6.54
<b>Equity</b>	-	-	-	-	-
<b>Property</b>	-	-	-	-	-
<b>Spread</b>	8.5%	6.2%	23.4%	15.0%	6.2%
<b>Currency</b>	-	24.0%	-	2.0%	-
<b>Concentration</b>	-	-	-	-	-
<b>Illiquidity</b>	-	-	-	-	-

<b>Total SCR uncorrelated</b>	8.5%	30.2%	23.4%	16.8%	6.2%
<b>Total SCR correlated</b>	8.5%	24.8%	23.4%	14.8%	6.2%
<b>Benefit of correlation</b>	0.0%	5.42%	0.0%	1.9%	0.0%

\*1 Duration was based on modified duration derived by JPMorgan Fixed income System FIS II

Source: JPMAM calculations; Positions based on fund/portfolio holdings as of 18<sup>th</sup> August 2010,

## Optimum Portfolio – Yield and Risk Adjusted Yield vs. SCR



- EMD IG is the optimum portfolio. It has the highest Risk adjusted Yield.\*<sup>1</sup>
- Both EMD IG and EMD BF have lower exposure to corporates as compared to Government bonds. Ratios of Corporate bonds to Government bonds; EMD IG (30:70) and EMD BF (18:78) .<sup>\*2</sup>
- EMD IG holds 14% of OECD Government bonds and EMD BF hold 9% of OECD Government bonds.<sup>\*3</sup>
- The key determinant for the lower charge is the quality of bonds held in the EMD IG

\*<sup>1</sup> Risk adjusted Yield is a proportional reduction in yield by the SCR calculated as  $Y_r = Y(1-SCR)$  where  $Y_r$  is the risk adjusted return and  $Y$  the yield

\*<sup>2</sup> QIS5 has higher SCR for Corporate bonds than for Government Bonds

\*<sup>3</sup> OECD Government bonds have no spread charge in Germany, other jurisdictions tbd

Source: JPMAM calculations; Positions based on fund/portfolio holdings as of 18<sup>th</sup> August 2010,

## Emerging Market Debt Investment Grade strategy



## How to construct an EMD Investment Grade strategy

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- Government bonds in hard currency – EMBI Global Diversified IG
    - Investment Grade Index exists since Jan 2002, makes up 56.4% of EMBI Global Div (BB+/Baa3)
    - Current yield of EMBI Global Diversified IG @ 5,3%
  
  - Corporate bonds in hard currency – CEMBI Broad Diversified IG
    - Investment Grade Index exists since Jan 2002 and today makes up 70.6% of the CEMBI Broad Diversified (BBB/Baa2)
    - Current yield of CEMBI Broad Diversified IG @ 5,4%
  
  - Global Emerging Markets bonds in local currency – GBI EM Global Diversified
    - Average rating of the GBI-EM Global Diversified is BBB
    - Current yield of GBI-EM Global Diversified @ 6,8%
    - But we recommend excluding local currencies despite their yield attractiveness
      - Regulatory issues possible
      - Higher turnover strategy
      - Set-up constraints possible with custodians
      - High FX Volatility
  
  - Conclusion: IG strategy in EMD should be made up of hard currency government and corporate bonds
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## Emerging Markets Bond Index Characteristics

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### Index characteristics as of June 30<sup>th</sup> 2010

Index	Market Cap (USD bn)	No. of issuers	# of Securities	Average Quality	Duration in Years	Yield in % (Jun 30th)
EMBI Global Div.	232	58	233	BB+ /BBB-	6.60	6.42
EMBI Global Div. IG	132	29	117	BBB	6.56	5.28
CEMBI Broad Div	113	219	404	BBB	5.15	6.43
CEMBI Broad Div. IG	80	131	282	BBB+	5.52	5.42

Source: J.P. Morgan Securities Inc., June 2010

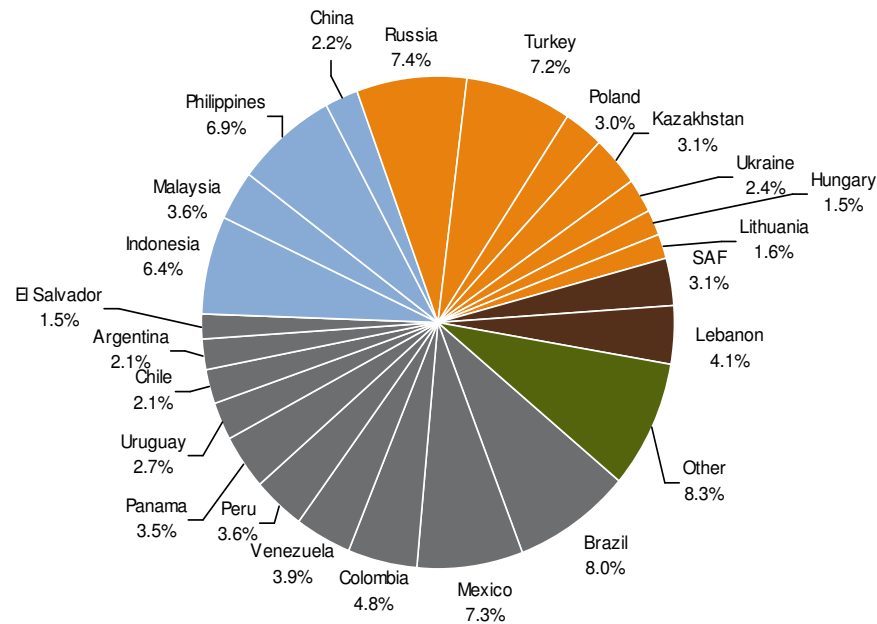
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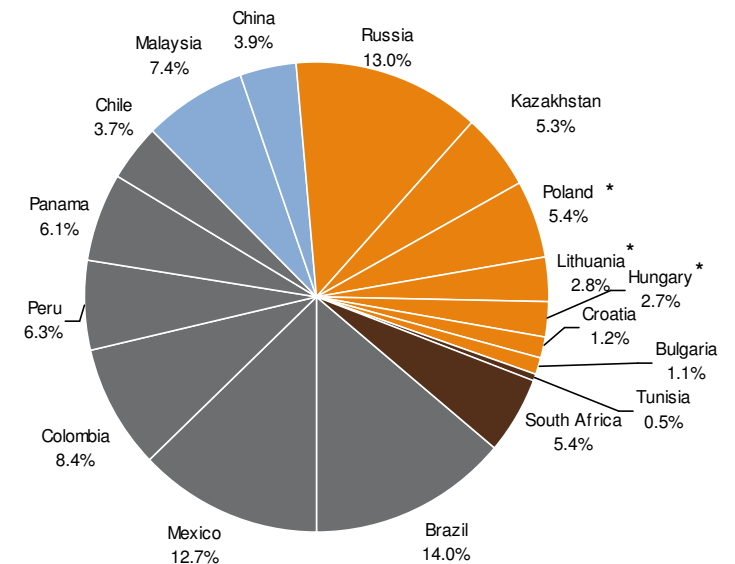
# EMBI Global Diversified & IG – Country Allocation

As at 30 June 2010

**Country allocation – EMBI Global Diversified**  
(OECD: 14%)



**Country allocation – EMBI Global Diversified IG**  
(56% of EMBI GI. Div.; OECD: 25%)



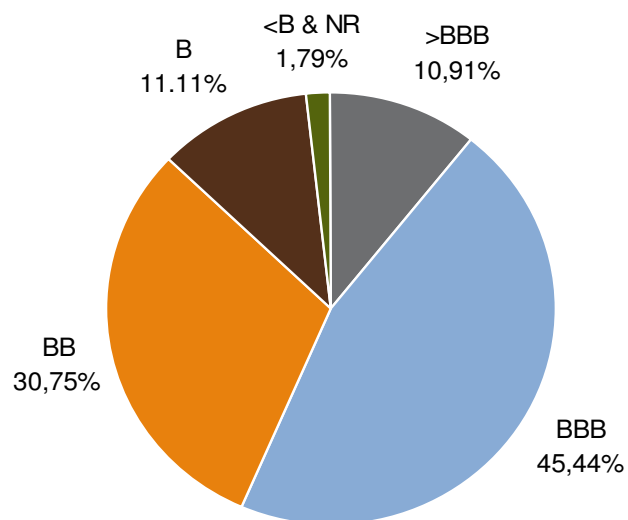
Source: J.P. Morgan Securities Inc., June 2010; Emerging Markets Bond Index (EMBI)

\* OECD & EER countries

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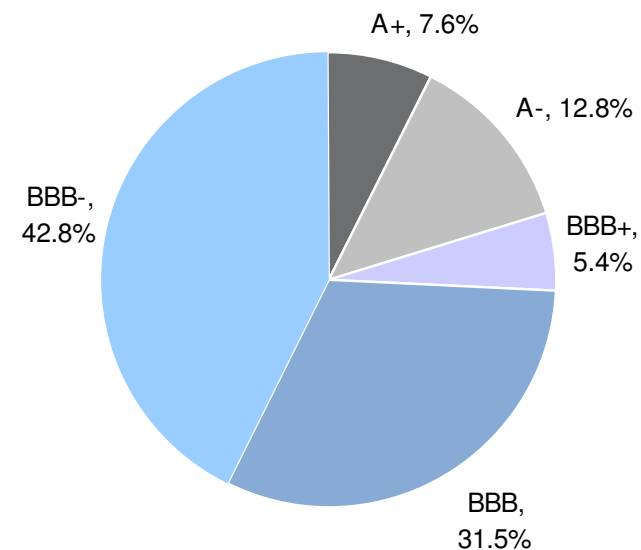
# EMBI Global Diversified & IG – Rating Characteristics

Rating allocation – EMBI Global Diversified



Rating allocation – EMBI Global Diversified IG

(56% of EMBI Gl. Div.)



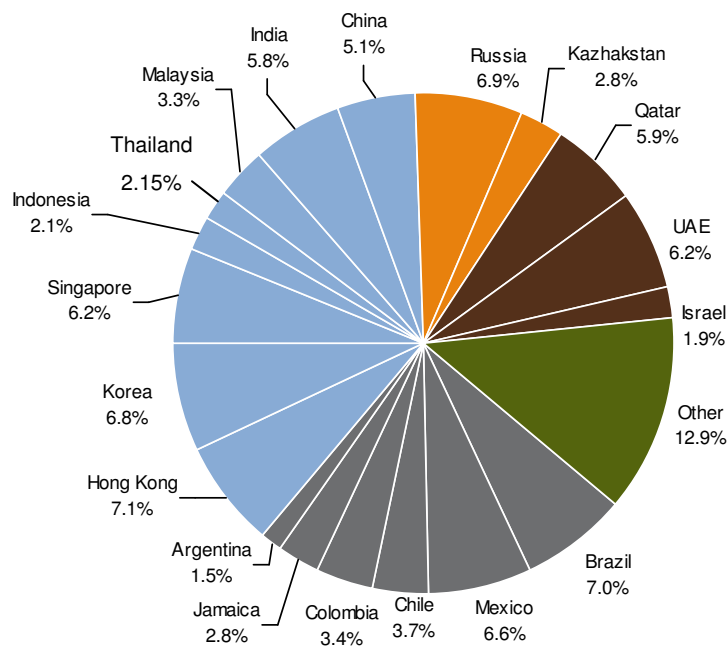
Source: J.P. Morgan Securities Inc., June 2010; Emerging Markets Bond Index (EMBI)

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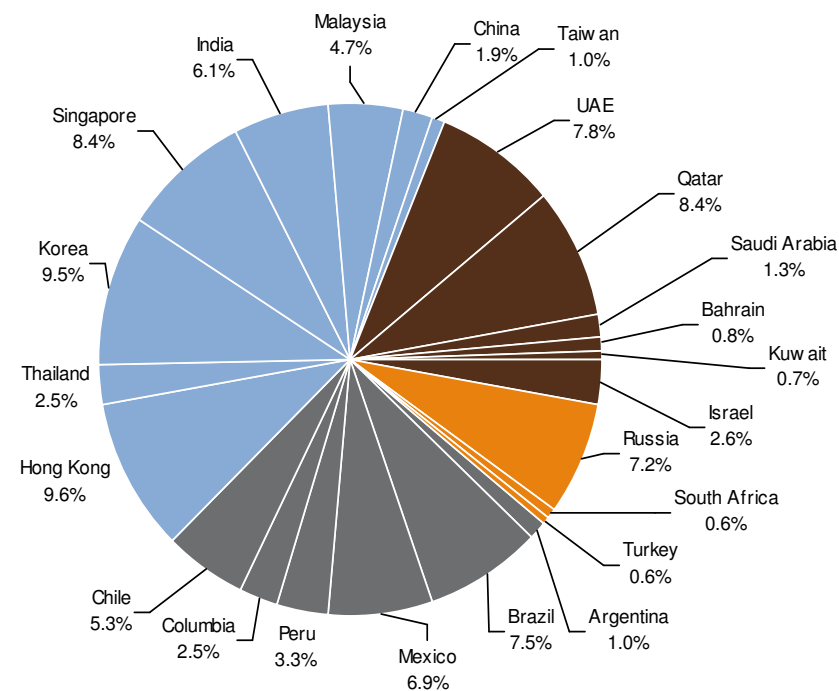
# CEMBI Broad Diversified & IG – Country Allocation

As at 30 June 2010

Country allocation – CEMBI Broad Diversified



Country allocation – CEMBI Broad Diversified IG  
(70% of CEMBI Broad Div.)

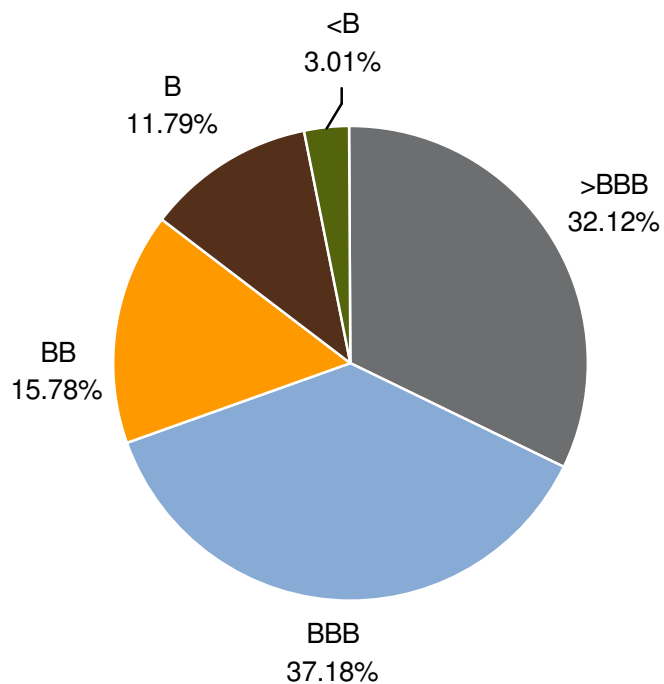


Source: J.P. Morgan Securities Inc., June 2010; Coprorates Emerging Markets Bond Index (CEMBI)

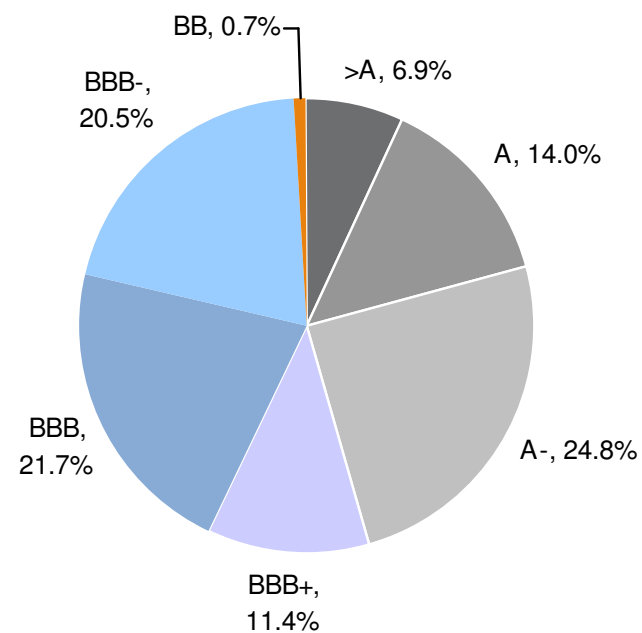
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# CEMBI Broad Diversified & IG – Rating Characteristics

Ratings allocation – CEMBI Broad Diversified



Ratings allocation – CEMBI Broad Diversified IG  
(70% of CEMBI Broad Div.)



Source: J.P. Morgan Securities Inc., June 2010; Corporates Emerging Markets Bond Index (CEMBI)

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## Top 10 issuers for EMBI Global Div. IG and CEMBI Broad Div. IG

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### J.P. Morgan EMBI Global Diversified IG

BR Republic - Brazil	12.15%
MX UMS – United Mexican States	9.44%
CO Republic - Colombia	8.52%
RU Republic - Russia	8.18%
PE Republic - Peru	6.43%
PA Republic - Panama	6.15%
MY Petronas - Oil	5.58%
ZA Republic – South Africa	5.46%
PL Republic – Poland	5.39%
KZ Kazmunaigaz - Energy	5.11%

### J.P. Morgan CEMBI Broad Diversified IG

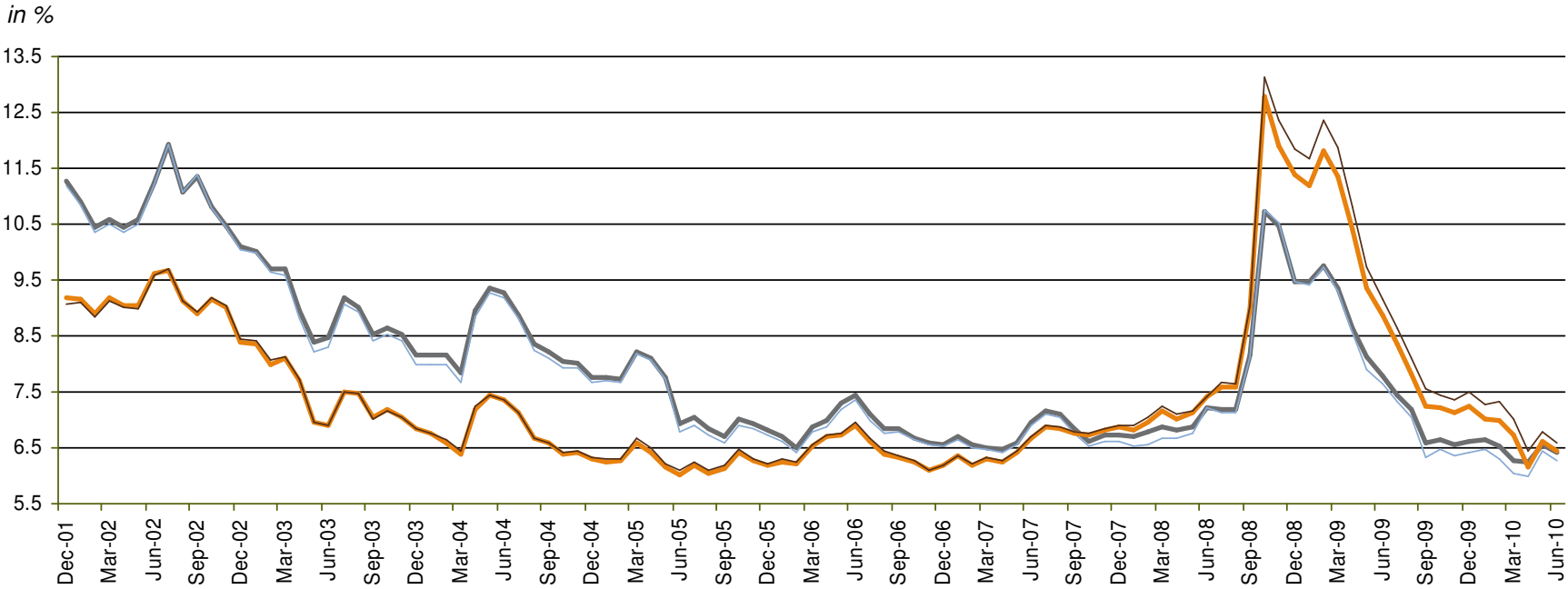
QA Raslaf – Oil	4.95%
HK Hutchison – Telecom	4.34%
MX America Movil – Telecom	4.19%
AE Taqa Abu Dhabi – Oil	3.97%
PE Southern – Copper	3.26%
IN ICICI – Financials	3.04%
SG DBS – Financials	3.00%
IL Electric Corp – Utility	2.76%
RU Gazprom – Oil	2.54%
BR Petrobas – Oil	2.14%

Source: J.P. Morgan Securities Inc., June 2010; EMBI + CEMBI

The above information is shown for illustrative purposes only and should not be relied upon by you in evaluating the merits of investing in any securities or strategies mentioned herein.

# Yields on the broad indices are still generous, hovering around 6.5%

EMBI Global Div. / CEMBI Broad Div. (thin lines: adjusted for curve)



Source: J.P. Morgan Securities Inc., June 2010; EMBI + CEMBI

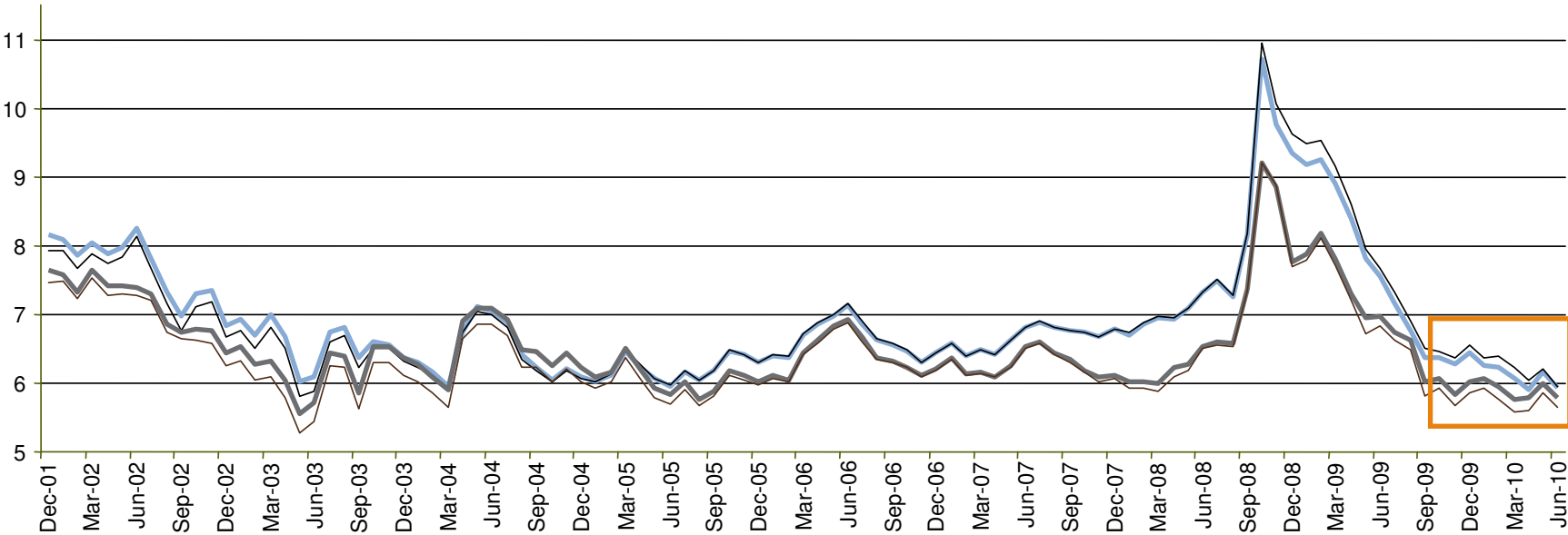
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# Yields on Investment Grade indices still within the perceived “window of opportunity” above 5%

EMBI Global Div. IG / CEMBI Broad Div. IG

In %

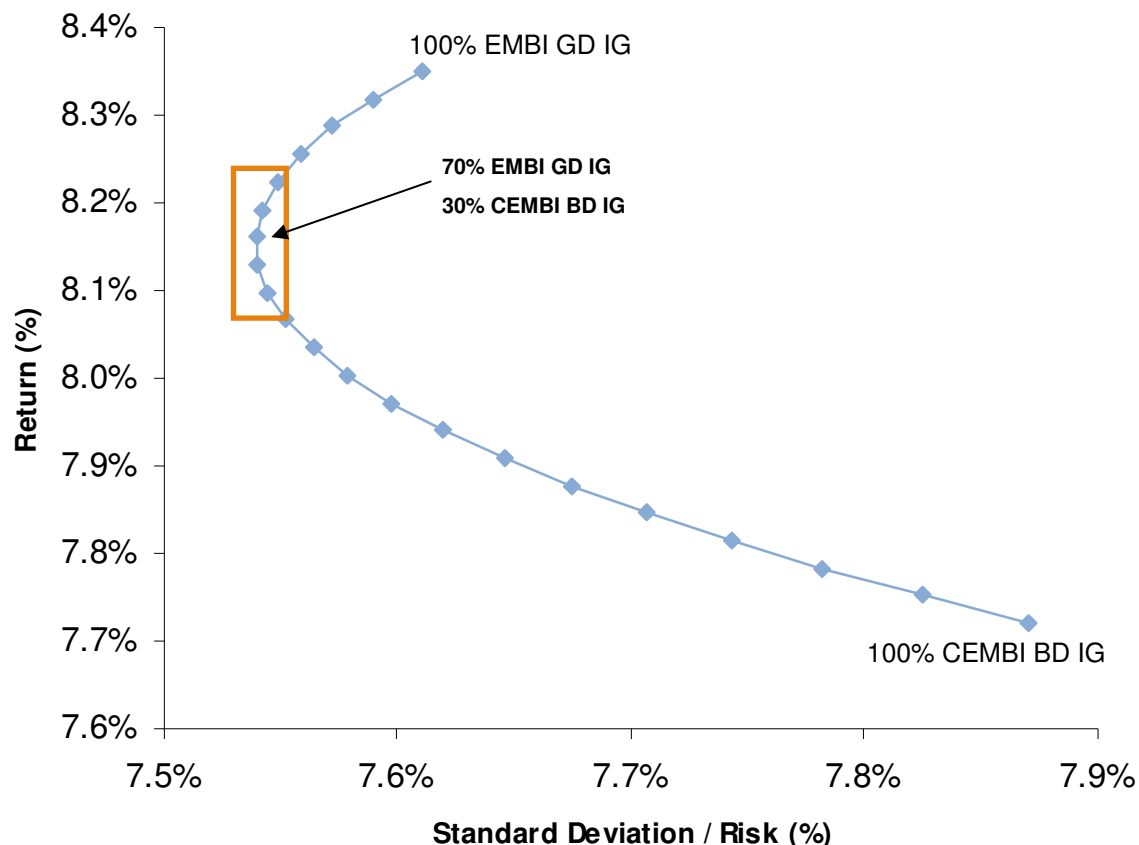


Source: J.P. Morgan Securities Inc., June 2010; EMBI + CEMBI

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# Historical efficient frontier EMBI Global Div. IG and CEMBI Broad Div. IG

## Historical efficient frontier



- Minimum variance portfolio at 70% EMBI IG, 30 % CEMBI IG
- Efficient allocations range from 75/25 to 50/50
- To achieve a diversified CEMBI portion a volume of \$40 million is needed
- AUM needed to implement the EMD IG strategy starts at EUR 70m
- Launch of a mutual fund planned for December 2010

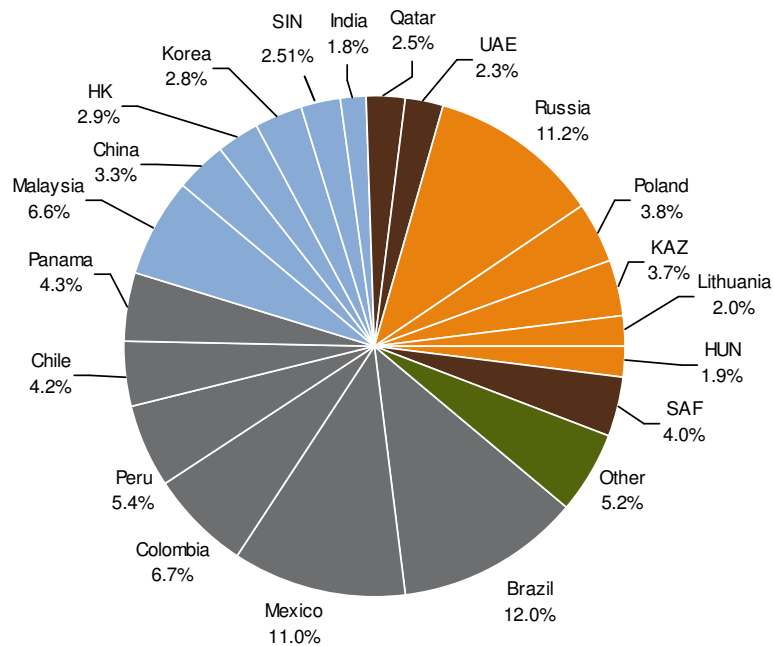
Source: J.P. Morgan Securities Inc., data since inception of the indices (31.12.2001)

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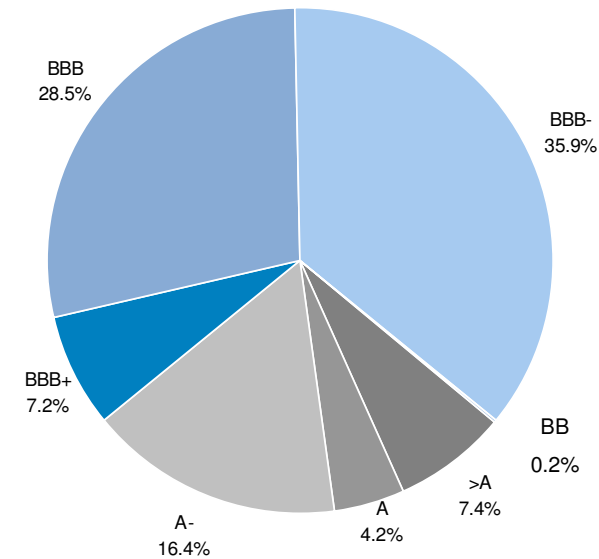
# EMD IG (70/30): EMBI Global Div. IG & CEMBI Broad Diversified IG – Countries / Ratings

As at 30<sup>th</sup> June 2010

Country allocation – EMD IG (70/30)



Rating allocation – EMD IG (70/30)



Source: J.P. Morgan Securities Inc., March 2010; Coprates Emerging Markets Bond Index (CEMBI)

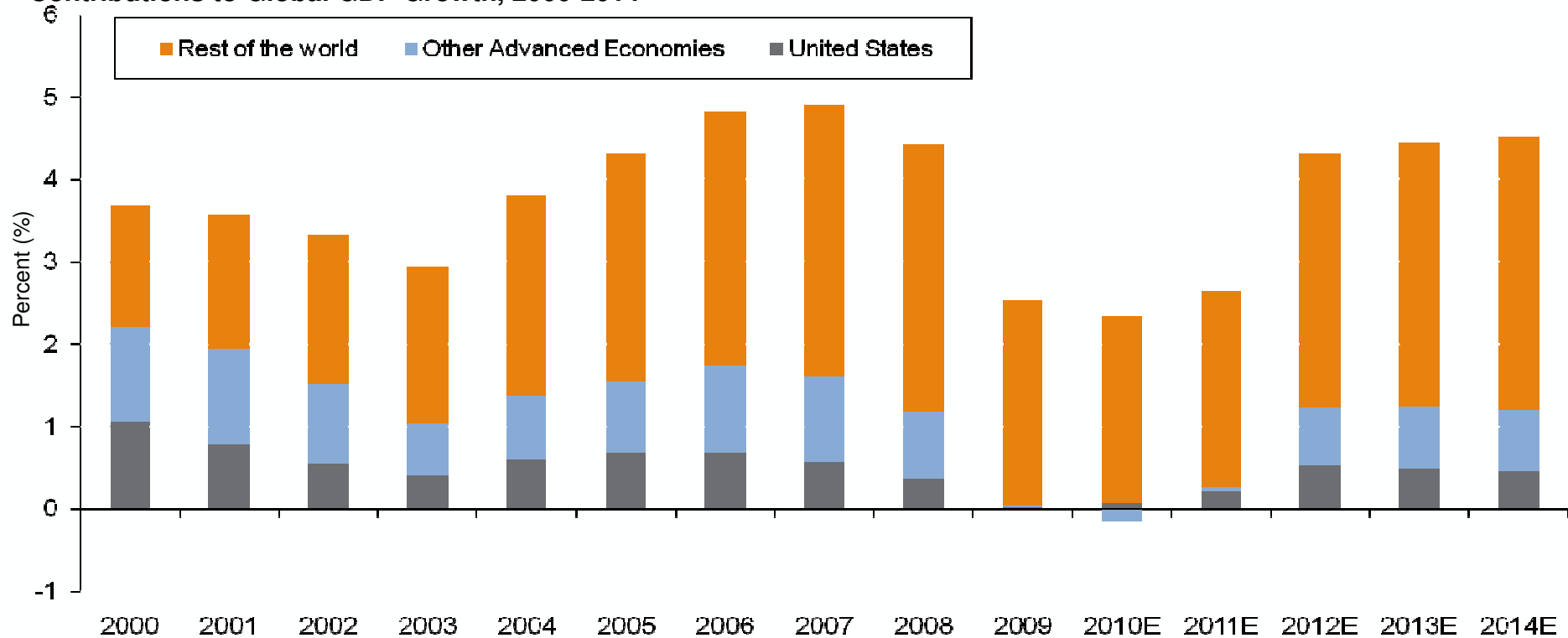
## Outlook for Emerging Markets Bonds Investment Grade

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- Strong Growth
- Mostly independent Central Banks with focus on inflation
- Development of social security systems
- Strong demographics
- Fiscal discipline

## Emerging markets driving global growth

Contributions to Global GDP Growth, 2000-2014

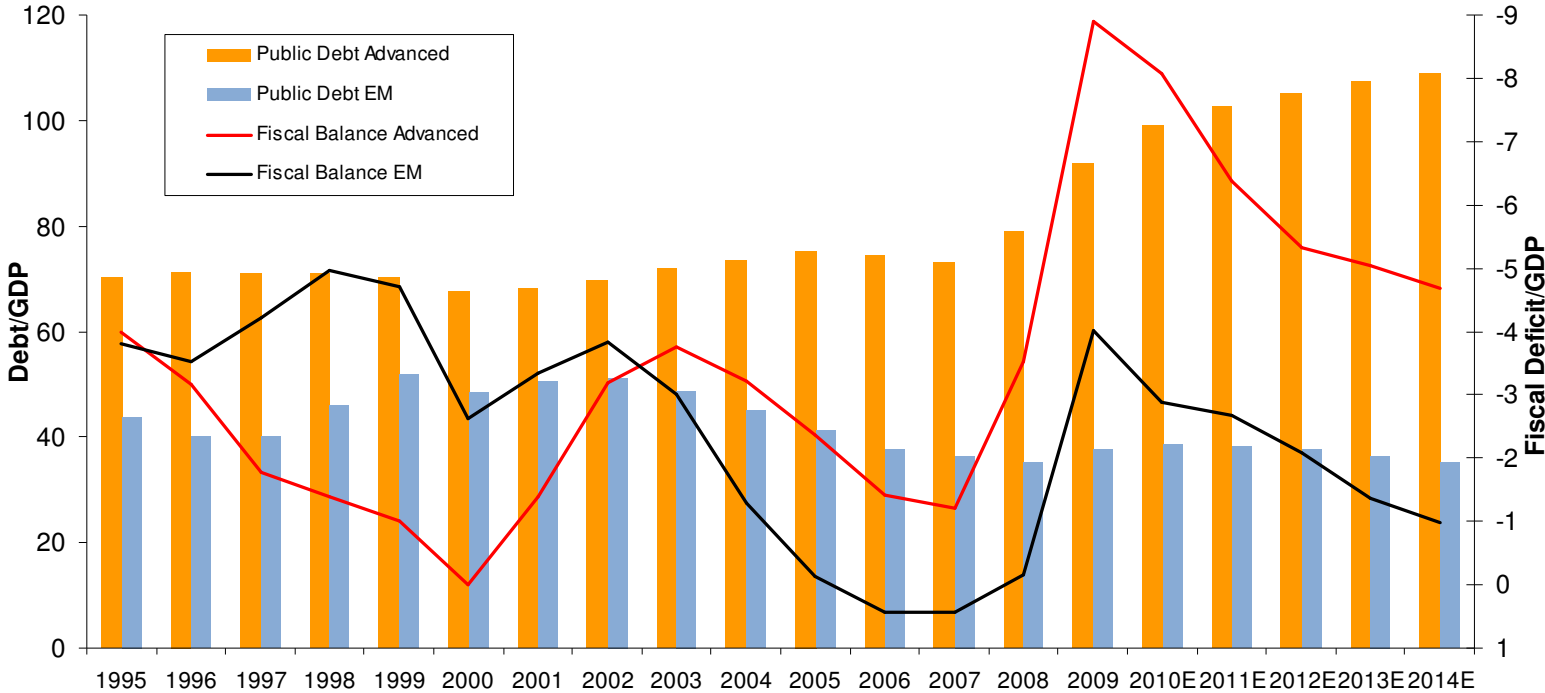


Source: IMF World Economic Outlook 2010, J.P.Morgan Asset Management

Note: Data for 2010-2014 are forecasts. Forecasts are based on current market conditions and are subject to change without notice.

# EM will continue to have a much stronger fiscal position relative to advanced economies

**Public Debt to GDP (%) and Fiscal Balance (%)**

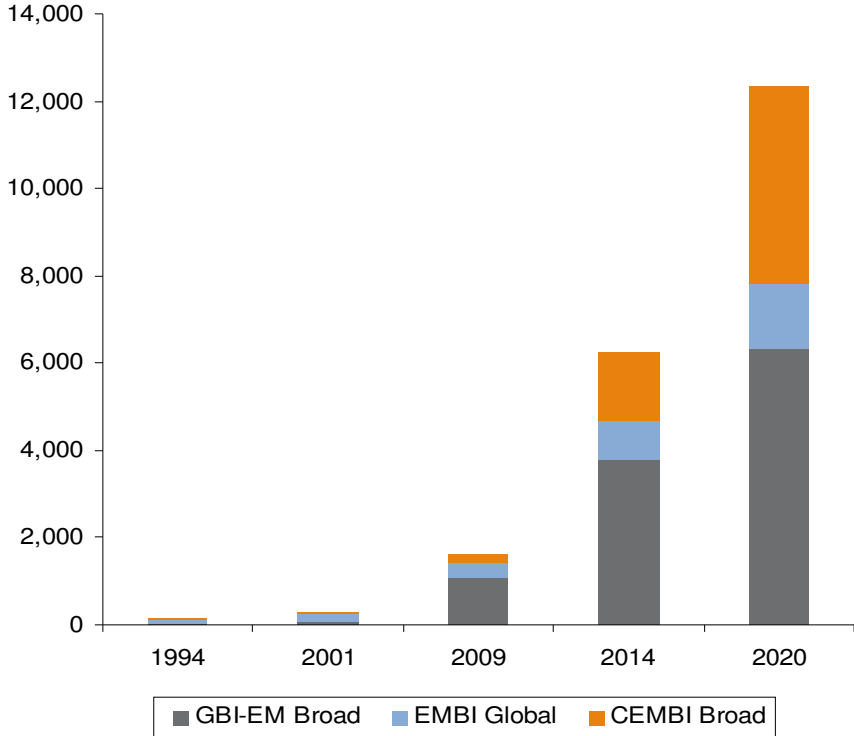


Source: IMF World Economic Outlook 2010.

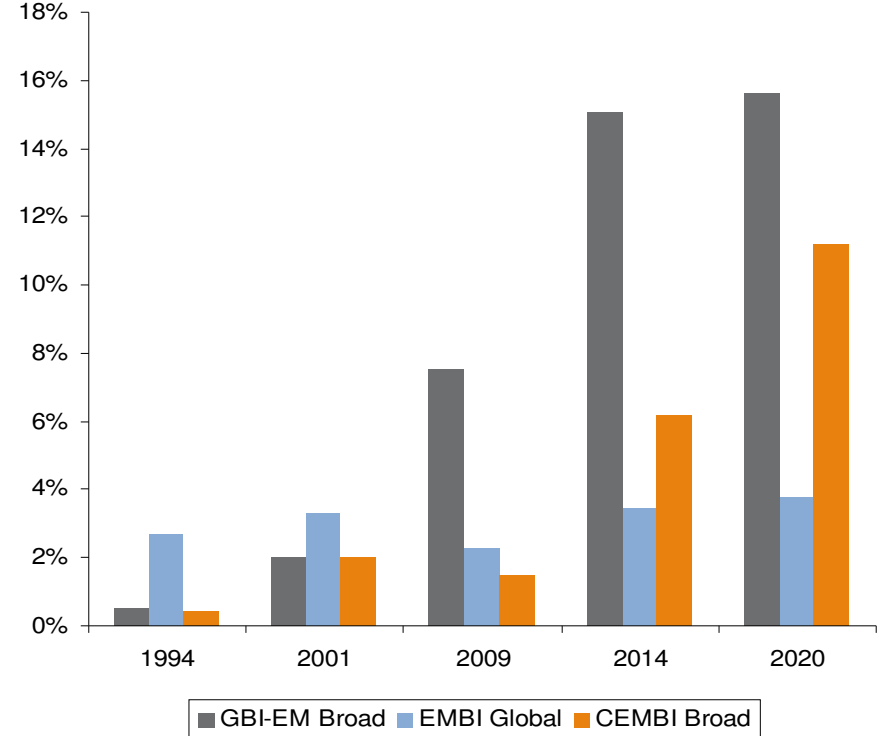
Note: Data for 2010–2014 are forecasts. Forecasts are based on current market conditions and are subject to change without notice.

# Growth in emerging markets is expected to outpace the developed world in the years ahead

**Market Capitalization Projections (US\$ billion)**



**Market Capitalization Projections (% of EM GDP)**



Source: J.P. Morgan Asset Management.

Note: 2009 data as of September 30, 2009. Data for 2014 and 2020 are forecasts. Forecasts are based on current market conditions and are subject to change without notice. The J.P. Morgan Government Bond Index-Emerging Markets (GBI-EM) is representative of the local currency market. The J.P. Morgan Emerging Markets Bond Index Global (EMBI Global) is representative of the sovereign debt market. The J.P. Morgan Corporate Emerging Markets Bond Index (CEMBI) is representative of the corporate debt market.

## Inclusion of EMD IG in the overall Fixed Income Portfolio

### Risk- Return Parameters of EMD IG vs. Developed Bond Markets

Dec 01 to June 10	EMD IG (in\$)	Euro Tsy	Euro Corp	Euro Corp Baa
Risk	7.53%	3.52%	3.62%	4.30%
Return	8.16%	5.19%	4.91%	5.43%

- Correlation of EMD IG with Euro government bonds (0,40) even lower than with Euro Corporates (0,71)
- Relatively high correlation with Euro Corporates Baa (0,74)
- Conclusion: exchange some of Corporate exposure with EMD IG should have a positive risk-return impact on the overall portfolio

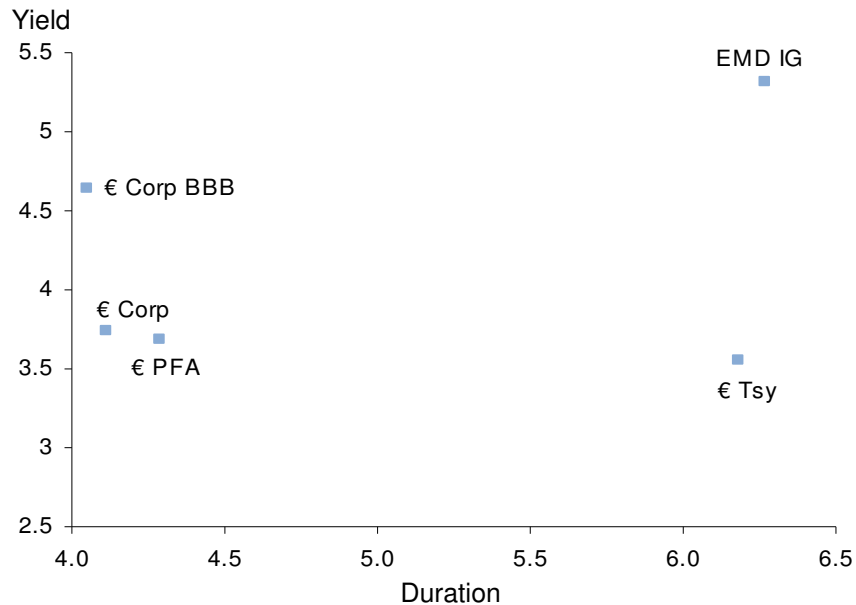
Correlations	EMD IG (in\$)	Euro Tsy	Euro Corp	Euro Corp Baa
EMD IG	1.00			
Euro Tsy	0.40	1.00		
Euro Corp	0.71	0.58	1.00	
Euro Corp Baa	0.74	0.36	0.89	1.00

Source: J.P. Morgan Securities Inc., Barclays Capital: EMD IG as described before: 70/30 mix of JPM EMBI Global Diversified IG and CEMBI Broad Diversified IG; JPM EMU Government Bond Index, Barclays Euro Agg (Corporate) Index and Barclays Euro Agg (Corporate) Baa Index, Dec 2001 to June 2010; Hedging return from USD to EUR 0,12% p.a.; 1yr fwd hedge return currently 0,32% from USD to EUR



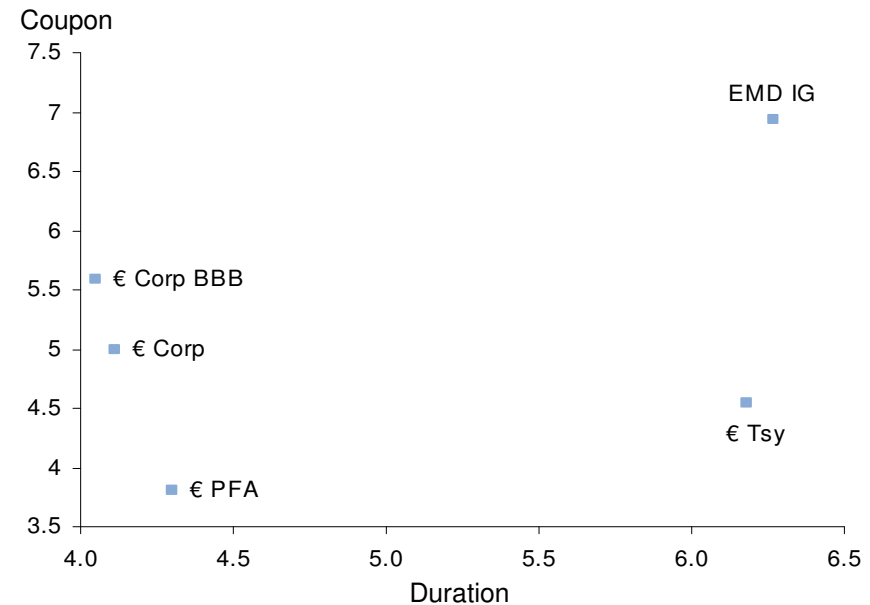
## EMD IG (70/30): Yield and Coupon above traditional Fixed Income asset classes (1)

### Current yield and duration



Source: Barclays, J.P. Morgan Securities Inc., June 2010

### Current coupon and duration

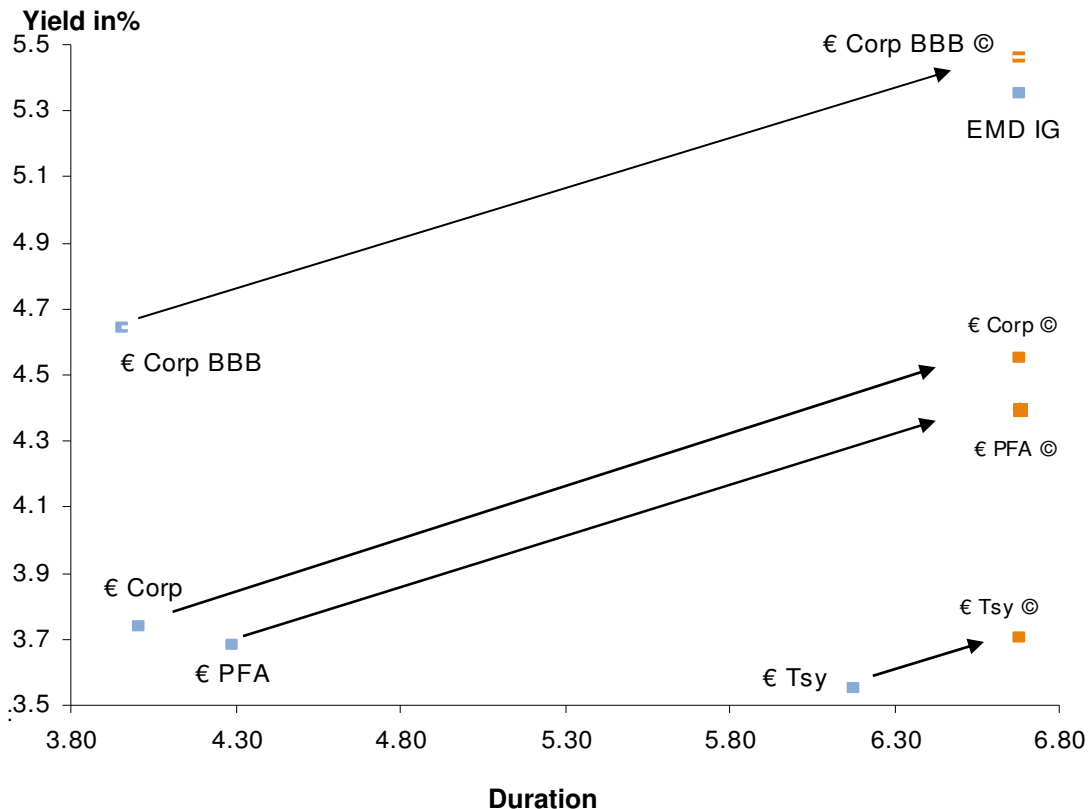


*...duration of EMD IG close to Euro government bond duration, yield @ 5,37% and coupon @ 7%*

The above information is shown for illustrative purposes only and should not be relied upon by you in evaluating the merits of investing in any securities or strategies mentioned herein.

## EMD IG (70/30): Yield and Coupon above traditional Fixed Income asset classes (2)

### Current duration adjusted yield

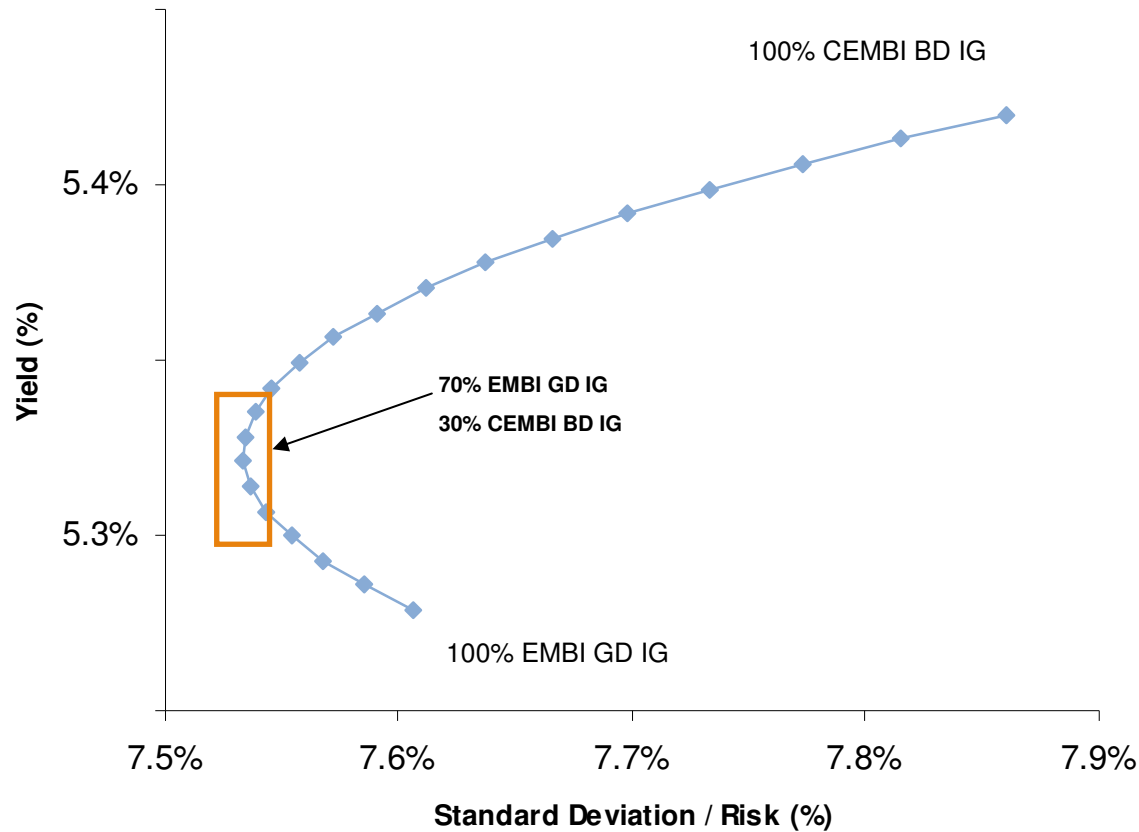


- Large Duration differentials require adjustment
  - EMD IG and € Gov: close to 6.5 years
  - € Corporates and Pfandbriefe: around 4 years
- € Governments increase to 3.64%, Covered Bonds to 4.40%
- Duration adjusted € Corporates yield only 4.54%
- EMD IG still yielding above 5%
  - Almost 2% above Gov
  - Almost 1% above Corporates and Covered Bonds
  - Close to similarly rated Corporate Bonds

Source: Barclays, J.P. Morgan Securities Inc., June 2010

# Forward looking efficient frontier EMBI Global Div. IG and CEMBI Broad Div. IG

Forward looking efficient frontier (current yield based)

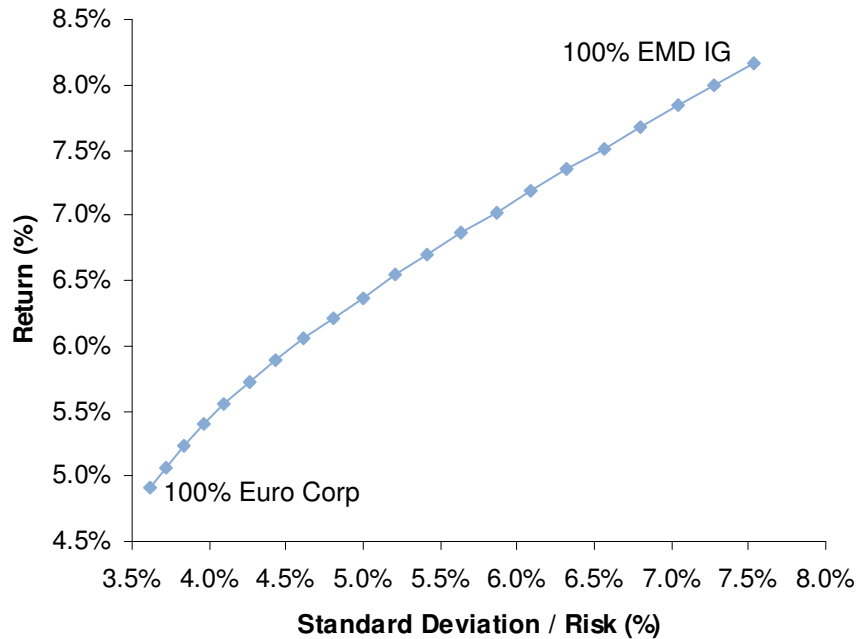


Source: J.P. Morgan Securities Inc., data since inception of the indices (31.12.2001)

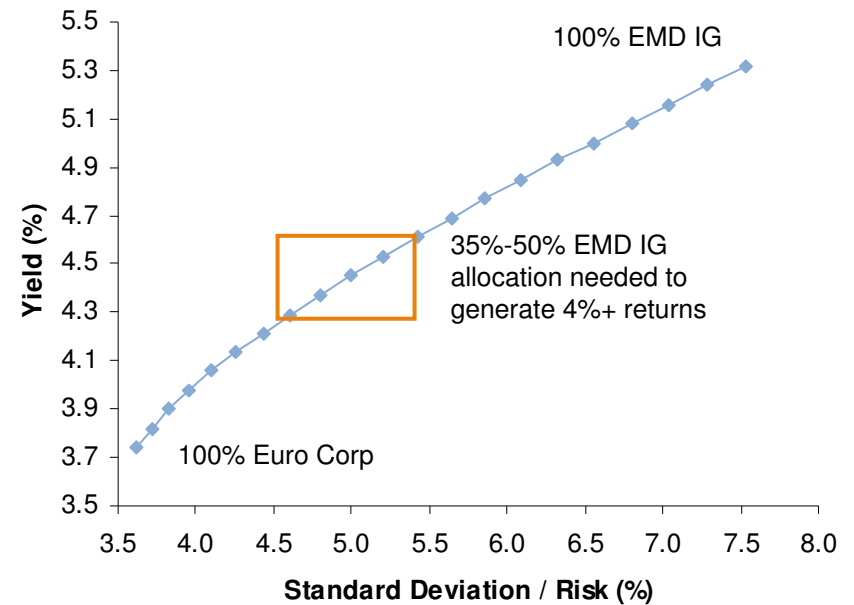
The above information is shown for illustrative purposes only and should not be relied upon by you in evaluating the merits of investing in any securities or strategies mentioned herein.

# EMD IG (70/30): Historical and forward looking Risk/Return charts - combined with € Corp

**Historical efficient frontier**



**Forward looking efficient frontier (current yield based)**

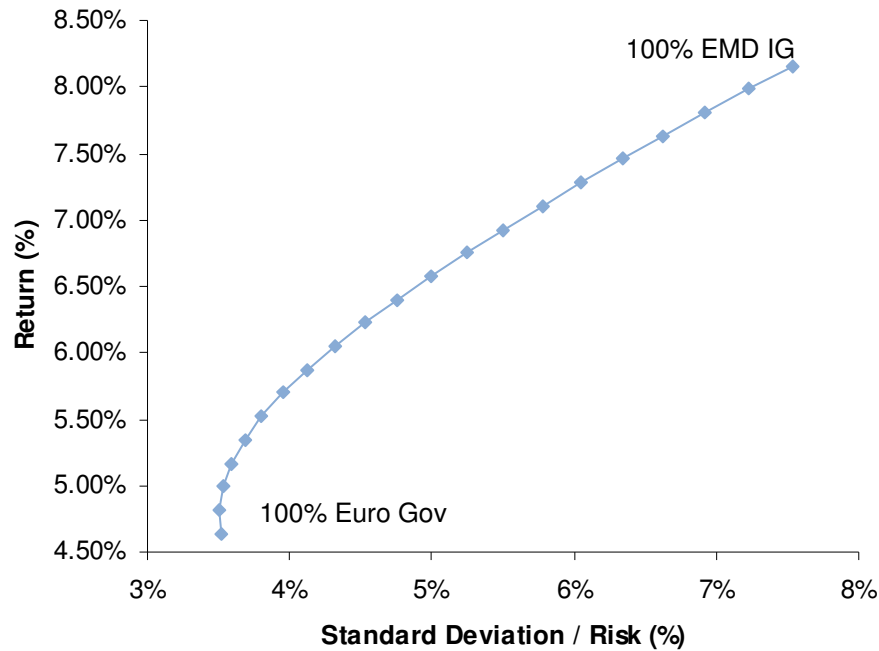


Source: J.P. Morgan Securities Inc., Barclays Capital: EMD IG as described before: 70/30 mix of JPM EMBI Global Diversified IG and CEMBI Broad Diversified IG; Barclays Euro Agg (Corporate) Index, Dec 2001 to June 2010; Hedging return from USD to EUR 0,12% p.a.; 1yr fwd hedge return currently 0,32% from USD to EUR

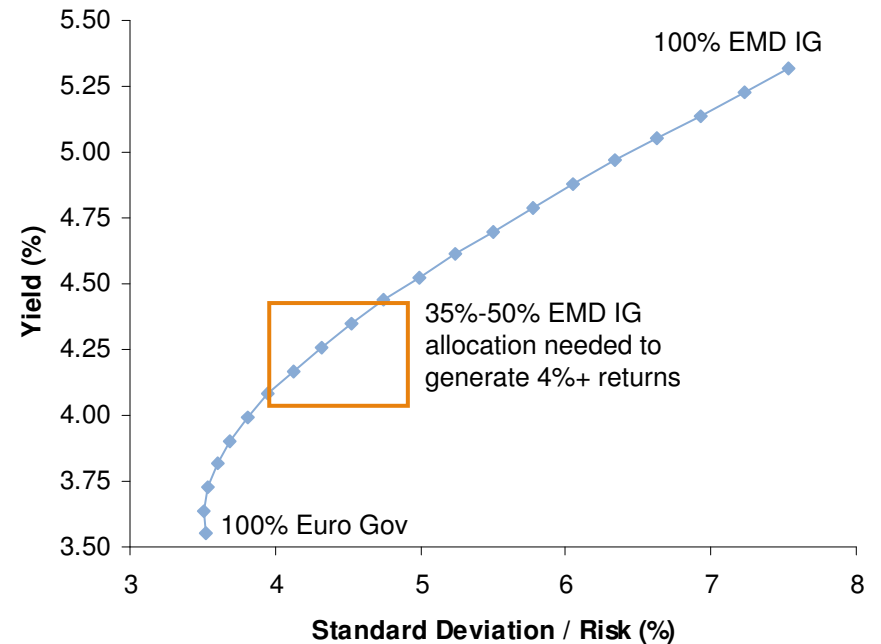
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# EMD IG (70/30): Historical and forward looking Risk/Return charts - combined with € Gov

**Historical efficient frontier**



**Forward looking efficient frontier (current yield based)**



Source: J.P. Morgan Securities Inc.: EMD IG as described before: 70/30 mix of JPM EMBI Global Diversified IG and CEMBI Broad Diversified IG; JPM EMU Government Bond Index, Dec 2001 to June 2010; Hedging return from USD to EUR 0,12% p.a.; 1yr fwd hedge return currently 0,32% from USD to EUR

The above information is shown for illustrative purposes only and should not be relied upon by you in evaluating the merits of investing in any securities or strategies mentioned herein.

## Conclusion

---

- Emerging Markets Investment Grade is an attractive yield enhancer but ....
  - a significant allocation to the overall portfolio is needed
- Countries are developing further, credit upgrades are likely to occur and the asset class is maturing ....
  - therefore, historical volatility may not necessarily be representative, allowing for a larger EMD allocation
- Overall improved liquidity allows opportunities for tactical moves and risk/return management by the investor
- Risks
  - External: Exit Strategy (China – FOMC), Obama Banking regulation, Greece (solvency), Double-dip,...
  - Within EM: Supply in the near term and Debt sustainability, inflation and politics
  - Unpredictable events: Financial Crisis Part 2, global risk aversion, .....

## Appendix 1: JPMAM EMD IG proposal and investment process

# Strategy Proposal for Emerging Markets Debt Investment Grade

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## Strategy Design

- Universe Emerging Market External Debt and EM Corporate Bonds
- Benchmark 70% EMBI Global Diversified IG & 30% CEMBI Broad Div IG. (range 75/25 to 50/50 - size dependent)
- Minimum Rating: Investment Grade only

## Risk/Return Targets

- Target Alpha: 150-200 bps
- Target TE: 300-400 bps
- Information ratio target: 0.50

## Indicative Alpha sources over a cycle

- Active Government / Corporate Allocation: 20%
- Country Selection 40%
- Security Selection External Debt: 10%
- Security selection Corporate 30%

## Risk parameters

- Max. duration deviation: 1 year
- Min/Max corporate allocation: +/- 20% around benchmark weight
- Max. country overweight: +/- 10% or one year spread duration
- Max. corporate issuer overweight: 2% or 0.2 year spread duration



## Experienced team of emerging markets debt specialists

Emerging Markets Debt Team				
Name	Role	Location	Years of Firm Experience	Years of Industry Experience
<b>Senior Management</b>				
Seth Bernstein	Head of Global Fixed Income and Currency	New York	26	26
Robert Michele, CFA	Global Chief Investment Officer	London	2	29
<b>Portfolio Management , Trading and Research</b>				
Pierre-Yves Bareau	Head of Emerging Markets Debt, Global Strategist	London	1	19
Alain Defise	Lead Portfolio Manager, EM Corporate Debt	London	1	14
Didier Lambert, CFA	Lead Portfolio Manager, Local Currency (Rates and FX)	London	1	12
Michal Wozniak, CFA	Portfolio Manager, CEEMEA Strategist	London	1	10
Amit Tanna, CFA	Portfolio Manager/Emerging Markets FX	London	8	8
Suney Hindocha	Credit Analyst, CEEMEA	London	<1	1
Joanne Baxter	Trader	London	<1	5
Matias Silvani	Latin America Strategist; Lead Portfolio Manager External Debt	New York	6	12
Emil Babayev	Trader and Portfolio Manager, External Debt	New York	10	10
Dan Gelfand	Associate Portfolio Manager, External Debt	New York	6	6
Jonathan Prin	Credit Analyst, Latin America	New York	5	8
Carlos Rocha, CFA*	Portfolio Manager, Brazil	Sao Paulo	6	14
Stephen Chang, CFA	Lead Portfolio Manager Asia, Asia Strategist	Hong Kong	6	14
Aidan Shevlin, CFA	Portfolio Manager, Local Currency (Rates and FX)	Hong Kong	13	13
Arthur Lau, CFA	Lead Credit Analyst Asia, EM Corporate Debt	Hong Kong	5	23
John Lam	Credit Analyst, Asia	Hong Kong	<1	14
Charles Chen*	Portfolio Manager, Taiwan	Taipei	11	22
Nandkumar Surti*	Portfolio Manager, India	Mumbai	3	18
<b>Additional resources</b>				
Molly Meng*	Portfolio Manager, China	Shanghai	1	14
<b>Quantitative Research and Risk</b>				
Frank Del Vecchio, CFA	Head of Quantitative Research	London	6	21
Vincent Kumaradjaja	Senior Risk Officer	New York	<1	21
* = Team leader listed				

Information as of June 30, 2010. There can be no assurance that the professionals currently employed by J.P. Morgan Asset Management will continue to be employed by J.P. Morgan Asset Management or that the past performance or success of any such professional serves as an indicator of such professional's future performance or success.

# Team organized by alpha strategy and enhanced by regional expertise

- Diversification across a range of specialized strategies is essential in delivering consistently strong performance to clients
  - Broaden sources of added value and de-correlation
  - Ensure independent decision making, focused on skills and experience
  - Tailored and rigorous investment process by strategy



## Our emerging markets debt approach

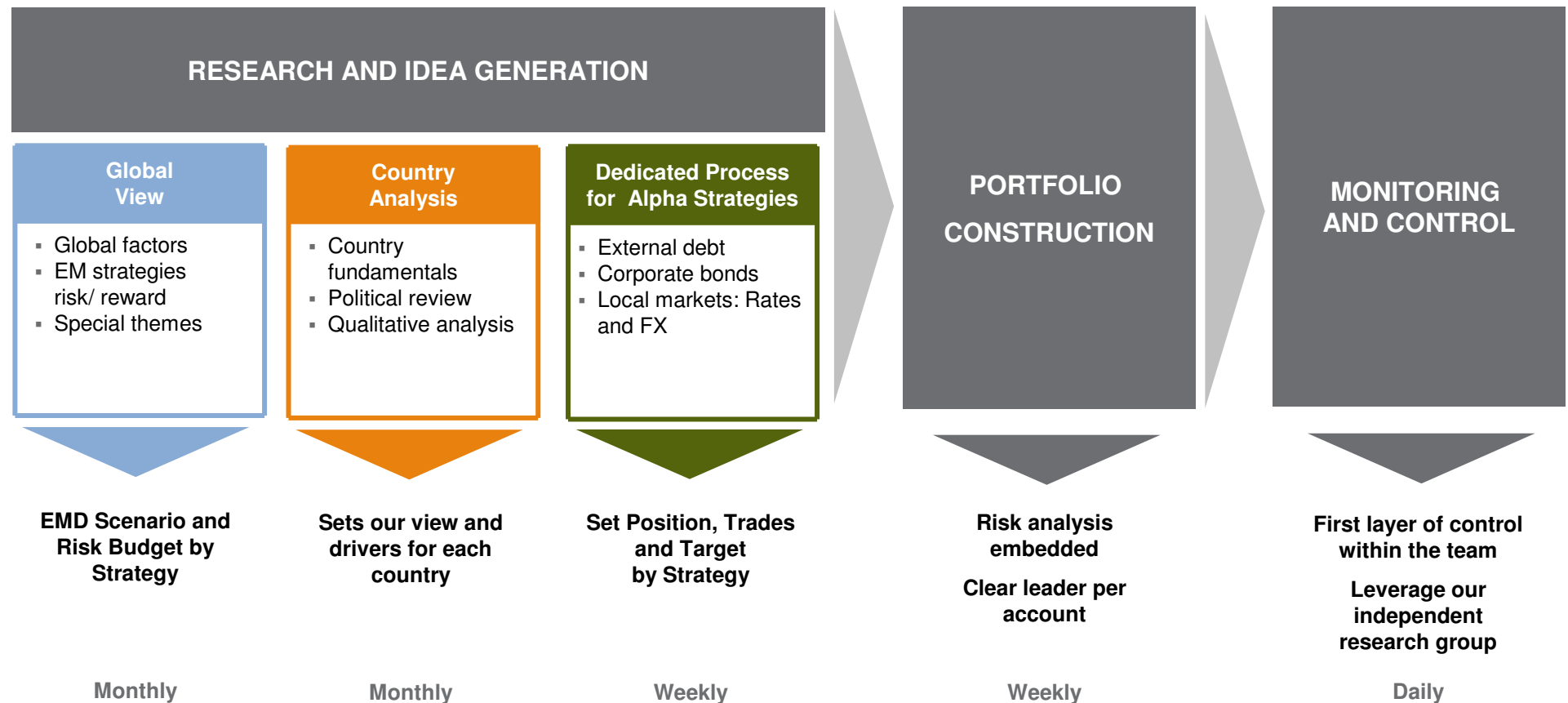
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- We believe a disciplined emerging market debt investment approach combining macro-economic research with bottom up fundamental country and credit analysis will produce superior risk adjusted returns
  
- We seek to:
  - **Actively rotate sub-strategies**
    - Emerging market corporate debt, sovereign debt and local debt
  - **Conduct fundamental research**
    - To uncover market inefficiencies and investment opportunities
  - **Utilize locally based portfolio managers and analysts**
    - Hong Kong, Mumbai, London, Sao Paulo and New York
  - **Ensure dedicated ownership**
    - Portfolio managers accountable for trades and portfolio positions
  - **Leverage JPMorgan's top-tier global resources**
    - Active discussions with Global EM equity, High Yield, Currency, Natural Resources and Fixed Income teams

The manager seeks to achieve the stated objectives. There can be no guarantee the objectives will be met.

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# Disciplined investment process



# Our Global Investment Strategy guides the allocation of risk budgets for emerging markets debt portfolios

- Strategy established monthly, but reviewed weekly
  - Team works in close collaboration with other J.P. Morgan investment groups: global fixed income, emerging markets equity, currencies and local offices
  
- Factors analysed
  - Key themes driving emerging markets, such as rebalancing, differentiation, commodities or China
  - Stage of the economic cycle: downturn or upturn
  - Investor risk appetite (proprietary model)
  - Technical factors, such as liquidity, volatility, correlation and momentum
  - Positioning: supply and demand
  
- Top-down and bottom-up risk assessment also undertaken
  - Emerging markets vs developed markets
  - Regions: Latin America vs Asia vs Central Europe, the Middle East and Africa
  - External debt vs local debt
  - Security preferences: government vs agency vs corporate

Source: J.P. Morgan Asset Management

The above information is shown for illustrative purposes only and should not be relied upon by you in evaluating the merits of investing in any securities or strategies mentioned herein.

For Professional Investors Only	
JPMAM Strategy	
Emerging Market Debt	
Q3 2010	last update : 23/06/10
<b>Summary</b>	We maintain a constructive view on EMD for the second part of the year, but see this quarter challenging growth momentum in EM and in the US on a fear of European spill over. On the positive, value has been created recently in both local and USD markets, but risks remain elevated. Tactically, the markets may rebound, but we want to see more clarity on key indicators (macro and technical) before increasing our risks significantly. We continue to think that we are in a mid-cycle slowdown, economic expansion is not over, and EM will continue to attract inflows.
<b>Key Themes</b>	<b>Sustainability of Recovery</b> -> Cyclical vs Structural trades - EM Corporate may benefit from structural capital inflows. Cyclical trades can be more global growth dependent. <b>Differentiation</b> -> Favor Winning countries - Strong balance sheet countries could continue to benefit - e.g. Mexico/Peru <b>Liquidity vs Solvency</b> -> Hedge trades - We will rotate our hedge out of liquidity troubled credits into solvency pressured ones <b>Positioning/Flows</b> -> Favor Liquid Instruments - Prefer liquid, as difficult to get a price for illiquidity in such market "Lower for Longer" -> Favor short end local - EM Rates remain 'safe haven' assets, and with real rates too high, the shorter end looks better at this stage
<b>Investment Conclusion</b>	Over next 3 months we hold a more cautious stance, although in the very near term we are happy to be long as we think investors have overreacted. Positioning looks much cleaner and valuation attractive, in local markets in particular. We will catch up the upside tactically, through liquid instruments and high conviction trades. We are monitoring capital flows, EM slowdown, US consumers and the European crisis to firm up our medium term scenario
<b>Risks</b>	<b>KEY INDICATORS TO WATCH</b> <b>European crisis:</b> Spain is the real pressure point, can the Banks make it (Funding/Capital/Regulation)? <b>Global growth:</b> China and the US consumer are key to EM growth sustainability <b>Outflows:</b> Investors are buying the rebalancing story but will they continue to shift capital into EM during this turbulent period? In: post decent growth ahead, but upside potential appears limited with China now getting more serious about rebalancing its economy via currency flexibility, and wage increases to favour consumption vs. exports. The property measures and controls on credit growth will also weigh on construction activities and resource demands. So far inflation seems well behaved and likely to see a short term peak soon after base effects kicks in. Modest measures to limit speculative flows will continue as Asian central banks struggle with currency intervention and the resulting domestic liquidity. Rate hikes will be limited given the global backdrop. <b>EMEA:</b> Valuation is cheapest in the EM space. Fundamentals are improving but at much slower pace than expected; they are and will be subject to the fiscal worries in Western Europe. Current a/c deficits are greatly reduced and government debt levels are low but fiscal policies in many countries need to be tightened. So far inflation worries have proved to be exaggerated. <b>LATAM:</b> Growth momentum likely peaked in Q2 and into Q3. However, growth rates remain healthy, sustainable and may surprise on the upside in US-linked economies such as Mexico. Similarly, inflation dynamics should be contained this quarter thanks to softer commodity prices. As a result, we expect a lower monetary policy rate environment for longer. However, political noise is likely to increase in Brazil and Venezuela. Overall, the region seems poised to continue outperforming despite less compelling valuations.
<b>Regional Outlook</b>	
<b>External Debt</b>	The fundamental backdrop for EM spreads tightening vs. DM remains intact. However higher uncertainty surrounding global prospects and weaker technicals makes an outright long bias less supportive. Concentrate on countries in both high yield and HG space with strong balance sheets, little rollover risk, domestic growth drivers, and liquidity. Still favor Caribbean over EMEA. Play the cyclical recovery through liquid instruments. Tactical trading is likely to dominate in Q3.
<b>Local Debt</b>	Yields in EM local debt look very attractive compared to developed markets, especially as inflation fears still remain subdued. Many EM countries are also in much better fiscal situation, with substantially lower public debt/GDP levels and lower budget deficits, meaning limited supply of bonds. Overall we prefer being positioned in the longer end of the curves in countries less influenced by changes in global risk appetite and those offering decent yield
<b>EM Currencies</b>	In the long term, much better growth prospects for EM provides a strong underpinning for EM FX appreciation. However, as EM currencies remain a fairly liquid instrument to play they are responsive to changes in global risk appetite and can move quickly and to a large extent. So we prefer being strategically long EM FX but use it as an instrument of choice to play tactical bets. There is a preference towards Asian currencies with a more domestic tilt. INR can benefit from high growth and RBI hikes. PHP fine on BoP and being lagged vs. CNY proxy currencies
<b>Credit</b>	EM corporate bonds in general continue to enjoy strong earnings and healthy balance sheets. 2010 expected default rates remain low. Inflows should be supportive of spreads, given the increasing interest in the asset class. Trading liquidity remains tight and generalized outflows in EM represent the main risk. EM HY valuations remain attractive on a standalone basis, and EM investment grade is attractive compared to developed IG.
<b>Duration/cash</b>	Overall Neutral. 2 - 5% cash

# Our macro view on individual countries is developed using quantitative and qualitative inputs

## MACROECONOMIC DATA

- IMF data
- Team forecasts

## COUNTRY FUNDAMENTALS

- Proprietary quantitative model: Country Fundamental Index
- Inputs: liquidity, solvency, structural and high frequency macroeconomic fundamental factors

## POLITICAL REVIEW

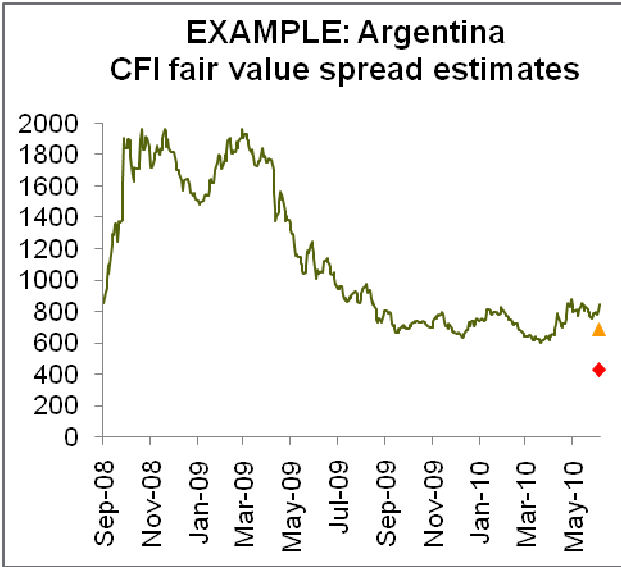
- Proprietary quantitative model: Political Index
- Inputs: political factors, business sentiment and institutional strength

## QUALITATIVE ANALYSIS

- Undertaken by team members
- Inputs: political situation, stage in business cycle, sustainability of macroeconomic policy and monetary policy

## COUNTRY VIEW

**EACH INPUT HELPS US ESTABLISH A COUNTRY VIEW  
THIS VIEW GUIDES OUR EXTERNAL, LOCAL AND CORPORATE DEBT STRATEGIES**



Source: J.P. Morgan Asset Management  
The above information is shown for illustrative purposes only and should not be relied upon by you in evaluating the merits of investing in any securities or strategies mentioned herein.

# The investment universe is filtered to focus our search

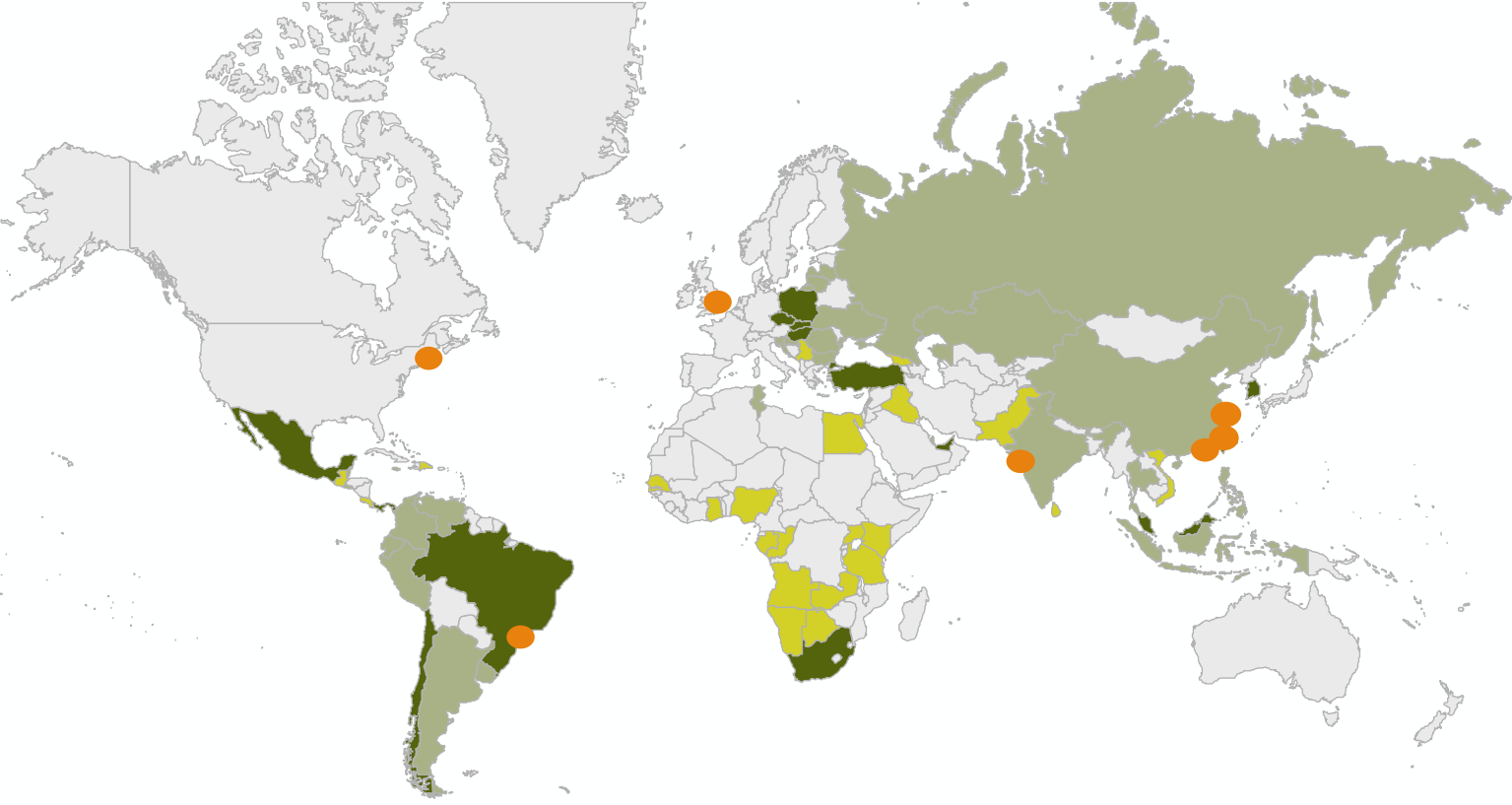
**60+ countries**

**Filtered:**

- Country development
- Liquidity and depth of market
- Access or restrictions

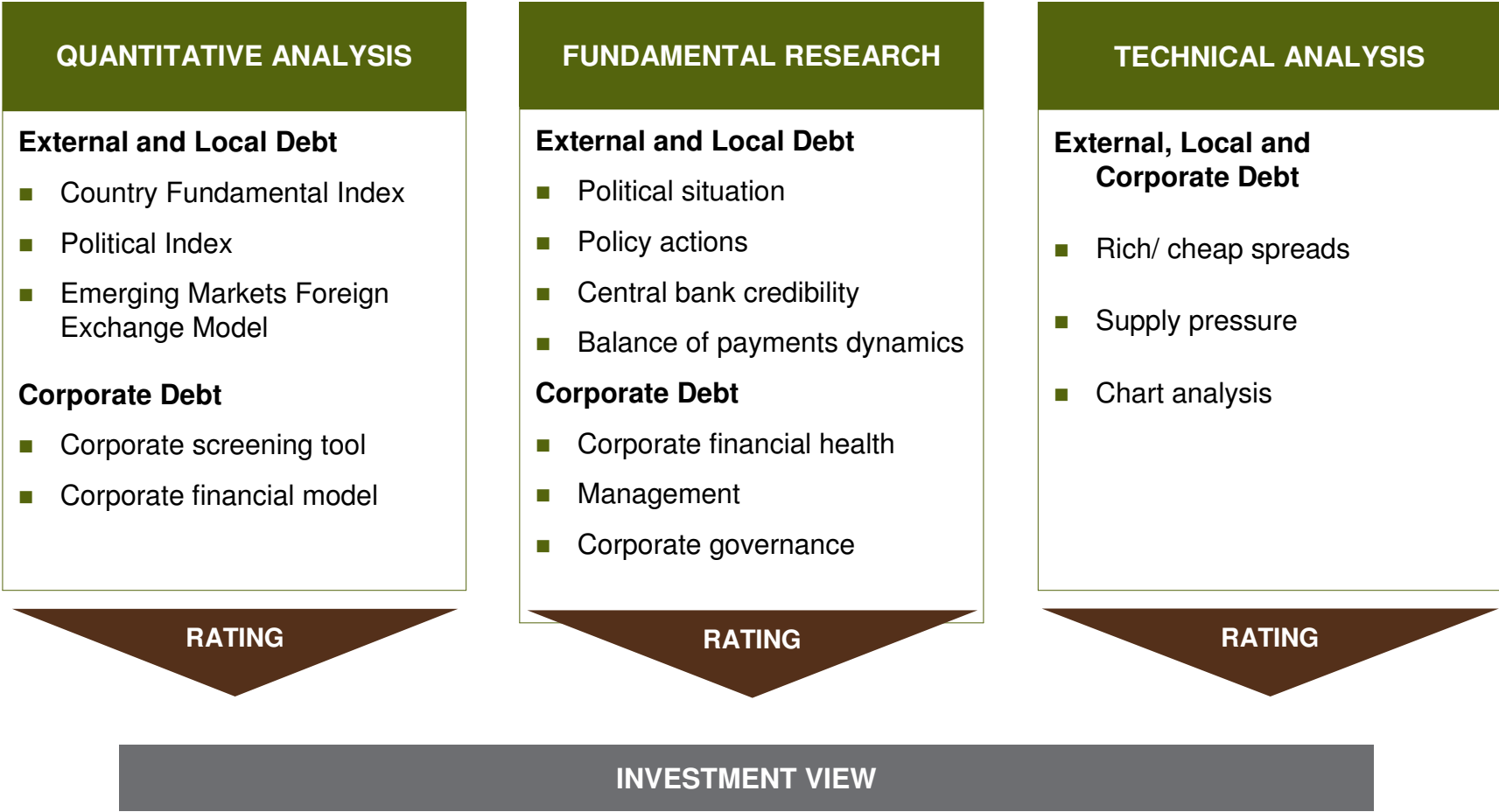
**Tiers:**

1. Developed
2. Core
3. Frontier



- Tier 1
- Tier 2
- Tier 3
- Members of the Emerging Markets Debt team located in these offices

# A dedicated process has been developed to identify investment opportunities across each alpha strategy





## Portfolios are constructed in line with client guidelines

- Qualitative factors
  - Index limits
  - Out-of-index positioning limits
  - Market access
  - Credit constraints
  - Other factors
- Pay-out and Confidence
  - Target return on investment
  - Potential loss
  - Level of confidence: likelihood of risk scenario materialising
- Risks
  - Liquidity of security and impact on overall portfolio
  - Volatility, both historical and prospective
  - Correlation with current investments
  - Beta
  - Profit/ loss analysis

### Portfolio construction “traffic light” guides decision making

Buy INR vs USD

Checklist - Qualitative	
Current Level	<b>46.5</b>
Target	<b>43.5</b>
Review	<b>47.5</b>

Checklist – Returns and Risks	
Pay-out	<b>3</b>
Confidence	<b>2</b>
Liquidity	<b>2</b>
Diversification to portfolio	<b>2</b>
Independence from Beta	<b>1</b>
Position size indicator	<b>0.66</b>

Source: J.P. Morgan Asset Management

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## Once constructed, portfolios are closely monitored and controlled

- Risk reports are run weekly by our independent risk group and reviewed by the portfolio management team
  - Reports focus on:
    - Local currency risk
    - Tracking error
    - Portfolio risk exposure
    - Value at risk
    - Total return beta
    - Scenario analysis and stress testing

### Sample risk report

Emerging Markets Accounts Risk Report as of 2009-12-31																	
Account Name	Benchmark	MV (\$mm)	Client Expectation on Alpha (bp)	Risk Limit		Net Local Currency	Wtd Sprd Dur (net of benchmark)			Beta Adjusted Spread Duration (net)			Total Return Beta	Portfolio Risk (bp)			
				TE	Dur (vs.BM)		USD	Local Currency	Total	USD	Local	Total		Projected TE	-1W	(Tot Rtn) 1Q 95% VaR	-1W
	EMBI	118	50-100	100	+/-2	0%	0.13	0.00	0.13	0.16	0.00	0.16	1.04	70	-1	1221	+2
	EMBI	170	200-300	400-600	+/-1	9%	-0.63	0.30	-0.34	0.22	0.11	0.34	1.09	152	-3	1205	-7
	EMBI	128	200-300	400-600		9%	-0.64	0.38	-0.26	0.05	0.14	0.19	1.07	187	+8	1250	+15
	EMBI	152	200-300	400-600	+/-1	9%	-0.58	0.33	-0.25	0.21	0.14	0.34	1.09	177	-5	1235	-7
	EMBI	159	200-300	200-300	+/-2	6%	-0.58	0.34	-0.24	0.11	0.15	0.26	1.11	226	-3	1309	-3

Source: JPMorgan Asset Management. The above information is shown for illustrative purposes only and should not be relied upon by you in evaluating the merits of investing in any securities or strategies mentioned herein.

## Investment Process summary

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- Single investment process applied globally
  - Global Investment Strategy
    - Determines global investment themes and decides risk budgets
  - Macro analysis
    - Country level fundamental quantitative and qualitative analysis
  - Dedicated alpha strategies
    - Bottom up fundamental and technical analysis:
      - External
      - Local Currency
      - Corporate
- Dedicated trade and portfolio ownership
- Comprehensive risk management framework

## Appendix 2: Quick introduction to QIS 5 (market risk)

# From Solvency I to Solvency II

## Solvency I

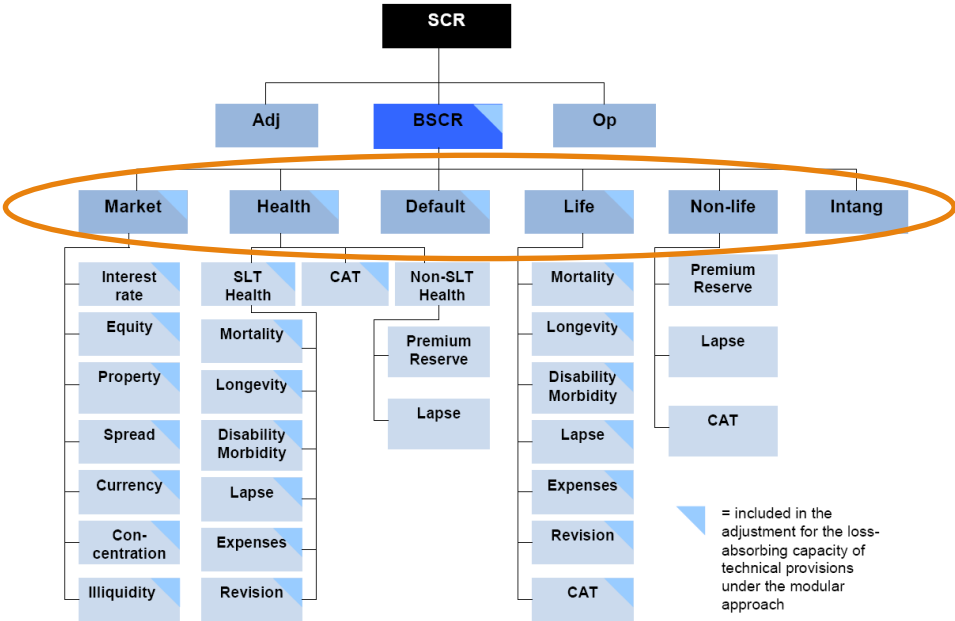
- **Solvency margin requirements have been in place since the 1970s** and it was acknowledged in the third generation Insurance Directives adopted in the 1990's that the EU solvency rules should be reviewed
- **Solvency I requires insurers to hold capital funds** equal to required solvency margin or the minimum guaranteed fund, whichever is higher
- **The required solvency margin is calculated as follows**
  - Sum of 4% of mathematical reserves (1% if unit-linked business) plus 0.3% of the capital at risk (insured sum minus math. reserves) for life<sup>1</sup>
  - Maximum of 18/16% of premiums earned and 26/23% of incurred losses for non-life<sup>1</sup>
- **Approach is simple**, has low compliance costs, the results are easy to understand and avoids subjectivity...
- **...but proxies consider only certain types of risks**, are arbitrary capital requirements, approach does not differentiate between “good and bad” companies and there is no strong incentive for risk management provided

## Solvency II

- **EU decided to harmonize solvency rules** for all insurance companies to ensure the financial soundness of insurance undertakings
- **Solvency II guidelines stipulate minimum amounts of financial capital** that insurance companies must have in order to cover the different risks they are exposed to
- **Therefore, Solvency II will introduce more risk-sensitive**, more sophisticated and more risk-based requirements than in the past
- **Solvency II will be a total balance sheet approach** taking into account a comprehensive set of risks faced by an insurance company, i.e. all asset-side and liability-side risks
- **The framework consists of a three pillar approach** similar to Basel II. Pillar 1 consists of quantitative requirements. Pillar 2 sets out requirements for corporate governance and risk management of insurers. Pillar 3 is focusing on the supervisory reporting and transparency requirements

# Solvency Capital Requirement

## Risk's basic sources



**Main sources of risk**

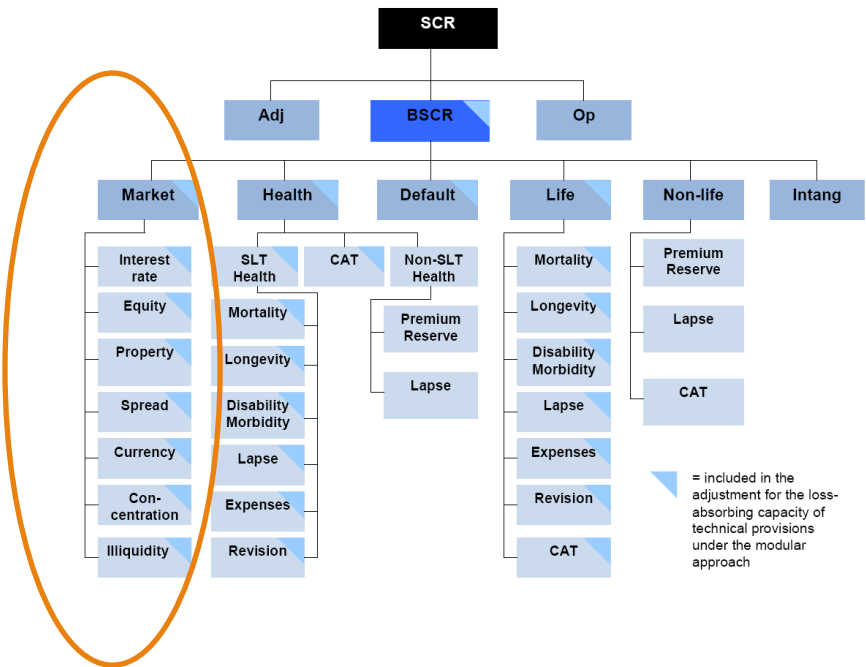
- According to CEIOPS, the main sources of risk – as indicated in the graph to the right – an insurer is confronted with, can be structured as follows
  - Market
  - Default
  - Life
  - Health
  - Non-life
  - Intangible
- In this presentation, the focus is put on the market risk, especially the risk affecting the asset side of an insurer

Source: European Commission - QIS5 Technical Specifications, July 2010

# The market risk module

## Composition of the market risk modules

### SCR risk modules



**Description**

- The capital charge for the market risk module is calculated via several sub modules, which identify
  - Interest rate risk
  - Equity risk
  - Property risk
  - Spread risk
  - Currency risk
  - Risk concentrations
  - Illiquidity premium risk

Source: European Commission - QIS5 Technical Specifications, July 2010

## Overview of Solvency II market risk SCR

Treatment of sample asset classes – please consider SCR is calculated via  $\Delta$ NAV approach

Asset Class	Solvency SCR Categories		
	Interest rate risk	Non interest rate risk	SCR module
Sovereigns EEA / OECD	Duration mismatch * 1%	-	-
Non-sovereign / non-structured bonds, incl. covered bonds, loans	Duration mismatch * 1%	Rating factor * Duration	Spread
ABS	Duration mismatch * 1%	max(Rating factor of underlying * Duration, Rating factor of product * Duration)	Spread
Developed Equity	-	39% base (30% current)	Equity
Emerging market equity	-	49% base (40% current)	Equity
Alternatives: Hedge, Private Equity, Commodities	-	49% base (40% current)	Equity
Real Estate	-	25% on unlevered	Property

### General remarks

- FX risk attracts a capital charge of 25% FX\_mismatch (Except EUR\_pegged)
- Look-through to be applied whenever possible, so that financial instruments are ideally decomposed into the above SCR categories; e.g. Convertibles are corporate bonds plus equity derivatives
- Derivatives are charged based on the mark-to-market changes implied by relevant stress levels / SCR charges of the underlyings on a one-year horizon, i.e. Value of derivative at stressed level and with one year less maturity
- Separate stress for credit derivatives
- Aggregation of individual SCRs via correlation matrices

Source: European Commission - QIS5 Technical Specifications, July 2010



# J.P. Morgan Asset Management

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This document is intended solely to report on various investment views held by J.P. Morgan Asset Management. Opinions, estimates, forecasts, and statements of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. We believe the information provided here is reliable but should not be assumed to be accurate or complete. The views and strategies described may not be suitable for all investors. References to specific securities, asset classes and financial markets are for illustrative purposes only and are not intended to be, and should not be interpreted as, recommendations. Indices do not include fees or operating expenses and are not available for actual investment. The information contained herein employs proprietary projections of expected returns as well as estimates of their future volatility. The relative relationships and forecasts contained herein are based upon proprietary research and are developed through analysis of historical data and capital markets theory. These estimates have certain inherent limitations, and unlike an actual performance record, they do not reflect actual trading, liquidity constraints, fees or other costs. References to future net returns are not promises or even estimates of actual returns a client portfolio may achieve. The forecasts contained herein are for illustrative purposes only and are not to be relied upon as advice or interpreted as a recommendation.

The value of investments and the income from them may fluctuate and your investment is not guaranteed. Past performance is no guarantee of future results. Please note current performance may be higher or lower than the performance data shown. Please note that investments in foreign markets are subject to special currency, political, and economic risks. Exchange rates may cause the value of underlying overseas investments to go down or up. Investments in emerging markets may be more volatile than other markets and the risk to your capital is therefore greater. Also, the economic and political situations may be more volatile than in established economies and these may adversely influence the value of investments made.

The deduction of an advisory fee reduces an investor's return. Actual account performance will vary depending on individual portfolio security selection and the applicable fee schedule. Fees are available upon request.

Illustration showing impact of investment management fees: An investment of USD \$1,000,000 under the management of JPMAM achieves a 10% compounded gross annual return for 10 years. If a management fee of 0.75% of average assets under management were charged per year for the 10-year period, the annual return would be 9.25% and the value of assets would be USD \$2,422,225 net of fees, compared with USD \$2,593,742 gross of fees. Therefore, the investment management fee, and any other expenses incurred in the management of the portfolio, will reduce the client's return.

All case studies are shown for illustrative purposes only and should not be relied upon as advice or interpreted as a recommendation. They are based on current market conditions that constitute our judgment and are subject to change. Results shown are not meant to be representative of actual investment results. Past performance is not necessarily indicative of the likely future performance of an investment.

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