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**Bond Market Forum**

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# Emerging Markets Funding Outlook & Investor Concerns

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- Uncertain future for funding costs
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  - Internal threats: Asset class relative value and drag effects
  - External threats: Market risks – volatility, supply/demand

## 4. Conclusion

# Overview

- Fortunately, EM sovereigns and many corporates have used the past 5 years of favourable market and external conditions to improve their capacity to weather a drought of external capital. CB reserves have grown and corporate cash levels remain high.
- The main question for investors continues to be how deep the credit market contraction will be and how long the reduced access to funds will last.
- Due to the composition of the loan and bond markets and their amortisation schedules, EM corporates are more at risk than sovereigns.
- If US/EU bank lending to HY EM corporates closes down due to balance sheet pressures, the US\$145bn of remaining 2008 EM syndicated loan amortisations and US\$140bn in 2009 may pose rollover risk.
- External bond rollovers seem more manageable thanks to stable investor flows and high interest income.
- Global default risks pose the greatest threat for EM premia and affordable borrowing.

# Structure

## II. Funding Structure

# Structure

Main pillars of funding support for EM borrowers

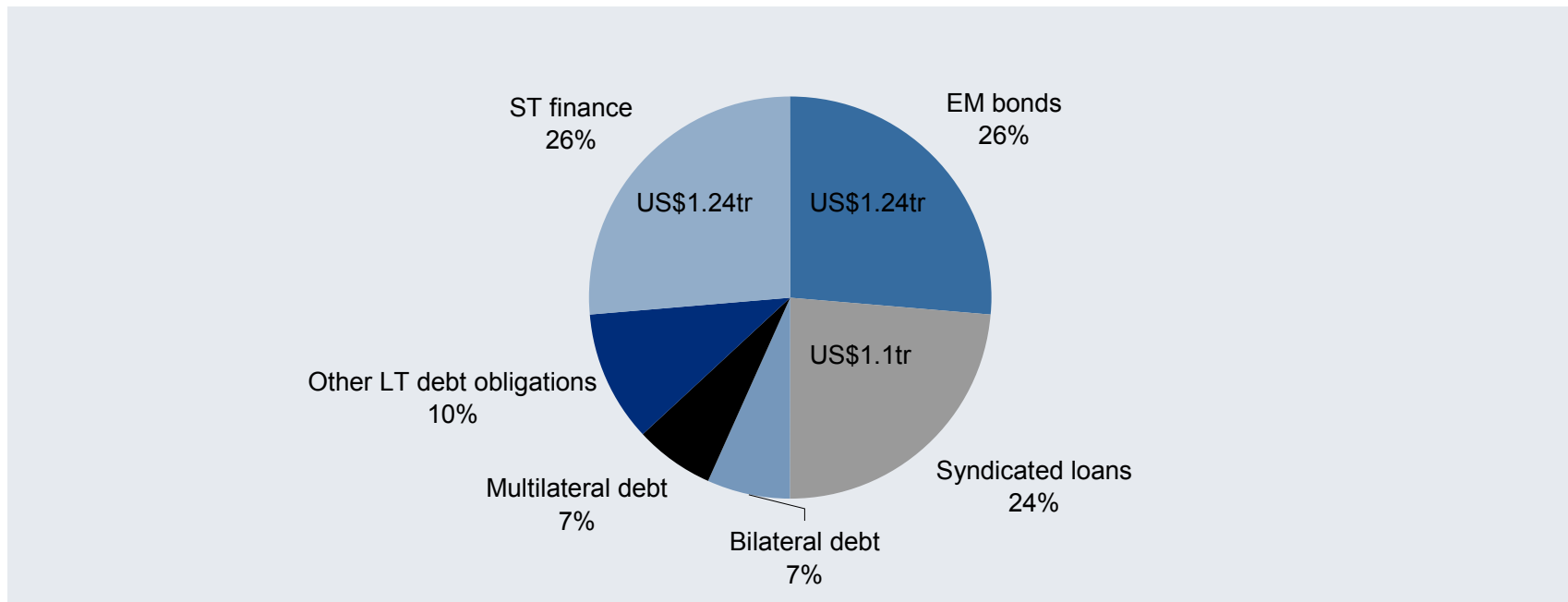
- **Equity investor funding**
- **External DCM and institutional and retail investors**
- **Syndicated/bilateral bank loan markets**
- **Domestic investors**
- **Multi/bilateral**
- **Other sources (project finance, etc)**

# Structure

The external sources of debt funding are diverse

- EM external debt is comprised of a diverse set of obligations
- There are risks that are particular to some and not to others

The global EM external debt profile



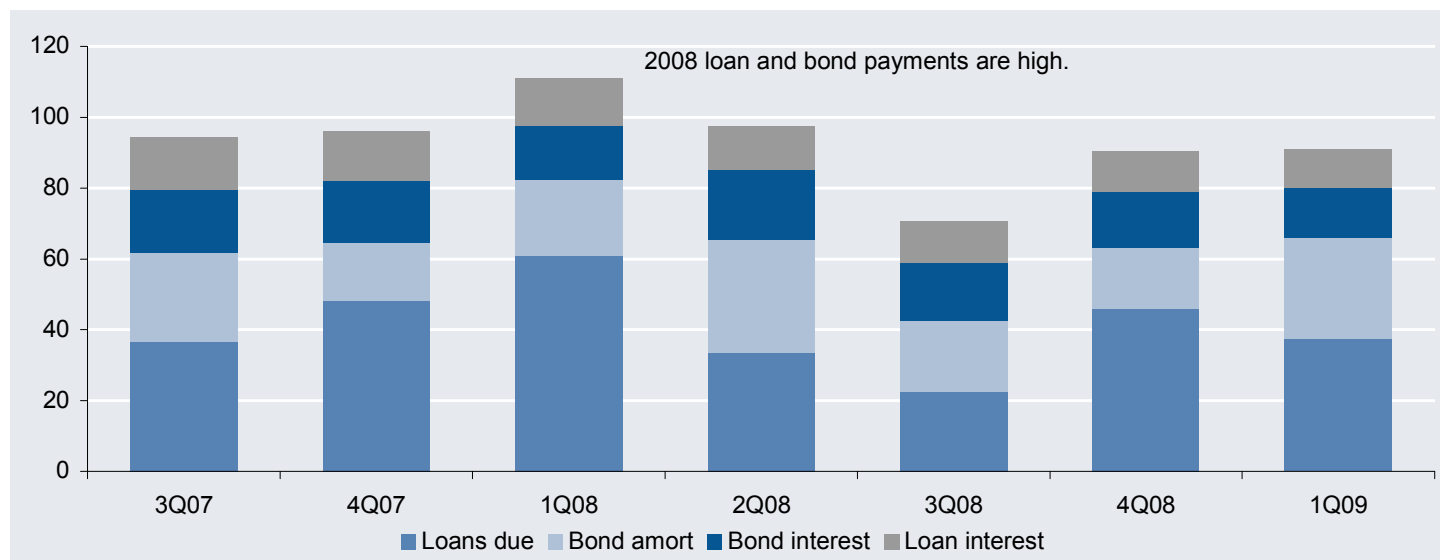
Data as of September 2007

Source: ING

# Structure

The forward repayment calendar is heavy for bonds and loans

## Loan and bond repayment needs are high



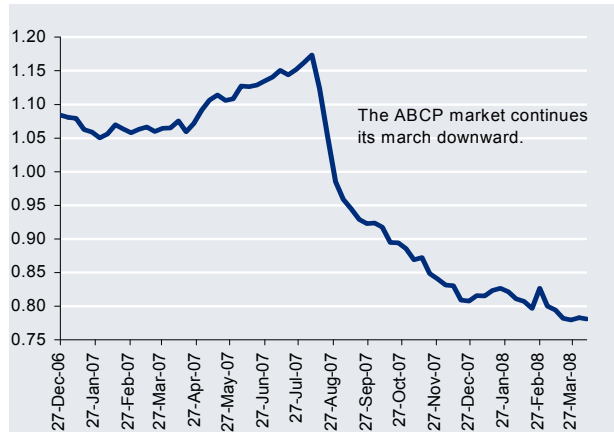
Source: DealLogic, Bloomberg and ING



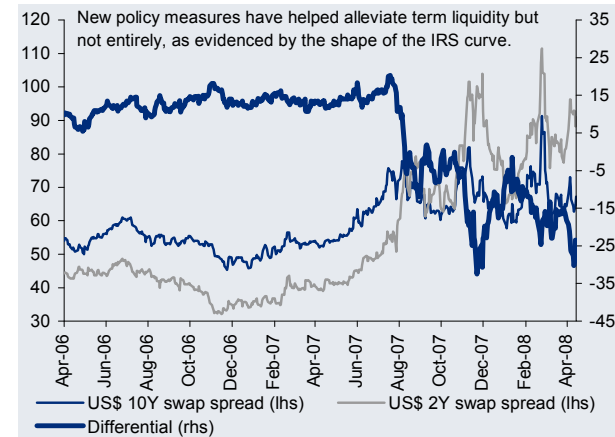
# Structure

Bank problems may crimp ability of EM borrowers to access funds

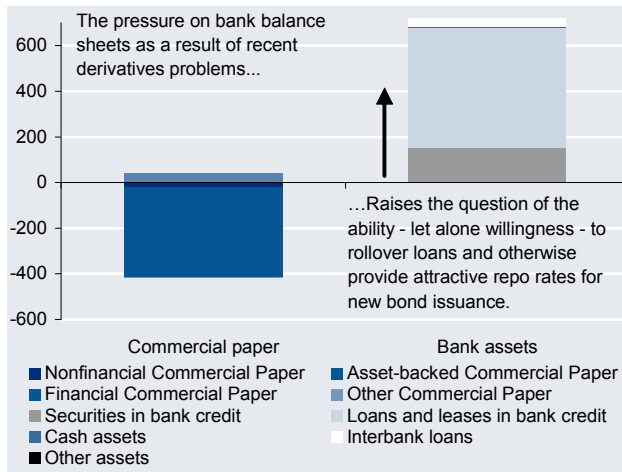
### ABCP outstanding (US\$tr)



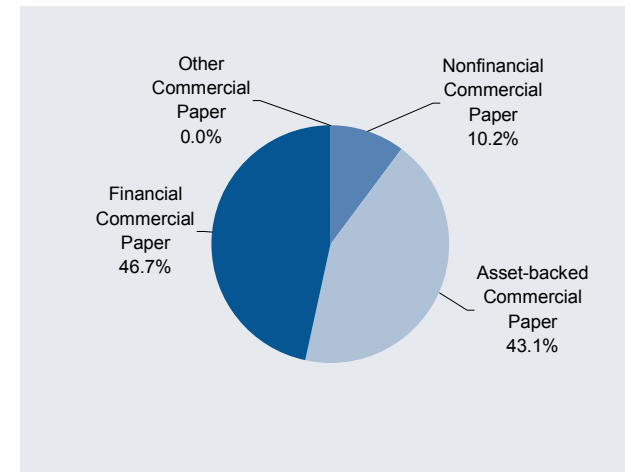
### US Libor rate differentials



### Change since end-July (US\$bn)



### Recent composition of US CP market



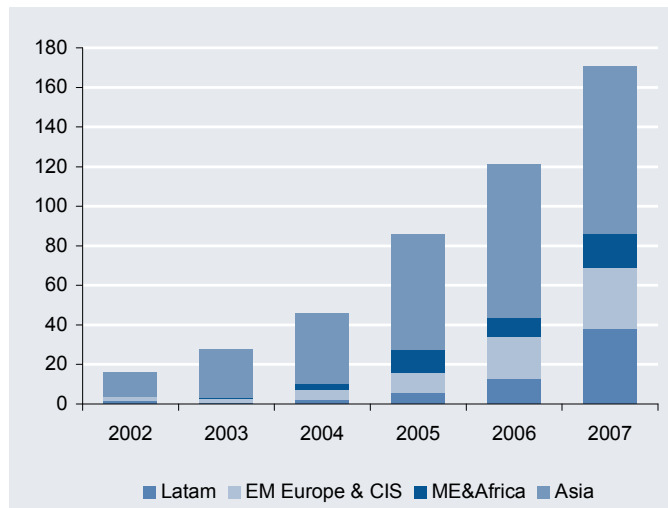
Source: Federal Reserve, Bloomberg and Reuters

# Structure

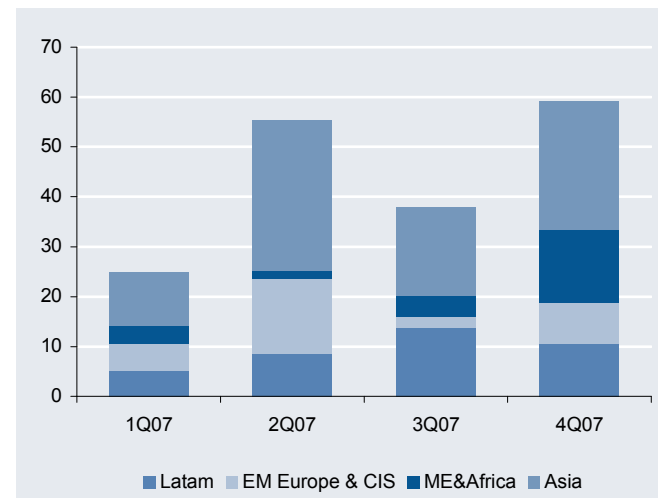
## EM equity IPOs remain strong

- Equity funding has remained robust
- This may reflect a shift from debt to equity funding as external DCM markets are partially closed
- Multilateral funds available, but not for corporates

EM equity IPOs (US\$bn)



EM equity IPOs (US\$bn)



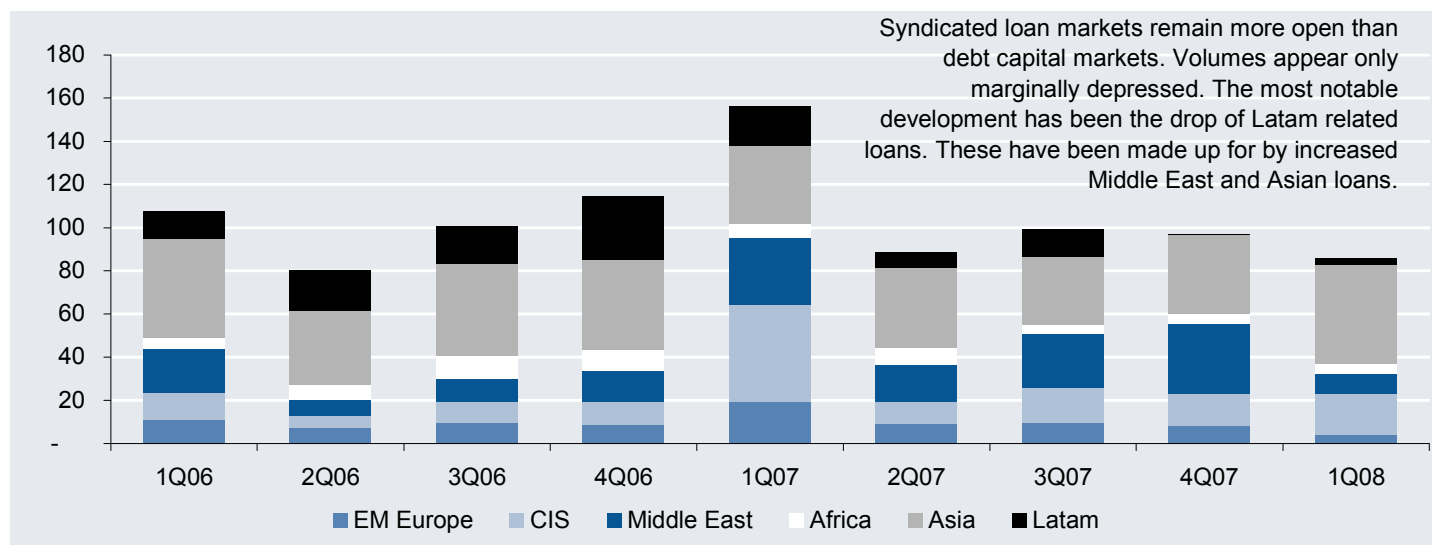
# Funding outlook

## III. Funding Outlook

# Funding outlook: bank loans

With no need to mark-to-market, EM syndicated loan issuance has remained healthy

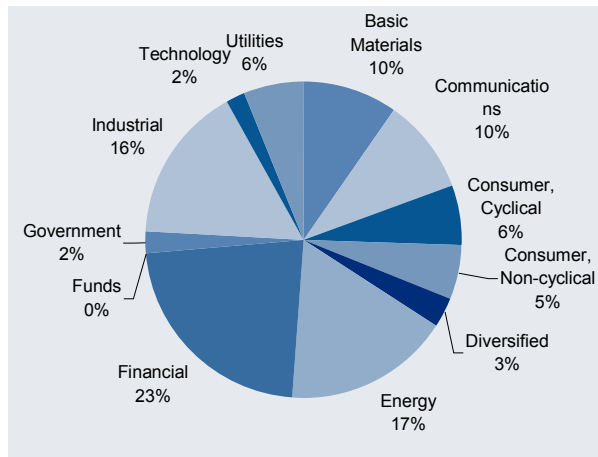
EM syndicated loan issuance (US\$bn)



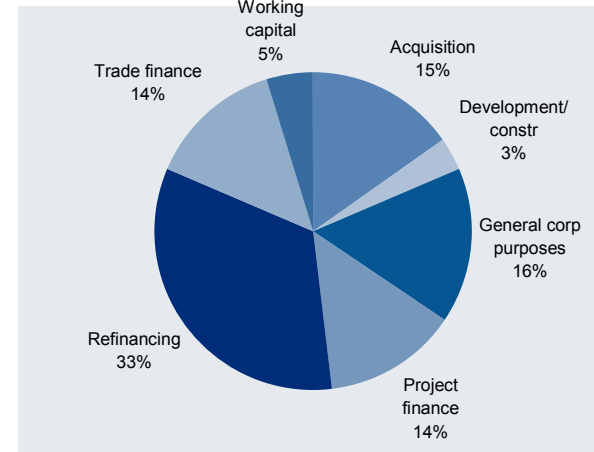
# Funding outlook: bank loans

Loans are mostly to corporates where EM banks represent a large proportion

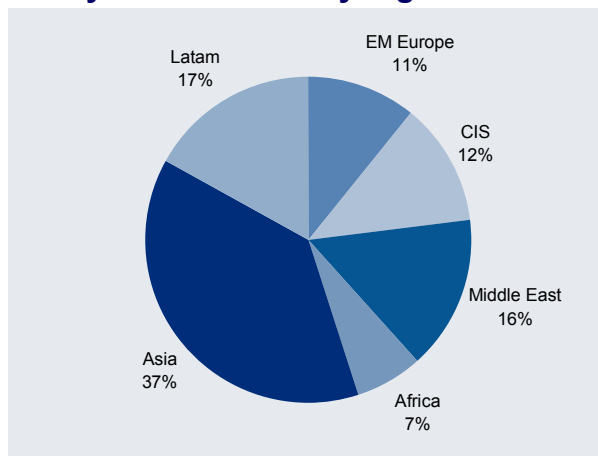
EM syndicated loan by industry



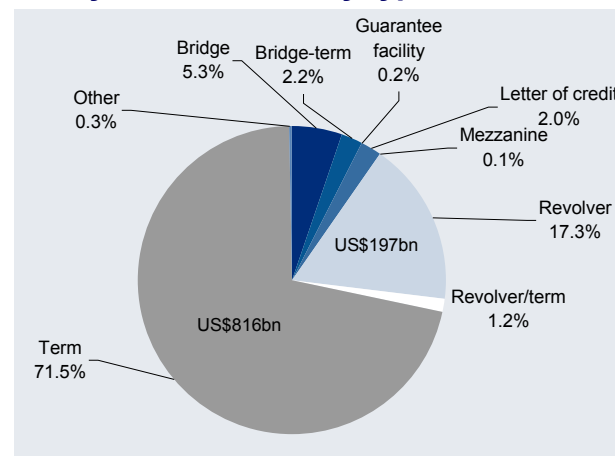
EM syndicated loan by purpose



EM syndicated loan by region



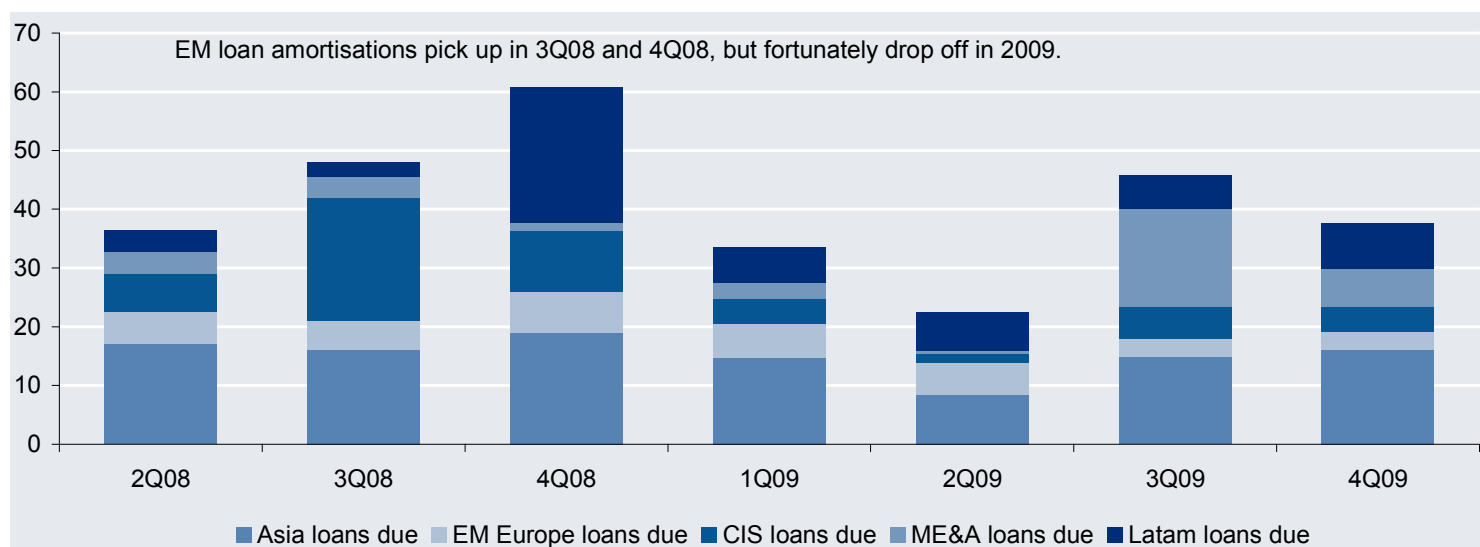
EM syndicated loan by type



# Funding outlook: bank loans

Remaining 2008 amortisations are high

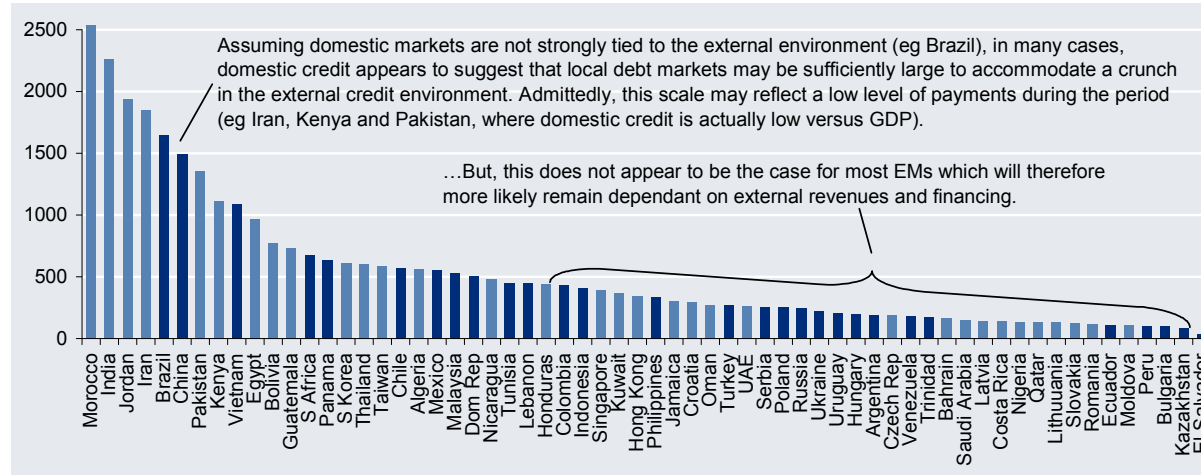
## EM syndicated loan amortisations (US\$bn)



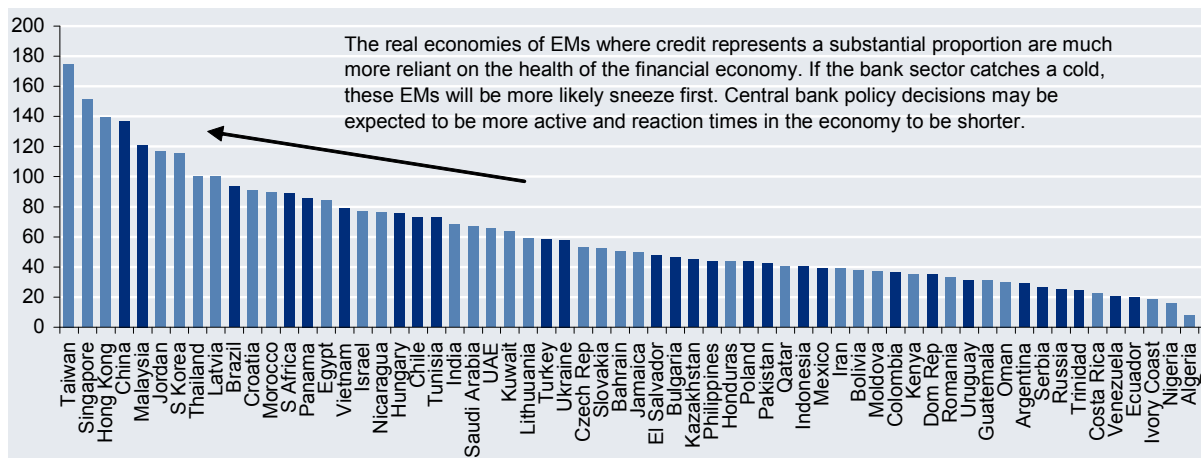
# Funding outlook: domestic sources

Local banks are an important source of potential funding

## Domestic bank credit over external debt payments to Jun-09



## Bank assets to GDP

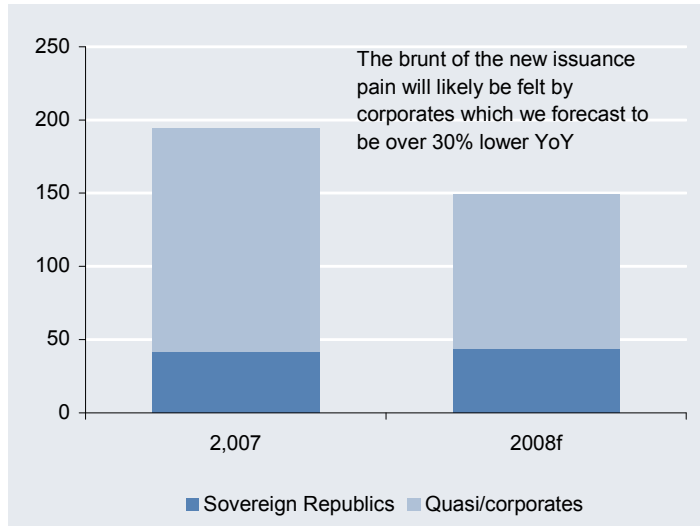


Source: IMF and Bloomberg

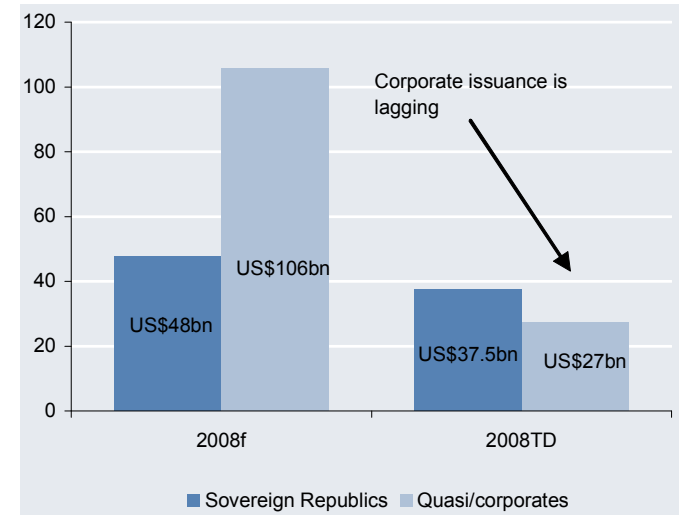
# Funding outlook: external bonds

## Expected issuance

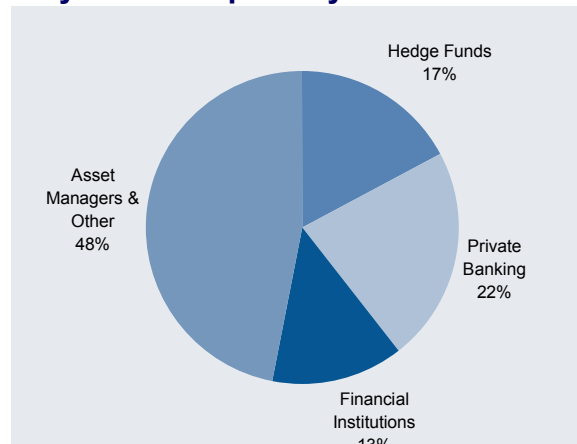
Budgeted sovereign & expected corporate issuance



Actual issuance (US\$bn)



Buyers in the primary market



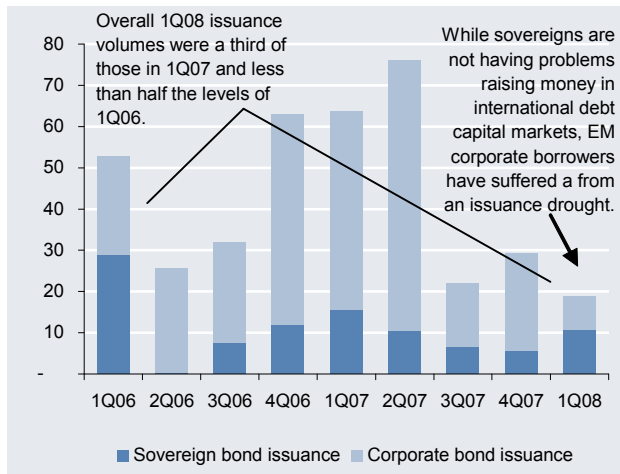
Source: Bloomberg, EMTA and ING



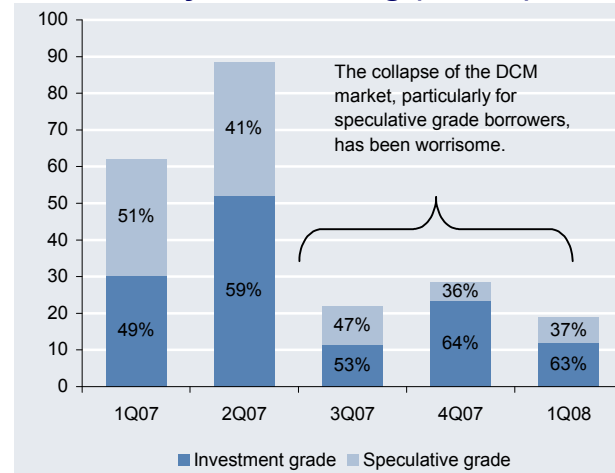
# Funding outlook: external bonds

EM corporate issuance levels have been depressed

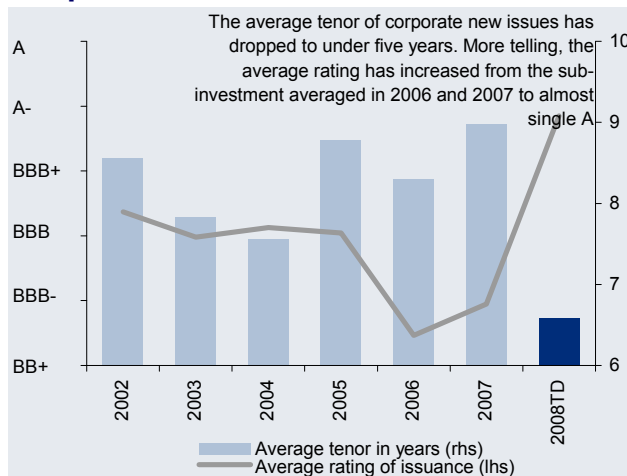
Annual gross issuance by type (US\$bn)



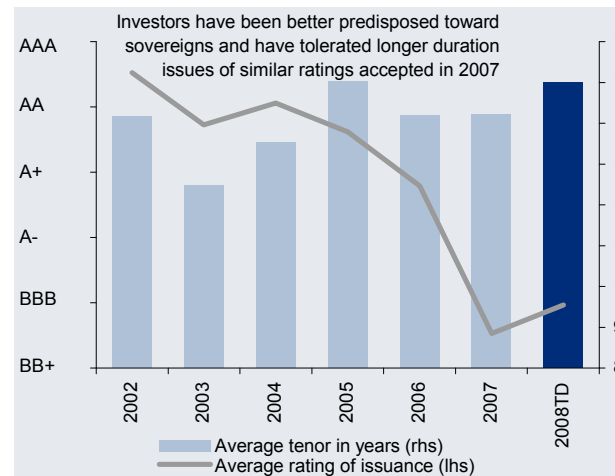
Issuance by issuer rating (US\$bn)



Corporate issuance trends



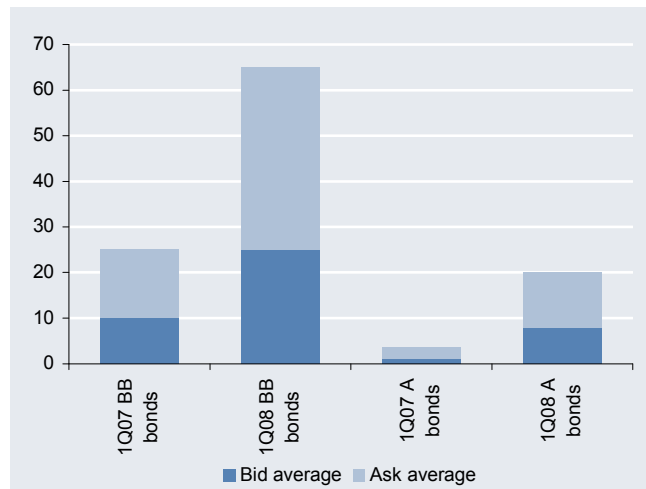
Sovereign issuance trends



# Funding outlook: external bonds

Tight repo market conditions are part of the reason

Dealer margins by rating class (%)

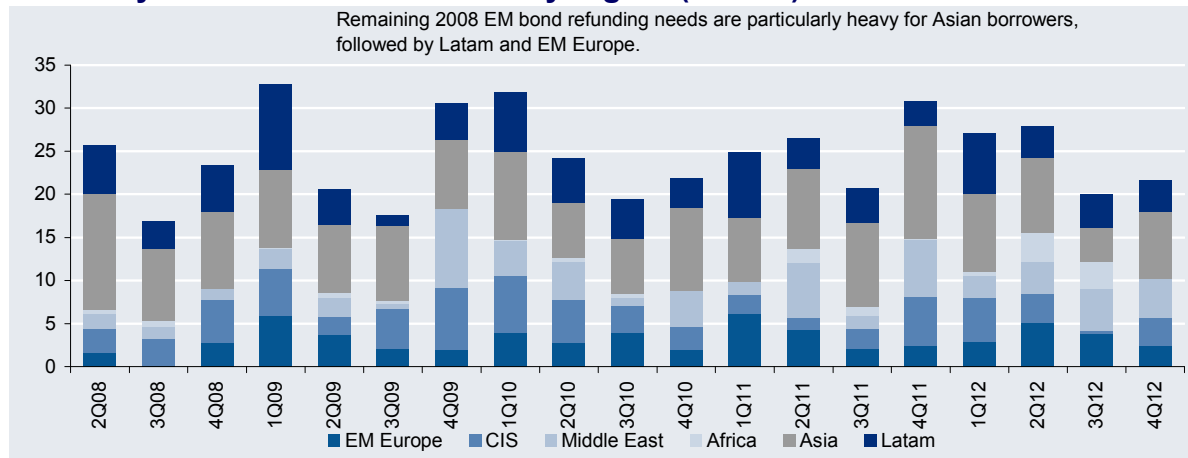


- Haircuts have been increasing in line with higher volatility and reduced bank risk appetite.
- This is more notable for HY-related lending as tighter conditions in the repo market are curtailing the ability of highly levered investors – particularly hedge funds – to participate in the primary market for HY bonds.

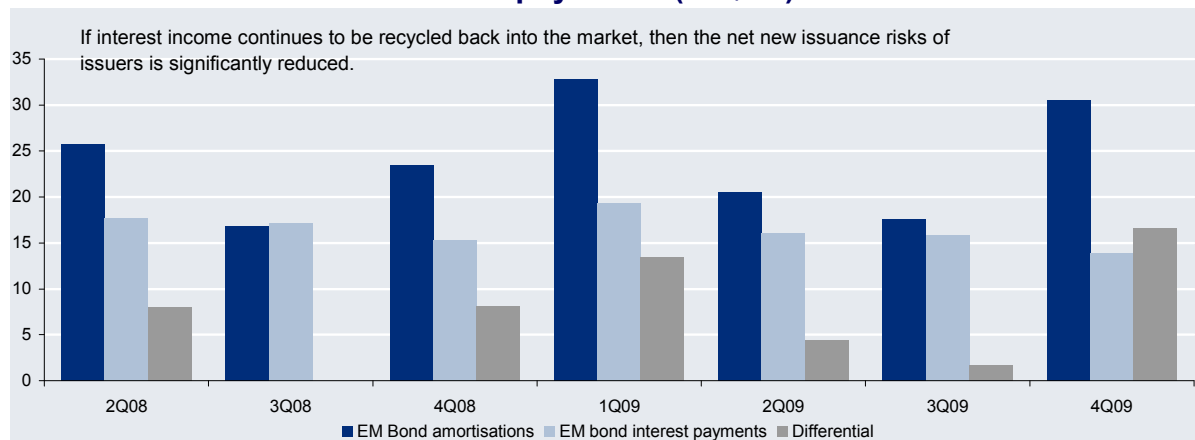
# Funding outlook: external bonds

Interest income alone nearly offsets the pending amortisation load

## Quarterly EM bond amortisations by region (US\$bn)



## Bond amortisations and interest payments (US\$bn)



Source: ING

# Funding outlook: external bonds

Fortunately, there is plenty of interest income from bonds

## EM interest and amortisation payments in US\$bn

	Sovereign payments		Corporate payments		Total
	Amortisation	Interest	Amortisation	Interest	
1Q08	12,041	11,851	13,981	9,195	47,068
2Q08	10,482	6,957	14,597	10,855	42,891
3Q08	2,909	8,486	13,644	8,747	33,786
4Q08	5,445	5,057	15,956	10,251	36,709
<b>3Q7-4Q08 total</b>	<b>30,877</b>	<b>32,351</b>	<b>58,177</b>	<b>39,048</b>	<b>160,454</b>
1Q09	13,084	11,049	18,662	8,448	51,244
2Q09	8,788	6,281	11,260	9,891	36,220
3Q09	3,628	8,075	13,568	7,864	33,135
4Q09	4,522	4,512	23,996	9,413	42,442
<b>2009 total</b>	<b>30,021</b>	<b>29,917</b>	<b>67,487</b>	<b>35,616</b>	<b>163,041</b>

Based on US\$1,153bn of performing EM tradable debt

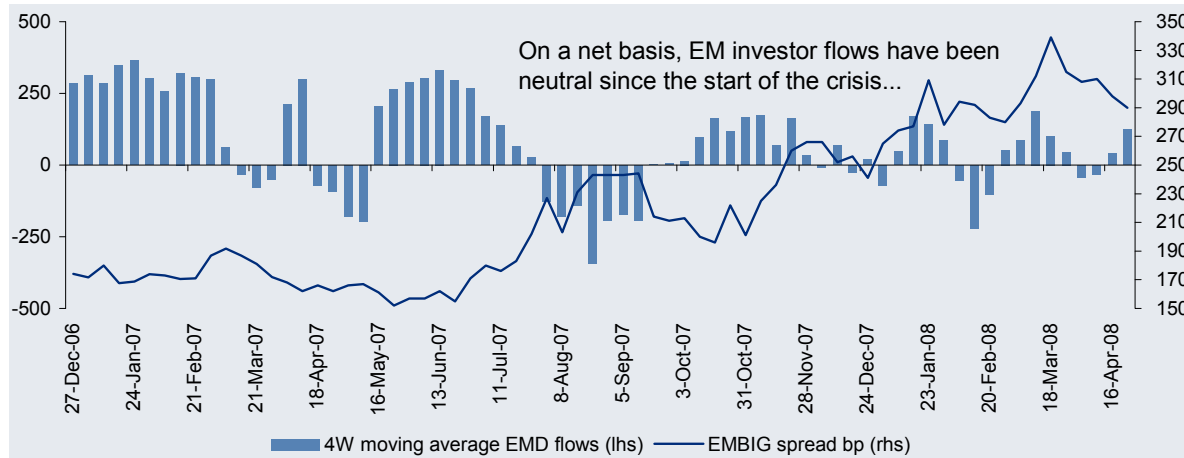
Supranationals (CAF, ADB, CAB CDB) excluded. Cyprus and Malta excluded

Source: ING

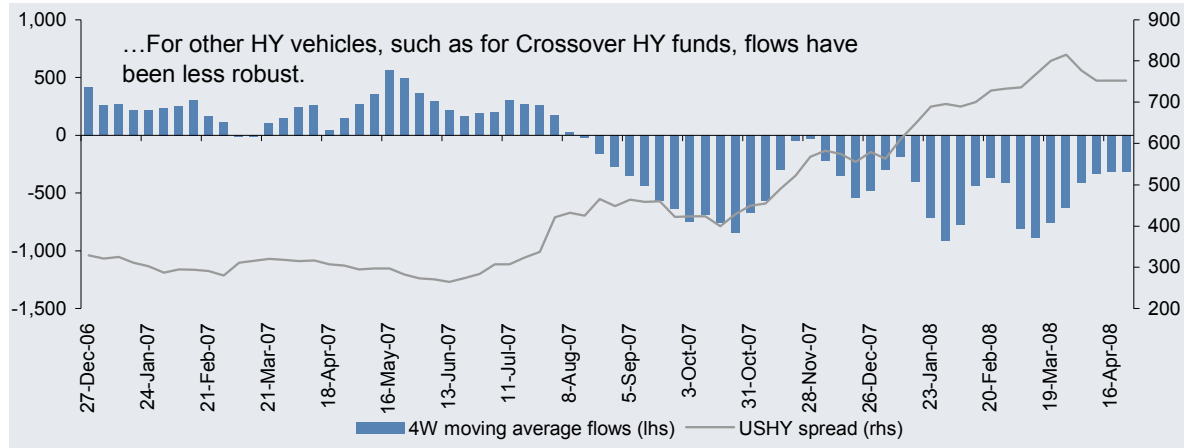
# Funding outlook: external bonds

Investor flows have held up well

## Dedicated EM mutual fund investor flows (US\$m)



## Crossover HY mutual fund investor flows (US\$m)

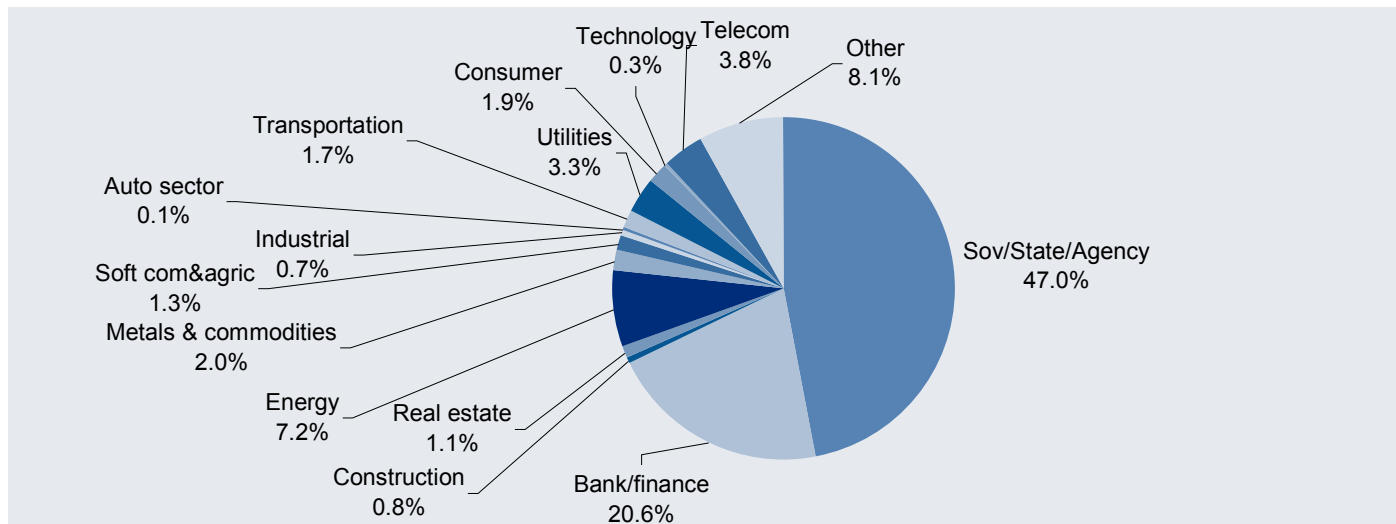


Source: EMPortfolio

# Funding outlook: Investor concerns

The EM debt market is dominated by corporates now

Corporates represent a sizable portion of EM debt (data for end-August 2007)

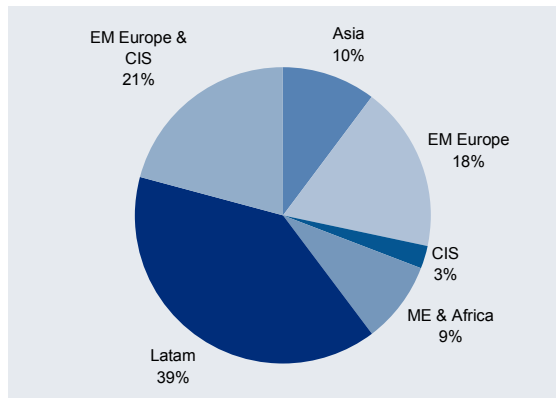


Source: ING

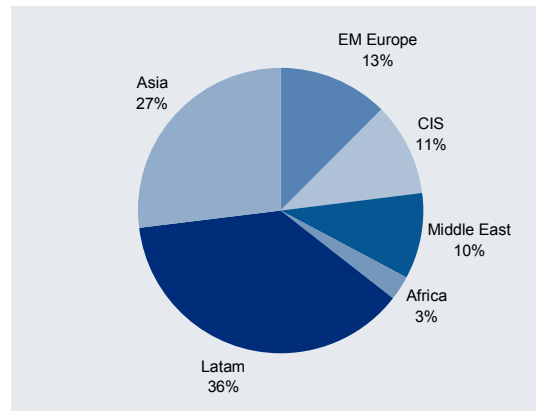
# Funding outlook: Investor concerns

...And the corporate market is unlike that of sovereigns

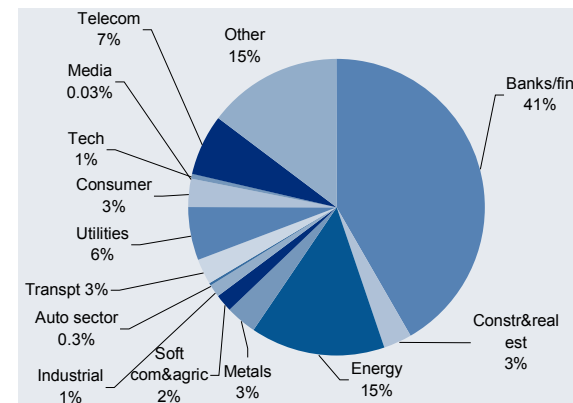
### Sovereigns outstanding



### Corporates outstanding



### Corporates by industry



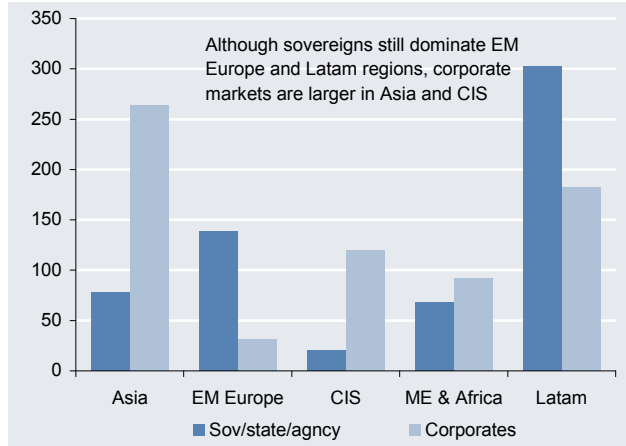
Excludes quasi-sovereign issues

- The regional breakdown of the corporate market is very different from that of sovereigns.
- Investors may hold heavier exposure in regions they are less familiar with.

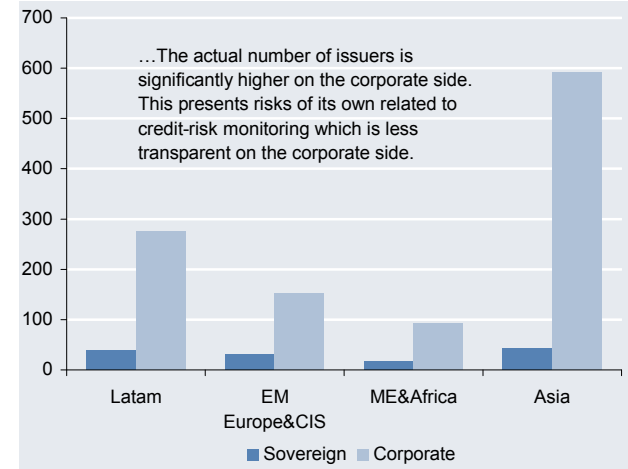
# Funding outlook: Investor concerns

Underlying issuer information – or lack of – poses a major risk when credit is tight

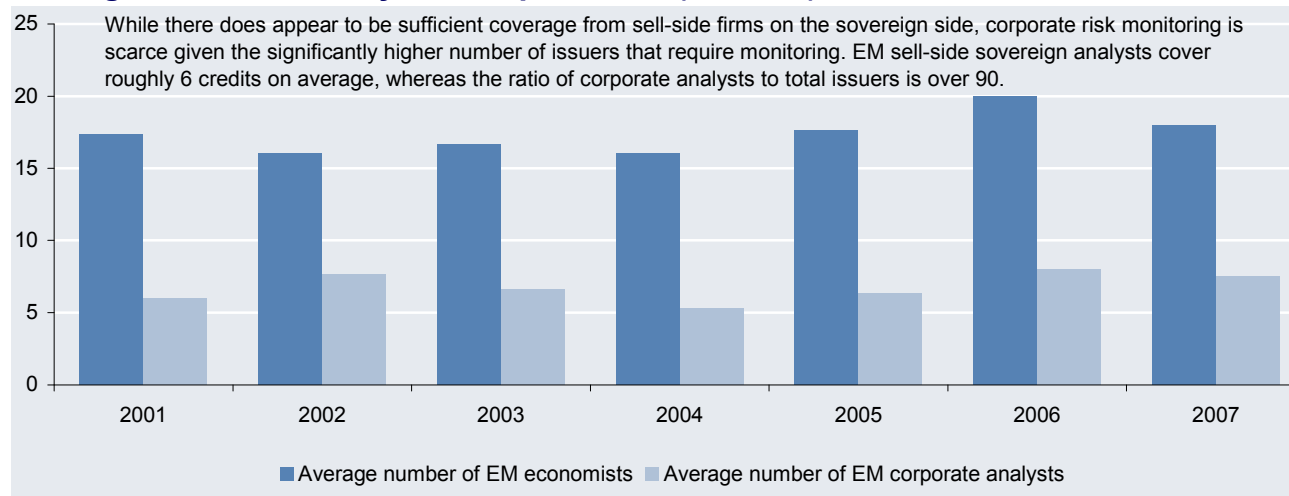
Amount outstanding (US\$bn)



Number of issuers



Average number of analysts at top 4 banks (incl ING)



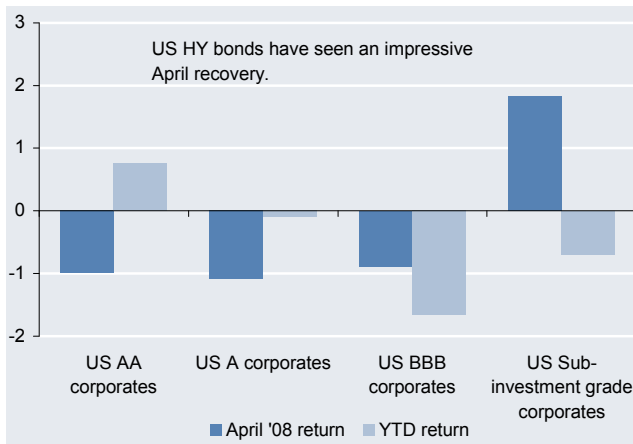
Source: ING



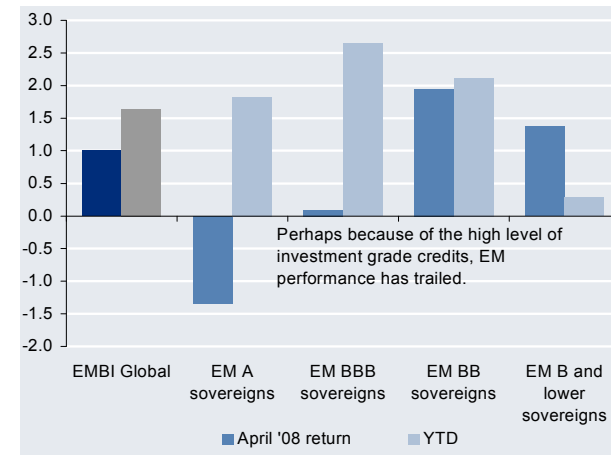
# Funding outlook: Investor concerns

Arbitrage and relative value effects might attract investors away

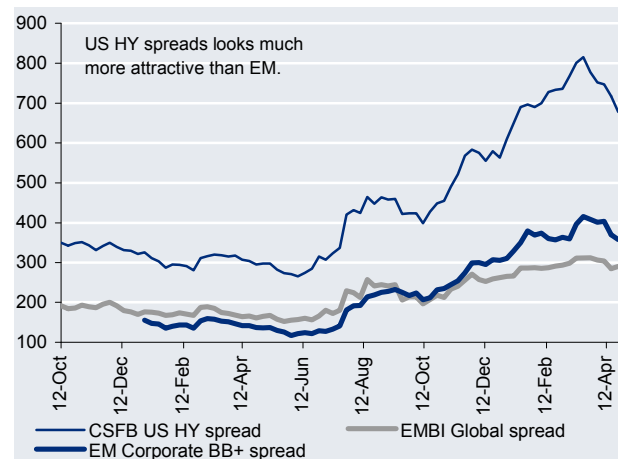
## US industrial corporate returns (%)



## EM returns (%)



## Spread performance (bp)

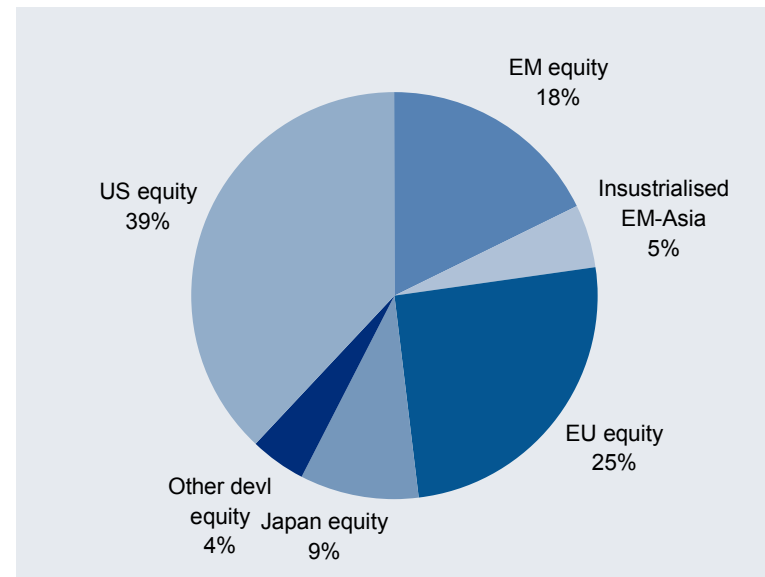
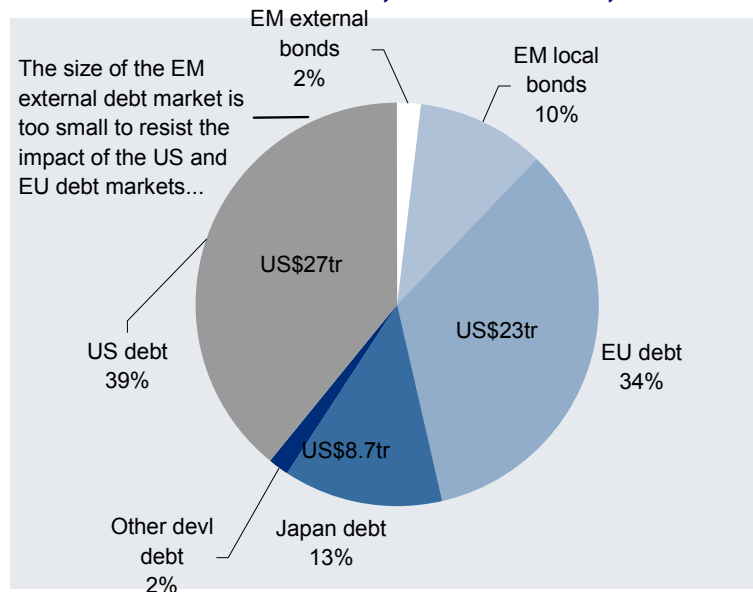


Source: JP Morgan, CSFB and ING

# Funding outlook: Investor concerns

The small window of opportunity magnifies the impact of flows

## Outside of the US dollar, Euro and Yen, the asset universe is relatively small



*Debt includes government bonds, bank debt, corporate debt and bank credit.*

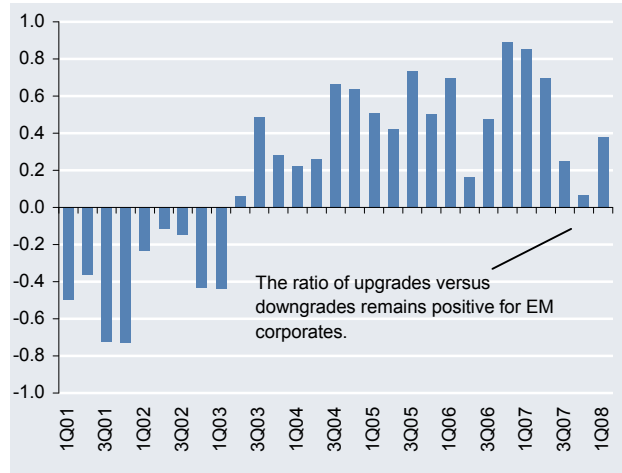
*Equity amounts includes derivatives exchanges (e.g. CBOE)*

*Source: IMF, World Federation of Funds, World Bank and ING*

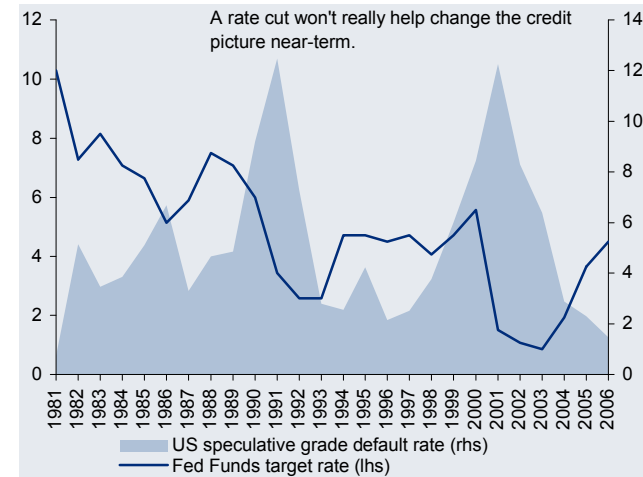
# Funding outlook: Investor concerns

Certainties regarding future growth are now in question

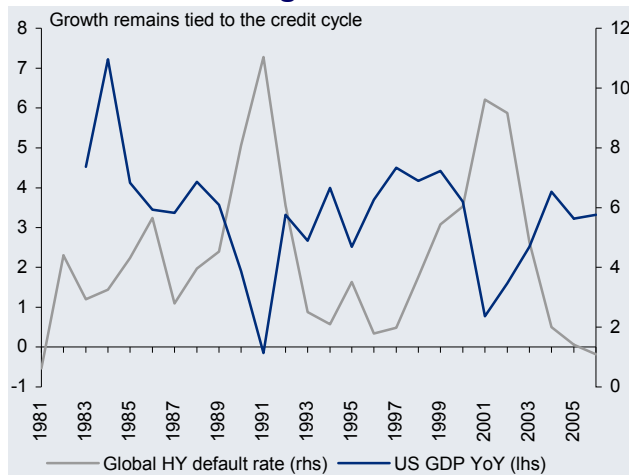
## EM corporate upgrades to downgrades



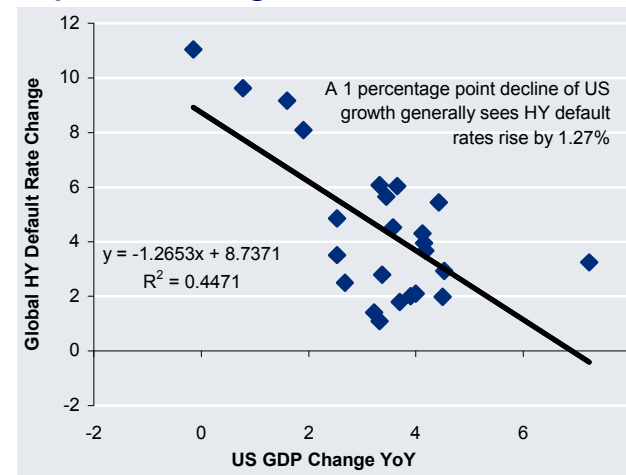
## Default rates and Fed Funds rate



## Default rates and growth



## Impact of Change of US GDP Growth on defaults

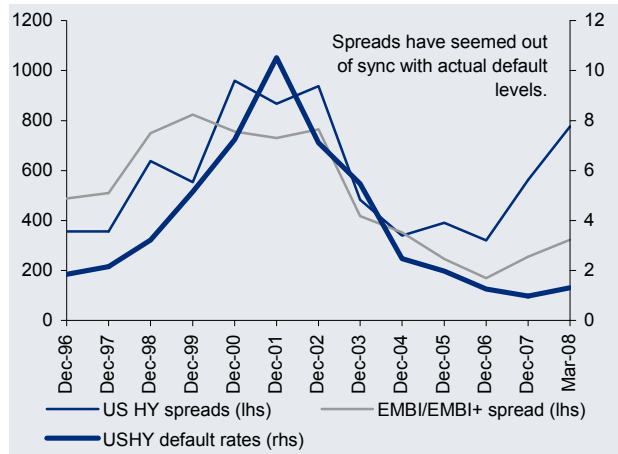


Source: S&P, Federal Reserve and ING

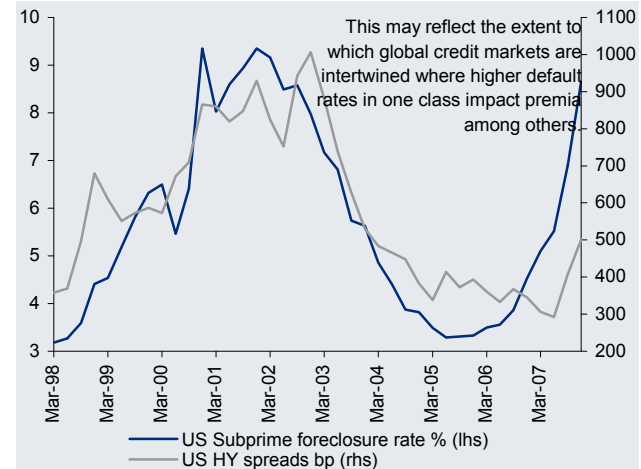
# Funding outlook: Investor concerns

## Risk-premia are tied to Treasuries and default risks

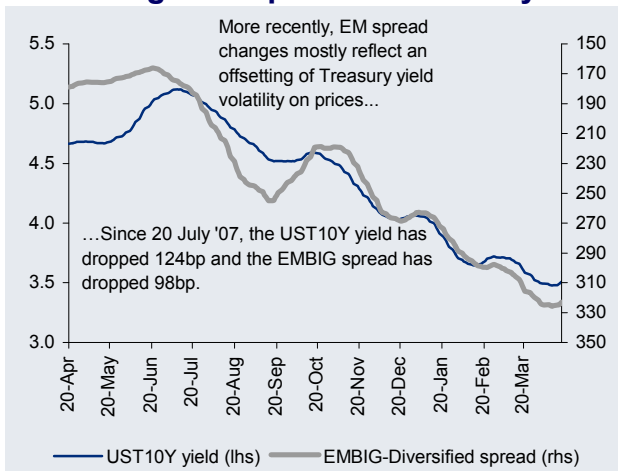
### Default rates spreads



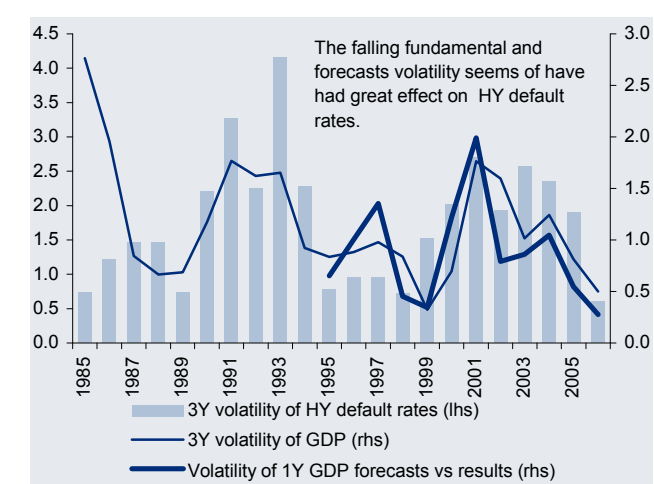
### Housing versus corporate debt spreads



### 1M average EM spreads and UST yields



### Uncertainty has a significant impact on defaults



Source: MBA, Moody's, S&P, JPMorgan and Bloomberg

# Funding outlook: Investor concerns

Timing is everything and the default rate looks set to rise for most of this year

Time between peak of tightening rates to peak of default rates

FF peak date	Fed Funds target rate	Default rate	US GDP YoY	Subsequent default peak date	Default rate	US GDP YoY	Default rate chang	Time lag (months)
7/30/1971	5.50	0.37		11/30/1972	2.63		2.26	16.08
3/31/1980	20.00	0.41	1.90	10/31/1980	2.02	0.10	1.61	7.04
5/29/1981	20.00	1.60	-0.15	4/29/1983	4.19	-0.95	2.59	23.01
9/28/1984	11.75	2.81	7.45	10/31/1986	6.02	3.80	3.21	25.08
6/30/1987	6.75	3.82	2.93	6/30/1988	5.12	4.13	1.30	12.03
5/31/1989	9.75	2.62	4.13	7/31/1991	12.79	0.20	10.17	26.01
5/31/1995	6.00	1.66	4.00	5/31/1996	3.25	2.30	1.59	12.03
8/31/1998	5.50	2.84	4.40	11/30/1999	6.11	4.38	3.27	14.99
12/29/2000	6.50	5.48	4.28	2/28/2002	10.80	0.78	5.32	14.01
<b>Averages</b>		<b>2.40</b>	<b>3.62</b>		<b>5.88</b>	<b>1.84</b>	<b>3.48</b>	<b>16.70</b>

Annualised GDP

Source: Federal Reserve and Moody's

Credit crunch duration (from default low to default peak)

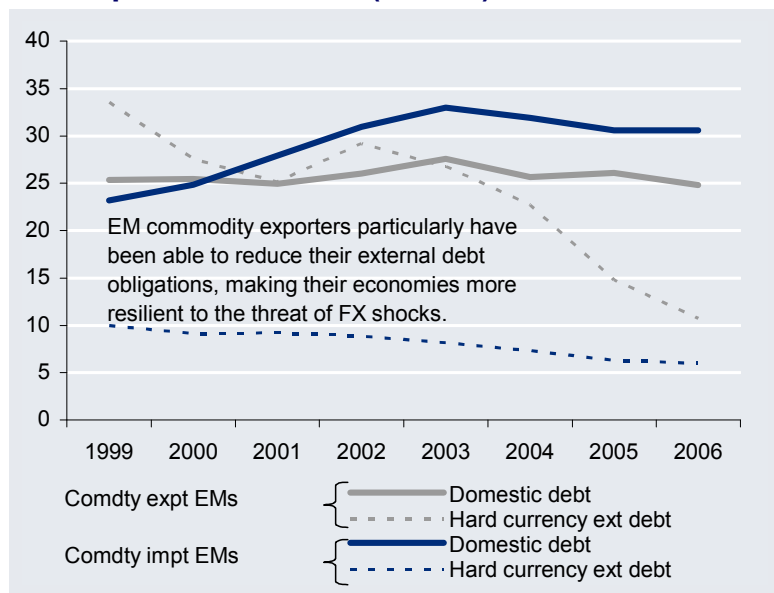
Trough date	HY default rate	Peak date	HY default rate	Duration of default period (months)	HY default rate chang
11/30/1971	0.37	11/30/1972	2.63	12.03	2.26
12/30/1977	0.45	12/29/1978	2.65	11.97	2.20
5/30/1980	0.82	10/31/1980	2.02	5.06	1.20
1/31/1982	0.70	4/29/1983	4.19	14.89	3.49
12/31/1984	2.79	10/31/1986	6.02	21.99	3.23
10/30/1987	3.89	6/30/1988	5.12	8.02	1.23
6/30/1989	2.24	7/31/1991	12.79	25.02	10.55
5/31/1995	1.66	5/31/1996	3.25	12.03	1.59
7/31/1997	1.61	11/30/1999	6.11	28.01	4.50
12/29/2000	5.48	2/28/2002	10.80	14.01	5.32
<b>Averages</b>	<b>2.00</b>		<b>5.56</b>	<b>15.30</b>	<b>3.56</b>

Source: Federal Reserve and Moody's

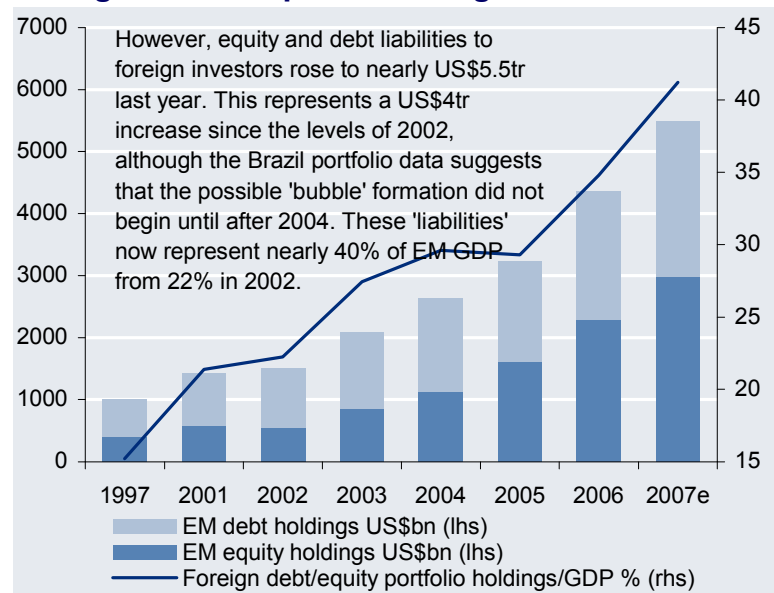
# Funding outlook: Investor concerns

Equity markets may pose a threat for EM debt flows

Gross public debt/GDP (US\$bn)



Foreign ownership of EM has grown

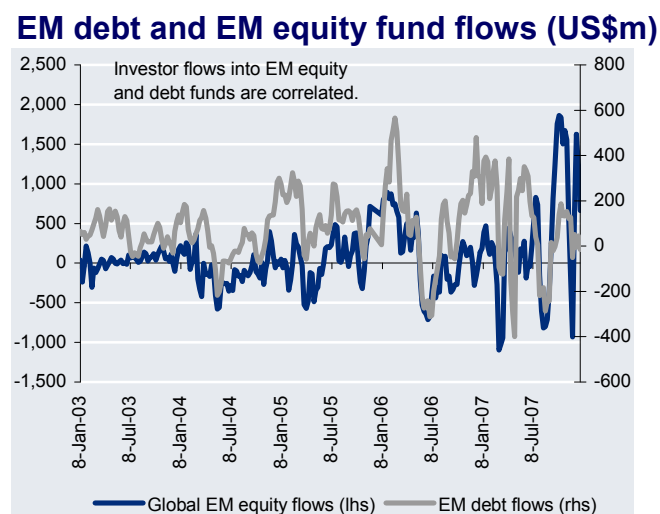


- Although a substantial proportion of foreign ownership of EM equities is in the form of ADRs and consequently does not directly pose a BoP risk...
- ...The portfolio outflow risk is not unsubstantial.

Source: BIS, IMF, domestic sources and ING estimates

# Funding outlook: Investor concerns

EM debt and EM equity fund flows are positively correlated



- Other than the BoP risk, there is a risk that a substantial correction of EM equities may spark investor outflows from the asset class.
- In light of the historic positive correlation between both markets, EM debt may also be at risk as a consequence even though credit fundamentals remain relatively sound.

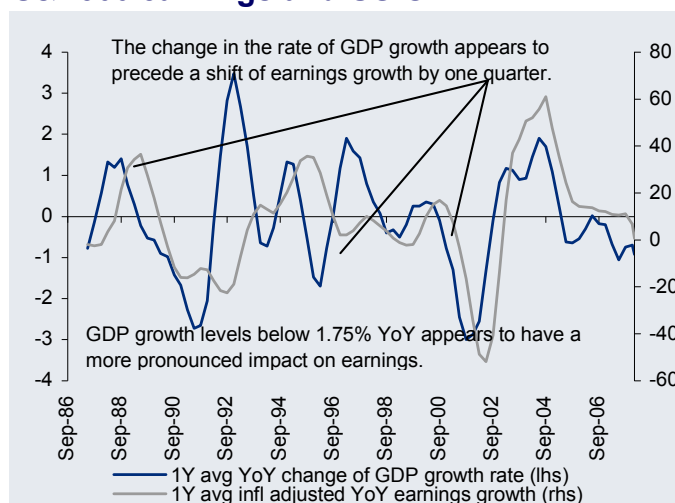
Source: EM Portfolio

# Funding outlook: Investor concerns

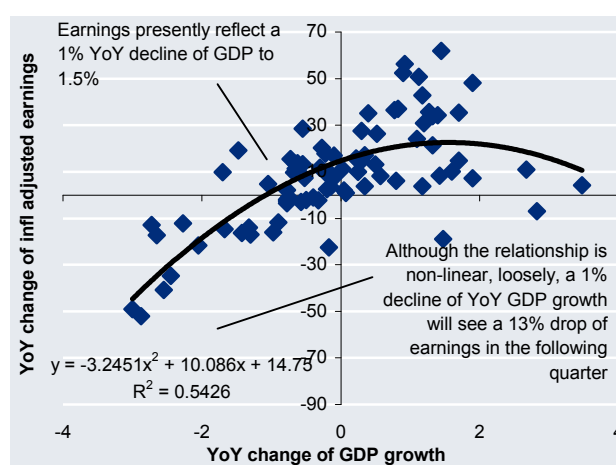
In a cyclical bear market now. Will EMs behave like core markets?

US corporate earnings will likely lag the economic recovery by a quarter

### S&P500 earnings and US GDP



### S&P500 EPS and US GDP



- So far, the major EM economies have yet to feel the credit pinch
- For those that do, the earnings cycle may prove similar to that of the US which typically has a one quarter lag to growth



# Conclusion

- Lag effects have proven a surprise for many external investors. The impact of the credit crunch on EM funding is not occurring in the manner expected.
- For the most part, EM corporates and sovereigns have accumulated sufficient surpluses to weather a drought of available credit and re-funding for a year.
- If available external credit remains scarce into 2009 or longer, HY EM borrowers will run into increasing difficulties.
- Growth between 1% and 2% for 4 quarters pushes default rates to around 6% and if longer then closer to 10%. Even if EM credit quality remains intact, arbitrage factors will raise the cost of borrowing in external markets.
- All these factors would place greater strain on domestic sources of capital.