CORPORATE DEBT

WITHOUT CRYING WOLF - MIND THEM

- 04 Global View
- 06 Focus on high risk sectors: paper, transportation and textile
- 07 Focus on medium risk sectors with great improvement: energy and metals



EULER HERMES

EXECUTIVE SUMMARY



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- While corporate debt is on the rise globally as liquidity abounds, leverage¹ of listed non-financial companies is comfortable at 53%, a -3.2pp decline vs 2016, but this masks a very wide range and areas of high risk.
- We see risk as highest in paper, transportation and textile sectors, all of which are exposed to structural challenges and some of them additionally to rising commodity costs, tightening regulations and risk from protectionism.
- We note great improvement in the resource sectors. They have slipped off the red mark of our highest risk sectors, curtesy of the earnings uplift from great commodities recovery.
- Southern Europe features at the high end of the risk spectrum, with Portugal showing the highest average net gearing with 96%, Spain 69% and Greece 68%. Corporate gearing is also elevated in Turkey with a ratio of 72%. The safest countries according to our average net gearing indicator are South Africa (38%), Australia (41%) and Hong Kong (42%).

¹We use "**leverage**" and "**net gearing**" in an interchangeable fashion, in line with the view that leverage represents the amount of debt per unit of equity for any given financing structure. Our net gearing is calculated as (long term interest bearing financial liabilities + short term interest bearing financial liabilities) / (total equity). We do not include any other interest bearing liabilities, such as certain types of provisions. Our numbers can therefore in certain cases vary to a significant degree from indicators based on economic net debt which include such liabilities and corresponding cash offset. Our numbers are computed on book value.

Our 'cash flow coefficient' is defined as net debt / operating cash flow in number of years, with our definition of net debt as above.



Leverage of listed non-financial companies in 2017

53%

GLOBAL CORPORATE DEBT

WITHOUT CRYING WOLF – MIND THEM

- At a global level, companies' leverage decreased by -3.2pp in 2017 to 53%
- Paper, transportation and textile are the riskiest sectors due to structural changes
- In the meantime, we note improvements in the resource sectors (energy and metals)

Global view - Wolfs hiding on the pastures green

We estimate a global net gearing ratio of a comfortable 53% on average when only considering companies with net debt on their balance sheet, i.e. excluding those with net cash. We are aware that total corporate gross debt outstanding amounts to levels anywhere between 28% (Mexico, 10/2017, source: BIS) and 330% (Luxembourg, 10/2017 source: BIS) of GDP of individual countries, but for the purpose of corporate leverage, our sample only covers public companies. The range around the public companies average is wide, with a low end of 3% (metals Morocco) and high end of 255% (paper Turkey).

We find the highest net gearing on average globally in Portugal, with 96%, followed by Spain and Greece with 69% and 68%, respectively. Not without caveating against generalising on the basis of such a broad measure, we do allow for a conclusion of higher than average vulnerabilities in Southern Europe. Turkey also shows high gearing of 72%. On the same basis, risk is lowest in South Africa (38% net gearing), Australia

(41%) and Hong Kong (42%).

Net indebtedness combined declined in 16 out of 18 sectors in 2017, confirming declining leverage. Balance sheet structures have strengthened curtesy of sustained earnings growth in a globally favourable environment: aggregate earnings per share of the S&P500 rose +14%, the Euro Stoxx 600 +86%, Nikkei +66%, Hang Seng +33%, and ASX +66% (source: Bloomberg).

When including companies with net cash, gearing has increased in 10 out of 18 sectors. We interpret this as tile is found in paper, textile and deployment of excess cash either in the form of returns to shareholders or productive capex indeed. Earnings strength is there to stay with forecast earnings growth for 2018 ranging from +3% (Nikkei) to +22% (S&P500; source: Bloomberg). That should support further reduction of net debt.

Despite the globally positive picture, we see areas of significant risk as divergence around the average is huge. We find risk is concentrated in sectors that face significant structural change; in particular disruption from climate change, digitalization

and changing business models rising to the surface for example in the paper, auto and energy sectors through new competitive dynamics and tightening regulation. Transportation will very soon have to adjust new climate change induced regulations and protectionism looming on the horizon. That energy is affected by accelerating climate change momentum goes without saying. We believe this to be only partially understood as the end game in many of these specifics is far from clear.

The highest gearing in the top quartransportation with 172%, 144% and 143%, respectively. These sectors also show the highest cash flow coefficients in our universe, 12.4, 10.5 and 8.7 years. Automotive manufacturers also exhibit a high cash flow coefficient, at 9.0 years. We consider these numbers as risky by themselves in accordance with credit rating benchmarks and in terms of a typical corporate being able to comply with debt covenants and service obligations. Additionally, all of these sectors face structural challenges as outlined above that make us see them as vulnerable.



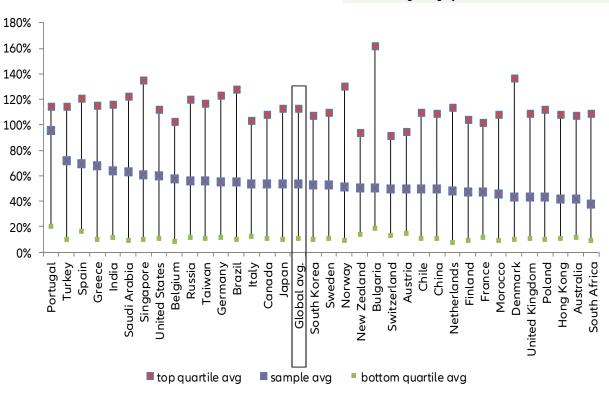


Chart 1 Net gearing by countries

Sources: Bloomberg, Euler Hermes, Allianz Research

Global Corporate Debt by Euler Hermes Economic Research

Focus#1: High risk sectors

Paper

The sector with the highest net gearing on average in our universe, 172% for the top quartile at the end of 2017. It also exhibits one of the highest cash flow coefficients, 12.4 years for the top quartile. Risk is universal, across all countries with a meaningful sample of corporates. Paper is highly capital intensive, thus highly leveraged. Structural challenges, i.e. digitalization in the print segments, compound the issue. That being said, upstream profitability has improved as a result of pulp price increases. While this clearly means margin compression at the downstream end, large parts of the sector are vertically integrated with close to full hedge. As a result of structural trends, e.g. demographics and consumption patterns, we expect continued high growth in tissue and packaging. On balance, this should therefore lead to 20bps improvement in margins (source: Bloomberg) in 2018 and as a result a continuation of debt reduction over time. In 2017, net gearing reduced by -7.6pp vs 2016. In line with the current market consensus, we expect a reduction in debt levels from

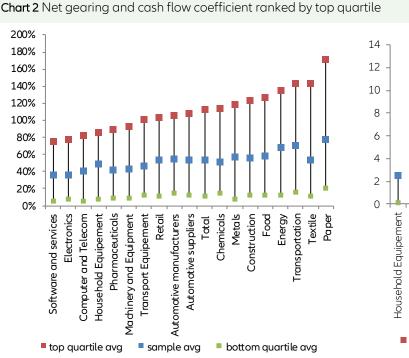
2019. Taking into account the forecast +19% increase in net debt 2018 y/y, net debt in 2019 would therefore still stand about 4% above current levels post a -15% decline in 2019 (source: Bloomberg).

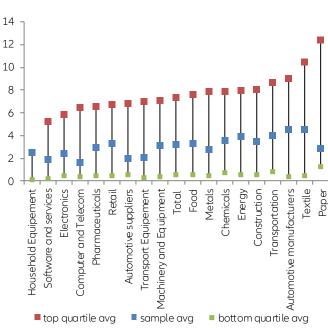
We are nevertheless concerned about a negative impact from rising electricity costs which could counteract the otherwise mildly positive trend. Paper accounts as one of the top ten sector correlations with energy with 2% of total energy sector output found as input in paper. We expect speciality segments to fare better in this regard as we see them with pricing power allowing for a degree of pass through.

Transportation

We highlight transportation as a sector with exposure to considerable structural change and little financial cushion to weather risk. One of the most highly leveraged sectors with 144% net gearing for the top quartile; leverage is high and cash flow generation weak across the board. The sector is also heavily impacted by rising oil prices. Transportation is also within the top ten sectors for energy in terms of sector output. Debt levels are rising in the airline and shipping industries as companies are replenishing their fleets. The shipping sector in particular faces fleet renewal as a means of margin protection, through more efficient and larger ships with better fuel economy. Beyond that, we can see significant investment requirement ahead as climate change regulations begin to target the sector. This will undoubtedly translate into another wave of fleet renewal with corresponding capital investment. Alongside such issues of a structural nature and profound change in business, there is margin compression because of higher fuel cost resulting from rising oil prices.

Additional cost pressures are set to come from requirements for clean fuels, emissions certificates, and similar new constraints. The cyclical nature of transportation and its exposure to any risk from economic activity is well understood, we mention it for completeness sake. But, protectionism is a new risk for shipping. Freight volume growth from Asia to North America has already declined by 300bp to 4% ytd in 2018.

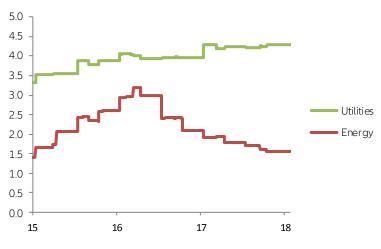




Sources: Bloomberg, Euler Hermes, Allianz Research

July 2018





Sources: Bloomberg, Euler Hermes, Alllianz Research

Textile

A high risk sector combines significant leverage, 144% in the highest quartile of indebted companies, weak cash generation as shown by our cash flow coefficient and structural headwinds, mostly from intense competition. We see risk as highest in the US, Japan, Singapore and India as far as financing structures are concerned but we are also worried about the entirety of Asia, along with Brazil, when looking at cash generation. In all of those regions, our cash flow coefficient exceeds ten years.

Focus#2 Medium risk with great improvement

Energy

Commodity prices have greatly improved earnings and financial structures in the sector, even though the sector remains risky in our view and requires a differentiated view. The main risk factors are related to economic activity (cyclically induced commodities correction), and risk relating to financing conditions, though the latter principally relates to the long end of the yield curve because of the long term nature of financing in the sector.

An average 40% gearing ratio and 1.9 year cash flow coefficient for the global

energy sector as of December 2017 when considering a broad sample including companies with net cash, mask debt only sample and net cash at the opposite end of the spectrum. Even though most parts of the sector are very capital intensive, energy encompasses heterogeneous business models and financing structures: It includes oil services companies with net cash post operational and financial restructurings, alongside highly geared network operators where stable cash flows justify leverage, and furthermore high growth names in the new energy space with either high and concerning leverage or strong funding from capital raising exercises.

Average gearing at the end of 2017 rose above 2016 levels, despite operational and financial efficiencies and restructurings, and our headline number shows deteriorating cash generation. Because of forward hedging, the full impact of rising commodity prices will be reflected in 2018/19. 12% y/y revenue growth and margin expansion feeding through to 35% y/y forecast earnings growth 2018 (source: Bloomberg) will lead to cash generation that should bring further balance sheet strengthening. Oil and gas are the sectors that most benefit from the commodities rally without being exposed to additional increase in risk. On the basis of our USD 72/bbl

energy sector as of December 2017Brent average forecast for 2018, theywhen considering a broad sample in-
cluding companies with net cash, mask
a higher 137% in the top quartile of a net
debt only sample and net cash at the
opposite end of the spectrum. EvenBrent average forecast for 2018, they
will see the benefit of a 30% y/y com-
modity price rise most of which will di-
rectly feed through to cash generation in
an industry that has greatly improved its
efficiency and cost structures.

Risk is higher in the oil services sector, though: While there is a rebound of capex, there is a clear push by the upstream sector to minimize cost inflation through efficiencies and pressure on contract margins. While we see great reduction of financial risk in the power sector curtesy of a 40% y/y increase in benchmark power prices, actual achieved spreads for thermal power plant are still low/negative and political and execution risk remain elevated. At the same time, leverage will probably reduce in the clean energy space as finance providers require higher equity ratios as the mature technologies come off subsidies.

Metals

Metals shows as one of the riskier sectors with 119% gearing on average for the quartile comprising the highest leveraged constituents. However, we see reduction of risk in certain areas. This sector is made up of very different segments – notably steel with large global over-capacity, and industrial metals where earnings have been boosted by metal prices increasing between +5% (generic HRC steel, source: Bloomberg)

Global Corporate Debt by Euler Hermes Economic Research

and +32% (LME copper, source: Bloomberg) during 2017. The favourable economic and commodities environment prevails overall, which has led to a 4pp reduction in our global net gearing year on year. Earnings growth of +36% for 2018 alongside two consecutive years of debt reduction - induced by earnings and cash flow growth - should in our view lead to further reduction in leverage of the top ten interrelated sectors with globally.

For 2018, we see greater differentiation, though, with a very likely correction in copper, aluminium and zinc due to soft

supply/demand balances while we expect sustained price strength in nickel based on demand strength from new applications and steel as tariffs maintain high prices in certain regions. Another very important issue is cost inflation. This concerns first and foremost rising energy cost – metals accounts for 10% of output of the energy sector globally and is one energy - but there are also other cost components on the increase. Steel and mining are affected, and there will only be few segments where markets are tight enough to allow for full pass

through. The principal risk in our view is protectionism, which we see as a risk for aluminium and steel in Europe and Asia as the prime victims of flow diversions following US tariffs.

> Catharina Hillenbrand-Saponar Dorra Sellami

Chart 4 Global heat map net gearing 2017

	Automotive manufacturers	Automotive suppliers	Chemicals	Computer and Telecom	Construction	Electronics	Energy	Food	Household Equipement	Machinery and Equipment	Metals	Paper	Pharmaceuticals	Retail	Software and services	Textile	Transport Equipement	Transportation	Country average
United States	88%	52%	80%	33%	61%	41%	78%	96%	56%	49%	47%	65%	50%	64%	46%	49%	61%	69%	60%
Canada		24%		47%	38%	76%	55%	85%		37%	37%	93%		63%	29%	42%	23%	104%	54%
Brazil		32%	56%	28%	61%		83%	84%		47%	54%	108%	47%	40%	9%	47%	7%	125%	55%
Chile					60%		57%				43%					38%		49%	50%
Germany	70%	46%	41%	30%	61%	55%	68%	60%	42%	56%	52%	61%	68%	18%	19%	58%	104%	87%	55%
France		28%	53%	43%	79%	5%	73%	80%	21%	33%	74%		44%	28%	37%	32%	51%	74%	47%
United Kingdom	18%	30%	46%		35%	25%	55%	54%	32%	33%	40%	34%	74%	54%	42%	43%	25%	96%	43%
Italy		107%	51%	5%	86%		89%	51%	72%	43%			37%	42%	32%	35%	85%	18%	54%
Spain		85%	42%	51%	69%	0.70/	84%	93%		87%	67%	54%	2%	102%	78%		29%	126%	69%
Netherlands		2404	4004		16%	37%	94%	51%		22%		1004	0.504	74%	42%			1004	48%
Switzerland		31%	40%	410/	67%	71%	64%	40%	5.50/	29%	65%	18%	25%	110%	72%	2204	(00)	19%	50%
Sweden		38%		41%	52%	33%	51%	43%	55%	40%	61%	17%		55%	31%	32%	60%	176%	52%
Norway		114%	219/		21%	2284	90%	46%		36%	4%		10%	29%	41%	70%	11%	115%	51%
Belgium		42% 69%	21%		22% 59%	23%	155% 26%	54% 41%		49% 57%	146% 54%		10%	81%	88%	70% 13%	24% 69%	49% 28%	58%
Austria		09%			41%		20%	41%		61%	54%			64%	11%	12%	0770	85%	50%
Denmark Sielened				17%	120%		39%	43%		40%	20%	21%		84%	38%			48%	44% 47%
Finland				1//8	67%		92%	86%	106%	33%	69%	2170		41%	44%			73%	47% 68%
Greece Portugal		47%			131%		111%	129%	100/0	5570	0770	100%		1170	55%			/ 5/0	96%
Russia		50%	90%	6%	56%		61%	54%		57%	97%	132%		39%	6%		29%	52%	56%
Turkey		48%		55%	46%	0%	104%	63%	66%	63%	82%	255%		73%	7%	79%		70%	72%
Poland		70%		9%	54%		32%	51%	38%	43%	38%	36%		36%	26%	40%	67%	64%	43%
Romania							29%	2%											15%
Bulgaria		58%					52%	32%		20%								90%	50%
South Africa		29%		64%	16%		27%	46%	20%	29%	46%	76%		33%	22%	48%		35%	38%
Morocco					73%		89%	57%		18%	3%			28%	52%				46%
Saudi Arabia					49%		83%	46%		38%	57%	93%		25%		102%		71%	63%
China	38%	43%	55%	48%	61%	35%	81%	45%	60%	42%	63%	66%	45%	50%	30%	47%	23%	54%	49%
Japan	67%	42%	37%	59%	36%	32%	79%	55%	57%	38%	54%	81%	46%	56%	37%	61%	61%	66%	54%
Australia		53%		64%	45%	8%	56%	38%	35%	42%	39%			29%	40%	51%	18%	62%	41%
South Korea	54%	71%	45%	43%	50%	39%	84%	63%	36%	51%	60%	68%	39%	31%	41%	56%	49%	70%	53%
Taiwan		50%			42%	45%	36%				69%					67%	68%	67%	56%
Singapore		57%			62%	35%	69%				64%					71%	62%	63%	61%
Hong Kong		43%		42%	43%	26%	71%	44%	34%	37%	52%			40%	30%	44%		37%	42%
New Zealand				87%	57%		51%	37%		25%	62%			77%	15%			43%	50%
India	47%	66%	59%	38%	71%	50%	95%	93%	44%	59%	70%	99%	48%	76%	28%	89%	38%	77%	64%
Sector average	55%	53%	51%	40%	56%	35%	68%	58%	48%	42%	56%	78%	41%	53%	36%	53%	46%	71%	53%

Sources Bloomberg, Euler Hermes, Alllianz Research

Reading notes: A greener color indicates a lower average country or sector net gearing. Conversely, a more red color indicates a lengthening country or sector net gearing.

	Automotive manufacturers	Automotive suppliers	Chemicals	Computer and Telecom	Construction	Electronics	Energy	Food	Household Equipement	Machinery and Equipment	Metals	Paper	Pharmaceuticals	Retail	Software and services	Textile	Transport Equipement	Transportation	Average country
United States	2,5	2,7	4,2	2,6	3,6	2,3	4,5	4,5	0,6	3,3	3,0	5,3	4,1	3,4	3,3	2,3	3,4	3,9	3,3
Canada		0,9		1,4	1,9	3,9	4,0	4,2		3,3	3,2	5,0		4,4	2,0	1,0	2,6	5,5	3,1
Brazil		2,1	4,2	0,7	2,5		4,4	6,0		4,0	6,0	4,0	1,8	4,4	0,8	9,4	0,4	3,7	3,6
Chile					7,1		2,9				4,7							5,4	5,0
Germany	10,0	3,4	3,0	3,9	4,8	0,1	2,6	3,8	0,4	3,6	4,5	3,0	3,2	2,0	1,0	5,7	2,1	4,4	3,4
France		1,8	2,7	3,7	5,9	0,3	5,3	5,1	0,2	2,0	6,0		2,5	2,1	2,5	1,9	1,0	4,4	3,0
United Kingdom	0,4	1,6	2,3	6,9	2,7	11,3	3,8	5,4	0,3	2,8	2,7	1,1	2,8	2,4	2,3	3,6	1,5	6,3	3,3
Italy		3,4		0,4	4,9		4,7	3,0	0,7	3,1			1,5	1,4	2,4	1,3	2,2	1,7	2,4
Spain		2,6	2,5	1,6	5,4		7,1	4,8		4,3	1,5	0,9	1,1	1,7	2,4		1,9	3,7	3,0
Netherlands					1,2	2,7	5,3	3,2		1,1	12,4			2,6	1,6				3,8
Switzerland		1,3	2,8		7,9	4,3	5,3	2,3		2,2	4,0	2,3	1,0	4,4	1,0			5,2	3,4
Sweden		1,7		2,1	1,6	0,8	2,1	2,2	0,5	2,3	3,7	1,4		2,1	1,9	2,1	0,1	3,2	1,9
Norway		8,1			2,8	1,6	5,0	3,2		1,4	0,7			2,9	3,2		0,8	10,2	3,6
Belgium		7,1	1,5		1,2	1,8	7,5	3,5		2,6			0,7		1,9	1,9	0,6	2,4	2,7
Austria		4,0			2,7		2,0	1,3		4,9	2,8			2,2	0.5	2,6		1,3	2,6
Denmark		8,2		07	2,9		0,0	1,5		4,8	2.1	10		1,9	2,5			3,9	3,2
Finland				0,7	10,8		2,2	3,2		3,4	3,1	1,2		4.0	2,4	10.0		2,5	3,3
Greece					2,7		4,1	5,9	1,1	1,8	5,1	2.2		4,0	4,8	18,2		8,5	5,6
Portugal		47	27	5.2	3,5		6,1	11,1		4 5		3,2		1 5	5,7		1 0	2.0	5,9
Russia		4,7	3,6	5,3	3,7		2,6	4,5	0.7	4,5	4,6	1/ 5		1,5	3,4	4.5	1,3	3,0	3,6
Turkey		3,7 0,2		1,8	3,9 3,2		6,5	3,0 3,1	0,7	2,7 2,7	3,7 5,1	16,5		1,3	0,4 0,9	4,5 2,9	7,2	5,2 2,7	4,1 2,9
Poland		0,2			2,2		3,3	5,1	0,4	2,1	5,1	2,9		3,6	0,9		7,2	۷,۱	
Romania		5,2			7,3		5,2	7,9		4,1						1,8		3,9	1,8 5,6
Bulgaria		2,2		3,8	0,9		1,2	7,9 3,4	0,2	4,1	2,7	2,7		4,1	0,3	4,1		3,9 1,8	2,2
South Africa		2,2		5,0	6,1		2,5	2,2	0,2	1,7	0,2	2,7		1,4	2,2	4,1		6,4	3,0
Morocco					4,5		8,4	6,0		3,0	7,0	4,7		2,8	2,2	5,1		5,4	5,2
Saudi Arabia China	4,7	3,7	4,3	3,2	-,5 5,1	3,8	5,3	3,9	0,6	4,7	5,0	5,6	4,4	3,3	2,7	6,6	1,4	4,5	4,0
	4,5	2,6	2,2	4,3	2,7	2,2	5,3	2,8	0,6	3,4	4,0	4,6	3,0	3,9	3,0	4,7	4,9	4,2	3,5
Japan Australia	1,0	3,7	2,2	1,8	4,1	1,8	3,0	3,1	0,4	2,2	2,9	1,0	5,0	1,5	1,4	6,3	1,2	2,4	2,5
South Korea	10,8	4,5	3,2	4,6	4,5	3,2	4,8	5,1	0,4	5,1	6,0	6,9	3,6	2,8	3,4	5,5	3,8	6,4	4,7
Taiwan	10,0	4,5	5,2	7,0	4,0	2,7	0,9	5,1	0,4	J,1	6,0	0,7	5,0	2,0	5,4	4,5	3,8	3,8	3,8
Singapore		3,0			5,2	1,2	6,3				5,2					6,6	6,3	5,2	4,9
Singapore Hong Kong		5,1		3,6	3,1	3,5	5,4	4,7	0,3	2,8	5,3	6,2		4,1	2,3	2,9	0,0	4,6	3,8
New Zealand		0,1		3,1	6,8	5,5	4,9	2,6	0,0	2,3	4,7	0,2		3,4	2,3	_, /		2,5	3,6
India	1.1	3,7	4,0	6,2	4,6	0.2	5,7	4.8	0.4	4,4	7,2	2,3	2,8	5.9	2,5	5,8		3,7	3,8
Average sector	4,9	3,5	3,1	3,1	4,2	2,7	4,3	4,1	0,5	3,1	4,4	4,1	2,5	2,9	2,3	4,6	2,4	4,3	3,5
Average sector	7,7	5,5	5,1	5,1	−τ,∠	2,1	د,-	7,1	0,5	5,1	-,-	-τ, τ	2,5	2,7	2,5	4,0	2,4	-,J	5,5

Chart 5 Global heat map CFO coefficient 2017

Sources Bloomberg, Euler Hermes, Alllianz Research

<u>Reading notes:</u> A greener color indicates a lower average country or sector CFO coefficient. Conversely, a more red color indicates a lengthening country or sector CFO coefficient.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

The statements contained herein may include prospects, statements of future expectations and other forward-looking statements that are based on management's current views and assumptions and involve known and unknown risks and uncertainties. Actual results, performance or events may differ materially from those expressed or implied in such forward-looking statements.

Such deviations may arise due to, without limitation, (i) changes of the general economic conditions and competitive situation, particularly in the Allianz Group's core business and core markets, (ii) performance of financial markets (particularly market volatility, liquidity and credit events), (iii) frequency and severity of insured loss events, including from natural catastrophes, and the development of loss expenses, (iv) mortality and morbidity levels and trends, (v) persistency levels, (vi) particularly in the banking business, the extent of credit defaults, (vii) interest rate levels, (viii) currency exchange rates including the euro/US-dollar exchange rate, (ix) changes in laws and regulations, including tax regulations, (x) the impact of acquisitions, including related integration issues, and reorganization measures, and (xi) general competitive factors, in each case on a local, regional, national and/or global basis. Many of these factors may be more likely to occur, or more pronounced, as a result of terrorist activities and their consequences.

NO DUTY TO UPDATE

The company assumes no obligation to update any information or forward-looking statement contained herein, save for any information required to be disclosed by law.