

DivDax. Trade 2009 - 2010 dividend swap

Topic Paper

Dividend Research

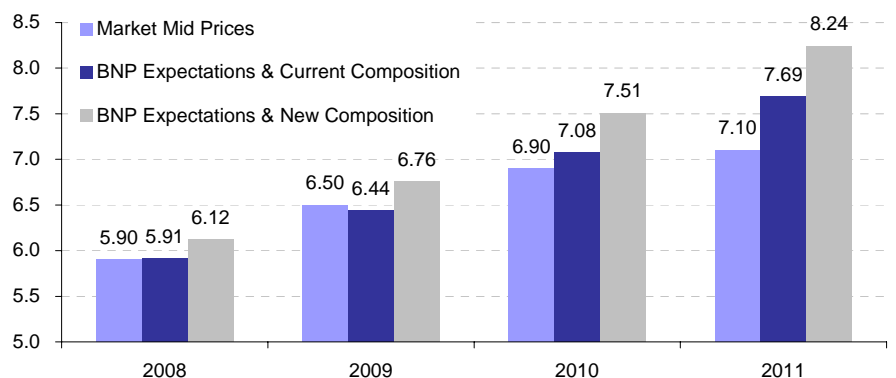
■ The DivDax Index (DDAXK Index) tracks the 15 top dividend-paying companies in the Dax index. Stocks in the index are selected on the basis of their historical dividend yield. The index components are weighted by their free float capitalization, capped at 10% and reviewed annually.

■ Dividend swap prices on DivDax currently reflect an average growth of dividends of 6-7% per year over the next 4 years. This forecast seems to us quite downbeat and lets us believe dividend swap prices will rise sharply throughout the next few months. There are several reasons for our optimism:

1. With anticipated growth of 3% per year for the three next years, our economists believe Germany will remain one of the most dynamic countries in Western Europe.
2. The September 2007 revision will have a very positive impact on dividend swap prices. Although changes in index composition will be announced only at the beginning of September, we already have a very good idea of what these will be. Hypo Real Estate, Allianz, Commerzbank and Continental will replace Tui, Man, Metro and Bayer.
3. On the basis of the new composition and our bottom-up analysis, we expect dividend growth of 10.5% per year in 2008-11, compared with 6-7% for the market as a whole. Given the risk of a major shake-up of the DivDax (theoretically, 100% of the index composition will change over the next five years), we are steering clear of the 2011 maturity, and even though it has the greatest upside.

■ All in all, we believe mid term maturities on DivDax (2010 and in a less extent 2009) hold considerable upside potential, despite the recent upside movement on the dividend swap market. In our view, investors buying dividend swaps on these maturities will be able to benefit in full from the expected rise in prices while limiting their exposure to subsequent years.

DivDax: Market and BNP Paribas dividend swap prices



Source – BNP Paribas

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DivDax: The 15 top dividend-paying companies in Dax

BB Code	Name	Sector	Free Float (%)	Mkt Cap. (€bn)	Weight (%)	2007 Div Yield (%)
BAS GY Equity	Basf	Chemicals	100%	40.7	10.52%	3.39%
BAY GY Equity	Bayer	Chemicals	100%	39.2	10.13%	1.96%
DCX GY Equity	Daimlerchrysler	Automobile	93%	38.7	10.01%	2.45%
DBK GY Equity	Deutsche Bank	Banks	100%	37.7	9.74%	3.46%
DB1 GY Equity	Deutsche Boerse	Financial services	100%	16.4	4.24%	2.02%
DPW GY Equity	Deutsche Post	Transportation & Logistics	69%	19.8	5.11%	3.03%
DTE GY Equity	Dt.Telekom	Telecommunication	64%	38.0	9.82%	5.38%
EOA GY Equity	E.On	Utilities	100%	39.8	10.28%	2.92%
LHA GY Equity	Lufthansa	Transportation & Logistics	100%	9.4	2.43%	3.12%
MAN GY Equity	Man	Industrial	70%	10.3	2.67%	1.45%
MEO GY Equity	Metro	Retail	50%	9.8	2.53%	1.88%
MUV2 GY Equity	Muench.Rueckvers	Insurance	100%	29.9	7.73%	3.33%
RWE GY Equity	Rwe	Utilities	89%	36.0	9.31%	4.24%
TKA GY Equity	Thyssenkrupp	Industrial	75%	16.8	4.35%	2.77%
TUI1 GY Equity	Tui	Transportation & Logistics	85%	4.3	1.12%	0.00%

Source – Stoxx Limited - BNP Paribas

Index universe. The index universe is defined as all companies in the Dax index. As turnover is a selection criterion for the composition of the Dax, this universe is a guarantee for a high level of liquidity, making the index an ideal underlying for structured products and an attractive investment vehicle for passive investment funds and exchange-traded funds (ETFs).



Dax selection criteria apply indirectly to the DivDax.

- *Important. As the DivDax universe is the Dax, any company excluded from the latter will be automatically and simultaneously removed from the DivDax index. It follows that the selection criteria for the Dax (turnover and capitalisation) apply indirectly to companies composing the DivDax. Thus Altana was excluded from the Dax and therefore the DivDax in June 2007 because of inadequate capitalisation, and even though the company's dividend yield remained attractive.*

Stocks selection. Companies in the Dax (index universe) are ranked in descending order of indicated annual net dividend yield. Then, the DivDax index is composed of the 15 companies with the highest dividend yield. Basically, historical dividend yields are calculated by dividing distributed dividends by the closing price of the respective share on the day preceding the ex-day (see below).



The dividends used for yield calculations depend on the index adjustment date.

- *Important. The dividends used for yield calculations depend on the adjustment date. If it is before August, Eurex uses dividends for year n-1 in its selection process. If it is after August, it uses dividends for the current year. Thus the entry of Deutsche Boerse to replace Altana in June was determined on the basis of its 2006*

dividend yield. But the September 2007 annual revision will take the 2007 dividend yield into account.

Weighting are capped at 10%

Weighting. Companies weighting in the index are based on the free-float capitalisation. Nevertheless, each components weighting is capped at 10%. Capping factor for each component is calculated at the review and kept constant until the next review. This cap is designed to prevent individual shares from dominating the index.

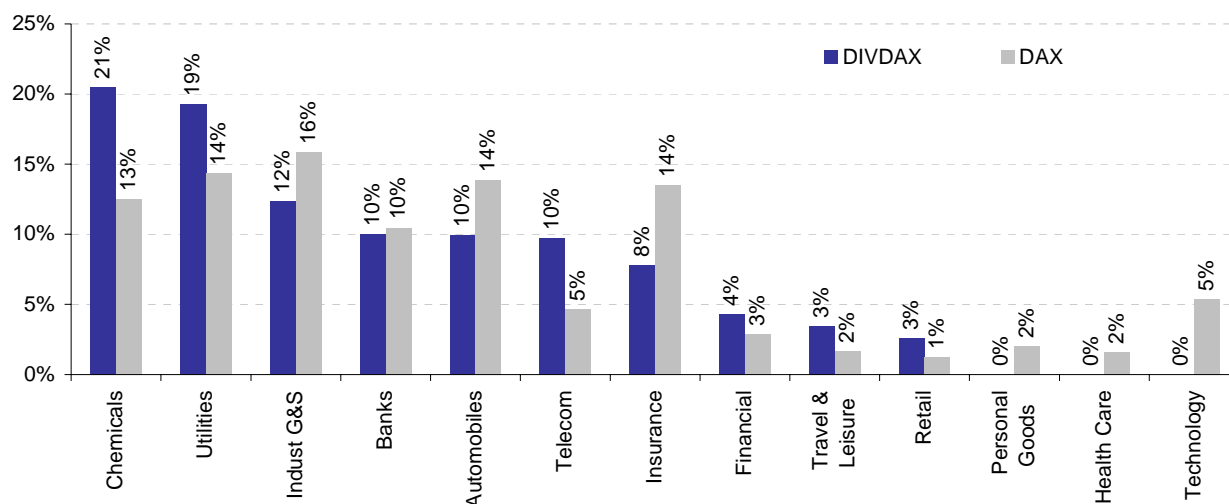
Composition reviews once a year.

Adjustment time. The index composition is reviewed annually in September when the composition of the DAX index is determined (third Friday). Weighting adjustment takes place on a quarterly basis (March, June, September and December) in line with the methodology applied to the DAX.

Sector breakdown


Made up of just 15 companies, the sector breakdown of the DivDax differs markedly from that of its underlying universe. It is significantly overweight the chemicals, utilities and telecom sectors and underweight technology, insurance and automobiles.

Sector breakdown



Source –BNP Paribas

September 2007 review: 4 additions/deletions expected

 **We can already predict entries and exits in September 2007.**

Hypo Real Estate, Allianz, Commerzbank and Continental will replace Tui, Man, Metro et Bayer.

The next annual revision will take place on the third Friday of September 2007. While changes to DivDax index composition will be announced only at the beginning of September, **we can already predict what they will be.** Our conclusions emerge from a three-step process.

1/ We simulated the future composition of the Dax using capitalisation and turnover criteria. This step is essential as it determines the DivDax selection universe. We do not expect any change in the Dax at its next revision, but we included Salzgitter in our selection universe because it is close to index entry and could join the Dax if the situation shifts in its favour.

2/ We calculated 2007 dividend yields for our selection universe. Basically, dividend yields are calculated by dividing distributed dividends in 2007 by the closing price of the respective share on the day preceding the ex-day (see above). As both these prices and dividends are known, our figures correspond with those to be used in September. As the table below shows, the dividend yield needed to join the index is around 2%.


3/ We retained the top 15 companies in our selection list to determine the future composition of the DivDax. **We expect four changes at the September annual revision: Hypo Real Estate, Allianz, Commerzbank and Continental will replace Tui, Man, Metro and Bayer.**

	DivDax		2007 Div	2007 Ex-date	Price Ex-Date	2007 Div Yield
Automatic Addition	Yes	Deutsche Telekom AG	0.72	4-May-07	13.39	5.38%
	Yes	RWE AG	3.50	19-Apr-07	82.49	4.24%
	Yes	Deutsche Bank AG	4.00	25-May-07	115.61	3.46%
	Yes	BASF AG	3.00	27-Apr-07	88.47	3.39%
	Yes	Munich Re	4.50	27-Apr-07	135.15	3.33%
	Yes	Deutsche Lufthansa AG	0.70	19-Apr-07	22.42	3.12%
	Yes	Deutsche Post AG	0.75	9-May-07	24.76	3.03%
	Yes	E.ON AG	3.35	4-May-07	114.80	2.92%
		Hypo Real Estate Holding	1.50	24-May-07	51.42	2.92%
	Yes	ThyssenKrupp AG	1.00	22-Jan-07	36.08	2.77%
	Yes	DaimlerChrysler AG	1.50	5-Apr-07	61.10	2.45%
		Allianz AG	3.80	3-May-07	166.70	2.28%
		Commerzbank AG	0.75	17-May-07	36.19	2.07%
	Yes	Deutsche Boerse AG	1.70	14-May-07	84.27	2.02%
		Continental AG	2.00	25-Apr-07	100.40	1.99%
Automatic Deletion	Yes	Bayer AG	1.00	30-Apr-07	50.91	1.96%
	Yes	Metro AG	1.12	24-May-07	59.48	1.88%
		Deutsche Postbank AG	1.25	11-May-07	69.11	1.81%
		Linde AG	1.50	6-Jun-07	83.45	1.80%
		Siemens AG	1.45	26-Jan-07	82.60	1.76%
	Yes	MAN AG	1.50	11-May-07	103.38	1.45%
		BMW	0.70	16-May-07	50.62	1.38%
		SAP AG	0.46	11-May-07	34.90	1.32%
		Henkel KGaA	0.50	17-Apr-07	38.32	1.30%
		Fresenius Medical Care	0.47	16-May-07	37.83	1.24%
		Volkswagen AG	1.25	20-Apr-07	115.12	1.09%
		Adidas AG	0.42	11-May-07	44.94	0.93%
		Merck KGaA	0.90	30-Apr-07	98.55	0.91%
		Salzgitter .	1.00	24-May-07	141.59	0.71%
		Infineon Technologies	-	-	-	-
Yes	TUI AG	0.00	-	-	-	

Source – BNP Paribas

New DivDax composition

In the table below we show the DivDax composition we expect after the annual revision. Index weights were calculated with a 10% limit for each company; we used the iterative process defined by Deutsche Boerse. Note the following points:

 **100% of the index composition will be adjusted in the next five years.**

- Far from being negligible, the DivDax reshuffle of September will produce turnover of around 20%. Theoretically, therefore, 100% of the index composition will be adjusted between now and 2011. This very poor visibility on the index's long-term composition prompts us to limit our analysis of the dividend swap market to short maturities (see below).
- Five companies will be capped at a 10% index weight. Allianz will join the DivDax with that limit.
- The top seven index companies will account for almost 70% of its total weight.

DivDax composition after the 2007 annual review

	Name	Current Weighting	Non Capped Weighting	Capping Factor	New Capped Weighting
	E.ON AG	10.27%	15.05%	0.51	10.00%
Added	Allianz AG	-	14.61%	0.53	10.00%
	DaimlerChrysler AG	10.00%	12.18%	0.63	10.00%
	Deutsche Bank AG	9.71%	10.60%	0.70	10.00%
	BASF AG	10.49%	8.69%	0.89	10.00%
	Deutsche Telekom AG	9.84%	7.03%	1.00	9.10%
	RWE AG	9.33%	6.75%	1.00	8.75%
	Munich Re	7.77%	5.59%	1.00	7.24%
Added	Commerzbank AG	-	3.93%	1.00	5.09%
	Deutsche Post AG	5.11%	3.67%	1.00	4.76%
	ThyssenKrupp AG	4.34%	3.12%	1.00	4.04%
	Deutsche Boerse AG	4.22%	3.07%	1.00	3.98%
Added	Continental AG	-	2.76%	1.00	3.58%
	Deutsche Lufthansa AG	2.43%	1.75%	1.00	2.26%
Added	Hypo Real Estate Holding	-	1.18%	1.00	1.53%

Source –BNP Paribas

Div swaps: major upside for the 2009 and 2010 maturities

1- Top-down approach: Germany, a balanced economy

Following several years of economic and financial difficulties, Germany's economy has been recovering lately. The country achieved 3% growth in 2006 and prospects for 2007-2008 look very promising. Our optimism is based on several factors:

- The German economy will be fuelled by global growth. Although exports accounted for 25% of the GDP in the early 90s, they now account for 50%. As a reminder, Germany is the world's leading exporting country. As a result, if global growth remains strong, this will foster external demand (notably from China) and will therefore benefit Germany. We expect global growth to be buoyant over the next 18 months.
- The German economy will be stirred by renewed household consumption as a result of a better employment environment. Indeed, Germany's employment will benefit from strong support: 1/ additional government reforms (G. Schröder and A. Merkel) will encourage more flexibility on the job market, 2/ companies will benefit from buoyant global growth, 3/ the backlash of reunification has finally been absorbed.
- The German economy will benefit from renewed investments. Indeed, German companies have found more leeway to invest in 2007-2008. Today, our economists expect the new investment cycle to resemble that of the second half of the 90s.

All in all, Germany's economy is now fuelled by both internal and external demand. It therefore displays a balanced profile, thereby mitigating risks linked to the euro, which is currently too strong due to monetary tightening. **We expect the German GDP to grow by 3% in 2007 and 2.6% in 2008.**

German Economic & Financial Data				
	2006	2007	2008	2009
GDP (%)	1.1	3	3	2.6
Inflation (%)	2.1	1.4	2	1.5
Unemployment Rate (%)	11.7	10.8	9	8.3

Source -BNP Paribas

2- Bottom-up approach. Watch out for the reshuffle effect

No upside on the basis of the current composition...

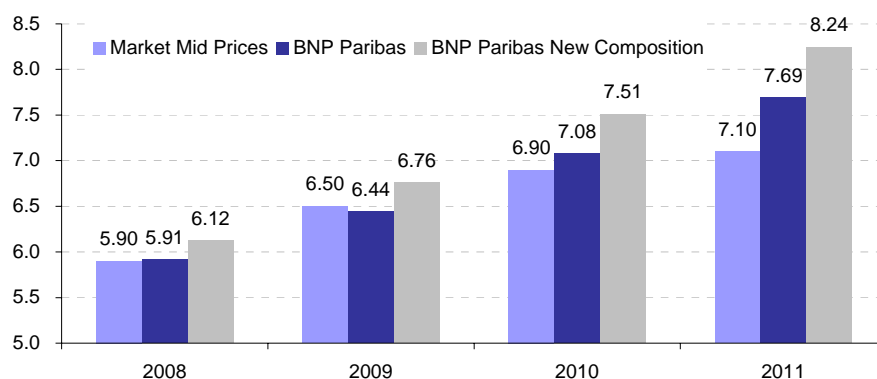
2008-2010 maturities, no upside...

On the basis of the index's current composition and our dividend estimates for the next four years (table above), the 2008, 2009 and 2010 maturities are trading at their theoretical levels. They are therefore unattractive as potential trades (see chart). According to market prices and the IBES consensus, dividends will rise by an average 8% per year between 2008 and 2010; we expect 9% over the same period.

 **Very poor visibility on the DivDax's long-term composition prompts us to limit ourselves to 2008-10 maturities.**


The 2011 maturity is trading well below its theoretical level. But in our view this undervaluation is warranted by the high risk of index adjustments. With an average of three entries/exits per year, the 15-company index will theoretically be entirely different by 2011. This very poor visibility on the index's long-term composition prompts us to limit our analysis of the dividend swap market to short maturities (2008-10).

DivDax: Market and BNP Paribas dividend swap prices



Source – BNP Paribas

... but the reshuffle will generate attractive opportunities

 **The September revision will have a very positive impact on dividend swap prices.**

As we have seen, the composition of the DivDax will change markedly at the coming annual revision, with four entries/exits. This will have a positive impact on dividend swap prices:

- On the basis of the new index composition (see above), we expect dividend growth of 10.5% per year in 2008-11, compared with 9% for the current composition and market expectations of 6% for the same period.
- The reshuffle will boost all maturities studied between 2008 and 2011. Moreover, the gap between our estimates and market prices increases with maturity.
- In order to make our analysis more complete, we integrate the short-term trend of earnings growth estimates. To achieve this goal, we observe, for each company, the evolution of its IBES consensus on EPS over the past month and adjust accordingly its dividend estimate by +/- 1 standard deviation (standard deviation computed on the basis

of all dividend estimates from all analysts). The idea is to make our dividend estimate more accurate and 'dynamic' by incorporating the short-term trend of EPS consensus, which is more reactive. In view of this analysis, we observe a clear upward trend in the consensus over the past month. We therefore adopt a positive bias and expect dividend swap prices on DivDax to rise.

Name	2008	2009	2010	2011	Comments
Basf	3.4	3.8	4.2	4.6	Group plans to increase cash returned to shareholders and announced a share buyback programme for a total of €3bn for 07 and 08. We believe that this substantial return of cash to shareholders is an important milestone for BASF management, which is becoming increasingly shareholder friendly. Q1 net profit up 9%. 2007 should see higher sales thanks to acquisitions and organic growth. Last M&A deals have substantially reduced cyclicality of the stock. Generates more cash than its peers.
Bayer	1.2	1.3	1.5	1.6	The group has indicated having a target of 30-40% of EPS for its dividends in the future. Q1 rose 17%, beating market expectations, confirms the positive outlook for the full year. We expect the group to deliver steady above-average EPS growth and long-term cash generation following the integration of Schering. Net debt was reduced by €4.8 billion to €12.8 billion by March 31, 2007.
Daimlerchrysler	2.0	2.3	2.6	2.9	The sale of 80% of the share capital of Chrysler, which is expected to be implemented in Q3 2007, will put DaimlerChrysler in a far better position. It leaves the group with a large cash holding (€13bn) which we expect will be progressively partly paid back to the shareholders in the form of a dividend or share buy-backs (€3-5bn). Very strong Q1 07.
Deutsche Bank	4.8	5.5	6.3	7.0	Dividend Policy: "Incrementally increasing its payout to a 50% target". Group does not see "large mergers or acquisitions as its top priority" and said that boosting earnings would allow it to continue to pay attractive dividends. DB announced a new share buy-back programme (up to 10%). Group is confident that its business conditions will remain stable and reiterated that it targets a profit before tax of €8.4bn in 2008. Q1 net profit rose by 30%.
Deutsche Boerse	2.5	3.0	3.5	4.0	Targets a payout ratio between 50% and 60%. DB said it is still committed to its capital management program under which cash is returned to shareholders through dividends and share buybacks. Upon announcing its \$2.8 billion acquisition of U.S.-based options exchange International Securities Exchange at the end of April, Deutsche Boerse said it would freeze return of cash to shareholders in the form of share buybacks pending the return to normal debt-to-capital ratios. We expect the acquisition of LSE to take place during Q4 and to be rapidly accretive. Management indicated that the program should resume in H2 08. DB1 delivered strong results for Q1 07.
Deutsche Post	0.9	1.0	1.2	1.3	Group expects a pay-out target ratio of 50% for 2007. We expect strong cash flow growth generation, lower capex and a significant reduction in the net debt. Thus, with no further major acquisitions, surplus cash would be used to buy back shares and increase dividend.
Dt.Telekom	0.7	0.7	0.7	0.7	Despite the recent two profit warning, we expect the management to maintain an attractive dividend policy (it comes first on management priority for free cash flow : 1/maintain an attractive dividend policy 2/investing in existing businesses 3/ acquisitions). Given 1/ the conservative acquisition policy, 2/ strong FCF generation and 3/ low net debt ratio, we expect the dividend to be unchanged over the next years (payout ratio of 100% in 2008 and slight decline the years after).
E.On	4.0	4.8	5.4	6.0	E.ON is to buy back €7bn worth of own shares by end-2008, aims to invest €60bn (€42bn of which for growth) by 2010, grow EBIT by 10% p.a. and dividends by 10-20% p.a. over the horizon (payout ratio between 50-60% of net profit). The dividend payout in the future will be flexible in the context of the 3x debt factor, meaning that the dividend could go up or down in order to change the financial structure back to the proscribed 3x net economic debt/EBITDA.
Lufthansa	0.8	0.9	1.0	1.1	Group said that the dividend may rise again. M&A: Group does not plan to team up with a partner to buy Iberia. Lufthansa reported good Q1 results and improved its guidance for FY 2007. The target of €1bn operating margin has been brought forward from 2008 to this year, indicating the strong improvement of results.
Man	1.7	1.8	2.0	2.2	We forecast organic sales growth of 7% over 2007-2010. Net cash position of €1bn to enable it to acquire growth and keep a regular dividend growth.
Metro	1.2	1.4	1.5	1.6	Metro remains the best risk/reward in the sector according to us. Metro management reiterated its FY07 guidance, with good top-line growth of 8-9%, and recurring EBIT growth of 6-8%.
Muench.Rueckvers.	5.0	5.5	6.0	6.5	Group said it will share buy-backs of €2bn in 2007 and €1bn from 2008 and would continue paying high dividends. Management has committed to a target of 10% pa EPS growth by 2010 and buy back over €5bn of its shares through 2010. Management also intends to pay a dividend in excess of €1bn for each of the years 2007 to 2010. Group posted stronger-than-expected Q1 net profit.
Rwe	3.8	3.4	3.6	3.8	For 2007, dividend will be based on an extraordinary payout ratio of 70-80% of recurrent net income (thanks to the sale of Thames Water). For 2008, dividend will be based on payout ratio of 50-60%. Group expects full-year operating profit and recurrent net profit to increase around 10% on-the-year in 2007. Group's intention to use its existing financial flexibility to grow the business organically, return cash to shareholders as well as selective external growth.
Thyssenkrupp	1.1	1.1	1.2	1.2	The group has recently stated new mid and longterm targets for profitability – €4bn of pretax profit 2009/10 and E4.5bn from 2012 onwards. These are largely driven by the planned huge capex programme (TK has a target of E17-20bn of capex over the next 3-5 years). Thus we expect a very limited dividend growth over the period.
Tui	0.3	0.6	0.8	1.0	As part of its strategic review, TUI announced it will cut its dividend paid in 2007. Group didn't give any guidance for 2008. TUI A and Britain's First Choice Holidays had agreed to merge to create a tourism group with revenues of about 12bn billion pounds. We expect the 2007 improvements to be visible in the DPS.

New stocks to be added in September 2007

Name	2008	2009	2010	2011	Comments
Hypo Real Estate	2.0	2.5	3.0	3.5	Company said dividend payout ratio is expected to remain stable at between 40% and 50% in 2007. Hypo Real Estate expects profit to jump in 2007.
Allianz AG	5.0	6.0	7.0	8.0	Group aims to reach a payout ratio of 30-40% and should increase the proportion dedicated to share buyback programmes. The important amount of restructuring gains expected between 2007 and 2009 should support an aggressive dividend policy over the period. We expect 50% of the €3.5bn restructuring gains to be return to shareholders. Allianz expects to complete AGF squeeze-out in Q3.
Commerzbank AG	1.0	1.2	1.4	1.6	The group indicates expect its dividend to increase steadily. In the absence of a major acquisition, Commerzbank should pay excess capital in the form of a higher dividend. Group does not plan any share buy-back programme. Group said no acquisition on radar screen. 15% ROE target for 2010. Posted Q1 earnings figures that strongly outpaced analyst estimates.
Continental AG	2.8	3.5	4.2	5.0	The management is currently looking at acquisition opportunities (apart from VDO), given its large cash reserve. By the end of 2007, if no substantial acquisitions have been secured, the management would consider other ways of using its cash, such as a buy-back programme or a special dividend. The Group expects revenues to rise by at least 5% in 2007. Recent comments from CEO "If we don't succeed in making a large acquisition, then we will certainly consider what we can do with the dividend".

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