

## ECONOMIC SITUATION AND STRATEGY

## Smart performance with smart money

A few weeks ago here, we discussed what an innovative timing model for stocks might look like, one that can identify movements of "smart money" and participate in them. The term refers to the money of investors who have a good nose for and superior knowledge of material facts that cannot be broadly classified yet as public. Our ideas have met with such interest among readers that we would like to consider this topic again, but this time from a different angle. While we were first concerned with using this information to improve the timing of stock purchases and sales, we now want to show how one can actually achieve systematic outperformance with this approach such that a market-neutral strategy could be based on it.

For those who have not read the first publication on this topic, here is a quick summary. We generally assume that publicly available information is processed and reflected in prices in comparatively short order and markets are not as irrational in the medium term as they are often supposed to be. But this also means that price movements that cannot be explained by publicly available information might be especially interesting, since they are an indicator that "smart money" is in play and influencing price development.

This is exactly the basis for our idea now. We use a statistical method and a large number of ratios to calculate at each time a (supposedly) fair price for each stock in the STOXX 600. To each of those, we apply a stock-specific regression model with which we try as far as possible to explain the relevant price trend and identify deviations individually based on available data. As far as possible, we have "intercepted" and solved the statistical problems that typically arise in such time series analyses.

For our data, we rely on the global consensus estimates of analysts for a large number of ratios based on the IBES databank. Our hypothesis is that a stock quoting above its statistically derived fair price should be bought because "smart money" evidently is in play and it would therefore be advisable simply to join them and participate in this development.

The procedure thus resembles a momentum strategy where we do not necessarily buy stocks whose prices have advanced, but rather stocks that have advanced more strongly than would have been expected based on available information. Consequently, it actually makes sense to buy stocks that are already overvalued when their valuation is derived solely from publicly available information. That may seem counterintuitive at first sight, since one should rather invest when the valuation appears low, but here exactly the opposite logic applies. Apparently, what happens in such situations is that publicly available information simply is not a sufficient basis for conclusively estimating valuation. It is rather smart money that points the way, which is quite compatible with the efficient market hypothesis, since it is precisely the knowledge and deliberations of these investors that make the market "search-and-discover process" into an efficient information-processing tool. It seems we have managed by statistical means to render some of these movements visible and participate in them. However, our analysis also shows that the question on which misvaluations one should buy or sell is of considerable importance.

Overall, it turns out that stocks should be bought from the standpoint of performance when they are overvalued according to the regression model by about 15% and should be sold when they fall below that threshold or rise to an overvaluation of more than 25% - as that is where the danger exists of exaggeration and hence correction. On the other hand, systematically buying stocks quoting significantly below fair value is like a "license to destroy money."

We should perhaps clearly reiterate that this method is not concerned with identifying prospective performance potential based on fundamental considerations, but rather with ferreting out at the leading edge those stocks that have recently shown conspicuously good performance even though, for example, estimates of earnings, cash flows, or revenues do not show the slightest peculiarities. Because of its rather short-term view, this approach is also suitable as a timing model.

The question we now have raised is whether this approach can be adapted in a way that entire portfolios can be managed and ideally with such constant outperformance that even a market-neutral strategy could be derived from it. It is clear that the "original" timing model would not be suitable for this purpose because the settings there are selected so that maximum performance can be achieved. That sounds enticing at first, but there's no joy without sorrow. The price of high performance is paid in the form of very high turnover and less constant outperformance. However, in a market-neutral fund aspiring to achieve an absolute return target, highly constant outperformance and manageable turnover would be the more critical considerations. The question therefore arises whether the basic idea of the smart money model can be changed so that these goals can also be achieved. From a theoretical standpoint, that would have to be the case. Financial researcher Richard Grinold<sup>1</sup> already pointed out in 1989 in a publication still much heeded today that the quality of a portfolio, the associated performance, and especially the constancy of outperformance is determined by a small number of factors. Viewed strictly, the information ratio, which describes the relation between the constancy and extent of outperformance and is thus a good measure of whether a strategy is suitable as an absolute return strategy, can only be estimated by means of two factors. One is the information coefficient. It describes how good the forecasts are that the model or the portfolio makes on average. Mathematically, the information coefficient can be derived from the "hit ratio." The more often decisions have proven correct in retrospect, the higher the hit ratio is. From our calculations, we know the hit ratio of our smart money model is comparatively high, so a "green light" can be given from this perspective. The other im-

<sup>&</sup>lt;sup>1</sup> Grinold 1989: "The fundamental law of active management," The Journal of Portfolio Management, Vol. 15, No. 3, pp .30-37.



portant factor is the number of decisions made within a period. Here, the advantage of our strategy is especially clear, since a very large universe of stocks can be analyzed with our strategy because it is a computer-based approach. Moreover, this analysis can be performed more frequently, since the technology imposes no limits. From a theoretical perspective, our smart money approach has what it takes to function in a market-neutral construction. But is this also confirmed by back-calculation?

The answer is clearly affirmative. We have made the following changes to the timing model originally presented. To reduce the number of transactions, we have significantly increased the number of stocks and their retention time in the portfolio by already buying stocks as soon as they are only slightly above their statistically derived fair value; stocks are sold when they either fall below fair value or become overvalued by more than 30%. These measures not only reduce the number of transactions, but also increase the constancy of outperformance to the same extent. Absolute performance necessarily declines since the strategy is diluted to a certain degree, but achieving the target each year is more important in a market-neutral strategy with an absolute return target than significantly overattaining the target on average over many years.

The resulting performance of the market-neutral portfolio (smart money portfolio on the long side and complete hedge by way of a sold future on the short side) with about 5% volatility shows extraordinarily good performance before costs. Taking suitable measures in the portfolio design (decreasing country and sector exposures) can further reduce volatility, but at the cost of poorer performance. Moreover, it must be clearly stated that part of the good performance is not directly due to the selection process, but is simply the result of a small cap effect. In the period considered, small caps performed significantly better than large caps, but the latter clearly dominate the index. Since our approach necessarily takes small caps more strongly into account by giving all stocks equal weighting, we benefit from that situation. For this reason, in the chart below, we have also shown the performance of a portfolio in which all stocks in the STOXX 600 are equally weighted, and our portfolio also beats that one.





This proves in principle that our smart money model could be used to manage even a complex, market-neutral portfolio that offers the chance of a positive return even in heavily negative stock market phases because it can, completely detached from stock market development, achieve autonomous performance and hence a real alpha. This ability should continue to become more important in the coming years, since the bond market is likely to drop out more or less as a source of performance and the stock market will presumably no longer achieve the per annum returns observed on average in the last ten years.

## ECONOMIC SITUATION AND STRATEGY





	_			~	~		
	June	July	Aug.	Sept.	Oct.	Nov.	Release
DE: ZEW economic expectations	18.6	17.5	10	17	17.6	17.4	November 14
DE: ZEW current conditions	88	86.4	86.7	87.9	87	87.3	November 14
DE: Consumer prices, m/m, final	0.2%	0.4%	0.1%	0.1%	0.0%		November 14
DE: Consumer prices, y/y, final	1.6%	1.7%	1.8%	1.8%	1.6%		November 14
DE: Core inflation, m/m, final	0.3%	0.5%	0.1%	-0.1%	0.0%		November 14
DE: Core inflation, y/y, final	1.6%	1.7%	1.6%	1.5%	1.4%		November 14
EUR19: Industrial production, m/m	-0.6%	0.3%	1.4%	-0.9%			November 14
EUR19: Industrial production, y/y	2.7%	3.7%	3.5%	2.9%			November 14
EUR19: Consumer prices, y/y, final	1.3%	1.3%	1.5%	1.5%	1.4%		November 16
EUR19: Core inflation rate, y/y, final	1.1%	1.2%	1.2%	1.1%	1.0%		November 16
	Q1	17	$Q^2$	2 17	Q3	17	
DE: GDP, q/q, s.a.	0.7	7%	0.	6%	0.0	5%	November 14
DE: GDP, y/y, s.a.	1.9	9%	2.	1%	2.4	4%	November 14
EUR19: GDP, $q/q$ , s.a.	0.5	5%	0.	7%	0.0	5%	November 14
EUR19: GDP, y/y, s.a.	2.0	0%	2.	3%	2.5	5%	November 14
MMWB estimates in red							

## Weekly outlook for November 13-17, 2017

Chart of the Week: Unbridled momentum in e-commerce



Electronic commerce has grown rapidly in recent years. The global e-commerce market grew at a rate of 21% (on a USD basis) last year alone. The emerging economies showed the strongest growth. For example, the Alibaba Group, an internet giant from China, generates five times as much sales on its Singles Day, now the world's biggest online shopping day, than all US online companies together do on Cyber Monday, their version of Singles Day. Moreover, global growth rates of more than 20% are a realistic prospect in the next few years. Analysts estimate that the emerging countries will continue to drive future growth. China is expected to achieve rates of 30% p.a. or more, and India rates above 40%. As more developed markets, Europe and Japan will presumably expand more slowly at about 10% p.a. Growth rates for e-commerce should also remain double-digit in Germany. But what are the causes of this dynamic growth? For one thing, it is easier to compare products on the internet and the expense of ordering online is much lower compared with bricks-and-mortar shopping, while delivery to customers is becoming faster. For another, bills for goods can be paid easily today with a smart phone, tablet, or sometimes even a fingerprint. In addition, more and more purchases are being made with mobile devices by customer on the go. Many online vendors are already generating more than 50% of their sales this way. And the industry is staying innovative with virtual digital assistants or smart speakers like the Amazon Echo. The system is still in the beginning phase, but it has the potential to achieve a significant share of online orders in the years ahead. However, the strong growth of e-commerce is affecting bricks-and-mortar business. Operators of shopping centers are one of the main groups of businesses suffering from e-commerce. According to a recent analysis by Credit Suisse, about 20%-25% of major shopping centers in the United States are going to close in the next five years. But the clothing business is affected even more, with 55% of outlets expected to close.





Stock marktes         13:14/07         0.0.2017         0.0.2017         30.02.2016           Spock marktes         13:44         -1.week         -1.month         -3.months         YTD           Dow Jones         2582         -0.3%         2.6%         7.2%         5.9%         15.3%           SAP 500         2582         -0.3%         1.2%         5.9%         15.3%           Nasdaq         6751         -0.5%         2.5%         8.6%         12.3%           DAX         13012         -3.4%         0.5%         8.3%         13.3%           MDA         26239         -2.6%         1.6%         6.6%         18.3%           Stocx 50         3558         -3.4%         -1.1%         3.6%         8.1%           Stocx 50         3558         -3.4%         -1.2%         3.0%         4.9%           Stocx 50         3558         -2.6%         -1.2%         3.0%         1.0%         1.1%           Stocx 50         3538         -1.1%         -1.6%         1.7%         1.9%         1.10%           Stocx 50         358         -2.6%         1.3%         1.71%         1.9%         1.17%           Stocx 50         358 <td< th=""><th></th><th>As of</th><th></th><th>Change</th><th>versus</th><th></th></td<>		As of		Change	versus	
Sinck markten         13:44         1 week         1 month         3 months         YD           Dow Jones         2342         -0.5%         2.6%         7.2%         18,5%           Sop Paol         2582         -0.5%         2.5%         8.6%         2.5.4%           Nasdaq         6751         -0.5%         2.5%         8.6%         2.3.4%           DAX         2623         -2.6%         1.6%         6.6%         18.3%           TecDAX         2633         -3.4%         -1.1%         3.6%         8.1%           Stox 50         3558         -2.6%         -1.7%         3.0%         4.3%           Stox 50         3558         -2.6%         -1.5%         1.9%         1.1,0%           Nike 1225         22381         -0.7%         7.5%         13.4%         1.7%         -0.2%           Indien 852 0         33034         -2.1%         3.5%         4.3%         1.7%         -0.2%           Mord Future         1128         -0.8%         2.7%         7.6%         13.4%           Dom future         131.73         -19         45         -93         -190           Statz Future         131.73         -19         45 <th></th> <th>13.11.2017</th> <th>06.11.2017</th> <th>10.10.2017</th> <th>10.08.2017</th> <th>30.12.2016</th>		13.11.2017	06.11.2017	10.10.2017	10.08.2017	30.12.2016
Dow Jones         23422         -0.5%         2.6%         7.2%         18,5%           S&P SOQ         2522         -0.3%         1.2%         5.9%         15,3%           Nasdaq         6751         -0.5%         2.2%         6.3%         1.3%           MAX         13012         -3.4%         0.5%         8.3%         13.3%           MAX         26239         -2.6%         -1.2%         3.0%         4.8%           EroStax SO         3558         -3.4%         -1.1%         3.6%         8.1%           Stox SO         3156         -2.6%         -1.2%         3.0%         4.8%           Mikel 225         22381         -0.7%         7.5%         13.4%         17.1%           Nikel 225         33034         -2.1%         3.5%         4.8%         24.1%           China Shanghai Composite         3449         1.8%         1.9%         5.7%         1.01           Bol-Future         163.14         0         166         -97         -101           Bol-Future         131.73         -19         45         -93         -100           Statz-Future         132.27         -3         11         13         -2	Stock marktes	13:44	-1 week	-1 month	-3 months	YTD
Desite         Desite         Desite         Desite         Desite         Desite           Sast 900         2522         0.3%         1.2%         5.9%         15.3%           Nasdaq         6751         0.5%         2.5%         8.6%         2.5%           MDAX         2623         -2.6%         1.6%         6.6%         18.3%           TecDAX         2633         -5.0%         -1.4%         3.6%         8.3%           EuroStox 50         3558         -2.6%         -1.5%         1.9%         11.0%           Nikke 125         22381         -0.7%         7.5%         13.4%         17.5%           Basilien BOVESPA         7.1974         3.1%         -0.4%         19.5%         11.0%           Nikke 125         22381         -0.7%         7.5%         13.4%         17.5%           Rusiand RTS         1150         3.6%         1.3%         1.1%         -0.2%           Mole Dettatter         3439         1.8%         1.9%         5.7%         13.4%           Bond markets         U         112.27         -3         11         13         -2           Biond-Future         163.1/4         0         166         -97 <td>Dow Jones</td> <td>23/22</td> <td>-0.5%</td> <td>2.6%</td> <td>7.2%</td> <td>18 5%</td>	Dow Jones	23/22	-0.5%	2.6%	7.2%	18 5%
Los of the second sec	S&P 500	25422	-0,3%	1.2%	5.9%	15,3%
DAX         13012         3.4%         0.5%         8.3%         13.3%           MDAX         2623         2.6%         1.6%         6.6%         18.3%           TecDAX         263         5.0%         -1.4%         10.3%         8.3%           EuroStox S0         3558         -2.6%         -1.2%         3.0%         8.3%           Stox S0         3556         -2.6%         -1.2%         3.0%         4.3%           Stox S0         3156         -2.6%         -1.2%         3.0%         4.3%           Stox S0         3156         -2.6%         -1.2%         1.0%         1.1%           Mikel 225         2381         -0.7%         7.5%         1.10%         Nikel 225           MSG Iberoging Markets (in €)         1128         -0.8%         2.7%         7.6%         18.4%           Bond market         Ibol-future         113.73         -19         45         -93         -101           Bol-future         113.73         -19         45         -93         -101           Bol-future         112.27         -3         11         13         -2           Monats Euture, Dec 2017         -0.33         0         -1         -1<	Nasdag	6751	-0.5%	2.5%	8.6%	25.4%
International Construction         International Construction         International Construction         International Construction           MAX         2463         -5,0%         -1,4%         10,3%         36,0%           EuroStox SD         3156         -2,6%         -1,2%         3,0%         4,8%           Stox SD         3136         -0,7%         7,5%         11,4%         10,0%           Stox SD         33044         -2,1%         3,5%         4,8%         2,4%           Chinas Shanghai Composite         3449         1,8%         1,9%         5,7%         1,1%           MSCI Welt (in C)         2040         -0,9%         2,2%         5,9%         5,4%           Bond markets         112,27         -3         11         13         -2           Bond Sturber         -0,33         0         0         -1         0           Monats Sturbor         -0,33         0         -1	ΔΔΧ	13012	-3.4%	0.5%	8 3%	13 3%
TecDAX         1243         2.50%         -1.4%         10.3%         36,0%           EuroStoxx 50         3558         -3,4%         -1.1%         3,6%         4,1%           Stoxx 50         3156         -2,6%         -1,2%         3,0%         4,8%           SMI (Swiss Market Index)         9124         -1,8%         -1,5%         1,9%         11,0%           Nikkei 22S         0.7%         7,5%         13,4%         17,2%         9,5%           Brasilien BOVESPA         71974         -3,1%         -6,4%         7,4%         19,5%           Russiand RTS         1150         3,6%         1,3%         11,7%         -0,2%           Indien BS 20         2040         -0.9%         2,2%         5.9%         5,4%           MSCI Welt (m 6)         128         -0.8%         2,7%         7,6%         18,4%           Bond Future         163,14         0         166         -97         -101           Bond Future         131,73         -19         45         -93         -190           Schatz-Future         112,27         -3         11         13         -2           Monats Eurobor         0,33         0         -1         0 <td>MDAX</td> <td>26239</td> <td>-2.6%</td> <td>1.6%</td> <td>6.6%</td> <td>18 3%</td>	MDAX	26239	-2.6%	1.6%	6.6%	18 3%
Bund         3.4%         -1.1%         3.6%         8.1%           Stox 50         3156         -2.6%         -1.2%         3.0%         4.9%           Nilkei 225         22381         -0.7%         7.5%         13.4%         1.7.1%           Braillen BOVESPA         71974         -3.1%         6.4%         7.4%         1.9.5%           Russland RTS         1150         3.6%         1.3%         11.7%         -0.2%           Indien BSE 30         33034         -2.1%         3.5%         4.8%         24.1%           MSCI Emerging Markets (in €)         2040         -0.9%         2.2%         5.9%         5.4%           Bond Future         163.14         0         166         -97         -101           Bohd-Future         131.73         -19         45         -93         -190           Schatz-Future         132.27         -3         11         13         -2           Monts Eurobor         10.33         0         0         -1         0           Morts Eurobor         1.41         2         6         10         42           Fed Funds Future, Dec 2017         1.29         0         2         1         1		2463	-5.0%	-1 4%	10.3%	36.0%
Stor. 50         3156         -2.6%         -1.2%         3.0%         4.8%           SMI (Swis Market Index)         9124         -1.8%         -1.2%         1.9%         11.10%           Nikkoi 225         22381         -0.7%         7.5%         13.4%         17.1%           Brasilien BOVESPA         71974         -3.1%         -6.4%         7.4%         19.5%           Russiand RTS         1150         3.6%         1.3%         4.8%         24.1%           China Shanghai Composite         3449         1.8%         1.9%         5.7%         11.1%           MGCI Emerging Markets (in C)         1128         -0.8%         2.7%         7.6%         18.4%           Bond markets	EuroStoxx 50	3558	-3.4%	-1 1%	3.6%	8 1%
SMI (Swiss Market index)         9124         -1.8%         -1.5%         1.9%         11.0%           Nikkei 225         22381         -0.7%         7.5%         13.4%         17.1%           Braillen BOVESPA         71974         -3.15%         -6.4%         7.4%         19.5%           Russland RTS         1150         3.6%         1.3%         11.7%         -0.2%           Inden BSE 30         33034         -2.1%         3.5%         4.8%         24.1%           MSCI Weit(in €)         2040         -0.9%         2.2%         5.9%         5.4%           Bond-Future         113,73         -19         45         -93         -190           Schatz-Future         112,27         -3         11         13         -2           Monats Sturbor         -0.33         0         0         -1         30           Monats Sturbor         1.41         2         6         10         42           Fed Funds Future, Dec 2017         1,29         0         2         6         0           10 year Use So         2,38         6         3         17         -7           10 year Surds Government         0.09         1         -4         5	Stoxx 50	3156	-2.6%	-1.2%	3.0%	4.8%
Nikkei 225         22381         -0.7%         7,5%         13,4%         17,1%           Brasilien BOVESPA         71974         -3,1%         -6,4%         7,4%         19,5%           Russland RTS         1150         3,6%         1,3%         11,7%         -0,2%           Indien BSE 30         30304         -2,1%         3,5%         4,8%         24,1%           China Shanghai Composite         3449         1,8%         1,9%         5,7%         11,14%           MSCI Urel (in €)         2040         -0,9%         2,2%         5,9%         5,4%           Bond markets         -         -         -         -         18,4%           Bond markets         -         -         -         -         -           Bund-Future         112,27         -3         11         13         -2           Monats Eurobor         -0,33         0         -1         -1         0           Monats Eurobor         1,23         0         2         6         0           10 year Us Tressuries         2,38         6         3         17         -7           10 year Songovernment         -0,09         1         -4         5         11	SMI (Swiss Market Index)	9124	-1.8%	-1.5%	1.9%	11.0%
Brasilien BOVESPA         71974         -3,1%         -6,4%         7,4%         19,5%           Russiand RTS         1150         3,6%         1,3%         11,7%         -0,2%           China Shanghai Composite         3449         1,8%         1,9%         5,7%         11,1%           MGC Welt (in €)         2040         -0,9%         2,7%         7,6%         18,4%           Bond-Future         163,14         0         166         -97         -101           Bohl-Future         112,17,3         -19         45         -93         -190           Schatz-future         112,27         -3         11         13         -2           Monats Euribor         -0,33         0         0         0         -1           Metribor Future, Dec 2017         1,29         0         2         6         0           10 year Unre, Dec 2017         1,29         0         2         6         0         0           10 year Sins Government         -0,09         1         -4         5         11           10 year Sins Government         -0,00         0         0         0         0           10 year Sins Government         -0,05         -1,2%	Nikkei 225	22381	-0.7%	7.5%	13.4%	17.1%
Russland RTS         1150         3,6%         1,3%         11,7%         -0,2%           Indien SE 30         33034         -2,1%         3,5%         4,8%         24,1%           Kinis Shanghai Composite         3449         1,8%         1,9%         5,7%         11,1%           MSCI Welt (in €)         2040         -0,9%         2,2%         5,9%         5,4%           Bond Future         103,173         -10         45         -93         -190           Schatz-Future         112,27         -3         11         13         -2           Monats Euribor         -0,33         0         0         0         -1           Shoats Future, Dec 2017         -0,33         0         -1         -1         0           Monats Subor         1,41         2         6         0         10         42           Fed Funds Future, Dec 2017         1,29         0         2         6         0         1           10 year US Treasuries         2,38         6         3         17         -7         1         0           10 year US Treasuries         0,39         5         -5         5         18         10         14         5 <t< td=""><td>Brasilien BOVESPA</td><td>71974</td><td>-3,1%</td><td>-6,4%</td><td>7,4%</td><td>19,5%</td></t<>	Brasilien BOVESPA	71974	-3,1%	-6,4%	7,4%	19,5%
Indien BSE 30         33034         -2,1%         3,5%         4,8%         24,1%           China Shanghai Composite         3449         1,8%         1,9%         5,7%         11,1%           MCG Welt (in €)         1128         -0,9%         2,2%         5,9%         5,4%           MSCI Emerging Markets (in €)         1128         -0,8%         2,7%         7,6%         18,4%           Bond Future         163,14         0         166         -97         -101           Bond Statz-Future         112,27         -3         11         13         -2           Monats Euribor         -0,33         0         0         0         -1           Monats S Libor         1,41         2         6         10         42           Fed Funds Future, Dec 2017         1,29         0         2         6         0           10 year US Treasuries         2,38         6         3         17         -7           10 year US Treasuries         0,39         5         -5         5         18           10 year S IDY Performance         610,85         -0,7%         0,4%         0,1%         -0,2%           Bund 10Y Performance         610,85         -0,7%	Russland RTS	1150	3,6%	1,3%	11,7%	-0,2%
China Shanghai Composite         3449         1,8%         1,9%         5,7%         11,1%           MSCI Wert (in (i)         1128         -0,9%         2,2%         5,9%         5,4%           Bond markets (in (i)         1128         -0,9%         2,2%         5,9%         5,4%           Bond Future         163,14         0         166         -97         -101           Bobl-Future         131,73         -19         45         -93         -190           Schatz-Future         112,27         -3         11         13         -2           Monats Euribor         -0,33         0         0         0         -1           Monats Subor         1,41         2         6         10         42           Fed Funds Future, Dec 2017         1,29         0         2         6         0           Oyear US Treasuries         2,38         6         3         17         -7           Oyear US Treasuries         0,39         5         -5         5         18           Oyear JGB         0,05         2         -1         1         0           Oyear JGB         0,05         2         -1         1         0	Indien BSE 30	33034	-2,1%	3,5%	4,8%	24,1%
MSCI Welt (in €)     2040     -0.9%     2.2%     5.9%     5.4%       MSCI Emerging Markets (in €)     1128     -0.8%     2.7%     7.6%     18.4%       Band-Future     163,14     0     166     -97     -101       Bobl-Future     113,73     -19     45     -93     -190       Schatz-Future     112,27     -3     11     13     -2       Monats Euribor     -0.33     0     0     0     -1       Monats Subor     1,41     2     6     0     0       Joyear US Treasuries     2.38     6     3     17     -7       10 year US reasuries     0.39     5     -5     5     18       10 year US reasuries     0.39     5     -5     5     11       US reas IOV Performance     579,52     -0.9%     -0.5%     -1,2%     1,8%       Bund 10V Performance     610,85     -0,7%     0,4%     0,1%     0,2%       BXX Bd, €     1,15     8     -13     -11     -35       IBOX XBB, €     1,15     8     -13     -11     -35       IBOX BBB, €     1,15     8     -13     -11     -35       IBOX BBB, €     1,15     8     -13 <td< td=""><td>China Shanghai Composite</td><td>3449</td><td>1,8%</td><td>1,9%</td><td>5,7%</td><td>11,1%</td></td<>	China Shanghai Composite	3449	1,8%	1,9%	5,7%	11,1%
MSCI Emerging Markets (in €)         1128         -0.8%         2.7%         7.6%         18.4%           Bond markets	MSCI Welt (in €)	2040	-0,9%	2,2%	5,9%	5,4%
Bond markets         Bond markets           Bund-Future         163,14         0         166         -97         -101           Bobl-Future         131,73         -19         45         -93         -190           Schatz-Future         112,27         -3         11         13         -2           Monats Euribor         -0,33         0         0         0         -1           3M Euribor Future, Dec 2017         -0,33         0         -1         -1         0           Monats Subor         1,41         2         6         10         42           Fed Funds Future, Dec 2017         1,29         0         2         6         0           10 year US Treasuries         2,38         6         3         17         -7           10 year Sunds         0,39         5         -5         5         18           10 year Sunds         0,09         1         -4         5         11           US reas IDV Performance         61,08         -0.7%         0,4%         0,1%         0,2%           REX Performance Index         483,73         -0.2%         0,2%         0,3%         -0.3%           US mortgage rate         0,00	MSCI Emerging Markets (in €)	1128	-0,8%	2,7%	7,6%	18,4%
Bund-Future         163,14         0         166         -97         -101           Bund-Future         131,73         -19         45         -93         -190           Schatz-Future         112,27         -3         11         13         -2           Monats Euribor         -0,33         0         0         0         -1           Monats Subor         1,41         2         6         10         42           Fed Funds Future, Dec 2017         1,29         0         2         6         0           10 year US Treasuries         2,38         6         3         17         -7           10 year US Treasuries         0,39         5         -5         5         18           10 year US Treasuries         0,05         2         -1         -1         0           10 year US Treasuries         0,09         1         -4         5         11           US Treas UP Performance         610,85         -0.7%         0.4%         0.1%         0.2%           Store of the of t	Bond markets					
Bund-ruture         165,14         0         166         -97         -101           Schatz-Future         111,2,77         -19         45         -93         -190           Schatz-Future         112,27         -3         11         13         -2           3 Monats Euribor         -0,33         0         0         0         -1           3 Monats Subor         1,41         2         6         10         42           Fed Funds Future, Dec 2017         1,29         0         2         6         0           10 year US Treasuries         2,38         6         3         17         -7           10 year JGB         0,05         2         -1         -1         0           10 year JGB         0,05         2         -1         -1         0           10 year JGB         0,05         2         -1         -1         0           10 year JGB         0,05         2         -1         11         0.2%           Ind IV Performance         610,85         -0,7%         0,4%         0,1%         0.2%           ISO motigage rate         0,00         0         0         0         0           IBOX AA, €		462.11		105	c=	401
BODI-HUTER         131,73         -19         45         -93         -190           Monats Euribor         112,27         -3         11         13         -2           3 Monats Euribor         -0,33         0         0         0         -1           3 Monats Euribor         1,41         2         6         10         42           Fed Funds Future, Dec 2017         1,29         0         2         6         0           10 year US Treasuries         2,38         6         3         17         -7           10 year US Treasuries         0,05         2         -1         -1         0           10 year JGB         0,05         2         -1         -1         0         1           10 year JGB         0,05         2         -1         -1         0         1           11 US Treas 10V Performance         610,85         -0,7%         0,4%         0,1%         0,2%           REX Performance Index         483,73         -0,2%         0,2%         0,3%         -0,3%           US motagage rate         0,00         0         0         0         0         0           BOXX BB, €         1,15         8         -13	Bund-Future	163,14	0	166	-97	-101
Schätz-vuture       112,2/       -3       11       13       -2         Monats Euribor       -0,33       0       0       0       1         3Monats Subor       1,41       2       6       10       42         Fed Funds Future, Dec 2017       1,29       0       2       6       0         10 year US Treasuries       2,38       6       3       17       -7         10 year Bunds       0,39       5       -5       5       18         10 year Junds       0,05       2       -1       -1       0         10 year Swiss Government       -0,09       1       -4       5       11         US Treas 10P Performance       610,85       -0,7%       0,4%       0,1%       0,2%         REX Performance Index       483,73       -0,2%       0,2%       0,3%       -0,3%         US mortgage rate       0,00       0       0       0       0         US mortgage rate       0,00       0       0       0       0         IBOXX BB, €       1,15       8       -13       -11       -35         MLUS High Yield       6,21       17       23       6       -24	Bobl-Future	131,73	-19	45	-93	-190
3 Monats Euribor         -0,33         0         0         -1           3 Monats Suibor         1,41         2         6         10         42           Fed Funds Future, Dec 2017         1,29         0         2         6         0           10 year US Treasuries         2,38         6         3         17         -7           10 year US Treasuries         0,39         5         -5         5         18           10 year US Treasuries         0,09         1         -4         5         11           US reas 10Y Performance         610,85         -0,7%         0,4%         0,1%         0,2%           Bund 10Y Performance         610,85         -0,7%         0,4%         0,3%         -0,3%           US mortagae rate         0,00         0         0         0         0         0           BOXX BB, €         1,15         8         -13         -11         -35         ML US High Yield         6,21         17         23         6         -24           JPM ENMBH, Index         823         -0,8%         -1,8%         -0,3%         6,5%         Comwotible Bonds, Exane 25         7366         0,0%         1,4%         3,0%         6,5%	Schatz-Future	112,27	-3	11	13	-2
SME Linbor - Luttre, Dec 2017       -0,33       0      1       -1       -1       0         SMonats Stilbor       1,41       2       6       10       42         Fed Funds Future, Dec 2017       1,29       0       2       6       0         10 year US Treasuries       2,38       6       3       17       -7         10 year Bunds       0,39       5       -5       5       18         10 year Swiss Government       -0,09       1       -4       5       11         US Treas 10Y Performance       579,52       -0,9%       -0,5%       -1,2%       1,8%         Bund 10Y Performance       60,08       -0,7%       0,4%       0,1%       0,2%         RDY Performance Index       483,73       -0,2%       0,2%       0,3%       -0,3%         US mortgage rate       0,00       0       0       0       0         IBOXX ABB, €       1,15       8       -13       -11       -35         ML US High Yield       6,21       17       23       6       -24         JPM EMBH+, Index       823       -0,8%       -1,8%       -0,3%       6,5%         Conmodities       2       2,5%       <	3 Monats Euribor	-0,33	0	0	0	-1
3 Monats S Libor       1,41       2       6       10       42         Fed Funds Future, Dec 2017       1,29       0       2       6       0         10 year US Treasuries       2,38       6       3       17       -7         10 year Bunds       0,39       5       -5       5       18         10 year Bunds       0,09       1       -4       5       11         US Treas IOY Performance       579,52       -0,9%       -0,2%       0,3%       -0,3%         Bund 10Y Performance       610,85       -0,7%       0,4%       0,1%       0,2%         REX Performance Index       483,73       -0,2%       0,2%       0,3%       -0,3%         US mortgage rate       0,00       0       0       0       0         IBOXX A, €       0,68       7       -7       -3       0         IBOXX BB, €       1,15       8       -13       -11       -35         ML US High Yield       6,21       17       23       6       -24         JPM EMBI+, Index       823       -0,3%       -1,8%       -0,3%       6,5%         Convertible Bonds, Exane 25       7366       0,0%       1,1%       2,0% <td>3M Euribor Future, Dec 2017</td> <td>-0,33</td> <td>0</td> <td>-1</td> <td>-1</td> <td>0</td>	3M Euribor Future, Dec 2017	-0,33	0	-1	-1	0
Fed Funds Future, Dec 2017     1,29     0     2     6     0       10 year US Treasuries     2,38     6     3     17     -7       10 year Bunds     0,39     5     -5     5     18       10 year GB     0,05     2     -1     -1     0       10 year Swiss Government     -0,09     1     -4     5     11       US Treas 10Y Performance     610,85     -0,7%     0,4%     0,1%     0,2%       REX Performance Index     483,73     -0,2%     0,2%     0,3%     -0,3%       US mortgage rate     0,00     0     0     0     0       BOXX BB, €     1,15     8     -13     -11     -35       ML US High Yield     6,21     17     23     6     -24       IPM EMBH, Index     823     -0,8%     -1,8%     -0,3%     6,5%       Convertible Bonds, Exane 25     7366     0,0%     1,4%     3,0%     6,5%       Carde oil Brent     63,47     -0,5%     11,7%     20,6%     11,9%       Gold     1278,11     0,3%     -1,1%     -0,6%     11,9%       Gold     1278,11     0,3%     -1,1%     -0,6%     11,9%       Gold     1278,11     0,3%	3 Monats \$ Libor	1,41	2	6	10	42
10 year US Treasuries       2,38       6       3       17       -7         10 year Bunds       0,39       5       -5       5       18         10 year JGB       0,05       2       -1       -1       0         10 year SWiss Government       -0,09       1       -4       5       11         US Treas 107 Performance       579,52       -0,9%       -0,5%       -1,2%       1,8%         Bund 107 Performance       610,85       -0,7%       0,4%       0,1%       0,2%         REX Performance Index       483,73       -0,2%       0,2%       0,3%       -0,3%         US mortgage rate       0,00       0       0       0       0         IBOXX AB, €       1,15       8       -13       -11       -35         MLUS High Yield       6,21       17       23       6       -24         JPM EMBI+, Index       823       -0,8%       -1,8%       -0,3%       6,5%         Convertible Bonds, Exane 25       7366       0,0%       1,4%       3,0%       6,5%         Crude oil Brent       63,47       -0,5%       11,7%       20,6%       11,9%         Gold       1278,11       0,3%       -1,1% <td>Fed Funds Future, Dec 2017</td> <td>1,29</td> <td>0</td> <td>2</td> <td>6</td> <td>0</td>	Fed Funds Future, Dec 2017	1,29	0	2	6	0
10 year Bunds       0,39       5       -5       5       18         10 year JGB       0,05       2       -1       -1       0         10 year JGB       0,09       1       -4       5       11         US Treas 10V Performance       579,52       -0.9%       -0.5%       -1.2%       1,8%         Bund 10V Performance       610,85       -0.7%       0,4%       0,1%       0.2%         REX Performance Index       483,73       -0.2%       0.2%       0,3%       -0.3%         US mortgage rate       0,00       0       0       0       0         IBOXX AA, €       0,688       7       -7       -3       0         IBOXX BBB, €       1,15       8       -13       -11       -35         ML US High Yield       6,21       17       23       6       -24         JPM EMBH-, Index       823       -0.8%       -1,8%       -0,3%       6,5%         Convertible Bonds, Exane 25       7366       0,0%       1,4%       3,0%       6,5%         Convertible Bonds, Exane 25       7366       0,3%       0,8%       -2,2%       2,0%         MG Base Metal Index       344,73       -1,5%       0,9% </td <td>10 year US Treasuries</td> <td>2,38</td> <td>6</td> <td>3</td> <td>17</td> <td>-7</td>	10 year US Treasuries	2,38	6	3	17	-7
10 year JGB       0,05       2       -1       -1       0         10 year Swiss Government       -0,09       1       -4       5       11         US Treas 10Y Performance       610,85       -0,7%       0,4%       0,1%       0,2%         REX Performance       610,85       -0,7%       0,4%       0,1%       0,2%         REX Performance Index       483,73       -0,2%       0,2%       0,3%       -0,3%         US mortgage rate       0,00       0       0       0       0         IBOXX BAR, €       0,68       7       -7       -3       0         IBOXX BBR, €       1,15       8       -13       -11       -35         ML US High Yield       6,21       17       23       6       -24         JPM EMBH-, Index       823       -0,8%       -1,8%       -0,3%       6,5%         Convertible Bonds, Exane 25       7366       0,0%       1,4%       3,0%       6,5%         Convertible Bonds, Exane 25       7366       0,3%       0,8%       -2,2%       2,0%         MG Base Metal Index       431,36       0,3%       0,8%       -2,2%       2,0%         Gold       1278,11       0,3%	10 year Bunds	0,39	5	-5	5	18
10 year Swiss Government0.0914511US Treas 10V Performance579,520.9%-0.5%-1.2%1.8%Bund 10V Performance610,850.7%0.4%0,1%0.2%REX Performance Index483,73-0.2%0.2%0.3%-0.3%US mortgage rate0,0000000IBOXX AA, €0.687-7-30IBOXX BBB, €1,158-13-11-35ML US High Yield6,2117236-24JPM EMBI+, Index823-0.8%-1.8%-0.3%6,5%Convertible Bonds, Exane 2573660,0%1.4%3,0%6,5%CRB Spot Index431,360,3%0.8%-2.2%2,0%MG Base Metal Index344,73-1.5%0.9%6,2%23,2%Crude oil Brent63,47-0.5%11,7%20,6%11,9%Gold1278,110,3%-1,1%-0.6%10,4%Silver16,87-1.9%-1,8%-1,2%5,1%Aluminium2084,50-3,1%-2,5%2,6%22,3%Copper6753,75-2,6%0,7%5,6%22,3%Iron ore61,79-1,5%2,7%-17,5%-22,5%Freight rates Baltic Dry Index1464-0,6%3,2%34,1%52,3%EUR/ USD1,16530,5%-0,2%-0,6%2,9%USD / CNY16,6392	10 year JGB	0,05	2	-1	-1	0
US Treas 10V Performance       579,52 $-0,9\%$ $-0,5\%$ $-1,2\%$ $1,8\%$ Bund 10V Performance $610,85$ $-0,7\%$ $0,4\%$ $0,1\%$ $0,2\%$ REX Performance Index $483,73$ $-0,2\%$ $0,2\%$ $0,3\%$ $-0,3\%$ US mortgage rate $0,00$ $0$ $0$ $0$ $0$ $0$ IBOXX AA, € $0,68$ $7$ $-7$ $-3$ $0$ IBOXX BBB, € $1,15$ $8$ $-13$ $-11$ $-35$ ML US High Yield $6,21$ $17$ $23$ $6$ $-24$ JPM EMBI+, Index $823$ $-0,8\%$ $-1,8\%$ $-0,3\%$ $6,5\%$ Convertible Bonds, Exane 25 $7366$ $0,0\%$ $1,4\%$ $3,0\%$ $6,5\%$ Convertible Bonds, Exane 25 $7366$ $0,3\%$ $0,8\%$ $-2,2\%$ $2,0\%$ GBase Metal Index $431,36$ $0,3\%$ $0,8\%$ $-2,2\%$ $2,0\%$ Gold $1278,11$ $0,3\%$ $-1,1\%$ $-0,6\%$ $1,9\%$ Silver $16,87$ $-1,9\%$	10 year Swiss Government	-0,09	1	-4	5	11
Bund 10Y Performance         610,85         -0,7%         0,4%         0,1%         0,2%           REX Performance Index         483,73         -0,2%         0,2%         0,3%         -0,3%           US mortgage rate         0,00         0         0         0         0           IBOXX AA, €         0,68         7         -7         -3         0           IBOXX BBB, €         1,15         8         -13         -11         -35           ML US High Yield         6,21         17         23         6         -24           JPM EMBH+, Index         823         -0,8%         -1,8%         -0,3%         6,5%           Convertible Bonds, Exane 25         7366         0,0%         1,4%         3,0%         6,5%           Convertible Bonds, Exane 25         7366         0,3%         0,8%         -2,2%         2,0%           MG Base Metal Index         431,36         0,3%         0,8%         -2,2%         2,0%           Gold         1278,11         0,3%         -1,1%         -0,6%         11,9%           Gold         1278,11         0,3%         -1,2%         5,1%           Aluminium         2084,50         -3,1%         -2,5%         2,	US Treas 10Y Performance	579,52	-0,9%	-0,5%	-1,2%	1,8%
REX Performance Index         483,73         -0,2%         0,2%         0,3%         -0,3%           US mortgage rate         0,00         0         0         0         0           IBOXX AA, €         0,68         7         -7         -3         0           IBOXX BBB, €         1,15         8         -13         -11         -35           ML US High Yield         6,21         17         23         6         -24           JPM EMBI+, Index         823         -0,8%         -1,8%         -0,3%         6,5%           Convertible Bonds, Exane 25         7366         0,0%         1,4%         3,0%         6,5%           Convertible Bonds, Exane 25         7366         0,3%         0,8%         -2,2%         2,0%           MG Base Metal Index         431,36         0,3%         0,8%         -2,2%         2,2%           Crude oil Brent         63,47         -0,5%         11,7%         20,6%         11,9%           Gold         1278,11         0,3%         -1,1%         -0,6%         10,4%           Silver         16,87         -1,9%         -1,2%         2,3%           Copper         6753,75         -2,6%         0,7%         2,5%	Bund 10Y Performance	610,85	-0,7%	0,4%	0,1%	0,2%
US mortgage rate $0,00$ $0$ $0$ $0$ $0$ $0$ IBOXX AA, $\epsilon$ $0,68$ $7$ $-7$ $-3$ $0$ IBOXX BBB, $\epsilon$ $1,15$ $8$ $-13$ $-11$ $-35$ ML US High Yield $6,21$ $17$ $23$ $6$ $-24$ JPM EMBI+, Index $823$ $-0,8\%$ $-1,8\%$ $-0,3\%$ $6,5\%$ Convertible Bonds, Exane 25 $7366$ $0,0\%$ $1,4\%$ $3,0\%$ $6,5\%$ Commodities $   -$ CRB Spot Index $431,36$ $0,3\%$ $0,8\%$ $-2,2\%$ $2,0\%$ MG Base Metal Index $344,73$ $-1,5\%$ $0,9\%$ $6,2\%$ $23,2\%$ Crude oil Brent $63,47$ $-0,5\%$ $11,7\%$ $20,6\%$ $11,9\%$ Gold $1278,11$ $0,3\%$ $-1,1\%$ $-0,6\%$ $10,4\%$ Silver $16,87$ $-1,9\%$ $-1,8\%$ $-1,2\%$ $5,1\%$ Aluminium $2084,50$ $-3,1\%$ $-2,5\%$ $2,6\%$ $22,3\%$ Copper $6753,75$ $-2,6\%$ $0,7\%$ $5,6\%$ $22,3\%$ Iron ore $61,79$ $-1,5\%$ $2,7\%$ $-17,5\%$ $-22,5\%$ Freight rates Baltic Dry Index $1464$ $-0,6\%$ $3,2\%$ $34,1\%$ $52,3\%$ Currencies $    -$ EUR/ USD $1,1653$ $0,5\%$ $-1,2\%$ $-0,7\%$ $10,5\%$ EUR/ GBP $0,8897$ $0,8\%$ $-0,5\%$ $-1,6\%$ $4,2\%$ EUR/ CHF $1,1585$	REX Performance Index	483,73	-0,2%	0,2%	0,3%	-0,3%
IBOXX AA, €0,687-7-30IBOXX BBB, €1,158-13-11-35ML US High Yield6,2117236-24JPM EMBI+, Index823-0,8%-1,8%-0,3%6,5%Convertible Bonds, Exane 2573660,0%1,4%3,0%6,5%Commodities </td <td>US mortgage rate</td> <td>0,00</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td>	US mortgage rate	0,00	0	0	0	0
IBOXX BBB, €       1,15       8       -13       -11       -35         ML US High Yield       6,21       17       23       6       -24         JPM EMBI+, Index       823       -0,8%       -1,8%       -0,3%       6,5%         Convertible Bonds, Exane 25       7366       0,0%       1,4%       3,0%       6,5%         Commodities          5       2,0%         CRB Spot Index       431,36       0,3%       0,8%       -2,2%       2,0%         MG Base Metal Index       344,73       -1,5%       0,9%       6,2%       23,2%         Crude oil Brent       63,47       -0,5%       11,7%       20,6%       11,9%         Gold       1278,11       0,3%       -1,1%       -0,6%       10,4%         Silver       16,87       -1,9%       -1,8%       -1,2%       5,1%         Aluminium       2084,50       -3,1%       -2,5%       2,6%       22,3%         Copper       61,79       -1,5%       2,7%       -17,5%       -22,5%         Freight rates Baltic Dry Index       1464       -0,6%       3,2%       34,1%       52,3%         EUR/ USD       1,1653       0,5% <t< td=""><td>IBOXX AA, €</td><td>0,68</td><td>7</td><td>-7</td><td>-3</td><td>0</td></t<>	IBOXX AA, €	0,68	7	-7	-3	0
ML US High Yield       6,21       17       23       6       -24         JPM EMBI+, Index       823       -0,8%       -1,8%       -0,3%       6,5%         Convertible Bonds, Exane 25       7366       0,0%       1,4%       3,0%       6,5%         Commodities	IBOXX BBB, €	1,15	8	-13	-11	-35
JPM EMBI+, Index         823         -0,8%         -1,8%         -0,3%         6,5%           Convertible Bonds, Exane 25         7366         0,0%         1,4%         3,0%         6,5%           Commodities         C         C         C         C         C         C           CRB Spot Index         431,36         0,3%         0,8%         -2,2%         2,0%           MG Base Metal Index         344,73         -1,5%         0,9%         6,2%         23,2%           Crude oil Brent         63,47         -0,5%         11,7%         20,6%         11,9%           Gold         1278,11         0,3%         -1,1%         -0,6%         10,4%           Silver         16,87         -1,9%         -1,8%         -1,2%         5,1%           Aluminium         2084,50         -3,1%         -2,5%         2,6%         22,3%           Copper         6753,75         -2,6%         0,7%         5,6%         22,3%           Iron ore         61,79         -1,5%         2,7%         -17,5%         -22,5%           Freight rates Baltic Dry Index         1464         -0,6%         3,2%         34,1%         52,3%           EUR/ USD         1,1653	ML US High Yield	6,21	17	23	6	-24
Convertible Bonds, Exane 25         7366         0,0%         1,4%         3,0%         6,5%           Commodities         CRB Spot Index         431,36         0,3%         0,8%         -2,2%         2,0%           MG Base Metal Index         344,73         -1,5%         0,9%         6,2%         23,2%           Crude oil Brent         63,47         -0,5%         11,7%         20,6%         11,9%           Gold         1278,11         0,3%         -1,1%         -0.6%         10,4%           Silver         16,87         -1,9%         -1,8%         -1,2%         5,1%           Aluminium         2084,50         -3,1%         -2,5%         2,6%         22,3%           Copper         6753,75         -2,6%         0,7%         5,6%         22,3%           Iron ore         61,79         -1,5%         2,7%         -17,5%         -22,5%           Freight rates Baltic Dry Index         1464         -0,6%         3,2%         34,1%         52,3%           EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ GBP         0,8897         0,8%         -0,5%         -1,6%         4,2%           EUR/ CHF <td< td=""><td>JPM EMBI+, Index</td><td>823</td><td>-0,8%</td><td>-1,8%</td><td>-0,3%</td><td>6,5%</td></td<>	JPM EMBI+, Index	823	-0,8%	-1,8%	-0,3%	6,5%
Commodifies         431,36         0,3%         0,8%         -2,2%         2,0%           MG Base Metal Index         344,73         -1,5%         0,9%         6,2%         23,2%           Crude oil Brent         63,47         -0,5%         11,7%         20,6%         11,9%           Gold         1278,11         0,3%         -1,1%         -0,6%         10,4%           Silver         16,87         -1,9%         -1,8%         -1,2%         5,1%           Aluminium         2084,50         -3,1%         -2,5%         2,6%         22,3%           Copper         6753,75         -2,6%         0,7%         5,6%         22,3%           Iron ore         61,79         -1,5%         2,7%         -17,5%         -22,5%           Freight rates Baltic Dry Index         1464         -0,6%         3,2%         34,1%         52,3%           Currencies         EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ JBP         0,8897         0,8%         -0,5%         -1,6%         4,2%           EUR/ JPY         132,02         -0,2%         -0,4%         2,5%         7,9%           USD/ CNY         6,6392	Convertible Bonds, Exane 25	7366	0,0%	1,4%	3,0%	6,5%
CRB Spot Index         431,36         0,3%         0,8%         -2,2%         2,0%           MG Base Metal Index         344,73         -1,5%         0,9%         6,2%         23,2%           Crude oil Brent         63,47         -0,5%         11,7%         20,6%         11,9%           Gold         1278,11         0,3%         -1,1%         -0,6%         10,4%           Silver         16,87         -1,9%         -1,8%         -1,2%         5,1%           Aluminium         2084,50         -3,1%         -2,5%         2,6%         22,3%           Copper         6753,75         -2,6%         0,7%         5,6%         22,3%           Iron ore         61,79         -1,5%         2,7%         -17,5%         -22,5%           Freight rates Baltic Dry Index         1464         -0,6%         3,2%         34,1%         52,3%           Currencies         EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ JBP         0,8897         0,8%         -0,5%         -1,6%         4,2%           EUR/ CHF         1,1585         -0,1%         0,5%         2,2%         7,9%           USD/ CNY         6,6392	Commodities					
International         Interna         International         Internationali	CRB Spot Index	431.36	0.3%	0.8%	-2.2%	2.0%
Crude oil Brent         63,47         -0,5%         11,7%         20,6%         11,9%           Gold         1278,11         0,3%         -1,1%         -0,6%         10,4%           Silver         16,87         -1,9%         -1,8%         -1,2%         5,1%           Aluminium         2084,50         -3,1%         -2,5%         2,6%         22,3%           Copper         6753,75         -2,6%         0,7%         5,6%         22,3%           Iron ore         61,79         -1,5%         2,7%         -17,5%         -22,5%           Freight rates Baltic Dry Index         1464         -0,6%         3,2%         34,1%         52,3%           Currencies         EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ GBP         0,8897         0,8%         -0,5%         -1,6%         4,2%           EUR/ JPY         132,02         -0,2%         -0,4%         2,5%         7,0%           EUR/ CHF         1,1585         -0,1%         0,5%         2,2%         7,9%           USD/ CNY         6,6392         0,1%         0,9%         -0,2%         -4,5%           USD/ JPY         113,54         -0,1% <td>MG Base Metal Index</td> <td>344.73</td> <td>-1,5%</td> <td>0,9%</td> <td>6,2%</td> <td>23,2%</td>	MG Base Metal Index	344.73	-1,5%	0,9%	6,2%	23,2%
Control         Control <t< td=""><td>Crude oil Brent</td><td>63.47</td><td>-0.5%</td><td>11.7%</td><td>20.6%</td><td>11.9%</td></t<>	Crude oil Brent	63.47	-0.5%	11.7%	20.6%	11.9%
Silver         16,87         -1,9%         -1,8%         -1,2%         5,1%           Aluminium         2084,50         -3,1%         -2,5%         2,6%         22,3%           Copper         6753,75         -2,6%         0,7%         5,6%         22,3%           Iron ore         61,79         -1,5%         2,7%         -17,5%         -22,5%           Freight rates Baltic Dry Index         1464         -0,6%         3,2%         34,1%         52,3%           Currencies         EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ GBP         0,8897         0,8%         -0,5%         -1,6%         4,2%           EUR/ JPY         132,02         -0,2%         -0,4%         2,5%         7,0%           EUR/ CHF         1,1585         -0,1%         0,5%         2,2%         7,9%           USD/ CNY         6,6392         0,1%         0,9%         -0,2%         -4,5%           USD/ JPY         113,54         -0,1%         1,0%         4,0%         -2,9%           USD/ GBP         0,76         0,2%         0,9%         -0,8%         -5,6%	Gold	1278,11	0,3%	-1,1%	-0,6%	10,4%
Aluminium         2084,50         -3,1%         -2,5%         2,6%         22,3%           Copper         6753,75         -2,6%         0,7%         5,6%         22,3%           Iron ore         61,79         -1,5%         2,7%         -17,5%         -22,5%           Freight rates Baltic Dry Index         1464         -0,6%         3,2%         34,1%         52,3%           Currencies         EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ GBP         0,8897         0,8%         -0,5%         -1,6%         4,2%           EUR/ JPY         132,02         -0,2%         -0,4%         2,5%         7,0%           USD/ CNY         6,6392         0,1%         0,9%         -0,2%         -4,5%           USD/ JPY         113,54         -0,1%         1,0%         4,0%         -2,9%           USD/ GBP         0,76         0,2%         0,9%         -0,8%         -5,6%	Silver	16,87	-1,9%	-1,8%	-1,2%	5,1%
Copper         6753,75         -2,6%         0,7%         5,6%         22,3%           Iron ore         61,79         -1,5%         2,7%         -17,5%         -22,5%           Freight rates Baltic Dry Index         1464         -0,6%         3,2%         34,1%         52,3%           Currencies         EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ GBP         0,8897         0,8%         -0,5%         -1,6%         4,2%           EUR/ JPY         132,02         -0,2%         -0,4%         2,5%         7,0%           USD/ CNY         6,6392         0,1%         0,9%         -0,2%         -4,5%           USD/ JPY         113,54         -0,1%         1,0%         4,0%         -2,9%           USD/ GBP         0,76         0,2%         0,9%         -0,8%         -5,6%	Aluminium	2084.50	-3,1%	-2,5%	2,6%	22,3%
Iron ore         61,79         -1,5%         2,7%         -17,5%         -22,5%           Freight rates Baltic Dry Index         1464         -0,6%         3,2%         34,1%         52,3%           Currencies         EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ GBP         0,8897         0,8%         -0,5%         -1,6%         4,2%           EUR/ JPY         132,02         -0,2%         -0,4%         2,5%         7,0%           EUR/ CHF         1,1585         -0,1%         0,5%         2,2%         7,9%           USD/ CNY         6,6392         0,1%         0,9%         -0,2%         -4,5%           USD/ JPY         113,54         -0,1%         1,0%         4,0%         -2,9%           USD/ GBP         0,76         0,2%         0,9%         -0,8%         -5,6%	Copper	6753,75	-2,6%	0,7%	5,6%	22,3%
Freight rates Baltic Dry Index         1464         -0,6%         3,2%         34,1%         52,3%           Currencies         EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ GBP         0,8897         0,8%         -0,5%         -1,6%         4,2%           EUR/ JPY         132,02         -0,2%         -0,4%         2,5%         7,0%           EUR/ CHF         1,1585         -0,1%         0,5%         2,2%         7,9%           USD/ CNY         6,6392         0,1%         0,9%         -0,2%         -4,5%           USD/ JPY         113,54         -0,1%         1,0%         4,0%         -2,9%           USD/ GBP         0,76         0,2%         0,9%         -0,8%         -5,6%	Iron ore	61,79	-1,5%	2,7%	-17,5%	-22,5%
Currencies	Freight rates Baltic Dry Index	1464	-0,6%	3,2%	34,1%	52,3%
EUR/ USD         1,1653         0,5%         -1,2%         -0,7%         10,5%           EUR/ GBP         0,8897         0,8%         -0,5%         -1,6%         4,2%           EUR/ JPY         132,02         -0,2%         -0,4%         2,5%         7,0%           EUR/ CHF         1,1585         -0,1%         0,5%         2,2%         7,9%           USD/ CNY         6,6392         0,1%         0,9%         -0,2%         -4,5%           USD/ JPY         113,54         -0,1%         1,0%         4,0%         -2,9%           USD/ GBP         0,76         0,2%         0,9%         -0,8%         -5,6%	Currencies					
Lot, OSD         1,303         0,3%         -1,2%         -0,7%         10,5%           EUR/ GBP         0,8897         0,8%         -0,5%         -1,6%         4,2%           EUR/ JPY         132,02         -0,2%         -0,4%         2,5%         7,0%           EUR/ CHF         1,1585         -0,1%         0,5%         2,2%         7,9%           USD/ CNY         6,6392         0,1%         0,9%         -0,2%         -4,5%           USD/ JPY         113,54         -0,1%         1,0%         4,0%         -2,9%           USD/ GBP         0,76         0,2%         0,9%         -0,8%         -5,6%		1 1652	0.5%	-1 7%	-0.7%	10.5%
EUR/ CHF         132,02         -0,2%         -0,4%         2,5%         7,0%           EUR/ CHF         1,1585         -0,1%         0,5%         2,2%         7,9%           USD/ CNY         6,6392         0,1%         0,9%         -0,2%         -4,5%           USD/ JPY         113,54         -0,1%         1,0%         4,0%         -2,9%           USD/ GBP         0,76         0,2%         0,9%         -0,8%         -5,6%	ELIR/ GBP	0 8807	0,3%	-1,2%	-0,7%	10,5% A 7%
Low Arr         Low Arr <thlow arr<="" th=""> <th< td=""><td>ELIR / IDV</td><td>132.02</td><td>-0.2%</td><td>-0,3%</td><td>-1,0% 2 E%</td><td>+,∠% 7.0%</td></th<></thlow>	ELIR / IDV	132.02	-0.2%	-0,3%	-1,0% 2 E%	+,∠% 7.0%
Low Chi         1,255         -0,1%         0,5%         2,2%         7,5%           USD/ CNY         6,6392         0,1%         0,9%         -0,2%         -4,5%           USD/ JPY         113,54         -0,1%         1,0%         4,0%         -2,9%           USD/ GBP         0,76         0,2%         0,9%         -0,8%         -5,6%		1 152,02	-0,2%	0,4%	2,3%	7,0%
USD/ JPY         113,54         -0,1%         1,0%         4,0%         -2,9%           USD/ GBP         0,76         0,2%         0,9%         -0,8%         -5,6%		6,500	-0,1%	0,5%	∠,∠% -0.2%	-1 5%
USD/ GBP 0,76 0,2% 0,9% -0,8% -5,6%		112 54	-0.1%	1.0%	-0,2%	-4,3%
	LISD/ GRP	0.76	-0,1%	1,0%	-0.8%	-2,3%
		0,70	0,2/0	0,370	0,070	5,070

Carsten Klude	+49 40 3282-2572	cklude@mmwarburg.com	Martin Hasse	+49 40 3282-2411
Dr. Christian Jasperneite	+49 40 3282-2439	cjasperneite@mmwarburg.com	Dr. Rebekka Haller	+49 40 3282-2452
Dr. Jörg Rahn	+49 40 3282-2419	jrahn@mmwarburg.com	Bente Lorenzen	+49 40 3282-2409
Julius Böttger	+49 40 3282-2229	jboettger@mmwarburg.com		

mhasse@mmwarburg.com rhaller@mmwarburg.com blorenzen@mmwarburg.com

This information does not constitute an offer or an invitation to submit an offer, but is solely intended to provide guidance and present possible business activities. This information does not purport to be complete and is therefore not binding. The information provided should not be considered a recommendation to purchase financial instruments individually, but serves only as a proposal for a possible asset allocation. The opinions expressed herein are subject to change without notice. Where statements were made with respect to prices, interest rates or other indications, these solely refer to the time when the information was prepared and do not imply any forecasts about future development, particularly regarding future gains or losses. In addition, this information does not constitute advice or a recommendation. Before completing any deal described in this information, a product-specific consultation tailored to the customer's individual needs is required. This information is confidential and exclusively intended for the addressee described herein. Any use by parties other than the addressee is not permissible without our approval. This particularly applies to reproductions, translations, microfilms, saving and processing in electronic media as well as publishing the entire contents or parts thereof.