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INVESTING IN GERMAN BLUE CHIPS – A US PERSPECTIVE

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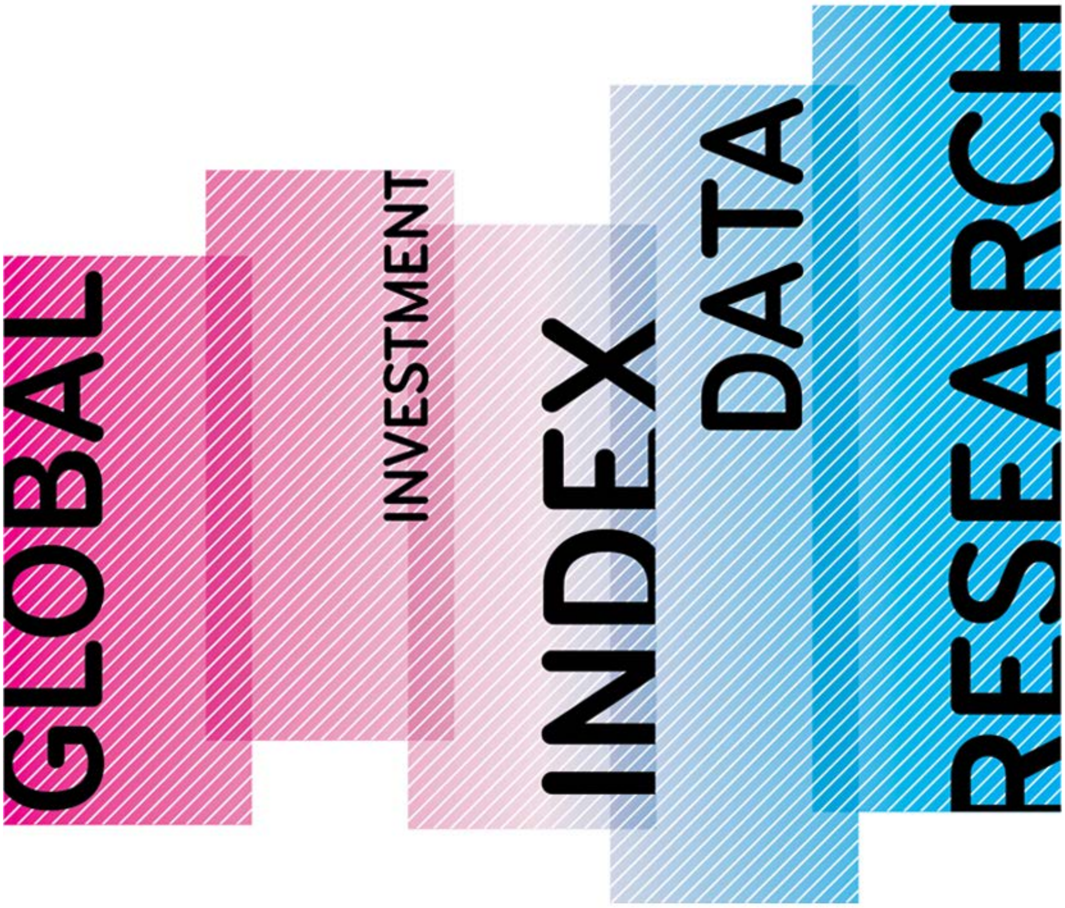

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Introduction

This paper evaluates the current state of the Germany economy and its capital market cross-sectionally and over time. We find a stable and promising economy in absolute and relative terms. During the European debt crisis, the German equity market proved to be comparably robust in displaying higher returns and lower volatility levels than most of its European competitors.

Given low correlation levels between the US and German equity markets, the addition of German equity to a US-centric portfolio provides significant diversification benefits. The German market has been and remains undervalued compared to the US market, further increasing its attractiveness for US investors.

1 The German economy

The German economy has proved to be extraordinarily crisis-resistant over the past few years. Germany has also remained relatively less affected by the global and European financial crises, compared to other European countries, such as Italy, Spain, Greece and Portugal.

Unlike its peers, Germany has been able to further increase competitiveness during the past several years. Recent research showed that while unit labor costs (ULCs) increased in most Eurozone countries by 20% to 30% between 2000 and 2011, they rose by less than 3% in Germany.

Germany's ULC-deflated real effective exchange rate (REER) depreciated significantly relative to the REERs of its European trading partners. For Germany, which is an export-dependent nation, labor costs are of significant importance. Next to quality, costs of exported goods primarily determine competitiveness in a global market.

Consequently, Germany stands among the most competitive countries on a global level as seen in its high rank in the Global Competitiveness Index (GCI), compiled by the World Economic Forum. Germany is currently No. 4, behind Switzerland, Singapore and Finland.

Figure 1 provides a graphical representation of GCI scores. The 10 best-performing countries are shaded dark red. The remaining countries are shaded in intermediate tones moving from orange, the second-best performing group, through yellow, light blue, medium blue and dark blue; which represents the least competitive nations according to the GCI. The map reveals that the hotspots remain concentrated in Europe and North America with a handful of countries in the Asia/Pacific region.[1]

In terms of economic growth, the OECD forecast in May 2014 that Germany is expected to grow 2.0% in 2014 and by as much as 2.2% in 2015, whereas the Eurozone is expected to grow by only 1.4% and 1.8% respectively.

[1] The Global Competitiveness Report 2012-2013, Klaus Schwab, World Economic Forum, p.12.

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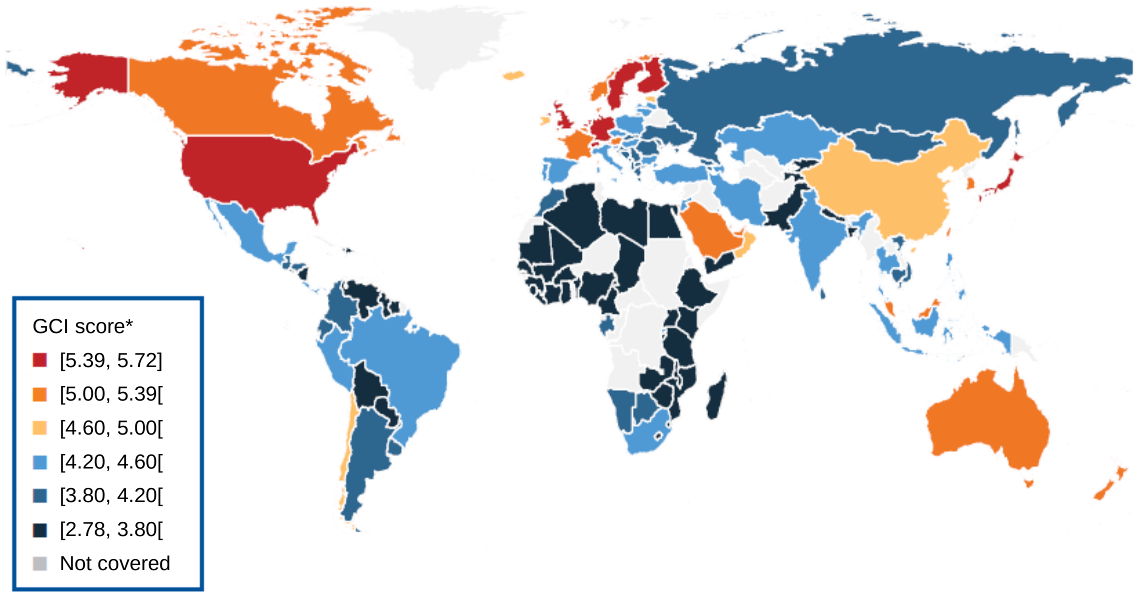
FIGURE 1: GLOBAL COMPETITIVENESS INDEX



Source: Compiled by the World Economic Forum

2 The DAX Index as a liquid gateway to the German equity market

The German equity market is different from other highly capitalized markets, as only a comparably small portion of its capitalization is exchange traded. A significant share of Germany's economic strength comes from small- and mid-cap companies that are not publicly listed: the so called German "Mittelstand". But larger exchange-traded companies profit from the innovative strength of such private companies, as both are often closely linked with private firms acting as suppliers positioned further down the value chain.

The exchange-traded portion of the German equity market is concentrated around just a few highly capitalized global players (see Figure 2). The largest 30 German stocks cover about 80% of the capitalization of the entire German prime standard.

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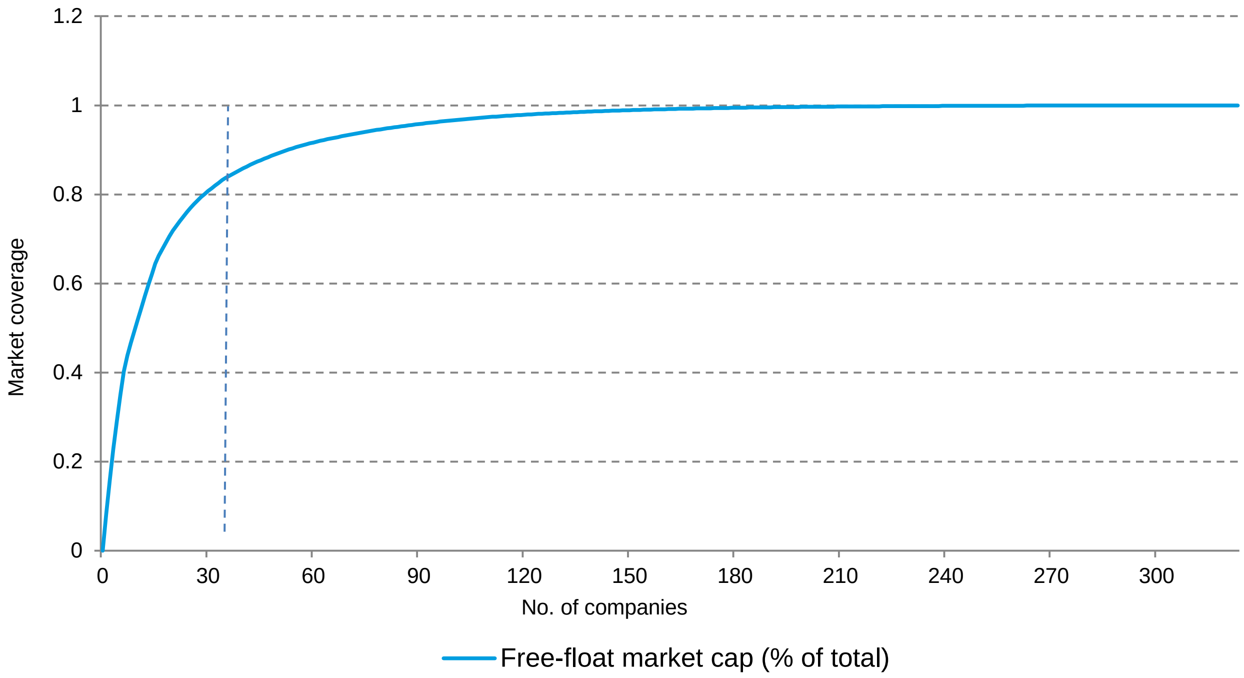
FIGURE 2: MARKET COVERAGE AS FUNCTION OF NO. OF LISTINGS IN GERMAN PRIME STANDARD



Source: STOXX data as of Aug. 20, 2014

The DAX provides an ideal tool for investors to access this significant portion of German equity and participate in its development. With a weighted average daily value traded of 185 million US dollars, the 30 constituents of this blue-chip index are highly liquid and easily tradable.

3 German equities and the European debt crisis

During the European debt crisis, the German equity market proved to be significantly more crisis-resistant than other major Eurozone markets. Figure 3 displays the historical performance of the DAX Index in the context of major Eurozone benchmarks: France, Spain and Italy. With an annualized performance of 8.3% since January, 2010, the DAX Index outperformed not only other highly capitalized markets but also the overall Eurozone as represented by the EURO STOXX ex Germany Index (see also Table 1).

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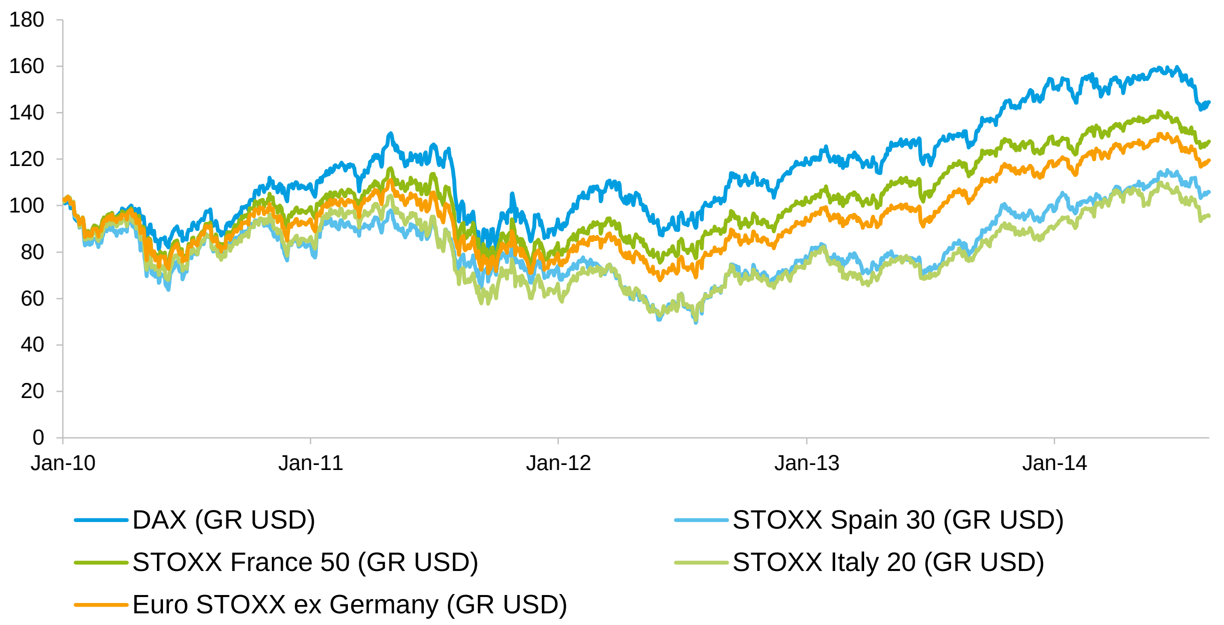
TABLE 1: INDEX KEY FIGURES

	DAX (USD GR)	STOXX France 50 (USD GR)	STOXX Spain 30 (USD GR)	STOXX Italy 20 (USD GR)	Euro STOXX ex Germany (USD GR)
Performance	8.3%	5.4%	1.2%	-1.0%	3.9%
Volatility	25.1%	25.4%	30.5%	31.3%	25.4%
Sharpe ratio	0.33	0.21	0.04	-0.03	0.15
Maximum drawdown	38.4%	35.8%	52.1%	51.5%	38.9%

Source: STOXX data from Dec. 12, 2009 to Aug. 19, 2014. Performance and volatility figures annualized.

FIGURE 3: PERFORMANCE OF MAJOR EUROPEAN MARKETS



Source: STOXX data from Dec. 31, 2009 to Aug. 19, 2014

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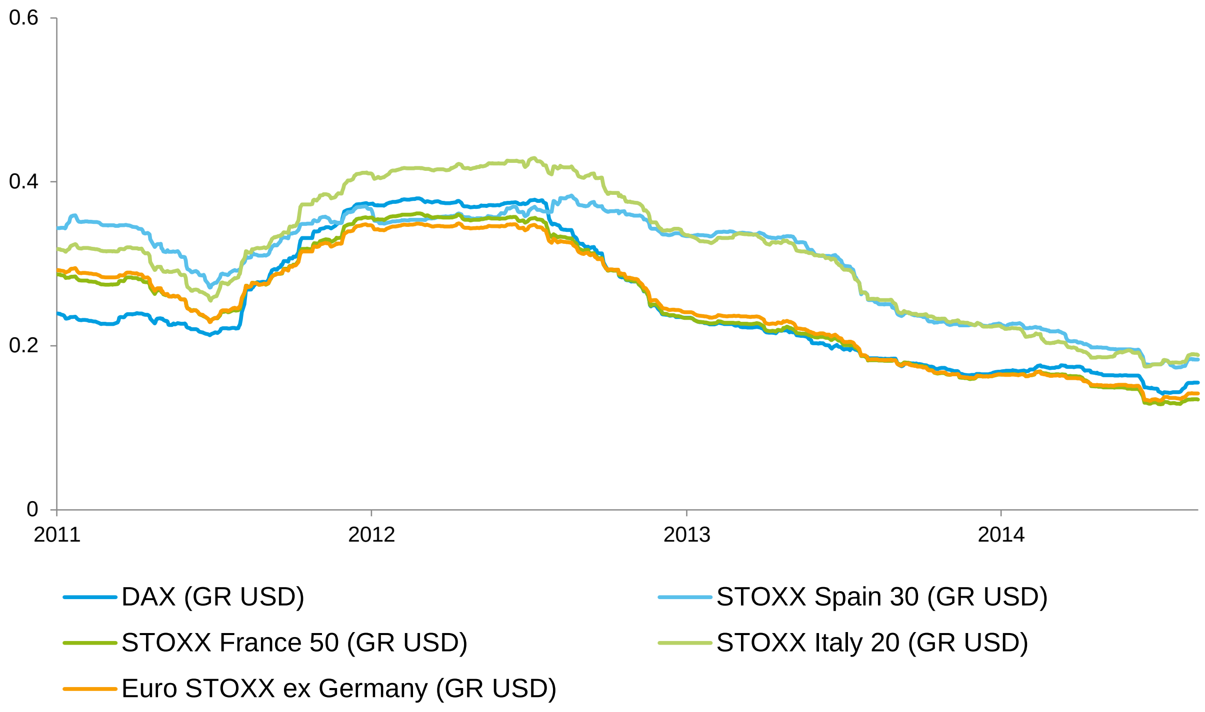
Simultaneously, the DAX Index was among the least risky European equity markets leading to significantly higher Sharpe ratios across the board (see Table 1 and Figure 4).

FIGURE 4: DEVELOPMENT OF ANNUALIZED VOLATILITY



Source: STOXX data. Time period displayed is Dec. 31, 2010 to Aug. 19, 2014. Calculations are based on Dec. 31, 2009 to Aug. 19, 2014

4 Exposure to German equities – The US perspective

With an annualized performance of 8.2% from January, 2002 to August, 2014, the DAX Index outperformed the broad US market by more than one percentage point per year.

The DAX is primarily calculated as a total return index, making it unique among most of its competitors. By taking into account reinvested dividend payments in addition to the pure share price performance, it fully reflects the actual performance of an investment in the index portfolio.

This characteristic is especially important as dividend payments are a decisive component of the DAX's absolute performance and relative outperformance compared to the US equity market. With 3.1% since 2002, its annualized dividend yield is more than 1 percentage point or 50% higher than the dividend yield of the STOXX USA 900 with 2.0% per year. Figure 5 displays the total return of both markets as well as the respective contribution of the dividend components measure in index points. It can be observed that

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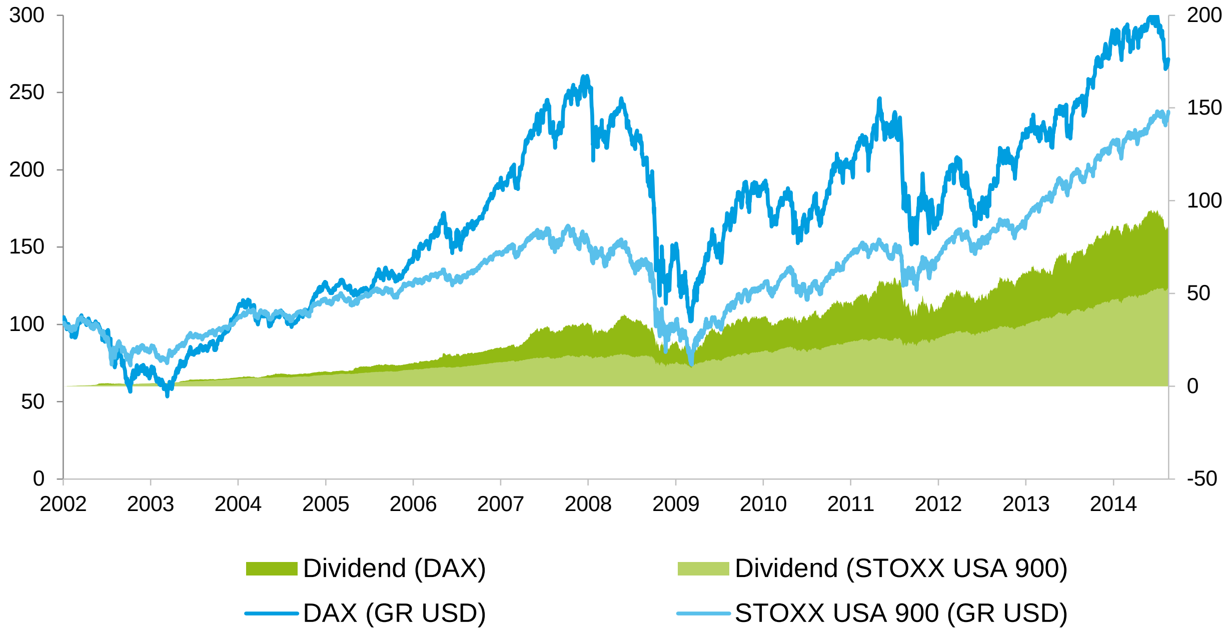
the dividend component of the DAX is 50% higher compared with the US market, giving the DAX in part the characteristic of an income strategy.

FIGURE 5: ABSOLUTE PERFORMANCE AND CONTRIBUTION OF DIVIDEND PAYMENTS



Source: STOXX data from Dec. 31, 2002 to Aug. 19, 2014

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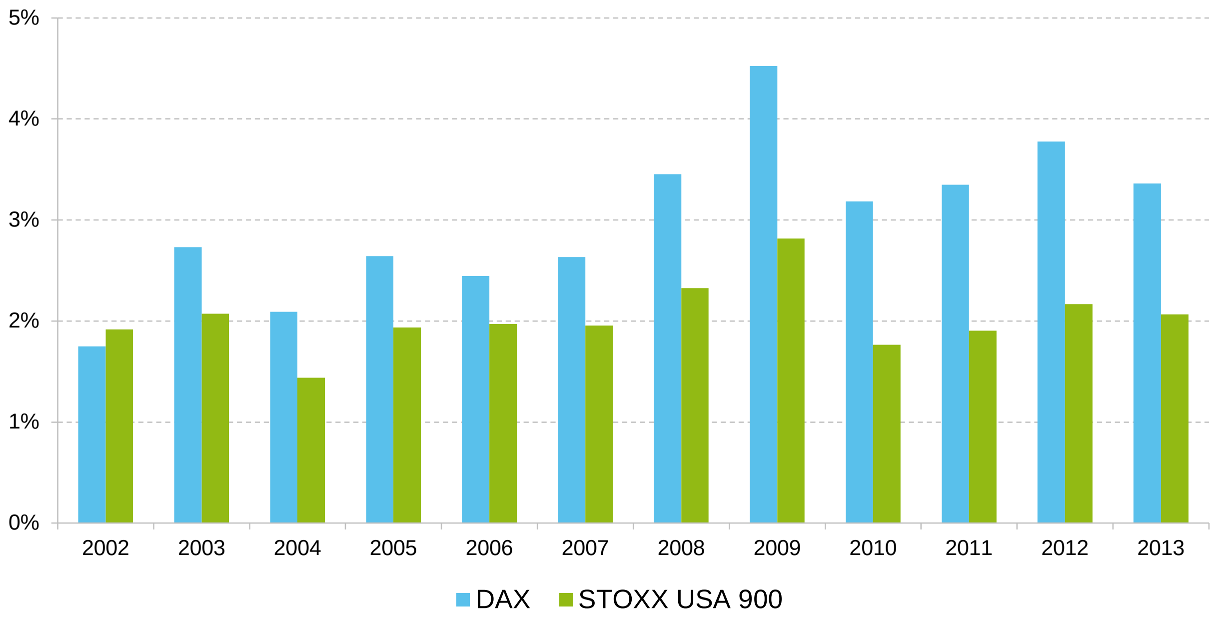
But a higher contribution of dividend payments to index performance is not only the result of a compounding effect over time. Dividend yields have been persistently higher since 2003 (see Figure 6).

FIGURE 6: ANNUAL GROSS DIVIDEND YIELDS



Source: STOXX data from 2002 to 2013.

4a Sector breakdown

In addition to attractive return characteristics, adding German equity exposure to a US-centric portfolio also makes sense from a portfolio diversification perspective. With a value of 0.78, the correlation between the US and the German equity market has been very low over the last decade, making it an attractive addition.

The low correlation between both markets is partially also driven by diverse industry allocations. Figure 7 compares the ICB industry allocation of the German with the US equity market. With well-known global players such as BASF, Bayer, Adidas and BMW, the DAX is significantly more concentrated in Basic materials and Consumer goods, whereas the STOXX USA 900 Index has relatively higher weightings in Consumer services, Health care, Oil & gas and Technology. These discrepancies in industry allocations make the DAX an ideal complement to US portfolios.

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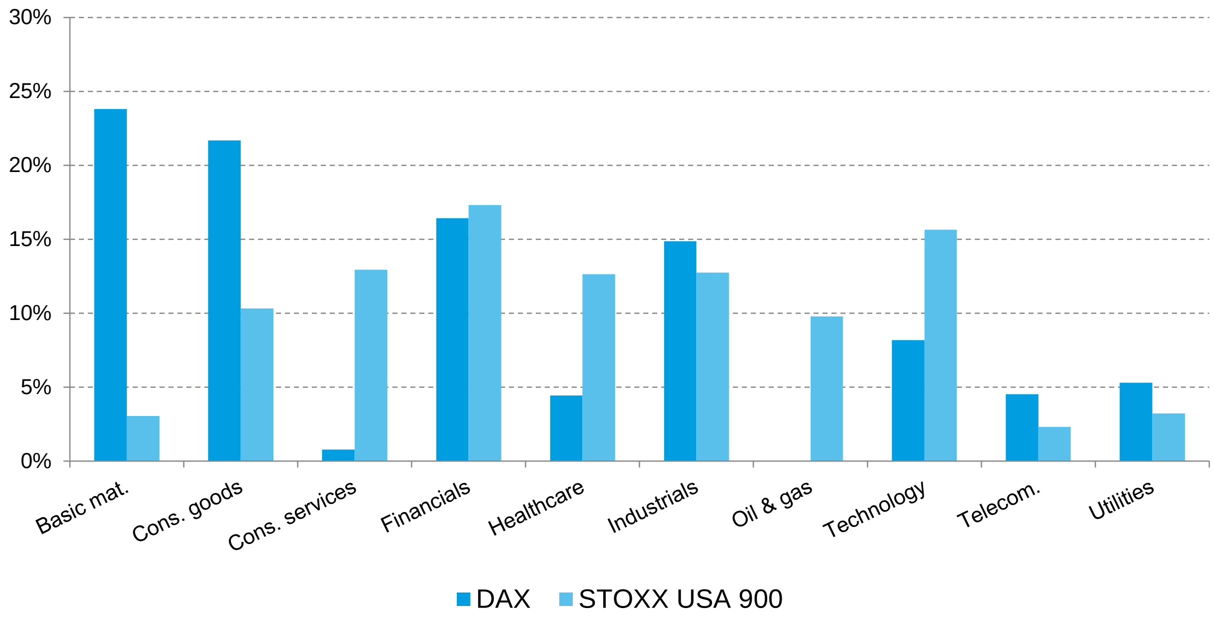
FIGURE 7: INDUSTRY ALLOCATION OF GERMAN, US EQUITY MARKETS



Source: STOXX data as of Aug. 20, 2014

4b Current and historical valuation

Compared to the US equity market, the German market offers very attractive valuation levels. Scaling price by book value (P/B) and price by EBITDA (P/EBITDA) reveals that both markets have become more expensive over the past years (see Figure 8). However, the German equity market is still undervalued on a relative base. With a current P/B (P/EBITDA) ratio of 1.7 (5.7), it is 37.2% (36.5%) cheaper than the US market with a P/B (P/EBITDA) ratio of 3.7 (9.0).[2]

[2] Date: Aug. 20, 2014. See figure 8 for historical development.

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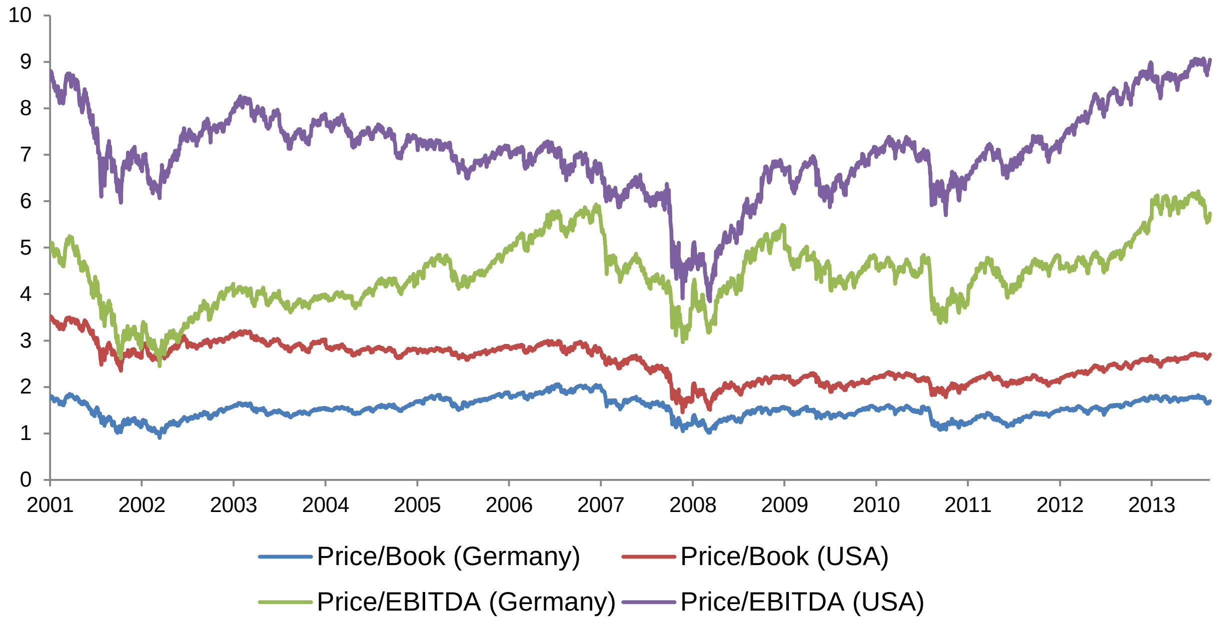
FIGURE 8: PRICE-BY-BOOK VALUE AND PRICE-BY-EBITDA RATIOS



Source: STOXX data as of Aug. 20, 2014

5 Conclusion

The German economy has not only successfully progressed through the recent financial crises but also increased its efficiency over recent years. It now ranges among the most competitive economies globally.

During the years of the European debt crisis, its equity market displayed higher returns and lower volatility levels than most of its European competitors.

Given low correlation levels between the US and German equity markets, the addition of German equity to a US-centric portfolio provides significant diversification benefits. Compared to US equity, the German market is currently as well as historically undervalued which further increases its attractiveness for US investors.

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