Kurzberichte

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Investing in the Stock Market: The Long-Term View Matters

After the internet bubble collapsed in 2000, German households have reduced their investments in the stock market. Losses at that time were not so much caused by market volatility, but the consequence of short-term speculation. However, putting savings into the stock market can be very profitable for households, when the investment horizon is sufficiently long.

Retirement planning becomes more and more important to households due to increasing longevity. The life expectancy in the OECD countries rose from 67 years in 1960 to 80 years in 2014, while the retirement age stayed more or less the same. Since households normally intend to maintain their consumption level after retirement, they have to provide financially during their professional life.

European households deviate in their saving behaviour from the US households with the former holding higher proportions of their financial wealth as bank deposits and smaller wealth shares as stocks, while the latter hold more stocks and less deposits (figure). Eye-catching are the German households with an even higher portfolio weight on currency and deposits and an even lower weight on shares and other equity compared to the European average. But in times of near zero interest rates on deposits, stock investments might become interesting again.

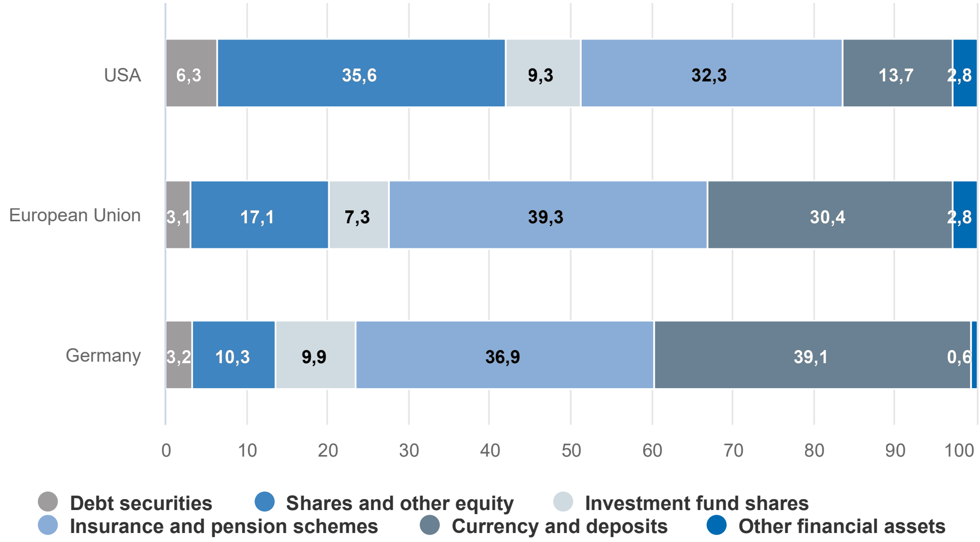
During the internet boom at the end of the last millennium German households were more interested in investing money into listed shares, but losses occured after the internet bubble busted. However, households' malinvestments were not so much due to stock market volatility, but more the consequence of a search for easy and quick profits and a concentration on "hot" segments of the stock market.

Bull and bear markets are a characteristic of stock markets and every boom has its own individual investment story (Malkiel, 2012). But while riding a boom and picking "hot stocks" sounds like big fun in good times, risks will materialize in times of worsening economic performance.

Long-term investment strategies aim at a participation in the long-term growth of the whole stock market rather than on picking stocks. For being successful in the long-term, stock investors should stick to the following principles:

How households allocate their financial wealth

In percent of total financial assets, 2015



Sources: Eurostat, Federal Reserve Board, own calculations

- **Do not put all eggs in one basket:** The Capital Asset Pricing Model (CAPM) and the Arbitrage Pricing Theory (APT) decompose the volatility of a stock into a systematic risk component and an individual risk component (Lintner, 1965; Sharpe, 1964; Ross, 1976). The former is due to common risk factors, like the business cycle or inflation, while the latter is a company-specific. A shortcoming of the theory is that the company-specific risks can be reduced by investing in a stock portfolio that is representative for the stock market. The DAX 30 or the Composite DAX in Germany are such portfolios that represent companies from many sectors.

- **Make use of the cost-average-effect:** While diversification allows for a risk reduction in the cross-section of stocks, risks can also be reduced over time. To this end, the investor should invest smaller amounts on a regular basis instead of larger, but unfrequented purchases. In a bear market the investor can thereby mild the declining value of the existing stocks in the portfolio by purchases of new stocks at lower prices. In a bull market the investor can balance the stock purchases at higher prices with the increasing value of the existing stocks in his or her portfolio. If the investor, for example, would have invested 200 Euro on a monthly basis in the German DAX portfolio from January 1995 to April 2017, he or she would have achieved a pre-tax return of 118 percent. While investing all the contributions directly at January 1995 would have yielded a higher return, the investor would have to stay very patient during three larger bear markets, of which one would have reduced his or her invested wealth temporary by 16.1 percent.

- **Start investing early in your life:** The contributions in your early years count more than the later ones when it comes to old-age provisions. For showing the difference, one has to update the DAX time series with its historical returns in order to get a sufficiently long time series. A hypothetical person in the age of 20 in 1988, for example, who contributed with monthly payments of 200 Euro until the age of 64 would have earned a fortune of 980,062 Euro before taxes. If the same person would have started 10 years later, he or she would only have earned 401,840 Euro. The contributions of the first 10 years helped to produce more than twice of the wealth in this example.

- **Do not place too much weight on timing:** A comparison of the long-term investment strategy for different starting points yields that timing is important, but it should not lead to investment absentia. As an example we take a hypothetical person who starts to invest at the age of 20 with monthly contributions of 200 Euro, which he or she cashes out at the age of 64. We compare the performance for different starting years ranging from 1988 to 1996. What we find is, that 1995 was the worst year to start, while 1991 was the best year to start. However, even if one has started in 1995, this strategy would have yielded 801,183 Euro from monthly contributions in the amount of 108,000 Euro, which is still a very good investment.

- **Increase your contributions over your lifetime:** When the price level increases over time, the real value of your contributions will decline. An adjustment of the contributions for inflation will be needed to secure the purchasing power of your investment. Moreover, the monthly contributions should be adjusted for the increasing wage over the life cycle. Thereby, young people with lower wages should start with smaller contributions and increase them when their wage increases. The effect of a dynamic adjustment is large. If the investor would have increased his or her monthly contributions starting with 200 Euro by 5 percent each year based on, for example, 1988 as the starting year, the portfolio value after 30 years would be 450,393 Euro instead of 267,538 Euro without dynamic adjustment.

- **Invest in contracts that allow for a deferred tax treatment:** Instead of holding the stocks directly, retail investors can invest into funds that invest into the market portfolio. Some households are concerned about the management fees for such investments, but they also have to consider that there are contracts that qualify for a deferred tax treatment. These contracts are based on a long-term investment strategy. Returns during the savings period will not be taxed, while the generated income during the retirement period is taxed instead. The deferred tax scheme has two advantages. First, the effects of compounding are maximized during the savings period. Second, the tax rate in the retirement period can be lower than the tax rate in the savings period. As an example, the portfolio value after 30 years of saving 200 Euro monthly increases from 197,978 Euro to 267,538 under the deferred tax treatment.

Our calculations were examples and individual investments can yield different returns. But the conclusion is that households should consider long-term stock investments in addition to other provisions, like life insurance policies and private pension schemes.

Literature

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