## The S&P 500 Index during tightening cycles


### Low influence

Empirical analysis does not support the assumption that rate hikes will send equity markets down. High inflation forced the Fed to raise interest rates sharply between 1977 and 1981, but the S&P 500 Index did not suffer a major reverse. During the four subsequent tightening cycles, inflation was significantly lower. In this environment, the S&P 500 Index rallied slightly in one case and strongly in three cases.

■ Federal funds rate (left axis)
■ Real federal funds rate (left axis)
■ S&P 500 Index (right axis)
Source: Thomson Reuters Datastream, as of 8/12/15

## The misery index and equity-market valuations


■ Misery index (left axis) ■ S&P 500 Index P/E (right axis)

Source: Thomson Reuters Datastream; as of 8/13/15

### Negatively correlated

Unemployment and inflation are added together to form the misery index. History shows that valuations rise when the misery index falls and vice versa. This can be easily explained since rising inflation leads to higher interest rates, diminishing the relative attractiveness of equities. When high interest rates coincide with high unemployment, this suggests a structurally weak economic environment, which, in its turn, is detrimental to valuations.


United States (federal funds rate)

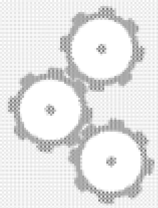
We expect the Fed to raise rates in several small steps.

# 0.75-1.00 %*
(June 2016 F)

*Deutsche AWM forecast as of 8/16/15

"Many of the fundamental factors underlying U.S. economic activity are solid and should lead to some pickup in the pace of economic growth in the coming years."

**Janet Yellen**, Chair of the Federal Reserve Board, speech on July 10th, 2015



United States (GDP growth in %)

The growing number of jobs and the rising confidence of consumers argue in favor of higher growth.

# 3.1 %* (2016 F)

*Deutsche AWM forecast as of 8/16/15

**Past performance is not indicative of future returns.**
It is not possible to invest directly in an index. No assurance can be given that any forecast or target will be reached. F = forecast. Forecasts are based on assumptions, estimates, opinions and hypothetical models or analyses that may prove to be incorrect.