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Investment Publications Highlights

Hide and Seek: Profiting by Finding Hidden States of Financial Markets in Real Time

Anders Nielsen, Goldman Sachs, September 29, 2014

Market environments can be classified into three different "regimes": crisis, recovery, and stable. Based on the probability that the economy is in a given regime, equity and bond allocations can be sized to maximize returns and to limit downside risk.

Anders Nielsen of Goldman Sachs analyzes investment opportunities through the lens of "regimes," with each regime representing a different environment for investors. The author identifies three regimes—crisis, recovery, and stable—which are closely related to the state of the economy. Each of the three regimes is defined by a different set of characteristics. Crisis regimes are defined by poor equity returns and high volatility. In this regime, bonds offer some degree of hedging with a negative correlation to equities but typically a low return. Recovery regimes have the strongest returns for both equities and bonds, but volatility is typically high. Finally, stable regimes are characterized by low volatility and returns across both equities and bonds. Over the analysis period of 1962 to August 2014, crisis regimes occurred 12% of the time, recovery regimes 30%, and stable regimes 58%. Using a model in real time to decipher the current regime and the likelihood of a pending regime change, the author created a portfolio that generated substantially better returns and risk profiles than those of simple comparative benchmarks.

Within the context of this model, markets move between regimes in either a mini cycle, oscillating between stable and recovery regimes, or a full cycle, in which the environment shifts from stable to crisis, then moves to recovery and eventually back to stable. These movements are closely linked to the economy. A higher level of unemployment increases the probability that markets move from both the crisis and stable regimes into the recovery regime, while a higher level of the ISM manufacturing index increases the probability that markets move from the recovery to the stable regime. Stable regimes are quite persistent and transitions infrequent, but transitions to crisis regimes tend to occur when unemployment and ISM are at average levels. The author contends this model has proven reliable as it accurately recognized six out of the seven bear markets since 1961 as crisis regimes.

Identifying recessions and bear markets is easy with the benefit of hindsight, but this model provides a framework to consider the market's current regime in real time, allowing investors the ability to increase or decrease risk as conditions change. The author uses the model to construct two types of systematic asset allocations between US equities and government bonds and compares the performance of each to that of simple benchmark allocations dating back to 1962. In the simple active allocation model, the portfolio is allocated based on the likelihood of a given regime, consisting of 0% equities during crisis regimes, 80% during recovery regimes, and 40% in stable regimes. In the optimized active allocation model, the allocation weights are calculated to maximize the total expected returns in the following period, given a desired level of portfolio volatility and based on the likelihood of a given regime. These strategies significantly outperformed their respective benchmarks. The active simple allocation returned an annualized 5.6% compared to 4.5% for the benchmark, and the active optimized allocation returned an annualized 7.7% compared to 5.4% for the benchmark.

While these active strategies earned significantly higher returns and had higher Sharpe ratios than their respective benchmarks, the majority of their outperformance occurred in just the last 15 years. This is because these strategies offer substantial protection during difficult equity market environments characterized by large drawdowns. This model also added significant value in terms of positioning for the recovery regime when equities experience their largest gains. Ultimately, these strategies perform in line with their benchmarks during times of stability, while limiting downside risk in a crisis regime and maximizing gains in times of recovery. The author states there is a 95% probability the current environment is in a stable regime.

US Equity Strategy: Transitioning to Lower Returns

Jonathan Glionna and Eric Slover, Barclays, August 12, 2014

US equities have made a significant recovery over the past five years, coming close to an all-time high. This surge continued through the European sovereign debt scare and now the third round of quantitative easing. Increased earnings, primarily through higher profit margins from reduced taxes, share repurchases, higher leverage, and expansion of valuation multiples have supported the recovery. However, sales have not kept up with this growth, leading the authors to question whether this trend can continue and to conclude that we are heading into a period of lower returns.

While valuation measures point to different conclusions, on balance indicators seem to suggest a modestly expensive market. The last time the S&P 500's price-to-sales ratio was higher than it is today, sales growth was at 7%, while today it is less than 3%. Going forward, the authors believe price gains will match earnings per share (EPS) growth, without further expansion of valuation multiples, which has occurred in five of the past six quarters. EPS is expected to grow 7% in 2014 and 8% in 2015, reaching a price level of 1,975 in 2014 and 2,100 in 2015.[1]

While monetary policy is one factor that has led to the rise in equities, the authors provide three reasons that the end of quantitative easing will not necessarily cause equities to go down. First, the Federal Reserve will only end quantitative easing once it believes the economy is in a position to sustain higher inflation. Second, equity prices tend to decrease in anticipation of the end of quantitative easing, instead of in reaction to the change. Finally, higher interest rates are normally caused by higher inflation expectations, which typically lead to higher earnings growth.

Margin debt and initial public offerings (IPOs) are rising, but the authors believe neither is a clear signal of an upcoming drop in prices. The abrupt increase in the use of margin debt and its decoupling from the annual change in market capitalization in 2000 and 2007 were warning signals, but current levels appear to follow a steady trend and decoupling does not exist today. While IPOs in the US market have steadily climbed, reaching peaks similar to 2000, investors remain discerning, with quality companies raising capital at fair valuations. In addition, overall equity supply is not abnormal, indicating that companies do not view equity financing as excessively cheap.

Monetary policy and late-cycle indicators do not concern the authors, but the quality of EPS does. The authors believe the lack of top-line growth has been offset by five primary factors. First, tax rates have fallen from four years ago, increasing margins to peak levels. Second, lower interest

[1] This prediction is based on a model that uses currency rates, employment rates, and oil prices to predict the growth of earnings for non-financial companies.

rates have allowed companies to take on more debt while maintaining stable interest expense, which has increased interest as a percentage of sales. In addition, companies have allocated around 80% on average of free cash flow post-dividends to stock repurchases to enhance EPS. Along with share buybacks, acquisitions increased in 2014 to create operating synergies and offset a lack of organic growth and enable tax savings. Finally, with yields in the credit market near all-time lows, attractive financing has enabled share repurchases, acquisitions, and re-leveraging.

The authors believe revenue growth will remain low due to weak domestic growth and an inability to restart international sales, which spurred growth last cycle. Barclays' GDP forecasts for 2014 are 2% for the United States and 0.9% for Europe, while for 2015 they are 3% and 1.4%, respectively. In addition, margin expansion and the pace of buybacks seem to already be priced in to the market and US equities are expensive compared to other equity markets. Given these conditions, investors should expect lower returns going forward and overweight sectors with undemanding valuations that do not depend on growth achievement and have potential positive catalysts—energy, financials, industrials, and information technology. Investors should underweight consumer staples and health care. ■

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