



DEEP RESEARCH FUND - INSIGHT

# Screening Model

Every stock market strategy needs a source of new investment ideas. Our quantitative screening model discovers stocks we may have never thought of, cutting through all human bias straight to the target.

## **Efficient market theory**

Eugene Fama, a former professor at the University of Chicago, was honored with the 2013 Nobel Prize in Economic Sciences for his controversial efficient market theory. This theory asserts that markets are informationally efficient, meaning that all available information on a given company is reflected in its price. Hence, the theory suggests that the market cannot be beaten by actively selecting stocks based on publicly available information. Unsurprisingly, his theory is the origin of passive investing. Rather than focusing on selecting stocks, passive investing covers the broader market by means of index funds. After all, you may as well just diversify, since the theory implies that there is no better alternative.

How can it be, though, that investors such as Warren Buffet still beat the market over a prolonged period of time, spanning the oil shock, Black Monday, the dot.com bubble or the great financial crisis - and did so by carefully selecting stocks? Let us have a closer look at Fama's efficient market theory. The theory is based on the assumptions that all investors have equal access to all available information at all times. Furthermore, the theory requires full validity of the traditional finance assumption that all market participants always act rationally. Under these assumptions, the theory is valid and conceptually interesting.

## **Shortcomings**

The reality looks quite different, though. Research in the field of modern behavioral finance demonstrates that a great deal of decisions are made with incomplete information and deviate from a rational basis due to psychological factors such as peer pressure, limited cognitive ability or emotions like impatience, excitement, panic or greed. Furthermore, the assumptions required by the efficient market theory hold true for most stocks, though they don't consistently apply to all stocks. Sometimes a company is only followed by a few investors and completely ignored by banking research analysts. Equal access to all information is limited by language barriers and the information absorption capacity of an individual investor does not suffice for the information flow of about 50'000 publicly traded companies globally. Thus, there must be some outliers that trade at prices that do not fully reflect the value of the underlying company.

### **The search for outliers**

We work under the assumption that there are stocks whose price temporarily deviates from intrinsic value for various reasons. So how can we find exactly those companies? This is where the screening model comes into play. A stock screening model can screen, filter and select among tens of thousands of stocks in a short period of time. Joel Greenblatt, adjunct professor at the University of Columbia, New York, successfully tested this method to outperform the broader market both empirically and practically. Convinced of this well-structured and disciplined approach, we developed our own proprietary stock screening model. The original model won the 2012 Quant Awards jointly organized by CFA Institute France and State Street. The original model was based on valuation and credit metrics. Its purpose was to find cheap stocks with a low risk profile. We further developed our model over the years. Today, the "DRF Quant Model" unemotionally and efficiently screens all stock markets globally and integrates additional criteria such as profitability and sustainability parameters (e.g. CO<sub>2</sub> emissions) into its search for potential investments.

### **Origin of a new idea**

The screening model keeps our research pipeline up to date and ensures continuity in our investment process. It is important to emphasize that we have never abandoned the deep analysis prior to any investment, and we will always take great pride in our fundamental research of all stocks that we consider investing in. We merely utilize the screening model to generate new, promising investment ideas. The screening model led us to research Belgium sensor company Melexis, followed by US Wi-Fi equipment company Ubiquiti, followed by Danish medical device company Coloplast, all brought onto our radar by means of the screening model. Entirely different ideas from what we looked at before emerge, which helps us keep our portfolio well diversified. Of course, we often dismiss an idea discovered through the screening and discontinue the research if we are not sufficiently convinced after gaining a deeper understanding. In particular, qualitative factors such as leadership, reputation and brand, alongside risk factors that are difficult to quantify, are part of our research as well, which is why the screening is simply the beginning of the pursuit of a new idea.

### **Conclusion**

The limited availability of understandable information, the limited information absorption capacity of individuals, and various emotional behavioral biases can cause certain stock prices to trade at absurd prices for a while. A quantitative model can help us identify those stocks. We can evaluate whether we are on to an interesting investment or whether a qualitative factor may explain the low price. This is the source of our ideas - ideas we wouldn't be able to come up ourselves by simply brainstorming. That is exactly why it's not only an interesting source of ideas, but also beneficial in keeping the portfolio diversified.

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**ANREPA Asset Management AG**  
Neuhofstrasse 12, 6340 Baar (Zug)

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