M.M.WARBURG & CO
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ECONOMIC SITUATION AND STRATEGY

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# Firstly it Turned out Differently and Secondly as One Thought

Humans are bargain hunters at heart. Who wants to pay full price if one can buy the object of desire at a discount? Stock markets, too, are fertile ground for this way of thinking. However, stock markets do have an added complication that markets for goods and services lack. While one easily develops a sense for the fair price levels of bread, butter, air fares, haircuts, and restaurants; fair stock price levels are not that easy to gauge. After all, stock markets sell shares in future profits. This is just a hair short of sheer conjecture meaning that it really is virtually impossible to determine an objectively fair price for an individual stock. That makes bargain hunting on the stock market so tricky as some super cheap stocks may well be overpriced while seemingly very expensive stocks may be the real bargains. Indeed, fair stock price valuation is subject to Heisenberg's uncertainty principle where you can either know how fast it is moving or where it is right now but not both at the same time. One may look at a stock's price history, though, to determine whether a stock is a good deal or not. The thinking goes like this: If a stock, for example, currently quotes at half of its long-term value this could be an exaggeration as it is unlikely that the expected discounted future profits suddenly dropped by half. As such, one could go stock thrifting by systematically buying stocks that are conspicuously undervalued relative to their own histories thus betting on this exaggeration to normalize.

The beauty of this approach is that it is relatively easy to do. There is no need for educated guesses and one can exactly show where this strategy was right on point or fell short of it in the past and where it will probably do the same given similar circumstances in the future.

So, we did just that: We ran a stock thrifting simulation on the STOXX 600 history to see how that would turn out. The simulation considered the period from 2010 to 2021 adding every six month 100 stocks that seemed to be particular bargains relative to their previous five-year average valuation to a portfolio based on the respective historical composition of the STOXX 600. We furthermore restricted the resulting portfolio to having a rather similar sector structure to the benchmark to eliminate or at least minimize sector-specific performance effects.

The result was a bit of a letdown. Such a portfolio before costs would have largely performed in line with the benchmark. Cumulated over the entire observation period, the benchmark would have even slightly outperformed the bargain hunting strategy. The most sobering part were the risk parameters. The tracking error came to 6.4% indicating a rather high risk compared to the benchmark. Absolute risk in terms of price volatility would have been about four percent above benchmark level. The maximum draw down would have been particularly critical underperforming its benchmark counterpart by almost ten percentage points in a worst-case scenario. Stock thrifting does not seem to protect too well against losses either. This may go against intuition, but our results are sound. It is also an interesting fact that the thrift stock portfolio performed over time relative to the benchmark not in a random pattern but with economy and return interference. That means the thrift portfolio mostly outperformed the benchmark when economic data and returns improved and tended to underperform it when economic data and returns worsened. This correlation is so compelling that there must be a very good fundamental explanation for it and, indeed, there appears to be one.

Apparently thrifting stocks means buying equities of companies who recently generated bad press that needs to be resolved. However, such resolution only happens when the economy is going strong while downturns aggravate any underlying problems. That makes perfect sense. It is always easier to change course on a good tail breeze. However, heading into a gale when already in dire straits does not smooth sailing make and - in business terms - it will be near impossible to realize the desired mean reversion.

To validate our results, we then inverted our strategy. Instead of buying bargains, we bought the seemingly overpriced equities. The results were even more perplexing than our first regression. Instead of tracking the benchmark results again, the big spender strategy got us a massively outperforming portfolio especially from 2015 forward. This strategy yielded a near-spectacular information ratio of 0.7 and a much lower maximum draw down than the benchmark portfolio. Even the absolute volatility of the luxury portfolio was below benchmark, which is a rare sight in stock picking approaches. Relative performance, too, was largely decoupled from macroeconomic influences. This seems counterintuitive at first: You are buying quite expensive stocks that have disproportionately increased in price prior to your purchase and yet outperform the benchmark going forward. The results still hold fast without making the portfolio sector neutral even allowing sector bets relative to the benchmark and instead strictly buying stocks that are particularly cheap or expensive in terms of their respective histories.

How can that be? Obviously, historic stock valuation is not a good indication for the future. If stocks lose value over time this is apparently not indicative of exaggeration and thus a buy signal but rather a warning. Conversely, it could be a positive sign if a stock outperforms its historic price development as this, too, is probably nor sheer happenstance but rather the result of fundamental improvement that will carry on into the future. To put it simply: stocks that lose value over time usually do so for a reason. Markets are, indeed, rather efficient. It is hard to believe it is this easy to outsmart the market based on plain valuation criteria. We also did some more research in this area. For instance, we derived presumptive fair values for each stock in our investment universe at any given time using a relatively complicated multiple regression model with data on earnings growth, profitability, and balance sheet quality to identify which stocks were ‘bargains’ and which were ‘luxury’. You may have guessed by now: It did not turn out as expected. We could have gotten the same results flipping coins. That is frustrating and revealing at the same time. It shows that markets are not as simple as one might think. Markets are hive minds and that means stocks are rarely entirely misvalued. Of course, it is fully understandable and acceptable if investors indulge their desire to go bargain hunting. However, do so at your own risk and with due caution. All princesses know that the frog to prince ratio is not in their favor.

# Market Data

| Stock marktes | As of 12.11.2021 10:53 | Change versus 28.10.2021 -1 week | 01.10.2021 -1 month | 03.08.2021 -3 months | 03.11.2020 -1 year | 31.12.2020 YTD |
|---|---|---|---|---|---|---|
| Dow Jones | 35921 | 0.5% | 4.6% | 2.3% | 30.7% | 17.4% |
| S&P 500 | 4649 | 1.1% | 6.7% | 5.1% | 38.0% | 23.8% |
| Nasdaq | 15704 | 1.7% | 7.8% | 6.4% | 40.7% | 21.8% |
| DAX | 16093 | 2.5% | 6.2% | 3.5% | 33.1% | 17.3% |
| MDAX | 35774 | 2.2% | 4.7% | 1.3% | 34.6% | 16.2% |
| TecDAX | 3888 | 1.3% | 5.9% | 4.5% | 34.7% | 21.0% |
| EuroStoxx 50 | 4355 | 2.9% | 7.9% | 5.8% | 40.6% | 22.6% |
| Stoxx 50 | 3763 | 2.4% | 8.1% | 5.1% | 33.4% | 21.1% |
| SMI (Swiss Market Index) | 12454 | 2.5% | 7.6% | 2.4% | 24.5% | 16.3% |
| Nikkei 225 | 29610 | 2.7% | 2.9% | 7.1% | 27.1% | 7.9% |
| Brasilien BOVESPA | 107595 | 1.8% | -4.7% | -12.9% | 12.1% | -9.6% |
| Russland RTS | 1795 | -4.6% | 1.3% | 9.6% | 61.9% | 29.3% |
| Indien BSE 30 | 60675 | 1.2% | 3.2% | 12.7% | 50.7% | 27.1% |
| China CSI 300 | 4888 | 0.5% | 0.5% | -0.9% | 2.3% | -6.2% |
| MSCI Welt (in €) | 3202 | 2.0% | 7.4% | 7.5% | 38.2% | 27.7% |
| MSCI Emerging Markets (in €) | 1281 | 1.7% | 4.2% | 2.8% | 16.9% | 6.4% |
| **Bond markets** | | | | | | |
| Bund-Future | 170.42 | 136 | 20 | -655 | -560 | -722 |
| Bobl-Future | 134.86 | 59 | -23 | -57 | -95 | -32 |
| Schatz-Future | 112.32 | 25 | 8 | -6 | -14 | 4 |
| 3 Monats Euribor | -0.57 | 0 | 0 | 0 | -5 | 1 |
| 3M Euribor Future, Dec 2017 | -0.56 | -2 | -2 | -2 | 1 | 0 |
| 3 Monats $ Libor | 0.14 | 1 | 1 | 2 | -9 | -10 |
| Fed Funds Future, Dec 2017 | 0.08 | 0 | 0 | 0 | 2 | 0 |
| 10 year US Treasuries | 1.57 | 0 | 11 | 40 | 69 | 66 |
| 10 year Bunds | -0.24 | -9 | -2 | 29 | 38 | 34 |
| 10 year JGB | 0.08 | 0 | 3 | 7 | 4 | 6 |
| 10 year Swiss Government | -0.12 | -2 | 7 | 29 | 38 | 37 |
| US Treas 10Y Performance | 690.23 | -0.1% | -0.9% | -3.0% | -3.7% | -3.6% |
| Bund 10Y Performance | 661.82 | 0.2% | -0.5% | -3.1% | -3.9% | -3.3% |
| REX Performance Index | 492.56 | 0.5% | 0.1% | -1.2% | -1.7% | -1.3% |
| US mortgage rate | 0.00 | 0 | 0 | 0 | 0 | 0 |
| IBOXX AA, € | 0.37 | -2 | 5 | 27 | 30 | 35 |
| IBOXX BBB, € | 0.79 | 0 | 12 | 34 | -1 | 24 |
| ML US High Yield | 4.83 | 11 | 15 | 15 | -110 | -14 |
| Convertible Bonds, Exane 25 | 8209 | 0.0% | 0.3% | -1.4% | 4.6% | -1.4% |
| **Commodities** | | | | | | |
| MG Base Metal Index | 451.34 | -0.5% | 3.9% | 2.5% | 40.3% | 27.3% |
| Crude oil Brent | 81.61 | -3.3% | 2.9% | 12.5% | 105.2% | 57.3% |
| Gold | 1852.52 | 2.9% | 5.5% | 2.4% | -2.8% | -2.4% |
| Silver | 23.26 | -3.5% | 3.1% | -8.7% | -3.9% | -11.8% |
| Aluminium | 2638.30 | -3.6% | -7.0% | 2.2% | 38.4% | 33.7% |
| Copper | 9648.50 | -2.1% | 5.6% | 1.3% | 41.7% | 24.5% |
| Iron ore | 93.63 | -23.2% | -19.1% | -48.3% | -19.6% | -39.9% |
| Freight rates Baltic Dry Index | 2844 | -21.7% | -45.3% | -13.3% | 125.2% | 108.2% |
| **Currencies** | | | | | | |
| EUR/ USD | 1.1442 | -1.3% | -1.4% | -3.7% | -2.2% | -6.8% |
| EUR/ GBP | 0.8542 | 0.9% | -0.3% | 0.1% | -4.8% | -4.6% |
| EUR/ JPY | 130.44 | -1.0% | 1.1% | 0.6% | 6.4% | 3.1% |
| EUR/ CHF | 1.0547 | -1.0% | -2.3% | -1.8% | -1.5% | -2.4% |
| USD/ CNY | 6.3812 | -0.2% | -1.1% | -1.4% | -4.5% | -2.3% |
| USD/ JPY | 114.00 | 0.4% | 2.6% | 4.5% | 9.1% | 10.4% |
| USD/ GBP | 0.75 | 3.1% | 1.1% | 3.8% | -2.4% | 2.1% |

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