Neglected, Undervalued and Momentum

Quantitative Investment Strategy

Executive Summary

This Neglected, Undervalued and Momentum investment strategy (NUM Strategy) contains all the best ideas from the latest research we have done after the release of the research paper **Quantitative Value Investing in Europe: What Works for Achieving Alpha**

Even though it may seem complicated the basic idea is very simple:

- First look for companies with good share price momentum
- Look for neglected companies with low traded volume compared to profits, ignored by fund managers and brokers
- Remove low quality companies with low profit margins
- Choose only the most undervalued companies

This system produced a **22.7% annualized** return (1374.2% in total) over a 13 year back test period, outperforming the market by 1317.0% or 19.2% per year for just over 13 years.

Updating the back test

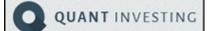
If you are thinking why we have not updated the back test.

We test strategies to make sure they also work in Europe or world-wide as most research studies and back tests were only tested in the USA. Once we have found that a strategy works, we don't update it (it is a LOT of work) but rather spend time to find even better strategies and tools to help our subscribers get even better returns.

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- Back test of the Neglected, Undervalued and Momentum investment strategy
- How to implement the Neglected, Undervalued and Momentum investment strategy in your portfolio

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How are the companies selected?

This Neglected, Undervalued and Momentum investment strategy (NUM Strategy) contains all the best ideas from our latest research we have done <u>after the release of</u> the research paper <u>Quantitative Value Investing in Europe: What Works for Achieving Alpha</u>

Let us start with an explanation of the parts of the strategy:

Neglected Companies

The strategy selects companies that are neglected by the market and thus are more likely to be undervalued.

We do this by only selecting companies where the yearly traded volume is low compared to profitability.

Because these companies have low traded volume they are not on the radar screen of fund managers with large amounts under management as they can't buy enough of the company to have any impact on the fund's performance.

Also, brokers (and their analysts) are not interested in these companies as they cannot make enough money trading the company's shares to make it profitable for them to research the company.

To do this we use the Liquidity (Q.i) indicator which is calculated as Adjusted Profits / Yearly trading value. You can read more about Liquidity Q.i. here: <u>Liquidity (Q.i.) indicator identifies neglected</u> (<u>miss-priced</u>) companies)

Undervalued

The strategy also selects the cheapest companies in terms of Earnings Before Interest and Taxes (EBIT) to Enterprise value. Numerous research studies have shown in the best valuation ratio you can use to find market beating undervalued companies as it also takes the capital structure (debt, equity and cash) into consideration.

Momentum

If there is one fact that came out of all the back testing we have done it is that if you want high returns you have to include share price momentum in your selection process.

To select investment ideas for the NUM Strategy we use (6 month) share price momentum so that only companies with an upward moving share price are selected.

This also helps you avoid value trap companies as they mostly have falling share prices.

Quality

We also remove all the lowest quality companies from the list by screening out the lowest 40% of companies with low profit margins compared to assets.

Even though this ratio may seem unusual, studies have found that it is one of the best ways to find high quality companies.



In summary

Even though it may seem really complicated the basic idea to come up with the ideas for this strategy is very simple.

These are the screening steps:

- First look for good share price momentum companies
- Look for neglected companies with low traded volume compared to profits, ignored by fund managers and brokers
- Remove low quality companies with low profit margins
- Lastly, choose only the most undervalued companies

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Back test of the Neglected, Undervalued and Momentum investment strategy

Strategy Criteria								
Countries included	Eurozone, UK (excl. AIM), Scandinavia and							
	Switzerland							
Minimum traded volume	€250 000 per day							
Neglected	Low traded volume compared to profits							
Momentum	Healthy medium-term momentum							
Quality	Remove low quality companies with low profit margins							
Valuation	Undervalued in terms of Earnings Before Interest and Taxes (EBIT) to Enterprise value							
Selection	Top 20 companies selected							
NUM Strategy Back Test								
Period	29 June 2001 to 22 Augustus 2014 (13.16 years)							
Rebalance Frequency	Every 6 months							
Ranking System	Neglected, Undervalued, Momentum							
Benchmark	European STOXX 600 Total Return Index							
	(dividends included)							
Number of companies in portfolio	20							
Rebalancing cost	0.6% (deducted at each rebalancing to cover							
	trading and bid ask spread costs)							
Strategy Total return	1374.2%							
Strategy Compound annual growth rate (CAGR)	22.7%							
Benchmark Index return	57.2%							
Benchmark Compound annual growth rate	3.5%							
(CAGR)								
Benchmark outperformance total	1317.0%							
Benchmark outperformance annualised	19.2%							
Strategy maximum drawdown	-53.2%							
Benchmark maximum drawdown	-58.4%							
Strategy number of positive investments	67.2%							
Sharpe Ratio	1.22							
Standard Deviation of returns	18.7% (Weekly standard deviation annualised)							

Performance by calender year														
	2001*	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014**
Model Strategy	0.4%	8.2%	36.6%	45.2%	72.8%	60.3%	17.0%	-32.5%	36.4%	39.6%	-17.0%	34.6%	47.7%	-0.6%
European STOXX 600 TR Index	-8.7%	-30.8%	17.2%	12.7%	27.2%	21.3%	2.8%	-43.4%	33.3%	12.2%	-8.1%	19.0%	21.5%	5.4%
Excess Return	9.1%	39.0%	19.5%	32.5%	45.5%	39.0%	14.2%	11.0%	3.0%	27.4%	-9.0%	15.6%	26.2%	-6.0%

(*) Inception date 29-06-2001

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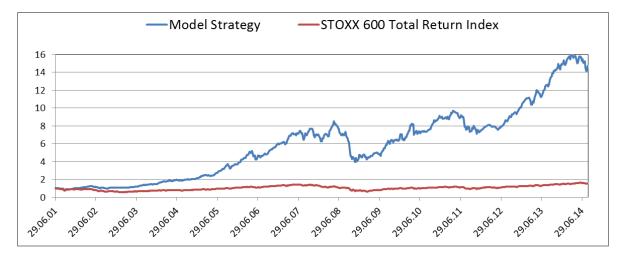
(**) End date 22-08-2014



Value of your investment in the strategy

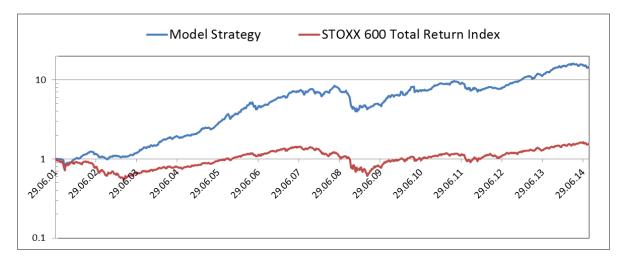
This chart shows the growth of €1 invested in the Neglected, Undervalued and Momentum investment strategy compared to if you invested in the European STOXX 600 Index (dividends included).

Normal Scale



This chart also shows your return of €1 invested in the NUM Strategy and the index but it used a **logarithmic scale** to show that the index is even more volatile than the NUM Strategy.

Logarithmic scale



<u>Returns</u>

As you saw in the above table the strategy over the past 13 years generated outstanding returns, outperforming the index by just under 1320% or 19.2% per year for 13 years.



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The strategy would thus have given you just less than **14 times your original investment** compared to only half (+57.2%) of your initial investment if you invested in the index.

To start using Neglected, Undervalued and Momentum in your portfolio now Click Here

How to implement the Neglected, Undervalued and Momentum investment strategy in your portfolio

It is really easy to implement this investment strategy in your portfolio using the <u>Quant Investing</u> <u>Stock screener</u>.

The following steps show you exactly how.

Momentum

The first thing you want to do is select only companies with an upward moving stock price.

To do this choose **Price Index 6m** as a **Primary Factor** from the drop-down list under the heading **Momentum** and then with the slider select the top 30% of companies with the best Price index 6m as shown below.



Neglected Companies

Next you want to select companies that are neglected by the market and thus are more likely to be undervalued.



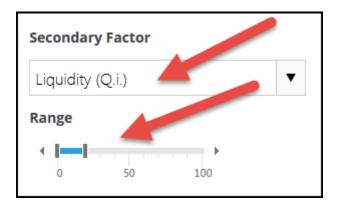
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You do this by only selecting companies where the yearly traded volume is low compared to profitability.

Because these companies have low traded volume, they are not on the radar screen of fund managers with large amounts of money to invest as they can't buy enough of the company to have any impact on the fund's performance.

Also brokers (and their analysts) are not interested in these companies as they cannot make enough money trading the company's shares to make it profitable for them to research the company.

In the screener as a **Secondary Factor** choose **Liquidity (Q.i.)** from the drop down list under the **Valuation** heading. Select the most illiquid 20% of companies with the slider as you can see below.

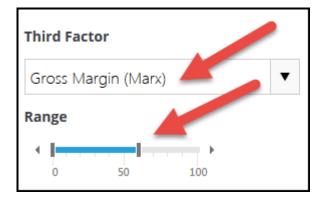


Quality

The next step is to remove all the low-quality businesses. You do this by removing or screening out companies with low profit margins compared to assets.

Even though this ratio may seem odd at first studies have found that it is one of the best ways to find quality companies. F

In the screener as a **Third Factor** choose **Gross Margin (Marx)** from the drop down list under the **Quality** heading. Use the slider to select the top 60% of companies with the highest Gross Margin (Marx) values.





Valuation

After doing all the above you then sort the companies that pass all the above criteria by **Earnings Yield** (Earnings Before Interest and Taxes (EBIT) to Enterprise value) which numerous research studies have shown in the best valuation ratio you can use to identify undervalued companies as it also takes the capital structure (debt, equity and cash included in the Enterprise Value calculation) of the company into consideration.

In the screener go to the column **Earnings Yield** and click on the column heading to sort the column from high to low.

To sort from high to low you must **click the column heading twice** because if the first time you do the column will be sorted from low to high which is not what you want (you want the small arrow to point down) as shown in the screenshot below.



Buy the top 20 companies

Once you have completed all the above steps the back test of the strategy bought the 20 companies with the highest earnings yield.

The strategy was re-balanced every 6 months. This means all investments sold and the 20 companies best ranked in the strategy bought.

PS To start using the Neglected, Undervalued and Momentum investment in your portfolio right now why not <u>sign up right now</u>, it costs less than an inexpensive lunch for two and if you don't like it you get all your money back. Sounds fair? Just click here: join now

PPS It's so easy to put things off, why not sign up now to start improving your investment returns.

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