Quality, Value and Momentum

Quantitative Investment Strategy

Executive Summary

This Quality, Value and Momentum investment strategy (QVM Strategy) contains all the best ideas from our research paper **Quantitative Value Investing in Europe: What Works for Achieving Alpha** (www.amazon.com/dp/B00M8B01EE)

It may seem complicated, but the basic idea is very simple:

- Remove bad quality companies
- Look for undervalued companies
- That have good stock price momentum
- Choose only the most undervalued companies

The QVM Strategy produced a **21.1%** annualized return (1141.8% in total) over the 13 year back test period from 29 June 2001 to 22 August 2104.

Over this period the strategy outperformed the market by a total 1084.6% or 17.6% per year for 13 years.

How you can implement the strategy

At the end of the document I show you exactly – step by step - how to implement this strategy in your portfolio, so keep reading.

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.

Introduction

This QVM Investment Strategy contains all the best ideas from our research paper **Quantitative Value Investing in Europe: What works for achieving alpha** (www.amazon.com/dp/B00M8B01EE)

It is a combination of quality, value, and momentum, all the factors we have found that can give you the highest possible returns.

How are the companies selected?

Quality
The first thing the strategy does is remove all the low-quality companies from the list of possible investments:

- **Firstly,** we remove companies that generate a low level of free cash flow to total debt (a company must generate cash profits to repay its debt).
- **Secondly,** we also remove companies that have a low return on assets. Research studies have shown that companies with a low return on assets do not generate high returns.
- **Thirdly** we remove companies where there is a big difference between the profits and the free cash flow the company generates. Research has shown that companies with free cash flow and nearly equal to profits (low level of accruals) give you much higher returns.

Valuation
After removing all the low-quality companies, we select the top 20% of companies with the highest Earnings Yield (EBIT to enterprise value).

The simplest ideas lead to the best results. This is true of this valuation ratio as research studies have shown that this is the most effective ratio you can use to find high return investment ideas.

You can read more about why **Earnings Yield** is the best ratio you can use to find undervalued companies here:

This simple ratio beats the world's best value funds

The best valuation metric ever tested worldwide

Momentum
If there is one fact that came out of the above-mentioned research study, it is that if you want high returns you must consider share price momentum.

To select investment ideas for the QVM Strategy we combine short- and medium-term share price momentum so that only companies with an upward moving share price are selected.

Here you can read more about why momentum is a great indicator if you are looking for high returns:

[10 myths about momentum investing, squashed]

[How to find stocks on the move with a better momentum indicator - exponential regression]

[Stock price momentum back test]

Best 20 ideas
After we have screened with all the above-mentioned criteria, we select the 20 most undervalued companies using a Value Composite One ranking. Value Composite One was defined and extensively tested by James O'Shaughnessy in the latest edition of his excellent book **What Works on Wall Street**.

You can read more about Value Composite One here:

[This combined valuation ranking gives you higher returns - Value Composite One]

[How and why to implement a Value Composite One investment strategy world-wide]

In summary

Even though this this strategy looks complicated it boils down to the following simple principles:
- Remove bad quality companies
- Look for undervalued companies
- That have good share price momentum
- Choose only the most undervalued companies

The Back-Test

Strategy Criteria	
Countries included	Eurozone, UK (excl. AIM), Scandinavia and Switzerland
Minimum traded volume	€250 000 per day
Quality	High Free cash flow generation, healthy return on assets and low accruals.
Momentum	Healthy short- and medium-term momentum
Valuation	A composite of valuation ratios including operating profit, earnings, and free cash flow
Selection	Top 20 companies selected
QVM Strategy Back Test	
Period	29 June 2001 to 22 Augustus 2014 (13.16 years)
Rebalance Frequency	Every 6 months
Ranking System	Quality, Value, Momentum
Benchmark	European STOXX 600 Total Return Index (dividends included)
Number of positions	20
Rebalancing cost	0.6% (deducted at each rebalancing to cover trading and bid ask spread costs)
Strategy Total return	1141.8%
Strategy Compound annual growth rate (CAGR)	21.1%
Benchmark Index return	57.2%
Benchmark Compound annual growth rate (CAGR)	3.5%
Benchmark outperformance total	1084.6%
Benchmark outperformance annualised	17.6%
Strategy maximum drawdown	-50.8%
Benchmark maximum drawdown	-58.4%
Strategy number of positive investments	66.1%
Sharpe Ratio	1.05
Standard Deviation of returns	20.2% (Weekly standard deviation annualised)

Performance by calender year

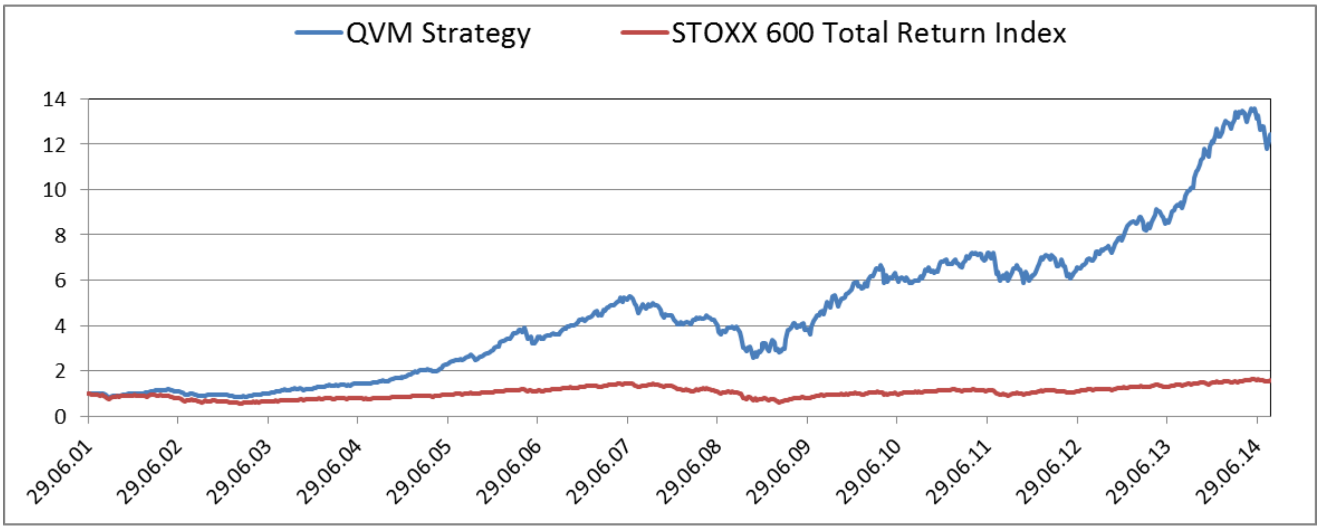
	2001*	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014**
QVM Strategy	-1.4%	-5.7%	29.5%	44.1%	68.2%	46.6%	3.7%	-28.0%	74.8%	21.6%	-9.2%	25.6%	55.4%	3.2%
European STOXX 600 TR Index	-8.7%	-30.8%	17.2%	12.7%	27.2%	21.3%	2.8%	-43.4%	33.3%	12.2%	-8.1%	19.0%	21.5%	5.4%
Excess Return	7.3%	25.1%	12.3%	31.4%	41.0%	25.3%	0.9%	15.4%	41.4%	9.4%	-1.2%	6.6%	33.9%	-2.3%

(*) Inception date 29-06-2001

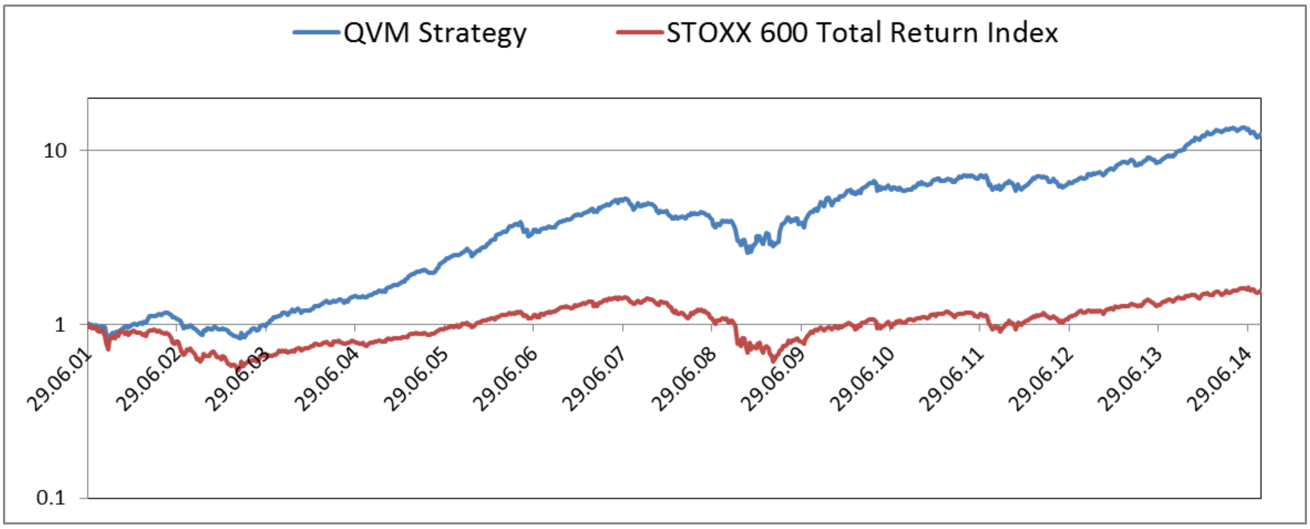
(**) End date 22-08-2014

Value of €1 investment in the strategy

This chart shows the growth of investing €1 in the QVM strategy compared to if you invested in the European STOXX 600 Index (dividends included).



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



Returns

As you saw in the above table the strategy over 13 years generated outstanding returns, outperforming the index by just under 1100% or 17.6% per year for 13 years.

The **strategy** would thus have given you just less than 11 times your original investment compared to only half (+57.2%) if you invested in the index.

How to implement the Quality, Value and Momentum Quantitative Investment Strategy in your portfolio.

You can log into the screener here: https://www.quant-investing.com/login

Or if you are not yet a subscriber you can sign up here: https://www.quant-investing.com/join-today

How to select the companies

Quality

The first thing we do is remove all the low-quality companies from the list of possible investment ideas.

First remove companies that generate a low level of free cash flow to total debt (a company must generate cash profits to repay its debt). Use the FCF to debt ratio in one of the sliders in the screener and select 0% to 70%

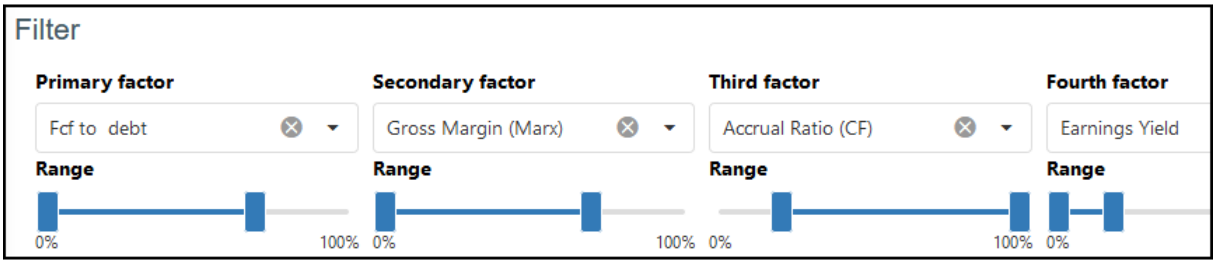
Secondly remove companies that have a low return on assets. Research has shown that companies with a low return on assets do not generate high returns. Use the ratio Gross Margin (Marx) and select 0% to 70% with the slider.

Thirdly remove companies where there's a big difference between the profits and the free cash flow the company generates. Again, because research has shown that companies with free cash flow nearly equal to profits (low level of accruals) give you much higher returns. Use the ratio Accrual Ratio CF and select 30% to 100% with the slider.

Valuation

After removing all the low quality companies we select the top 20% of companies with the highest earnings yield (EBIT to enterprise value). Use the ratio Earnings Yield and select 0% to 20% with the slider.

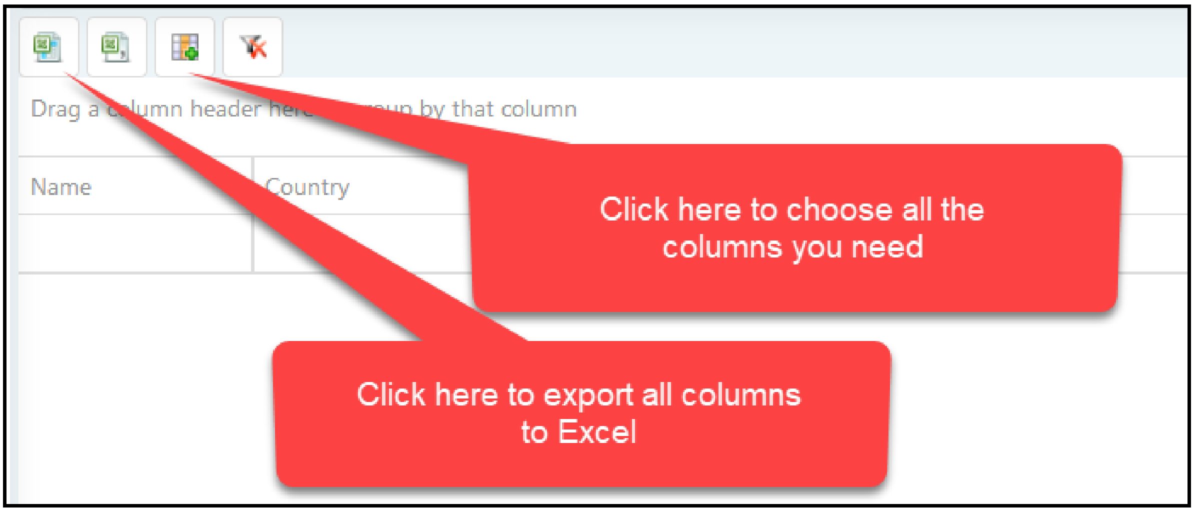
This is what your screen should look like:



Momentum

To select the top 50% of companies with the best 3- and 6-month momentum – called Price Index in the screener you must export the above results to Microsoft Excel.

Select all the above ratios as columns including Value Composite One and 3- and 6-month Price Index and export the screen to Excel.



To select the top 50% of companies with the best momentum activate the Filter function on the exported data from Excel.

This article shows you how: [Excel - Filter data in a range or table]

Once you have done that apply a filter to the 3m PI and 6m PI columns, so you only get the top 50%.

Best 20 ideas

After you have selected all the above-mentioned criteria, select the 20 most undervalued companies based on [Value Composite One].

To do this simply sort the remaining companies by the Value Composite One column in Excel.

PS: To implement the Quality Value Momentum investment strategy in your portfolio click here: [I am interested sign me up]

PPS It is so easy to put things off, why not [sign up right now before it slips your mind]

To start finding Quality, Value and Momentum ideas for your portfolio now
Click Here

QUANT INVESTING www.quant-investing.com