

Quest™

www.canaccordquest.com

2012 edition

An Introduction to Quest

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Quest™ products and services

Quest™ is Canaccord Genuity's proprietary brand of online valuation models, analytical tools and research publications aimed at international equity fund managers. Quest™ products and services are provided to licensed clients of Canaccord Genuity and form the backbone of our independent stockbroking offering. Payment is made via directed commissions or broker votes.

The Quest™ database and Cash Flow Return On Capital (CFROC) analysis provide the foundation for our global products and services, available via the Quest™ website at www.canaccordquest.com. The products employ contemporary equity analytical techniques, such as DCF and CFROC, to analyse corporate performance in rigorous detail, examining the footnotes and addenda of all published material, and enabling active assessment of stock values and monitoring of share price momentum.

Quest™ online

Quest™ is an online cash flow valuation tool providing CFROC analysis on 2,900 stocks from 29 countries plus instant and easy access to a comprehensive database.

- **Company analysis:** Stock analysis on Strategy, Valuation, Momentum, Commentary, Statistics, Charting, Sensitivity and Modeller.
- **Sector analysis:** Sector analysis on Strategy, Valuation, Statistics and Charting.
- **Portfolio & Reports:** Create a portfolio of stocks and compare them using any of the 400 data items in the Quest™ database.
- **Screen for Stocks:** Search the Quest™ database and find those stocks that meet your selected criteria.

CITN

A weekly summary of our views on topical company and market events using the Quest™ approach to corporate analysis.

triAngle

Canaccord Genuity's proprietary quantitative stock-picking tool that ranks stocks based on measures of Value, Quality and Momentum.

Quest™ Newsletter

Timely equity strategy publication examining the latest issues in valuation and accounting. Some recent topics include buybacks, LBO valuations, debt restructuring, valuing serial acquirers, deflation, M&A and value creation.

Quest™ Momentum

Daily email service providing daily momentum, trends and technical analysis for stocks in our universe.

Canaccord Genuity and the Quest™ CFROC approach

An independent and objective approach to research

Quest™ products and services form the backbone of Canaccord Genuity's offering and are therefore fully integrated into the stockbroking services provided across the Canaccord Genuity group. Our core philosophy is to take an independent and objective approach to research and to the advice we give to clients. We offer a broad range of services, tailored to the needs of our clients. Our sole aim is to make money for fund managers.

The key tenets of Canaccord Genuity's philosophy – independence, innovation, intellectual rigour and flexibility in meeting clients' needs – have become increasingly important and relevant in difficult market conditions and where conflicts of interest are endemic.

In addition to distributing existing and upcoming products to our clients, we strive constantly to bring clients an improved service. To that end, the Quest™ website is integrated for all our products and provides an intuitive, user-friendly interface to our powerful analytical tools.

Quest™ uses a version of Cash Flow Return On Capital (CFROC) as the basis of our assessment of corporate performance and share values for non-financial companies. For banks, we use a Real Return On Equity (RROE) valuation framework. This is an intellectually similar approach, and takes account of the different capital structure and regulatory capital requirements unique to banks.

Quest™ CFROC overcomes the limitations of accrual accounting measures

The CFROC approach makes the shift from an accounting to a cash-based framework to calculate the economic rate of return earned by a company from its operations. The CFROC is in real terms and unaffected by the company's choice of capital structure. It overcomes the limitations of accrual accounting measures by addressing and dealing with, in a consistent way, such thorny issues as inflation, depreciation, asset life and mix, deferred taxes, holding gains, leases and goodwill.

CFROC is steadily increasing in popularity, compared to other contemporary valuation techniques, because it allows a consistent comparison to be made between companies, while adjusting for inflation allows for a realistic comparison to be made across time. It is also possible for investors to calculate a company's CFROC from published accounts. Perhaps the most important differentiating factor of the CFROC approach is its use of the asset life and asset mix in its assessment of corporate performance within an internal rate of return (IRR) calculation.

The first Quest™ CFROC model was launched in 1996, in response to the groundswell of negative opinion towards 'so-called' valuation techniques such as P/Es. The empirical relationship between earnings growth and P/E is very poor and investors have sought better insight into corporate performance in order to value shares. Proposed changes to international accounting standards, will also, in our view, make the P/E fixation unworkable. Because cash is harder to manipulate than earnings, the empirical evidence of correlation between CFROC spread and market-to-book ratio is much stronger.

Quest™ provides objective valuations within a DCF framework

The Quest™ CFROC valuation model provides objective valuations within a discounted cash flow (DCF) framework. The model forecasts cash flows beyond the normal forecast horizon, employing principles that remove the dependency on the terminal value assumption. This allows us to assess relative valuations between companies and to backtest the model quantitatively in order to gauge accuracy.

The Quest™ database

So, how does the Quest™ database differ from other similar database services on the market? The key points of differentiation are:

- Timeliness;
- Quality;
- Relevance; and
- Coverage.

Data timeliness

All Quest™ data – including revised earnings estimates, introduction of new corporate events, publication of new preliminary results and the publication of new accounts – is updated twice a week. Share prices (and related ratios) are updated daily. We update company data for preliminary results rather than waiting for the accounts to be issued.

Data quality

The Quest™ database consists of millions of data items and has been assiduously assembled and checked over many years. Many thousands of man-hours have been involved in collecting and checking the data items, some of which are unavailable from commercial vendors.

Data relevance

We analyse and publish research constantly on the major corporate events affecting our universe of companies. We also add in IPOs as soon as the flotation prospectus is published, and often before the actual flotation date. This is done in a timely fashion to provide an independent, objective and timely assessment of relevant corporate activity for clients. It is during this period that the biggest information vacuum exists, with many of our competitors prohibited from commenting and databases relying on published accounts redundant until the relevant corporate event has been incorporated.

Data coverage

As a result of our approach to data and stock coverage, priority is given to those companies with size and/or market relevance. It also reflects our clients' investible universe, which is based on market capitalisation, liquidity thresholds and index membership. We have up to 15 years' history, where available, and over 400 data items for use in the products on each company.

Our coverage is 2,900 companies from 29 countries across Europe, North America, Asia and Africa.

Quest™ online

Quest™ is an online cash flow valuation tool providing CFROC analysis on 2,900 stocks from 29 countries plus access to the Quest™ database of more than 400 data items. The Quest™ website at www.canaccordquest.com is split into five parts:

Company analysis

One-stop overview

- **Summary** – A one-stop overview of a company incorporating Strategy (CFROC and capital growth), Valuation (CFROC and conventional) and Momentum information conveniently displayed on a single page. Also includes triAngle statistics and links to recent CITN articles on the company.

Quest™ CFROC analysis

- **Strategy** – Graphical display of the Quest™ CFROC analysis and change in the invested capital base, covering both historic and forecast years, plus information on corporate events, capital changes and active deals. Users can also view the numbers behind the Quest™ CFROC calculation, which can be used to reconcile the CFROC calculation to underlying financial statements.

Cheap or expensive?

- **Valuation** – The current “fair value” estimate using the default Quest™ CFROC valuation model. It also gives current values of non-CFROC valuation measures such as P/E, PEG, EV/sales, EV/EBITDA, market-to-book and dividend yield, and gives sector and market comparisons. The chart also gives a visual history of the accuracy of the CFROC valuation model and numerical accuracy statistics are also available.

Momentum trends

- **Momentum** – Detailed Momentum analysis on individual stocks. It includes share price relative charts, trends in earnings estimate revisions, written commentary based on short and long-term price and earnings Momentum indicators and flags when new relative highs or lows are reached.

All research notes

- **Commentary** – Provides access to all research notes and commentary in the CITN archives for each company.

One-page ‘tear sheet’

- **Statistics** – A one-page ‘tear-sheet’ summarising company activity and regional breakdown of sales, profitability, and a range of long term averages for various performance measures (e.g., margins, RoE) and growth measures (e.g., sales growth, EPS and CFPS growth). Also trend analysis on common financial statement data and various financial strength indicators.

Graphical display

- **Charting** – Graphical display of a selection of non-CFROC valuation measures (P/E, EV/sales, etc) for 15 historic and two forecast years. These valuations are graphed relative to the sector and the market. Operating and other non-valuation measures, such as EPS growth, sales growth, operating margins, etc, can be plotted against the valuation measures on the same chart.

Interactive functionality

- **Sensitivity** – Interactive functionality allows users to change the key value drivers in the Quest™ CFROC valuation model. The variables that can be flexed include earnings estimates, CFROCs, cost of capital, growth rates and fade/delay rates. This function can also be used to reverse out market expectations.

Make your own line-item forecasts

- **Modeller** – Allows users to integrate the robust valuation framework of Quest™ into their investment process. Using your forecasts, Modeller generates a Quest™-based valuation, projected rates of return and a full set of forecast financial statements. Access our easy-to-use, flexible model online at www.canaccordquest.com or link directly into your own model via the downloadable Excel interface.

Sector analysis

Under the 'Sector analysis' tab, a wide range of company level information has been combined into sector and market aggregates which offer valuable insight when either viewing the markets from a top-down perspective or placing an individual stock in its sector context. Sector information is presented via a number of familiar reports – Summary, Strategy, Valuation, Statistics and Charting functions are available.

Portfolio & Reports

Users can benefit from the wide-ranging flexibility available in terms of portfolio building to create a portfolio of stocks and compare them using any of the 400 data items in the Quest™ database. The report can be displayed in a tabular form if there is more than one data item, or a graphical report can be produced on any preferred data item. Portfolios & Reports can also be exported to Excel.

Screen for Stocks

Using intuitive and user-friendly functionality, users can screen the Quest™ database across the wealth of data items available to find stocks that meet your selected criteria. The database can also be filtered by country, index or sector. The results of any screen can also be exported to Excel.

triAngle

The Quest™ triAngle is Canaccord Genuity's proprietary quantitative stock-picking tool, which systematically measures Value, Quality and Momentum. Backtests show that a combined approach improves the reliability of returns. Momentum works most of the time, Value and Quality work some of the time, however, when combined, you get a better overall return but with no less consistency.

The UK triAngle has an excellent track record, with the top quintile outperforming the bottom quintile in 42 out of the past 53 quarters (by an average of 4.0%). In the Pan-Euro triAngle the top quintile has outperformed the bottom in 36 out of 48 quarters – by 3.0% on average.

The triAngle online allows users to view the scores and ranking of individual stocks. It is available online via the Quest™ website www.canaccordquest.com, fully integrated into other Quest™ products, and updated weekly. The flexible, user-friendly application allows users to analyse their portfolio or specific sectors, see the impact of different investment styles by changing the factor weightings, or export the triAngle to Excel.

CITN

CITN, or Companies in the News, is a weekly summary of our views on topical company and market events as seen through the Quest™ approach to corporate analysis. We comment in our unique style, with articles written by the Canaccord Genuity team of analysts and salesmen. Each company article contains a short punchy commentary on the company, and since all the Quest™ products are integrated, users can link straight to all the Quest™ analysis reports – Strategy, Valuation, Momentum – on a stock. The online edition gives access to the full archive and keyword searching for thousands of previous CITN articles.

Newsletter

The Quest™ Newsletter is a timely publication informing clients of the latest issues in valuation, accounting and topical market themes. We look at pertinent market themes and how we can use Quest™ products and database to analyse their implications. We also highlight various Quest™ features in order to identify buy and sell opportunities. Recent examples include buybacks, gearing, and leveraged buyout (LBO) valuations.

Proprietary quantitative stock-picking tool

A weekly summary of Quest™ views on topical company and market events

Bespoke Quest™ services

As part of our client focus we can create customised versions of Quest™ products or create and build customised reports for clients. We have extensive technical expertise and experience to include Quest™ data and reports as a central part of your company's Intranet.

Momentum

Quest™ Momentum is available as a stand-alone, daily email service providing daily momentum and trends for stocks in our universe. It contains the previous day's 'movers and shakers' among stocks, especially those reaching new highs and lows, and those moving in significant volume. This is followed by analysis of the more interesting stock charts.

Q-files

We have developed several tools to help investors navigate difficult financial markets. Updated regularly, these files can be found in the Quest™ website under "Q-files". The menu is wide-ranging and we occasionally add or remove files to reflect the issues of the day. Examples include:

- **Quest™ Risk Rater** – the QRR is a broad-based risk assessment of financial strength (Q-score) and accounting/earnings quality ("Blob" guide) of a company. It is intended to reflect companies' potential vulnerability to financial stress that can manifest in any number of places on the balance sheet and within accounts. The QRR is intended to be used in conjunction with valuation arguments, operational trends and momentum/timing.
- **Quest™ Aggressive/Defensive Indicator** – identifies the most and least cyclical and volatile companies/stocks. This metric ranks stocks within their sector and within the entire universe using three measures of corporate financial volatility and share price volatility that are combined into a single composite indicator of fundamental and investment risk.
- **LBO superscreen** – a tool to identify companies who could generate significant value either off- or on-market by employing the methods used successfully by private equity. While we focus on typical private equity methods we don't rule out the possibility of management of listed entities engaging in DIY private equity-style methods. The opportunity depends on identifying undervalued assets and the levers which can be pulled including value release from property, working capital and cutting capex. But, the most sustainable and significant gains are likely to be margin and cash flow improvements either through improved capital discipline or cyclical benefits.
- **Sector snapshot** – allows quick comparison across sectors on a selection of key valuation, returns, growth and financing metrics. Quest™ analysis on sectors and markets (e.g., Strategy, Valuation) are also fully integrated into the Quest™ website.
- **Quest™ market-to-book** – when many common valuation methods are fraught with danger, valuation relative to the asset base is the most observable and stable indicator.
- **EV/sales mean reversion** – this valuation identifies potential upside using EV/sales on through-the-cycle EBIT margins. The sheet is sorted by upside to market cap if the EV/sales moves to reflect long-run margins.
- **Quest™ themes pack** – Monthly we capture the performance of a variety of Quest™ metrics and tools across four regions.

Quest™ CFROC

Introduction

The CFROC measure has in recent years become one of the more popular value-based management techniques with a growing use in the investment community. The generic technique was originally developed in the 1960s and 1970s.

Its popularity can be partially attributed to the fact that all the information needed to calculate a CFROC is available in published accounts. Adjusting for inflation allows for the realistic comparison across time and using an objective framework allows comparisons to be made between companies. It represents a shift from an accounting to a cash-based framework to calculate the economic rate of return being earned by a company from its operations. CFROC is a real (adjusted for inflation) after-tax measure of gross invested capital and is unaffected by the company's choice of capital structure. It overcomes many of the limitations of accrual accounting:

- Inflation
- Depreciation
- Asset life
- Asset mix
- Deferred taxes
- Monetary holding gains/losses
- Off balance sheet (leases)
- Goodwill

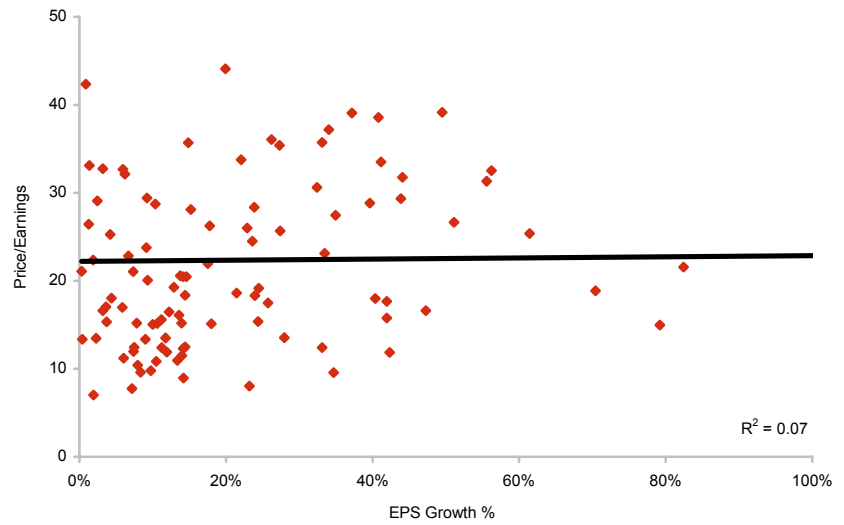
Why use CFROC?

Accrual accounting doesn't work

The first step in calculating the CFROC is to take the income statement and shift from net income or earnings to "Gross Cash Flow" by making a series of adjustments.

Accrual accounting-based performance measures such as EPS and EPS growth do not correlate well with their linked valuation measure – the P/E multiple. The R², or co-efficient of determination, is extremely low, as can be seen from the graph below. This should come as no surprise since accrual accounting was devised as a framework for solvency and taxation and not for corporate performance and valuation.

Figure 1: Relationship between P/E multiple and EPS growth



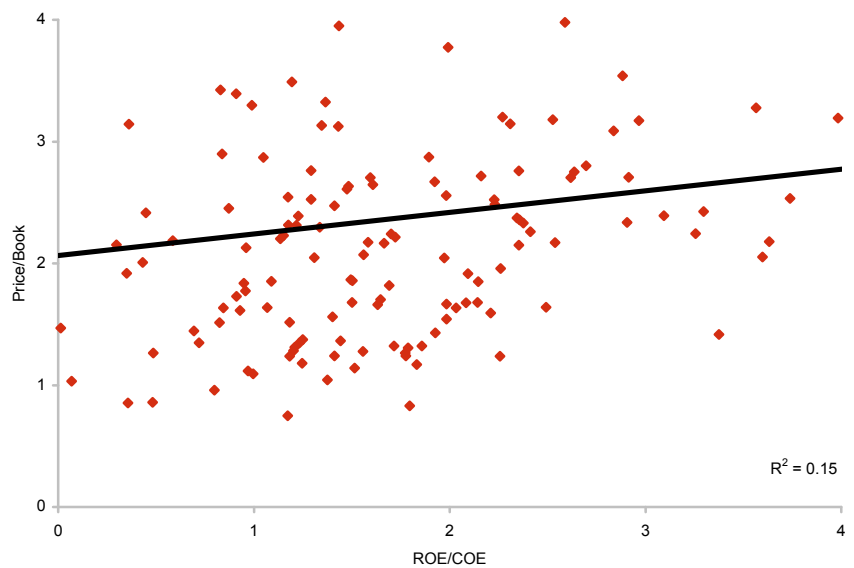
Source: Canaccord Genuity Quest™.

Taking account of capital invested

The second step in calculating the CFROC is to take the balance sheet and shift from net assets to “Gross Invested Capital” by making a series of adjustments.

Earnings growth is one-dimensional in that it only measures growth and ignores the amount of capital employed to generate that growth. Conventional return measures such as ROE and ROCE and their linked valuation measure – price-to-book – are a partial solution although they still suffer from the same limitations as other accrual-based measures. The R² remains low at 0.15.

Figure 2: Relationship between price/book multiple and ROE/COE

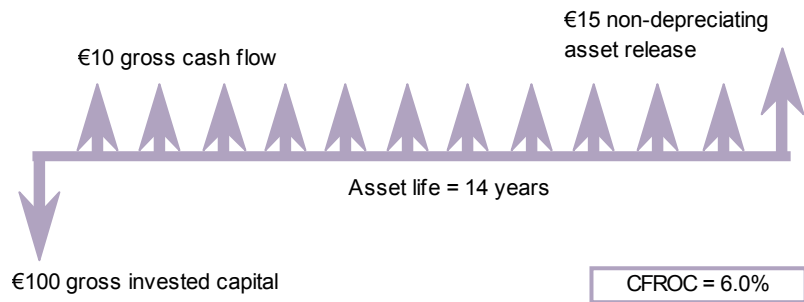


Source: Canaccord Genuity Quest™.

Asset life and asset mix are important

The third and final step in the CFROC calculation is to use the Gross Cash Flow, Gross Invested Capital, Non-Depreciating Assets and Asset Life figures as inputs into an Internal Rate of Return (IRR) calculation.

Figure 3: Quest™ CFROC calculation



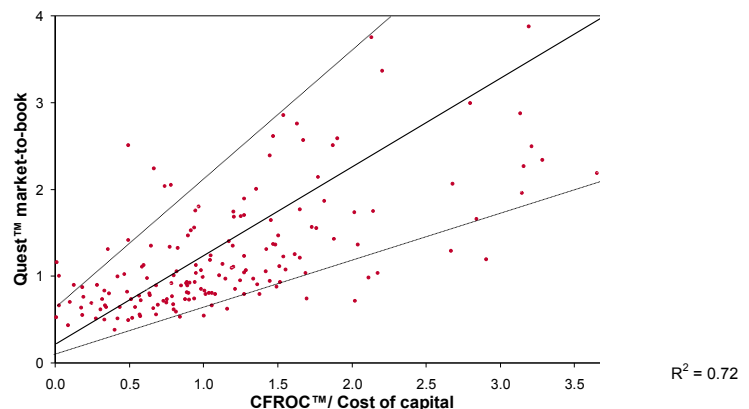
Source: Canaccord Genuity Quest™.

Suppose two companies have exactly the same ‘return’ (earnings, EBIT, whatever) and the same ‘capital’ (net assets, capital employed, etc). Most return on capital measures, which are typically calculated as “A over B”, would say these companies have the same return.

But what if the assets of the two companies have different economic (productive) lives? What if the two companies have different mixtures of depreciating assets (property, plant and equipment, leases) and non-depreciating assets (land, investments, net working capital)? Both of these factors will influence the true economic return. The incorporation of asset life and asset mix in an IRR calculation is the differentiating feature of the CFROC measure.

Looking at the chart below, it is clear that knowing the CFROC/cost of capital relationship provides a much better explanation of the market-to-book multiple. The correlation coefficient (R^2) is 0.72 – well above that of conventional valuation measures. Therefore, the effort involved in shifting from an accrual accounting-based framework to a cash-based framework is worthwhile.

Figure 4: Relationship between Quest™ market-to-book and CFROC/cost of capital



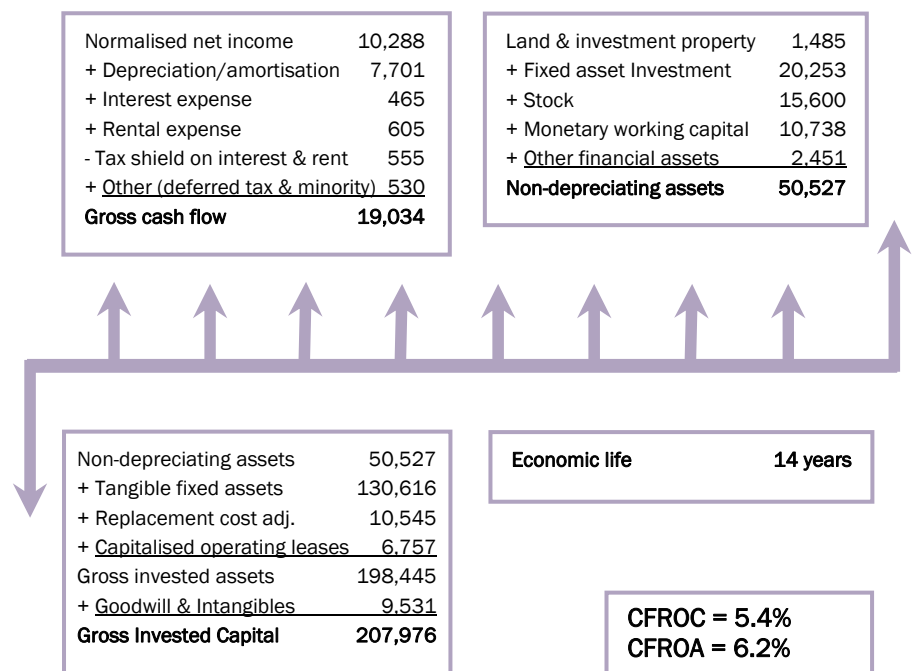
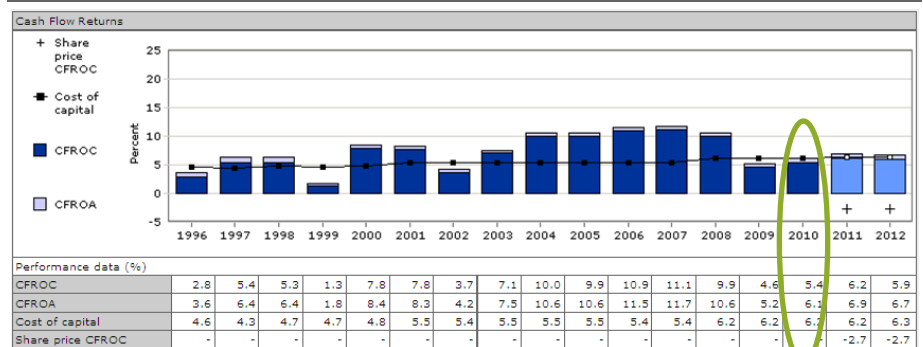
Source: Canaccord Genuity Quest™.

Quest™ CFROC calculation

The CFROC chart below is an example, on this occasion Total SA, of the output available in the Quest™ website. The blue bars show Total SA's CFROC for 15-historic years and two forecast years. The detailed example outlines the calculation of the company's CFROC for the financial year end-December 2010.

The key inputs in the CFROC/IRR calculation for 2010 are **gross cash flow** of €19bn, **gross invested capital** of €206bn and **non-depreciating assets** of €51bn.

Figure 5: Total SA CFROC calculation

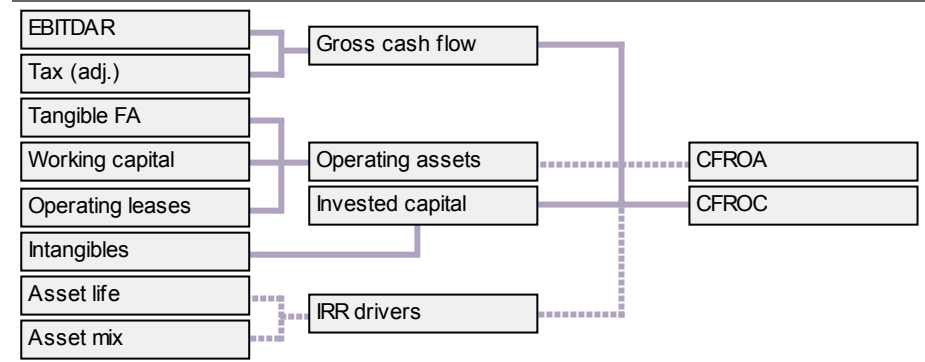


Source: Canaccord Genuity Quest™.

Understanding the Quest™ CFROC

The breakdown of the CFROC into a 'Du Pont' style analysis allows clients to develop a better understanding of the drivers behind the *level* and *trend* in CFROC. At www.canaccordquest.com, users are able to 'drill down' to see how the CFROC is made up, how it reconciles to conventional financial statements and understand year-on-year changes in a company's CFROC.

Figure 6: Quest™ CFROC – value drivers



Source: Canaccord Genuity Quest™.

For Total SA, in the 15 years to 2008, CFROC rose from 2.0% to 9.9%. How? During the period, cash flows were boosted by an average 18% sales growth 18% (including one-off boost from the acquisitions of ELF, Fina and Deer Creek Energy) during the period. The EBITDA margin more than doubled to 20.9% (helped by a rising oil price). The brief lull in sales growth between 2001 and 2004 failed to impact margins significantly, with a return to trend achieved the following year. Total's annual gross cash flow in 2010 was 10x higher than in 1995. Asset life (at a blended average of 14 years) and asset mix have remained largely unchanged.

However, CFROC deteriorated in 2009. A declining oil price (sales falling by 30%, gross cash flow slipping by 23%), contracting refining margins and an 11% rise in the capital base (due to higher capex) caused Total's 2009 CFROC to halve to 4.6%. Last financial year (2010) saw a recovery, with Total's sales rebounding, some margin expansion, improved gross cash flow and tighter asset utilisation. This helped push up CFROC by 80bp to 5.4%.

Valuation using Quest™ CFROC

In addition to measuring corporate performance, the Quest™ CFROC framework can be used in stock valuation. It's based on a particular application of a Discounted Cash Flow (DCF) model. The use of CFROC takes its lead from work done by Nobel winners Modigliani and Miller whereby the value of any company is the sum of:

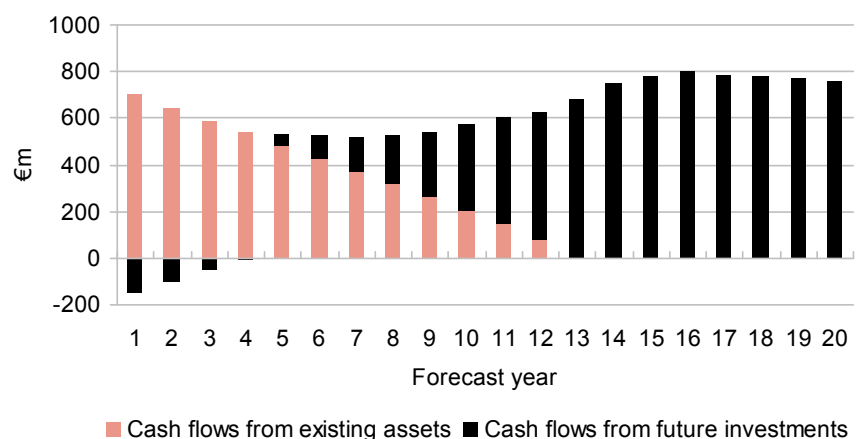
- the present value of cash flows from existing assets; and
- the present value of cash flows from future investments.

Existing assets have a finite life and the cash flows from the assets can be expected to wind down over their productive life.

The value of future investments will be based on the rate of return on incremental investments and the rate of growth in assets. Growth in assets which generates cash flow returns above the cost of capital will be value creating and generate a positive value of future investments.

The typical breakdown of a company's cash flow profile into existing assets and future investment is shown below.

Figure 7: Forecast cash flow breakdown: Existing assets versus future investments



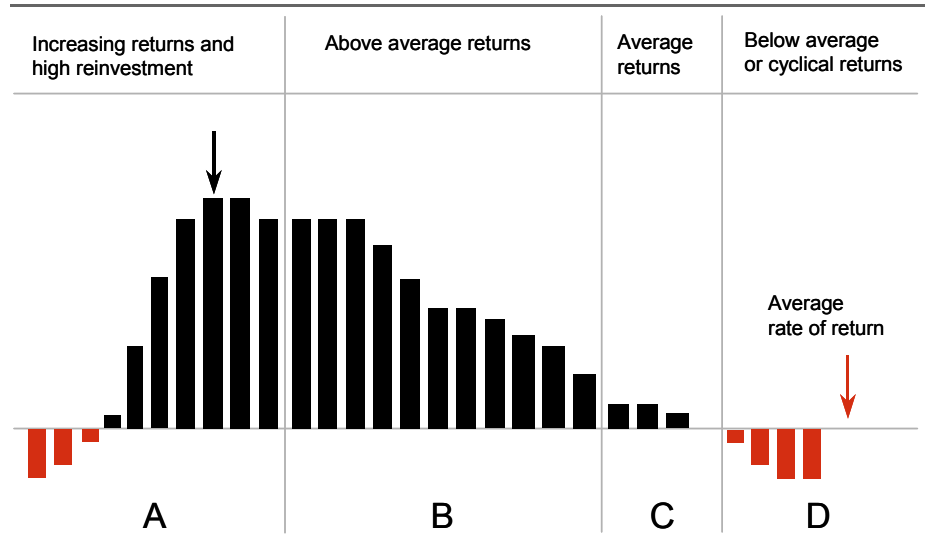
Source: Canaccord Genuity Quest™.

We look at the cash flows from the two asset bases separately.

Existing assets have a finite life and the cash flows from these assets can be expected to wind down over the life of the depreciating assets, after which there is a release of the non-depreciating assets. The CFROC approach to valuing existing assets works by decomposing the asset base into a series of individual projects and working out the respective cash flows of each project. Hence the present value of existing assets can be seen as a function of the CFROC, the invested capital base, the historic growth in the asset base, the asset life, the non-depreciating asset percentage, and the cost of capital.

This principle is extended to the valuation of future investments, where net cash receipts depend on the assumptions about the incremental cash flow returns generated on growth in the asset base. The question also arises as to the pattern of future rates of returns and growth. To help here, we borrow several concepts from economics, namely the competitive lifecycle and mean reversion.

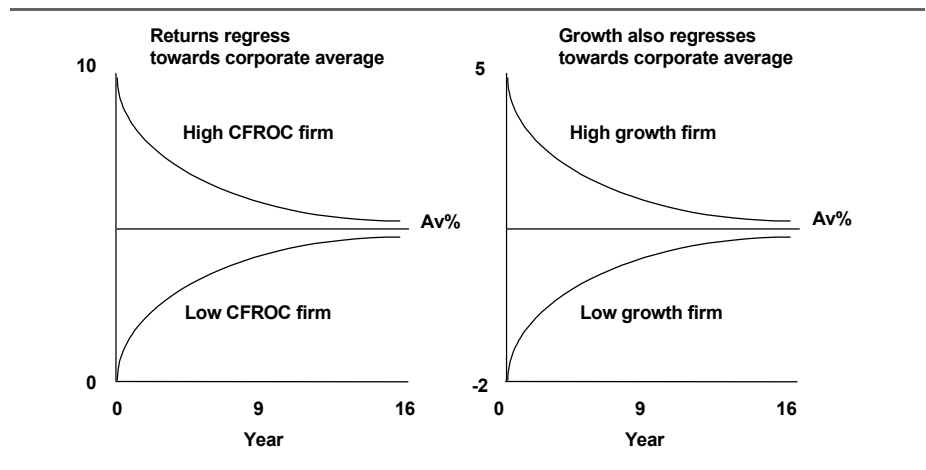
Figure 8: Competitive lifecycle



Source: Canaccord Genuity Quest™; George Stigler (1963).

This simply states that in a normally competitive environment, companies could be expected to earn the corporate average rate of return. Those earning above it will have their super-normal returns faded away by competition and diminishing returns. Those earning below the average will fade back up to the average because rational investors will not provide more capital to companies with below average returns. Starved of capital, these companies will face the need to restructure, or dispose of businesses.

Figure 9: Reversion to mean



Source: Canaccord Genuity Quest™; Francis Galton (1875).

The use of these principles allows us to forecast returns and growth in a disciplined valuation framework. Hence the present value of future investments is a function of the incremental returns, the growth in the asset base, and the fade rate and fade period of returns and growth.

Forecasting returns and growth allows a much more robust discounted cash flow (DCF) framework. This approach overcomes the problems of most DCF models where the terminal value assumptions often dominate the valuation. This renders the models subject to significant instability.

The cost of capital

The Quest™ model values companies based on forecast *real* post-tax cash flows available to all the providers of finance. Therefore the cost of capital used to compare returns and discount future cash flows is calculated on the same basis i.e. it is a *real* post-tax cost of capital. It is a weighted-average of both debt and equity.

Cost of debt

The calculation of the real post-tax cost of debt is based on the Capital Asset Pricing Model (CAPM). This states that the cost of debt, K_d , is based on a risk-free rate, and increased for the additional risk of corporate default (credit risk).

$$K_d = R_f + \text{corporate risk premium}$$

We use an assumption that the long-term real risk-free rate, R_f , is 2.5%. This is broadly consistent with observed rates in e.g. the TIPS market and average long-term real economic growth in mature economies.

The company-specific risk premium is determined by the size and gearing of the company, with larger companies' credit spreads being lower than those of smaller companies, and well-financed companies' credit spreads being lower than financially constrained ones. Since 2008 – especially the latter months – credit spreads have increased dramatically from their previous typical range. The corporate risk premium in the Quest™ model reflects this, currently ranging from c.120bp for large ungeared companies to 700bp for small highly geared companies.

The post-tax cost of debt is calculated by deducting a tax shield valued at the company's marginal tax rate (defined as the corporate tax rate in its country of incorporation). We also treat operating leases as debt obligations and these are capitalised and form part of our gross debt calculation.

Cost of equity

The calculation of the real post-tax cost of equity is also based on the Capital Asset Pricing Model (CAPM). This states that the cost of equity is based on a risk-free rate plus a premium for the risk of investing in equities.

$$K_e = R_f + \beta \times \text{Equity Risk Premium}$$

As noted above, we use a constant 2.5% as our estimate of the real risk-free rate, R_f . The beta is a forecast of a stock's sensitivity to the market. For the stock's beta we use an average beta of all of the stocks in the sub-sector. An average is used in order to eliminate outlier values and to ensure that broadly comparable companies have a similar cost of equity. The vast majority of global non-financial companies' betas lie between 0.7 and 1.2.

The equity risk premium reflects the riskiness of investing in equities and in recent years has been the subject of much debate. In the Quest™ model we currently use an equity risk premium of 5.0%, reflecting heightened risk aversion especially since late 2008. Since 1986 the range of estimated equity risk premiums used in our valuation modelling has been between 2% and 5%.

Weighted average cost of capital (WACC)

The cost of debt and cost of equity are then weighted according to their proportion of funding, to arrive at a weighted average real post-tax cost of capital.

$$K = (1 - T_d) K_d W_d + K_e W_e$$

Figure 10: WACC example: Total SA, December 2010

Cost of debt	%
Real pre-tax risk-free rate	2.50
Corporate debt risk premium	1.93
Real pre-tax cost of corporate debt	4.43
Real after-tax cost of debt (4.43 x (1-0.33))	2.95
Cost of equity	
Real pre-tax risk free rate	2.50
Equity risk premium	5.00
Company beta	x 0.87
	4.35
Real cost of equity	6.85
Debt weight	0.18
Equity weight	0.82
Weighted average cost of capital	
(Debt weight x Real after-tax cost of debt +	
Equity weight x Real cost of equity)	
(0.17 x 2.95 + 0.83 x 6.85)	6.16

Source: Canaccord Genuity Quest™.

Quest™ triAngle

Introduction

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Products and services

triAngle online

This allows users to view the scores and ranking of individual stocks. It is available online via the Quest™ website www.canaccordquest.com, fully integrated into other Quest™ products, and updated weekly. The flexible, user-friendly interface allows users to analyse their portfolio or specific sectors, see the impact of different investment styles by changing the factor weightings, or export the triAngle to Excel.

Bespoke services

The portfolioAngle service provides clients with a customised analysis of their portfolio, including the style characteristics of the portfolio together with some suggested buy and sell recommendations. We can also create bespoke versions of the triAngle and data sheets to suit clients' individual needs.

triAngle and bespoke services are available for all geographic regions.

Principles and methodology

How to outperform

The theoretical appeal of the triAngle can be summarised as follows:

- Value anomalies can be expected to close over time.
- High quality stocks (essentially high return, compounded by growth) should create more value (Quest™ value per share growth) over time. It is not just about being defensive/non-cyclical.

Therefore, if stocks are cheap or high quality they should outperform – at some points in the cycle (generally early cycle) Value tends to do better, at others (mid and later cycle) Quality will dominate. This is where Momentum comes in to help time the decision. It reinforces which style is working. Since Momentum includes both earnings and price momentum it helps to avoid some of the traps – i.e., stocks where either the value or the quality is temporary or an illusion.

How we measure Value, Quality and Momentum

triAngle is designed to provide broad-based measures of Value, Quality and Momentum, each consisting of five factors. A broad approach adds more consistency than relying on one single measure, and also helps address the issue that different factors work at different times.

- **Value** combines Quest™ CFROC valuation and Quest™ market-to-book with more traditional measures such as EV/sales, dividend yield and P/E.
- **Quality** measures historic corporate performance through returns (CFROC spread), growth in invested capital, and free cash flow together with forecast changes in CFROC and fixed charge cover as a measure of solvency.
- **Momentum** captures the dynamics of share price trends through the 9-months' relative trend, 12-month relative range and 100/200-day switch. Inflection points are seen on the short-term 30/90-day switch indicator and changes in consensus earnings estimates also form part of the overall Momentum picture.

Combining Value, Quality and Momentum

The triAngle addresses the three questions we at Quest™ ask on every stock:

- Is this a good or bad company? – **Quality**;
- Is the stock cheap or expensive? – **Value**; and
- Is now a good or bad time to buy? – **Momentum**.

Combining factors further improves the reliability of returns

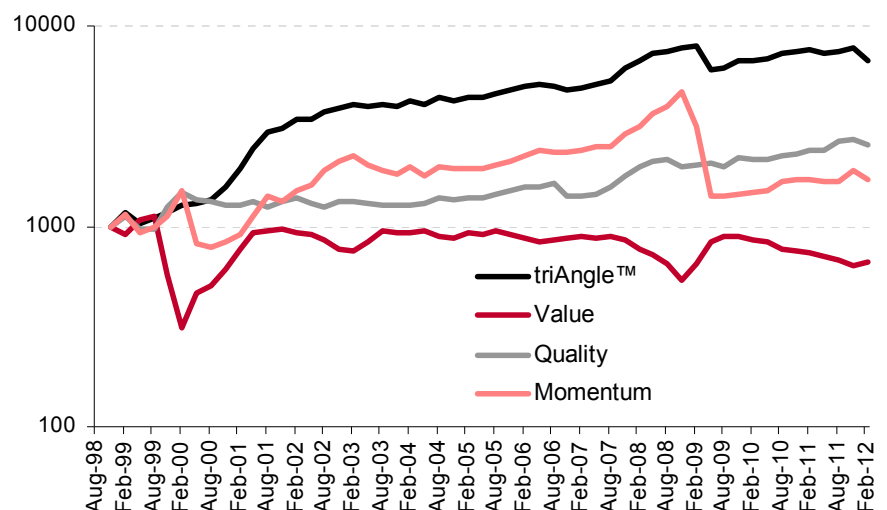
Our backtests and live performance of the triAngle show that combining Quality with Value and Momentum further improves the reliability of returns. Momentum works most of the time, Value and Quality work some of the time. However, when you combine them you get a better overall return with more consistency.

Backtests

Performance of systematic backtest

Buying the top 20% and selling the bottom 20% of the triAngle universe is a strategy that has generated positive performance in 42 out of the previous 53 quarters in the UK. This strategy would have resulted in average quarterly performance of 4.0% and the cumulative differential is +550%. In Europe, the top quintile has outperformed the bottom in 36 out of 48 quarters – by 3.0% on average. The cumulative differential is now c.250% since inception in 2000.

Figure 11: UK triAngle performance (November 1998 = 100)



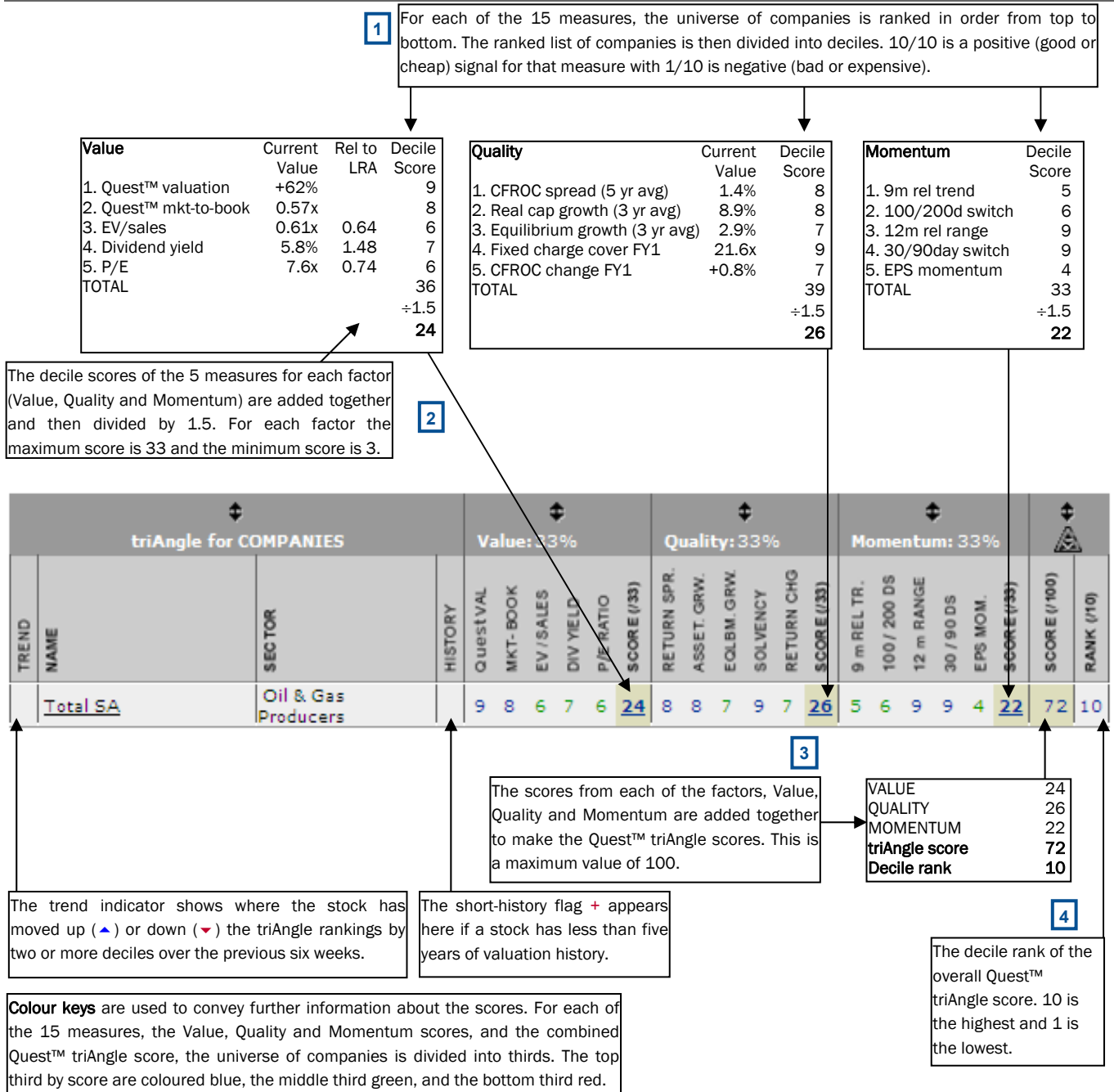
Source: Canaccord Genuity Quest™ triAngle.

Calculating the triAngle score

For each of these 15 measures, the universe of companies is ranked in order from top to bottom and divided into deciles. 10/10 is a positive signal (good or cheap), while 1/10 is negative. The decile scores of the five measures for each factor (Value, Quality and Momentum) are then added together and divided by 1.5, giving a maximum score of 33.

The scores from the Value, Quality and Momentum are aggregated to give the total Quest™ triAngle score. This has a maximum value of 100. The triAngle score is then ranked by decile, once again with 10 being positive and 1 being negative. This is shown pictorially below, using Total SA in January 2012 as an example.

Figure 12: Quest™ triAngle



Source: Canaccord Genuity Quest™ triAngle.

triAngle online

triAngle online allows users to view the scores and ranking of individual stocks. It is available online via the Quest™ website www.canaccordquest.com, fully integrated into other Quest™ products, and updated weekly. The flexible, user-friendly application allows users to analyse their portfolio or specific sectors, see the impact of different investment styles by changing the factor weightings or export the triAngle to Excel. To access – click on the triAngle tab.

Figure 13: triAngle online

The screenshot shows the Quest triAngle online interface. The main content area displays a table of stock data with columns for various financial metrics and scores. The table is titled 'triAngle for COMPANIES' and includes sub-headers for 'Value: 33%', 'Quality: 33%', and 'Momentum: 33%'. The table lists companies such as Continental Resource, Cooper Industries, and others, along with their respective scores and ranks.

Callout boxes provide the following information:

- Top Left:** The rankings are based on the universe selected in MyQuest.
- Top Middle:** Advanced company selection and the Portfolio option allow users to customise the triAngle.
- Top Right:** Click to sort – click again to reverse the order.
- Far Right:** triAngle can be exported to Excel, printed or emailed to a colleague.
- Bottom Left:** Filter by index, country or market cap.
- Bottom Middle-Left:** Change weightings to match your preference.
- Bottom Middle-Right:** Advanced sort allows you to rank by the best/worst of any of the main factors.
- Bottom Right:** Click here to see the Quest™ Strategy report for your chosen company. The Quest™ Summary, Valuation and Momentum reports can also be accessed directly.

Source: Canaccord Genuity Quest™.

sectorAngle

Focus on sector trends and analysis of individual sectors, helping to pick out the best and worst stocks in a sector and any anomalies that exist.

marketAngle & Style Matrix

Analysis of the performance of the individual triAngle factors, to understand what are the main influences on share price performance and to predict future patterns. The Style Matrix is shown below. During the past decade, we have built up a useful history showing which styles tend to work most frequently, and what works when.

Figure 14: Style Matrix

QUINTILES	UK Large-cap			Pan-Europe			US		
	1 week	1 month	3 months	1 week	1 month	3 months	1 week	1 month	3 months
VALUE	-3%	-1%	-9%	-3%	-3%	-9%	-1%	-3%	-5%
QUEST™ Valuation	-1%	1%	-1%	0%	1%	-1%	0%	0%	-1%
QUEST™ Mkt-To-Bk	-1%	-4%	-8%	-4%	-6%	-11%	0%	-1%	-2%
EV/ Sales	-4%	-4%	-15%	-4%	-4%	-12%	-1%	-2%	-5%
Dividend Yield	0%	5%	1%	0%	4%	4%	1%	0%	2%
P/E	-3%	-2%	-13%	-2%	-1%	-6%	-1%	-1%	-4%
QUALITY	1%	5%	3%	3%	5%	10%	-2%	-2%	-6%
CFROC Spread	3%	6%	5%	4%	5%	9%	0%	0%	-1%
Capital Growth	0%	0%	-6%	2%	3%	3%	-1%	-1%	-6%
Equil Growth	2%	5%	4%	3%	5%	8%	-1%	-1%	0%
Fixed Charge Cover	-1%	2%	2%	3%	5%	10%	-1%	-1%	-3%
CFROC Change	-1%	0%	-1%	-1%	0%	1%	-1%	0%	-4%
MOMENTUM	3%	2%	15%	5%	5%	17%	4%	5%	6%
9m Rel Trend	2%	2%	15%	5%	6%	13%	3%	5%	2%
100/200 DS	2%	2%	16%	5%	7%	15%	4%	5%	3%
12m Range	2%	2%	14%	5%	5%	14%	3%	4%	4%
30/90 DS	2%	0%	14%	3%	4%	17%	2%	3%	5%
EPS Momentum	2%	3%	10%	2%	4%	10%	1%	2%	5%
triAngle™	1%	5%	7%	4%	6%	12%	1%	1%	-2%

QUINTILES	South Africa			Japan			World (ex UK Small)		
	1 week	1 month	3 months	1 week	1 month	3 months	1 week	1 month	3 months
VALUE	-2%	-4%	-5%	-1%	4%	0%	-1%	-2%	-7%
QUEST™ Valuation	-1%	-3%	-3%	-1%	2%	0%	0%	1%	-2%
QUEST™ Mkt-To-Bk	-1%	-2%	-7%	0%	3%	-4%	-1%	-1%	-6%
EV/ Sales	-3%	-4%	-8%	0%	2%	1%	-2%	-2%	-7%
Dividend Yield	-1%	-2%	-2%	0%	3%	5%	1%	0%	0%
P/E	-2%	0%	-4%	-2%	0%	0%	-1%	-1%	-3%
QUALITY	0%	0%	-1%	0%	-1%	2%	0%	0%	2%
CFROC Spread	0%	3%	6%	0%	-3%	4%	1%	1%	4%
Capital Growth	-1%	-2%	-5%	0%	-1%	2%	0%	-1%	-3%
Equil Growth	1%	-1%	-1%	0%	-1%	5%	0%	1%	4%
Fixed Charge Cover	0%	1%	-3%	-1%	-1%	1%	0%	1%	3%
CFROC Change	0%	1%	-3%	-1%	0%	-3%	-1%	0%	-3%
MOMENTUM	0%	3%	7%	3%	-5%	1%	5%	5%	12%
9m Rel Trend	-1%	2%	5%	2%	-5%	0%	5%	5%	8%
100/200 DS	1%	4%	4%	3%	-4%	1%	6%	6%	9%
12m Range	0%	4%	7%	2%	-6%	3%	4%	5%	12%
30/90 DS	0%	3%	6%	2%	-5%	3%	3%	4%	10%
EPS Momentum	-1%	1%	9%	2%	-2%	2%	3%	4%	7%
triAngle™	-2%	1%	1%	2%	-3%	3%	3%	3%	6%

Top quintile - bottom quintile on each factor on an equally weighted basis. Non-financials

KEY
 Very pos > +3% > +5% > +15%
 Positive > 1% > 2% > +5%
 Neutral
 Negative < -1% < -2% < -5%
 Very neg < -3% < -5% < -15%

Source: Canaccord Genuity Quest™ triAngle.

triAngle Escalator

Each week the Escalator highlights companies where there has been a big change in any of the main triAngle components. Companies are included if their Value, Quality, Momentum or overall triAngle rank has moved by two or more deciles in the past week or six weeks. The sheets can be ranked on a number of criteria and full details of which factors are behind each change are also available. Any stocks moving by at least two deciles are highlighted using the trend indicator shown on the triAngle tab of the Quest™ website. Interesting ideas are written up weekly in the Escalator Commentary.

Figure 15: triAngle Escalator

triAngle ESCALATOR		33%	33%	33%	100%	33%	33%	33%	100%
NAME	SECTOR	VALUE decile	QUALITY decile	MOM decile	triAngle decile	VALUE	QUALITY	MOMENTUM	triAngle
		CHANGES	CUR	CUR	CUR	6WK	6WK	6WK	6 WK AGO
EnBW	Electricity	-2	+3	+3	15	15	29	58	7
Suedzucker	Food Producers	+1	+3	+3	11	17	29	57	6
Telekom Austria	Fixed Telecoms	-2	+3	+3	20	11	29	59	7
UBS	Banks	-1	+3	+2	26	9	17	51	4
Wolseley	Support Services	-1	+3	+2	13	11	31	55	5
Atlantia	Indl Transport	-1	+2	+2	22	19	23	65	9
Barclays	Banks	+2	+2		28	20	16	64	9
Barry Callebaut	Food Producers	+2	+2		5	21	31	57	6
Meggitt	Aero & Defence	+1	-2	-2	11	20	26	57	6
Solvay	Chemicals	-2	-2		25	17	9	51	4
Acciona	Constn & Materials	-3	-2		15	9	21	45	2
Nokia	Tech Hardware	+2	-3	-2	19	19	15	53	4
Fiat	Autos & Parts	-1	-1	-3	28	12	7	47	2
ACS	Constn & Materials	-2	-3		27	12	10	49	3
Postbank	Banks	-1	-2	-4	17	8	25	51	3
Elan Corp	Pharma & Biotech	-1	-1	-4	13	12	27	53	4

Source: Canaccord Genuity Quest™ triAngle.

Bespoke services

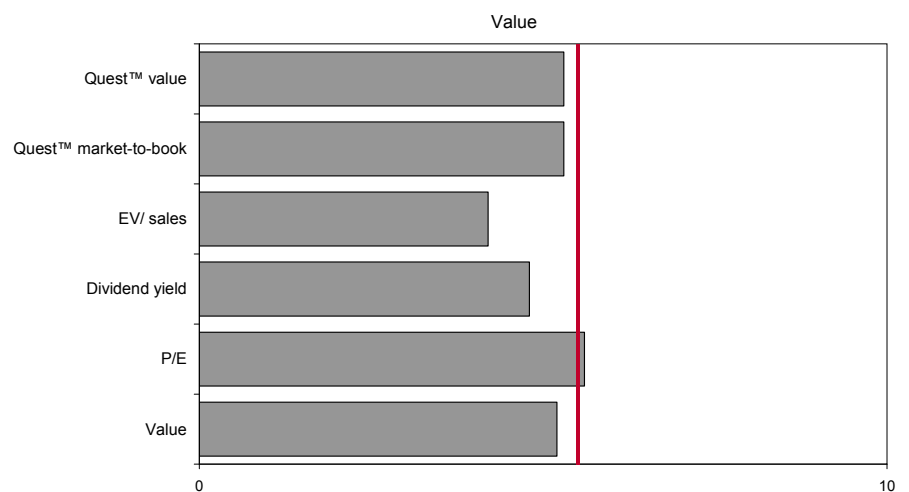
portfolioAngle

The portfolioAngle service provides clients with a confidential report of their portfolio using the triAngle methodology. It will include the style characteristics of the portfolio together with some suggested buy and sell recommendations which would improve the overall balance of the portfolio. We also provide a comparison with the marketAngle, which indicates the style characteristics that are currently performing best.

Example

The example shows how an overall portfolio might look in terms of its Value score. This portfolio is underweight Value stocks. In other words the stocks in the portfolio are expensive relative to other stocks in the universe. The stocks in this portfolio look particularly expensive on an EV/sales basis, although on a P/E basis they are more in line with the market average. In this example, we might suggest stocks to buy and sell which would increase the overall Value score of the portfolio.

Figure 16: portfolioAngle example



Source: Canaccord Genuity Quest™ triAngle.

Similar analysis is carried out for the Quality and Momentum factors and on the overall triAngle scores of the stocks in the portfolio. For example, the poor Value profile may be compensated for by a good score on Quality.

Other bespoke services

Customised versions of triAngle

We provide many clients with customised versions of triAngle scores and rankings designed to suit their individual needs. Our data can also be integrated in clients' own databases and systems. Please contact one of the team to discuss any requirements you may have.

Appendix 1: triAngle factors

The Quest™ triAngle analyses companies on three factors: Value, Quality and Momentum. For each factor, 5 measures are analysed. On each measure stocks are compared with all other stocks in the universe, ranked in order, then divided into deciles.

Value

The rankings for Quest™ valuation and Quest™ market-to-book are based on the absolute valuation. For the other three Value factors, rankings are based on valuations against long-run averages.

1. Quest™ valuation	The Quest™ Value per share, shown as a percentage upside or downside from the current share price. An absolute measure of whether the shares are cheap.
2. Quest™ market-to-book	The total capitalisation of the company (market cap plus gross debt plus capitalised leases) divided by the estimated replacement cost of the firm's asset base. This is akin to Tobin's q ratio.
3. EV/sales	Market cap plus net debt divided by sales. In O'Shaughnessy's best-selling book "What Works On Wall Street" the best-performing strategy included the Value measure EV/sales.
4. Dividend yield	Dividend per share divided by the share price. High yield stocks are ranked above (cheaper than) low yield stocks.
5. Price-earnings ratio (P/E)	Still the most commonly quoted valuation measure. Earnings are calculated pre goodwill amortisation and pre exceptional items.

Quality

1. CFROC spread – five-year average	The five year average of the spread between the Quest™ CFROC (Cash Flow Return On Capital) and the weighted average cost of capital. A positive spread indicates a good company.
2. Real capital growth – three-year average	The average growth in the total capital base over the last three years. High growth companies are ranked above low growth companies although growth is only value creating when incremental capital earns a positive CFROC spread.
3. Equilibrium growth – three-year average	Equilibrium growth is the ability to sustain growth in the invested capital base from internally generated free cash flow. Free cash flow is defined as gross cash flow less interest, tax, dividends & maintenance capex.
4. Fixed charge cover FY1	EBIT before operating lease payments divided by all fixed charges – interest, preference dividends & lease payments. A measure of solvency.
5. CFROC change FY1	The percentage change in the CFROC from the last historic year to the first forecast year. An indication of the forecast growth of the company.

Momentum

1. Nine-month relative trend	Measures the direction of the nine-month moving average of the relative. A useful summary of the balance of institutional sentiment.
2. 100/200 day switch	Measures where the 100-day moving average of the share price relative is compared with the 200-day moving average.
3. 12-month relative range	Measures where a stock is within the relative trading range of the past 12-months. Outperformers will tend to remain in the top half of that range.
4. 30/90 day switch	A shorter-term dynamic version of the 100/200-day switch. Helps to identify short-term swings within the long-term trend and acts as an early warning signal of a turning point.
5. EPS momentum – three-month	Change in consensus earnings per share estimates over the past three-months. Earnings Momentum is a useful indicator of short-term share price performance since it indicates those companies who are performing above market expectations.

Appendix 2: Systematic backtest

This is calculated by taking the top quintile at the start of the quarter and measuring the relative performance in the next. The performance of the bottom quintile is subtracted for an overall performance. In Europe, Momentum has posted a positive performance in 32 of 48 quarters, Value in 22 quarters and Quality in 28. Using a combined approach improves the consistency of returns, with the top quintile outperforming the bottom quintile in 36 out of 48 quarters.

Figure 17: Pan-European universe: Quarterly average relative performance

Start-date	End-date	Top Quintile – Bottom Quintile			
		Value	Quality	Momentum	triAngle
Feb-00	May-00	+31.0%	-12.2%	-26.2%	+13.8%
May-00	Aug-00	+0.5%	+0.4%	-1.0%	-1.0%
Aug-00	Nov-00	+25.5%	-9.8%	-10.7%	+8.3%
Nov-00	Feb-01	+14.7%	-9.0%	-3.9%	+5.1%
Feb-01	May-01	-0.2%	+0.6%	+4.9%	+2.1%
May-01	Aug-01	+4.1%	-4.1%	+22.3%	+16.6%
Aug-01	Nov-01	+4.4%	+3.8%	-11.5%	-5.7%
Nov-01	Feb-02	+4.1%	-5.9%	+11.6%	+9.2%
Feb-02	May-02	+2.4%	-4.1%	+4.5%	+1.6%
May-02	Aug-02	-3.1%	-0.7%	+8.3%	+3.5%
Aug-02	Nov-02	-5.2%	+8.4%	+5.2%	+5.4%
Nov-02	Feb-03	-12.0%	+2.1%	+25.4%	+9.8%
Feb-03	May-03	-0.4%	-0.3%	-1.4%	-3.0%
May-03	Aug-03	+16.4%	+0.1%	-15.0%	-0.2%
Aug-03	Nov-03	+3.4%	+1.8%	+3.3%	+3.8%
Nov-03	Feb-04	-1.9%	-2.6%	+6.7%	+3.0%
Feb-04	May-04	+2.5%	+4.1%	-0.3%	+1.4%
May-04	Aug-04	-1.2%	+3.8%	+10.3%	+9.6%
Aug-04	Nov-04	-0.0%	-1.5%	-0.6%	-1.8%
Nov-04	Feb-05	+3.4%	-0.7%	-1.9%	+2.0%
Feb-05	May-05	-0.1%	+3.2%	+3.9%	+6.0%
May-05	Aug-05	+1.7%	+2.1%	+6.6%	+6.8%
Aug-05	Nov-05	-0.8%	-0.3%	+3.2%	+1.7%
Nov-05	Feb-06	-3.9%	+0.1%	+6.6%	+4.6%
Feb-06	May-06	-4.4%	+2.0%	+5.7%	+2.2%
May-06	Aug-06	+0.5%	+2.6%	-1.1%	-0.7%
Aug-06	Nov-06	+0.3%	-6.5%	+2.1%	-1.4%
Nov-06	Feb-07	+2.7%	-0.6%	+1.3%	+2.3%
Feb-07	May-07	-2.2%	-0.1%	+6.3%	+4.0%
May-07	Aug-07	-0.9%	+4.5%	+1.4%	+3.5%
Aug-07	Nov-07	-4.6%	+8.3%	+13.8%	+12.0%
Nov-07	Feb-08	-4.0%	+4.3%	+3.4%	+4.4%
Feb-08	May-08	-4.3%	+6.8%	+7.3%	+4.8%
May-08	Aug-08	-3.0%	+0.3%	+5.2%	+2.1%
Aug-08	Nov-08	-6.4%	-13.9%	+12.5%	-2.7%
Nov-08	Feb-09	+5.2%	+11.7%	-5.7%	+11.2%
Feb-09	May-09	+29.2%	-6.1%	-51.1%	-29.6%
May-09	Aug-09	+5.8%	-4.0%	-2.6%	-0.1%
Aug-09	Nov-09	+2.4%	+0.7%	+3.7%	+3.7%
Nov-09	Feb-10	-1.2%	+4.6%	+6.0%	+6.0%
Feb-10	May-10	-5.9%	+0.7%	+9.6%	+4.9%
May-10	Aug-10	-3.5%	+2.6%	+6.3%	+5.7%
Aug-10	Nov-10	-3.5%	+0.3%	+6.8%	+5.7%
Nov-10	Feb-11	+7.1%	-3.6%	-7.3%	-4.0%
Feb-11	May-11	-4.2%	+1.9%	+4.3%	+1.2%
May-11	Aug-11	-11.2%	+9.5%	+6.0%	+4.9%
Aug-11	Nov-11	-6.7%	+7.4%	+11.9%	+9.1%
Nov-11	Feb-12	+2.6%	-3.6%	-9.8%	-9.2%
Total cumulative return		+79.2%	+2.4%	+58.2%	+262.4%

Source: Canaccord Genuity Quest™ triAngle. Note: Non-financials.

Quest™ Momentum

Introduction

Price momentum can be used to enhance performance through improving the timing of investment decisions, by identifying share price trends and turning points. Extensive backtesting has shown that following momentum is one of the most reliable and robust strategies to improve performance.

Integration with Quest™ online

Momentum is at its most powerful when combined with fundamentals and is combined with other factors to form an integral part of the Quest™ service, helping us to answer the three questions we ask on every stock:

- Is this a good or bad company? – **Quality**
- Is the stock cheap or expensive? – **Value**
- Is now a good or bad time to buy? – **Momentum**

Momentum is integrated with Quest™ in a number of ways: Momentum research is available on the **Q-files** tab. There is also a dedicated momentum report for each stock. Momentum is an important part of the Quest™ triAngle, our proprietary stock-picking tool, which aims to answer the three questions above by systematically measuring Quality, Value and Momentum.

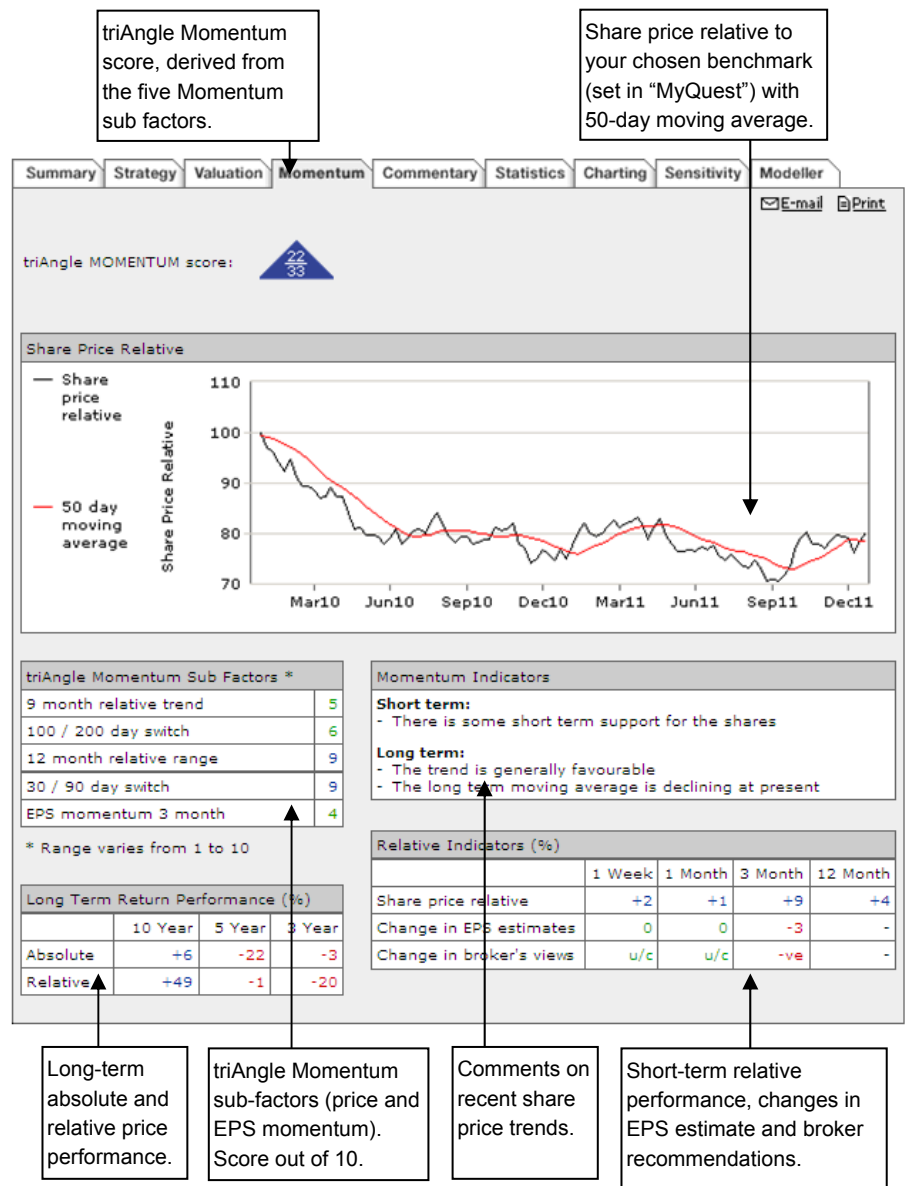
EPS momentum

Most of our Momentum measures focus on price moves. Earnings revisions are also an important indicator of news flow and sentiment, flagging those companies that are performing above market expectations. Consensus EPS forecasts and revisions are included on the Quest™ website and EPS revisions are included as one of the five Momentum measures in the triAngle.

Understanding the Quest™ Momentum report

Quest™ includes a dedicated Momentum page for every company. It includes analysis of share price trends, earnings estimate revisions, commentary, and flags when new relative highs or lows are reached. Also incorporated are triAngle scores and a chart of the stock price relative to the market. Go to Quest™ Analysis, choose the company and click on the Momentum tab.

Figure 18: Quest™ Momentum: Total SA



Source: Canaccord Genuity Quest™.

Momentum in the Quest™ triAngle

Momentum is an integral part of the Quest™ triAngle, Canaccord Genuity's proprietary stock-picking tool. The triAngle ranks stocks based on measures of Value, Quality and Momentum. Backtests show that Momentum is at its most powerful when combined with fundamentals such as Value and Quality.

Figure 19: Momentum in the Quest™ triAngle

Momentum accounts for 33% of the standard triAngle score. Weights can be changed to suit alternative investment styles.

The Momentum factors used to identify trend characteristics were chosen from backtests. Four of the factors are based on price moves, and the fifth, on EPS momentum. Details of the five factors are given below.

triAngle[®]

World filtered by market capitalisation
To remove filters select filter options in Common Tasks

E-mail Print Export To Excel

triAngle for COMPANIES			Value: 33%					Quality: 33%					Momentum: 33%					RANK (10)					
TREND	NAME	SECTOR	HISTORY	QuestVAL	MKT-BOOK	EV/SALES	DIV YIELD	P/E RATIO	SCORE (/33)	RETURN SPR.	ASSET GRW.	EQLBM GRW.	SOLVENCY	RETURN CHG	SCORE (/33)	9 RE-TR.	100 / 200 DS	12 M RANGE	30 / 90 DS	EPS MOM	SCORE (/33)	SCORE (/100)	RANK (/10)
	Credit Suisse	Banks		10	6	9	7	9	27	5	1	1	8	2	11	2	2	2	3	2	7	46	2
	CRH	Constn & Materials		5	7	4	8	1	17	5	8	4	2	4	15	5	5	9	10	2	21	53	4
▲	Crown Castle	Mobile Telecoms		6	3	2	2	9	15	2	4	1	1	9	11	9	9	10	8	10	31	57	6
▲	CSL Ltd	Pharma & Biotech		7	1	3	8	6	17	10	4	10	9	4	25	7	6	9	9	9	27	68	10
	CSX Corp	Indl Transport		7	7	2	7	5	19	7	4	6	5	4	17	5	5	7	7	4	19	55	5
▼	Cummins Inc	Indl Engineering		7	4	1	4	5	14	9	6	9	9	10	28	6	6	5	5	4	17	60	7
	CVS Caremark	Food & Drug Retail		4	3	4	9	4	16	5	6	7	4	5	18	10	9	10	9	8	31	65	9
	Daihatsu Motor	Autos & Parts		9	9	3	8	6	23	6	5	6	6	3	17	10	10	9	7	10	31	71	10

The overall Momentum score for each stock is calculated by summing the five individual factors and dividing by 1.5, giving a maximum score of 33.

Source: Canaccord Genuity Quest™.

Momentum factors used in the triAngle

- **Nine-month relative trend.** Measures the direction of the nine-month moving average of the relative. A useful summary of the balance of institutional sentiment.
- **100/200-day switch.** Measures where the 100-day moving average of the share price relative is compared with the 200-day moving average.
- **12-month relative range.** Measures the position of a stock within its 12-month relative trading range. Outperformers will tend to remain in the top half of that range. A fall into the bottom half is an early signal that the technical situation is deteriorating.
- **30/90-day switch.** A shorter-term dynamic version of the 100/200-day switch. Helps to identify short-term swings within the long-term trend and acts as an early warning signal of a turning point.
- **EPS momentum – three-month.** Change in consensus EPS in the last three-months. Earnings momentum is often a useful indicator of short-term share price performance, since it indicates those companies that are performing above market expectations.

Momentum product

Our Momentum product provides a daily Pan-European chart service, distributed via email. This focuses on the most active stocks and charts of the previous day. The analysis is based on the identification of the change from bearish trends to positive ones, and vice versa. These trends are followed by monitoring new highs and lows, and volume patterns, to check on their stability.

New signals

A summary of the previous day's activity, markets, sectors and stocks, including:

- Biggest risers/fallers;
- New highs/lows;
- High volume moves; and
- Overbought/oversold stocks.

Please contact your Canaccord Genuity representative if you wish to receive the daily chart service.

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