QMTV: A risk awareness framework

Fidelity Worldwide Investment | 10 August2015

SYNOPSIS

Investors need to judge an investment opportunity from five dimensions: earnings, valuations, momentum, reinvestment and sentiment. QMTV, which stands for quality, momentum, transition and value, is a framework that can allow investors to more clearly discern the questions and factors driving prices of stocks, sectors and asset classes. The framework helps investors to manage the buy, hold and sell decision process through the various cycles as well as providing a crossroad signal. Investments classified under QMTV exhibit common characteristics and risk correlations that can hold for short or extended periods, but eventually rotate or "cross the floor" with material share price reactions.

PART 1: THE FIVE DILEMMAS

The most common question a money manager is asked is probably "What's your view and how are you positioned?" When portfolio managers and investors are asked this, one would assume this is seeking a single-dimension answer such as "Where are markets headed?" However, a more considered method to answer the question is to break down the answer into the five driving forces, or cycles, that move investment markets. These five forces are sometimes interrelated, and are all sub-components of the question of "Where are we in the investment cycle?" Together, these incorporate just about all the dilemmas and crossroads that equity managers regularly confront when they make investment decisions.

Dilemma 1 – The earnings cycle

The earnings cycle for a stock can be cyclical or structural. Cyclical stocks are obviously those tied to the rhythm of the economic or business cycle while earnings on a structural path are more independent of the economy. When an emerging or ground-breaking company drives innovation into an established market, winning market share due to technology differentiation is a different process from a price- or volume-led cyclical improvement enjoyed across an industry by all participants. While earnings are generally on a cyclical or structural path, the prima facie dilemma is typically to understand whether the earnings are pointing in one direction at any one time.

An example of observing cyclical versus structural earnings trajectories is the internet-based employment search engine, Seek, over the past 10 years versus a mining-services provider over the last 10 years such as Bradken.

The internet-based employment market led by Seek was an effective and cost-efficient tool to match employers and employees, and has gained significant market share from traditional newspaper-based employment advertising. Increased market share and increased prices of internet advertising space as eyeballs jumped led to a significant positive structurally led earnings cycle over the past decade.

On the other hand, Bradken is a mining-services provider that experienced a significantly positive industry cycle from 2005 to 2011 and a cyclical downturn since 2012. As the cycle was rising, Bradken was a positive beneficiary of the mining industry capital investment cycle and rising commodity prices. However, Bradken was hit by the downturn in commodities prices and capital expenditure that have been widespread industry issues since 2012.

While both companies enjoyed a phase of positive or negative earnings cycle, the drivers and hence the risks during these time periods were different.

Dilemma 2 – The valuation cycle

The second dilemma investors face is the multiple or valuation cycle. Capitalisation rates, valuation multiples, discount rates, yields relative to bond rates, equity-risk premiums and expected growth rates all serve to create a valuation on which the stock price of a business should be based. The price/earnings multiple is the most commonly used multiple of comparison. The P/E multiple will change over time for stocks for various reasons. It will change as earnings increase for stocks, higher certainty emerges and greater investor confidence about future earnings growth will generally all lead to a higher PE on a stock. But it can change with investor risk appetite, scarcity value, admiration for management as well as industries and stocks moving in or out of favour.

An example of observing a valuation cycle can be illustrated by contrasting the P/E multiple for Domino's Pizza Enterprises from 2005 to 2015 with that of a traditional media business from 2008 to 2015, using APN News and Media as a proxy for traditional media. Investors have justified higher valuations on Domino's as it gained market share, successfully entered new countries, was managed by an inspiring CEO under Don Meij and used technology innovations to generate additional sources of revenue. Over the past 10 years, the P/E multiple of Domino's has risen from 15 to around 50. This is a contrast to APN News and Media, which has undergone a lower valuation cycle as the internet and digital media eroded the reach of traditional media, such that the company's P/E multiple has fallen from 16 times to 8.

Dilemma 3 – The momentum cycle

Momentum is the rate of acceleration of a security's price or volume. The idea of momentum in securities is that their price is more likely to keep moving in the same direction than to change directions.[1]

Price momentum, iconic management reputation, sell-side coverage, interest levels in a company, sell-side buy recommendations and buy-side ownership are signals of company momentum. Even over a two-year period, these factors can change dramatically as a recent comparison of Bradken versus Qantas Airways shows.

Bradken's tale illustrates how much a stock can drop out of favour among sell-side analysts when cyclical forces move against it. From 2010 to 2015, as commodity prices struggled and the capital expenditure cycle turned down, sell-side recommendations on the company fell from 83% rating it a buy to 0%.

Qantas, on the other hand, rose from a sell-side rating of only 8% in 2013 to 90% by 2015, driven by improving market dynamics, cost improvements and positive cultural change as well as a fall in oil prices.

Dilemma 4 – The reinvestment cycle

The reinvestment or opportunity cycle tends to apply to stocks and industries rather than the market as a whole. The reinvestment opportunity drives incremental returns, which are a significant driver of the long-run value of any business or asset.

High-quality emerging-growth companies or technology-led-disruption firms in their early stages have many reinvestment opportunities to create products and gain market share in possibly what is a new industry or market. This concept was brilliantly explained in the book, "Zero to One" by Peter Thiel. Similar positive trends appear for cyclical industries enjoying favourable growth dynamics. However, large companies in mature, established industries have fewer reinvestment opportunities and, due to the law of large numbers, any opportunities they do pursue have a small impact on the overall business. Mature or structurally challenged industries face fewer reinvestment opportunities too as a comparison between technology and traditional media stocks would show. At the end of this cycle, the term "shrink to greatness" refers to companies with no reinvestment options.

Dilemma 5 – The sentiment cycle

Market sentiment is the feeling or tone of a market, or its crowd psychology, as revealed through the activity and price movement of the securities traded in that market. For example, rising prices would indicate a bullish market sentiment, while falling prices would indicate a bearish market sentiment. Market sentiment is also called investor sentiment and is not always based on fundamentals.[2]

The last dilemma is the prevailing human anchor to fear or greed. Bullish or bearish macro outlooks, regulation fear, market perceptions of company accounting integrity, concerns or over-optimism about sectors or attributes that must or must not be present (such as debt), influence stock prices significantly. Sentiment can shift from a complacent risk-tolerant view of the world or a given company, followed by grave concern and fear of the unknown. Judgments over sentiment have led to market observers commenting on the "fear and greed index" and excessive positive views over sectors or assets classes deemed to be "irrational exuberance".[3] The sentiment swing can be extremely positive in strong momentum markets such as the tech boom and can be fearful to the point where investors are prepared to buy negative-yielding bonds in the search for safety.

PART 2: APPLYING THE FIVE DILEMMAS TO VALUE AND GROWTH MANAGERS

The cycles identified provide both risk and opportunity. Traditionally, manager styles will be classified as being attracted to these cycles in different ways and at different points, as detailed in Figure 1.

Figure 1: Manager styles and cycles

Dilemma	Stereotypical value manager style	Stereotypical growth manager style
1. Earnings cycle	Stable or negative	Positive
2. Multiple/valuation cycle	Low	High
3. Momentum cycle	Contrarian	Consensus
4. Reinvestment cycle	Limited or mixed	High
5. Sentiment cycle	Fear	Greed

Source: Fidelity Worldwide Investment

The mind-sets regarding risk management for these two predominant investment styles are in contrast. The stereotypical value manager needs to be wary of the so-called value trap, which can be considered like catching a falling knife. Or is an opportunity a contrarian investment with a margin of safety? Stereotypical growth managers must think about whether they are overpaying for growth or investing in a low-risk structural growth winner.

We'll now extend the five dilemmas beyond the traditional quality and value styles. By implementing the QMTV framework, this ensures a high risk awareness of these five dilemmas in context of the correlated risks that arise due to varying investor expectations within the cycles. Distilling ones thoughts and maintaining composure to make rational decisions is the key to an investor's success over time." This was eloquently stated by Nate Silver in "The Signal and the Noise":

> "Distinguishing the signal from the noise requires both scientific knowledge and self-knowledge: the serenity to accept the things we cannot predict, the courage to predict the things we can, and the wisdom to know the difference."[4]

PART 3: QMTV PROCESS AND RISK AWARENESS IN THE CONTEXT OF THE FIVE DILEMMAS AND THE CROSSROADS

The attributes that characterise each of the quality, momentum, transition and value cycles are shown in Figure 2.

Figure 2: Attributes of cycles

Dilemma	Quality	Momentum	Transition	Value
1. Earnings cycle	Structurally positive	Cyclically positive	Uncertain	Stable
2. Multiple/valuation cycle	High	Rising	Changing	Low
3. Momentum cycle	High	High or rising	Changing	Low
4. Reinvestment cycle	Strong	High or rising	Changing	Weak
5. Sentiment risk cycle	Greed	Positive	Uncertain	Fear
Crossroad dilemma	Blind love	Animal spirits[5]	Early signs	Articulate pessimist[6]

Source: Fidelity Worldwide Investment

A classification of stocks on the basis of these five dimensions forms a risk awareness framework that can allow investors to more clearly discern the questions and factors driving stock prices. As investors' judgments or expectations about stocks change, different risks emerge that will become the success or failure driver at a given stage in the QMTV journey.

The following examples of buy and sell situations in each of the QMTV groups provide a deeper understanding of the observation of the five dilemmas through time, and the signals that indicate that a crossroad may be approaching. Each of these QMTV cycles requires different skills, different risk management tools, different fundamental analysis and different questions to consider. In the exploration of two buy and sell decision processes for each of the QMTV groups, this becomes clearer.

Quality – Buy – Seek – 2005 to 2015

Seek is a high-quality franchise and leader in the online employment and training market in Australia and New Zealand. Seek structurally changed the Australian jobs classified markets by shifting and transforming the traditional paper-based advertisement to the internet-based job's advertisement channel. It has continuously gained market share in Australia and now commands more than 75% of the market. Domestic sales grew at 20% CAGR and margins continuously improved from 35% to 60% over the past 10 years.

Seek has constantly reinvested in its business to maintain its position as market leader. Since 2010, Seek has reinvested to expand its reach globally by identifying and acquiring interests in five online employment websites that operate in countries across Southeast Asia, China, Brazil and Mexico to leverage the expertise it gained in Australia. Seek's business has high entry barriers – their customer base – due to network effects (explained below). Although recruiters normally post jobs on multiple job sites, they are naturally incentivised to focus on one major with the largest user base to improve cost efficiency. Seek's stock returned a TSR of 626% in the last 10 years as compound earnings were the result of structural growth. Seek has a strong management team – CEO Andrew Bassat (who is also the co-founder) has 18 years of experience in the industry.

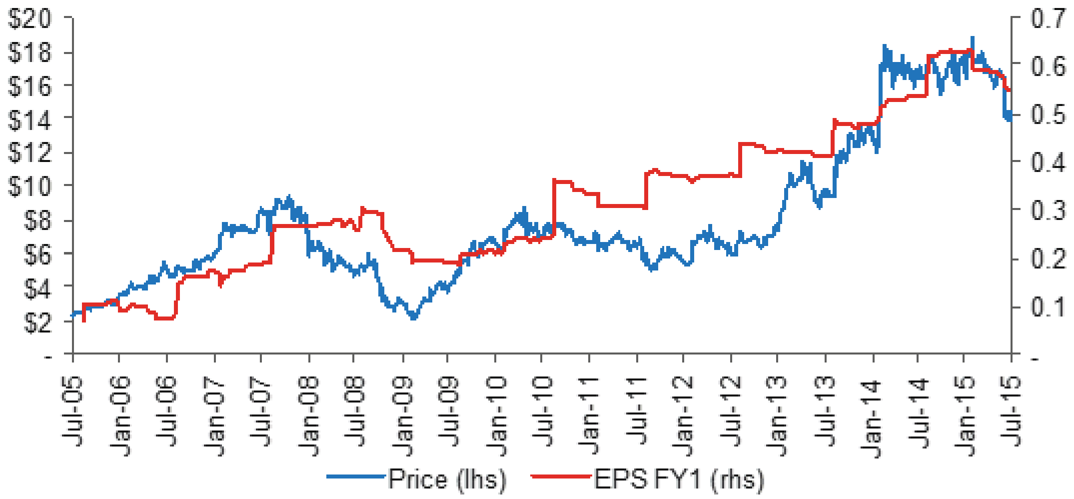
All the elements of a quality buy were present given earnings upgrades, high and rising valuation multiples, consistently positive momentum, positive reinvestment opportunities and favourable sentiment.

Network effects were a central theme in the arguments of Theodore Vail, the first post-patent president of Bell Telephone, in gaining a monopoly on US telephone services. In 1908, when he presented the concept in Bell's annual report, there were over 4,000 local and regional telephone exchanges, most of which were eventually merged into the Bell System.[7]

The economic theory of the network effect was advanced significantly between 1985 and 1995 by researchers Michael L. Katz, Carl Shapiro, Joseph Farrell and Garth Saloner.

portfolio construction forum

Figure 3: Case study – Seek



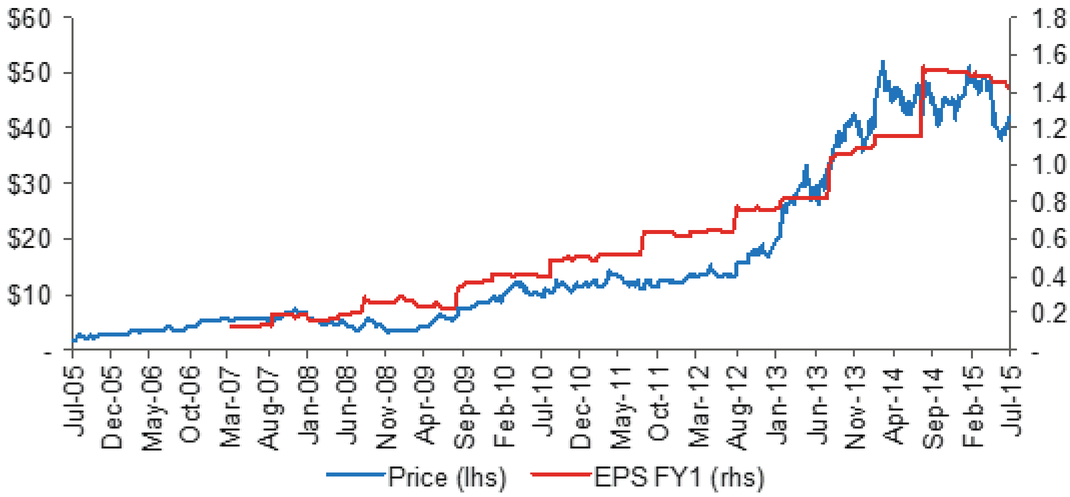
Source: Factset.

Quality – Buy – REA Group – 2005 to 2015

REA Group (REA) is Australia's number one real estate portal. It also has smaller investments in Italy, Luxembourg, Denmark and France. Over the past 10 years, REA has grown by successfully migrating property classifieds from offline to online advertisements. Being one of the early movers into the online real estate space, REA quickly grew its market share to become the market leader. Now, due to its market-commanding position, it can increase economic value by price increases or higher price point premium products. The structural growth and leverage that this delivered is evident from the company's margins, with EBIT margins increasing from 12% in FY 2004 to 47% in FY 2014. REA has also reinvested into global markets to grow incrementally. REA has been led by a strong management team and an active founder. Its growth story has been suitably reflected in its stock prices. The stock has returned a TSR of 2,939% over the past 10 years.

All the elements of a quality buy were present given earnings upgrades, high and rising valuation multiples, consistently positive momentum, positive reinvestment opportunities and favourable sentiment.

Figure 4: Case study – REA Group



Source: Factset

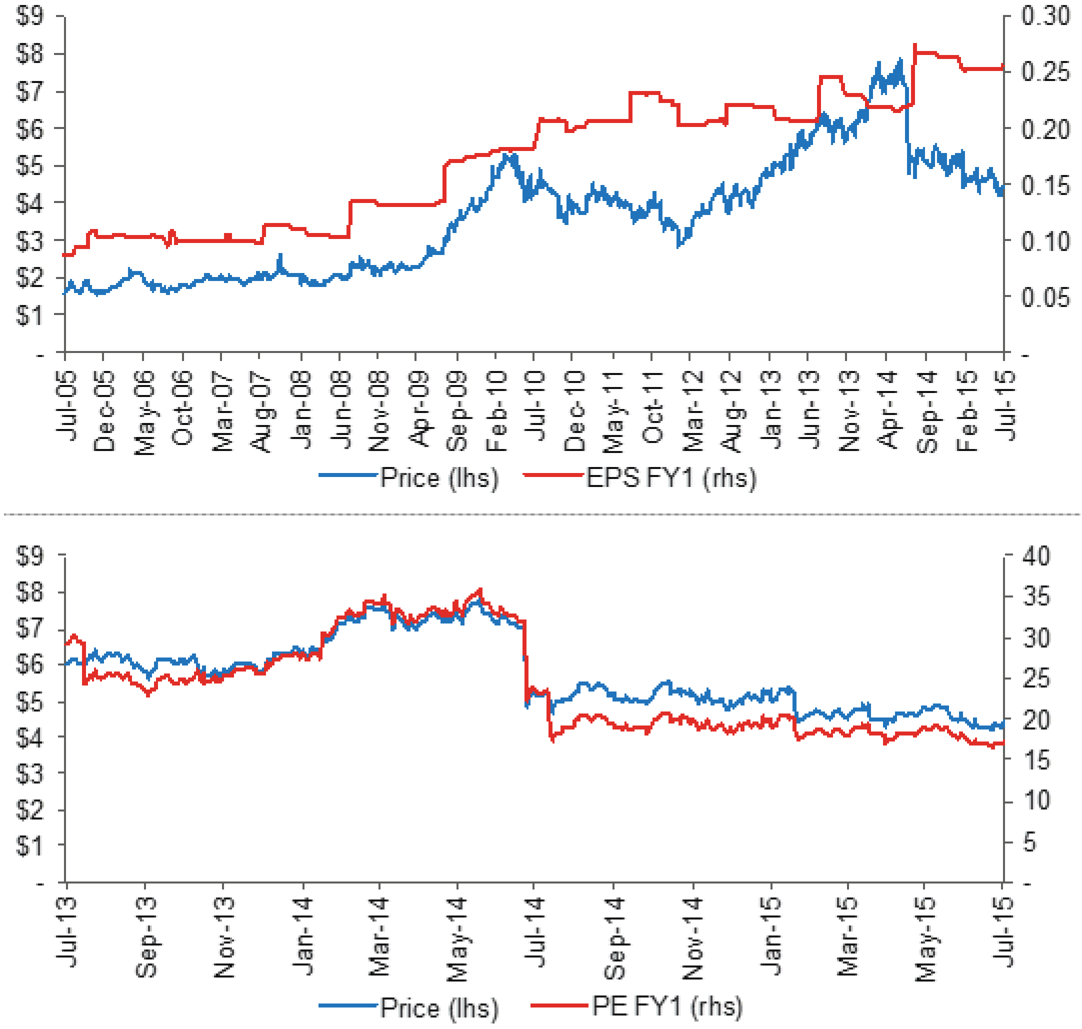
Quality – Sell – Navitas – 2014

Navitas is a pre university pathways provider for international students into Australia and is expanding into the UK, US and Canada. In July 2014, the stock fell 30% the day after Macquarie University, the largest campus of Navitas (contributing 20% EBITDA), decided not to renew its contract with Navitas. Macquarie also announced that it will start offering its own on-campus pathway programs from February 2016. This effectively converted a customer into a competitor and signalled that the perceived moat Navitas maintained was being eroded.

Once the moat concerns emerged, there was a greater focus on the Navitas regulatory and competition risks. In the streamlined visa processing (SVP) arrangements that are expiring in mid-2016, Navitas partner education providers and students have benefited from lower evidentiary requirements and faster visa processing. The SVP program had given a competitive advantage to Navitas and disadvantaged non-university providers who had limited access to the SVP scheme. However, if the proposed changes are enacted, it will provide a level playing field to non-university players as well.

The movement of Navitas positioning as a high-quality, structural-growth business to a company with an uncertain outlook moved the stock from Q (quality) to T (transition) and the result was a 50% price decline over the next 12 months. This is common in cross the floor situations. Unfortunately, in this instance, there were few signals that the crossroads were approaching – however, the multiple de-rating and value lost from the change in quality perceptions will be difficult for the business to alter in the short term. Note in this instance, the share price movement of 50% can almost be entirely explained by the P/E multiple.

Figure 5: Case study – Navitas



Source: Factset

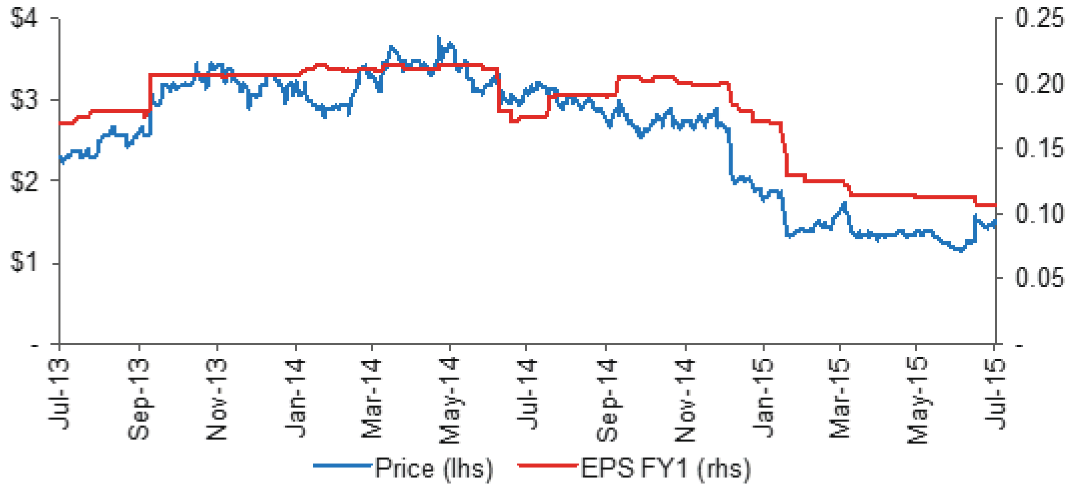
Quality – Sell – Kathmandu 2013 to 2015

Kathmandu (KMD) is a New Zealand-based company engaged in design, marketing and retailing of clothing and equipment for outdoor, travel and adventure activities. It operates in three geographical areas – New Zealand, Australia and the UK. Kathmandu's stock has underperformed during the past twelve months. It reported a disappointing 1H 2015 and lowered its earnings guidance. The stock fell 18% on the results day. Stores that opened in 2H 2014 and 1H 2015 did not perform to expectations and new store rollouts have been halted.

Over the past two years, it was becoming well-known that competition for Kathmandu was rising from international generalist retailers like Uniqlo who offers products with comparable attributes at significantly lower prices. In NZ, the company faces stiff competition from Macpac which is a strong number two competitor. In the UK, the competition is fierce and KMD is still in the investment phase that requires it to invest significantly to gain foothold in the market. KMD faces a challenge to grow internationally due to the level of funds required to build brand awareness. Currently, strong brand recognition is confined to Australia and New Zealand.

There were signals in this instance that a perceived high-quality business would no longer be the high-growth, high-return business that it had been in the past, due to rising competition, declining returns on capital, and loss of market share. Even after a takeover approach by Briscoe, the share price has fallen near 50%. Identifying the signals of a quality business approaching the crossroads – such as rising competition, falling margins and lower operating leverage – would have removed the risk of blind love or expectation that the quality attributes and associated valuation characteristics would remain.

Figure 6: Case study – Kathmandu Holdings



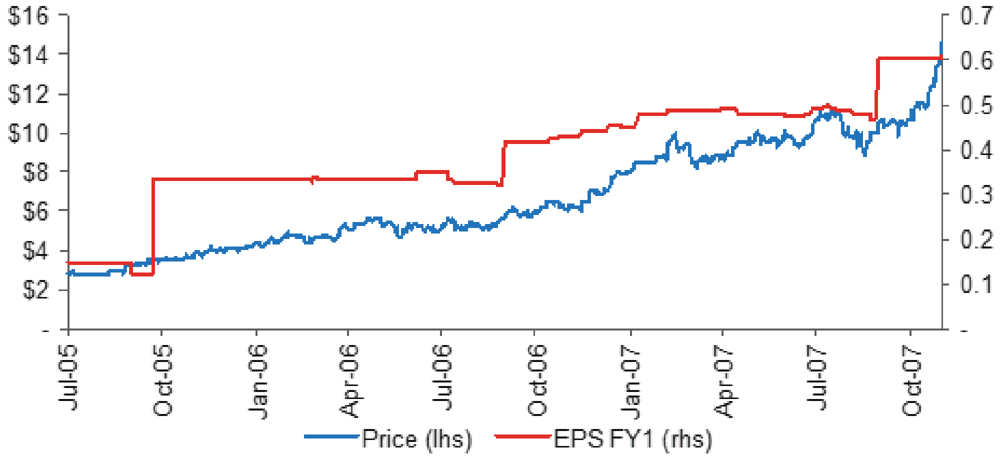
Source: Factset.

Momentum – Buy – Bradken 2005 to 2007

Bradken (BKN) manufactures, supplies and maintains services to mining, mineral processing and rail industries, having a wide range of products including ground engaging tools, mill liners, crusher lines, freight wagons and bogies. Relative to the rest of the sector, BKN exhibited a number of unique qualities given the consistent high level of returns, exposure to mining consumables and production (defensive), quality management and consistent earnings not relying on big one-off short duration contracts for growth. The company is known for its business efficiency, as it is now expanding capacity/improving business and has balance sheet headroom. Mining and Americas remain strong.

This is a typical momentum cyclical buy idea. Earnings are rising driven by widespread volume growth and positive operating leverage is delivering a positive upgrade feedback loop to multiples. Cycles of earnings, multiples, momentum, reinvestment and sentiment are all positive.

Figure 7: Case study: Bradken

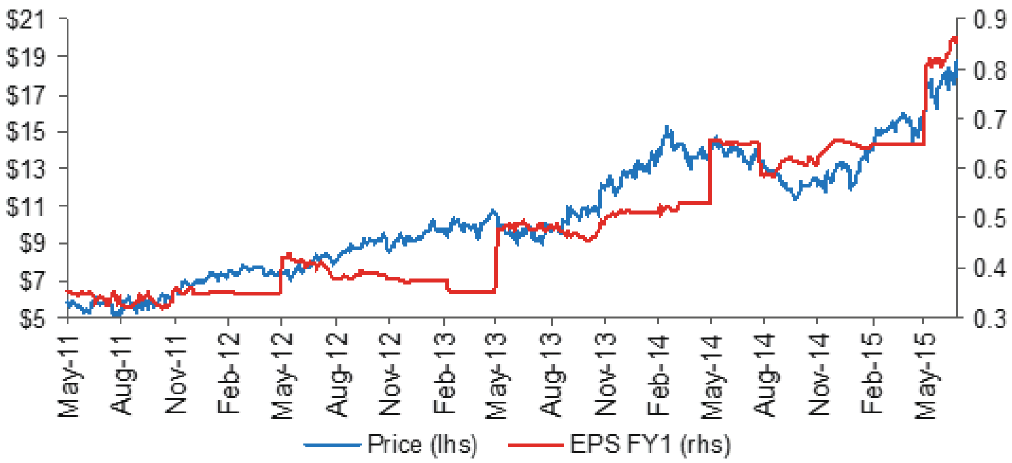


Source: Factset

Momentum – Buy – James Hardie – 2011 to 2015

James Hardie is a significant beneficiary of the housing boom in Australia as well as the US. James Hardie manufactures housing supplies and building products. This is a typical momentum cyclical buy idea. Earnings are rising, driven by widespread volume growth and the positive operating leverage is delivering a positive upgrade feedback loop to multiples. Cycles of earnings, multiples, momentum, reinvestment and sentiment are all positive.

Figure 9: Case study – James Hardie



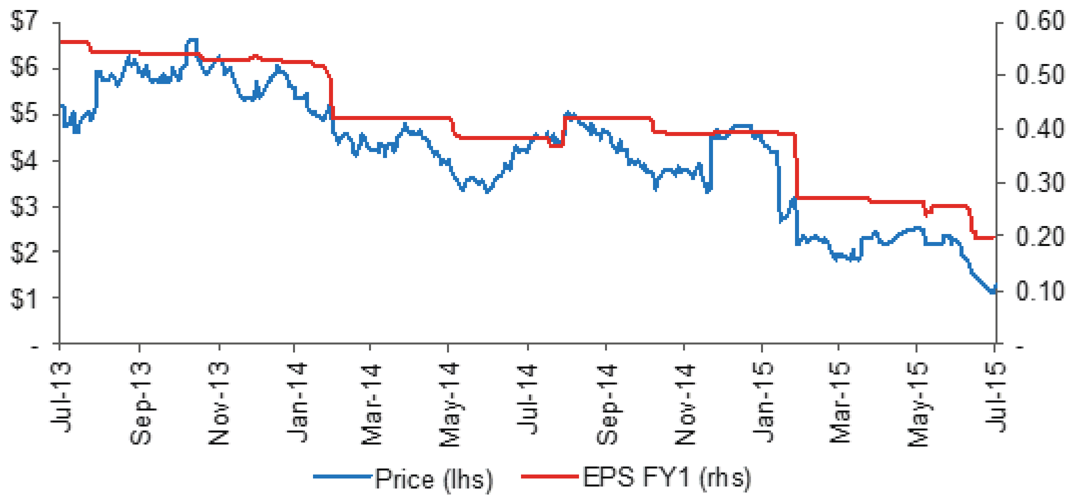
Source: Factset

Momentum – Sell – Bradken – 2013 to 2015

Bradken was a quality business with high returns (18% ROE), respected products in the market and industry leverage (consumables). It had lower capital intensity versus peers and an excellent history of managing the cycle in 2009. However, the stock de-rated from 2H 2012 onwards on corporate governance concerns when BKN's chairman and CEO were sued for alleged bid rigging in connection with the Norcast acquisition. The legal case involved contravening trade practices law, conflict of interest, related party transactions and director misconduct hitting management credibility. The macro backdrop also turned bad with negative talk on mining capex, mining companies focusing on cutting costs and commodity prices under pressure. Further, at the company's October 2012 AGM, management highlighted a slowdown in mining activity. The order intake slowed in the US and Australia (its major markets), including some order cancellations and delivery deferrals, as mining companies had put projects on hold. Overall, the bottom line and margins contracted in 2013, earnings downgraded and the stock underperformed.

There were a range of signals in this example including negative earnings, momentum, multiple, reinvestment and sentiment cycles all turning at the same time.

Figure 9: Case study – Bradken



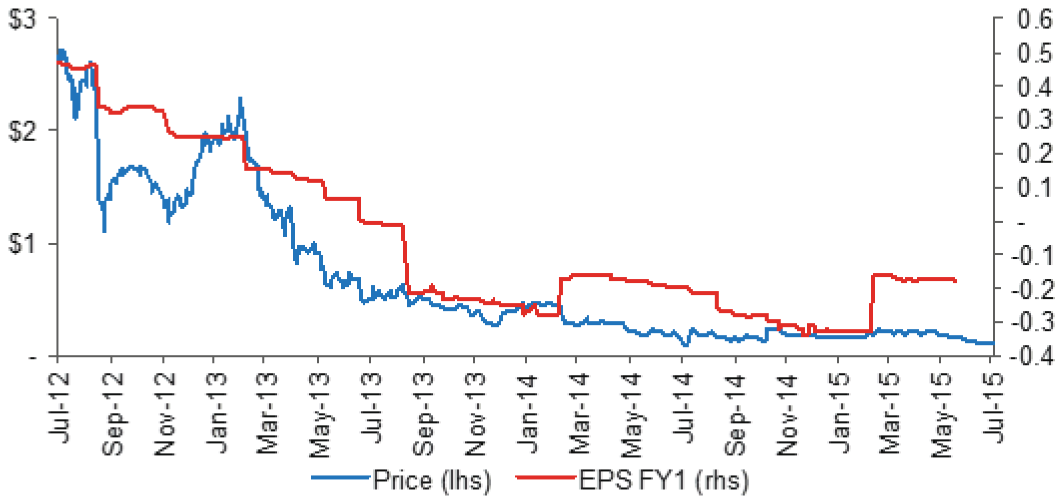
Source: Factset.

Momentum – Sell – Boart Longyear – 2012 to 2015

Boart Longyear is a leading provider of drilling services, drilling equipment, and performance tooling for mining and drilling companies globally. In recent years, global commodity prices have fallen, which led to capital expenditure cutbacks across miners. This has hurt players like Boart more as its customer base comprises a majority of junior miners who have relatively higher costs of production. When prices fall, these junior miners face a relatively higher risk of shutting down operations. Boart has struggled and performed poorly in the past few years, with frequent earning revisions, sequentially falling sales and earnings. The stock has fallen from $4.50 in July 2012 to $0.10 in July 2015. The balance sheet is also deteriorating faster than expected as the company is drawing on its financing facility. Thus, if Boart is soon not recapitalised, it faces a risk of bankruptcy.

Again, there were a range of signals in this example including negative earnings, momentum, multiple, reinvestment and sentiment cycles all turning at the same time.

Figure 10: Case study – Boart Longyear



Source: Factset.

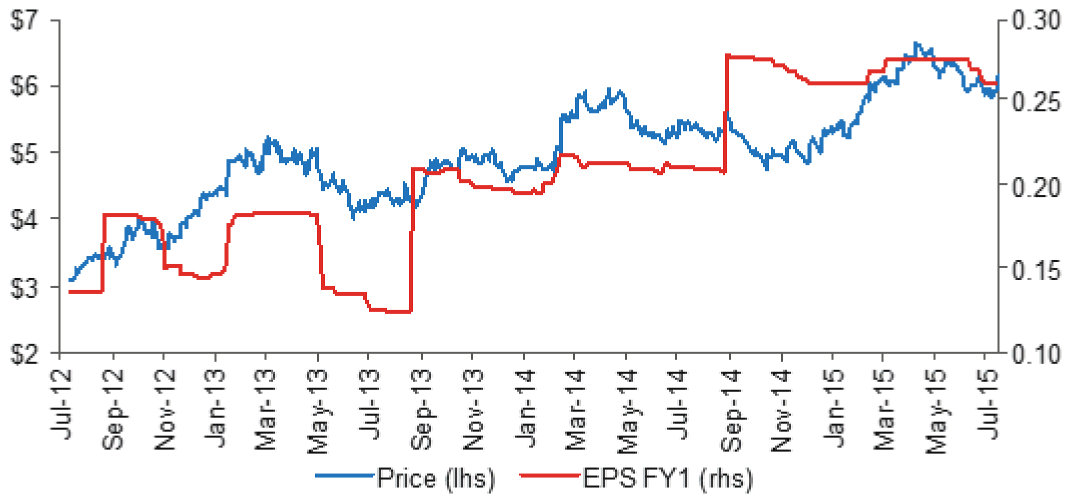
Transition – Buy – Boral – 2012 to 2015

Boral is Australia's largest diversified building and construction materials supplier, with operations in heavy-side and light-side construction. Boral's exposure is primarily to the domestic Australian market (80%) with some international presence in the US and Asia (~20%). Its US operations suffered in the aftermath of the global financial crisis while the Australian operations were hit by the construction downturn in 2012.

Positive management actions have been instrumental in Boral recovering from these slumps that had led to lower profits and higher debt. Mike Kane was appointed as the CEO and managing director of Boral in 2012. Since taking on the mantle, he has taken various initiatives to cut costs and strengthen the balance sheet by reducing debt. Cuts in overheads, the reduction of the employee base and the relocation of Boral's headquarters from Sydney's prime location at Circular Quay are some of the initiatives that were taken by Boral under the new leadership to curb expenses. Restructuring processes such as divestment of non-core operations and capacity rationalisation have resulted in Boral turning into a more streamlined organisation. Consequently, it has been able to ride the upswing in cyclical Australian housing market much better, a fact that resulted in the share price doubling between 2012 and 2014.

The corporate history of Boral has been mixed and, as a result, the market was sceptical that change could be executed. Kane surprised the market, and those investors that gained confidence that his leadership and industry experience allowed for positive change were rewarded with a 100% share price movement over three years, supported by earnings upgrades and multiple expansion as the market momentum began to shift more positive and highlight the reinvestment options the business had despite a competitive and cyclical market place.

Figure 11: Case study – Boral



Source: Factset.

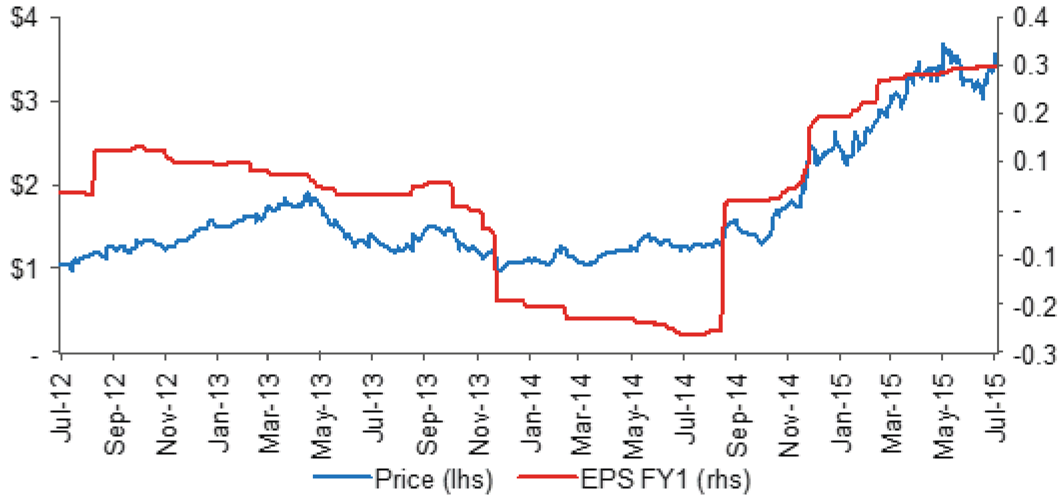
Transition – Buy – Qantas Airways – 2012 to 2015

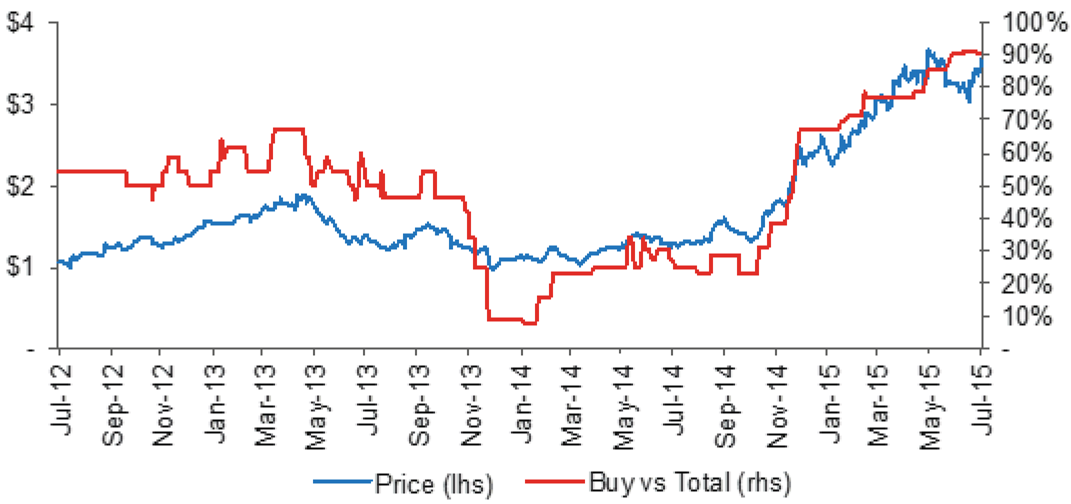
Qantas is Australia's largest airline with operations spread across domestic and international passenger and freight air services, offered under a premium, full-service model as well as a low-cost-carrier model. Qantas enjoys a dominant 65% market share in the domestic space and 16% market leading share in international flights in and out of Australia. It has the largest frequent flyer program in Australia, with over 10 million members.

Hurt financially by tough market conditions exacerbated by the capacity and price war with Virgin Australia, Qantas management decided to undergo transformative restructuring in early 2014 with the aim of achieving cost reductions to the tune of $2 billion. The program included initiatives such as reduction in employee base, fleet simplification, capacity discipline and exiting underperforming routes. Despite a $2.8 billion reported loss in FY14, investors rewarded the stock due to the underlying structural reforms undertaken by Qantas and the industry capacity discipline achieved from it in the domestic market. Qantas was able to turn around its performance by returning to profits in 1HFY 2015 results. All operating segments were profitable, including Qantas International which reported its first-ever profit since 2009.

In this instance, Qantas rose 100% as earnings were upgraded following an increase in the P/E multiple. Popularity began to increase to the point of highest buy recommendations by the sell side research houses.

Figure 12: Case study – Qantas Airways





Source: Factset.

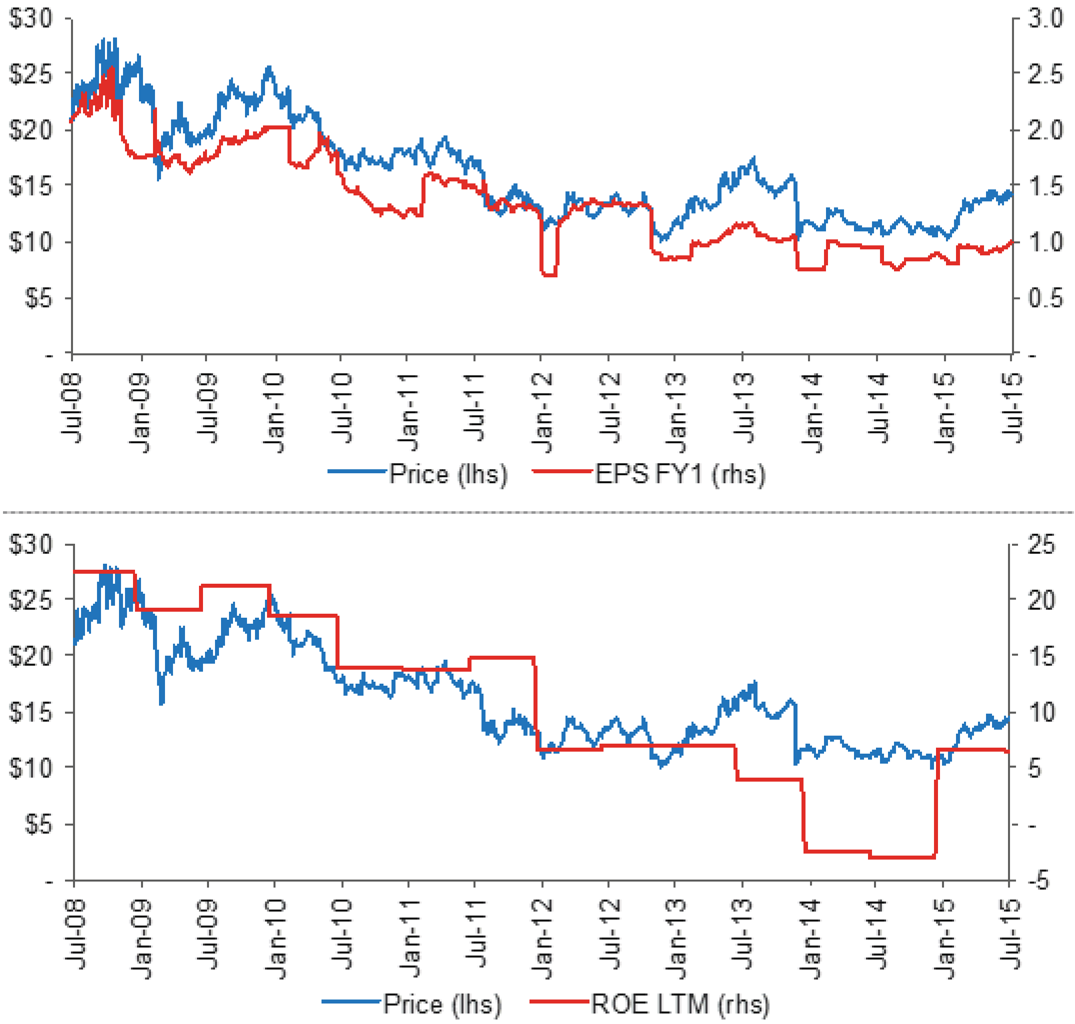
Transition – Sell – QBE Insurance – 2008 to 2015

QBE Insurance had grown through acquisition historically, acquiring 140 businesses since 1982. This strategy worked well initially as it expanded operations geographically in products with which it has expertise and experience. However, acquisitions made in 2007 to

2011 took it into unfamiliar products and markets, such as US crop insurance, thus operating performance deteriorated. QBE's earnings were also highly influenced by interest rates as it ran asset liability mismatch (shorter duration assets), such that 2009 to 2012 saw a significant fall in investment income on declining rates without a gain in the asset base. A poor operating result plus a low investment income led to reserve deficiency in following years. QBE failed to meet guidance in the four years from 2010 to 2014.

A quality business had crossed the floor to become a transition business that slid into value. Earnings risks were known given the structure of earnings drivers and thus low interest rates, which also led to high capital supply reducing the margins of the industry.

Figure 13: Case study – QBE Insurance



Source: Factset.

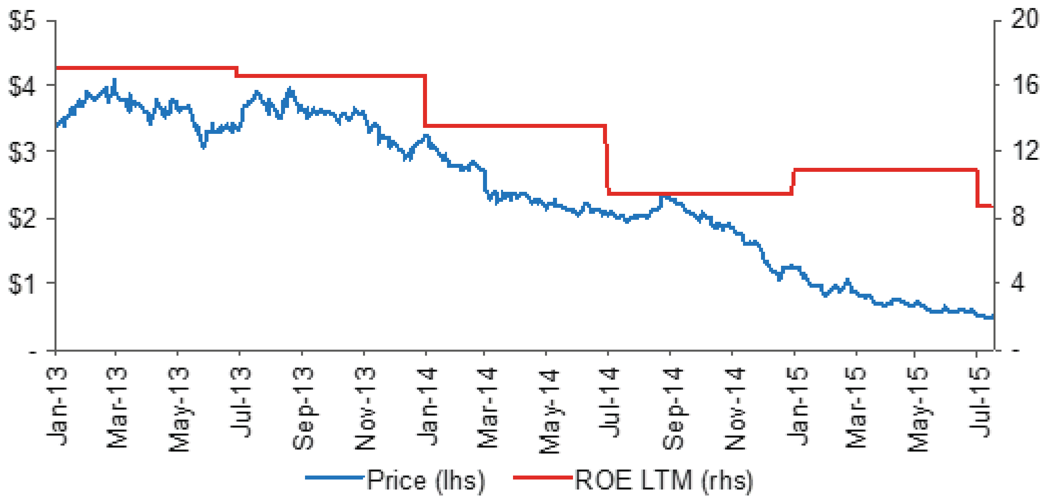
Transition – Sell – MMA Offshore – 2013 to 2015

MMA Offshore (MMA) is a vessel operator for the energy sector across Western Australia and Asia. It is engaged in operating crewed vessel charters and supplying base facilities and slipway operations. MMA owns a strategically valuable supply base/slipway in Dampier, which delivered high ROIC of 28% while the vessels division delivered high returns at 18% ROA in 2012. The vessels business had strong returns due to high utilisation greater than 75% (65% breakeven), tier-1 high-quality customer base, larger boats and higher-value work. It was a more defensive play due to its exposure to energy sector.

However, the margins have been eroding (peaked in December 2008) in the vessels business due to rising competition in Australia. In order to augment growth, MMA pushed into Asia, which is more competitive and even lower margin business. The business is also facing macro headwinds as LNG development phase projects in Australia are coming off. While supply-bases division provides some support, the vessels division accounts for 70% of the business and exposes the financials of MMA when the cycle turns down.

In this example, the acquisitions and negative market dynamics have eroded the ROE from a high-quality business level to 6%. Movement from quality to transition to value has led to a share price fall of over 70%.

Figure 14: Case study – MMA Offshore



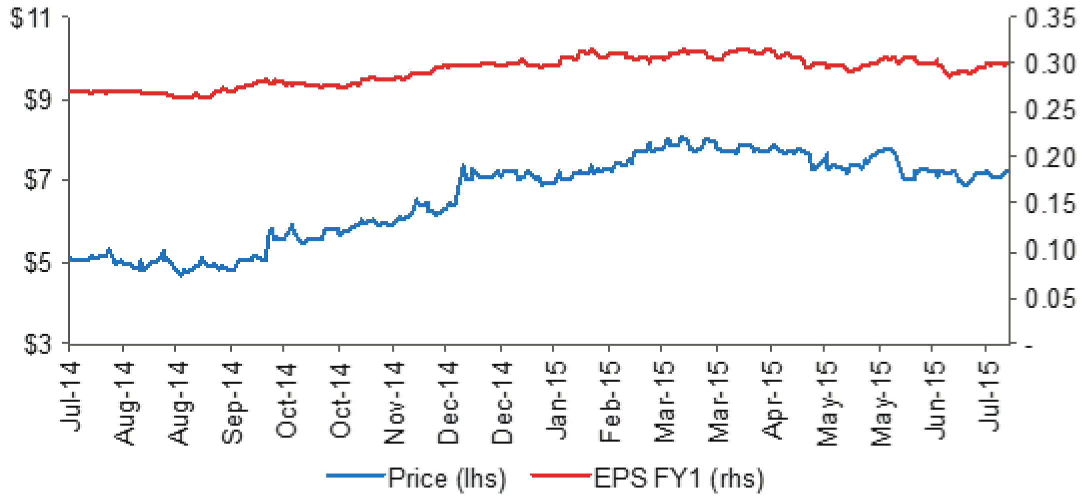
Source: Factset

Value – Buy – Recall Holdings – 2015

Recall Holdings is one of the two global providers of document storage management services with operations in the Americas, Europe, Asia and Australia/New Zealand. Recall was spun off by Brambles in 2013 as a standalone entity. Recall was an underappreciated business under Brambles, as it was not a part of its core business. Since the divestment, Recall has benefited due to increased management focus and transparency. Recall's global scale and strong customer relationships have helped it generate reasonably attractive margins in the range of 20% to 25%. Its margin profile can improve over the next couple of years driven by a mix of value-accretive acquisitions, operation leverage and initiatives to optimise facilities. Iron Mountain, a leader in information- management solutions, has a takeover offer on Recall.

In this instance, the industry value perception was above the equity market's valuation and thus a takeover rationale emerged. As an attractive value business, the cash generation and stability in the business were present and the other dilemma factors were positive.

Figure 15: Case study - Recall Holdings



Source: Factset

Value - Buy - Aurora Oil & Gas - 2014

Aurora Oil & Gas's core acreage was 22,200 net contiguous acres in the liquids-rich zone of the Eagle Ford shale field in Texas. The acreage had attractive economics linked mainly to oil prices and access to Gulf Coast crude oil markets with established transportation systems. Aurora Oil & Gas was acquired by Baytex in 2014 at A$4.10 per share, a 56% premium to its listed price at the time of announcement of the offer. At $4.10 per share, the offer was equivalent to $116k/acre, one of the most expensive deals done in the Eagle Ford. The premium was largely justified owing to the high-quality nature of the Aurora's resources.

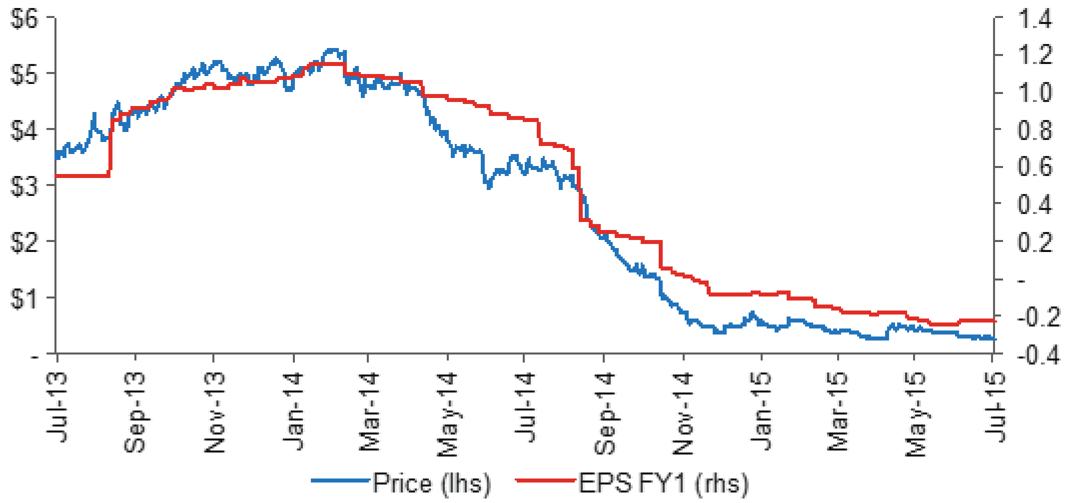
Aurora's performance metrics improved materially between 2011 and 2014. Production increased from 4,257 boe/d in Q42011 to 24,678 boe/d in Q42013. Development performance and recovery improved with drilling times decreasing by 50% and 180-day cumulative recoveries increasing by about 34% since Q42011. Aurora's historical IRR (before tax) per well in the Sugarkane Field was in excess of 100% with an undiscounted payout of one to two years. As a pure-play company with highly economic acreage position and strong potential growth opportunities, Aurora projects were low-risk, repeatable and high return with leading capital efficiencies and hence value accretive acquisitions for Baytex.

Value – Sell – BC Iron – 2015

BC Iron (BCI) is a junior iron ore miner in Australia. Its flagship project is Nullagine, a joint venture between BCI and Fortescue Metals Group. It depends on Fortescue for marketing and selling of its iron ore produce. The Nullagine mine has a short mine life of fewer than five years only. BCI was historically a high dividend payer, which garnered higher valuations for it. However, with the dwindling mine life, it needed to cut the dividend. Falling iron ore demand from China has pummelled the iron price to a 10-year low of US$46/tonne, making BCI non-profitable. It is a low-grade iron ore miner, which further decreases the realised price. A weak iron ore outlook has increased the bankruptcy risk. The stock has fallen 90% over the past few years.

In this instance, there were clear sell signals that this was a higher risk value idea. Earnings, multiple, momentum and reinvestment were all pointing negative.

Figure 16: Case study – BC Iron



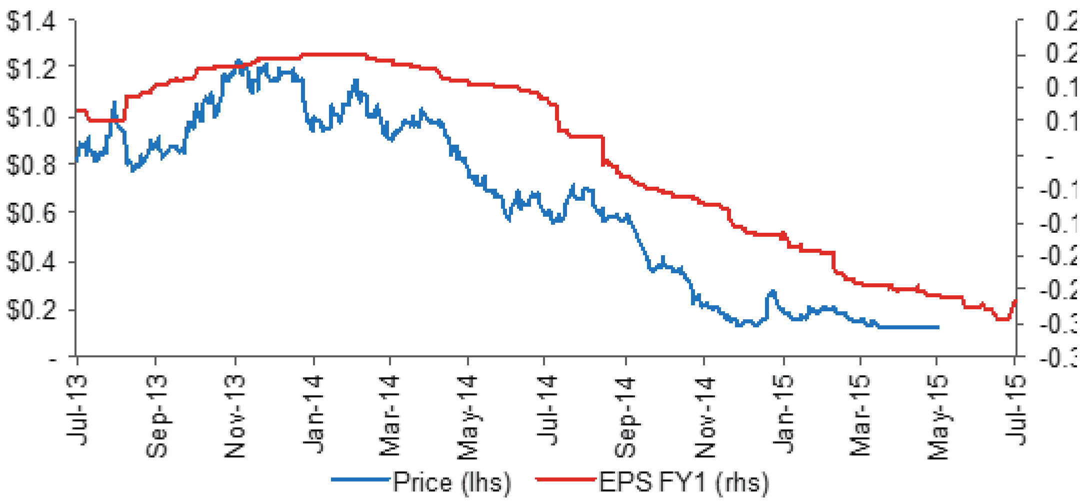
Source: Factset

Value – Sell – Atlas Iron – 2014 to 2015

Atlas Iron is a junior iron ore producer with operations in North Pilbara and prospective sites in North and Southeast Pilbara and the mid-west of Western Australia. Atlas also owns several prospective magnetite projects in the region. With the Chinese economy slowing down and the demand for iron ore stagnating, the iron ore prices have fallen to its 10-year lows. Atlas has a high operation cost that brings the economics of Atlas's operations under severe pressure. Thus, Atlas is not expected to make any free cash flow until iron ore prices move above US$70. On 7 April 2015, Atlas entered into a voluntary trading suspension after it decided to review the company's operations, financial outlook, asset sale opportunities and capital structure. Atlas stock fell continuously from 0.70 cents in August 2014 to 0.12 cents in April 2015, when it was suspended.

Again, in this instance, there were clear sell signals that this was a higher risk value idea. Earnings, multiple, momentum and reinvestment were all pointing negative.

Figure 18: Case study – Atlas Iron



Source: Factset

PART 4: DILEMMA QUESTIONS TO DETECT ROTATION OR "CROSS THE FLOOR" RISK IN A STOCK'S QMTV JOURNEY

Part three of this paper considered 16 case studies, with two in each of the buy and sell direction, to highlight that there are often common risk factors that emerge as part of a company's QMTV journey.

For each of the five dilemmas – earnings, valuation, momentum, reinvestment and valuation – cycles will be heading in a certain direction. In addition to this, the financial accounts, confirmation or warning signals, questions to consider, questions to ask management, financial analysis and behavioural issues change over time. How to interpret and more clearly distil this information for risk awareness and decision-making is assisted by the classification of a company as quality, momentum, transition or value. Some of the dilemma questions to detect rotation or cross the floor risk in a stock's QMTV journey are outlined below.

Quality

1. Is this a structural long-term winner and thus are the earnings and returns highly sustainable, moat-like or a franchise? Is the growth outlook continuing or are competition and capital spending to maintain competitive edge rising?
2. Are multiples at levels that can rise, can hold, or cannot be justified considering all the reinvestment options available in the addressable market?
3. What reinvestment options are being considered and made and are these at lower returns or signalling rising margins and returns?
4. Is momentum and popularity at such high levels that there is no appetite for risk and is perfect business execution assumed?
5. If sentiment is a major driver of the earnings valuation premium, how and why could this change?

Momentum

1. Are there cyclical upgrades remaining, or have these peaked? Is the business being carried by an association with a sector, theme or attribute that is allowing earnings growth that is unsustainable?
2. If earnings are at peak and multiples are at peak, where is the future surprise going to be sourced? Is the sector, theme or attribute towards the peak of the cycle, a signal that a peak has been reached?
3. Is momentum still behind the business and management telling you “it doesn’t get better than this”, or is it beginning to remind investors of risks and concerns?
4. Are the reinvestment options still wide open and positive or narrowing and becoming incremental? Is the market structure, power base or industry structure changing such that this dilutes the returns for some industry participants?
5. If sentiment is at an all-time high, can this go any higher?

Transition

1. For a value stock, what is management's aspiration to improve the business's earnings and returns? If this is a quality business that has crossed the floor; is the moat broken? If this is a negative momentum earnings business, will this cycle continue, or is this temporary?
2. For a value stock, if management executes on the aspiration, what could this business be worth to an industry participant? If this is a quality business that has crossed the floor and the moat is broken, what is the base case cash-based or market-based multiple? If this is a negative momentum earnings business, what is the valuation multiple at the trough?

3. Momentum and popularity are going to be poor signals at this stage, but how do these change? Is this is a turnaround business so execution is key? Is this an earnings momentum business so cycle confirmation is key? Is this an innovative new concept so new customers or operating leverage are key?
4. Reinvestment options are likely becoming much better or much worse – which is it?
5. Sentiment is likely weak – is this likely to improve or deteriorate?

Value

1. Are earnings bottoming out? Is the cash flow strong? Or is the business in structural decline and cash flows, as well as earnings, are falling materially? Is the balance sheet able to withstand further earnings declines or is the balance sheet a high risk? Will a capital-raising improve the business and allow for a recovery phase or are the problems of the business terminal?
2. From an equity investor's perspective, valuations may be low, but how is the business viewed by the industry in terms of asset value, break-up potential and consolidation opportunity? Have trough valuations from an industry perspective been reached?
3. Are momentum and interest levels at an all-time low? Is this due to the cycle or a structural trend due to innovation such that this business is in structural decline?
4. Is reinvestment in a part of the business economically rational? Can the business reduce costs and overheads to increase earnings on a sustainable basis? What are logical uses of free cash flow in the business?
5. Sentiment is likely weak; is this likely to improve or deteriorate?

Risk is found in all companies at all stages of the QMTV cycle. To sum up, consider a quote by Mark Zuckerberg, founder of Facebook: "The biggest risk is not taking any risk... In a world that is changing really quickly, the only strategy that is guaranteed to fail is not taking risks."

Also, consider the following in the context of QMTV.

- Quality – "Show me a hero, and I'll write you a tragedy." – F. Scott Fitzgerald
- Momentum – "What we need to understand is, one, that there are market failures; and two, that there are things like asset bubbles and irrational exuberance. There are periods of booms, bubbles, and manias. These things, if left to themselves, can lead to crashes, to busts, to panics." – Noriel Roubini
- Transition – "Progress is impossible without change, and those who cannot change their minds cannot change anything." – George Bernard Shaw

- **Value** – "Scepticism and pessimism aren't synonymous. Scepticism calls for pessimism when optimism is excessive. But it also calls for optimism when pessimism is excessive." – Howard Marks

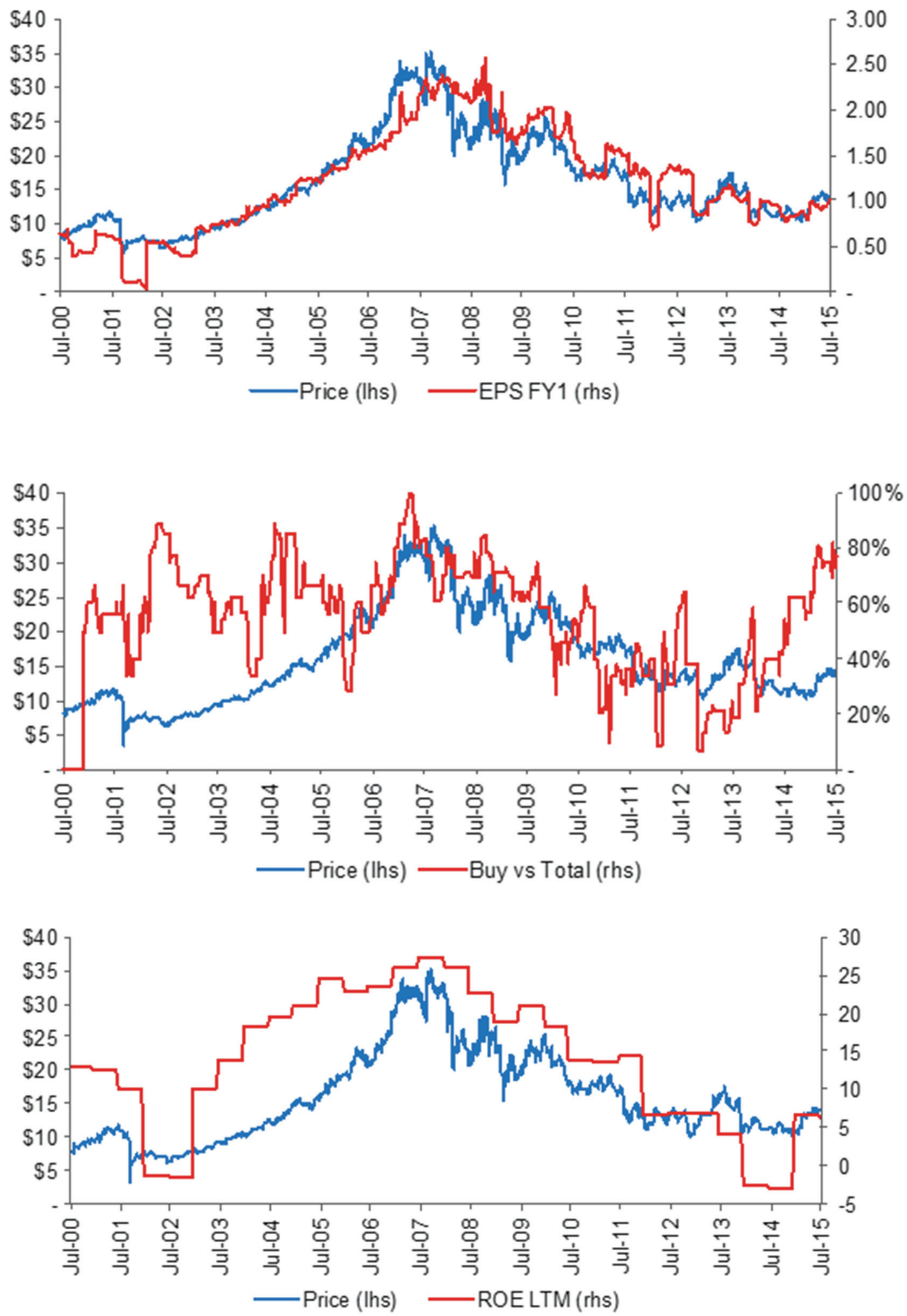
To round out the single buy or sell decision with more breadth, it helps to explore the long-term journeys for two companies, QBE Insurance and JB Hi-Fi.

Figure 18: QBE Insurance – The 15-year QMTV journey

Stage – Years	Five dilemma observations
Value 2001-2003	• Earnings collapse from September 11 • Multiple compression due to fear of unknowns • Balance sheet restructure
Transition 2004	• Earnings and returns benefit from insurance cycle • QBE buys stake in Mercantile Mutual • Sentiment and momentum improving
Momentum 2005-2006	• Earnings and returns benefit from insurance cycle • Momentum strengthens from earnings upgrade • Sentiment strong
Quality 2007-2008	• Returns on capital over 20% • Momentum and sentiment very strong • QBE acquires PMI Australia and 4 underwriting agencies
Transition 2009-2010	• Returns on capital decline • Earnings below expectations • Momentum and sentiment weakens
Value 2011-2014	• Returns below 10% • Buy ratings fall below 40% • Frank O'Halloran steps down as CEO in 2012
Transition 2015	• Hope of earnings improvement emerges • Buy ratings lift over 60% • Positive momentum and sentiment change

Source: Fidelity Worldwide Investments

Figure 19: Case study: QBE Insurance



Source: Factset

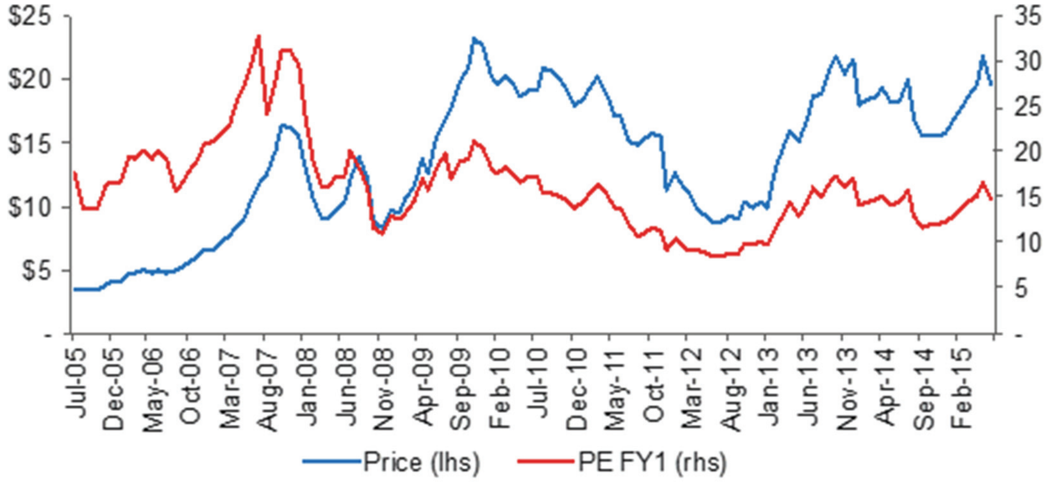
portfolio construction forum

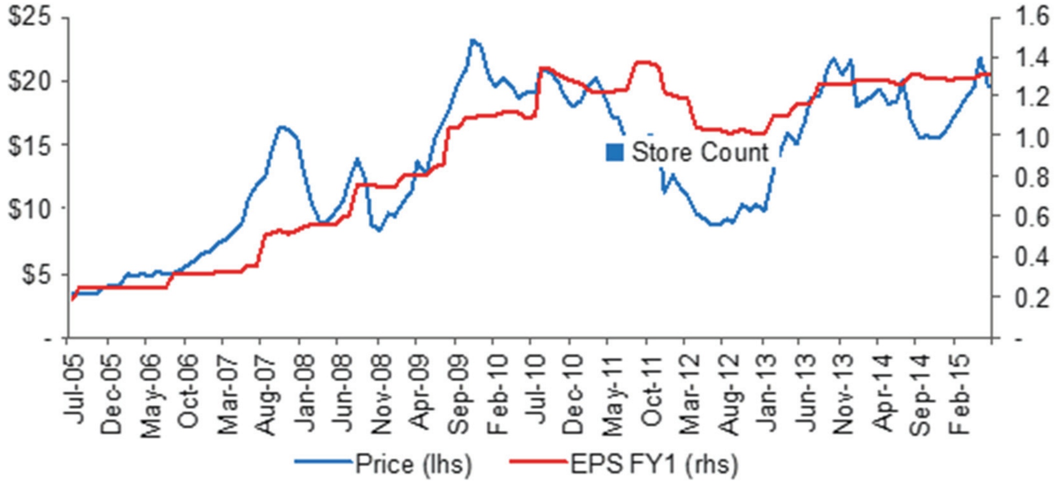
Figure 20: JB Hi-Fi – The 10-year QMTV journey

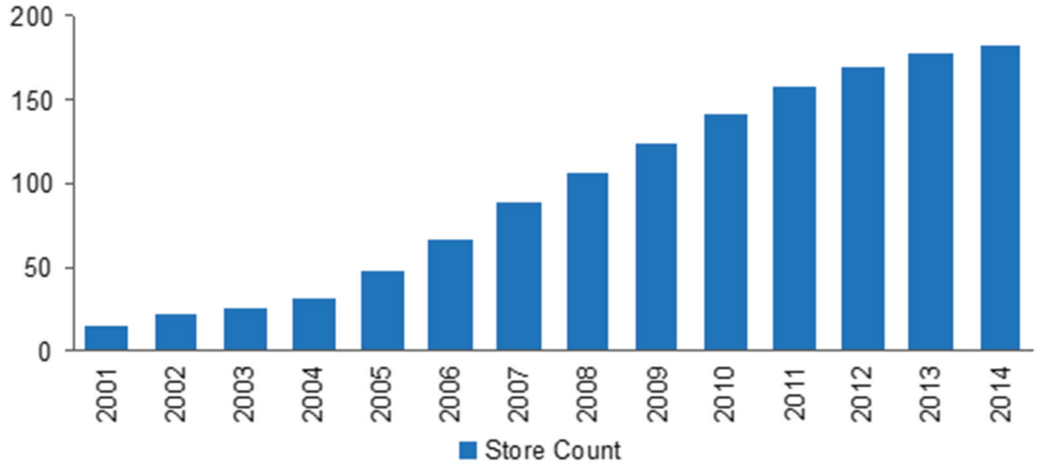
Stage – Years	Five dilemma observations
Transition 2004-2006	• New store concept to market in consumer electronics • Market positive but sceptical • Returns were high and the store rollout commenced
Momentum 2007-2008	• Share prices rises from $5 to $15 from P/E multiple expansion • Store numbers grow from 32 to 2004 to 105 in 2008 • Sentiment and momentum improved, 60% buys
Quality 2009-2010	• Returns remain high with ROE over 40% • P/E multiple lifts to 20x and buys remain over 60% • Earnings upgrades continue with accelerated pace
Value 2011-2012	• Sentiment fear from disruption signals by Blockbuster bankruptcy, rising iPhone and iPad penetration, Netflix expansion, buy % below 20% • P/E multiple falls to lows around 9x • JB Hi-Fi launches JB Hi-Fi 'Home'
Transition 2013-2015	• Earnings growth recovers • P/E multiple expands and buy recommendations lift to 40% • Mixed views about the consumer spending cycle

Source: Fidelity Worldwide Investments

Figure 21: Case study - JB Hi-Fi







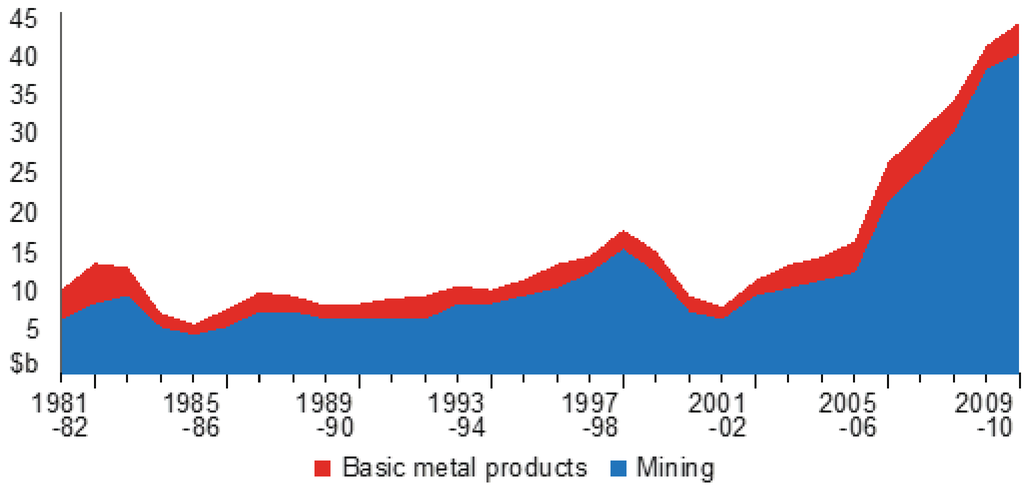
Source: Facstet.

PART 5: QMTV SECTOR AND ASSET-CLASS PERSPECTIVES

At a sector level, intra-sector correlation is high in the momentum and the value classifications as all stocks are driven by themes, attributes, earnings growth and multiple expansions in the positive and negative direction. This is in contrast to quality and transition classifications where risks tend to be idiosyncratic rather than systematic, and thus intra-sector correlation is low.

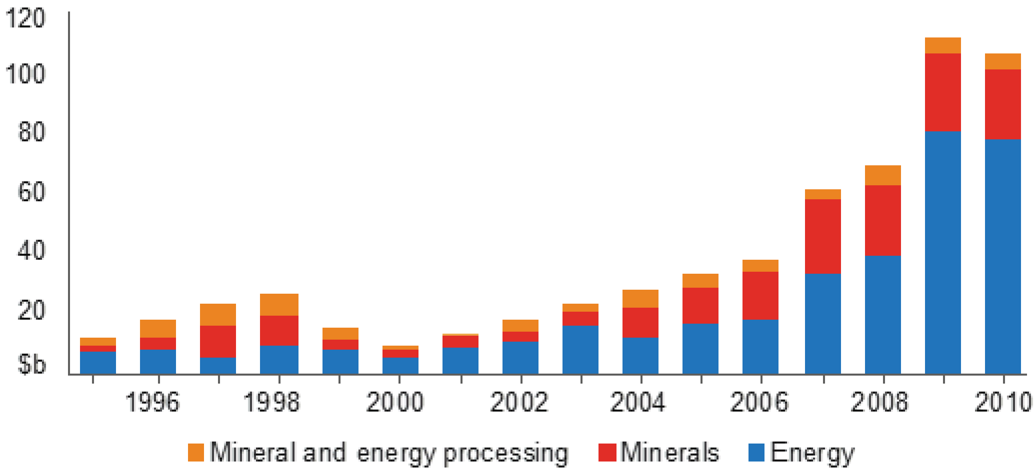
Correlation can be used to identify sectors when they are overheating, or where momentum is fading and the sector is at risk of moving into transition. A solid example of cyclical momentum was the Australian mining services boom from 2009 to 2011. Mining services was a significant boom for Australia during this period. In 2011, expectations were that the capital engineering projects in iron ore and energy were to be nearly 10% of Australia's GDP, the highest in many decades. This was driven by the large iron ore projects by BHP and RIO Tinto as well as the many LNG projects across Australia.

Figure 22: New capital expenditure – 2009 to 2010 dollars



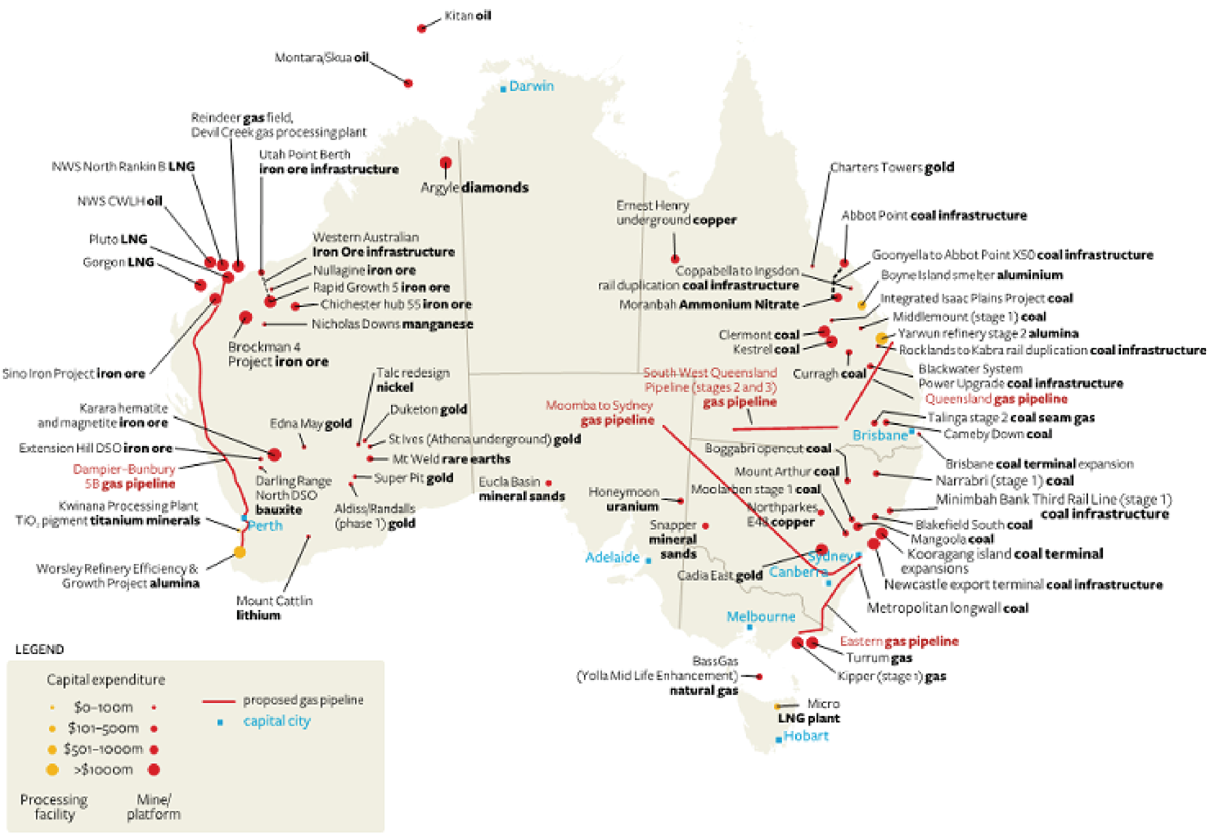
Source: Minerals and energy major development projects – April 2010 listing.

Figure 23: Value of advanced projects – 2009 to 2010 dollars



Source: Minerals and energy major development projects – April 2010 listing.

Figure 24: Advanced minerals and energy projects – April 2010



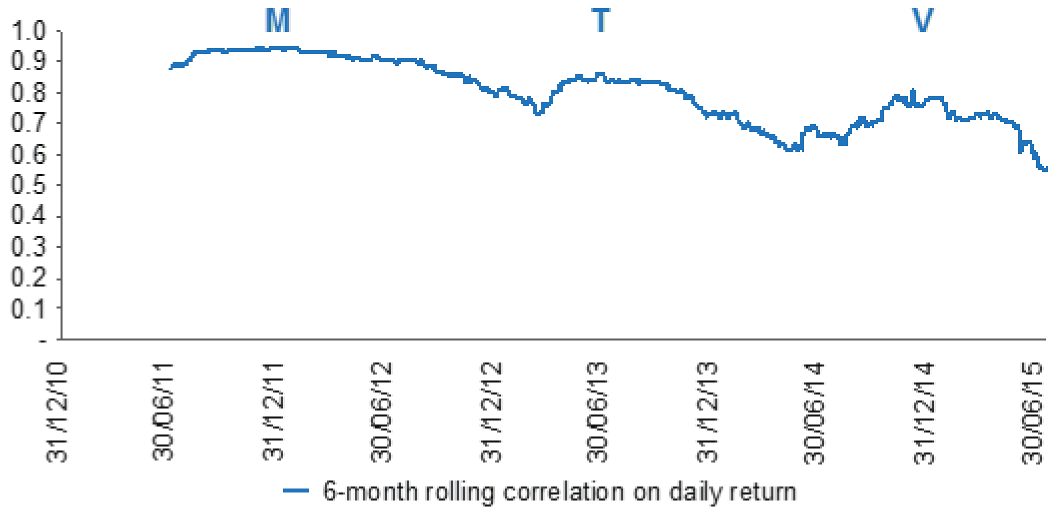
Source: Minerals and energy major development projects – April 2010 listing.

During this period, the stories of the day were about labour scarcity, accommodation shortages, high wage inflation and booming Perth property prices.

Fundamentally, the capital goods companies were experiencing a record balance-of-power shift in their favour. This led to significant upgrades, and earnings multiples rising. Capital goods in 2011 exhibited all the classic signals of a cyclical sector entering a momentum phase.

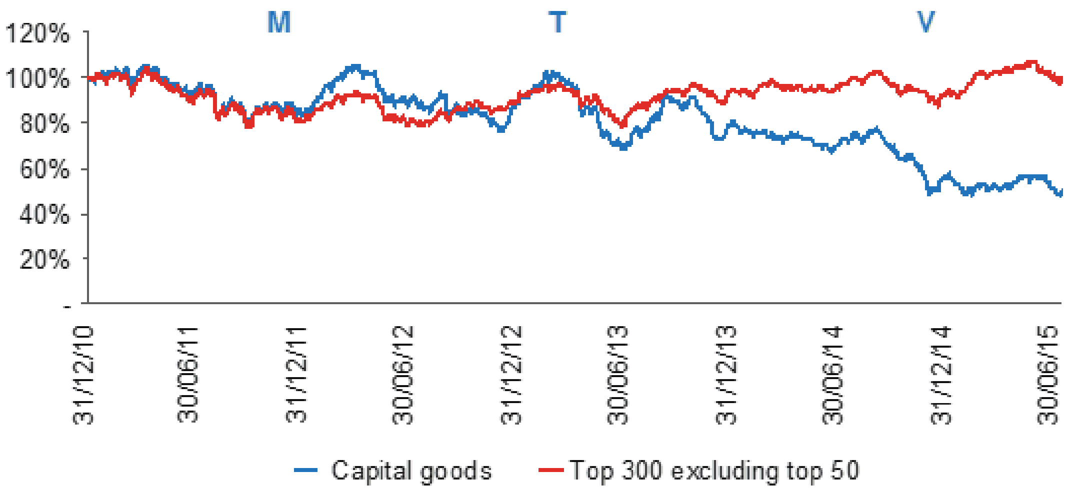
As Figure 25 shows, correlations were at high levels from 2011 and during the first half of 2012. From this point, the high correlated momentum sector moves into transition as earnings declines emerge until late 2013. During 2014, as Figure 26 shows, sector correlations rise, the sector moves into value and sector price performance slides more abruptly. Correlation falls as the momentum sector slides into transition phase, but then rises once the sector reaches the value phase.

Figure 25: Intra-sector stock correlation - Capital goods



Source: CSFB HOLT

Figure 26: Sector price performance - Capital goods

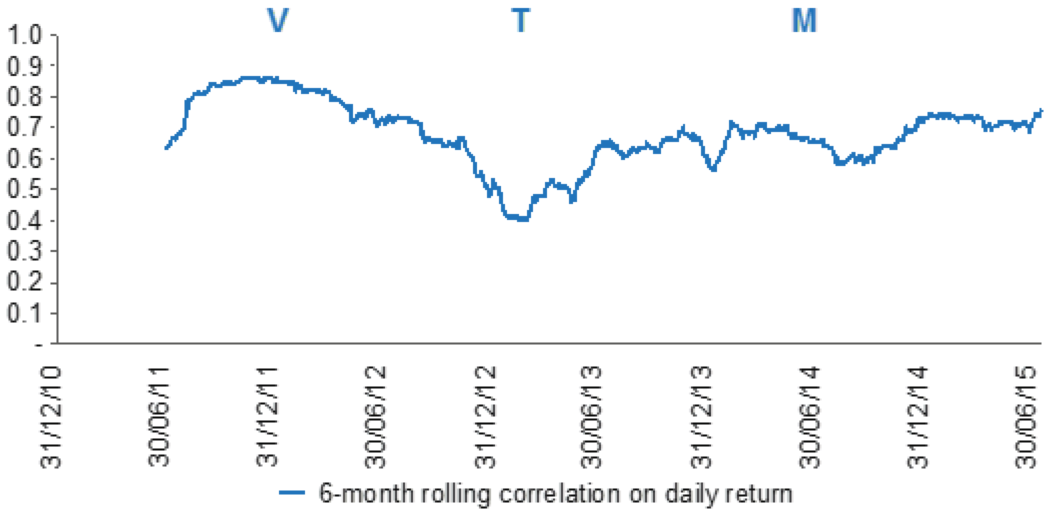


Source: CSFB HOLT

Diversified financials

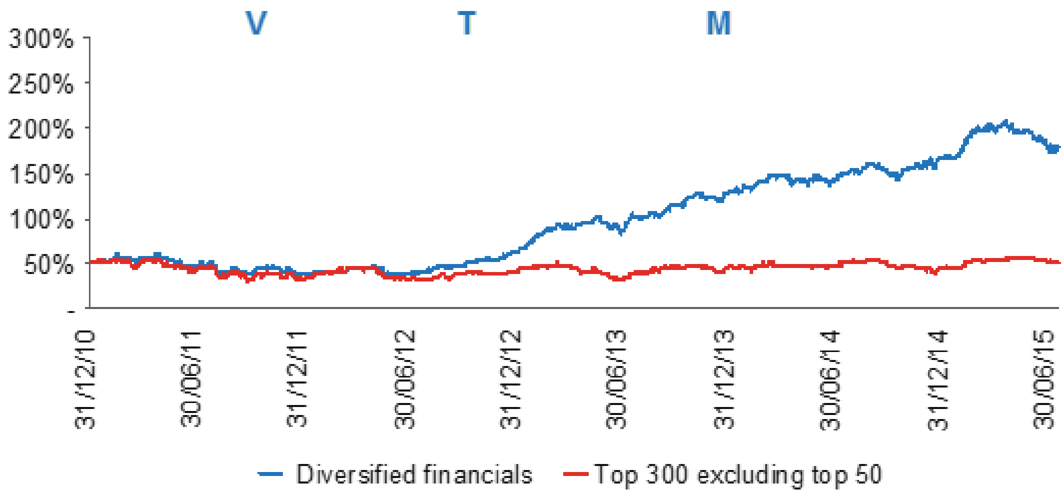
The diversified financial sector is a beneficiary of a rising equity market, rising liquidity and a high tolerance towards risk. In 2011, markets fell, correlations were high and signals for a value phase were evident. As markets recovered and rallied in 2012, the sector moved into transition and correlations fell. From 2013, the market rally was sustained and correlation rose back to highs of 70% as momentum ensues with earnings and multiple upgrades.

Figure 27: Intra-sector stock correlation – Diversified financials



Source: CSFB HOLT

Figure 28: Sector price performance – Diversified financials

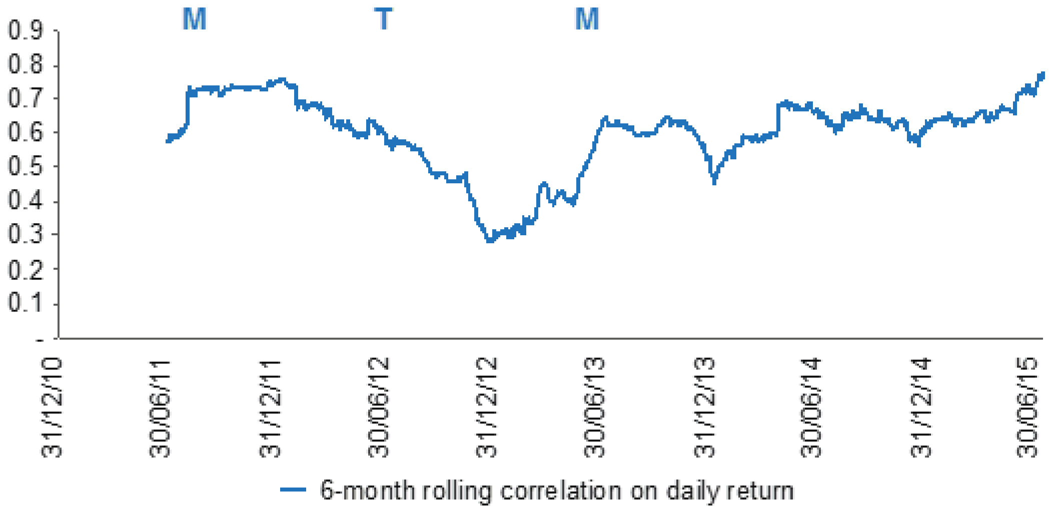


Source: CSFB HOLT

Real estate – From transition to momentum – correlation rises

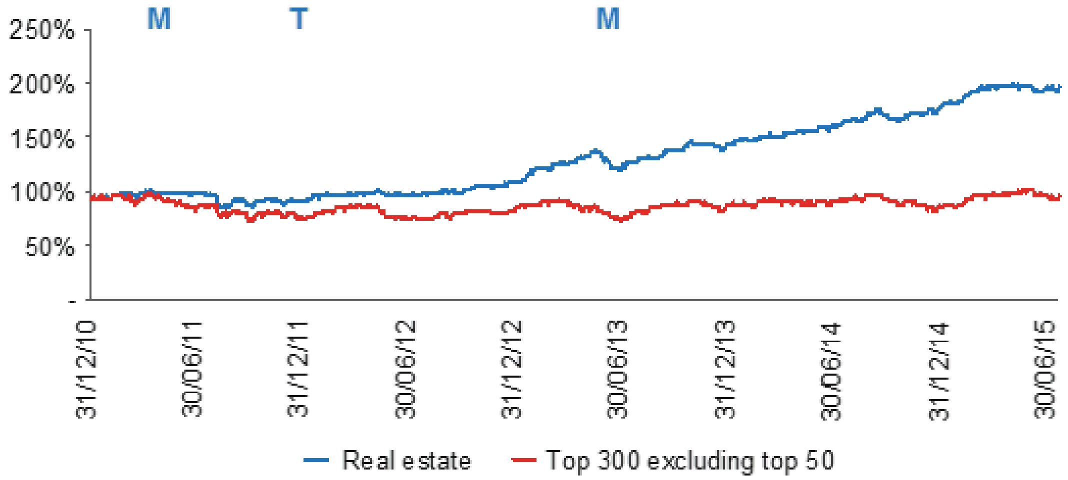
Real estate could be considered a proxy for the defensive yield asset class. As the markets fell in 2011, the entire sector performed well, acting as a defensive and correlations were high, a likely momentum phase. As global quantitative easing continued and investor concerns eased during 2012, the sector moved into transition and correlations fell. From 2013, the search for yield continued and yield compression accelerated as the sector performed and correlations returned to high levels near 70%, as the momentum phase returned.

Figure 29: Intra-sector stock correlation – Real estate



Source: CSFB HOLT

Figure 30: Sector price performance – Real estate



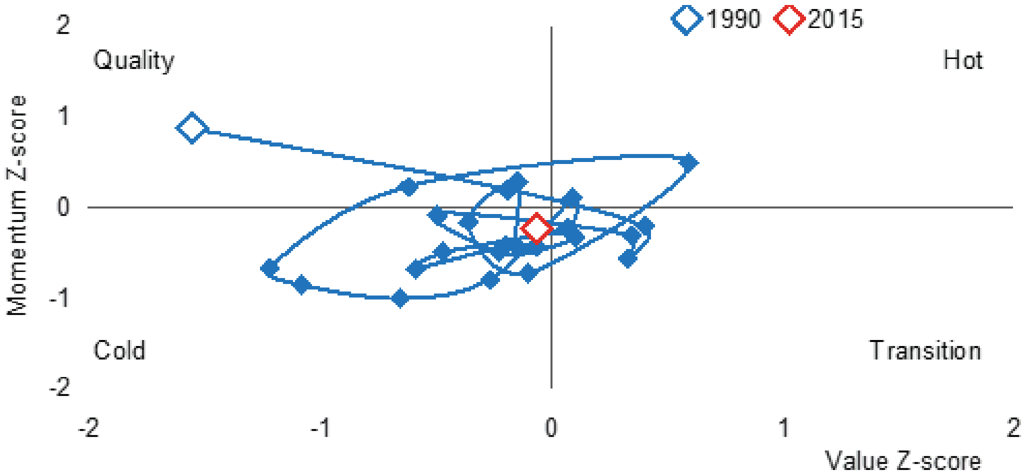
Source: CSFB HOLT

The QMTV process can also be applied to asset classes - 25-year journeys of four major asset classes

QMTV patterns can be analysed many ways. One of the most important is the typical position and path that stocks, sectors and asset classes usually travel. Over the past 25 years, the patterns have shown themselves as follows.

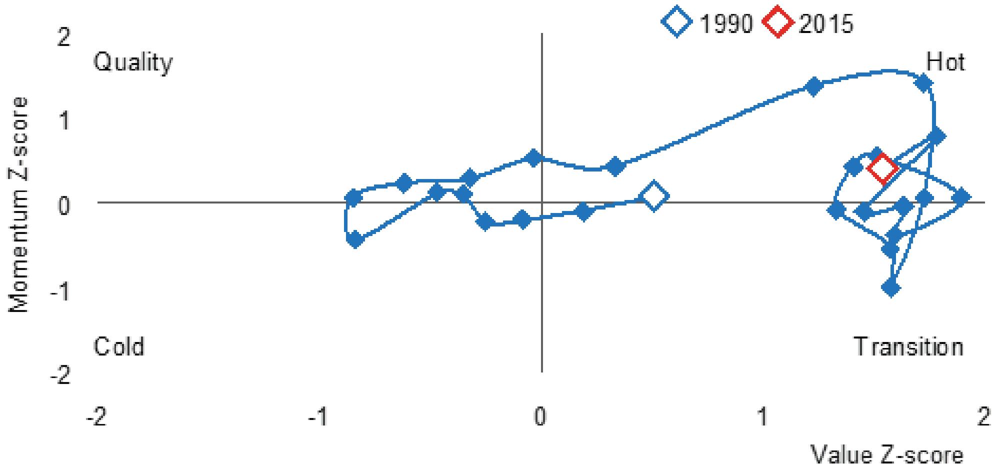
Cash and commodities behave like a lower-quality cyclical industrial, while housing behaves like a higher-quality consumer or healthcare company. Bonds seem to be far more binary, either quality or value.

Figure 31: Cash



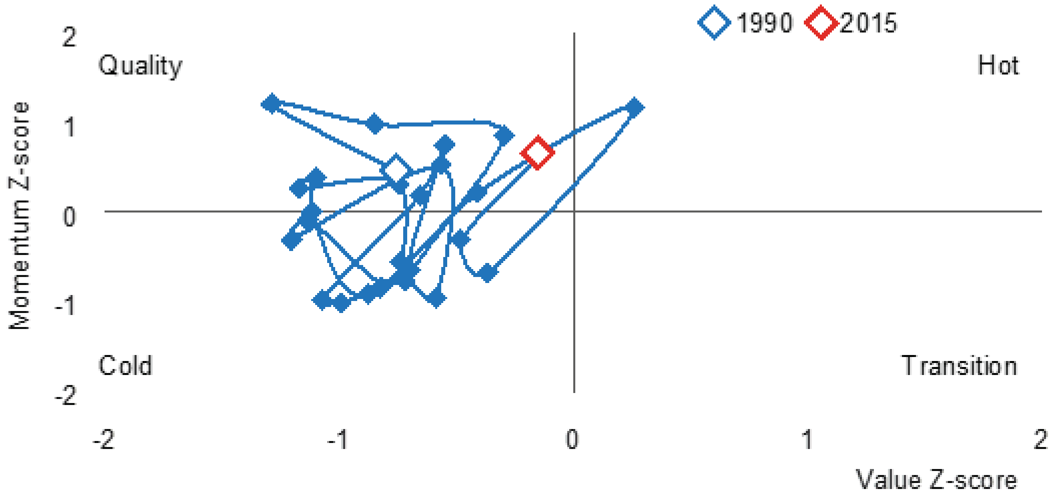
Sources: Bloomberg, DataStream, GFD, RBA, Stapledon, Credit Suisse

Figure 32: Housing



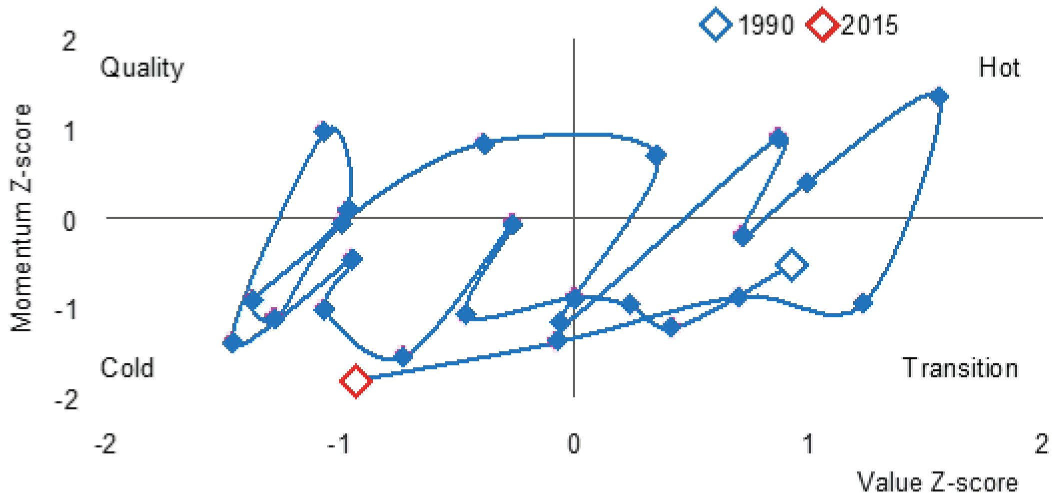
Sources: Bloomberg, DataStream, GFD, RBA, Stapledon, Credit Suisse

Figure 33: Bonds



Sources: Bloomberg, DataStream, GFD, RBA, Stapledon, Credit Suisse

Figure 34: Commodities



Sources: Bloomberg, DataStream, GFD, RBA, Stapledon, Credit Suisse

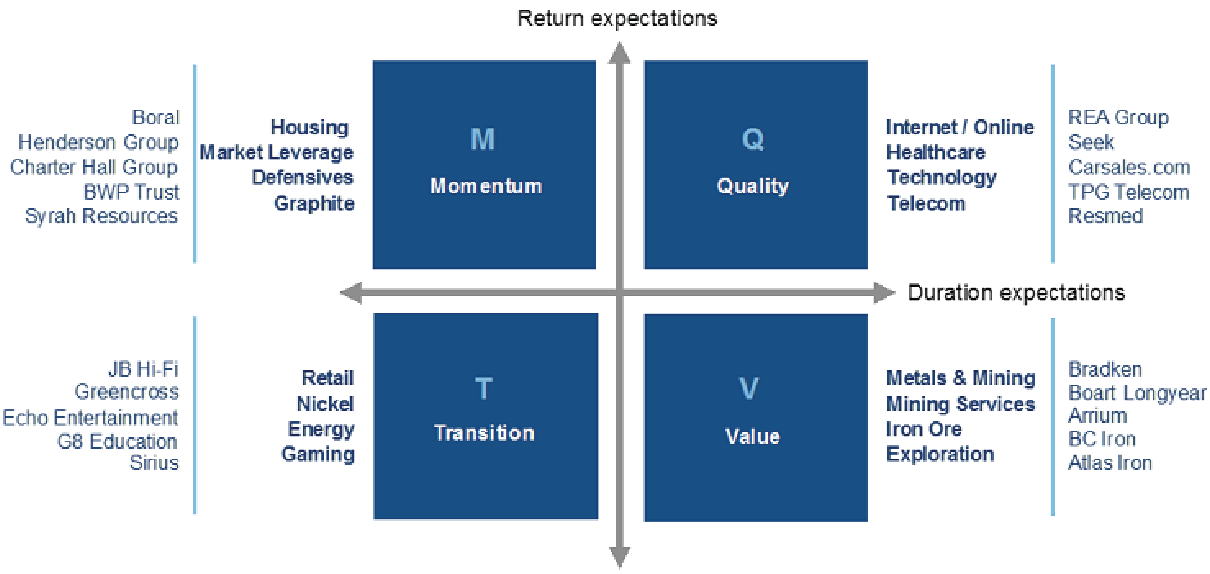
PART 6: CONCLUSION

The QMTV process aims to ensure high risk awareness of risk attributes of stocks and sectors at all times. High awareness of risk and risk correlation can be gained through the lens of the QMTV classification process itself and allows portfolios to avoid unwanted, unintended and unconscious risk.

Investors face five key dilemmas in assessing where companies, sectors and assets are in the cycle of earnings, valuation, momentum, reinvestment and sentiment.

The current view of the sectors and where stocks lie within the QMTV framework is below. When viewed at this high level, it becomes apparent how practical this approach is in the portfolio construction process.

Figure 35:



Source: Fidelity Worldwide Investment

ENDNOTES

1. www.investopedia.com/terms/m/momentum

2. www.investopedia.com/terms/m/marketsentiment

3. Irrational exuberance, Robert J. Shiller.

4. This quote is an adaptation from Saint Francis of Assisi.

5. Animal spirits is the term John Maynard Keynes used in his 1936 book 'The General Theory of Employment, Interest and Money' to describe the instincts, proclivities and emotions that ostensibly influence and guide human behaviour, and which can be measured in terms of, for example, consumer confidence.

6. Articulate pessimist is a term Barrie Dunstan used in his 2008 book 'Investment Legends' to describe Jeremy Grantham.

IMPORTANT INFORMATION