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Due Diligence Forum Research Paper

STRATEGIC TILTING – GUIDELINES FOR USE IN PORTFOLIOS

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The idea behind strategic tilting is very simple. On occasion markets can move to extremes of pessimism or optimism. Strategic tilting is a strategy that aims to take advantage of extreme market movements. This research paper shows how strategic tilting can be used it to temporarily adjust or tilt a portfolio's risk exposure from its long-term default strategic asset allocation. It explains that strategic tilting should be pursued selectively, as good opportunities will emerge only occasionally and may carry significant risk of client dissatisfaction, and argues that strategic tilting recommendations should only be made when there is high confidence, and where both adviser and client can cope with bets that may not pay off immediately.

What if had sold equities towards the end of 1999, bought them back in early-2003, and then exited again in mid-late 2007? Surely listed property was an obvious sell in 2006-2007? And the Australian dollar was clearly overdone at 50 cents in early-2001 and again near-parity in 2008. While tantalising in hindsight, should investors look to identify and act on such situations going forward?

Strategic tilting is about trying to take advantage of markets that have moved to an extreme. The underlying philosophy is that the investor should only vary from the strategic asset allocation (SAA) that best meets their long-term objectives if two conditions are met:

1. There is *high confidence* that markets are at an unsustainable extreme that is soon likely to be reversed; and,

2. Investors can cope with taking positions that are contrarian, may involve an uncomfortable wait for a pay-off, and can become a significant drag on portfolio returns and the investor's emotions if they are wrong.

These two conditions can be much harder to meet than hindsight would lead one to believe.

This paper focuses on whether and how to incorporate strategic tilting into portfolios. It is based on a Russell Research report ("*Strategic Tilting: What, If, When, and How?*", Andrew Pease and Geoff Warren, February 2009), that contains further technical detail.

The over-riding message is that strategic tilting should be pursued selectively and carefully. It is likely to be appropriate only for certain investors in certain markets at certain times. In other words – choose your bets wisely.

THE CONCEPT OF STRATEGIC TILTING

The underlying philosophy behind strategic tilting is that certain asset classes or sub-classes occasionally move to unsustainable extremes that astute investors can exploit. Some of the key concepts are:

- **SAA as the default** – In the absence of a strong case for adopting a strategic tilt, investors should stick to the SAA that best meets their risk preferences and long-term objectives.

- **Nothing without high confidence** – Strategic tilts are typically highly visible positions that can have a significant impact on performance, be it positive or negative. They are best pursued only when confidence is high that the upside is significant, and the downside risk is limited.

- **Occasional positions** – High confidence strategic tilting opportunities are likely to emerge only occasionally, perhaps in a couple of asset classes across an investment cycle. At times, no opportunities may be apparent.

- **Seeks mean reversion** – Saying that strategic tilting seeks to exploit unsustainable extremes implies looking for mean reversion, rather than attempting to ride market trends or themes. (Pursuing trends or themes is another approach, but requires different methods to those discussed here.)

- **Often contrarian** – Mean-reverting strategies are often contrarian, and will tend to go against conventional wisdom. This can be uncomfortable.

- **Open-ended investment horizon** – Pay-back timing is open-ended, in the sense that one never knows when a market extreme will correct itself. It could happen next month, or take several years. Anticipate some trying waits.

- **Expect limited guidance from history** – Extremes in any particular market can be rare events for which there may be no historical precedent. Opportunities are more likely to be identified using a sensible decision framework supported by logic and informed analysis, rather than back-testing.

- **Not TAA or market timing** – Strategic tilting can be distinguished from tactical asset allocation (TAA) or market timing in its time horizon, trading frequency and onus to take action. TAA or market timing generally involves buying and selling markets on a continuous basis, with a bias towards doing something. This can result in low confidence positions being adopted. Strategic tilting involves taking occasional positions that may be held for longer periods, but (hopefully) have higher likelihood of success. Removing the persistent onus to act can be liberating, as it paves the way for a philosophy of only taking good bets.

What strategic tilting offers that TAA does not

Most academic studies have found that TAA does not add value consistently. Another criticism is that TAA involves a small number of portfolio bets which can add a large amount of volatility due to its narrow breadth. In other words, TAA challenges the fundamental law of active management (*Grinold and Kahn, 2003), which can be interpreted as implying that investment skill should be applied across a broad selection of independent investment bets. TAA concentrates the use of investment skill towards a small number of interrelated investment bets (the decision to underweight equities is hardly independent of the decision to overweight bonds, for example). This means that a tactical asset allocator has to demonstrate a higher level of skill than an equity stock picker to generate an equivalent information ratio (see Appendix 1). As a result, many investment advisers have long advocated that investors hold static SAA positions, and resist the temptation to make market timing decisions.

Another issue with TAA is that the constant pressure to do something can result in some low confidence positions being adopted. The pressure to take positions stems from the design of TAA as a continuous process, with its performance benchmarked over shorter timeframes such as three, six or twelve months. This can induce a desire to justify the process by putting it into action. It also creates a temptation to react to short-term performance histories.

Strategic tilting does not suffer from this constant pressure to act. The idea that doing nothing is acceptable can encourage action only when conviction is high. This may involve only a few positions over an investment cycle, or perhaps even none. While this may narrow the breadth of the strategy, the offset is that positions taken will tend to have a higher probability of success. Considerations for judging when strategic tilting might be attempted with sufficient confidence are addressed later in this paper.

Pre-requisites for strategic tilting

Strategic tilting will not be appropriate for every asset class, or every investor. There are two key pre-requisites for success:

(i) *Asset class level* – a mean reverting process can be identified with high confidence; and,

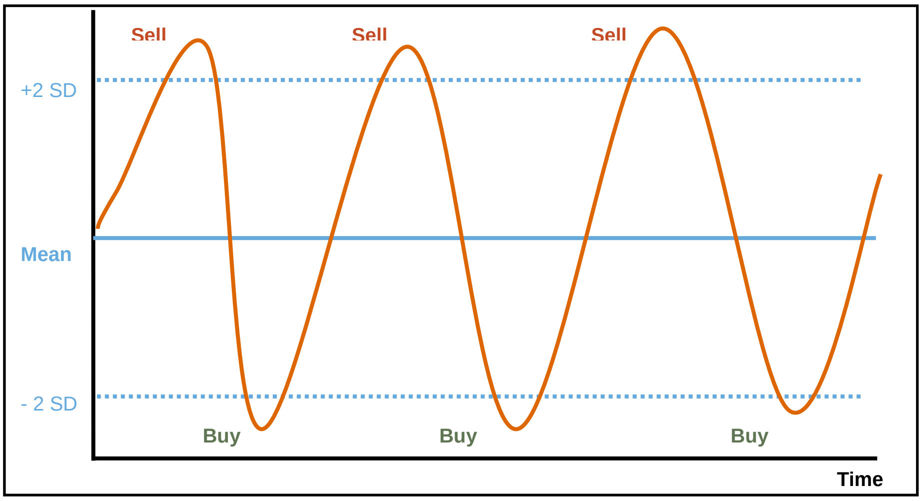
(ii) *Investor level* – a supportive organisational structure exists.

These requirements can be difficult to satisfy. Mean reverting processes are not as widely available as believed, and historical data will overstate their reliability. More importantly, the required level of confidence to justify a position may be hard to attain. A supportive organisational structure is critical given that strategic tilting can involve meaningful positions that are held for extended periods, with considerable risk of adverse market movements in the interim. Not all investors are capable of committing to positions of this type.

Identifying high confidence, mean reverting processes

The first pre-requisite is to establish that a candidate asset (or asset pair) behaves in a manner suitable for strategic tilting. Ultimately, this must be addressed on a case-by-case basis. The general features that are required are discussed here and boil down to identifying assets that follow a mean reverting process, which in turn can be identified with high confidence. As a point of departure, many people implicitly assume exploiting mean reversion works something along the lines of Figure 1.

Figure 1: How mean reversion is supposed to work



Source: Russell

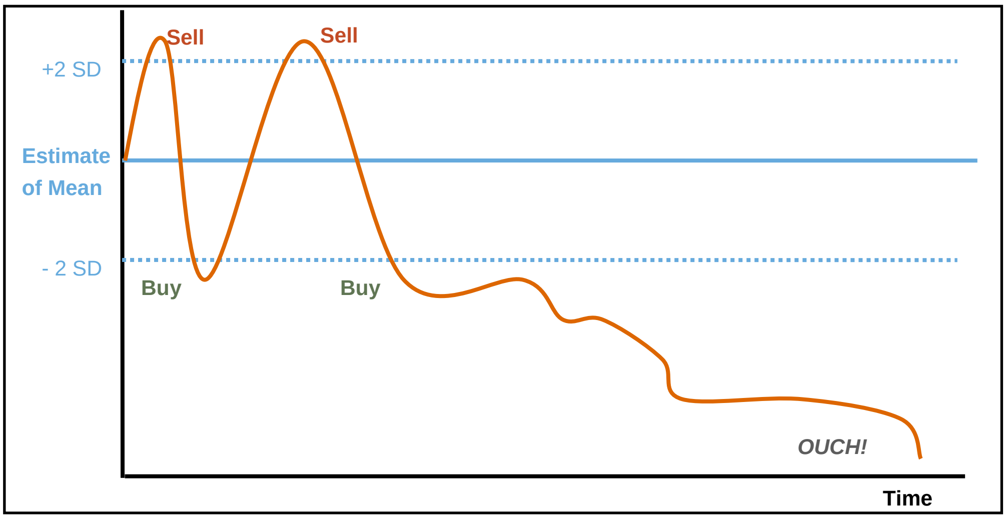
Unfortunately, things do not always work so neatly. For a mean reverting process to produce high confidence signals, two features are required:

(a) a reliable estimate of the mean; and,

(b) a reliable estimate of variance around that mean.

A reliable estimate of the mean delivers a stable target – it is possible to get badly caught out if the target shifts. Figure 2 illustrates where a seemingly stable mean shifts downwards due to a structural change, for example. An investor who went long in anticipation of mean reversion would be left holding an asset that continues to trend downwards.

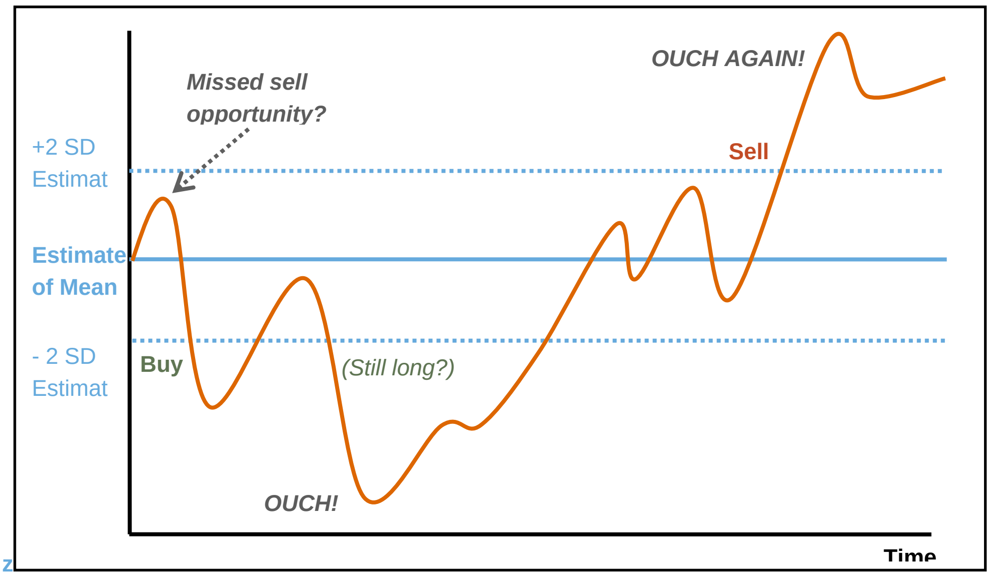
Figure 2: Getting the mean wrong



Source: Russell

Over-estimating the variance can have an opportunity cost associated with missed trades. Worse still, under-estimating it can lead to trades being put on too early and at the wrong price. Figure 3 illustrates. At the beginning of the period, there is the hint of a missed sell opportunity. Subsequently, a buy position is entered well above the ultimate market low. The sell position is well under-water at the end of the period. The root cause can be mis-estimation of variance.

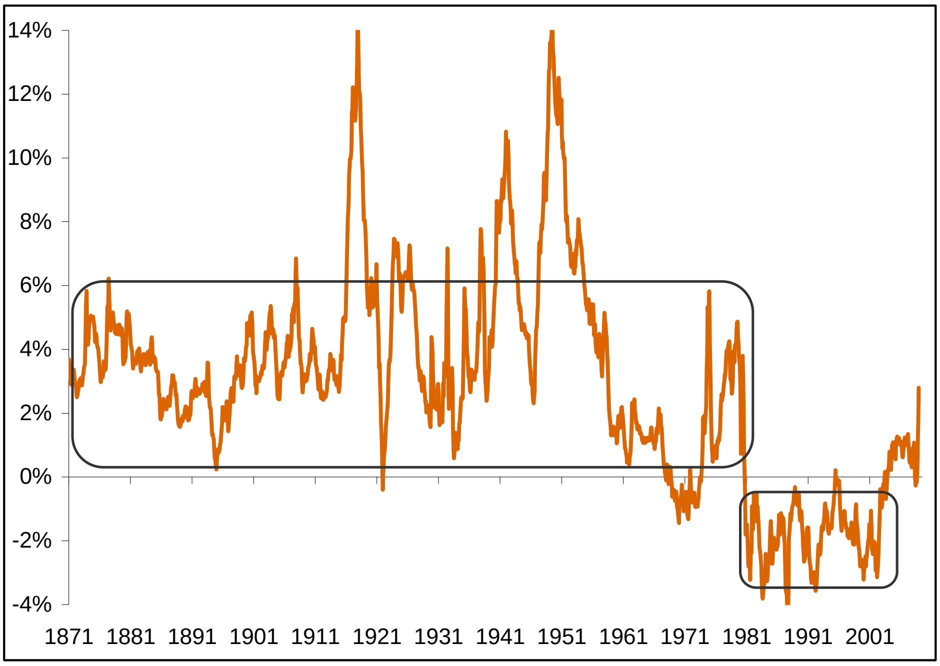
Figure 3: Getting the variance wrong



Source: Russell

A real-life example helps illuminate. Figure 4 plots the US earnings yield-bond yield gap since 1871. The yield gap is popular for evaluating the relative attractiveness of equities versus bonds, and is often called the 'Fed model'. Most users of this relationship employ the period since 1980 as their reference point (being the period outlined on the right). Arguments are sometimes mounted that equities are cheap versus bonds on this basis, noting that the yield gap observed in recent times compares favourably with this period.

Figure 4: US Earnings – Bond Yield Gap



Source: http://www.econ.yale.edu/~shiller/data; St Louis Fed, S&P, Russell

But how much confidence can be placed in the yield gap as an indicator? Closer examination suggests not much. Figure 4 reveals that the mean and variance of the yield gap have been unstable over time. Basing strategic tilting decisions on the entire 100+ year history would have signaled low equity weightings in the early 1980s, potentially missing the 25-year market rise between 1982 and 2007. Recalibrating towards the post-1980 range would have generated success at times. But it would also have signaled being long during the bear market of 2007-8, when the S&P500 fell by over 40%. From a theoretical perspective, the logic of comparing a partly real variable (earnings yield) with a wholly nominal variable (bond yield) is dubious, as argued by Asness (2003). In sum, the yield gap is an example of an indicator that could provide a foundation more like shifting sand than rock. Indeed, it can be extremely difficult to find individual indicators that are reliably stable for most markets.

IDENTIFYING STRATEGIC TILTING OPPORTUNITIES

Strategic tilting should be a two-stage process.

- **Stage 1:** identify when an asset class has reached an unsustainable extreme.
- **Stage 2:** identify when the conditions for mean reversion are in place.

Stage 1 will generally focus on extremes in valuation measures. These could include simple price to book or price to earnings ratios for equities, yield curve spreads for government bonds, credit spreads for corporate bonds, or deviations from purchasing power parity for exchange rates. If possible, valuation indicators should be combined to produce a composite indicator with the goal of achieving more robust signals. An extreme might be a two-standard-deviation movement from the long-run mean. Another option is to use valuation techniques to back out an implied expected return, then judge whether the result seems extreme given the fair required return for asset risk, or relative to the long-run average. The appropriate valuation measures will depend on the asset class in question.

Stage 1 can be thought of as the necessary but not sufficient condition to implement an asset class tilt.

Stage 2 is more subjective as it involves identifying when the conditions for mean reversion are in place (the sufficient conditions). This is the most critical and difficult stage of the strategic tilting process. It requires a clear understanding of the types of market conditions that are likely to trigger mean reversion for an asset class. The indicators used can be qualitative or quantitative. However, there must be clear understanding of why the indicator has been chosen, how it could signal potential mean reversion and the circumstances under which it could provide a false signal.

Figure 5 below offers a checklist of five broad areas to consider in judging whether a market might be at an extreme that could soon reverse. A high confidence strategic tilting opportunity would involve a market being extended as far as can be reasonably expected according to a number of these areas, with no contrary signals.

1. **Valuations** – Valuation measures play a central role in identifying market extremes, but are notoriously unreliable as timing indicators. It is best to use a broad range of valuation measures. An asset is more likely to be genuinely undervalued (overvalued) if it appears cheap (expensive) from many perspectives. The quality and sustainability of the income streams on which the asset is being priced should also be considered. This can include the effects of inflation, one-off items, and the possibility of unsustainable cyclical highs or lows. Always be wary about declaring an asset cheap or expensive based on just one measure.

2. **Risk pricing** – Movements between extremes can be driven by fluctuations in risk perceptions. This is the so-called cycle of “greed and fear”. Risky assets like equities (especially emerging markets and small caps) are more likely to be near a low point when investor risk aversion and uncertainty are high, and risk premiums appear wide. Conversely, market highs typically occur amid supreme confidence in the future. The opposite tends to hold for relatively safe assets such

as cash and government bonds. The position in the risk cycle can be gauged by examining risk spreads (e.g. credit yield spreads, broker estimates of the equity risk premium); various risk aversion indicators such as the VIX; and the degree of uncertainty amongst market forecasters and commentators.

3. **Macro environment** – Extremes in the macro environment and markets can go hand-in-hand. Aspects to watch include the broad economic cycle, the income cycle for the asset class in question, inflation trends, and policy settings. Monetary policy is important to monitor, as a shift often lays the foundations for the next economic and market cycle. The initial aim is to gauge if asset prices reflect a macro environment that is ultimately likely to pass. The secondary aim is to evaluate when the conditions are in place for a turn in the cycle (bearing in mind that markets can lead the economy, so waiting for clear evidence may be too late). As an example, major equity market lows can be associated with deep recessions where profits are depressed due to poor demand and lack of pricing power amidst excess capacity, while policy makers are moving to add stimulus. This can create the potential for future (non-inflationary) growth as the slack in the economy is taken up. The challenge is to identify *if* the economic and profit weakness has become unsustainable, and *when* conditions are in place to allow the equity market to start anticipating the recovery.

4. **Supply/demand cycle** – Markets can also be pushed to extremes by mismatches in supply versus demand. Excess demand can drive prices above equilibrium, which sets up the selling opportunity. The correction becomes more likely once excess demand reaches its peak. The situation is exacerbated if supply responds at a lag. Signals of a fully-extended market include high commitment within portfolios, very positive sentiment, broad public involvement, wide use of leverage to fund purchases, and signs that supply is starting to respond. Similarly, market lows are marked by wide pessimism and disinterest in the asset, with prices probably being beaten down by forced or panicky sellers.

5. **Technicals** – For those who are comfortable with their use, technical indicators can be helpful in confirming and timing a strategic tilting opportunity. Look for evidence of extreme moves that are showing signs of exhaustion, if not reversal. Useful hints might also be gleaned by looking for a shift in the response to news flow (e.g. a bull market that stops reacting to good news).

Figure 5: Checklist for identifying strategic tilting opportunities

Area	Focus Question	What to look for
1. Valuations	Is the asset clearly cheap or expensive, any way you look at it?	• Absolute value (e.g. PE, P/NA, yield) • Relative value versus comparatives • Return spreads versus cash or bonds • Quality and sustainability of the underlying income stream
2. Risk pricing	Is an extreme evident in relative confidence in the future, willingness to accept risk, and the level of risk premiums?	• Risk spreads • Risk aversion indicators, e.g. VIX • Degree of confidence or uncertainty amongst forecasters / commentators
3. Macro environment	Are the underlying fundamentals that drive the asset class at unsustainable levels, and positioned to support a turn in fortunes?	• *Economy*: Overheating and losing strength *versus* ample spare capacity with leading indicators stabilising • *Income*: Evidence of 'over-earning' and capital entering *versus* 'under-earning' and capital exiting • *Inflation*: Rising *versus* falling • *Policy*: Monetary policy expansionary *versus* contractionary; government pursuing a particular outcome
4. Supply/demand cycle	Has the asset been pushed to an extreme by a marked mismatch of supply and demand or a wave of sentiment-driven shifts in ownership, which is showing signs of exhaustion?	• Supply/demand mismatches that are nearing point of maximum pressure • Sentiment extremes (bulls vs bears) • Commitment levels: asset is too widely-owned *or* totally shunned • Too much leverage *or* cash in system • Signs of supply response
5. Market technicals (optional)	Does market action confirm your suspicions?	• Long-term overbought / oversold • Signs of trend change • Trading volumes • Reaction to news flow

Source: Russell Investments

CAN YOU COPE WITH THE RISKS?

Strategic tilting is not for everybody. Positions tend to be concentrated, highly visible, and can have a large impact on performance. They can become emotive and there is constant risk of falling victim to behavioral biases. The difficulties emerge when a strategic tilt starts to go wrong, even if just temporarily[1]. Doubts may emerge, and resolve tested (potentially at the worst possible times). Not only should the investor be capable of coping with such challenges, but they should also be comfortable that their client or employer is prepared for the possible downsides. Investors should have the following traits:

- **Capacity for a longer-term view** – There should be comfort with adopting positions which require a long-term focus, and where the timing and magnitude of the pay-off is open-ended.

- **Independent-minded, but not dogmatic** – Because strategic tilting tends to be contrarian in nature, it requires the fortitude to go against the crowd and conventional wisdom. At the same time, it requires a willingness to remain open-minded, and admit error if the evidence changes.

- **Accepting of the risks** – There should be an appreciation of the consequences of a position being unsuccessful. Can those responsible for the portfolio cope with initial losses, and perhaps even ultimately closing out at a meaningful loss? Will the relationship between adviser and client, investment team and trustee board survive such an outcome?

Without these traits, strategic tilting may prove challenging, placing the success of the process at risk if ultimately worthwhile tilts are closed out at a loss because of early underperformace. If so, the best course may be to stay at the SAA that best meets the long-term objectives, and focus on adding value in other ways.

IMPLEMENTATION ISSUES

Entering and exiting a position

Choosing effective entry and exit points is not easy in real time. Some simple rules can help protect against behavioural biases, and encourage an objective dialogue with the client in the event that the market moves in the wrong direction. As a general rule, the decision to exit a position will be far more difficult than the entry decision. The evidence for entering a position often seems clear at the time, and the decision will be taken amidst hope and high anticipation. If the position is subsequently successful, a tricky choice will emerge between exiting at a profit and conceding the possibility of further gains, versus retaining the position and running the risk of being whipsawed. If the position starts going wrong, the decision-making becomes much harder. Doubt may start to creep in, as will the question "am I wrong altogether, or just too early?"

[1] As John Maynard Keynes is famously reported to have said, "The market can stay irrational for longer than you can stay solvent."

Two trading guidelines should help encourage objective decision-making in the face of such concerns.

Ease into and out of any position

This offers some psychological advantages as the decision is no longer all or nothing. A gradualist approach lifts the burden of trying to achieve the nearly impossible task of attempting to pick turning points. The decision of what to do next with a partially completed trade is symmetrical, i.e. do more, do nothing, or unwind what has been done. This may make it easier to weigh up the choices dispassionately. In contrast, once fully invested, the choice under (say) a losing trade is between admitting error versus digging in. This is a tough choice that can tend to become emotive.

Establish exit criteria beforehand

Establishing the exit criteria before putting on a position helps maintain discipline and sets a focus for discussions with the client. Indicators to monitor should be identified. The developments that would cause the trade to be ended should be nominated up front. Thought should also be given to how far to ride the market as it retreats from an extreme. Room should be allowed for the market to at least return to normality. (There is no money to be made in closing a position immediately once it moves beneath the threshold of extremity.) More aggressive investors might attempt to ride the market further still, although this implies a willingness to play momentum at the risk of being whipsawed.

Exit criteria should also contemplate the possibility that some positions may be fatally flawed. One response to a losing position is to continually re-evaluate the rationale. If the reasons remain valid, the position should be retained. If they do not, then it should be exited. It is important to remain analytical, and not be driven by hope of a turnaround. Guidance might come from asking the question: "if I had not taken the position already, would I still do the trade today?" Failure to answer yes to this question may signal that the position should be exited.

Strategic tilting within a core-satellite structure

Long, stand-alone strategic tilts are easily incorporated within a core-satellite structure as a separate investment. However, allowing only long positions is too restrictive. Some strategic tilt opportunities may involve either reducing exposure to an asset class (that is, going short versus SAA), or taking a long-short position (for example, long equities, short cash). Such positions can be accommodated through a tilting allocation. This tilting component is a slice of the portfolio that is available for strategic tilts, but otherwise defaults to core weightings. Effectively, it is a part of the core that can be adjusted. This approach makes clear the role being played by strategic tilts in the portfolio.

Figure 3 below illustrates the workings of such a portfolio. The No Tilts portfolio in panel A has a total weighting of 55% equities, 30% fixed income and 15% other, supported by a core with 60% equities, 35% fixed income and 5% other and a number of satellite holdings. Panel B instigates a strategic tilt towards equities via moving the tilting allocation to 100% equities. This increases the equity weighting of the total portfolio by 8%. (A larger tilt to equities could be achieved by shifting some of the satellite into equities.) Panel C uses the tilting allocation to go 10% long fixed income and -10%

short equities relative to the baseline SAA. Panel D illustrates a 10% strategic tilt to asset X. Of course, scope for strategic tilting can be dialed up or down by altering the portfolio structure.

Figure 3: Working strategic tilts into a core-satellite structure

	Core Portfolio	Tilting Allocation	Satellite	Total Portfolio	Change vs. 'No Tilts': Total Portfolio
A) No Tilts					
Equities	$48,000	$0	$7,000	**$55,000**	
Fixed Income	$28,000	$0	$2,000	**$30,000**	
Other	$4,000	$0	$11,000	**$15,000**	
Total	$80,000	$0	$20,000	**$100,000**	
% Equities	60%	0%		**55%**	
% Fixed Income	35%	0%		**30%**	
% Other	5%	0%		**15%**	
B) Tilt to Equities					
Equities	$36,000	$20,000	$7,000	**$63,000**	$8,000
Fixed Income	$21,000	$0	$2,000	**$23,000**	-$7,000
Other	$3,000	$0	$11,000	**$14,000**	-$1,000
Total	$60,000	$20,000	$20,000	**$100,000**	
% Equities	60%	100%		**63%**	8%
% Fixed Income	35%	0%		**23%**	-7%
% Other	5%	0%		**14%**	-1%
C) Tilt to Fixed Income					
Equities	$36,000	$2,000	$7,000	**$45,000**	-$10,000
Fixed Income	$21,000	$17,000	$2,000	**$40,000**	$10,000
Other	$3,000	$1,000	$11,000	**$15,000**	$0
Total	$60,000	$20,000	$20,000	**$100,000**	
% Equities	60%	10%		**45%**	-10%
% Fixed Income	35%	85%		**40%**	10%
% Other	5%	5%		**15%**	0%
D) Tilt to Asset X					
Equities	$36,000	$7,000	$7,000	**$50,000**	-$5,000
Fixed Income	$21,000	$2,000	$2,000	**$35,000**	-$5,000
Asset X		$10,000		**$10,000**	$10,000
Other	$3,000	$1,000	$11,000	**$15,000**	$0
Total	$60,000	$20,000	$20,000	**$100,000**	
% Equities	60%	35%		**50%**	-5%
% Fixed Income	35%	10%		**25%**	-5%
% Asset X		50%		**10%**	10%
% Other	5%	5%		**15%**	0%

Source: Russell Investments

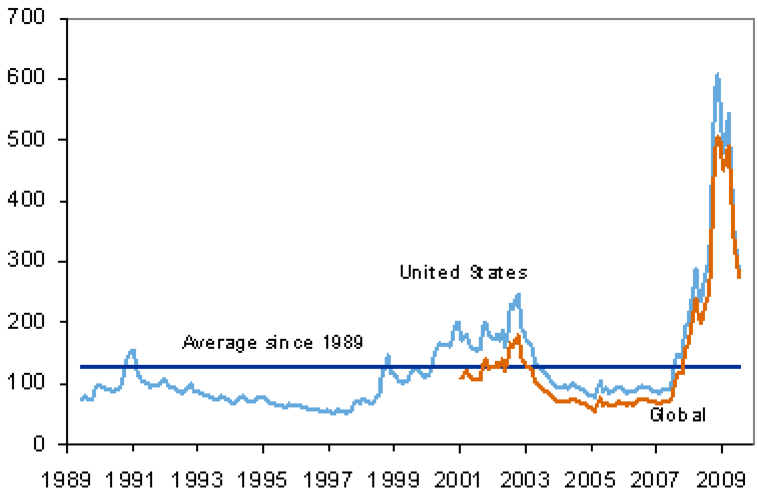
Advisers using strategic tilting recommendations would write up the asset allocation changes in a form documenting the basis for the recommendation and using a checklist approach as a useful tool for demonstrating due process. Checklists can be readily communicated by listing the range of factors and related indicators that have been considered, coupled with an overall summary. The appendix presents an example with respect to US equities, which is well-suited for illustrating the key points given US equities are widely watched and long data series are readily available.

Example: Tilt towards global investment grade credit

The following example is a strategic tilt. The position was initiated as a low level tilt on 4 June, implying that investors should hold investment grade credit at one-third of the permitted range away from their long-term allocation[2]. The position was upgraded to a medium level tilt on 22 July. In the period 4 June to 4 August, the Barclays global credit index outperformed the global government index by 4.8%. The strategic tilting process looks for asset classes that have moved to unsustainable extremes and then tries to identify whether the conditions for a return to normality are in place. Credit markets certainly fit the definition of an extreme. Figure 4 shows the spread between the yield on the Barclays investment grade corporate bond index and the sovereign index. This adjusts for the embedded call option (they can be repaid early) in many corporate bonds. The spread also adjusts for the different duration of the corporate and government bond indices.

Spreads started moving to an extreme after Bear Stearns ran into trouble in March 2008. In August 2008, the spread was over four standard deviations above the average since 1989. After the Lehman collapse, the spread moved to 12 standard deviations above the average (showing the futility of applying a normal distribution to credit markets).

Figure 4: Investment grade corporate Option Adjusted Spread (OAS)



Source: Barclays

[2] For example, with a permitted range of +/-5% around a long-term allocation, a low level tilt would imply being 1.7% away from the strategic allocation. A medium level tilt uses two-thirds of the range and a high level tilt uses the full range.

Many fixed income managers went overweight credit before the Lehman collapse, which is why most have underperformed their benchmarks.

As stated above, strategic tilting follows two stages:

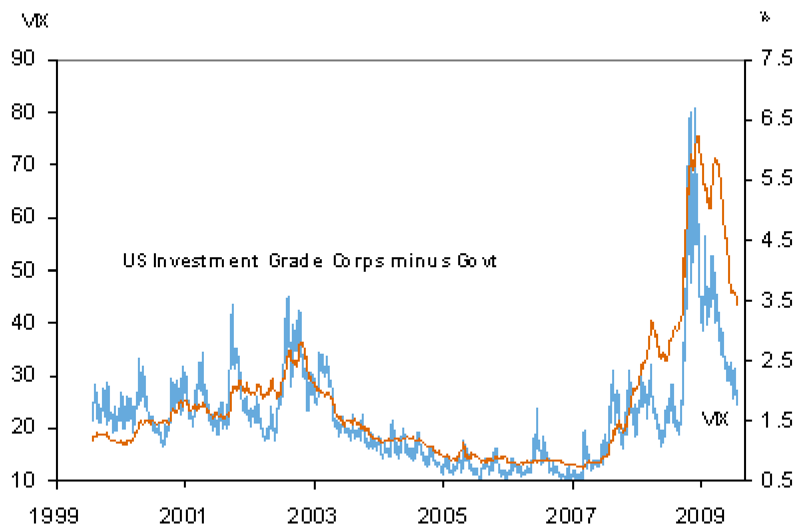
- Stage 1: identifying when an asset class has reached an unsustainable extreme.
- Stage 2: identifying when the conditions for mean reversion are in place.

Stage 1 had been satisfied since at least mid-2008. However, stage 2 indicators signalled caution until early June. These indicators were:

- A decline in the VIX index of S&P500 implied volatility to within 1.5 standard deviations of its long-term average (implying the VIX needs to be below 33) shown in Figure 5 below;
- Evidence of a broad based recovery in global business sentiment; and,
- Signs of returning investor confidence to the asset class.

There is a strong correlation between equity market volatility and credit spreads (note, the spread in the chart is not option adjusted). Holders of corporate debt have a payoff structure that provides limited upside (the promised interest payments are made and principal is returned) and unlimited downside (the company defaults). Rising volatility increases the downside risks for corporate bond investors (volatility means defaults are more likely) while doing nothing to improve upside return potential. The VIX reached an all time high of 81 in mid-November 2008. It fell below the threshold target of 33 in late May 2009. By late July, it had fallen to around 25, still above the long-term average of 20.

Figure 5: Investment grade spread & VIX



Source: Barclays, Datastream

Measures of business sentiment help gauge the likelihood of rising defaults and are correlated with corporate profit outcomes. By late May, there was evidence that many indicators of global business sentiment had lifted from their lows. For example, the ISM survey in the US had improved for five consecutive months and the new orders component of the index had risen past 50, into positive territory. The IFO survey in Europe was also showing signs of improvement.

The final factor for a credit tilt fell was the emergence in late May of a positive supply/demand balance into the sector. Discussions with fixed income managers pointed to significant investor interest in increasing exposure to credit. The forced selling of credit positions by hedge funds seemed to have been exhausted, while many firms had managed to ease balance sheet pressures through successful equity raisings.

In early June, the criteria for a low-level tilt towards global investment grade credit had been met. Business confidence indictors, although improving, were mostly still in pessimistic territory. By late July, the catalysts were in place to upgrade to a medium level tilt. US CEO confidence had recovered to optimistic territory and the VIX was continuing to trend lower.

A maximum tilt would be considered if credit spreads widened further, while at the same time business sentiment indicators continued to improve and the VIX remained within 1.5 standard deviations of its long-term average (that is, below 33).

The target for ending the tilt is when the global corporate spread reaches around 150bps – as of early August 2009, the spread was around 250bps. The spread has averaged 125bps since 1989. The extra 25bps for over the normal spread target makes allowance for the likelihood that risk premiums will be permanently higher because of the crisis. The tilt would be ended earlier if business confidence and volatility reversed to an extent that materially increased the probability of widespread defaults.

CONCLUSION

This research paper offers guidance on whether and how strategic tilts can be incorporated in portfolios. Two things should be in place before strategic tilts are recommended to individual investors. Firstly, there should be high confidence that prices are at unsustainable levels that are likely to be redressed relatively soon. Secondly, investors should be able to cope with contrarian positions offering pay-offs that are uncertain in both magnitude and timing, which have potential for significant impact on portfolio performance. It is helpful to approach strategic tilting as an activity that is only entered into when a compelling opportunity emerges. If taking occasional big bets, it is best to be confident that the odds are in your favour.

APPENDIX - US EQUITIES STRATEGIC TILT FORM OF RECOMMENDATION

The case for increased exposure to US equities has been examined on the basis that the market may be around a major low. While the pre-conditions for attractive long-term gains appear mostly in place, the risk of further short-term weakness cannot be ruled out. Accordingly, we recommend a conservative approach of initially switching 5% of the portfolio into US equities funded out of fixed income via the tilting allocation, with a view to extending the position as far as 10% if certain criteria are met. The criteria is: (a) the market suffers a further sell-off that produces compelling valuations; (b) additional confirmation emerges that the economy and profit cycle has bottomed; and, (c) there is evidence that investors are continuing to cash up and become even more under-exposed to equities. This advice is offered after considering a checklist of four areas:

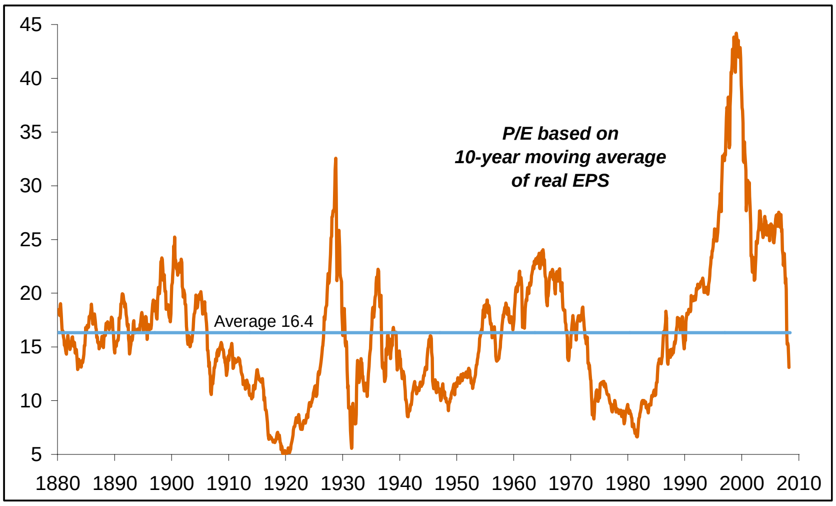
1. **Valuations** – While US equities appear to be well within the value region, at current prices they are not at a valuation extreme on all measures. A larger buffer would be preferred for the risk of ongoing earnings weakness before committing fully to a position. To illustrate the status of valuations, Figure 1 plots the P/E ratio based on 10-year average real EPS (a measure of trend EPS). The P/E on this basis of 13.1X is 20% below the average of 16.4X, but levels of below 10X have been in the past. Figure 2 plots the gaps between the earnings yield and government bond yield, again based on 10-year average real EPS. This proxy for the relative value of equities versus fixed income is the most attractive in over 50 years.

2. **Risk pricing** – The view is that lows in equities tend to occur amid high investor risk aversion and uncertainty over the future, with the market pricing for high returns in compensation for the perceived risk. This appears to characterize the present situation. Supporting evidence is found in high implied option volatility (the VIX index) and credit spreads.

3. **Macro environment** – A number of macro indicators suggest the foundation is being built for future equity market gains. Economic activity has become very depressed, leaving considerable upside potential for growth and profits upon a recovery. US capacity utilisation provides a useful summary measure of the state of activity versus potential – see Figure 3 below. Policy settings are aggressively expansionary. In particular, extremely easy monetary policy is evidenced by very low cash rates, a strongly upward sloping yield curve, and fast money growth. The main issues surrounding the macro environment relate to various structural risks, and the timing of any recovery. For these reasons, we would prefer to see confirming evidence that the economy and profit cycle have bottomed before becoming fully committed. Allowing that equities can lead the economy, we are looking for signs that downside risk has become limited, rather than waiting for evidence of recovery.

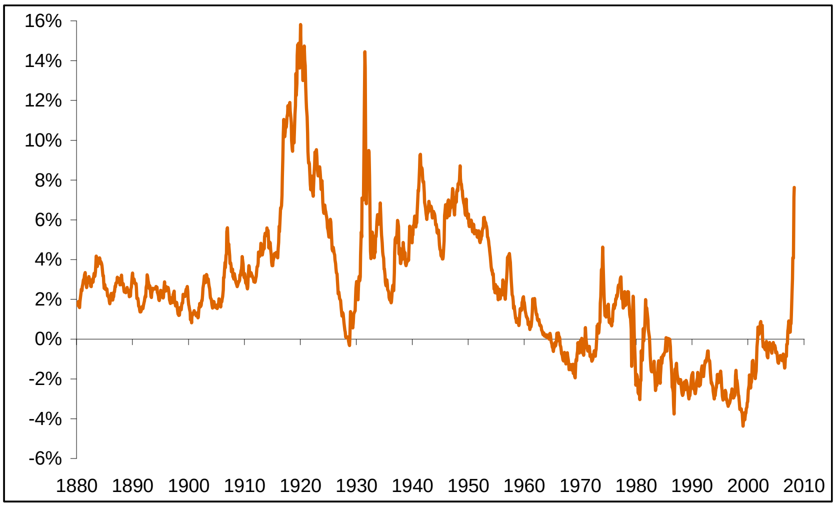
4. **Supply/demand cycle** – In this case the view is that major market lows tend to be associated with under-commitment by investors, a build-up of cash on the sidelines and perhaps panic selling, thus putting in place the conditions for the supply/demand cycle to turn. While hard evidence is difficult to garner, many of the required elements appear to be in place. Another correction accompanied by evidence of further cash up and retrenchment of equity weightings would be taken as additional support for buying US equities.

Figure 1: US Price / 10-year Real Earnings ('Shiller P/E')



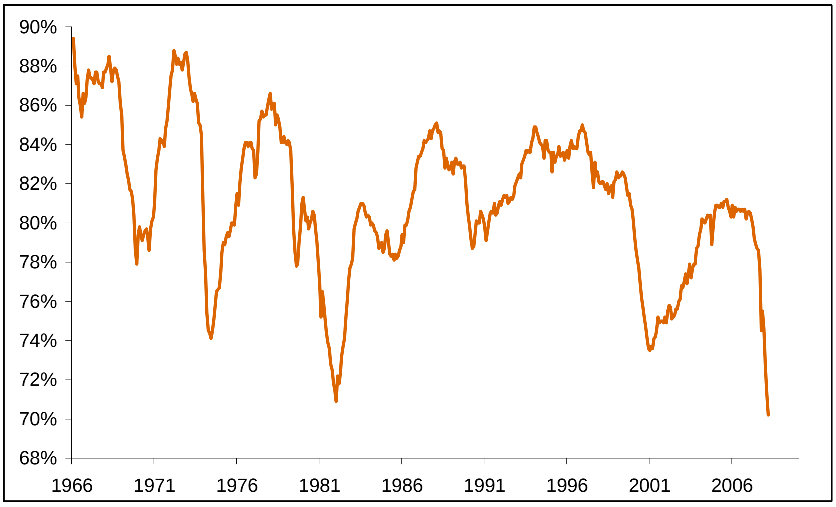
Source: Robert Shiller's website

Figure 2: Earnings Yield (10-year Real EPS) less Long Bond Yield



Source: Robert Shiller's website

Figure 3: US Capacity Utilisation



Source: Federal Reserve

* Grinold, R.C. and Kahn, R.N. (2003), Active Portfolio Management, 2nd ed, McGraw-Hill

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