

Conference

PortfolioConstruction Conference 2007 - key takeouts

by **Bob Veres** | Monday, 10 September 2007

It would have been hard to pick a better time to bring together 500 of Australia's leading portfolio construction professionals for the 2007 PortfolioConstruction Conference. It came hard on the heels of the 30 June deadline for people to make a one-time, post-tax contribution to their super of up to \$1 million - it is possible that as the attendees listened to high-level briefings on the global economy, more cash was sitting in advisory accounts waiting to be deployed than at any time in recent history - and then, during the week of the conference, the US subprime meltdown shaved 6% off the value of global equities, making caution and additional information seem even more important than usual.

In his opening address, PortfolioConstruction Forum's publisher Graham Rich stressed the importance of three mega trends in today's portfolio construction environment. The first is the strategic and tactical consequences of globalisation, and especially the rise of Brazil, Russia, India and China (the so-called BRIC economies), where economic growth seems to be accelerating far in excess of developed economies. Number two is the "retirement of retirement," where more and more people appear to be earning at least part-time income in their golden years. Finally, Rich talked about the increasing introduction of new technologies into the Australian and global economies, and how this could affect portfolio decisions.

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I've been thinking about... trends in portfolio construction

Bryce James | CEO | Smart Portfolios Inc. | USA

Opening keynote speaker, Bryce James, of the American investment management firm Smart Portfolios, Inc., traced the evolution of asset allocation theory.

James pointed out that the essential MPT mathematics were laid out in the 1950s by Harry Markowitz - and software programs have deviated much from the way he applied it more than 50 years ago. Yet Markowitz himself indicated a preference for using his calculations more broadly and in more detail - specifically, using correlations between individual assets (rather than broad asset classes, as most still do today) and basing the correlations on detailed forecasts for each asset, rather than historical data. However, the world of the 1950s didn't offer Markowitz the computing power or data to act on his

preferences.

Why, James asked the audience, with modern computers and a wealth of economic data, are we still creating portfolios within the limitations that Markowitz so regretted?

Indeed, does it even make sense to continue using 1950s mathematics, when many subsequent theorists have built substantial additions to Markowitz's foundation? James took the audience on a quick tour of increasingly sophisticated investment models, starting with MPT (1959), followed by the Capital Asset Pricing Model (1964), and then Arbitrage Pricing Theory (1976), Macro-Arbitrage Pricing Theory (1982), followed in 1994 by Value at Risk modelling and the Black-Litterman Model (a Bayesian model to create a set of expected turns and blend implied returns for multi-asset portfolios), Extreme Value Theory (2002) and some-thing called Dynamic Portfolio Optimisation, which James introduced to the American market in 2005.

What's the harm in sticking with good old MPT? One problem is that correlation coefficients move around in real time, which means an efficient portfolio based on the last ten years of data will lead you to create a portfolio that is anything but efficient for the subsequent decade. Using actual returns on a portfolio composed of 60% US stocks and 40% US corporate bonds, James was able to show the actual efficient frontiers during the 1960s, 1970s, 1980s, 1990s and the period from 2000 to 2004. They were all dramatically different, located all over the graph, and not all the same shape. Indeed, the curve in the early 2000s resembled an inverted fishhook, while the 1970s curve looks more like a straight horizontal line.

Finally, James took issue with the way MPT is used to quantify risk in client portfolios. Most advisers on both sides of the Pacific are using a standard bell curve to model the possible spectrum of investment returns - investors have a 66% chance that any given return will be within one standard deviation of the mean, and a 95% chance that it will fall within two standard deviations. But most advisers have long known that there are fatter tails in the actual distribution of returns than the models would predict, and James confirmed their worst suspicions. Based on standard bell curve mathematics, the 7.17% one-day drop in the Dow Jones Industrial Average on 27 October, 1997 should happen only once in 50 billion trading days, or once every 136 million years. Three steep drops in July 2002 would be predicted to occur roughly every four trillion trading days, which is somewhat longer than the life of the universe. Many other market free-falls would be expected roughly every 100,000 years, which James noted dryly, is rather longer than the investment horizon of most mortal investors. On average, he told the audience, these extreme events, which should never happen according to the statistics we most commonly use, actually tend to occur roughly once a year.

The question then becomes: with all our modern computing power and data and updated mathematics, is there a better way to construct and evaluate client portfolios? James offered a look at his system which, though created with the help of mathematicians and physicists, is not conceptually hard to understand.

First, to address the moving correlation coefficients, James has his computers look at daily price data and evaluate how the correlations are tightening or widening in real time. The result is a three-dimensional range of possible correlations that looks a bit like a dome made of jelly, and which jiggles visibly with the addition of each day's data.

By weighting more recent daily returns more heavily than daily returns further in the past, James can not only decide when to reduce or increase exposure to the markets (when correlations are tightening or widening, respectively), but also make educated guesses about where the next data points are likely to be.

This, in turn, allows him to identify funds (or, in some cases, stocks) that have been outperforming and are now in the process of reverting to the mean, or that have been underperforming and are now

returning to form.

Is any of this practical for today's retail investment advisory office? Not yet - James is years ahead of any other US money manager in exploring real-world ways to address MPT limitations.

But for now, the real value of James' presentation is to help advisers look past those limitations and begin using their knowledge, experience and even common sense to design forward-looking portfolios. Further down the road, they can look for very sophisticated mathematical tools that might extend their awareness into areas which, before this presentation, might have seemed impossible.

I've been thinking about... trends in investment markets

Paul Taylor | Portfolio Manager | Fidelity International | Australia || Todd Canter | Managing Director | LaSalle Investment Management | USA || Scott Berg | Portfolio Manager | T.Rowe Price | USA || Dominic McCormick | CIO | Select Asset Management | Australia

The opening session on day two gave delegates a variety of expert views on strategic and tactical portfolio adjustments, both in response to the global market melt-down (the topic du jour) and longer-term expectations.

Paul Taylor, head of Australian equities for Fidelity International, gave his view of the long-term trends for the local equities market, which has generated a 7.8% real annual return, on average, since 1990. The ride has been unusually steady in large part because Australia has been a supplier of natural resources to a world that has grown increasingly hungry for them. In addition, he said, the country has maintained well-above-average corporate governance and has a culture of high dividend payouts - which, of course, are tax-advantaged to in-country investors. The future? All of these drivers are still in place, Taylor told delegates, and although there may be increasing volatility, long-term he expects more of the same.

That was essentially the same as the global picture presented by Scott Berg, international equities manager for T. Rowe Price. Berg noted that the developed economies are growing at an average rate of 4.4% a year, while the emerging markets are experiencing a more volatile 7% annual GDP increase. Meanwhile, global earnings per share growth is running at 17.6% a year in the emerging markets, 10% in the European Union and 11.6% for the world at large. Interestingly, despite the faster rate of GDP and EPS growth in the emerging markets, their PE ratios are still a bit lower than the slower-growing developing nations, suggesting that global investors don't quite believe that the developing economies have stabilised as safe harbours for capital. Berg pointed out that 2007 PE ratios in Europe (14.3) are lower than the emerging markets (14.9), but elsewhere stocks are pricier - investors are paying an average PE of 16.0 in North America, 19.4 in Japan, and 15.6 overall in the world.

What about real estate? Todd Canter, managing director of a US-based global property manager LaSalle Investment Management, was less bullish on global real estate in the aftermath of the subprime meltdown, though he does expect Australian property to continue to deliver 10% real returns for the foreseeable future. Elsewhere, he tended to emphasise global real estate's low correlation with stocks (0.5) and bonds (0.2), and noted that, in general, rents drive earnings in the commercial real estate market, suggesting that the health of the economy can become the primary driver of returns if the investor stays within the commercial sector of the overall property opportunity set.

Finally, Dominic McCormick, CIO of Select Asset Management talked about alternative investments. He started the discussion by suggesting that hedge fund of funds, despite their high fees, fit into the risk spectrum somewhere between stocks and bonds, and their long-term returns will fall in that spectrum as well: 2% to 4% a year above whatever cash or short-term bonds are yielding. The most interesting part of his presentation showed how hedge funds tend to underperform during quiet or consistently rising markets, but outperform following periods of stress - a not-so-oblique reference to the semi-traumatic

events taking place in global markets around the world. The key to success, he said, is to avoid the blowups by relying on a manager to do adequate due diligence on the risks and strategies, and then deploy assets as soon as the markets are reeling.

I've been thinking about... the long-term asset allocation implications

Tim Farrelly | Principal | farrelly's | Australia

Later in the day, Tim Farrelly of asset allocation research house farrelly's helped delegates work out what this all meant for real-world portfolios. He noted that all returns in the equities markets are driven by three factors: the dividend (cash given back to the investor), the growth in earnings per share (growth of the company's enterprise, which should theoretically drive up the book value of the company in equal measure) and the movements, up or down, of the PE ratio - fluctuations in how much or how little investors will pay for a dollar of earnings.

The easy part of the model is dividends, which are averaging a pretty steady 5% per annum across Australian equities. So, for the would-be forecaster, the question becomes: how quickly do you think earnings per share are going to grow, locally and globally, over the next 10 years? And do you think PE ratios will go up or down from current levels?

Your answers have enormous implications for future returns. If, for the sake of argument, you're expecting 7% earnings growth, on average, and think PE levels will rise from 10 to 20 (adding an additional 7% a year in asset growth), then your forecast calls for 19% annual returns (5% dividend +7% earnings growth +7% from the PE multiple expansion). If you think PE levels will fall from 10 to 5, causing shares to lose 7% a year in asset growth, then the same simple calculation delivers a 5% yearly return, which means you pocket the dividend and sell your stock for whatever you paid for it.

Ever the complete contrarian, Farrelly did not extrapolate more of the same smooth bull market out to the future. Instead, he expects PEs to eventually trend downward, and he was not optimistic that companies can continue to grow earnings at current rates. He noted that in the last decade, the percentage of Australian GDP that has come from corporate profits has gone up to record levels. The trend seems to have only one way to proceed - back down to more normal (that is, in line with GDP growth) earnings expansion.

But how do you put all this into a framework that can be applied to real investments? Farrelly offered an interesting and, for some, amusing, demonstration of how forecasts and portfolios can be linked. First, he showed the audience five different portfolios, each weighted differently between Australian and international equities, listed property, hedge funds, fixed interest and cash. He then asked the audience for THEIR expectations for future returns on each of these asset classes (in light of what they'd heard that morning from the investment market specialists), and the audience used their polling devices to feedback their expectations. These answers were individually collected, and a computer in the back calculated the return of each person's portfolio, by taking the portfolio they'd each chosen and inputting their forecast for earnings, growth in earnings and the PE ratio.

The result was interesting. Only 21% of the audience picked what would have been the optimal portfolio given their forecasts, while 28% (the highest percentage of the group) picked the portfolio that would have delivered the least beneficial performance if their forecasts proved to be correct. There were several ways to interpret this. One is that the delegates spend more time selecting individual investments than creating strategic allocations based on their forecasts. Another is that they were swayed by farrelly's own comments about return expectations right before they were asked to vote. Yet another - farrelly's interpretation - is that, in many cases, their portfolios simply don't reflect their expectations, that they trust traditional allocations more than their own instincts.

I've been thinking about... identifying skill and behavioural weaknesses in active management

Allesandro Lunghi | Director | Inalytics | UK

Delegates are not alone in their dysfunctions. Perhaps the most innovative presentation at the conference was delivered by Allesandro Lunghi, London-based director of Inalytics.

Inalytics has performed a detailed study of 500 global fund managers, looking at the subsequent performance of the stocks they sold out of their portfolios, and comparing the returns of those rejected stocks with the returns of stocks that they purchased to replace them. It may be the first such study ever done, and the results, though still preliminary, were certainly eye-opening.

Ideally, a fund manager should practice a simple methodology - let winners run while cutting losses by selling stocks whose performance simply didn't meet his or her expectations. But in looking at the trades executed in this large sample of institutional portfolios, Lunghi found that the opposite was true: 57% of the stocks that managers sold, in aggregate, had outperformed their market averages during the previous 12 months. For some reason, managers seemed to be selling their winners and holding onto their losers.

Now for the interesting part. Looking further, Lunghi found that the stocks that these managers sold out of their portfolios, on average, outperformed those that they purchased to replace them. The difference was not inconsiderable - three full percentage points over the following 12 months.

Interestingly, these managers were selecting outperforming stocks, suggesting they were adding value on the buy side of their transactions. The average impact of the buys, on average, was a positive 47 basis points a year above the indices. But the effect of the sell decisions reduced returns by an average of 94 basis points a year, more than overcoming the benefits of stock selection.

What's going on here? Lunghi hypothesised that most fund managers do less research on their sell decisions than on their purchases, that they tend to want to lock in small gains rather than take the risk that their more successful stock selections will go from positive to negative. They may also want to raise cash for the next exciting investment idea that crosses their desk.

On the other end, Lunghi thinks that these managers might tend to be reluctant to realise losses in stocks that have lost value, and so will tend to hold onto them, clinging to their original belief, long after it becomes clear that the stock isn't going to justify their faith in it.

Regardless of the actual psychological dynamics, Lunghi has opened up a very interesting new way to evaluate fund managers, based on the efficiency of their sell decisions. "Good sellers are hard to find," he told the audience. "They tend to be a big grumpy and cynical, and not be positive thinkers."

In the future, he plans to look for fund management processes that pair a good buyer (plentiful) with a good seller (much harder to find), which might eliminate the persistent drag on fund performance. The analysis suggests that the markets may not be as efficient as MPT suggests it is - bringing the Conference full circle to James' original point.

I've been thinking about... tomorrow's India, the risks and opportunities

Dr Anand Sethi | Managing Director | Applied Technology Services | India

In a world where delegates can add value with their intelligence and judgment, there should be considerable value in the idea of deploying more money to economies with the highest growth potential. The closing keynote address of the first day addressed the Conference theme of globalisation, with Dr. Anand Sethi of the Applied Technology Services in Delhi, giving a broad overview of the emergence of the

Indian subcontinent as a major player in the global economy.

The most interesting part of the talk addressed the fact that India is not emerging so much as returning. Sethi offered estimates that in the year 1000 AD, India represented 27% of global GDP. In 1700, just before the Industrial Revolution, its output made up 22.6% of the world's output - more than all of Europe combined. Of course, this dominant position didn't persist. In 1947, after many years of colonial rule, India's share of the world market had fallen to less than 4%. "The world's richest country in 1500 was essentially bankrupt in 1947," Sethi told the audience. Then, after years of experimenting with communism, the country once again fell into bankruptcy in 1990.

The good news was that the years of colonialism had left India with a framework for rebounding, including a strong legal system, a modern educational system, a working bureaucracy and scientific establishments. Once India began embracing the concept of globalism, and harnessing the resources of its population in a capitalistic framework, the country quickly became the fastest-growing and most developed of the BRIC economies.

"By 2050, India is projected to account for 15% of the world's GDP," Sethi told the audience. "Today, the country is a free and open democratic society that does not take any foreign aid." Other statistics hint at the remarkable scale of the country's economy. He noted that India's universities matriculate a million post-graduate students each year. In the single month of April 2007, the country signed up 7.25 million new cell phone subscribers, and July is expected to bring in 8 million more.

The other interesting part of the talk involved the roadmap that Indian business and government leaders have laid out for their future expansion, which is very different from what you see in other emerging economies. "Our growth is generated entirely by Indian companies, not foreign companies using India for cheap labour," said Sethi. The goal, he said, is for India to become the knowledge hub of the world, to become rich through its brain power, not by becoming a low-cost manufacturing location.

Is it working? Sethi cited a statistic that 25% of global research and development is now being performed in India, including the design of the iPhone chip and the designs of both the Airbus A380 and the Boeing Dreamliner aircraft.

The essential point of the presentation, of course, is that India offers excellent investment opportunities, and that its growth will be sustainable when other emerging markets have lost their competitive advantage due to rising labour costs and prosperity. Later, Sethi noted that demographics are powerfully in India's favour - while the average worker age of industrialised nations is moving toward middle age, more than 50% of India's population is under the age of 25.

In the question-and-answer part of the presentation, Sethi was asked how, exactly, foreign investors can participate in the Indian economy, since its corporate shares are not sold to non-Indian citizens. The answer was through pooled investments and mutual funds, but the larger answer was that the Australian and Indian economies are increasingly linked, in part because Australia is ideally located as a trading partner, in part because it is a source of natural resources.

I've been thinking about... the retirement of retirement

Elizabeth Segers | Managing Director Market Planning & Development | Putnam Investments | US

David Williams | Principal | My Longevity | Australia

Andrew Robertson | Managing Director | Ingevity | Australia

Tim Farrelly | Principal | farrelly's

The second theme of the Conference - the retirement of retirement - came to the fore in an afternoon panel presentation. Segers began by offering some recent statistics her firm has collected about retirees

in the US and Australia.

Among other things, she found that 25% of US "retirees" are not retired at all in the traditional sense - they've gone back to work. And the percentage appears to be growing. In some cases, the study found, people left their first career, took 18 months off and returned to the workplace in search of mental and personal fulfilment. But other, more ominous trends are also encroaching on people who thought they could leave the workforce at age 65. Among the more interesting facts: more than 60% of US people over age 65 still have mortgage debt on their home with, on average, 12 more years until it's paid off. In addition, 50% of the retired respondents are helping their aging parents either financially or physically. Many expect to do more if and when their parents reach extreme old age, and almost half expect to work for pay in retirement to help pay for it all.

On the opposite side of the family tree, 31% of the US survey respondents are either paying rent for children over 25 years of age or providing them with a place to live. Thirty three percent are helping with living expenses, and 17% are paying for their adult childrens' cars. "New evidence suggests that it is taking eight more years to launch children into the world than it did a generation ago," Segers told the audience. Her conclusion: "Retirement in the future will be crowded and elusive."

Are the same trends playing themselves out in Australia? Segers offered results of a more modest first study of Australian retirees, which asked 177 financial advisers to describe the retirement circumstances of their clients. Australian retirees seem to be returning to the workforce in similar percentages to the Americans, but an overwhelming 70% of them are doing so by choice, rather than because of some generational squeeze. This, however, could be the result of a skewed sample - these are, after all, clients of financial advisers, who might be more prepared for retirement than their average peers. Evidence of that came when the study found that, on average, the pre-retirees cited in the study are putting away 10% more than their mandatory 9% superannuation contribution.

Williams, meanwhile, offered convincing evidence that clients of financial advisers will probably live longer than advisers expect them to - in many cases, much longer. Since lifespan is a significant input into retirement sufficiency calculations (who wants to run out of money 10 years before they die?), this is an issue that advisers will need to correct sooner rather than later.

Williams began by showing a common actuarial table, which provides average ages at death for persons who are, today, age 50, 60, 70 and so forth. The problem is that most clients of financial advisers are not average. They have better access to a safe and friendly community, they are more likely to obtain regular health checks and follow simple longevity prescriptions like avoiding smoking and getting exercise, they have more access to and interest in a better diet, in many cases they come from a better gene pool (more longevity in the family), and many of them have a more positive attitude than average which alone can add an average of seven years to the typical lifespan.

The result of all this is that well over half of Australian advisers' clients will outlive their peers of the same age, often by as much as 16 years. If they get past age 85, they will have access to better elder care facilities, including the option to have elder care in their homes rather than in a nursing home. Using updated information on more accurate pools of cohorts, Williams estimates that a male financial planning client age 50 today can be expected to live to age 92 (rather than age 80, as the actuarial tables say), and a female client can be expected to celebrate her 96th birthday (while the actuarial tables list her life expectancy at 84).

How do you evaluate all this data for clients in the real world? Williams has founded a company that is creating software to take into account the various factors, give a score for each of them, and then calculate a more precise life expectancy to use in retirement sufficiency calculations. Stay tuned.

Finally, Robertson looked at the financial planning implications of so many people living longer than

people have ever lived before. One issue to consider is that most Australian corporate retirement plans only provide for a "life expectancy" length of life, and they leave it to the individual to manage the assets and draw them down safely - a complex and demanding test that many can be expected to fail. In many cases, the longer-lived persons will require not just more income to draw out of their retirement plans, but also the back-end money to pay additional one-off expenses related to health care.

How will this affect the profession? "Decumulation planning will become a planner's primary service in the not-too-distant future," Robertson told the group. Australian advisers will, in effect, assume the role of the actuaries in defined benefit plans, helping clients draw down realistic sums from their portfolios. In addition, he expects a growing number of financial planning clients to buy - and financial advisers to recommend - risk pooling products that will pay income for life.

Lastly, Farrelly walked the audience through a computer model of a typical retiree's income needs, and made various up and down adjustments to the rates of return on the portfolio, the amount being set aside in the pre-retirement years (the typical age when advisers and clients intersect), and the existence (or lack) of income during the retirement years.

After looking at various movements of the various moving parts, the point became clear: when a retiree earns income in retirement, even if only 25% of the previous salary level, it does more to guarantee that the portfolio will outlast them than any other factor. If the concept of a zero-income retirement really is retiring, then it appears that the next generation of people turning 65 may be at much less risk of running out of money than current retirement sufficiency analyses are projecting. Unless, of course, those same analyses are projecting a naively-low lifespan based on the actuarial tables.

I've been thinking about... my key takeouts

When you add in a full menu of due diligence presentations (one could plausibly have attended six of them, each built around an investment-themed white paper to be published later), plus a highly-entertaining closing keynote presentation by Dr Deane Hutton (presenter of the Curiosity Show for 18 years, and now one of Australia's best known technology futurists), plus a breakfast presentation by yours truly on recent investment books that further debunk the tenets of MPT - well, the impact on attendees was a bit like drinking from a firehose.

Fortunately, the takeaways were not impossibly complicated and (more importantly) were largely actionable.

We seem to have moved into an era when the efficient market hypothesis and the mathematical models of modern portfolio theory are becoming less tenable, but there is no clear successor except the instincts and knowledge of the professional investor. The Conference aimed to provide both knowledge and also guidelines for harnessing the instincts and judgment of the audience and, based on the high level of discussion over lunch and dinner, the audience was not unqualified to handle the input.

Meanwhile, the goal that we have assumed most investors are saving FOR - retirement - appears to be changing to something very different, which may require different capital inputs and income sufficiency analyses, and a shift in overall goals from financial fulfilment to personal fulfilment. Longevity projections will need to be corrected, and future costs may be far greater than expected - but so too will income in the early years of many so-called 'retirees.'

Exactly what all this means is unclear, and will remain so for some time. But those who attended the Portfolio Construction Forum Conference will have a leg up in probing these issues with their clients, and adjusting to their goals and expectations as they evolve. After, that is, they deploy those new assets parked in the super funds.

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