Funds on FRIDAY

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It's about Time…

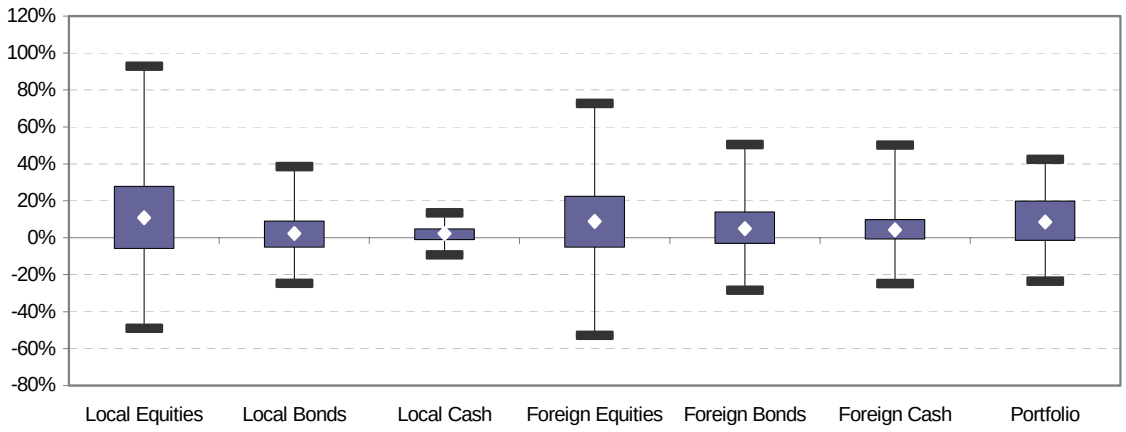
In last week's Funds on Friday, we discussed what history could tell us about a portfolio's expected return, and how this expected return changes with the introduction of various asset classes. In this edition, we focus on how the expected returns (and risk) can change as an investor's time horizon changes.

Time diversification means that the risk of investing in volatile assets (like equity funds) decreases as one's time horizon increases. In other words, the variability of annualised returns decreases as the investment period increases. This may not seem immediately obvious, but with a little bit of thought (and the examples below) the benefits of the concept become clear. Investors will also realise why risk profiles are often aligned with the investment time horizon i.e. a conservative client may have a one year horizon, while an aggressive investor should stay invested for at least ten years.

To illustrate the benefits of time diversification, we have used the same box-plot charts from the previous edition of Funds on Friday. These charts show the characteristics of historic real returns for different asset classes and a diversified balanced portfolio (60% SA equity, 15% SA bonds, 10% SA cash with the 15% foreign divided equally between cash, bonds and equity), over different time periods.

Time period: 1 year

Some would argue that a one-year time period should not really be considered "investing" and clients are better off in money market funds (or similar) than in the stock market. The chart below clearly illustrates this by showing that even a balanced portfolio can (and has) deliver(ed) real returns below –20% over a one-year period. One must remember that this is a well-diversified balanced portfolio (as discussed last week) – the magnitude of a possible loss is much larger with a 100% SA equity portfolio.



The similarity of the local and foreign equity returns shows that, although foreign assets provide valuable diversification benefits, the risk of investing in either asset is extremely high over short investment periods. The median real return of 8.56% for the balanced portfolio is satisfactory, but for a conservative investor with a short time horizon, the outcomes below that median return (which are fairly evenly distributed) would probably be unacceptable.

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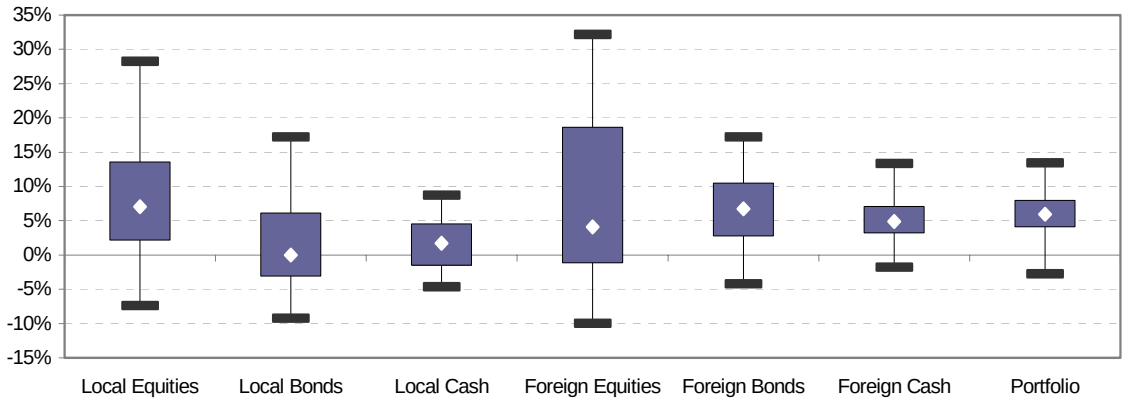
Time period: 5 years

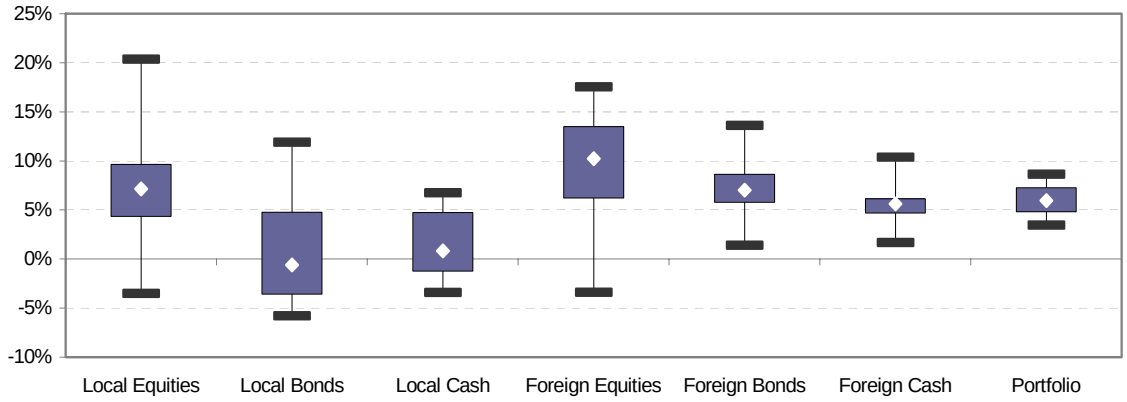
In our opinion, a five-year investment time horizon would be consistent with a moderate risk profile i.e. a moderate investor should be prepared to invest for a sufficiently long period so as to increase the **probability** of achieving his expected return. Of course, that is not to say that conservative investors cannot have a five-year investment period. By nature, a conservative investor has a lower tolerance for risk and cannot accept negative fluctuations in value, irrespective of the time horizon.



It is important to understand that achieving the expected return is not guaranteed over any time period – a moderate investor with a realistic expectation is **more likely** to achieve his required return over a longer period of time. Based on historic returns, a balanced portfolio achieved a return of greater than CPI + 5% over a 1-year period 58% of the time. This 'strike-rate' increases to 66% over a five-year time period. This means that, based on history, moderate investors in a balanced portfolio for five years can reasonably expect to beat inflation plus 5% only two-thirds of the time.

Time period: 10 years

Ten years is usually the recommended time horizon for a 100% investment in equities. This is based on the assumption that any negative years (or market crashes) will be "ironed out" by the good years thereafter and if an investor can sit through the pain (and not switch to cash), his patience will be rewarded by satisfactory returns. History has shown us that this is not entirely true. The chart below shows that even with a 10-year time period, SA and foreign equities have delivered negative real returns on an annualised basis. SA equities returned on average approximately –2% annually (in real terms) for the ten years to September 1976, and for all 10-year periods (calculated monthly) from February 1978 to July 1979. Japanese investors have fared even worse, with negative returns (this time in nominal terms) over every rolling 10-year period since 1986! In other words, the Japanese market is now at the same level it was at in June 1986.



Why invest in equities then if there is still a chance of negative real returns over very long time periods? The simple answer is that by investing in equities, the **probability** of achieving a satisfactory inflation beating return increases. The historic 'strike-rates' for SA equities and a balanced portfolio are tabled overleaf.

Balanced Portfolio	1 year	3 years	5 years	7 years	10 years
Historic Probability of Returns > CPI + 5%	58%	56%	66%	69%	69%
Range of Real Returns	-24% - +42%	-4% - +28%	-3% - +13%	+1% - +13%	+3% - +9%

SA Equities	1 year	3 years	5 years	7 years	10 years
Historic Probability of Returns > CPI + 5%	60%	63%	61%	66%	70%
Range of Real Returns	-49% - +93%	-20% - +46%	-7% - +28%	-9% - +24%	-3% - +20%

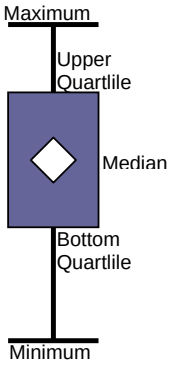
It is important to note that not only does the strike-rate improve as the time period increases, but the range of annualized returns narrows.

This article focused on the diversification, or risk reduction benefits that time in the markets can offer investors. The articles shown in links below offer other interesting views on the subject, this time looking at the cumulative compound returns as opposed to annualized returns.

http://homepage.mac.com/j.norstad/finance/risk-and-time.html

http://www.oaktree-research.com/index2.php?option=content&do_pdf=1&id=206

Appendix: Box Plots explained



A box-plot chart is used to summarise returns distribution data in a user-friendly manner. It enables a user to plot 5 returns characteristics – minimum, maximum, top quartile, bottom quartile and the median – using a single axis. The box-plots used for this article show the characteristics for rolling periods using monthly data points i.e. the minimum shown indicates the minimum return an investor would have received over the specified time period between 1960 and 2007. The median is a type of average that gives the middle point of a series of data. The upper quartile shows that 25% of the returns were above the level of the blue box, while the bottom quartile indicates the lowest 25% of returns were found below the box.

Click on this **link** for a more detailed description of a box plot.