Has your Portfolio been Designed – or Cobbled together?

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Summary

A portfolio has been designed, if it is a well-diversified portfolio that provides the investor with protection (via the use of conservative satellite funds that perform relatively well in bear and volatile markets) and opportunity (via aggressive satellite funds that perform relatively well in bull markets) with respect to a wide range of market environments. Ensure that you can articulate:

- Why the proposed investment portfolio has been *designed* – and *not cobbled together*.
- The *role and characteristics of each fund* in the investment portfolio.
- Why the diversified *portfolio should perform well through different market environments*.

Introduction

At Analytics all kinds of portfolios cross our desks. Portfolios that have been well-designed with funds playing clearly-defined roles and blending beautifully together…and then also portfolios where funds have been selected haphazardly over time due to their good past performance and the aim of the total portfolio has been lost in translation.

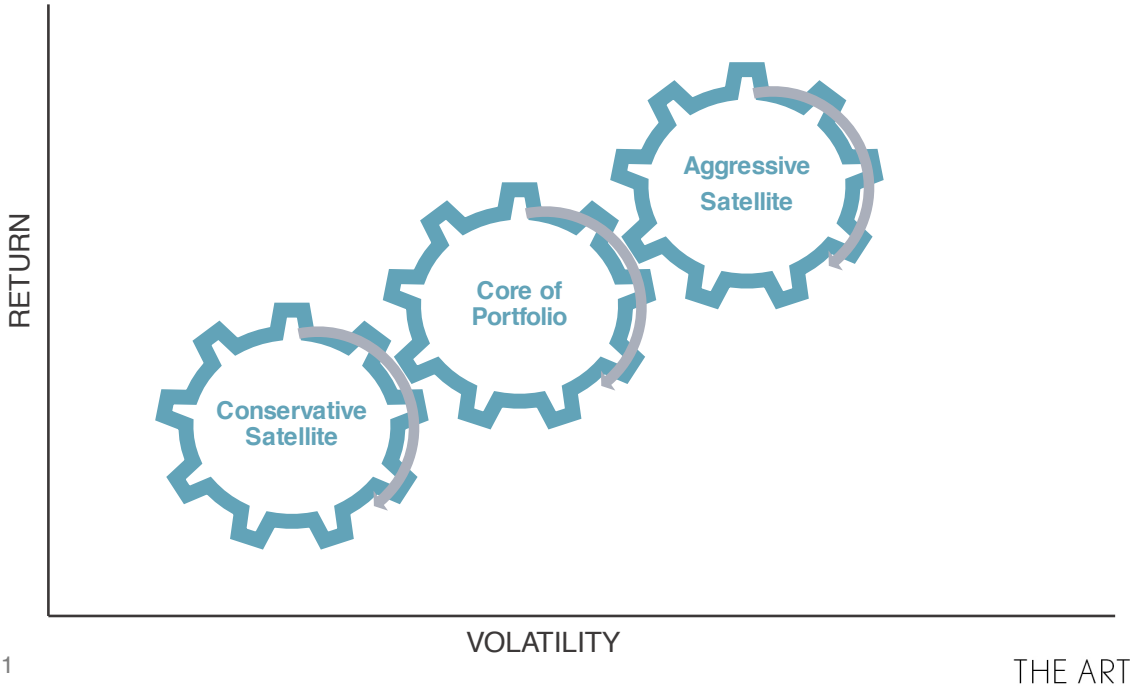
There is no excuse for not designing portfolios scientifically anymore. After all, the blueprint for designing portfolios was developed ages ago when Harry Markowitz wrote his seminal paper entitled "Portfolio Selection" in the Journal of Finance March 1952 edition. His article showed that diversifying across uncorrelated assets was a way to invest optimally while reducing risk. Consider the following quote by the Father of Modern Portfolio Theory, Harry Markowitz:

"A good portfolio is more than a long list of good stocks and bonds. It is a balanced whole, providing the investor with protections and opportunities with respect to a wide range of contingencies."

At Analytics we design portfolios with the above quote in mind – ensuring that investment portfolios are constructed that include uncorrelated funds – an optimal combination of conservative satellite, core and aggressive satellite funds which should provide a consistent return profile in different market environments.

Figure 1 below depicts a typical combination of funds in a well-designed portfolio. A conservative satellite fund is defined as a fund that will perform well in a bear or volatile market, and will lag somewhat in a bull market. A core fund is defined as a fund that does not follow a specific style and performs relatively well in both bear and bull markets. An aggressive satellite fund is defined as a fund that will perform well in a bull market, but may lag in a bear market.

Figure 1: Core/Satellite design framework: General Principles

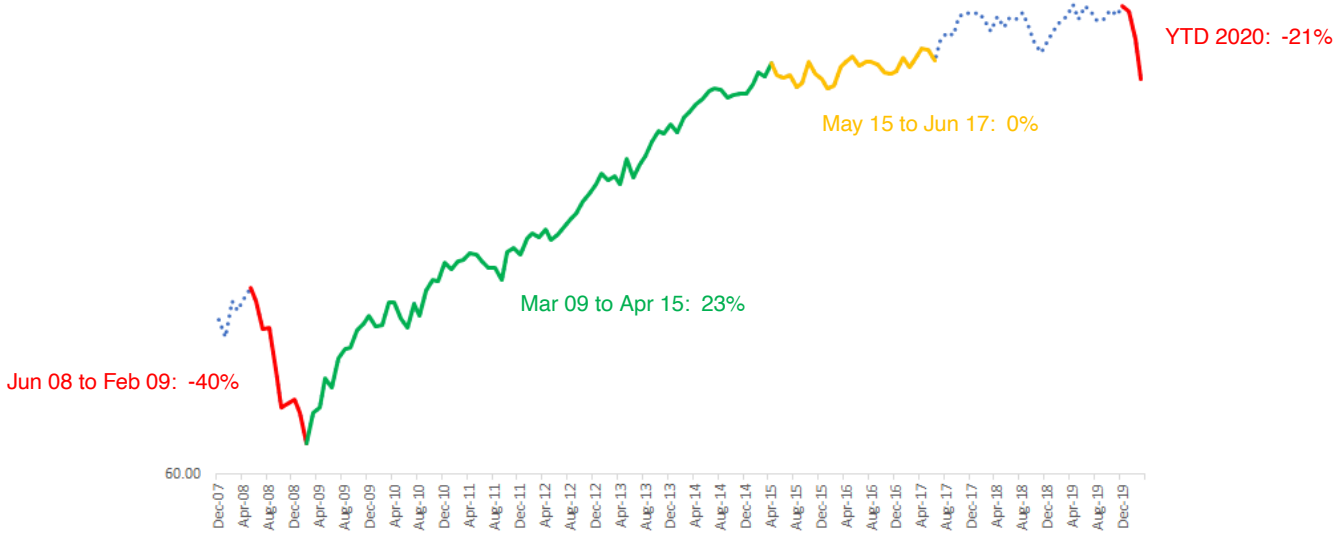


Market phases – bull, bear and flat markets

The market goes through different phases – periods of bull, bear and flat markets can be identified in hindsight. As investors, we would like to design portfolios that will withstand different market environments and produce consistent long-term returns.

Figure 2 below indicates examples of bear, bull and flat markets we will use in the ensuing examples to illustrate simple principles in designing portfolios.

Figure 2: FTSE/JSE All Share Index: Bull, Bear and Flat markets



Source: data from Morningstar. Figure is for illustrative purposes only

In Figure 2 above we've depicted two bear markets: the Great Financial Crisis (GFC) from June 2008 to February 2009, and the Covid-19 Crisis from January 2020 to March 2020. It is worth dwelling on the differences between these two bear market examples. The Covid-19 Crisis is different to the GFC in three respects: it is a health crisis spilling over to financial markets; the speed of the decline has been remarkable, comparable to the Great Depression; and going into the crisis the local equity market was not overvalued – in contrast to 2008 when Resources were clearly overvalued.

It has been very difficult for asset managers to produce decent returns in the Covid-19 Crisis period. In fact, comparing asset class returns for the GFC Crisis to the Covid-19 Crisis, reveals that most risk assets (local equity, global equity and global property) sold off in the GFC period, and managers could hide in local property (17%), local bonds (17%) and local cash (9%) and enjoy a healthy exposure to offshore bonds and offshore cash as the Rand depreciated. Unfortunately, in the Covid-19 Crisis, there was almost no place to hide but local cash (2%) and again offshore bonds and offshore cash as the Rand blew out. Local bonds delivered -9% and local property returned a huge -48% in this period, impacting most balanced funds negatively.

Core/Satellite Design framework in practice: SA Multi-Asset Low Equity category

In illustrating the design of a robust SA Multi-Asset Low Equity portfolio, we've elected to use Fund A as a conservative satellite, Fund B as a core fund and Fund C as an aggressive satellite.

The three portfolio managers of Fund A have 19, 16 and 12 years of investment experience, respectively. They follow a valuation-orientated investment philosophy, which means their research effort is focused on identifying good quality assets that are priced below their estimates of intrinsic value. They concentrate on the application of fundamental analytical skills which has a better measure of predictive value, rather than trading in shares in the short term.

The two portfolio managers of Fund B have 30 years and 17 years of investment experience, respectively. They employ a common-sense, valuation driven philosophy that identifies mispriced assets trading at discounts or premiums to their long-term business values. They are primarily bottom-up research-driven investors. While macro factors play a role in asset allocation decisions, the key asset allocation driver remains valuation levels.

The two portfolio managers of Fund C have 12 years and 20 years of investment experience, respectively. The fund is a cost-effective passive balanced fund. The fund is managed relative to a strategic benchmark of 22.5% local equity, 5% local property, 15% local bonds, 7.5% local ILB's, 30% local cash, 12.5% global equity, 2% global property, 2% global bonds, 2% global ILB's and 1.5% global cash.

Figure 3: Performance of underlying funds in Bull, Bear and Flat markets

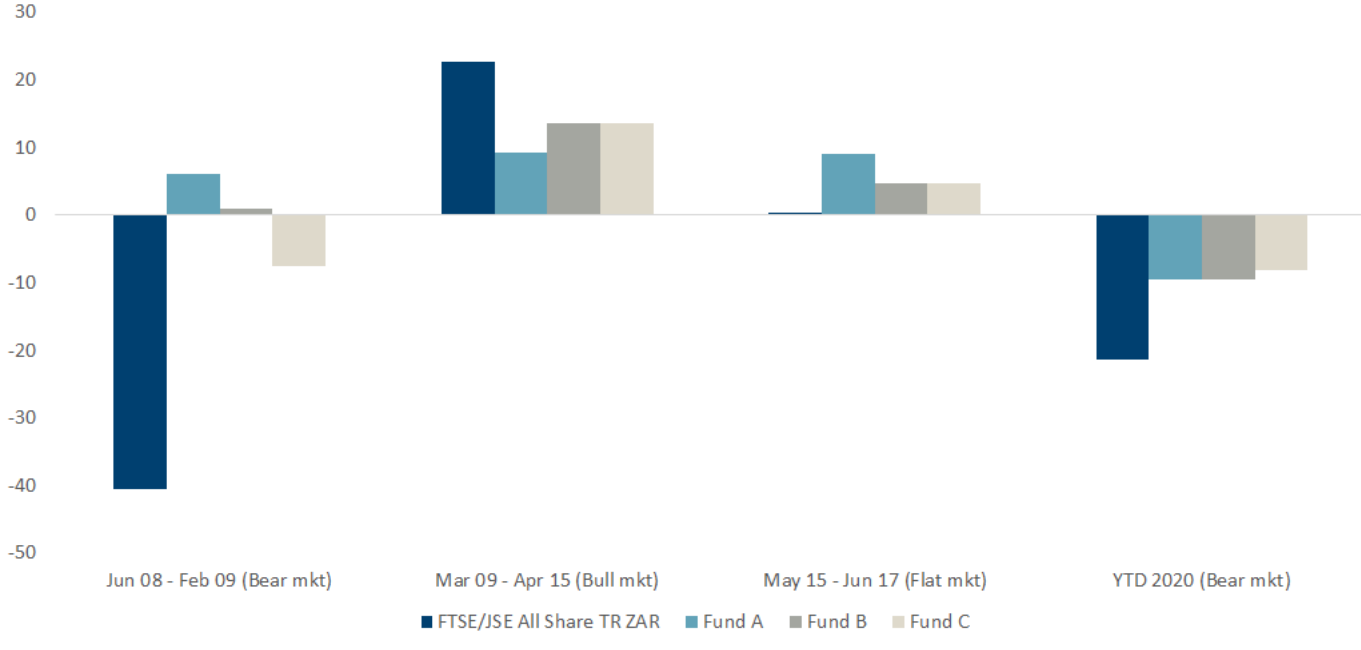


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Figure 3 on the previous page illustrates the performance of the three funds in different market environments. Notice that Fund A (conservative satellite) had positive performance (and the best performance relative to the other two funds) in the bear market of 2008, relatively lagging performance in the subsequent bull market and the best relative performance in the flat market period. The core fund, Fund B, also displayed positive performance in the bear market of 2008, very good performance in the subsequent bull market and held its own in the flat market period. The aggressive satellite fund, Fund C, had the worst relative performance in the bear market of 2008, shared the best relative performance position in the subsequent bull market, and held its own in the flat market period. In the Covid-19 period all three funds displayed large negative returns – an indication that there was nowhere to hide in the usual asset classes.

Figure 4: Performance of Portfolio and underlying funds in Bull, Bear and Flat markets

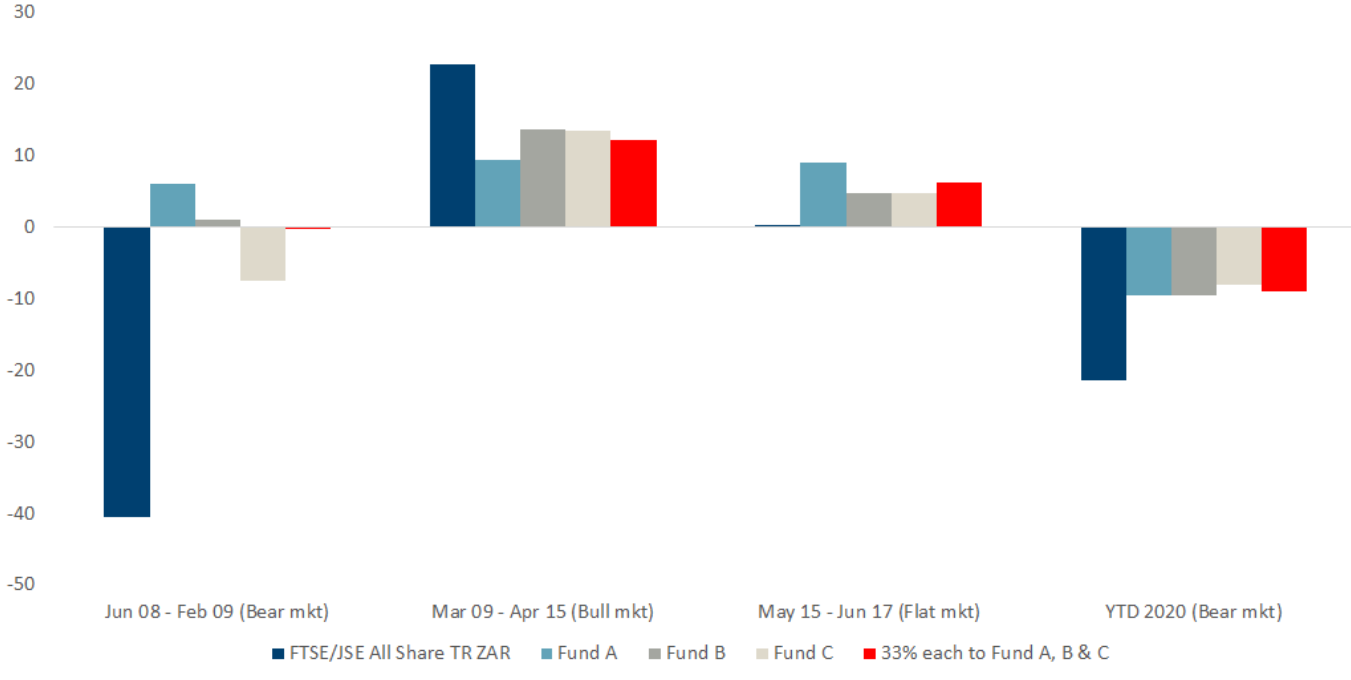

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Figure 4 above illustrates the performance of the Portfolio (in red) in different market environments. Notice that the equal-weighted portfolio had slight positive performance (red bar is barely visible) in the bear market of 2008, good relative performance in the subsequent bull market and good relative performance in the flat market period. Unfortunately, the equal-weighted portfolio also delivered negative performance in the Covid-19 period.

Core/Satellite Design framework in practice: SA Multi-Asset High Equity category

In illustrating the design of a robust SA Multi-Asset High Equity portfolio, we've elected to use Fund D as a conservative satellite, Fund E as a core fund and Fund F as an aggressive satellite.

Fund D is managed by four portfolio managers, with 19, 20, 12 and 12 years of investment experience, respectively. They follow a valuation-orientated investment philosophy, which means their research effort is focused on identifying good quality assets that are priced below their estimates of intrinsic value. They concentrate on the application of fundamental analytical skills which has a better measure of predictive value, rather than trading in shares in the short term.

Fund E is managed three portfolio managers, with 19, 16 and 10 years of investment experience, respectively. They employ a common-sense, valuation driven philosophy that identifies mispriced assets trading at discounts or premiums to their long-term business values. They are primarily bottom-up research-driven investors. While macro factors play a role in asset allocation decisions, the key asset allocation driver remains valuation levels.

The two portfolio managers of Fund F have 12 years and 20 years of investment experience, respectively. The fund is a cost-effective passive balanced fund. The fund is managed relative to a strategic benchmark of 50% local equity, 5% local property, 7% local bonds, 5% local ILB's, 7.5% local cash, 17.5% global equity, 2.5% global property, 2% global bonds, 2% global ILB's and 1.5% global cash.

Figure 5: Performance of underlying funds in Bull, Bear and Flat markets

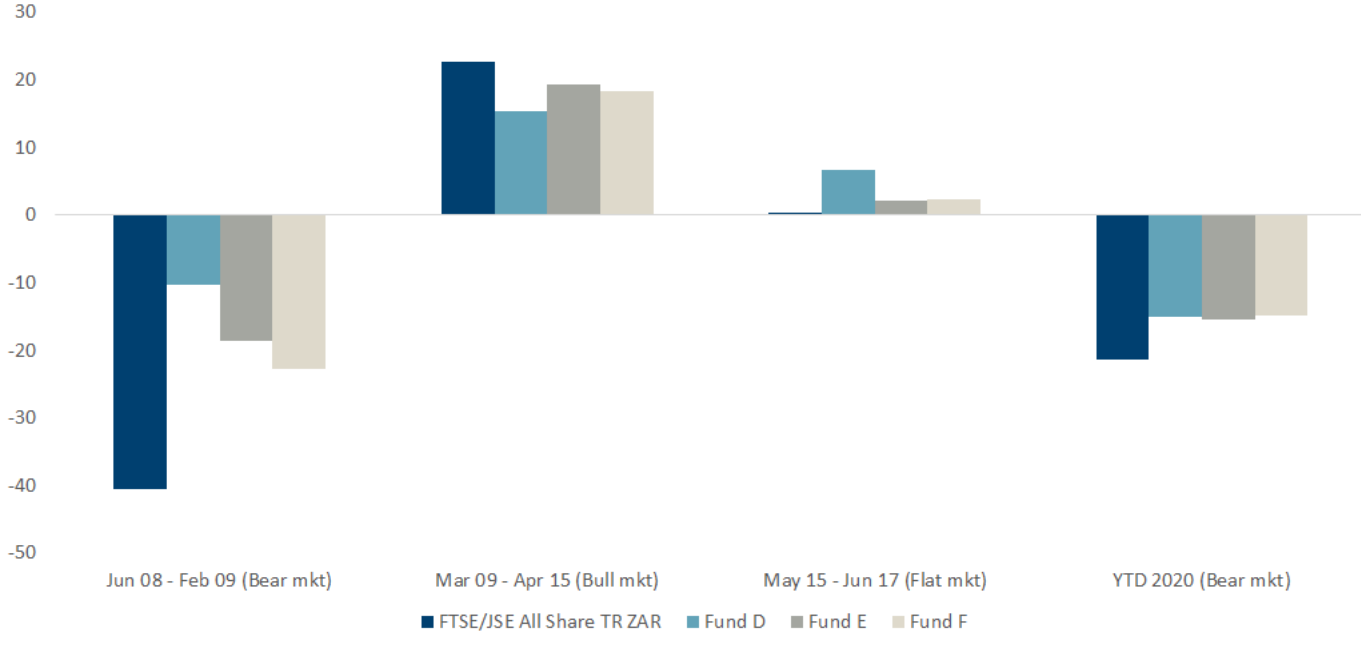

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Figure 5 on the previous page illustrates the performance of the three funds in different market environments. Notice that Fund D (conservative satellite) had the best performance relative to the other two funds in the bear market of 2008, relatively lagging performance in the subsequent bull market and the best relative performance in the flat market period. The core fund, Fund E, displayed second-best relative performance in the bear market of 2008, very good performance in the subsequent bull market and held its own in the flat market period. The aggressive satellite fund, Fund F, had the worst relative performance in the bear market of 2008, the second-best relative performance in the subsequent bull market, and held its own in the flat market period. In the Covid-19 period all three funds displayed large negative returns – an indication that there was nowhere to hide in the usual asset classes.

Figure 6: Performance of Portfolio and underlying funds in Bull, Bear and Flat markets

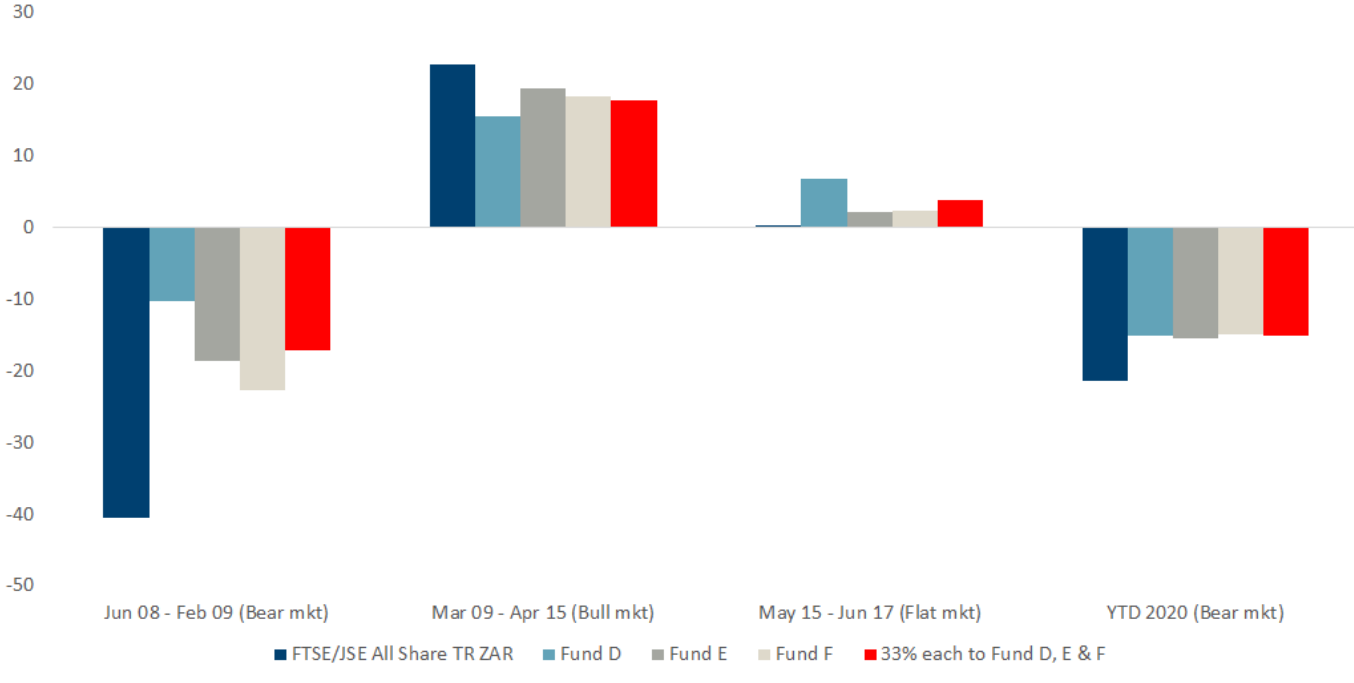

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Figure 6 above illustrates the performance of the Portfolio (in red) in different market environments. Notice that the equal-weighted portfolio had second-best performance relative to the other funds in the bear market of 2008, good relative performance in the subsequent bull market and good relative performance in the flat market period. Unfortunately, the equal-weighted portfolio also delivered negative performance in the Covid-19 period.

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Heed the Father of Modern Portfolio Theory, Harry Markowitz's words:

"A good portfolio…is a balanced whole, providing the investor with protections and opportunities with respect to a wide range of contingencies"; or in our terminology:
"A well-diversified portfolio…is a balanced whole, providing the investor with protections (conservative satellites) and opportunities (aggressive satellites) with respect to a wide range of contingencies (bull, bear and flat markets)".

Remind clients that the portfolio solutions are constructed using diversified combinations of conservative, core and aggressive satellite managers - this should ensure a more consistent return profile over time through bull, bear and flat markets.

Ensure that you can articulate:

- Why the proposed investment portfolio has been *designed* – and *not cobbled together*.
- The *role and characteristics of each fund* in the investment portfolio.
- Why the diversified *portfolio should perform well through different market environments*.

Daniel Schoeman MSc, CFA
Daniel is currently CIO of the Analytics multi-manager funds of funds. He has more than 19 years investment and portfolio management experience, and has previously worked at three of the largest multi-managers in South Africa, first at Investment Solutions, then joined Momentum Multi-Managers which later merged with MCubed to form Advantage Asset Managers. His main responsibilities include economic research, tactical asset allocation, investment manager research, portfolio construction, monitoring and risk management, system development and innovative investment research. He is also a member of the Investment Committees of some of the largest advisor networks in South Africa, providing investment consulting services to these groups on an on-going basis.