finweek
COLLECTIVE INSIGHT
INSIGHT INTO SA INVESTING FROM LEADING PROFESSIONALS
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Inside

GETTING TO GRIPS WITH GLOBAL INVESTING

By Anne Cabot-Alletzhauser

INTRODUCTION

PLEASE SEND ANY FEEDBACK AND SUGGESTIONS TO CABOTA@AFORBES.CO.ZA.

Grappling with global investing

It's time the industry gets the messaging to investors right.

When the Advisory Committee met to review the submissions for this issue on global investing, a collective *GROAN* issued forth from the team. It's not often that we feel the industry needs a serious wakeup call – but this was one of those times.

What got us so riled up?

For as long as I have been in South Africa, now going on 27 years, it has seemed as though the singular focus of investors here has been to get as much of one's investment assets out of South Africa and into the global markets. The rand was purportedly only going one direction – down. So, the battle cry was "if you could find a way to get your money out, do so".

Perhaps this view could have been forgiven back during those uncertain times, but by now investment professionals should have developed a more considered perspective on why, how and where to invest outside of South Africa.

What was surprising, though, was how many of the submissions we got on this topic still reflected either incorrect or inadequately considered arguments. There were the same old arguments that marketing departments have been using for the last two decades to lure investors into these more profitable investment options – with little new thinking as to whether those arguments still pertained.

The answer is – they don't. Or, put differently, there is just so much more information an investor needs to consider before making a global investment decision, and that information has not been forthcoming when it is needed most. Global investing is far from a "slam-dunk" decision.

The good news is that there is some extremely insightful new research emerging in South Africa that is providing considerably more clarity on the issues. This edition of *Collective Insight* profiles some of the best that we saw. Each of the articles that follow either provides a refutation of the "old" ways of thinking about global investing or better guidance as to how to make more effective decisions. Here are some of the myths that our authors explode.

Photo: Shutterstock

For as long as I have been in South Africa, now going on 27 years, it has seemed as though the singular focus of investors here has been to get as much of one's investment assets out of South Africa and into the global markets.

First – the case for global investing is not an automatic 'yes'

Candice Paine, in her article on p.20, takes us through the questions that investors need to ask themselves before they determine whether global investing is appropriate for them. Candice's perspective applies specifically to individual investors. But institutional investors such as pension funds need to go through a similar exercise. Investors will tend to get so caught up on the issue of how to maximise returns that they forget that pension investing needs to match the liability that investor faces at retirement. Most South Africans will continue living in South Africa after retirement.

Each of the articles that follow either provides a refutation of the 'old' ways of thinking about global investing or better guidance as to how to make more effective decisions.

As such, their investment choices need to provide rand-based income generation that can keep pace with South African inflation. Global investments could potentially introduce a mismatch here.

Second – the 'diversification of risk' benefit is often misstated because investors don't capitalise on it optimally

On p.18, Ainsley To and Deon Gouws set out some of the traditional arguments for global investing: country diversification over the long term reduces risk to any single economy. But they also show that that benefit really only materialises after two years and tends to increase even further over five years.

It does not protect investors from downside risk over the short term. They also introduce the conventional argument that when a market is as concentrated as the South African market, global investing provides an opportunity for investors to access sectors and industry opportunities not covered in our domestic market.

But on p.24, Roland Rousseau points out that most South African investors aren't really capturing the true diversification potential that these arguments suggest. To begin with, when investors dip their toe into the global markets, they typically start with global equities. As Roland points out, this is probably one of your least diversifying of global assets. Typically, when there is a global crisis, local and global markets will tend to move in the same direction. While over the long term, underlying economic growth will create divergences in equity markets, the optimal global assets for diversification for South African investors may come as something of a surprise. Read the article and find out!

More importantly, he highlights the point that if an investor wants a portfolio that fully integrates all the optimal risk and return merits provided by global investing, that should be done by a single manager in a single portfolio. This rarely is the case for South African investors. Typically, the global investment allotment is simply "tacked" on as a 30% allocation to the local portfolio and most commonly, that allocation invests in global equities, the least diversifying global asset class.

Investec, on p.21 provides an example of exactly how this should work. But the key point is, once investors start investing in more than one portfolio to diversify manager risk, this advantage disappears.

Typically, the global investment allotment is simply "tacked" on as a

30%

allocation to the local portfolio and most commonly, that allocation invests in global equities, the least diversifying global asset class.

Third – the marketing claims may not relate to what investors are actually getting

The problem is, too many global sales are made on a point-in-time snapshot of correlations between different markets that can be grossly misleading. Take, for example, the arguments used for investing in African equity markets. Most investors see a correlation matrix of the markets of different African nations. The problem is, they typically invest in Africa through a dollar-denominated fund. Each fund may have totally different allocations to different African economies, but two points need to be appreciated:

- These funds tend to be dollar-denominated so that now you have the additional volatility of the rand/dollar currency fluctuation
- Investments will tend to be in the most liquid African markets, and these will tend to have the highest correlations with each other and with South Africa

We've tried to include a few information boxes to help highlight some important points.

Our sidebar on p.29, courtesy of both Momentum International Managers and Sygnia, identifies the different ways that investors can get global exposure. The challenge is this – you can get global exposure very cheaply, far cheaper than local asset classes. But again, the diversification benefits will only be at the grossest level. Compare that to the cost of "tack-on" active global strategies, that also make no reference to the local portfolio holdings, and this might be the best that investors can ask for.

Our box capitalises on some of the best new research on these diversification issues. A paper by Legae Peresec called *Estimation with Flexible Probabilities. Identifying Rand Hedges, Finding Diversifiers, Enhancing Style Analysis* provides some interesting insights as to whether investing in rand-hedge shares should help investors mitigate currency risk. They don't.

In the article on p.27 the Sanlam Investment team continues the discussion of the Legae Peresec global diversification arguments to reinforce some of Roland's earlier assertions. By including research from Avior as well as their own analysis, this article brings us to the most important lesson to be learned by investors that many marketing materials fail to point out: "a simple extrapolation of past behaviour of asset classes into the future, without consideration of the fundamental drivers of such behaviour and the ways in which they might change, clearly would be imprudent."

Fourth – it's time we re-think currency hedging

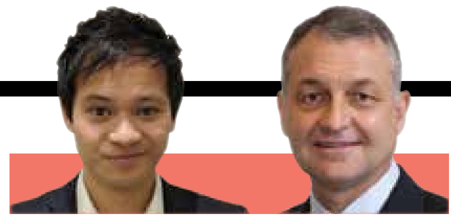
Historically, South African investors have ignored currency hedging. To begin with, it was simply too expensive. But there were also strong arguments that suggested that it was difficult to time when to hedge. Our last full article here from the Legae Peresec team suggests that if it's time to give this strategy a rethink, how should we approach the question?

Fifth – do you know where your money is really invested?

Finally, we close off this edition with a final box that Delphine Govender's team assembled for us. This lists the top ten holdings of a number of South African Equity unit trusts. What's the surprise? You may be already invested globally and not even know it! ■

Anne Cabot-Alletzhauser heads up the Alexander Forbes Research Institute.

By Ainsley To and Deon Gouws



DIVERSIFICATION

Home is where the heart is...

...but your portfolio might be better off elsewhere.

There is strong evidence that investors around the world favour their home market and this is reflected in their portfolio holdings. The phenomenon is known as home bias and has remained a puzzle in academic literature for decades.

Despite barriers to international investment continuing to fall, most individual investors have remained overly invested in their domestic market. There are certainly practical reasons why some SA investors might not be invested in foreign stocks (due to individual constraints or liability matching, for example). But for those who can, the balance of evidence suggests that global diversification is worthwhile.

Returns for an unhedged investor

Chart 1 compares real returns in rand and return volatility (as a proxy for risk) across 26 foreign markets. Universe consists of: Australia, Austria, Belgium, Canada, China, Denmark, Finland, France, Germany, Hong Kong, India, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, South Korea, Spain, Sweden, Switzerland, Taiwan, UK, US.

From a returns perspective there is no blanket statement that can be made about foreign exposure – some individual markets have outperformed the SA market over this period and others have underperformed, with a few extreme outliers on both sides.

However, the picture becomes more interesting when looking at global investments. The global portfolio, which represents the MSCI All Country World index (ACWI), has had higher returns than the local market. While the ACWI is easily investable, it has had large country concentration (the index is currently over 50% invested in the US).

For reference, the chart also includes EW, an equally weighted country portfolio, which is more representative of broad foreign country exposure. (The EW portfolio does not include all the markets in the MSCI ACWI but is to represent the experience of the average country in the list. The portfolio was rebalanced monthly.) Both global portfolios have achieved a higher real return than the SA market over this period, illustrating this is not simply due to the dominance of the US market in global market capitalisation.

There are of course many dimensions to risk that are not captured by volatility. Another perspective is to look at the returns of a global portfolio during the worst periods for a local market investor.

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Risks for an unhedged investor

A caveat to simply comparing returns is that historical data is often unreliable as estimates of the future. On the other hand, the volatility of equity returns has been more prone to mean reversion over time.

When comparing volatility (the horizonal axis in chart 1), it is no surprise that the SA market is on the lower end of the spectrum (further to the left) relative to other individual country portfolios since the unhedged foreign markets are explicitly exposed to currency risk.

However, in the case of both the global and EW portfolios, the risk reduction from diversification outweighed the additional currency risk, thereby resulting in lower overall volatility than for the domestic market. This was not to the detriment of return – namely both global portfolios had a better risk-reward-ratio than the local market.

There are of course many dimensions to risk that are not captured by volatility. Another perspective is to look at the returns of a global portfolio during the worst periods for a local market investor.

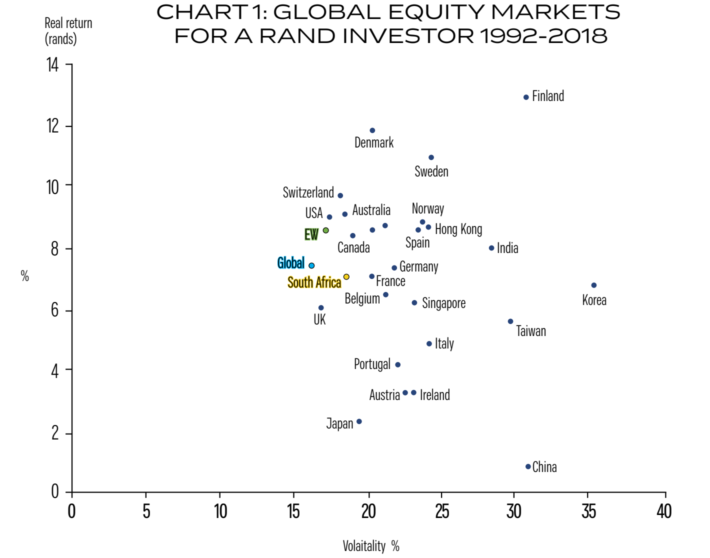
Chart 2 shows the returns during the worst periods for the SA market compared to the returns for the global portfolio during those same periods and shows this across various investment horizons.

Many of the worst months for the SA market coincided with difficult periods globally, as can be seen on the left of chart 2 – during the worst periods (5th percentile) of 1-month returns for the local index, the SA market averaged -11.7% and the global portfolio was also down an average of -3%.

However, for longer-term investors, the global portfolio was increasingly diversifying – when investing for longer than two years, real returns for the global portfolio were positive during the worst times for the local market.

For example, the average return during the local market's worst five-year periods was -11.5% versus +79% for a global investor in rand terms. A similar relationship is seen when comparing the EW portfolio. In summary, global diversification helps reduce long-term tail risk in investor outcomes.

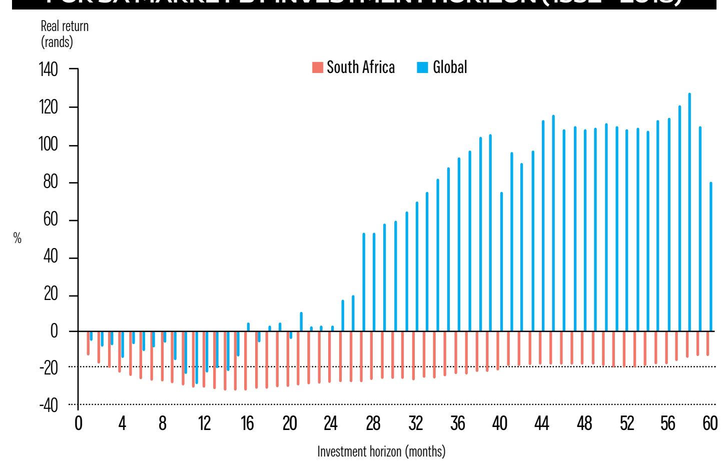
CHART 1: GLOBAL EQUITY MARKETS FOR A RAND INVESTOR 1992-2018



Footnote: Returns data is from MSCI Local Gross Total Return indices from December 1992 to December 2018. South Africa CPI data is the month-on-month series from Statistics South Africa. Exchange rates are from Reuters. Each eurozone country pre-December 1998 was invested in its pre-euro local currency. Countries here are not exhaustive of those included in the Global index but cover enough to be representative (over 95% of DM market cap and over 70% of EM).

SOURCE: Credo, MSCI

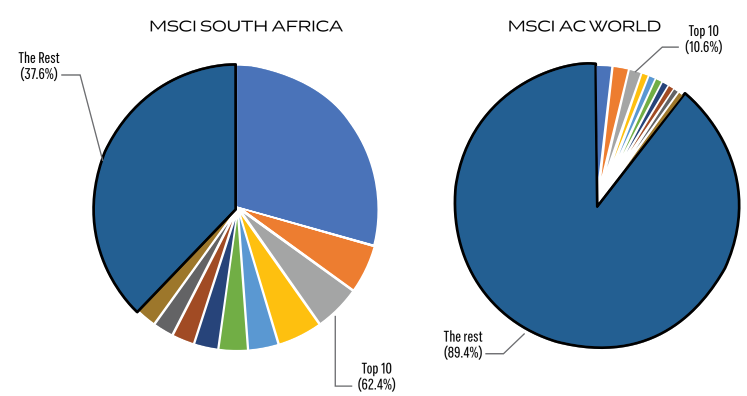
CHART 2: RETURNS DURING WORST PERIODS FOR SA MARKET BY INVESTMENT HORIZON (1992 - 2018)



Footnote: Worst periods are defined as the 5th percentile of returns per holding period, using rolling returns to represent the experience of investors who had invested at any given month over the dataset.

SOURCE: Credo, MSCI

TOP 10 CONCENTRATION



SOURCE: Credo, MSCI

Concentration risk under the bonnet

Other benefits to diversification can be seen when we drill down to the stock and sector level. As with many individual countries, the SA market has a narrow universe which is dominated by a few large names (bottom left), with the top 10 stocks making up over 60% of market capitalisation. This is not the case in the global index, where the weight in the top 10 is a much smaller proportion. A global investor has a broader opportunity set to capture the equity risk premium.

The SA market is also quite sparse from a sector exposure perspective – using Global Industry Classification Standard (GICS), the MSCI South Africa contains zero Utilities or Information Technology stocks (Naspers* is part of the new Communication Services sector) and the Energy and Industrials sectors only contain one stock each.

This leads a purely domestic investor to be exposed to a much smaller number of economic drivers due to the narrow group of stocks available to them.

Conclusion

"Diversification is the only rational deployment of our ignorance" – Peter Bernstein

It is human nature to relate the safe with the familiar – and in terms of perceived safety there is no place like home. When it comes to investing, however, what feels emotionally comfortable is rarely the optimal choice. Global diversification is not a panacea that removes all risk – equity markets can be highly correlated during short-term crashes. Yet short-term volatility, however painful, is a less significant risk than long-term impairment of wealth. And in this regard, global diversification is an extremely effective way to improve outcomes.

It is consistent with history for any one country market to go through structural decline for multiple decades. For investors who can't forecast with certainty which exact countries to avoid, the best approach to reduce risk is to diversify globally. All else being equal, the starting point for an equity allocation should be the global market, not the domestic one. ■

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By Candice Paine

FUNDAMENTALS

A practical guide to global investing

Many South Africans have stuck their heads in the sand when it comes to their global assets – or lack thereof. What should you consider if you're serious about investing offshore?

You've no doubt heard the statistic that South Africa's gross domestic product (GDP) contributes less than 1% to that of the world. This implies there is a lot more growth, larger markets and a diversity of industries elsewhere. As a consequence, all South Africans need some global exposure in their portfolios. Maintaining all your assets locally disqualifies you from a plethora of good investment opportunities abroad and uncorrelated returns.

Knowing you need to invest globally, and implementing this in your portfolio, requires some application. First, you'll need to understand your current portfolio positioning. Combining this with your unique financial requirements will help you decide how much and where to invest.

A good starting point is to look at your personal balance sheet. Collate all your assets (house, pension fund, investments, etc) and liabilities (home loans, car payments, school fees, etc). Detail is important. Construct your portfolio on a see-through basis to determine actual asset class exposures both locally and internationally, i.e. equities, cash, property etc.

The size of your debt should also be noted as this is a hindrance to building wealth anywhere.

How much is to be externalised necessitates answering questions like these:

- How much time do you have to build this portfolio and let value unlock? Time and capital available must be balanced. The less time you have, the more important some of the other questions below become.
- Is your retirement saving on track to meet your needs? This is your most important need in any investment strategy. If you can't answer yes to this question, then focus only on this until the answer is yes. Remember that Regulation 28 allows for 30% of your pension fund to be invested offshore.
- Where will you retire? Many South Africans can't answer this question just yet. Keeping your options open is therefore a strategic necessity. Thus, global exposure may become an important tactic.
- Do you plan to emigrate? When? And where to?
- Do you have sufficient 'extra' voluntary savings to invest offshore?
- In which currency are your liabilities priced? German cars, American/Korean technology, international education and travelling to visit children overseas are all hard currency liabilities.

The rule of thumb is largely the following: If you have sufficient retirement savings; low or no debt; adequate voluntary savings (allowing you to take money offshore without impacting your lifestyle) – then the portfolio percentage to externalise could range between 30% and 50%, depending on whom you speak to. This isn't an exact science, though. The goal is to have sufficient capital invested globally to meet whatever your needs are and diversify your portfolio.

Going global

When deciding where to invest globally, remember that your appetite for risk doesn't change just because you are investing in another jurisdiction. If you're a moderate local investor, then you are still a moderate global investor maintaining a keen eye on your portfolio's total asset allocation wherever the investment is.

With this backdrop, building a well-diversified portfolio that has a low correlation to all your SA assets becomes prudent.

And it is not only about the rand. South Africans tend to price offshore investments in rands. Rand deprecation then becomes paramount and the actual real return of the underlying asset gets forgotten. This is no good. Your portfolio must grow in real terms in the currency it is held in, and in line with your needs and asset-allocation decisions.

Another decision to explore is currency and country exposure. Multinational companies span borders these days, but as a rule remember that most of your current exposure is to the emerging market you live in, so unless you are intentionally taking bets in other emerging markets, you may want to add a good portion of developed market exposure to your portfolio.

If your plan is to emigrate or you know where you're going to be spending a lot of time due to educational needs or family commitments, then choose to invest in the currency where those liabilities are going to be.

What are the options?

Broadly, there are two to consider. Which option you choose depends on your circumstances.

OPTION 1: Physically taking your money offshore.

Therefore going, for example, through the exchange control process, opening up an offshore bank account and sending rands overseas into a currency of your choice.

An individual is allowed to take a maximum of R10m a year offshore subject to South African Revenue Service (Sars) tax clearance and a maximum of R1m without tax clearance.

Once the money is offshore (most banks can do this exchange for you), you may do with it as you please, i.e. leave it in a bank account in your name or invest it in unit trust funds, stocks, property etc.

Offshore investments still fall into your estate and are therefore liable for estate duty in the jurisdiction in which you invest. Certain SA investment providers do offer offshore endowments that negate the need for probate or an offshore executor. You may also nominate beneficiaries, which means that at your death the investment can either continue offshore or be paid out in foreign currency to the beneficiaries.

Global endowments have attractive tax advantages and tax is calculated using the offshore currency and not rands. All tax administration is taken care of in the endowment.

This type of investment (as with all stock market investments) requires a long-term mindset as there is a five-year lock-in. There is some flexibility with respect to additions and withdrawals but there are limits too.

Note that while these products do save on executor's fees and paperwork on death, they require quite large lump-sum minimums (approx. $20 000 to $25 000) and there are no debit order facilities.

> **Remember that most of your current exposure is to the emerging market you live in, so unless you are intentionally taking bets in other emerging markets, you may want to add a good portion of developed market exposure to your portfolio.**

OPTION 2: Investing in rand-denominated investment options.

Your investment and currency exposure is foreign, but you invest in rands and get paid out in rands. Your money does not physically leave SA.

These unit trust funds are priced in rands, but your capital is invested offshore giving you the global diversification and foreign currency exposure you're after. There are many different investment mandates available catering for all risk profiles and time horizons.

There is no need for Sars tax clearance as your investment is made in rands and paid out in rands on disinvestment in SA. You are able to set up debit orders and the lump-sum minimums are a lot lower than in option 1 above.

Another consideration is rand-denominated offshore exchange-traded funds (ETFs). If you have a stock broking account, you can simply redirect some of your capital to ETFs that invest offshore. Again, you are investing in rands and will be paid out in rands.

Remember that your pension fund may very well have offshore exposure through your underlying investment choices. Regulation 28, which governs how pension funds are invested, allows a maximum of 30% offshore exposure.

While investing offshore should primarily be about global diversification, accessing different industries, interest rate and inflation regimes and stronger economies, for South Africans it is always about much more.

If political risk is your primary concern, you should consider option 1 and actually move your capital offshore. Investing this way means you never have to repatriate or convert the investment back into rands unless this is your choice.

If you don't have a large lump sum, but still want a rand-hedge investment option, then option 2 is the way to go. You can always save in this vehicle until you reach the minimums for option 1 and then move the capital offshore.

Whatever your concern, as a South African serious about your financial wellbeing and sound portfolio exposure, you need to have global exposure in a well-structured, diversified portfolio where local and global assets complement one another. If this seems like a daunting task, don't ignore it but rather find a professional to assist you. It is that important. ■

Candice Paine is an independent financial adviser.

By Rüdiger Naumann & Natalie Phillips

PORTFOLIO MANAGEMENT

Offshore investments: Greater responsibility required

Although investing offshore will broaden your opportunity set, you will also be exposed to greater risks if your offshore investments are not correctly managed.

The offshore allowance provided for by the relaxation of foreign exchange controls over recent years has broadened the opportunity set available to South African savers. This larger investment opportunity should support returns while lowering the volatility of the overall investment. Or so the theory goes.

In practice, the greater investment universe may add to risk, rather than reduce it, unless managed responsibly.

Offshore assets now make up a significant portion of most unit trusts used for discretionary savings and of most retirement funds. In most cases, these assets are managed independently by third-party managers or as standalone portfolios.

When separating the on- and offshore asset allocation and asset selection decision, the combined portfolio may well generate a suboptimal risk-return outcome, which is contrary

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to what is expected by investors.

Based on our work and track record across multi-asset strategies, we believe SA investors are best served by a completion approach. The alternate is, in our view, inappropriate as it fails to sufficiently, if at all, consider the risk and return contribution it makes to local investments.

Diversification – at what price?

Portfolio construction theory relies heavily on the concept of diversification, which maintains that holding assets with low correlation to one another can deliver returns at low or lower volatility.

Low or lower volatility is associated with lower 'risk'. Conceptually, this is both intuitive and, above all, an attractive proposition. In practice, however, the facts may provide only limited support for this argument.

Two crucial aspects must be considered: Firstly, how uncorrelated are these global assets in advancing the diversification argument? If they are not, or not significantly, is the major tenet of diversification, and by implication allocating investment capital offshore, in question?

Secondly, do the potential investments offshore provide a materially higher return payoff?

In our view, these two aspects are inextricably linked. Either, in isolation, will not provide an acceptable outcome. Rather they will lead to poor returns, while justifying this on the back of a 'diverse' portfolio. Alternatively, investors may hold prospects of great investments but are likely to suffer significant volatility (or risk) in achieving these.

If this is indeed the case, the benefit from global investing is largely, if not entirely, absent. Alive to these real concerns, our completion approach tackles these head-on: Global investments have to meaningfully diversify local risks while simultaneously meeting our compelling standalone investment criteria.

Collectively, we refer to these two criteria as complementary investments in the context of our multi-asset strategy.

Emerging markets provide a useful and timely example of our approach: Good investments exist across the diverse universe but the correlation to SA-domiciled assets and exposure to factors that have a material impact across the range of local assets, especially in times of stress, raises the investment hurdle.

Larger opportunity set requires additional resources

The SA market is very small compared to what is available globally. The greater choice of investments provides the opportunity to apply the complementarity criteria of risk and return set out above.

However, the resources required to effectively make investment decisions in a large, less familiar market may act as a serious handicap to SA investors hoping to achieve a superior outcome to local-only investments.

Offshore investing necessitates deep resources, specialist skills and experience across a broad range of asset classes and investment strategies.

The successful execution of the completion approach in our multi-asset strategy has thus relied heavily on drawing on these skills across global FX, global equity, global and emerging-market fixed income and alternative investments.

It is most likely the absence of these that has resulted in the outsourcing by SA managers of a significant part of the portfolio to external managers or stand-alone strategies. This, we believe, results in a less than satisfactory outcome.

Implicit exposures, not adequately considered

Related to the issue of complexity and resourcing outlined above, global investors are confronted with a level of complexity that managers (and by implication, local savers) are not exposed to within the confines of the SA market. One among many additional risks is the constant movement in exchange rates when translating global returns (and volatility) into rands, but also the impact exchange-rate movements have on the investment case and portfolio risk. A portfolio of global investments will generally result in exposures to assets denominated in a multitude of different currencies. Volatility may very likely have a material impact on returns to local investors.

Our approach to multi-asset investing takes these opportunities and risks into consideration and we explicitly manage them in our allocation to non-SA assets. We are clear that the long-term liabilities that we target are local and rand-based. Global currencies form an important driver in achieving these.

Fixed weight allocation – appropriate use of opportunity?

Some investors seem satisfied that as long as they have global investments, whatever the proportion, across a mix of more cyclical and defensive assets, their objective of superior, risk-adjusted returns will be achieved. Far from it, unfortunately. A static or fixed allocation to global assets is neither appropriate nor optimal. While on a standalone basis this seems practical, offshore investors should always consider their global investments in the context of their overall, SA-dominated portfolio.

Investors are best served by an integrated or holistic approach to building the portfolio, rather than opting for bolt-on, standalone or even third-party allocations managed without thought for the portfolio as a whole. Integrated management demands dynamically varying allocations to different asset classes, regions and sectors, always informed by the impact on the portfolio as a whole.

If not correctly managed, investing offshore may broaden the investment opportunity set, but pose an additional risk to local savers. Based on our experience that a standalone strategy was suboptimal, we adopted a holistic approach, considering our offshore investments on a total portfolio basis. This implies full sight of all assets and control over them, both local and offshore. ■

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Natalie Phillips is deputy managing director at Investec Asset Management.

Photo: Shutterstock

By Roland Rousseau

EQUITIES

Going offshore: Be careful what you wish for

Most of our big stocks are already global companies, which means you are likely already diversified. And if you still plan on increasing your offshore exposure, make sure you understand whether it's the currency or the stock you're investing in that makes it worthwhile.

This article tries to address one simple but important aspect of offshore diversification. In general, offshore investing is well-known to be beneficial in improving risk-adjusted returns. But is it the currency or the stocks that make offshore investing worthwhile?

Even US investors can benefit from offshore diversification despite having a broad and deep domestic equity market. Therefore, it should be even more true, in general, for our narrow and shallow market to broaden and diversify our equity exposures. However, as Clifford Asness et al (www.cfapubs.org in May/June 2011) clearly state, diversification is good in the long run but 'lumpy' in the near term.

"Critics of international diversification observe that it does not protect investors against short-term market crashes because markets become more correlated during downturns. Although true, this observation misses the big picture. Over longer horizons, underlying economic growth matters more than short-lived panics with respect to returns, and international diversification does an excellent job of protecting investors."

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As Graph 1 demonstrates, the three drivers of equity portfolio return deliver varying degrees of risk and return through time. For example, in 2001, the domestic FTSE/JSE Top 40 Index delivered about a 33% positive return. In addition, the currency (rand) depreciated by about 59% adding significant returns for anybody who held offshore exposure. The MSCI in 2001 lost about 18% in US-dollar terms which would have detracted from a global equity holding.

In 2001, the beneficial currency depreciation for offshore investors, coupled with the local equity market rally, dwarfed the loss of the MSCI World index. But here lies the important realisation from Graph 1.

The local equity market, together with the rand, virtually dominate equity portfolio return contributions in every year and the offshore MSCI returns in US-dollar terms contribute the least.

This tells us several things. If your motivation to invest offshore is to chase global equity returns, you are probably fooling yourself. Local equity returns are just fine. However, local equity returns combined with money held in US dollars cash, rather than in MSCI World, makes the most sense as you will get the currency benefit and have less overall risk than putting money in a risky asset class like global equity.

The winning portfolio is not what you expect

Let's build some example portfolios to test this startling claim and see how they behave through time as this will also take time-varying volatilities and cross-sectional dynamics into account. Each of the example portfolios rebalance quarterly back to their policy allocation weights.

The table below shows four portfolios. Let's commence with portfolio 4. Imagine, as an SA investor, you took your R100 and invested it in a 100% US-dollar offshore account. Now as a rand investor this would translate into a very unexciting return of 4.2% per annum with a massive volatility of about 17%.

Many investors think putting their rands into a dollar cash account is smart, but if you are ever going to bring that cash back home again, it is a very poor strategy to grow your wealth. To make this point more clearly, a 100% invested in dollars would have resulted in a maximum drawdown loss of 58% and from 2001 to 2007 your portfolio would have been in the red in rand terms.

Portfolio 3 is probably the most common investment equity policy applied in SA. 30% is held in global equities such as the MSCI World Index and 70% is held in local equities (we use FTSE/JSE Top 40 as a liquid proxy). The problem with this strategy is that when global equity markets crash, our market also crashes and the offshore currency exposure may not necessarily bail you out in that scenario.

FOUR OFFSHORE PORTFOLIOS TO CONSIDER (RETURNS FOR R100 INVESTED AT END OF 1999)

PORTFOLIO EFFICIENCY RANK	RETURN (pa)	RISK (pa)	RET/RISK	Max DD
1. 70% Top 40 + 30% in USD	11.2%	14.4%	0.78	-37.6%
2. 100% Top 40	13.4%	20.2%	0.66	-48.27%
3. 70% Top 40 + 30% MSCI World	9.4%	18.8%	0.5	-53.26%
4. 100% USD	4.2%	17.4%	0.24	-58.92%

A nasty maximum drawdown of 53% was the reality with this portfolio with a mediocre efficiency ratio of 0.50 (return divided by volatility). Most pension funds in SA would have had this type of performance from their equity portfolio.

Portfolio 2, which is 100% invested in domestic equities (Top 40 index) with no offshore allocation, delivered a respectable 13% return, but with quite high volatility at 20%. However, this higher volatility was offset by proportionally higher return, improving the efficiency ratio to 0.66. So, remind me please why we invest offshore when an entirely local allocation is pretty attractive?

And the winner is, portfolio 1. With an efficiency ratio of 0.78, this portfolio held 70% in domestic Top 40 equities and 30% in US-dollars cash. The drawdown of this portfolio is also significantly better than all the other portfolios because when the rand weakens, you get the full benefit for the 30% held in dollars.

As can be seen from Graph 2, despite having no offshore equity exposure, portfolio 2 (100% invested in the Top 40 domestic index) is the winner in terms of returns only, but this comes at the price of a wild rollercoaster ride with steep drawdown losses.

Portfolio 1, with 30% held in US-dollars cash, however, is the most consistent performer through time and delivers better returns than the last two portfolios. Most professional investors seem to fall into the trap of advising clients by claiming that, "on average" offshore equity investing is a good strategy. What our analysis shows is that when and what you have as your offshore asset matters more. The 2008 financial crisis showed us that a blind offshore-equities allocation to something like MSCI World was a very bad and inefficient diversification strategy that took much longer to recover from.

When and what you invest in offshore matters!

The above surprising results actually do make sense and explain why most policy portfolios are currently not efficiently investing in offshore assets.

Firstly, most of our big stocks are already global companies, so you are already diversified by holding the local market. In fact, investing in offshore equities has not helped in times of crisis and has actually diluted equity returns over time.

Secondly, merely investing offshore in broad indices for the sake of diversification, at best, provides very little portfolio efficiency gains and at worst sinks you in a global equity crash because equity risk, whether in SA or offshore, is largely the same risk. So, putting your offshore allocation in a global equity portfolio is like trying to run away from your local equity risk-shadow.

Many investors think putting their rands into a dollar cash account is smart, but if you are ever going to bring that cash back home again, it is a very poor strategy to grow your wealth.

A much better approach, which is beyond the scope of this article, is to ensure that your local and foreign underlying stocks' correlations are used in the portfolio construction.

This means exactly which stocks you hold offshore need to be reviewed quarterly to make sure they are actually diversifying your local equity holdings. Buying and holding the S&P 500 or the MSCI World fails to do this.

Proper diversification can only be delivered if correlations are regularly taken into account. Most of us ignore these effects, thinking any offshore investment is good.

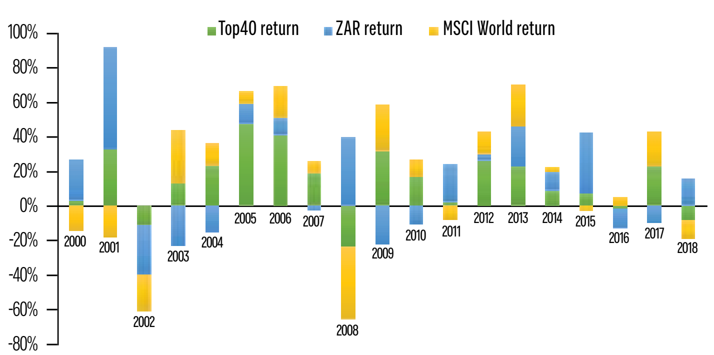
Implicit or explicit diversification

In summary, investing offshore from SA is a double-edged sword that does indeed, on aggregate and in the long-run, provide higher-risk-adjusted returns with much lower drawdowns if you use a basic allocation to a hard currency cash holding (e.g. dollars). Investing in global equities on the other hand, exposes you to long periods of poor benefits and sharp periods of good benefits.

If you scratch a little deeper, and you want meaningful and adaptive diversification, you need to do more than hold a bunch of slow-moving global indices or actively managed funds. Constructing a local plus offshore basket of equities to continuously maximise overall diversification will provide significantly better results. ■

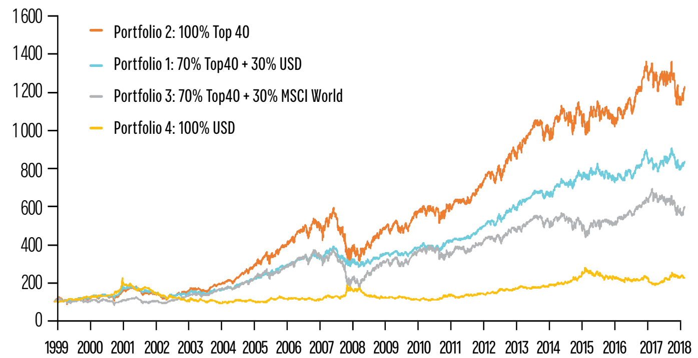
Roland Rousseau works at RMB Global Markets and assists institutional clients to lower overall portfolio risk both domestically and offshore by delivering systematic index strategies. He is a committee member of the FTSE Index Advisory Committee, which maintains the official benchmark FTSE/JSE index series.

GRAPH 1: RETURN CONTRIBUTION OF FTSE/JSE TOP40 INDEX, USDZAR AND MSCI WORLD INDEX



SOURCE: RMB GM STS

GRAPH 2: FOUR OFFSHORE PORTFOLIOS TO CONSIDER (RETURNS FOR R100 INVESTED AT END OF 1999)



SOURCE: RMB GM STS

By Adam Bulkin, Peter Urbani and Mark Phillips

RAND HEDGING

You need to preserve the real dollar value of your savings

Listed rand-hedge stocks have long been used to hedge against rand depreciation. But is this in fact the right strategy?

South Africans who are in the accumulation stage of their investment cycle invest in assets in order to provide real growth. For a retirement fund investor, given the 30% constraint on foreign assets imposed by Regulation 28, these growth assets would be predominantly in domestic equities.

At the same time, since part of preserving and growing one's assets is to preserve their real purchasing power, these investors should also take into account the relative purchasing power of the rand and the inflationary effects that its devaluation may have. To put it another way, one should try to preserve and grow one's wealth in hard currency terms.

Over 2018, these objectives were extremely difficult to achieve. The rand lost close to 14% as measured against the US dollar. As a result, along with the dismal performance of domestic equities as a whole, in general, holders of SA shares suffered significant wealth destruction, particularly as measured in dollar terms.

SA-listed rand-hedge stocks have long been used as a strategy for hedging against rand depreciation.

It's no wonder, then, that protecting against rand weakness is once again front of mind for South Africans wishing to preserve and grow their real spending power. Conventional wisdom, echoed in the stock selection of many investors, is to utilise shares listed in SA whose operations and revenue are based offshore (so called "rand-hedge" stocks), to benefit from and protect against rand weakness.

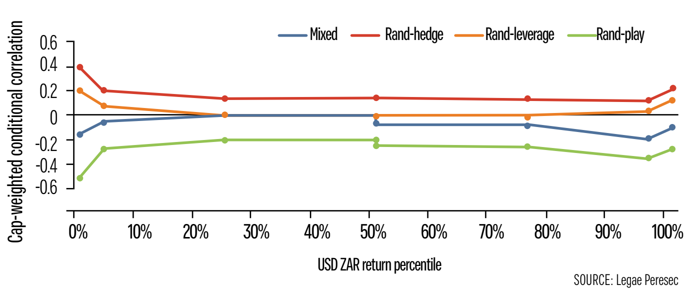
It makes intuitive sense to follow this strategy, since this should achieve diversification and negative or low correlation with a weakening rand and thus with a major driver of the returns of one's dominant growth asset (domestic, non rand-hedge equities). But are investors following the right strategy and does the empirical research in fact support this strategy?

A research paper by Emlyn Flint, Anthony Seymour and Florence Chikurunhe of Legae Peresec provides some interesting insights. They categorised the current set of JSE Top 40 index constituents into the four currency-based groups and then analysed the individual and group stock relationships to the dollar/rand exchange rate during times of rand weakness and strength. (Also see their article on p.30)

Legae categorised the rand-hedge stocks into two sub-groups: rand-leverage stocks, which have hard currency revenue but expenses in rands, and conventional rand-hedge stocks, which have both revenue and expenses in hard currency. In both cases, the groups would intuitively be expected to be negatively correlated to (i.e. benefit from) rand weakness, with rand-leverage stocks more so. Legae looked at data from January 2013 to October 2018 and the cap-weighted, average group correlation profiles between rand weakness or strength and the returns of the groups.

Surprisingly, the correlation profiles showed that there were no strong relationships between currency moves and the returns of rand-leverage and rand-hedge stocks for almost all periods. It was only in the 5% most extreme currency moves that a clear and direct relationship was seen.

CORRELATION BETWEEN CURRENCY MOVES & RETURNS



SOURCE: Legae Peresec

Contrary to expectations, the rand-leverage currency correlation was essentially zero for the majority of the dollar-rand range of currency moves, only becoming positive in the extreme 5% positive and negative dollar-rand moves (the left and right tails).

Even then, it was below 20%, meaning that only 20% of the move in the group of stocks could be explained by the move in the currency, and remained well below the rand-hedge group's corresponding values. Thus, the rand-leverage companies, which should be best positioned to take advantage of rand weakness due to their dollar-based earnings and rand-based expenses, surprisingly show less of a positive (on rand weakness) currency relationship than the rand-hedge classified stocks.

Contrary to expectations, the rand-leverage currency correlation was essentially zero for the majority of the dollar-rand range of currency moves, only becoming positive in the extreme

5%

positive and negative dollar-rand moves.

The returns of a rand-hedge group of stocks displayed greater correlation to currency moves, but again in a stable pattern of less than 20% correlation for the majority of time, climbing to under 40% in only the 5% most extreme periods of rand weakness (see graph).

Legae's research of the individual stocks in the rand-hedge and rand-leverage groups to the dollar-rand exchange rate showed that the relative hedging strength of the rand-hedge stocks seems to vary greatly depending on the magnitude of the currency move and the particular stock, and that the relationship between currency and return is not a direct, linear one. Therefore, the evidence certainly does not support an investment strategy based on a simple, blanket assumption that rand weakness will automatically or necessarily equate to high relative or absolute returns for rand-hedge or rand-leverage stocks.

Stocks should be purchased for the respective fundamentals and not for broad attributes:

The case is therefore far from compelling for using rand-hedge SA-listed stocks to protect, diversify and hedge against rand weakness in relation to domestic equities as a South African investor's predominant growth asset. Rather, each stock needs to be analysed on its own fundamental merits, as they behave idiosyncratically and not as one homogenous group according to the single driver of the rand exchange rate. ■

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By Adam Bulkin, Peter Urbani and Mark Phillips

GLOBAL EQUITIES

Is diversification merely a myth?

Diversification often dissipates during extreme market events. Being able to identify assets that offer high diversification potential is therefore crucial.

In the previous section (see p.26) we discussed the use of rand-hedge SA-listed stocks to protect, diversify and hedge against rand weakness in relation to domestic equities as a South African investor's predominant growth asset. We concluded that the merits of that investment case are far from conclusive and that each stock needs to be analysed on its own fundamental merits, as they behave idiosyncratically and not as one homogenous group according to the single driver of the rand exchange rate.

What of other asset classes, like offshore listed shares? Legae Peresec's paper discusses diversification and the previous research they have carried out in this field. Among other observations, they point out that diversification seems to disappear exactly when one needs it most – in extreme or left tail events, such as stock market crashes, particularly those brought about by global events. In such circumstances, positive correlations of most assets tend to increase significantly. This behaviour is coined the "myth of diversification".

In previous research by Legae, in 2013, they determined that the myth of diversification does indeed hold true for the majority of SA assets, with most assets displaying significant unattractive positive correlation asymmetry when paired against each other. Therefore, asset pairs generally became increasingly similar on the downside and increasingly different on the upside. Specifically, they found that local property *and global equities* provided *poor* forms of diversification for the local equities market.

Interestingly, the Resi-10 did provide attractive downside diversification.

However, there were some good diversifiers. Implied volatility, currency and interest rates (fixed income assets) showed negative or near-zero asymmetries in all given asset combinations. Local and global bond markets showed very high downside diversification potential.

In Legae's 2018 paper, this research was updated. The outcomes were similar – there are still some asset pairs that provide appealing downside diversification. In particular, Legae found that implied volatility, global fixed bonds (in foreign currency) and local fixed-income assets act as natural diversifiers for the local equities market, with good downside protection and negative correlation in the event of a domestic equity sell-off, and little or positive correlation in the event of a domestic equity positive return.

Specifically, they found that local property and global equities provided poor forms of diversification for the local equities market.

This is the ideal asymmetrical pay-off for a diversifying asset versus domestic equities. Global equities, on the other hand, showed positive correlation (i.e. did not protect) in the case of a negative left tail ALSI return, and a smaller positive correlation (i.e. also produced high returns, but to a lesser extent) in the case of a positive right tail ALSI return – not a helpful diversifier to domestic equities.

Research by Mark Sarembock and Petrus Bosman of Avior Capital Markets (Avior) in a paper entitled *Strategic Asset Allocation for CPI+ Benchmark Funds: A Deeper Dive* in November 2018, came to some similar conclusions insofar as global assets are concerned. Avior was interested in determining the optimal strategic asset allocation to achieve the highest probability of outperforming various real return or inflation plus objectives, as measured on a three-year rolling period.

Avior noted that from 1 January 1998 to 28 February 2018, rolling three-year asset class returns indicated that domestic equities were quite highly correlated to global equities.

Photo: Shutterstock

Avior concluded that, to achieve the optimal asset allocation for a CPI+5% return objective within Regulation 28 confines and without using hedged building blocks as investable assets, a high allocation to domestic bonds (slightly above 40%), about 25% to domestic equity and property and small allocations to gold and African equities (about 5% or less) was optimal. Interestingly, the balance, allocated to offshore assets, was exclusively to fixed-income assets – US government bonds and US High Yield Corporate Bonds, with no allocation to global equities.

While Avior's research included in-depth analysis concerning various hedging strategies and other aspects of portfolio optimisation given varying parameters, for the purposes of this article, the aspect of most significance was that their findings tended to corroborate that of Legae's with respect to the optimal offshore asset allocation, based on fixed-income assets.

Sanlam Multi Manager International (SMMI) carried out conditional correlation analysis from January 2013 to December 2018 to examine these conclusions and broke the history into three regimes when the rand appreciated or depreciated, and the JSE All Share Index (JSE) produced

The depth and breadth of markets, and the countries, currencies, sectors, industries and individual stocks which a global investor may exploit, are simply not available to an investor who is only able to transact in the South African equity market.

positive or negative returns. The analysis revealed that the behaviour of asset classes is dynamic and affected by a myriad of factors. Correlations are different in different regimes. Using historical data in a simplistic manner, without forward-looking views and insight into the drivers of historical returns, is therefore not an optimal manner in which to make asset allocation decisions.

That said, from the perspective of correlations, SMMI's conditional correlation analysis is broadly in line with the findings of Avior and Legae. US fixed-income assets (cash and bonds) were a good negative correlator to domestic equities.

SMMI's analysis is therefore generally in agreement with that of Avior and Legae with respect to the expectation that US fixed-income assets will act as good diversifiers to domestic equities and protectors of wealth in the case of rand weakness. It also confirmed that the behaviour of rand-leverage and rand-hedge stocks does not display a stable or directionally clear relationship to periods of rand weakness. It would seem that other drivers of returns for these stocks are more significant. In particular, we can hypothesize that for strong returns from rand-leverage stocks, an environment of positive economic growth expectations and demand for commodities is a far more important driver than the effects of the rand/dollar exchange rate on earnings.

However, SMMI's research also highlights that, from a longer-term perspective and taking into account the imperative of driving total returns, there is empirical evidence for utilising global equities (US and Japanese in particular). This is particularly so when one considers that, in order to achieve real growth, one needs to achieve the difficult balance of risk and return. Indeed, in all three regimes analysed by SMMI, while the correlations to domestic equities were always positive, they ranged over time from low to moderately high and the total returns were also always positive and above those of domestic equities, except in the 2nd regime in which the JSE experienced positive returns and the rand strengthened too.

An important and powerful aspect of this argument rests on the vast opportunity set available in global equity markets. The depth and breadth of markets, and the countries, currencies, sectors, industries and individual stocks which a global investor may exploit, are simply not available to an investor who is only able to transact in the South African equity market.

When determining the ideal blend of assets in a portfolio, particularly in relation to the competing objectives of return and risk, there are likely to be occasions when offshore equities present compelling opportunities, especially relative to domestic equities. Therefore to simply exclude global equities based on positive correlations to domestic equities would seem sub-optimal.

> The starting yield on US bonds reduced from
> **6.7%**
> on 31 January 2000 to as low as
> **1.45%**
> on 29 July 2016 and has traded in range from 1.5% to 3.1% since that low.

The drivers of returns of any particular asset are extremely complex and diverse. Thoughtful asset allocation needs to apply forward-looking views and judgement to investment decisions, as well as insights into the causes of observed past behaviour. Correlations are not static and evidence suggests that the negative correlation between equities and bonds may be changing.

The starting yield on US bonds reduced from 6.7% on 31 January 2000 to as low as 1.45% on 29 July 2016 and has traded in range from 1.5% to 3.1% since that low. It is no wonder that US bonds have produced generally strong returns and were negatively correlated to global and domestic equities, particularly when the US Federal Reserve had the luxury of lowering yields aggressively in a stimulatory response to global risk-off macro events. Today, that luxury has been severely diminished, because the absolute level of yields is so low and the level of US government indebtedness is so high. US bonds may not be as protective and negatively correlated in the future as they have been in the past.

In short, a simple extrapolation of past behaviour of asset classes into the future, without consideration of the fundamental drivers of such behaviour and the ways in which they may change, clearly would be imprudent.

Nevertheless, the empirical historical research supports the contention that a local investor should be circumspect in the use of both domestically-listed rand-hedge stocks and offshore equities to manage the risks of rand weakness and its effect on the returns of domestic equities. Research indicates that assets such as local and global bonds, implied volatility and short-term fixed-income assets may be far more effective from the point of view of risk control. However, in balancing the requirements of risk and return, global equities have definite merit and should be considered as an element of a well-diversified portfolio. ■

How to invest globally

The most appropriate global implementation strategy depends on investor goals

"There are many global asset classes available to investors today, but the question remains how best to implement an allocation. Investors can choose to do this passively or actively with a myriad of options available on both sides. Holding one eye on cost, a blend of these can make the investor's journey more palatable, with the intention of increasing the likelihood of attaining the outcome. This means spending active fee budget where the asset class is perceived to be less efficient and the upside opportunity (or downside limitation) greater. This should lead investors to research actively managed equities, small-cap, credit and alternative strategies, while using passive building blocks in more core areas such as investment grade and developed market sovereign bonds."

- Alex Harvey, portfolio manager and co-head of research at Momentum Global Investment Management

South African investors have a few options when wanting to invest in offshore equities:

1. Offshore stockbroking account

The most direct way of investing offshore is through an offshore stockbroking account. Picking stocks or asset classes yourself without a clear investment view and process can be daunting. Particularly, moving from a small investment universe like SA to a global environment is not easy.

Any rand investment offshore also needs to be approved by Sars, which can take time. This is not only about the inconvenience, but the fact that timing is everything when investing. The better you are able to avoid delays, the better your chances of getting the exposure you want at the time the best opportunity is offered.

That said, there are advantages in investing directly. If you decide to liquidate your offshore positions, you can either get your cash converted back to rands or keep it in hard currency, allowing

Alex Harvey
Portfolio manager and co-head of research at Momentum Global Investment Management

Siyabulela Nomoyi
Head of index management at Sygnia

you to invest in other foreign currency-denominated products that are not available locally.

2. Exchange-traded funds
A cheaper alternative to the direct route is investing in exchange-traded funds (ETFs) and rand-denominated funds. These provide a much easier way to get offshore market exposure although they do limit the investor to whatever offshore products are currently available in SA. For these products, the investment is in rands and payout is also in rands, into a local bank account. The main advantage of this is that there are no limits for the investor as they do not have to get clearance from Sars. The fund manager takes care of this.

A particularly attractive option for local investors is the many international index-tracking products available on different platforms in SA. These give investors an opportunity to track offshore markets easily, efficiently and cheaply. ETFs that trade on the JSE are especially simple to access, as they can be bought and sold as easily as any liquid local share.

For many investors, choosing which way to access offshore markets is determined by the amount being invested, as the minimum amounts required to invest directly are too high for many individuals. You also cannot use the convenience of a debit order to invest directly offshore.

A number of local providers have also expanded their offerings into other international asset classes. These include global bonds and global property. ”

- Siyabulela Nomoyi Head: index management at Sygnia

“There also now exists a 'smart beta' middle ground offering some of the underlying characteristics or 'styles' associated with active management, but which are offered at lower cost and using systematic 'rules-based' construction.

Global income exposure is becoming more varied for SA investors, but still lags equity offerings.

In fact, for many SA investors the bond allocation might even be just a holding of US treasury bills which, in all fairness, is a good diversifier and source of hard currency (and modest return once again these days). This fails to take advantage of the broader market for US dollar-denominated bonds, however. These days investors can choose to build out a much broader bond portfolio incorporating investment-grade credit, high-yield bonds, asset-backed securities and emerging-market debt, among others.

Global fixed income markets have to date lagged this trend in 'smart factor' innovation largely because of the over-the-counter (OTC) nature and cost of bond trading, as well as the lack of research and evidence to support it. However, it is now more widely accepted that bond returns can in part be explained by value, size, quality and carry factors and there exists a momentum and risk-adjusted low-volume premium. There are several investment managers that have made inroads into this approach to bond investing but it remains a narrow field today. ”

- Alex Harvey from Momentum Global Investment Management

By Emlyn Flint, Anthony Seymour and Florence Chikurunhe

CURRENCY EXPOSURE

The effect of currency exposure on global portfolios

If you are invested in foreign assets, you are also exposed to foreign currency movements. Determining the scale of this exposure will depend on your risk appetite and investment goals.

Should I manage my currency exposure? This is a question nearly all South African investors need to consider – whether they realise it or not. This is because, either indirectly through investment funds or directly via offshore holdings, the majority of South African investors are invested in foreign assets and thus are also exposed to foreign currency movements.

This embedded exposure can have a meaningful impact on portfolio performance, so investors should think carefully about whether this exposure is in line with their return objectives and risk preferences.

Over the years, there has been substantial research on how to best manage currency exposure for global portfolios, but ultimately this boils down to three choices for any investor, each with their pros and cons:

1. Do nothing and take full currency exposure (i.e. no hedge).
2. Remove all currency exposure via currency forwards or futures (i.e. full hedge).
3. Manage currency exposure over time, either passively or dynamically (i.e. partial hedge).

In general, currency exposure offers the following benefits for a global portfolio:

• **Return enhancement:** A weakening domestic currency increases the value of offshore assets when measured in the domestic currency. This works both ways, though, and thus should be based on a *strong* view on the future prospects of the exchange rate.

• **Risk reduction:** If the currency and foreign assets are *negatively* correlated, it is possible for some degree of currency exposure to lead to a reduction in total portfolio risk.

In the South African context, return enhancement due to a generally weakening rand is the primary reason that local investors may choose to maintain full currency exposure.

Indeed, the long-term depreciation of the rand shown in Figure 1 has certainly given a boost to the historical performance of foreign assets. However, there have been several periods where the rand strengthened significantly, meaning that foreign asset returns would be severely reduced in these periods. In fact, we have been in this exact situation over the last few years and are yet to reach the previous currency highs seen in February 2016.

Regardless of scenario though, *accurately* forecasting currency movements is a very difficult task and investors should think carefully before following a currency management strategy based solely on return enhancement.

The second issue to consider is how currency exposure affects offshore investment risk. Clearly, exchange rates fluctuate significantly over time. If one keeps full exposure, then these fluctuations will feed directly through to the portfolio returns, resulting in higher volatility. Removing currency exposure completely is then a good choice from a risk perspective but it may also reduce returns, especially in the case of long-term rand depreciation. Investors are thus faced with a risk/return trade-off when managing currency exposure.

Thankfully, due to the generally negative relationship between rand-based exchange rates and foreign equity indices, it turns out that the *minimum*-risk global portfolio will usually include some degree of currency exposure. This is because the currency movements actually offset the asset movements to a certain extent and thus reduce total portfolio variation.

For instance, consider a South African investor buying into the S&P 500 index. Figure 2 shows how the volatility of this portfolio changes depending on the level of dollar exposure held. What we see is that the minimum-risk portfolio actually includes a 42% currency exposure and reduces volatility by 3.2% relative to the fully exposed portfolio (the left-most point).

Historical performance of currency hedging strategies:

We now analyse the historical performance of four currency hedging strategies for an investment into the S&P 500.

The first strategy corresponds to "doing nothing", meaning that the investor takes full currency exposure and receives the rand-denominated return of the S&P 500.

The second strategy removes all exposure via currency futures and thus only receives the dollar-denominated index return.

The third strategy fixes currency exposure at 42% through a passive-futures hedging strategy.

The fourth strategy dynamically changes currency exposure over time in line with changes in currency volatility and its correlation with the S&P 500.

Figure 3 displays the cumulative performance of the four strategies and the table above gives the performance statistics. Bear in mind that, as with any back-test, results are specific to the time period and investment scenarios analysed.

Over the period starting from September 2010, the *Full Exposure* strategy has the highest return of 25% but also the highest volatility of 16.6%.

In comparison, the *Zero Exposure* strategy has the worst return of 20.9% and the relative volatility reduction of 0.9% is not particularly large.

In contrast, the *Dynamic* and *Passive* currency strategies both display decent returns and considerably lower volatility. Therefore, on a risk-adjusted Sharpe ratio basis, these strategies handily outperform the *Full* and *Zero Exposure* strategies respectively.

The *Dynamic* strategy is particularly compelling given its 24.1% return and 13.2% volatility.

And so, to come back to our original question, we believe that currency hedging should definitely be considered by all offshore investors as a potential means of significantly reducing portfolio risk at little to no return cost. ■

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Member of the Legae Peresec research team, focusing on derivatives, portfolio and risk management

Anthony Seymour
Derivatives analyst at Legae Peresec

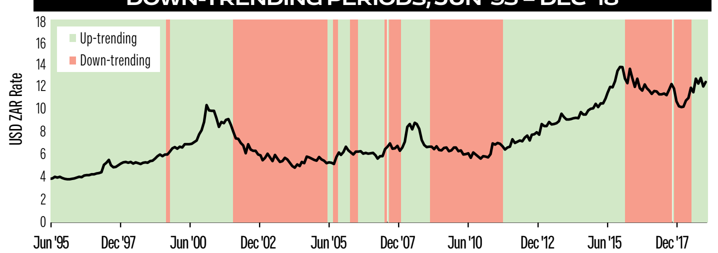
Florence Chikurunhe
Quantitative and derivates analyst at Legae Peresec

PERFORMANCE STATISTICS FOR S&P 500 CURRENCY HEDGING STRATEGIES

	Full currency exposure	Zero currency exposure	Passive 42% exposure	Dynamic exposure
Annual return	25%	20.9%	22.9%	24.1%
Volatility	16.6%	15.7%	13.6%	13.2%
Sharpe ratio	1.11	0.92	1.21	1.33
Min monthly return	-5.6%	-9.8%	-6.3%	-5.8%
Max drawdown	-16.5%	-18.5%	-15.1%	-16.9%

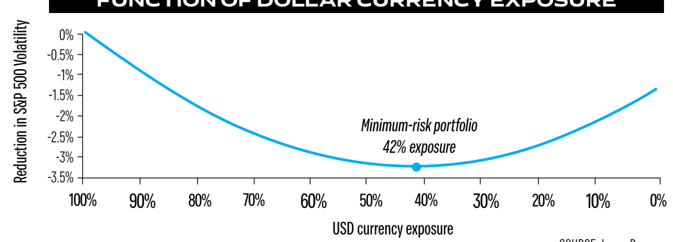
SOURCE: Legae Peresec

FIGURE 1: RAND-DOLLAR EXCHANGE RATE WITH UP- AND DOWN-TRENDING PERIODS, JUN '95 – DEC '18



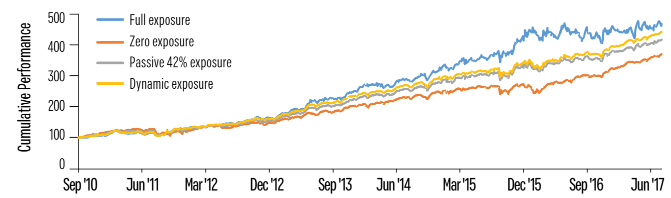
SOURCE: Legae Peresec

FIGURE 2: REDUCTION IN S&P 500 VOLATILITY AS A FUNCTION OF DOLLAR CURRENCY EXPOSURE



SOURCE: Legae Peresec

FIGURE 3: CUMULATIVE PERFORMANCE OF S&P 500 UNDER DIFFERENT CURRENCY EXPOSURE STRATEGIES



SOURCE:Legae Peresec

By Delphine Govender

SA EQUITY FUNDS

What are you actually invested in?

If you perform a 'look through' exercise of your portfolio, you might be surprised at the amount of global exposure you have within the domestic funds you are invested in.

The traditional equity and balanced funds remain the most popular investment choice.

Over the past 15 years the explosion in the collective investment schemes market has displayed the extent to which South African individual investors have developed a real comfort level in investing in the traditional suite of domestic equity and balanced unit trust funds.

For the most part, these funds have met investors' needs in providing "plain vanilla" exposure to domestic stocks (for equity returns) as well as moderate asset allocation in the case of the multi-asset class funds.

As the past decade evolved, the most popular funds remained the chosen investment destination and accordingly the assets under management (AUM) of these funds have grown significantly. By the end of 2018, just the top 15 directly managed funds (out of over 200 funds) in the South African General Equity sector accounted for over 60% of the AUM of the sector. These 15 funds represented approximately R170bn (of R290bn) in AUM.

One of the more notable developments over the past few years is the extent to which the larger South African equity unit trusts have started to add direct global stocks to their portfolios.

The table shows that 8 of the top 15 South African General Equity Funds are invested in global stocks.

The largest equity unit trust in South Africa is the Allan Gray Equity Fund, which by the end of 2018 had over 30% invested directly in global stocks. Until five years ago, this fund was purely invested in South African stocks.

But in 2014, Allan Gray balloted its equity fund investors, requesting permission to invest in offshore investments. This is permitted in terms of the limits of the South African General Equity fund sector. The rationale presented by the firm was that the fund's managers required greater investment flexibility and a bigger universe of investment opportunities to enable them to do a better job for their clients.

By the end of 2018, just the top 15 directly managed funds (out of over 200 funds) in the South African General Equity sector accounted for over 60% of the AUM of the sector.

Rand-hedge stocks are pervasive across all the funds

The structure of the South African equity market and the high weighting to stocks geared to a weaker rand further increases the non-domestic exposure in the various larger South African equity funds.

As revealed in the graph, this is prevalent across all funds and especially those which have no direct global exposure. As such, South African investors are likely to have more global exposure than they think they have.

Most South African retail investors adopt a building block-type approach in putting overall investment portfolios together to ensure they can both meet their investment goals and diversify risk.

Accordingly as part of this, investors typically combine domestic funds with global funds as well as other asset classes. Given the extent to which foreign exposure is actually contained within domestic funds (both directly and in terms of pure rand-hedge investments), investors should perform "look through" exercises to more precisely ascertain their percentage exposure to global investments/currencies. My guess is that, when looking below the lid, the average investor will be surprised at the outcome! ■

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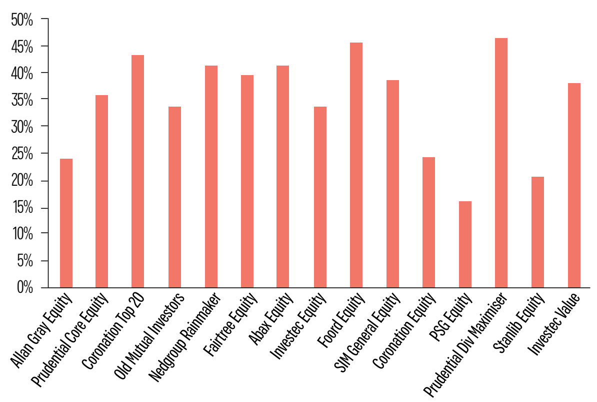
GLOBAL EXPOSURE IN TOP 15 SA GENERAL EQUITY FUNDS AT 30 SEPTEMBER 2018

	South African general equity funds	Fund size (Rbn)	Includes global	Total % global as at 30/09/2018 (incl. foreign CIS)
1	Allan Gray Equity	38.3	YES	30.8%
2	Prudential Core Equity	17.8	NO	0%
3	Coronation Top 20	17.6	NO	0%
4	Old Mutual Investors	11.1	NO	0%
5	Nedgroup Rainmaker	11	NO	0%
6	Fairtree Equity	10.1	NO	0%
7	Abax Equity	10	NO	0%
8	Investec Equity	8.3	YES	21.2%
9	Foord Equity	6.9	NO	0%
10	SIM General Equity	6.7	YES	6.7%
11	Coronation Equity	6.5	YES	22.5%
12	PSG Equity	4.7	YES	31.5%
13	Prudential Div Maximiser	4.3	YES	27.7%
14	Stanlib Equity	3.9	YES	34.1%
15	Investec Value	3.8	YES	33.8%

SOURCE: ASISA

% ALLOCATION TO RAND HEDGE* IN TOP 10 FUND HOLDINGS OF TOP 15 SA GENERAL EQUITY FUNDS



*Rand hedge =direct global holdings + all domestically listed shares classified as rand hedge

SOURCE: Fund fact sheets and Perpetua Research