finweek COLLECTIVE INSIGHT

INSIGHT INTO SA INVESTING FROM LEADING PROFESSIONALS

MAY 2021

Inside

RISK: WHAT IT MEANS TO INVESTORS

By Evan Gilbert

INTRODUCTION

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

Different perspectives on risk

Risk is an important, albeit complicated, part of the investment process.

The future never turns out quite how we expect (or hope!) that it will. Events occur which lead us to feel like we are not achieving the progress that we expected to make. This experience is also a fundamental part of investing. Our portfolio values either fall, or grow more slowly than we hope they will, as our investment ideas do not play out in the way that we expected. This edition of *Collective Insight* is all about how both ordinary people and investment managers view and manage this problem.

In this edition we have grouped the contributions around the perspectives on risk from these two groups of people. What is interesting is that when you compare them you might think you were talking to inhabitants of two totally different planets! This is partly due to the very specialised and formal nature of investment managers' training, but it is particularly important that both groups understand each other's language. Otherwise, investors are not going to get the investment solutions that they require. If this gap persists then the self-defeating behaviour of disappointed investors (as pointed out in some of these contributions) will continue to happen – to the detriment of everyone.

In our first investor-focused article, Fran Troskie tries to simplify the significant amount of jargon in the investor-risk area. She uses the example of buying a car to highlight the important differences between the concepts of risk appetite, risk capacity, risk tolerance and required risk – which must all be addressed when talking about this topic in a financial advice context.

Paul Nixon's article builds on this by highlighting the challenges of assessing risk tolerance on a consistent basis. He reports the results of a recent study which shows how varied different advisers were assessing hypothetical clients' risk preferences – particularly their risk tolerance.

Gareth van Deventer uses his experience as a financial planner to critically evaluate the use of questionnaires to assess clients' risk preferences. While these can be easily misused, he argues that they can give an advisor significant insight into their client and their attitudes towards risk and investment solutions.

Kim Rassou and Hannes Viljoen review the problems associated with investors' attempts to avoid risk. Kim highlights the current inability of low-risk assets classes to generate real returns while Hannes reports on the negative cumulative effects of going for safety in times of crisis.

The final article in this section focuses on the experience of risk from the perspective of people in South Africa who are struggling to survive financially. Jolly Mokorosi recounts the gap between her training and understanding of the formal theory of risk and the risks experienced by the helper who works in her house.

Moving to the investment management perspective on risk, Bhekinkosi Khuzwayo provides a concise introduction to some of the most widely used technical definitions of risk. Starting with variance and its limitation he moves to commonly used measures which focus on the loss of capital, including Value at Risk (VaR).

Ian Macleod emphasises the human side of investment management by pointing out the role of narratives in terms of making decisions (and dealing with risk). This qualitative approach is attractive to humans (we like stories, after all) but brings with it the potential for biases and other perceptual problems.

Douglas Davids brings attention to the relevance of environmental, social and governance (ESG) factors when considering risk from an investment perspective – viewing risk as the variation of returns is not sufficient. The challenges of doing this effectively and the use of third-party ratings are critically reviewed.

Narayan Vyas presents a review of the importance of an investment manager having a very clear mandate from an investor as to the types and levels of risk that the manager needs to operate within. He argues that this clarity is vital to minimise the potential for disappointment on both sides of the table.

Finally, the convenor of the editorial board, Anne Cabot-Alletzhauser, has curated a summary of perspectives on the future of risk management.

We wish to thank all the other people who made submissions to this edition.

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> In conclusion, the dichotomy in perspective of risk between investors and the investment industry highlighted here has serious implications for the effective operations of the industry.

Their contributions all had merit, but due to space constraints and the desire to make it accessible to non-investment management professionals we could not accommodate them all.

In conclusion, the dichotomy in perspective of risk between investors and the investment industry highlighted in these two groups of articles has serious implications for the effective operations of the industry. Effective risk profiling is going be difficult to achieve if this gap continues while investment managers run the risk of disappointing their clients if they do not fully understand their emotional perspectives on risk. There are some signs of progress though. Investment managers are realising that treating risk as variability in returns (or some flavour thereof) is no longer sufficient. They are beginning to see that they need to start including an understanding of investor behaviour and sustainability in their measurement and management of risk. There is more work to be done though. Investment managers still need to appreciate their industry's role in system change if we are going to address the real risks that face society in the future.

We hope that you enjoy this bumper edition covering an extremely complicated, but vitally important part of the investment process and the resulting journey for investors. ■

Evan Gilbert is Associate Professor at Stellenbosch University and strategist at Momentum Investments' Research Hub.

A CONCISE HISTORY OF THE THEORY OF RISK

Compiled by Ron Surz, president of PPCA Inc

Investment consulting has a long history that has been marked by innovations occurring about every ten years. It is incredible that Modern Portfolio Theory is about 70 years old. It has stood the tests of time and is currently embraced by many investment professionals. It was developed further as the years went by.

1952:

Modern Portfolio Theory – **Dr Harry Markowitz**

Markowitz won a Nobel prize in 1990 for educating investors on the magic of diversification and the existence of an "Efficient Frontier" that maps portfolios that earn the highest expected return for a given level of risk. This breakthrough began to be utilised in the 1970s, and became mainstream 20 years later, demonstrating our natural resistance to change.

1964:

Capital Asset Pricing Model – **Dr William F. Sharpe**

Sharpe extended the work of Markowitz by introducing a model that holds that everyone should want to hold the most diversified portfolio because it provides the highest return-to-risk ratio, called the "Sharpe Ratio." Sharpe shared the Nobel prize in 1990.

1986:

Modern Investment Theory – **Dr Robert A. Haugen**

Haugen is the father of factor-based investing. A prolific writer, Haugen wrote hundreds of articles and books on identifying investment factors that produce alphas, or superior returns. These factors include fundamentals like yield and capitalisation, and classifications like industry sector and style.

1991:

Post-Modern Portfolio Theory – **Dr Frank Sortino**

Risk in post-modern portfolio theory is the possibility that you will not achieve your objectives. Success, this theory holds, is not beating an index, but rather achieving your investment goals. Objective-based investing was born, which is measured by the Sortino Ratio.

2013:

Rising Equity Glide Path in Retirement – **Dr Wade Pfau and Michael Kitces**

The most recent innovation is about investing for retirees. Pfau and Kitces have conducted extensive research on optimal investing in retirement and concluded that it is best to begin retirement cautiously with no more than 30% in risky equities and bonds, and to gradually increase risk through time.

collective insight

By Fran Troskie

INVESTING

A risky business

Do we really understand what risk means to investors? And do investors themselves really know?

Risk appetite, risk tolerance, risk capacity, risk required. What on earth do all these terms mean, both to investors and to financial advisers? Or has the jargon become so over-used that it simply confuses even seasoned investors?

Misperceptions about what risk means are common, and they are in fact downright dangerous. They are — excuse the obvious old-school reference —risky business (except that Tom Cruise doesn't feature).

A comparative scenario can aid our understanding.

Let's suppose 45-year-old Katy is looking at buying a car. She visits a dealership and takes a Ferrari for a spin. Katy's appetite is for the red-hot Ferrari. Not only would this be "tolerable" to Katy, but it would also be a dream come true. The dealer's preference is to sell her the Ferrari, but he has little idea that Katy is a terrible driver and a speed demon. Katy's driving skills call for an old-school sedan, preferably one that can't go faster than 80km/h. This is her capacity. Katy, however, often drives long distances, so a vehicle that can only hit 80km/h on the freeway . . . well, it would simply not be practical. She requires a car that can reach at least 120km/h.

A scrupulous dealer would take all these factors into account, as well as Katy's financial situation, and importantly, her insurance. If the car is Katy's risk, then her insurance could be one form of risk-mitigation. And when it comes to risk, just as when it comes to buying a car, it is crucial to note that it is not only a person's financial circumstances that determine their risk tolerance, risk capacity and/or risk required. There are several factors, including the psychology of the person (Katy is a speed demon), the risk-mitigating mechanism (insurance) available, and externalities (such as Katy's job).

In a perfect world, an individual's tolerance for risk, their capacity for risk and their required risk would dovetail. In investment, we call these three things their risk profile. But in the clearly imperfect world we live in, this is seldom the case. There is usually a compromise. A risk-averse investor (tolerance) may need to take on more risk (requirement) to achieve their desired level of return or may be unable to afford (capacity) the level of risk that they feel they could stomach (tolerance).

In a world where interest rates are at record lows, and traditional safe-haven assets are yielding low returns, investors have sought yield from riskier asset classes. These may include hedge funds, alternative investments, unlisted property, and stock markets (developed and emerging). Understanding the associated risk-return profile is essential.

Retirees, who have faced a double-whammy from the low interest rate environment and from Covid-19-induced market volatility, need to pay particular attention to their risk profile. Here, the time they have until retirement, is likely to play a role too. A younger retiree is likely to have a higher capacity for risk, as they may be able to "wait out" market downturns. Their pension fund investment may have a higher allocation to traditionally more risky assets. A wealthier or more fortunate individual may have alternative sources of income, which could be regarded as akin to the insurance in the car example. They may have both a higher capacity and greater tolerance for risk, as they are not solely reliant on their pensions for income. A pensioner who has a higher level of desired income may need to take on (require) more risk than they are inherently comfortable with, provided they have the capacity to withstand a temporary or permanent loss of capital. There is some trade-off necessary between their risk-tolerance and risk-requirement.

Our example was highly simplified, but it is a useful way to get around intimidating jargon surrounding risk. When it comes to financial discussions, risks are sometimes seen as "bad". In the process of buying the car, Katy's personality, her financial circumstances, and her job requirements all helped to determine her risk profile. None of these elements are good or bad, they are just part of the process to consider. Similarly, risk is part of the investment consideration.

When it comes to investing, especially for retirement, individuals are likely to need assistance getting to grips with the jargon and with their own risk profiles. This may require intentional education campaigns, or individual one-to-one discussions, depending on the level of sophistication of the investor and the scale of the investment. Advisers and trustees need to see it as their fiduciary duty to help investors reach the necessary understanding. ■

Fran Troskie is an investment research analyst at RisCura.

Retirees, who have faced a double-whammy from the low interest rate environment and from Covid-19-induced market volatility, need to pay particular attention to their risk-profile.

Photo: Shutterstock

With so many companies severely affected by Covid-19, we've all seen how vital it is that good governance is driven by strong leadership. That's why Old Mutual Investment Group is always clear about what we expect from the companies we invest in. It's how we encourage greater industry collaboration around key environmental, social and governance (ESG) factors like transformation, ethical leadership and green growth. And it's an approach that helps us lead the way in responsible investing, delivering sustainable, long-term returns to our clients and making a positive impact along the way.

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By Paul Nixon

INVESTMENT

Noise, financial advice, and Snow White's eighth dwarf, Risky

More work is needed to determine the key constituents of a risk profile and how they are measured.

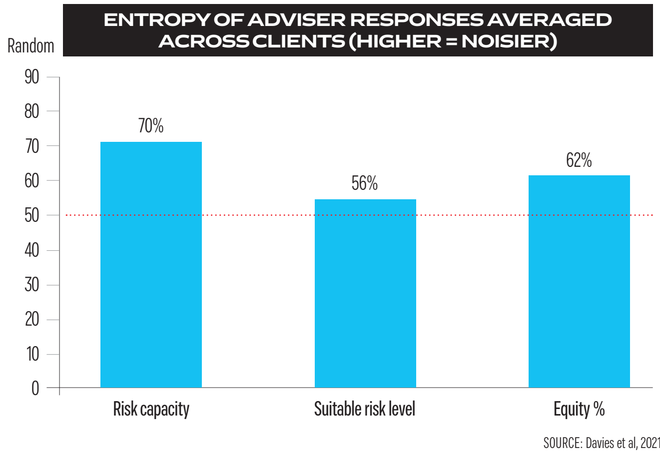
Life and financial planning would be much easier if we each carried a label around that summed us up as neatly as Snow White's famed seven-person entourage. Measuring a "risk profile" for an investor in a financial planning context has been something that has proved equally challenging and leaves much to be desired in terms of the quality of our financial advice as a result.

For the purposes of this discussion, we consider an investor's risk profile as two sides of a coin. "Heads" relates to the person's characteristics and "tails" to their desired outcome or investment goal. The level of investment risk required to reach their desired investment goal (the "tail") is critical, but it remains an essentially quantitative exercise that is outsourced to investment professionals. The devil from an advice perspective is the "heads" side of the coin.

Section 8 of the FAIS General Code of Conduct was recently updated to provide much-needed guidance with specific reference to the obligations in respect of determining the client's "risk profile". The constituents of this profile are, firstly, the client's ability to bear financial loss (what may be defined as risk capacity); and then secondly, his or her ability to understand the risk/s associated with the financial transaction. These both relate to their ability to take risk. While providing a good start, there is another key dimension missing, according to Greg B Davies of Oxford Risk. He points out that the willingness to assume risk or risk tolerance must also be included using an appropriately designed psychometric assessment that reveals a person's relatively stable long-term attitude towards risk. Happy and Grumpy earned their names because they possessed character traits that manifested in these observable behaviour patterns over time. Risk tolerance is less obvious, unfortunately, and so the inconsistent measurement and interpretation is a source of much variance in client advice outcomes.

The latest buzzword in behavioural sciences is "noise". Noise is the enemy of consistency. Biases are also problematic, but noise is more challenging to deal with in that the variation is more random and not nearly as predictable. This problem is precisely what was investigated in the South African investment advice context in a recently conducted landmark study, "Under the Microscope, Noise and Investment Advice". Its research question was: were clients with the same objectively defined investment needs getting similar investment advice; and if not, why not? With access to a large group of financial advisers the analysis of the results of an in-depth case study-based survey were nothing short of disconcerting. By setting up six hypothetical clients and keeping certain relevant dimensions the same save for varying a single critical variable (their risk tolerance and risk capacity) it was possible to see how much these variables influenced adviser assessments.

> Biases are also problematic, but noise is more challenging to deal with in that the variation is more random and not nearly as predictable.



SOURCE: Davies et al, 2021

The extent of "noise" was measured via an entropy analysis, and the results (**see graph**) showed that the adviser judgements of the clients were much closer to being randomly different than being consistent even when all survey respondents had the same client information.

There were three key findings of the study. First, the greatest source of variability was in the assessment of risk capacity. Second, even when provided with client risk tolerance on a scale of one to seven there was limited consensus on how this translated to a suitable risk recommendation. Four of the six clients received recommendations from "very low risk" to "very high risk". Finally, and unsurprisingly, the resultant asset allocation proposals are similarly scattershot. Recommended equity weights for two clients ranged all the way from 0% to 100%.

Coming back to Snow White and her seven friends, the self-proclaimed leader, Doc, is famously quoted as saying, "Ah, yes, what are you and who are you doing here?" Although generally rational and self-organized, Doc often got a little muddled mid-sentence and as a financial advice industry we appear to have followed suit. The desired alternative to "noise" is consistency. This is achieved by having and consistently applying a valid and reliable process. Unfortunately, it seems that we cannot agree on what the key constituents of a risk profile are and, more importantly, how they are measured. Without this consistency what hope do we have in terms of helping our clients differentiate their heads from their tails? More work by the industry is needed in this space. ■

Paul Nixon is the head of behavioural finance for Momentum Investments.

Photo: Shutterstock

By Gareth van Deventer

INVESTMENT

Gauging your client's risk profile

Risk profiling should be undertaken similarly to building a friendship, and no questionnaire can ever substitute a personal conversation.

My first exposure to a risk profile questionnaire was 20 years ago, when as a young and naïve financial adviser, I was required to ensure that I completed one for every client I met.

I recall spending quite some time on the risk profile questionnaire with a client, as the company I worked for at the time placed a heavy reliance on this document. I even recall having to "assist" clients with answering some of the questions as these did not resonate with them and they had no idea which "option" to choose, almost as if they were afraid of giving the wrong answer.

Of course, my assistance nullified the exercise and instead of an objective client-centric view of their risk profile, it ironically became a "group answer" and hence somewhat flawed.

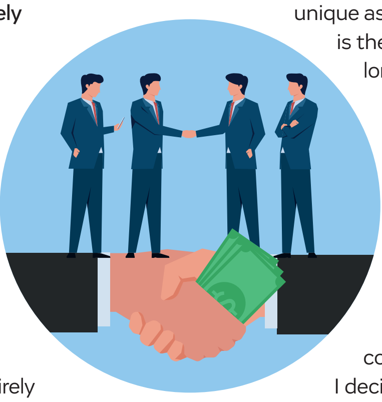
A numeric score was allocated which determined the risk profile that best matched the client and off we went with the investment selection.

I was particularly intrigued by the following question in our mandatory risk profiler:

Please select the answer that most appropriately reflects your level of comfort with regards to the following scenario.

If you invested R 100 000, what is the maximum amount you are prepared to let the investment drop before you become uncomfortable:

a) R 10 000
b) R 20 000
c) R 30 000
d) Any fall



It was a hypothetical question that most clients had no problem answering, yet when crunch time came with regards to their actual investment performance, or lack thereof, their actions were entirely different to their answer provided.

I recall one occasion when a senior adviser suggested that we refer to this question to rationalise the R30 000 fall in the value of a client's portfolio, after all "that is what the client indicated!"

Of course, this suggestion only fuelled the fire. Our client was deeply concerned about the R30 000 drop in his portfolio. Clearly his answer provided on the risk profiler did not align to his reaction when the "hypothetical" situation suddenly became real. The risk profiler had missed the mark and added no evident value in the process.

It was this experience that changed my view on risk profiling. Risk profiling is more than just a piece of paper with an arbitrary point system that determines investment risk tolerance, it is more about getting to know the person and less about the scorecard.

Do not get me wrong, determining your clients' understanding and tolerance of risk is a vital component in the financial advisory process, it is just the methodology that requires greater substance.

Never did I refer to any client risk profiler to help me manage my clients' investment expectations or rationalise any advice given. This "scorecard methodology" offered no material value in the scheme of things.

In essence it failed to capture the client's risk tolerance properly and could not be used retrospectively to provide any comfort to the client. "Don't worry about being R30 000 down, your risk profiler said it was OK!"

Only over time do you truly develop a deeper understanding of your client's risk tolerance, personality and other interesting habits and nuances.

Herein, I believe, lies the answer to a good risk profiler process, how in one initial client meeting are you able to get to know your client personally to ensure that you can do your job effectively.

Before consulting with any client, investment advisers already know what investments are appropriate to match desired time horizons and investment objectives. Tax implications, risk and return expectations, death and estate duty implications as well as liquidity and volatility of investments, are all second nature to us.

What we don't know are the hopes, dreams, fears, aspirations, and expectations of the client we are about to meet. Each client is as unique as a fingerprint and getting to know them personally is the mark of a good adviser and starting point of a great long-term friendship. Yes, a friendship. Risk profiling should be undertaken similarly to building a friendship.

No risk profile questionnaire scorecard can ever substitute a personal client conversation to gain a deeper understanding of the person.

The risk profile process must provide beneficial insight as to how your client views life, relationships, and their money. Managing money is easy, managing client expectations is trickier.

When it comes to risk profiling, here are a few conversations that I like to initiate with my clients before I decide how to best manage their money:

1. Their investment experiences
2. Their personal financial circumstances
3. Their understanding of an investment product
4. Who they "follow" when it comes to financial matters
5. How long they've been investing
6. Their understanding of asset classes and how these behave
7. Their first investments
8. The value of money

Comfortable conversations with clients about their investment expectations, experiences, knowledge, and objectives deliver greater client risk insights than any arbitrary risk questionnaire's scorecards.

The success of a good risk profiling process is truly measured in tough times when investments tumble. It is in these times that you should already know your client personally and not still be "getting to" know them.

A solid risk profiling process enables you and your client to navigate the bad times and celebrate the good times together, when your approach to risk profiling is all about the person and less about the scorecard. ■

Gareth van Deventer is the head of advice at OUTvest.

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By Hannes Viljoen and Kim Rassou

INVESTMENT

2 contesting views: de-risking the narrative and the risk of not taking risk

Hannes Viljoen

LET'S SAY 'PROBABILITY'

Risk profiling of clients was created for the right reason. Aligning a client's portfolio to their personality and character, thereby improving the probability that they will stick to their investment plan is a noble concept. Has it worked? Has it improved client outcomes? What if we changed the language from "risk-based advice" to "probability-based advice"?

To increase the probability of achieving investment goals, there are options. Investors can increase monthly savings; save for longer or adjust their goal expectation. Alternatively, clients can accept (and importantly with help, endure) a larger possibility of a drawdown over the short term in return for higher expected returns over the long term.

The principle is to co-create a portfolio and investment strategy that the client is comfortable with. Studies have shown the probability of a client sticking with a strategy is much higher if they have constructed and created it rather than if been told what to do. This is important because changing a strategy at the wrong time can be hazardous.

Paul Nixon, head of behavioural finance at Momentum Investments, illustrated this through studying investor behaviour during the recent market crash in March 2020. Referring to switches analysed on the Momentum Wealth Platform in 2020 he reports that: "The market crashes in March and switching increases by nearly 300% .... The average amount per switch was approximately R150 000 .... By May, the average value per switch destroyed increases to 8.9%. By August, the average value per switch destroyed had increased to 19.44% or R19 440 lost per R100 000 switch." Most investors that switched will never make up this lost ground.

A good doctor is one that has the knowledge to diagnose a patient and explain the diagnosis in plain language so that the patient understands the diagnoses. A great doctor is one that also can get the patient to follow the prescribed treatment. Wealth management and advisory service providers should not be rewarded for investment performance but rather for investor performance. Viewing risk as probability can significantly help investors and clients achieve this outcome. ■

Hannes Viljoen is head of investments at Kudala Wealth.

Money market funds now offer 5% per year, which barely covers the rise in inflation. Talk about a risk-free but also return-free asset class.

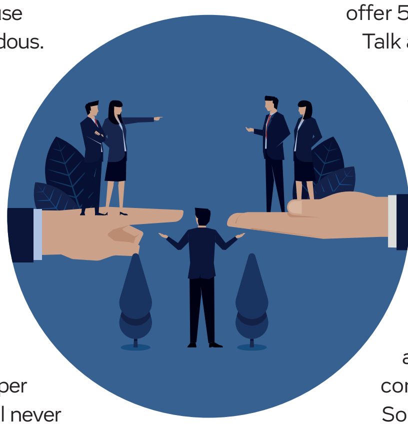


Photo: Shutterstock

Kim Rassou

NOT TAKING RISK IS RISKY

Mark Zuckerberg said that the biggest risk is not taking any risk ... "In a world that is changing quickly, the only strategy that is guaranteed to fail is not taking risks."

In 2020, South Africans suffered two severe plagues: the arrival of Covid-19 and the human, social and economic devastation which followed. Sadly, retirement savers were hit the hardest as the market crash in March was compounded by the decimation of the interest rate. In the first quarter of 2021, SA equities fell almost 40%. This was mirrored offshore, with the S&P 500 dropping 18% in US dollars.

At this juncture, we need to redefine what a safe asset means. Is cash safe? Those who had a large portion of savings in cash in a money market account may have felt smug, but these collective smirks were wiped off when the Reserve Bank slashed interest rates by three percentage points. Money market funds now offer 5% per year, which barely covers the rise in inflation. Talk about a risk-free but also return-free asset class.

Overseas it is much worse – banks are now charging clients to hold their money resulting in negative returns. "At least," I hear you say, "rand depreciation will ensure that an offshore investment provides me with a 4% to 5% return per year" — except that the rand has appreciated by 46% against the dollar over the past year. "Oh," you may think, "gold should be a safe haven asset" — except that it has delivered poor returns in the past year. Gold has also had to fight off some stiff competition, with contenders like Bitcoin usurping its position.

Some portfolio managers made the costly decision to switch into cash in March last year and missed the massive recovery of 60% in SA equity returns – close to 70% in dollar terms. Others ran for the hills and took money offshore at an inopportune time, for instance when the rand was at its weakest.

In my view, the definition of risk as a capital loss needs to be reappraised. The risk now is where one's savings do not yield sufficient real returns to retire comfortably. Having too much money under the mattress can lead you to end up with back pain. Ouch! ■

Kim Rassou is a portfolio manager at Old Mutual Wealth.

By Jolly Mokorosi

INVESTMENT

My helper schooled me

We should reassess how we view risk in terms of our own academic matrices and what risk means to the members of the retirement funds we serve.

More than two decades into our democracy and it appears that the savings culture for the bulk of South Africans defies academic ideals for a nation of our size and income. There has been no shortage of ideas and initiatives to change the narrative, but poverty persists with nearly half of adult South Africans living in poverty before the Covid-19 pandemic struck. This reality continues to undermine our greatest efforts to move the needle that would see South Africa leap into true emerging market and middle-income country status.

Having studied economics and later specialising in matters related to retirement funds, their members and consumer financial education, I thought of myself to be well-versed in these issues. However, I soon uncovered the gaps in my understanding, and it was ultimately my helper, Nomsa, who schooled me. In many of my earlier conversations with her regarding budgeting and savings I had failed to account for what constitutes risks and in particular investment risk for her.

I soon realised that the traditional risk matrices I tried to apply simply cannot and do not account for the questions that plague Nomsa's mind above anything else:

- What if my children and I are kicked out of our home because my husband no longer sees me as fit to be his wife?
- What does it mean for my children if I die and they become homeless?
- Will my children finish school and find decent jobs?
- Do I even dare to dream of them attaining a tertiary education?
- What will become of my parents if all their children predecease them?

One needs only glance at the Child Poverty in South Africa report, released by Statistics SA, to see what keeps Nomsa up at night (see sidebar).

As I reflect on these statistics, I quickly realise that all of this means that whilst my ideal for Nomsa is to have a savings account with a buffer for a rainy day; basic medical aid and some sort of long-term savings; however, through her eyes there is little value in these funds languishing in a long-term investment account or insuring her health when the most important questions that plague her mind remain woefully unanswered. This has made me seriously reassess what I view as risk in the context of her demographic, which is one that makes up the majority of South Africans.

What I perceive should be Nomsa's great risks are entirely trumped by the fundaments of Maslow's hierarchy of needs: a theory that emphasises how humans intrinsically partake in behavioural motivation will supersede academic logic on most days. Risk therefore means something far more fundamental to her. Nomsa and I decided that the real risk management was to address the concerns around her basic needs. We put a plan in place to secure Nomsa's long-term requirements for shelter and considered her need for short-term immediate savings and the potential for the generation of additional income from these properties.

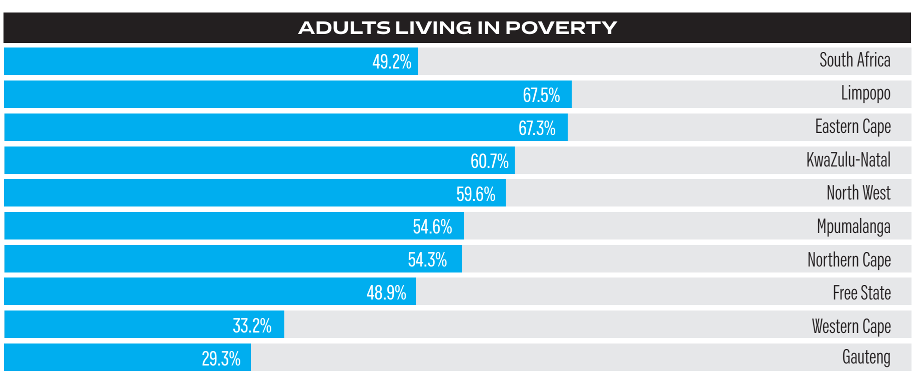
Those of us who work in the financial world, whether trustees or financial services advisers, genuinely need to reassess how we tend to rigidly view risk in terms of our own academic matrices and reassess what risk truly means to the members of the retirement funds we serve, whilst balancing the complex needs of the future with those of the present. We don't need to go far at all to find these views out, we just need to listen to those who support many of us in our very homes. ■

Jolly Mokorosi is an Independent Trustee and professional principal officer.

CHILD POVERTY IN SOUTH AFRICA

The findings in Stats SA's latest Child Poverty report are frightening:

- More than six out of ten children (62.1%) are identified as multidimensionally poor.
- Child poverty in South Africa is multi-sectoral, with the majority of children (0-17 years) suffering from multiple deprivations simultaneously.
- Black African children (68.3%) show the highest percentage of multidimensional poverty as compared to their peers from other population groups.
- Multidimensional poverty is highly prevalent amongst double orphans (77.3%) and paternal orphans (75%) as opposed to non-orphans and maternal orphans.
- More than twice as many children living in rural areas (88.4%) face multidimensional poverty compared to children in urban areas (41.3%). The highest multidimensional poverty rates are found among children residing in Limpopo (82.8%) and the Eastern Cape (78.7%). Gauteng and the Western Cape, on the other hand, are best off with respectively 33.6% and 37.1% of children being multidimensionally poor.
- Those living in non-metropolitan municipalities (73.7%) indicate much higher multidimensional poverty rates than children in metropolitan municipalities (39.6%). ■



SOURCE: Men, women, and children: Findings of the Living Conditions Survey 2014/15

By Bhekinkosi Khuzwayo and Teboho Tsotetsi

MEASUREMENT

Ditching two old assumptions that could benefit investors

Volatility has been accepted as a measure of risk, but it has some shortcomings.

In his book *The Most Important Thing – Uncommon Sense for the Thoughtful Investor*, Howard Marks argues that investing is all about making decisions today about the future. Unfortunately, nobody has perfect foresight of the future. Therefore, the investment decisions we make today carry the risk that the future may not pan out as expected. Since investing is essentially a process of balancing expected risk and expected returns; proper estimation of risk is therefore just as important as estimating returns for anyone wanting to harvest returns in financial markets. The critical question is therefore: Is there a universally accepted measure of risk?

In trying to find a universal quantifiable risk measure, academic theory has settled on volatility as the basis for modern portfolio theory, introduced by Harry Markowitz in 1952. This is a statistical measure that measures how far asset returns deviate from their average. While volatility has been accepted as a measure of risk in both the academic and investment worlds, it has some serious shortcomings. In this article, we point out the flaws in two of its main assumptions: Asset returns follow a normal distribution; and unexpected gains are as risky as unexpected losses.

RISKS AND MEASURES

	Risk	Measure	Brief description
1	Permanent erosion of capital (market risk)	Value-at-Risk (VaR)	Risk of loss in a given time during an extreme tail event
		Conditional Value-at-Risk (CVaR)	Expected loss in a given time during an extreme tail event
		Omega ratio	Probability weighted ratio of gains vs. losses for a threshold return target
2	Permanent erosion of buying power (inflation) and shortfall relative to investment goals	Expected shortfall	Expected shortfall in a given time relative to a threshold investment goal
		Probability of shortfall	Probability of shortfall in a given time relative to a threshold investment goal
		Omega ratio	Probability weighted ratio of gains vs. losses for a threshold return target
3	Underperformance of a benchmark	Tracking error	Risk of benchmark underperformance due to active management decisions taken by the manager
		Active share	Probability of benchmark underperformance due to active management decisions taken by the manager
		Omega ratio	Probability weighted ratio of gains vs. losses for a threshold return target

SOURCE: Lima Mbeu Investment Managers

Assumption 1: Asset returns follow a normal distribution

It has been argued extensively in literature that the realised asset returns do not follow a normal distribution, as assumed in the volatility calculation. The FTSE/JSE All Share Index is more negatively skewed (-0.57) than a normal distribution, for example.

Many scholars have argued that, because of negative skewness inherent in equity returns, any model that measures risk using standard deviation underestimates the probability of adverse negative outcomes.

The actual experience in markets supports this argument as even in recent history, adverse tail events have happened more frequently than implied by the normal distribution.

The most recent examples include: the 2008-2009 global financial crisis, the 2011 European debt crisis, the 2013 US Federal Reserve-related taper tantrum, and 2020's Covid-19-induced market selloff.

With all these tail events, risk models only using volatility as the risk measure would have underestimated the probability of them occurring and the magnitude of the losses.

Assumption 2: Unexpected gains are as risky as unexpected losses

Renowned investor Howard Marks argues that "risk is – first and foremost – the likelihood of losing money". Essentially investors are not worried about making abnormally large profits, but rather they worry about losing money. Volatility, however, treats both unusually large profits and losses as being equally bad or unwanted. Clearly, this is not sensible and we need a risk measure that differentiates between the 'good' upside potential and the 'bad' downside potential for losses.

In 1959 Markowitz acknowledged that investors are more concerned about downside risk than overall volatility and introduced semi-variance as a better measure of risk than overall volatility. This highlights the importance and insight of differentiating the bad downside potential for losses from the good potential for upside profit when measuring risk.

The problem with finding a universally best measure of risk for all investors is that investors are faced with different risks pertaining to their needs. The table shows some of the pertinent risks that investors could be faced with and the measures that can be used to measure those risks.

While the measures are useful, investors should still use them with caution as they are typically measured using historical data. Howard Marks points out that risk measures calculated using historical data neglect other potential events that are not found in the historical data set. However, these events may prove to be more likely than is implied in the risk calculation in the future.

In conclusion, while there are better ways of measuring risk that address the shortcomings of the volatility measure, the list is extensive. Therefore, it is challenging to find one measure that encompasses all types of risks investors are exposed to. It is more important to first understand an investor's objectives and risk tolerance and thereafter use a measure or a combination of measures that best address the risks of particular concern. ■

Bhekinkosi Khuzwayo and **Teboho Tsotetsi** are co-founders and portfolio managers at Lima Mbeu Investment Managers.

By Ian Macleod

INVESTING

How do we tell the story of risk?

The new science on narrative has important implications for client risk profiling; it may be time to rethink it.

Our little mammalian brains are fantastically evolved to deal with risk. That's how every one of your and my ancestors survived long enough for us to be here. But they didn't manage risk numerically. As hunter gatherers, nobody knew the chances of being eaten by a lion. However, we know there is risk and find ways to act in the face of it. We comprehend risk as narrative.

There is no shortage of examples showing how poorly we perceive risks and probabilities, as these are commonly presented. Let's consider just one for now. Richard Thaler, a behavioural economist and Nobel winner, has an example that shows our dubious ability to deal with risk-return.

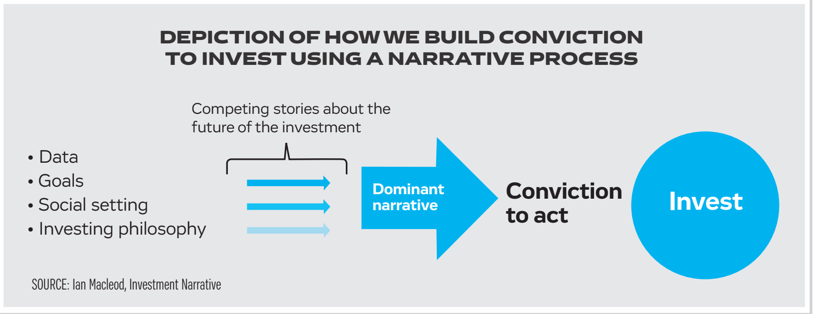
Thaler asked university students to imagine they had just won $30 and were then offered the chance to win or lose $9 depending on the result of a coin flip (a 50-50 gamble), or just to keep the $30. Fully 70% of participants said they would take the risk. Then, Thaler put the game to participants differently. He offered the choice between a guaranteed $30 or a shot at either $21 or $39 depending on the outcome of a coin flip. This time just 42% were willing to have a flutter. This showed inconsistency. Irrationality. Misunderstanding. An investing robot would have responded the same way in each setting.

Thaler explains the result as an example of the "house money" phenomenon. The broader principle is that we are deeply susceptible to the way in which risk is put to us. A word here, a number there can manipulate us.

That outlines a problem. How do we better acknowledge our blind spots and weakness at reliable decision-making around risk? Part of the solution lies in the wisdom captured by "conviction narrative theory," or CNT, established and advanced by David Tuckett, a psychoanalyst and head of the University College London Centre for the Study of Decision-Making Uncertainty. Based primarily on his interviews with more than 50 major hedge fund managers, including George Soros, Tuckett and his colleagues have mapped the process that investors undertake when allocating capital or keeping it where they've put it. Inherent in this is the narrative approach to dealing with risk.

The research team's keys premise is that "the value of a financial asset is partly a function of the stories it lends itself to". We may argue we are buying into free cash flow in the future. At least that is the starting point for many approaches to valuation.

Continuing to assume a strategy of seeking out future earnings, sure, we put down those expected cash flows as numbers in discounted cash flows and the like. But it is through storytelling that we conjure up those estimates and, just as importantly, through storytelling that we progress from those numbers and calculations to the conviction to pull the trigger and invest.



The table summarises the process. First, we ought to acknowledge the context. When making an investment decision, we have access to data – simultaneously too much and too little data. We are goal-directed. Social setting also matters. Are we discussing pension options with a spouse or debating a capital allocation with our investment team? Typically, we'll also have an investing philosophy, or a guiding narrative. Fascinatingly, Tuckett's work shows that we use narrative regardless of philosophy. Even the most ardent quants justify and explain their investing with a story.

We proceed to share stories. Be it in our own heads or with other people, we propose reasoned hypotheses about the future. We say things like, "The market hasn't factored in X, but they will when Y happens, and then we'll be in pound seats with our patented technology and the price of oil". Our weaker premises (ideally) get shot down, while the robust parts of the story get adopted and added to.

In practice, what does this mean for asset managers? Fortunately, good asset managers tend also to be good narrators. They frequently have the technical know-how and interpersonal skill to convey meaningfully what it means for a particular investor to take various investing actions. Conviction narrative theory offers tools to get even better.

The new science on narrative has important implications for client risk profiling. Consider CNT's contextual element of social setting. Specifically, what are the power, knowledge and motivation dynamics between client and asset manager? On data, what numbers are presented and in what form? How many narratives are explored and what do they look like?

Given the power of story, novel insights on how it works and the very human struggle to perceive risk appropriately, there is a strong case to rethink risk profiling. ■

Ian Macleod is the narrative consultant to the GIBS Centre for African Management and Markets and the founder of Investment Narrative.

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> The broader principle is that we are deeply susceptible to the way in which risk is put to us. A word here, a number there can manipulate us.

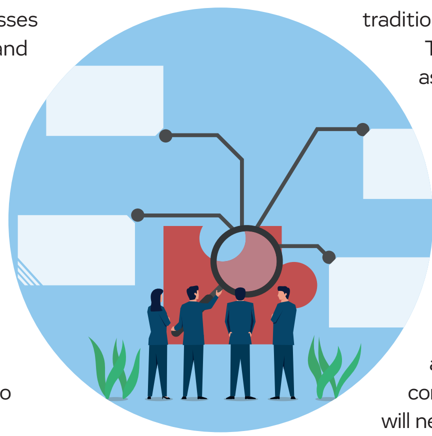
By Douglas Davids

INVESTMENT

Why ESG matters

Pension fund trustees should, as part of their fiduciary duties, understand the risk involved in outsourcing the measurement of environmental, social and governance factors.

Environmental, social and governance (ESG) is a selective selection process through which investors analyse companies and base their investment decisions on assessing how these companies consider ESG factors, alongside financial factors, when making business decisions. Environmental measures address the way an organisation responds to issues such as climate change, greenhouse gas emissions, water conservation and the sustainable use of natural resources. Social benchmarks focus on business relationships and how the company meets the challenges on issues such as data privacy, health and safety, stakeholder interests, employee treatment and diversity. Governance criteria refer to how businesses deal with transparency in their communications and financial reporting, company incentives and key performance indicators.



Why does ESG matter?

The number of corporate failures of late has given rise to a growing realisation of the reputational and financial impact if ESG issues are handled insufficiently. ESG matters because it gives investors the tools to build plans that reflect their investment principles. Using ESG practices companies are being held accountable for their actions and are encouraged to be better corporate citizens.

While there is often a debate attached to ESG investing regarding its potentially negative effects on investor returns, this misconception does not accurately reflect the benefits of socially responsible investing. ESG practices can provide investors with significant opportunities in growing areas such as clean energy and new technologies.

Despite differing views on ESG investing, at the end of the day all these views are grounded in recognising the links in the relationship between a company's business model, the economy, the environment and society. Understanding how those changes will play out, and which companies will thrive, is an important part of any long-term investment strategy. This does not necessarily mean that an investor is placing ethics ahead of sound financial decisions; it's about adding an additional risk management tool to the investment process.

The number of corporate failures of late has given rise to a growing realisation of the reputational and financial impact if ESG issues are handled insufficiently.

Managing ESG investment risk

An ESG investment strategy aims to uncover investment risks and opportunities. There is growing evidence that savers in general, and younger savers in particular, want to know that their money is invested in a way that has a positive social and environmental impact. Pension funds are required by law to set out their policy on how they take account of financially material factors, including ESG considerations, in their investment decision-making. Some trustees may be tempted to see this as a tick box exercise. Trustees need to be mindful that they may be called upon to demonstrate how they are taking ESG factors seriously.

A common mistake in the debate about the extent to which trustees and asset managers are required to take account of ESG considerations lies in the failure to recognise the financial risks (and opportunities) inherent in ESG considerations. The tendency is to dismiss ESG as subjective, non-financial concerns. By integrating ESG factors into the investment strategy, pension funds are adding an additional component of risk management over and above the traditional financial risk measurements.

Trustees have a duty to understand what their asset managers are doing to assess ESG risks. While social impact can sometimes be less clear than environmental or governance considerations, they are still highly significant. For example, for investors in tech stocks, socially important issues such as data privacy can be highly material. There is the potential financial impact of regulatory interventions or of users switching to alternative platforms. It is essential that trustees gain an understanding of how investment advisers and asset managers are responding to these actions considering the number of corporate failures. Trustees will need to be sure that ESG claims made by those managing assets on their behalf are substantiated and are not simply a green 'gloss' on an investment approach largely unaffected by ESG considerations. Where fund managers rely heavily on third party ESG data systems, trustees should understand how those systems are used and what level of oversight is applied. Whilst ESG factors will not always be material to every investment decision, fund managers should be able to explain how and where they think they are material. To the extent that ESG factors are financially material, asset managers should already have been taking these into account in their investment decision-making.

It is essential that trustees monitor the ESG performance of their asset managers and portfolios to ensure that they operate in line with the agreed approach. It should be remembered that trustees are primarily responsible for how the fund's assets are invested. Legally, trustees are the owners of the assets of the fund. Trustees are required by law to take account of factors which may impact the financial performance of the fund's investments, including ESG factors, when making investment decisions. ESG risks are often long-term, personal and sometimes difficult to measure. The long-term goal of ESG is to identify businesses positioned for long-term sustainable growth. ■

Douglas Davids is an ESG specialist at Fidus Consulting Services.

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By Narayan Vyas

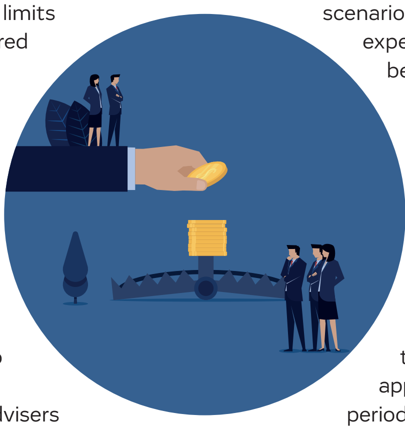
INVESTMENT

Analysing for unintended risk

How to achieve better alignment between fund managers and their clients.

Risk has always been a primary consideration for fund managers and their clients. However, what each party has in mind when thinking about risk and how to manage it can be quite divergent. Clear and thorough communication around risk is therefore an integral part of the arrangement between clients and fund managers to align the two perspectives as much as possible.

One of the main determinants of risk from the client's perspective is the investment benchmark. In the case of a typical retail client, this could simply entail making a conscious decision around the desired return over the investment horizon, accompanied by an awareness of the potential variability in returns that will likely occur over that horizon. In the case of an institutional client, the particulars around the type of benchmark (market index, risk-free rate, real return target, etc.) are important as they will inform all criteria around risk tolerance and acceptable limits the manager will be required to abide by as part of the investment management agreement. In both cases, it is imperative for the client to have clear and reasonable expectations around their return objective and the risk that comes with it long before the fund manager comes into the picture. This is often where consultants and advisers play a key role.



From the fund manager's side of the investment management relationship, the many types of risk embedded in portfolios of financial instruments are well-known. A fundamental principle underpinning financial markets is the positive relationship between risk and expected return, meaning that in most cases there are risks that must be accepted to generate anything higher than a risk-free rate of return. These are the risks the manager deems appropriate, and worth being exposed to, that is intended risks. One of the most important functions of risk management is to detect any unintended risks, those that are a side-effect of portfolio construction, and not expressly considered as part of the investment process.

There are various techniques available to detect unintended risks. The most straightforward of these is simply to be aware of what the major contributors to portfolio risk are. In most cases, these should be the instruments that have the most potential to contribute to the portfolio's return. Next, it is important that the sensitivity of the portfolio to various market indices or events is understood. This can be done either by looking at something like the beta coefficient, a metric whose magnitude indicates the portfolio's sensitivity to a particular market index, or through scenario analysis. This entails subjecting the current portfolio to an extreme set of market conditions to get a sense of how the portfolio likely would have behaved. In both beta and scenario analysis, pre-existing expectations of portfolio behaviour can be compared with the results of the analysis and major discrepancies can then be analysed further.

There is also much potential insight to be gained in considering style risk. History has shown that any investment approach or style will have periods of underperformance in a full market cycle. The analytics we now have access to in the realm of risk management have made it possible to isolate style factors and map these to various investment approaches such as value, growth, momentum, or some hybrid of these. With the increasing availability of this data, it is important for managers to understand where they fall in relation to the style factors present in their investment universe and to be aware of whether actual positioning at any given point is consistent with their investment philosophy and what is promised to clients.

One of the most important functions of risk management is to detect any unintended risks, those that are a side-effect of portfolio construction, and not expressly considered as part of the investment process.

The key to fund managers achieving better alignment with their clients lies not only in employing an effective risk management approach, but also in how the outputs of this process are communicated to clients. This is challenging due to the technical nature of many of the concepts involved, and the underlying message can often be lost in the jargon and calculations that are commonplace in the domain of risk management. Regardless of its complexity, all this material is nevertheless geared towards answering the same core question: how best to achieve the risk-adjusted return dictated by the client's needs and circumstances. Maintaining focus on this key point can assist in navigating the complexity and providing common ground on which client and manager can engage. Ultimately, it is an investor with well-thought-out objectives contracting an investment manager with a rigorous and formalised risk management process that together stand a much better chance of agreeing on the correct set of investment objectives to begin with, and then maximising the probability of reaching them, regardless of the market conditions that ensue. This is the basis of a mutually beneficial investment management relationship and is the type which all clients, advisers, consultants and fund managers should strive for to contribute to a healthy and robust investment industry. ■

Narayan Vyas is an investment risk analyst at Ninety One.

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By Anne Cabot-Alletzhauser

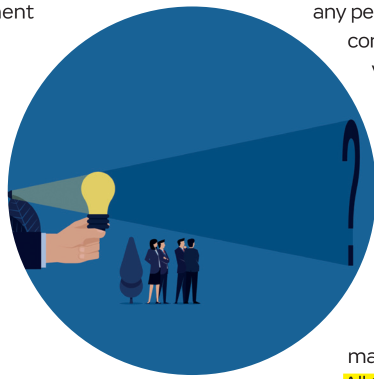
INVESTMENT

Just when you think you understand risk ...

The way we view risk is changing and investors need to be lifelong learners.

This week I was asked to teach a workshop on "risk" to a group of graduate students in portfolio management. I was probably right to be concerned. I was about to walk into their classroom and blow apart everything that their highly-rated textbook (and lecturer) had been trying to impress on them.

To be fair, Modern Portfolio Theory – the portfolio theory that underpins most conventional asset management practices (and regulator strictures for anyone managing pooled assets) – is not exactly wrong. But it is incomplete. Worse, if we follow its thesis on diversification as the risk mitigator of volatility, we can exacerbate market risk even further. This was the point that international contributors to this edition echoed. These were superb articles, but highly technical. We felt it worth summarizing their key points:



1. Our statistical modelling skills have become more robust – exposing previous errors in simplistic assessments of risk. **Ainsley To**, from Credo Capital, used his submission to highlight some of these problems. He focuses on what is known as "Simpson's Paradox". This is when you can get opposite conclusions about data when you look at it as aggregated data compared with when looking at subgroups of the same data. An example he uses is assessing the riskiness of asset classes. Plotting the aggregate inflation-adjusted returns of cash, bonds, and equity markets (across 14 different countries over the period 1900 to 2020) against their risk (volatility) you get exactly what the textbooks suggest: the higher the risk, the higher the return. Compare those returns within each asset class, and the more volatile equities in one country do not necessarily outperform lower volatility equities found in another country. It is the opposite. Such insights can play havoc with your asset allocation decisions.

2. Dan di Bartolomeo, CEO of Northfield, a US risk modelling and analysis company, points out that the metrics professionals use vary differently for different assets. We tend to measure risk in equities by volatility or variance from the benchmark. With bonds, credit ratings are the preferred metric. Derivatives require a whole vector of numeric values (the Greeks). And unlisted assets such as real estate or private equity has no widely agreed upon measure of risk. This can be problematic in managing multi-asset portfolios. Dan developed a "Everything Everywhere" multi-asset risk model. It has been evolving over time, but he still finds it difficult for investment specialists in each asset class to relate to a unified measure of risk that they might find counterintuitive. Clearly this space needs watching.

3. Harindra da Silva and **David Krider**, team leaders at Analytic Investors, Wells Fargo Asset Management, raise an even more daunting issue: risk drivers change over time. The problem with modelling risk is that the data only exists for past events and are therefore best suited to managing yesterday's problems. Responding to novel but unquantifiable risks requires tools that facilitate a combination of manager insight with statistical processes that amplify this insight and expand it across the investment universe.

They developed a process that lets the manager respond to any perceived point of inflection – say a pandemic crisis. By constructing a portfolio of shares that reflects the "winners vs losers" that are likely to emerge from this regime change, calculating their return (minus the contribution from common risk factors to capture only the returns associated to that specific event), then determining the sensitivity or volatility of shares (beta) to this new universe, the investor can now determine how to optimally weight their shares against this new universe. Effectively you now have a cardinal scale instead of a simple binary measure.

The work being done by all these leaders in risk management is worth exploring further.

All the stories in this edition of *Collective Insight* are essentially grappling with the same issue: risk is changing – and markets are becoming far more complex in terms of their price drivers than what we've experienced over the 70 years since Harry Markowitz developed Modern Portfolio Theory. As Douglas Davids points out in his article in this collection, we now recognise that ESG risks (environmental, social and governance risks) can be a force beyond MPT's volatility measure that can challenge the whole sustainability of a company. It is for this reason that regulators are starting to insist that we now consider ESG metric in our risk calculations. But it will need to be much more than that because ESG is an after-the-fact measure. As such, we cannot measure what impact it might have on future risks.

That suggests that the next big challenge ahead in the risk management game is the recognition that market systems are themselves at risk. We have already reached a state where the way we conventionally manage risk has had the unfortunate side effect of divorcing the market from much of the economic reality of the countries we live in. By shifting our focus to "systems risk", we can achieve what would be in everyone's best interest: that markets begin to function in the best interests of society.

By shifting our focus to "systems risk", we can achieve what would be in everyone's best interest: that markets begin to function in the best interests of society.

As Jon Lukomnik and James Hawley point out in their book *Moving Beyond Portfolio Theory*, the next evolution in asset management will involve using risk management in investing to impact and address externalities that affect the environmental, social and financial systems on which the health of our overall portfolio (and society) relies. To be continued ... ■

Anne Cabot-Alletzhauser is the practice director of the Responsible Finance Initiative at the Gordon Institute of Business Science

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