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Financial Economics

Session 8: Investment Strategies

Postgraduate Class
Economics Department Stellenbosch

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Department of Economics

DEPARTMENT OF
ECONOMICS



What are we going to do today?



- Discuss which assets should be held and when.
- Discuss **how** we can actually go about investing our assets: CIS, trusts, retirement funds, etc
- Role of investment intermediaries



Up to now...



- We have now come to the last session of the course, and up to now we have done the following:
 - Discussed the theoretic motivations for the pricing of financial assets and the determination of a fair price. Using **MPT** theories and the **CAPM** model we discussed how investors price in the risk of assets.
 - We then discussed the **different assets** that investors can hold, in terms of fixed income investments, shares in companies and also derivative instruments.
 - Today we will discuss how this can **all be combined** and utilized for ordinary investors to:
 - Profit off the growth of the market
 - Hedge against inflation eroding asset value
 - Secure the transfer of assets intertemporally to smooth consumption over time.



Which assets to hold when?



- As discussed throughout the course, investors need to assess what their intended outcomes for investing are.
- We saw that within each investment class lies the potential for **safer** (*typically lower yielding*) and more **risky** (*potentially higher yielding*) investment opportunities.
- Let's now discuss which assets could provide hedging in which scenarios!



Indicators to watch when deciding where to invest:





Which assets to hold when?



- **Broad macroeconomic news** (such as the US employment figures, the growth prospects of China, the EU's monetary policy changes) **impact investors' views** and therefore the attractiveness of investing in certain assets / markets.
- Consider, e.g., a better than expected **growth** forecast (GDP) for SA i.t.o. financial assets:
 - **Shares** – positive impact on equity markets, as the prospect of asset values increasing is clear.
 - Stronger employment figures also indicate expectations of increased production, increased sales and thus increased share values.



Which assets to hold when?



Consider, e.g., a better than expected growth forecast (GDP) for SA i.t.o. financial assets:

- **Positive** impact on **equity** markets. This follows as there would be expectation of stronger sales and profits, and thus the prospect of asset values increasing is greater.
- In terms of holding **bonds**, a strong GDP and employment report is expected to have the **opposite impact**:
- Stronger output expectations leads to a **decline** in the perceived investment risk and normally leads to investors shifting funds to expose their portfolios to equities
- Also, strong employment figures tend to suggest greater future wage bargaining power, leading to higher inflationary pressures... rising repo rates... which is bad for bond holdings!
 - In contrast, weak Emp-figures typically lead to downward pressure on interest rates (rising Bond Prices)



Industry / maturity specifics!



- Of course, the impact of broad macroeconomic indicator changes are different for each sector within the equity markets, and for different maturity instruments within the FI markets. These discussed now are **broad aggregates!**
- Take e.g. a country's **PMI** (Purchasing Managers Index)– which is an indication of **changes in manufacturing sales** (useful, as purchasing managers typically are the first to notice changes in aggregate demand).
- **Bond markets** may respond **negatively** on aggregate to a **rising PMI**, as it's viewed as a sign of asset market strengthening (lowering demand for safer instruments) and also potential for increased inflationary pressure, which may give rise to higher interest rates in the future.
 - **Equity markets** usually respond **positively** on aggregate to a **rising PMI**, as increased sales should imply increased value of share holdings on aggr.



Indicators



- In South Africa, the BER's consumer confidence index is often used as a barometer for confidence in the retail sector...
- While the Bloomberg US Financial Conditions Index (**BFCIUS**) can be used as a gauge to measure **stress in the markets** by combining everything from money-market rates to yields on government and corporate bonds to volatility in equities – expressed then as z – scores, representing the $S.D.$'s (σ) that current conditions lie above / below its 20 year avg...



Indicators



- Other US Gauges to measure market stress: The U.S. two-year interest-rate swap spread, a measure of debt-market stress. The gauge typically **narrows** when investors favour assets such as corporate bonds and widens when they seek the perceived safety of government bonds
- A gauge of U.S. company credit risk = The Markit CDX North American Investment Grade Index, a credit-default swaps (CDS) benchmark that **investors use to hedge against losses or to speculate on broad creditworthiness.**
- The index typically climbs as investor confidence in credit deteriorates and falls as it improves



Volatility Indicators



- Volatility in Treasuries as measured by the Bank of America **Merrill Lynch MOVE** index while currency swings are measured by the **JPMorgan Global Volatility Index**.
- In addition to these, there are many other indicators that offer investors broad measures of market sentiment, as priced by securities (thus it is implied sentiment, not sentiment deduced from surveys).



Value of the currency



- To foreign investors, expectations of the relative value of the currency is vital – as depreciations erode their investment returns.
- Here the BoP and Current Account data, as well as inflationary pressures & investor confidence (which drive capital inflows) should give foreign investors an indication of *where the currency is headed*.
- For SA: commodity prices, political stability, EU, US & Chinese policies, etc. should provide some indication of the likely route the currency might follow.
 - Ensuring foreign investor confidence and the steady inflow of foreign capital is vital in ensuring the currency keeps its relative value constant



BoP



- In financial markets the BoP (basically net supply/demand of a currency) is only considered important insofar as it may provide clues about the course of the value of the currency and the MPC rate decisions.
- Balance of Payments data are recorded in nominal terms only and therefore the actual figures are not particularly useful.
- The emphasis tends to be on ratios, such as the one between the current account balance and between the foreign reserves and the value of imports.
- Although the BoP is only published quarterly, the level of gold and foreign reserves is released monthly and provides an indication of whether or not the SARB has been active in the forex market in an attempt to influence the value of the rand.



- The trade balance should not be confused with the current account balance, which also includes services and income. It should also be noted that there is nothing inherently undesirable about a current account deficit.
- When economic growth and investment pick up, imports increase rapidly and trade and current account deficits tend to be recorded. Such deficits are thus often symptoms of a growing economy and if they can be financed through surpluses on the financial account they should have limited impact on the currency.
- If deficits are regarded as a sign of a strong economy, they may lead to an appreciation of the currency.



Foreign investors...



- On the foreign investor side, it is important to consider that SA is regarded as a developing country – and as such is labelled as **risky**.
- Therefore adverse news from abroad tends to (ironically) lead to capital outflow as a “flight to safety” – often back to the source of instability
- Also very important to foreign investors are interest rates.
 - In order to ensure interest rate parity, funds should in theory flow to regions with higher rates (earning investors higher relative returns) – with investors seeking carry trade benefits.
 - Thus a REPO rate cut may deter capital inflows somewhat, but we see that other factors moreequally if not more important to frgn investors - such as the continued preservation of the value of the rand, for example.



Money Creation



- Let's briefly detour into considering **money creation** itself, as it is fundamental to our understanding of how intertemporal resource transfers in the financial system occur.
 - Money creation is a function of economic activity and a reflection of anticipated expansion – which effectively underpins inflation; which in turn is a key driver of valuing future business ventures (through the discount component – interest rates) and pricing debt instruments (which, in large part, requires a minimum of inflation hedging).
 - So... understanding money creation is an integral part of understanding financial markets
- **Money** is anything that is accepted as a means of payment.
- It has two main components as held by the non-bank private sector (NBPS):
 - Bank notes and coins
 - Bank deposits



Money Creation



- M3 encompasses all NBPS deposits and notes & coinage.
- Irving Fischer expanded on M3 by linking it to the velocity of money:

$$\Delta M_3 + \Delta V = \Delta P + \Delta GDP_{Real}$$


- From this, a few insights emerge.
 - If velocity slows (as currently – where less economic activity takes place) – it has a direct impact on real GDP growth (provided M and P remain comparable).
 - Central banks typically (including the SARB) endeavor to expand M in line with the economy's ability to grow (assuming that in the longer term, V does not vary much) – to ensure from this equation that P remains stable.
 - In an environment of contracting demand for credit expansion – we see V stagnate, with concurrent stagflationary pressures.



Money Creation



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- Ultimately, CBs affect M_3 's creation not merely by printing cash – but by affecting the desire from the private sector to acquire credit, which itself is a function of economic activity (RGDP).
 - Distorting these natural forces (link between desire for credit / M and the real economy) by attempting to spur economic expansion through directly increasing M increases – should ultimately only lead to inflationary pressures (if it cannot be absorbed in RGDP expansion).
 - THUS: nominal levers have nominal effects (not necessarily real effects).



Other assets to hold...



In addition to debt / equity / derivative instruments— other popular investment vehicles include:

- Hard Commodities such as:
- **Gold** :
- Often regarded as a hedge against **inflation, political instability** and regarded as a safe instrument holding in times of economic peril, gold can provide investors with steady gains.
 - Naturally, a downside of holding gold instruments is that it does not provide investors with any cash-flow in the form of dividends or coupon payments (unless you invest in a gold mining company, but that is another story!)
- Other resource commodities are often impacted by production news, e.g. platinum / iron ore prices would be impacted by a **growth slowdown of China**...



Other assets to hold...



- Soft Commodities:
- Foods (such as grain futures, etc):
 - Such commodities tend to be affected by various factors including population growth, droughts, production techniques, etc. They can also provide investors with a good hedge against inflation and political / economic instability – as food will be required irrespective of economic stability!
 - It also has a relatively low correlation with equities and bonds – remember that this implies the possibility of diversification!
- Property:
 - The property market can also be a lucrative investment opportunity to investors, It can also provide investors with a good opportunity to **leverage** their portfolio if they borrow to buy property and rent it out.



Other assets to hold...



- Property...
 - Property values have also, in the past few decades, shown great increase – and can therefore also provide the investor with good capital gain.
 - Exposing your portfolio to individual property might be risky and costly – many factors out of the investor's control determine the value of a property, and being a physical asset, nature can play a role!
 - Most investors do not have enough capital to buy a house, apartment block or even a shopping centre – although these can be lucrative investments.
 - For this reason, most investors holding some part of their portfolio in property do so by investing in a **real estate trusts (REITS)** or ETF that track property values.



REITS



- Prior to tax law reforms in 2013 in SA – there were discrepancies in how property loan stocks (PLS) and property unit trusts were taxed.

- PLS structures are part equity, part debenture (fixed interest instrument)
- In 2013, tax authorities removed the discrepancies: provided such a vehicle registered as a REITS on the JSE and...

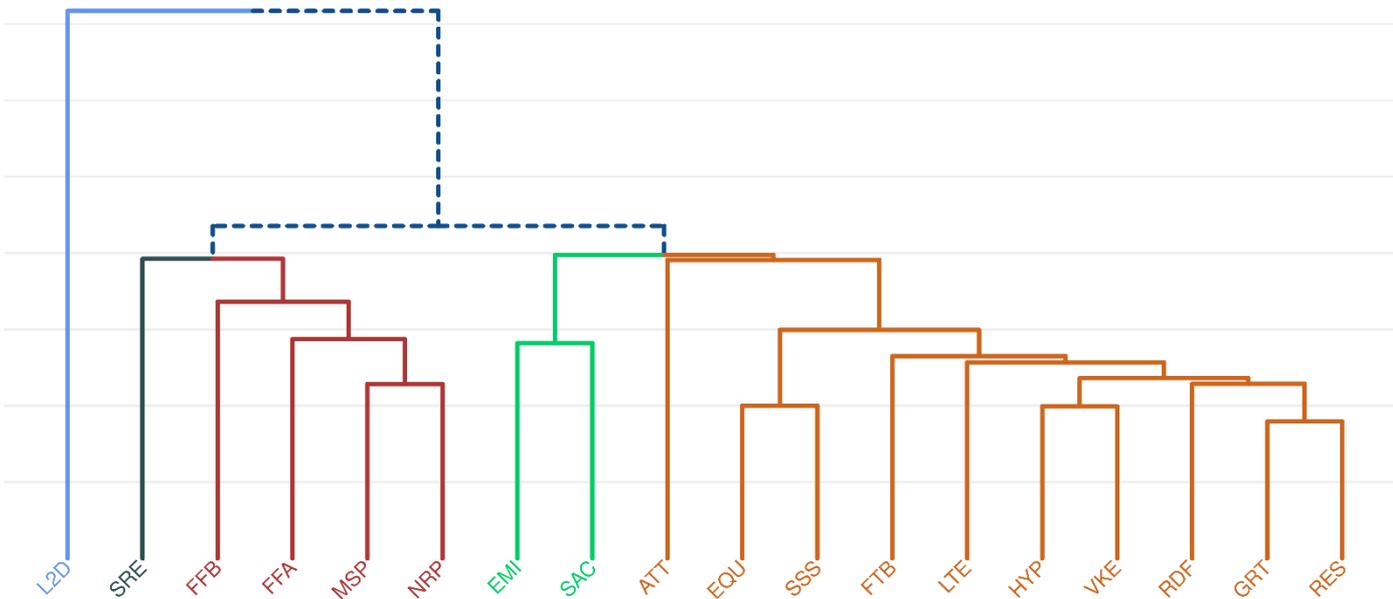
- has R300m AUM in real estate; distribute at least 75% of distributable income annually (effectively this means REITS stocks pay high dividends); Keep debt below 60% of gross asset values (stops overleveraging); receive 75% of revenue in the form of rental income, or rental income derived from holding other REITS companies.

- There are several indices that track property companies on the JSE – with the most tracked the JSAPY (J253).
 - The index tracks the 20 most liquid companies by full market cap in the REITS sector.



- Below is a dendrogram of the JSAPY constituents

Hierarchical Clusters for SAPY: 12 Oct 2023
12 Month Weekly Returns for 50 Largest Stocks



Note

Stocks with at least 80% valid observations considered.
This function performs a hierarchical cluster analysis using a set of dissimilarities for the n objects being clustered.
Agglomerative nesting is used above, with 5 largest clusters coloured.



J253: Past 12 Months Cumulative Returns: -48.8% down

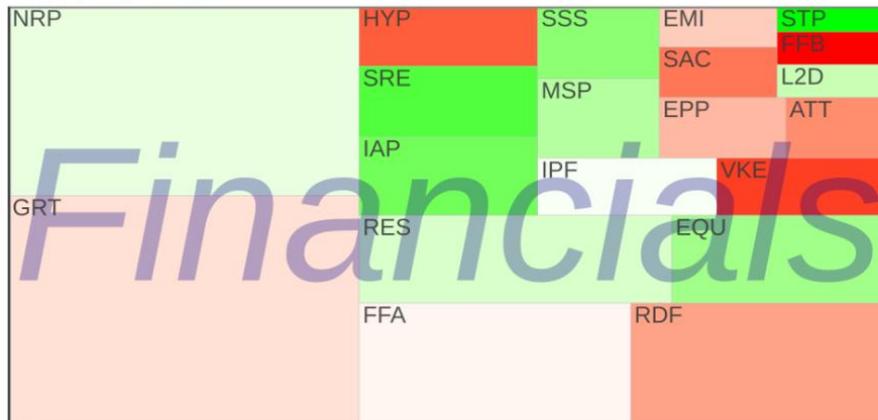
2020 Oct



SAPY: Top Performing Stocks Last 12 Months: 31 Aug 2020

Size of Block: Weight in SAPY ; Color Shade: Return Rankings
Green Highest | Red Lowest

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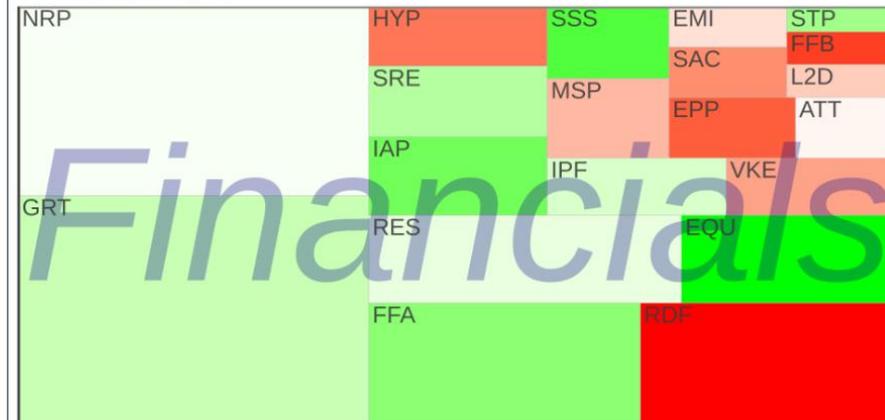


Note:
ICB Industry Classifications Used.
Stocks with insufficient data (traded less than 80% of last 12 months) not included.
Calculations our own.

SAPY: Most Volatile Stocks Last 12 Months: 31 Aug 2020

Size of Block: Weight in SAPY ; Color Shade: Ann. Std Deviation Rankings
Green Lowest | Red Highest

PRESCIENT



Note:
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Stocks with insufficient data (traded less than 80% of last 12 months) not included.
Calculations our own.

Financials



J253: Past 12 Months Cumulative Returns: 43.8% up

2021 Oct



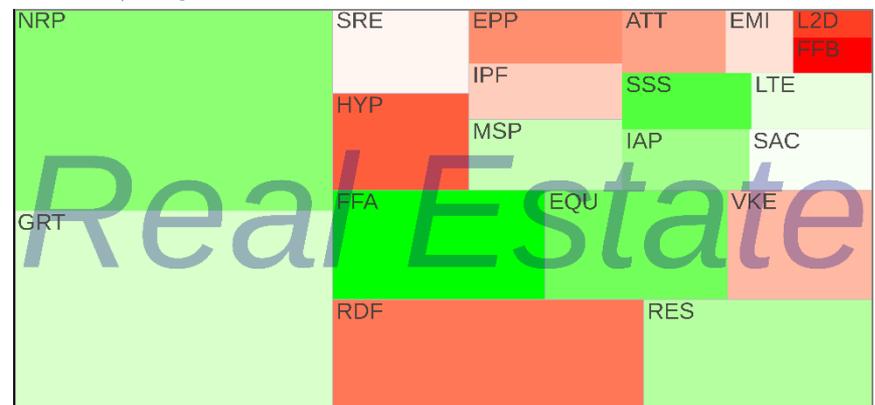
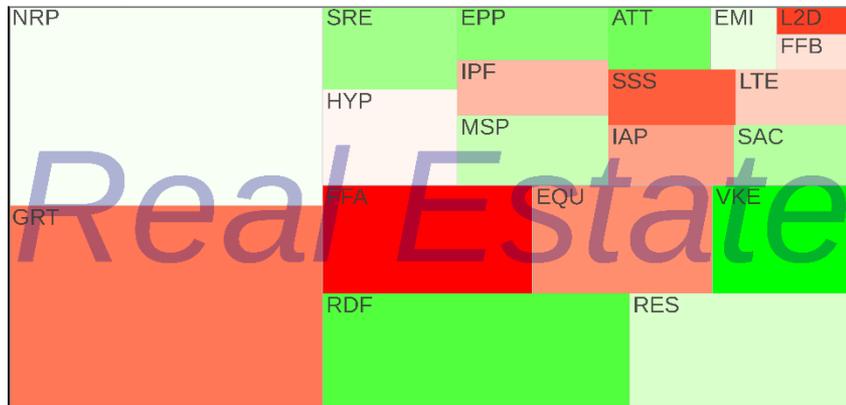
SAPY: Top Performing Stocks Last 12 Months: 27 Oct 2021

Size of Block: Weight in SAPY ; Color Shade: Return Rankings
Green Highest | Red Lowest



SAPY: Most Volatile Stocks Last 12 Months: 27 Oct 2021

Size of Block: Weight in SAPY ; Color Shade: Ann. Std Deviation Rankings
Green Lowest | Red Highest



Note: ICB Industry Classifications Used. Stocks with insufficient data (traded less than 80% of last 12 months) not included. Calculations our own.

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J253: Past 12 Months Cumulative Returns: -7.5% down

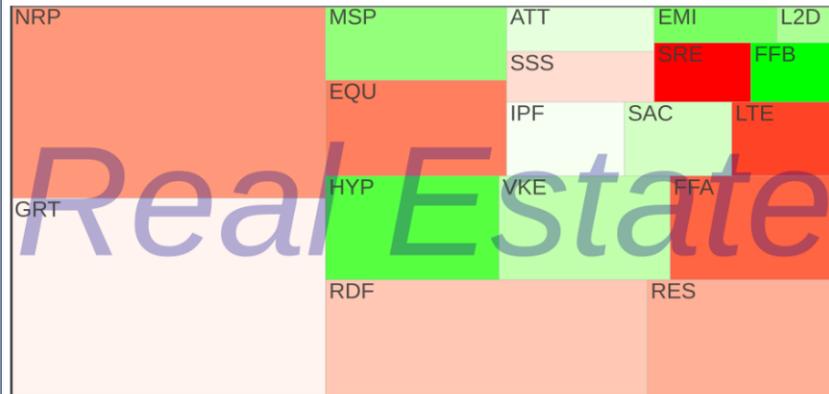
2022 Oct



SAPY: Top Performing Stocks Last 12 Months: 26 Oct 2022

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Size of Block: Weight in SAPY ; Color Shade: Return Rankings
Green Highest | Red Lowest

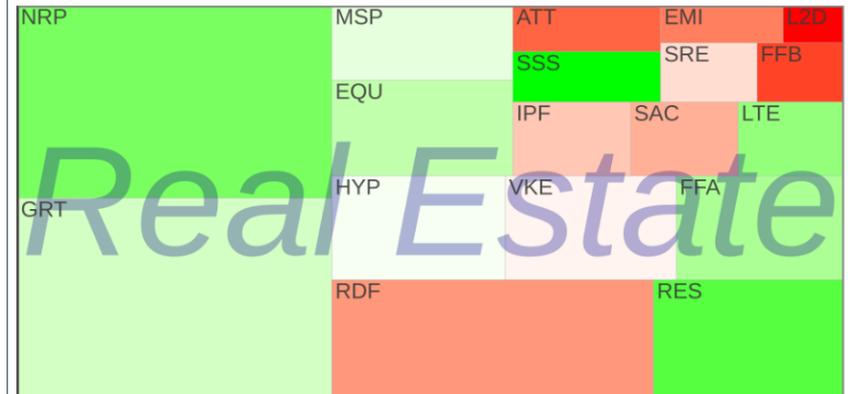


Note:
ICB Industry Classifications Used.
Stocks with insufficient data (traded less than 80% of last 12 months) not included.
Calculations our own.

SAPY: Most Volatile Stocks Last 12 Months: 26 Oct 2022

PRESCIENT SECURITIES

Size of Block: Weight in SAPY ; Color Shade: Ann. Std Deviation Rankings
Green Lowest | Red Highest



Note:
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Stocks with insufficient data (traded less than 80% of last 12 months) not included.
Calculations our own.

Real Estate



J253: Past 12 Months Cumulative Returns: -1.4% down

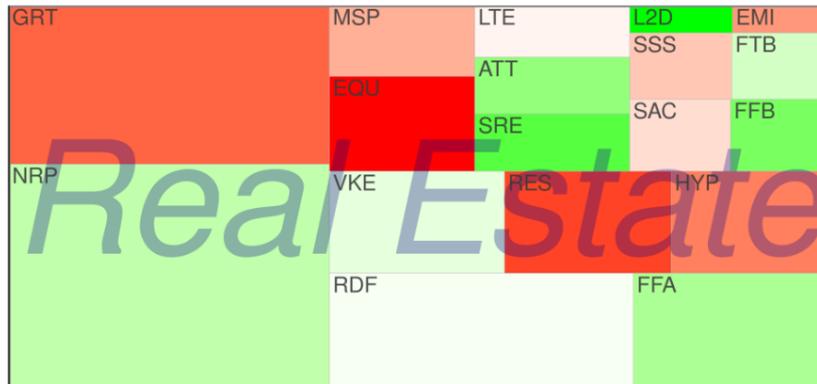
2023 Oct



SAPY: Top Performing Stocks Last 12 Months: 12 Oct 2023

Size of Block: Weight in SAPY ; Color Shade: Return Rankings
Green Highest | Red Lowest

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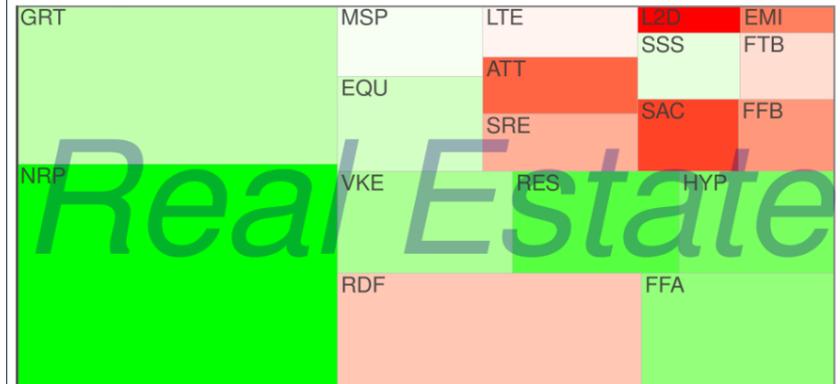


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Calculations our own.

SAPY: Most Volatile Stocks Last 12 Months: 12 Oct 2023

Size of Block: Weight in SAPY ; Color Shade: Ann. Std Deviation Rankings
Green Lowest | Red Highest

Prescient
SECURITIES



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Stocks with insufficient data (traded less than 80% of last 12 months) not included.
Calculations our own.

Real Estate

Real Estate



Property stocks – a high duration bond instrument, or something else?



- NOW.... An interesting research question emerges:
 - What accounts for the discrepancy between bond markets and REITS stocks the last few years?
 - In particular, why aren't REITS companies behaving like high duration bonds anymore?
 - Basically – REITS companies are that: higher risk debt instruments (hence higher duration, or interest sensitivity).
 - Answer, in part:
 - Very high levels of REITS debt and concomitant default risk for many tenants have become really high following widespread business closures due to COVID-19
 - Foreign inward listed REITS companies.
 - Inward listers and several local REITS companies have expanded their balance-sheet of shore – implying less correlation with factors common to local bond instruments.



Other assets to hold...



- Currencies:
 - Investors can also seek hedging against their own currency depreciation, or even seek to profit off other currencies' appreciation by holding assets linked to it.
 - Holding stock of foreign currency might be difficult and even illegal, so investors gain such exposure either by holding currency derivatives, forex mutual funds or -ETFs, or by investing in forex denominated funds / - assets.
 - The JSE has easily accessible means of gaining forex exposure.



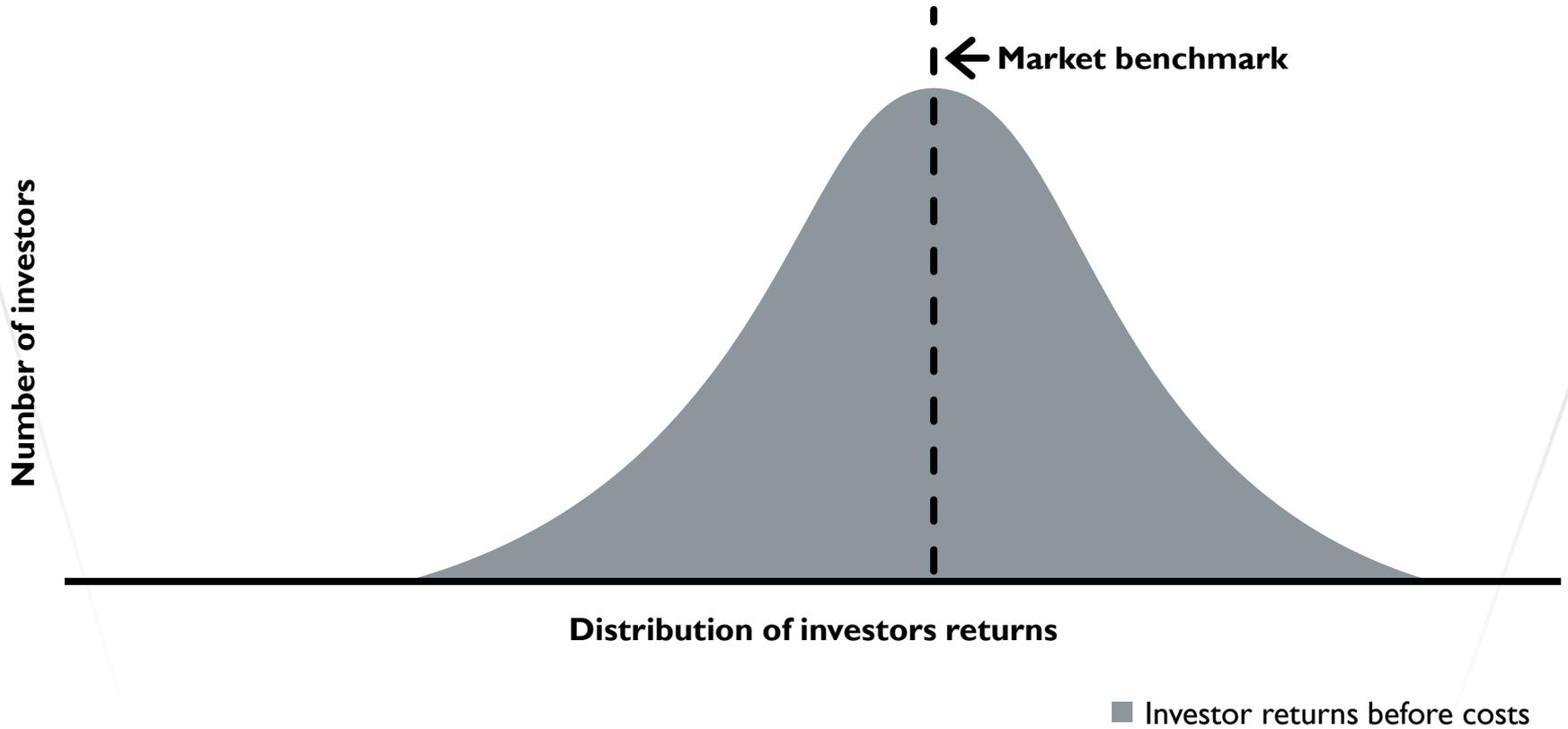
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Active Management of Investment Funds

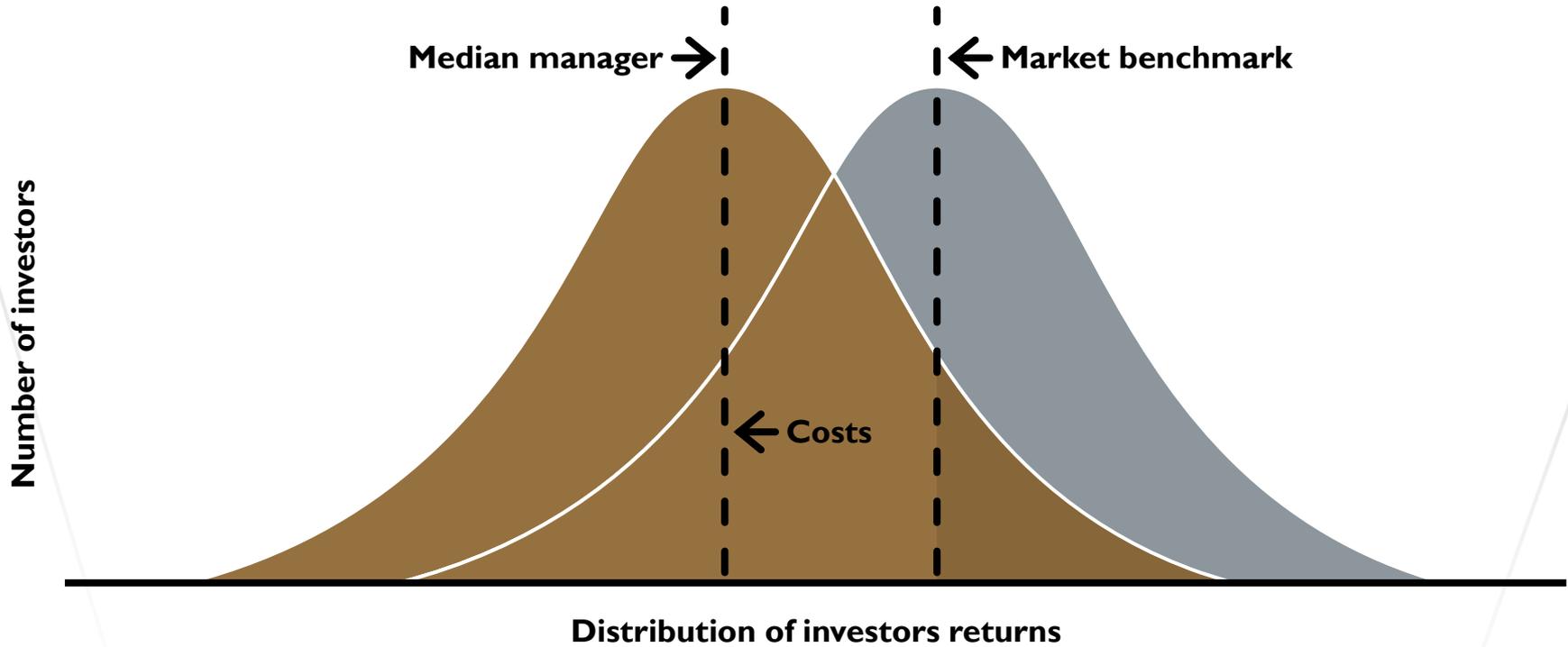


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Source: William F. Sharpe, "The Arithmetic of Active Management", The Financial Analysts Journal Vol. 47, No. 1, January/February 1991, pp. 7-9. Vanguard Canada, 2019: Does active management perform better in bear markets?



■ Investors who outperform the benchmark ■ Investor returns after costs ■ Investor returns before costs

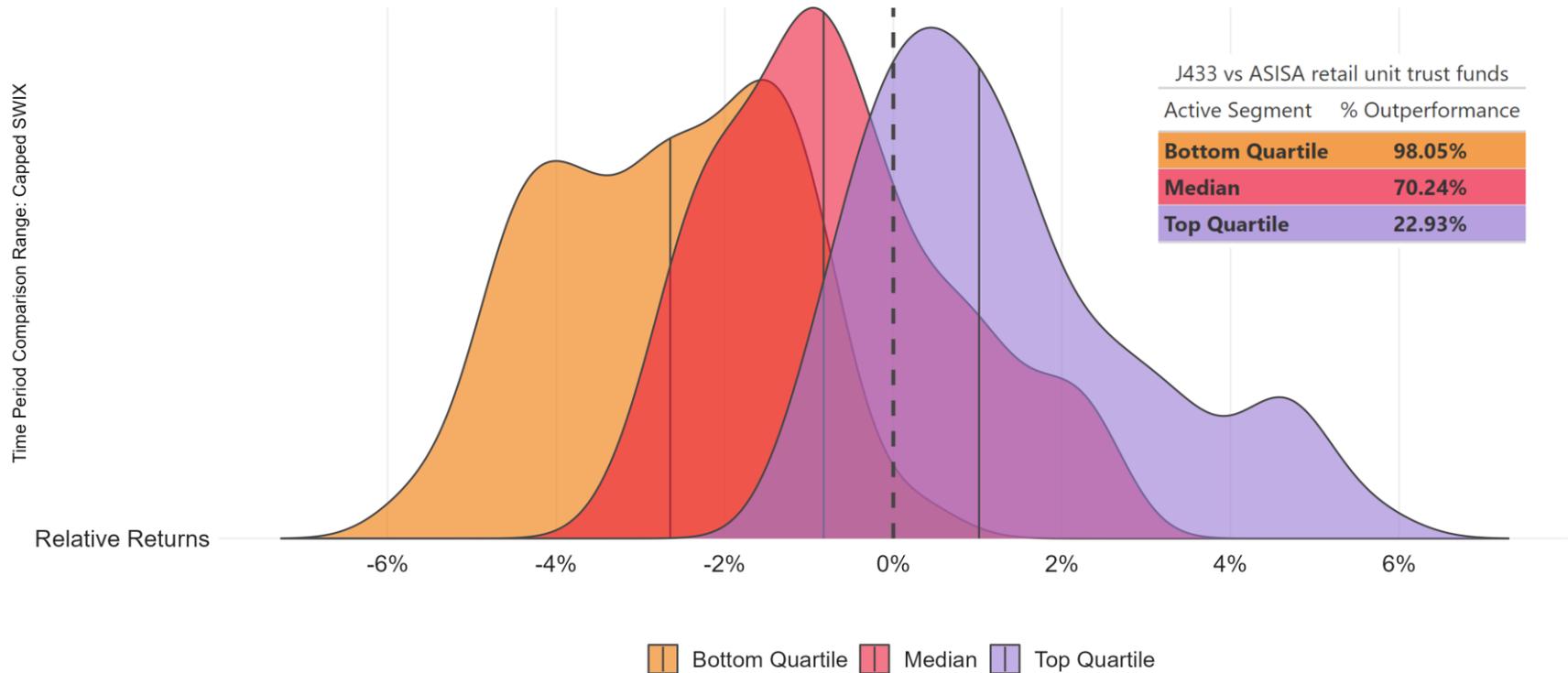
Source: William F. Sharpe, "The Arithmetic of Active Management", The Financial Analysts Journal Vol. 47, No. 1, January/February 1991, pp. 7-9. Vanguard Canada, 2019: Does active management perform better in bear markets?



Underperformance of majority of active funds vs. Capped SWIX (after costs)

Distribution of Rolling 3 Year Performance Relative to Capped SWIX Index*

Distributions: Percentiles of ASISA General Equity Fund Comparative Performance to Capped SWIX Index*



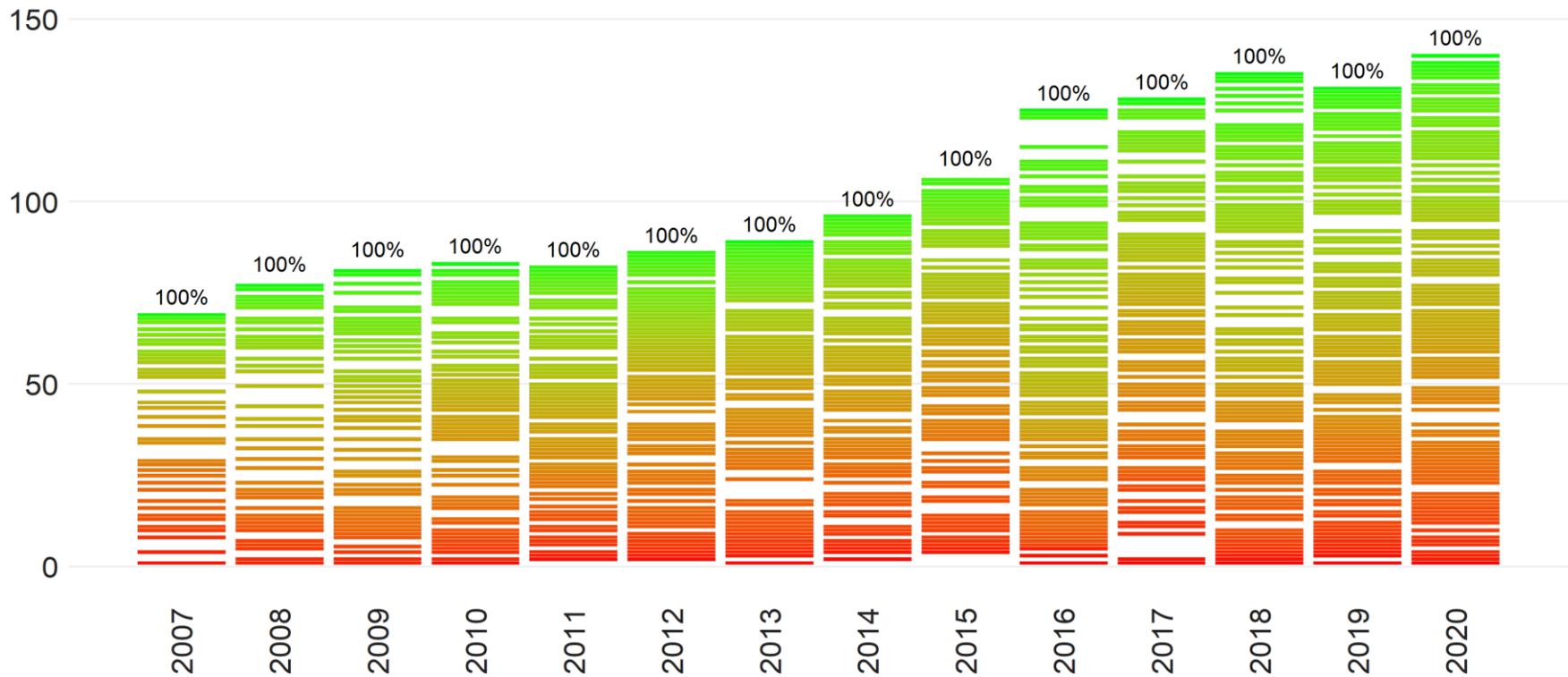


Persistence & Consistency



ASISA General Equity Fund Performance Persistence

Shading indicates past three years' performance up to indicated year (green: best, red worst)
Rank / position indicates given years' performance.



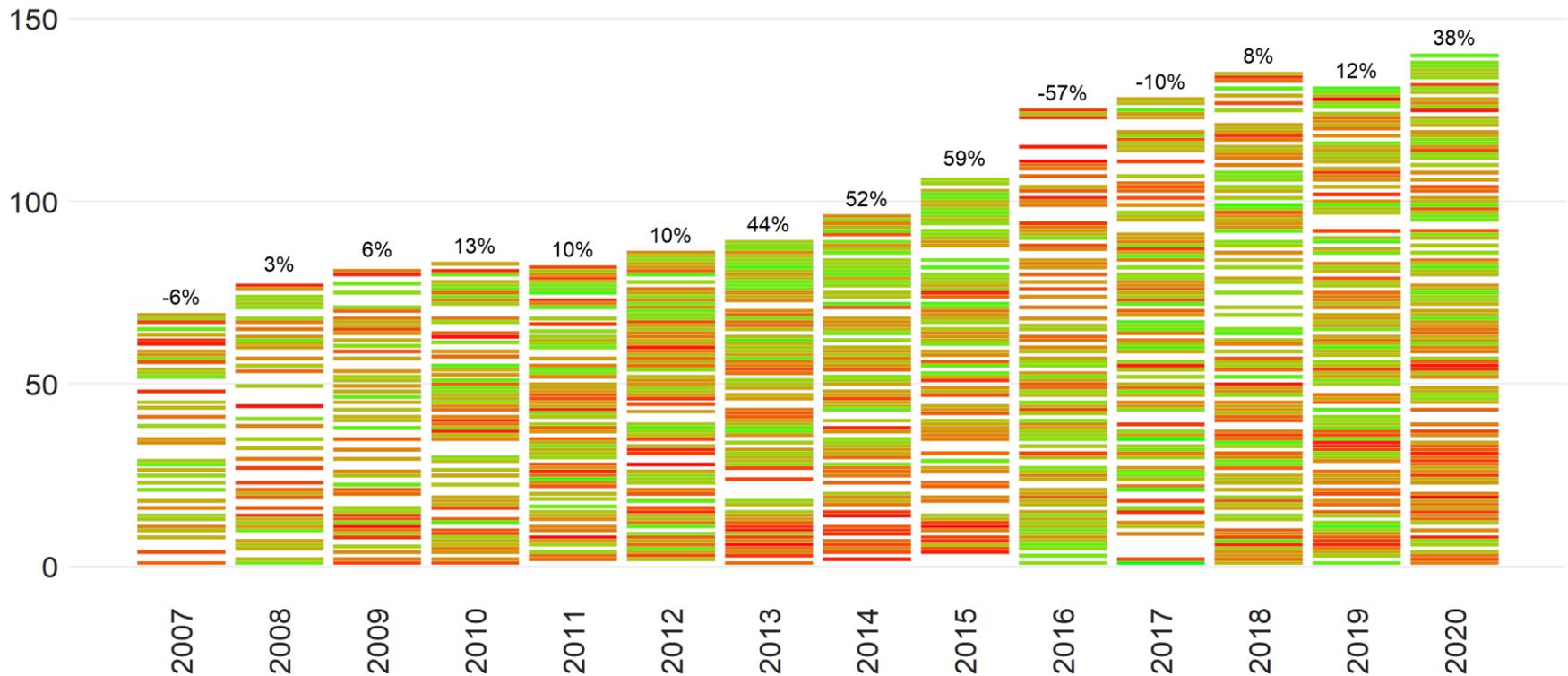


Persistence & Consistency



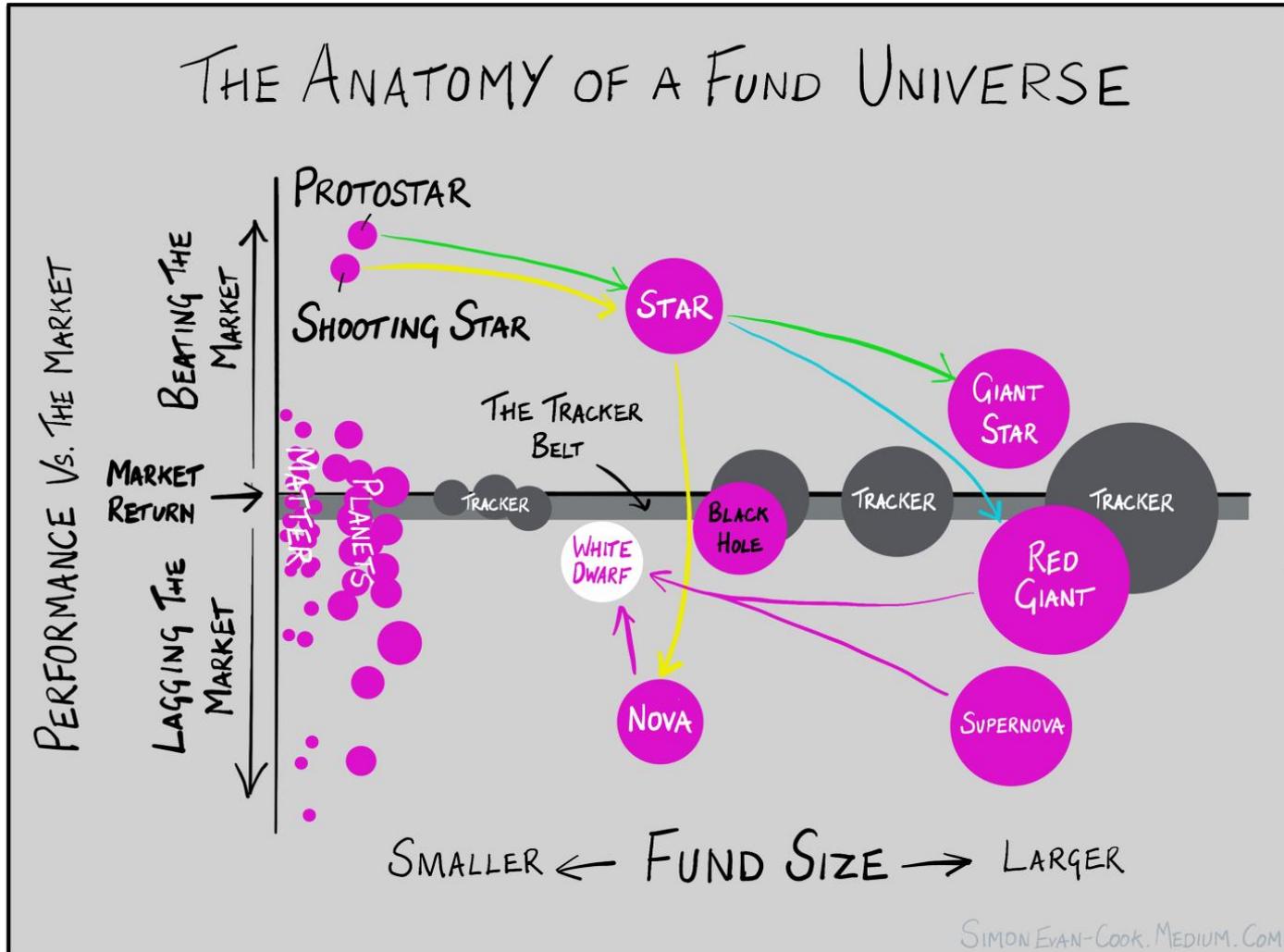
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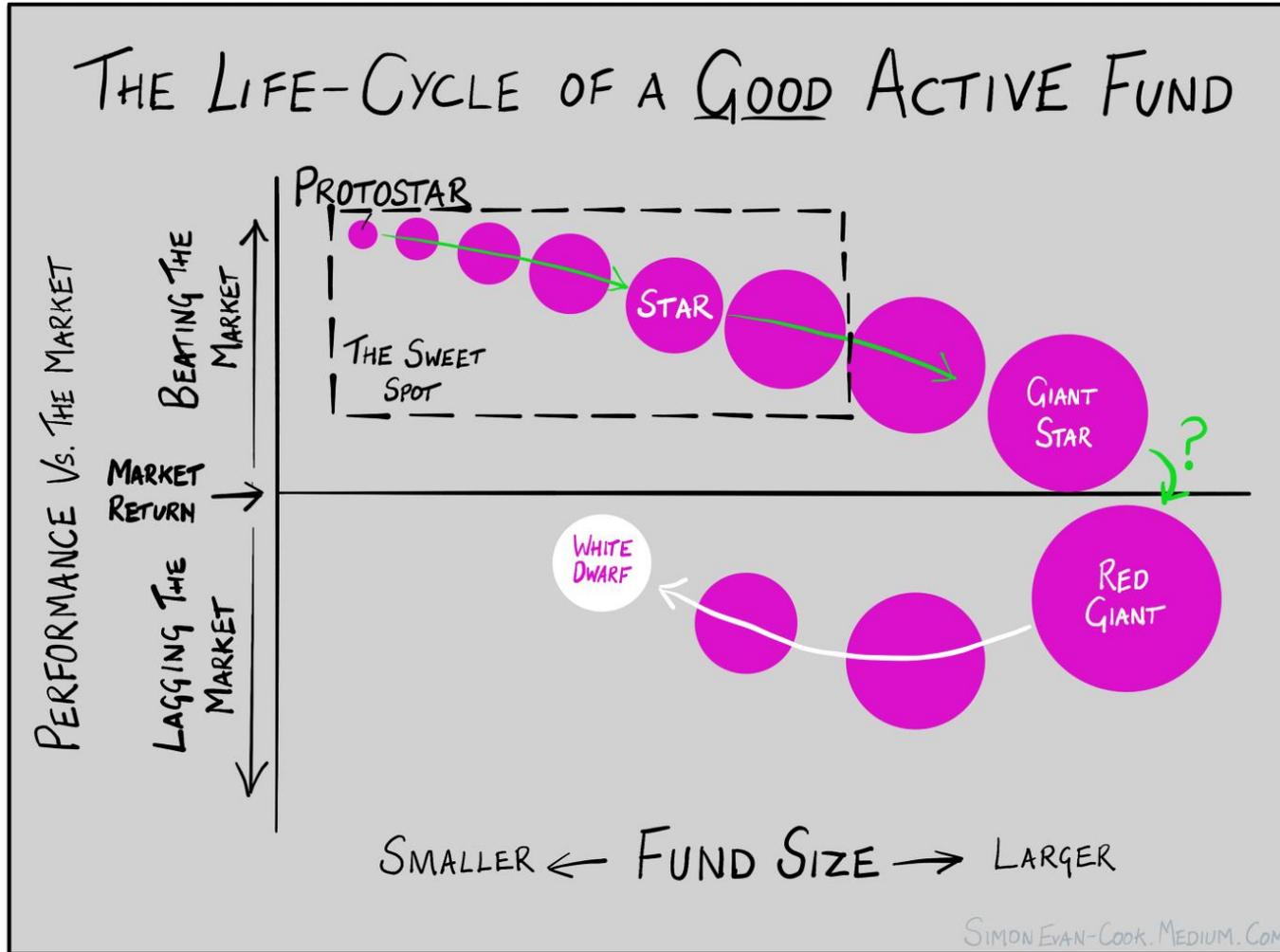
Anatomy of an Active Fund



Source: <https://simonevan-cook.medium.com/the-anatomy-of-a-fund-universe-b737708f9e9c>



Anatomy of an Active Fund





Institutional investors



- Up to now, we have implicitly assumed that **individuals invest** on their **own behalf** – having to make difficult choices in an uncertain investment world.
- Most people, however, conduct their investments through an intermediary
- Such investors are called **Institutional investors**:
 - Organizations that invest professionally and offer financial services. These include: insurance- & investment companies, banks, pension funds, CIS’.
- They can be classified as either **actively** (trading actively) or **passively** (buy and hold) managing investment portfolios (with theory motivating the use of latter investment types – if assumptions of efficiency hold).



The power of pooling



- As noted before, it is far cheaper and more efficient to pool many investors' funds and to use it collectively for investment purposes. This allows diversification and exposure that no single investor can typically hope for on his / her own.
- We've discussed ETFs – being an exchange traded instrument that represents a share in (and narrowly tracks) a clearly defined underlying portfolio of assets... often linked to some index (S&P 500, JSE ALSi, JSE Resources Index, etc).
- But there are many other fund pools that can be invested in too, which intends to provide investors with a managed portfolio (mostly by a “professional” investment manager).



Contractual Savings Institutions



- Collective Investment Vehicles (or Schemes) – called **CIS** in SA – offer investors the benefits of pooling resources among many investors, and investing it in a wide range of debt / equity / commodities / currencies and derivative instruments.
- Thus the managers transform the principal promise to the “depositor of funds” into an **equity** promise (which can vary, as opposed to the deposit at a bank) – this of course implies risk is borne by investor, **not** the institution.
- Let’s first distinguish between unit trusts (UT) and ETFs



Commonality: UT & ETF



- Both offer investors ownership of underlying pool of assets in proportion to their share in the fund.
 - UT – investors hold units in the fund
 - ETF – investors hold a share in the fund that is listed and traded on the JSE
- When a UT and ETF both track the same index (e.g. the FTSE/JSE Top 40) – both have exact underlying.
- Both are governed by CISCA (Collective Investments Scheme Control Act)
- Both are monitored by trustees and regulated by the FSB.



Commonality: UT & ETF



Unit Trust + Share = Exchange Traded Fund

- ETFs are open-ended like unit trusts, with the flexibility of being traded like ordinary shares
- You are buying a portfolio of securities, which diversifies the risk
- You choose the index, sector or commodity you want to track, or a range of ETFs over several markets.
- Trades daily and highly liquid
- All ETFs are fully asset backed and insolvency remote
- Cost efficient
- Exchange traded funds are ideal building blocks in creating the investment portfolio that suits your own needs and investment goals.

Comparison with Traditional Unit Trusts

ETFs		Unit Trust
Trade priced throughout the day on JSE		Priced only at end of day
Liquid, trades like a share		Liquid, trade at actual market value of assets
Regulated by the JSE and FSCA		Regulated by FSCA
Transparent - publish holdings		Transparent - publish holdings
Easily accessible, trade through a stockbroker or investment platform		Easy accessible, trade through Unit Trust MANCO or LISP
Cost Effective		Cost Effective



UT & ETF



- ETF – priced & tradeable throughout the day
 - Make holdings available daily
 - This includes shares, cash, accrued dividends, etc.
 - ETF funds have nominated Authorized Participants (AP) – whose responsibility it is to ensure liquidity and prices being in line with underlying NAV.
 - Price discrepancies can be arbitrated by the AP by, e.g., buying constituents proportional to ETF structure and selling ETF units held by the AP.
- UT – priced at the end of the day
 - Holdings made public quarterly
- Costs: Both UT & ETF funds make their fees (look for TER) public in a MDD (Minimum Disclosure Document) | Trading costs differ, meaning the Total Investment Charge (TIC) will differ slightly (lower in like for like ETF)



Contractual Savings Institutions



- Unit Trust vehicles mostly include one of two types:
- Open-Ended – typical structures for mutual funds, ETFs, Hedge funds
 - Shares issued as long as there's demand for inclusion – ability to expand assets under management (AUM).
 - Apart from ETFs (which trades through the day), prices generally given at close to enable calculating NAV.
 - If an investor seeks to enter or exit the fund, typically the fund managers will sell / buy back shares (units) at Net Asset Value (**NAV** – which you can think of as the market value of each unit holding in the fund).
 - Types of Mutual Funds are characterized by their mandates, and these are communicated to budding investors. Fund-types include, e.g.:
 - Income Funds (reliable stream of income – mortgages, FI instruments, etc); Growth Funds (focus on companies with high growth forecasts); Value Funds (low P/E companies); Sectoral Funds (Resource Sector, Financial Sector); Hedge Funds (arbitrage / speculation type funds – typically high risk high reward); Global Funds, Retirement Funds (they adhere to strict regulations, called regulation 28 in SA, as to the mandate)
- Closed-Ended – basically like a publicly traded company: investors in these structures can make investments liquid only by selling their shares on the **market**. Entering and exiting thus requires a counter-party. IPO's are used to create assets to manage (AUM).



Unit Investment Trusts & Mutual Funds



- Although largely similar in design (both work on the principle of pooling funds and managing the funds on behalf of the investors), there are some differences between UIT and Mutual Funds.
- The first being that UIT's are typically established with a fixed number of shares at an IPO that are tradable, while Mutual Funds can typically create and issue shares on demand. Also, MFs are often regarded as more flexible in terms of its investment mandate.
- In SA, however, we typically refer to Unit Trusts and not Mutual Funds, with the distinction not really made between the two.



The power of pooling



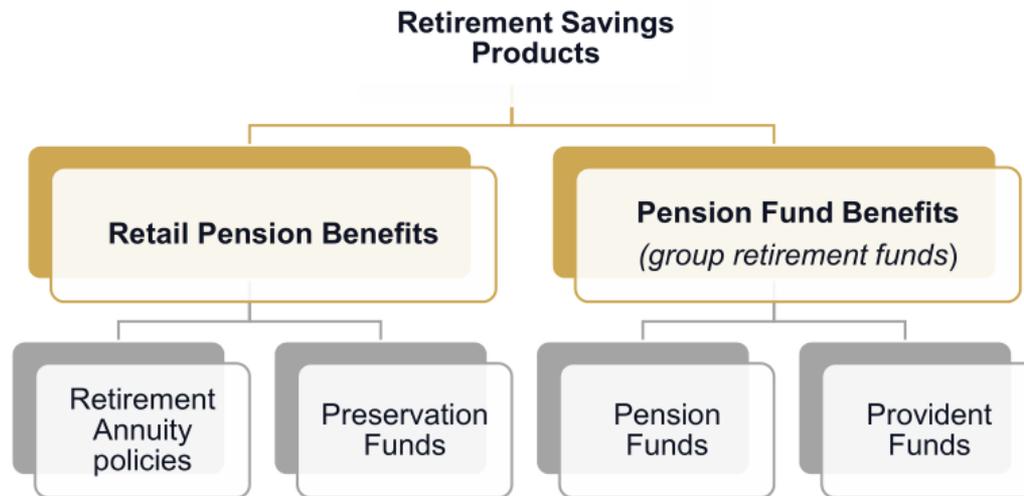
- Such pooled investment funds play an important role in the economy and the financial sector.
 - They collectively allow large infrastructural or other investments to be undertaken by the private sector that might otherwise be too large for individual investors.
 - They allow investors the benefit of bulk-investing i.t.o. lowering costs (such as administrative-, research and effort costs).
 - They are also vital in facilitating efficient price discovery... Ironically - as a more efficient system would imply making it harder for the intermediation industry to outperform the market!
 - **Provides benefits in bull and bear markets.**
 - No expert knowledge required on behalf of investor.



Retirement Products



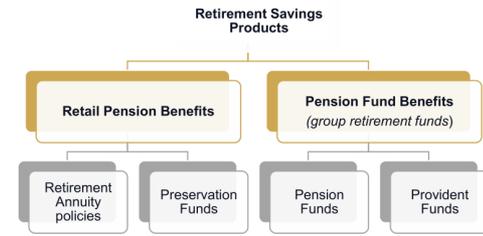
- Retirement planning is an essential part of wealth management.
- According to the FAIS act (2002) the products related to retirement savings can be classified as:



- Regulation have been created to incentivize, through significant tax breaks, saving toward retirement & its prudent management.



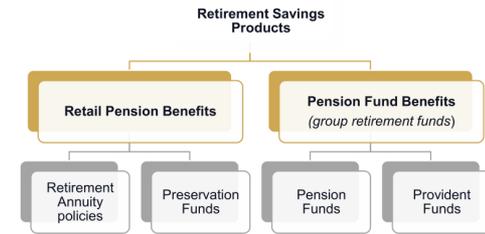
Retirement Products



- Retirement Annuities (RA):
 - Personal retirement policy: no employer contribution.
 - Done through registered life insurance company
 - **Contributions are tax deductible (within limits); investment earnings aren't taxed**
 - If contribution payments cease, the benefit becomes 'paid up' – meaning it remains invested until the member retires (or dies), with ongoing investment charges applying.
 - Can access funds at 55 or older (no max age for retirement), or conditional upon e.g. disablement.
 - When retiring, you can take up to one third of total savings in cash; with at least 2 thirds then used to buy a life-long annuity / pension plan.
 - Group retirement plans can be transferred, tax free, to a RA plan.



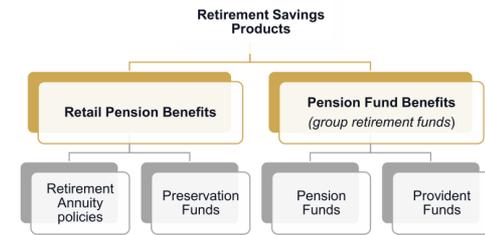
Preservation Funds



- Preservation Funds:
 - Also individually owned retirement product offered by registered insurance companies.
 - PFs only cater for transfers from other retirement funds, with ongoing contributions not allowed – aim is purely to “preserve” past contributions to other funds
 - Tax free transfer
 - Can make one withdrawal (up to full amount) before retirement.
 - Can choose investment portfolio



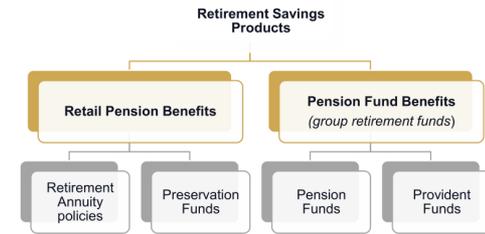
Group Retirement Funds



- Group retirement funds: compulsory contributions from employees
- Two main groups: Pension Funds & Provident Funds
- Pension Funds:
 - Offer pension at retirement: known as an annuity, or a regular payment to retiree
 - Can take up to 1/3rd cash at retirement (subject to lump sum tax), must invest 2/3rds at least into annuity.
 - Different types of annuities are then available
- Provident Funds:
 - Regulation has been amended in 2022, but previously these funds could be accessed in its entirety.
 - Those that contributed previously to Prov Funds can still do so, but new retirees are subject to same 1/3rd access as with pension funds .



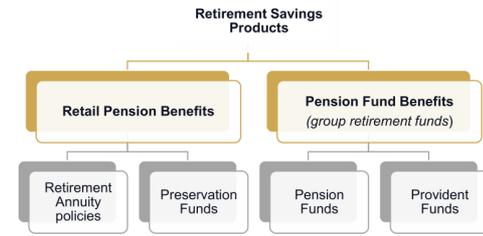
Annuities



- So what can you do with the remaining 2/3rd when you retire?
- Two main compulsory annuity products:
- **Life Annuity (traditional / conventional):**
 - Payable for the whole of the retiree's life
 - Pensioner has peace of mind that there will be an amount paid for remainder of life (doesn't run out).
 - Once payout structure decision is implemented, it **cannot** be changed.
 - Very important to get sound advice from an advisor here (it is inflexible)
 - If no additional benefits are purchased – remaining capital at death is lost...
 - This means, structure of life annuity is very NB to decide on if there's a spouse or dependencies.



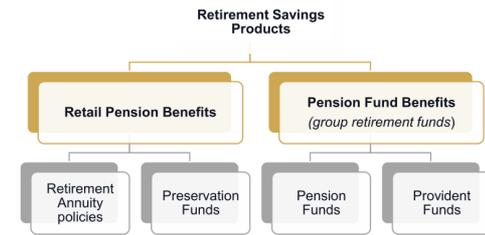
Annuities



- So what can you do with the remaining 2/3rd when you retire?
- Two main compulsory annuity products:
- **Life Annuity (traditional / conventional):**
- **Add-on examples:**
 - Joint & last survivor
 - Two lives assured and annuity will continue until death of both (annuity typically ↓ when one dies)
 - Capital Preservation
 - A life policy is taken out at retirement for same value as capital at retirement. This means if annuitant dies, proceeds of policy payout goes to a nominated beneficiary.
 - This would entail a lower annuity to cover premium for capital preservation
 - Guarantee Period:
 - i.s.o. lump sum payout at death, can guarantee pay out for a fixed period (e.g. 10 years) to nominated beneficiary



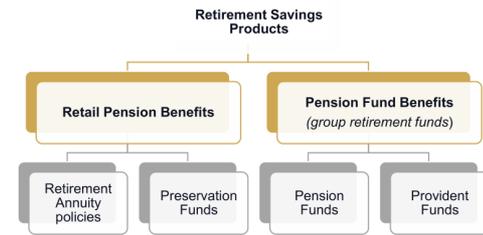
Annuities



- So what can you do with the remaining 2/3rd when you retire?
- Two main compulsory annuity products:
- **Life Annuity (traditional / conventional):**
- **Enhanced (or impaired) Annuity**
 - Allows for a higher monthly payout
 - Typically if life expectancy of retiree is shortened due to illness, e.g.



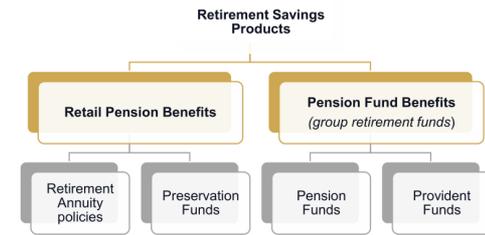
Annuities



- So what can you do with the remaining 2/3rd when you retire?
- Two main compulsory annuity products:
- **Living Annuity**
 - Retiree's savings pool is invested, and capital may grow / shrink depending on investment success / failure
 - Retiree should get advice and choose: annuity payout level, investment portfolio / strategy (with risk & upside considerations)
 - More flexible – can make ongoing changes to payout amount, investment strategy, etc.
 - Can also convert to a life annuity later if chooses to.
 - Monthly annuity is then drawn from the invested capital & investment earnings
 - Amount to be drawn limited to between 2.5% – 17.5% (called a drawdown)
 - If retiree dies, remaining capital is payable to nominated beneficiary (no benefits like guarantees / joint survivorship structure, etc)



Annuities



- So what can you do with the remaining 2/3rd when you retire?
- Two main compulsory annuity products:
- **Living Annuity**
 - Benefit: flexible, capital does not cease when retiree dies
 - Cost: can run out of capital, payments / investment returns are not guaranteed
 - Cost: ongoing management of investment strategy can cause uncertainty, risk and stress.
 - Good option where retiree has other sources of income too, so as to not purely rely on investment outcomes from capital invested.



Defined Contribution vs Defined Benefit



- **Defined Contributions**
 - Members of a group pension fund contribute monthly, capital determined by investment performance
 - Members carry the risk of poor investment performance, but also upside of strong growth.
 - Employer is responsible for deducting contributions and paying it over to the fund administrator
- **Defined Benefit**
 - Members make monthly contributions, with a fixed retirement payout guaranteed by employer.
 - Investment performance risk is eliminated, but with it too the upside potential (if investment returns were substantial).
 - Risk is taken by employer, with employee only having the opportunity cost risk



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Regulating CIS

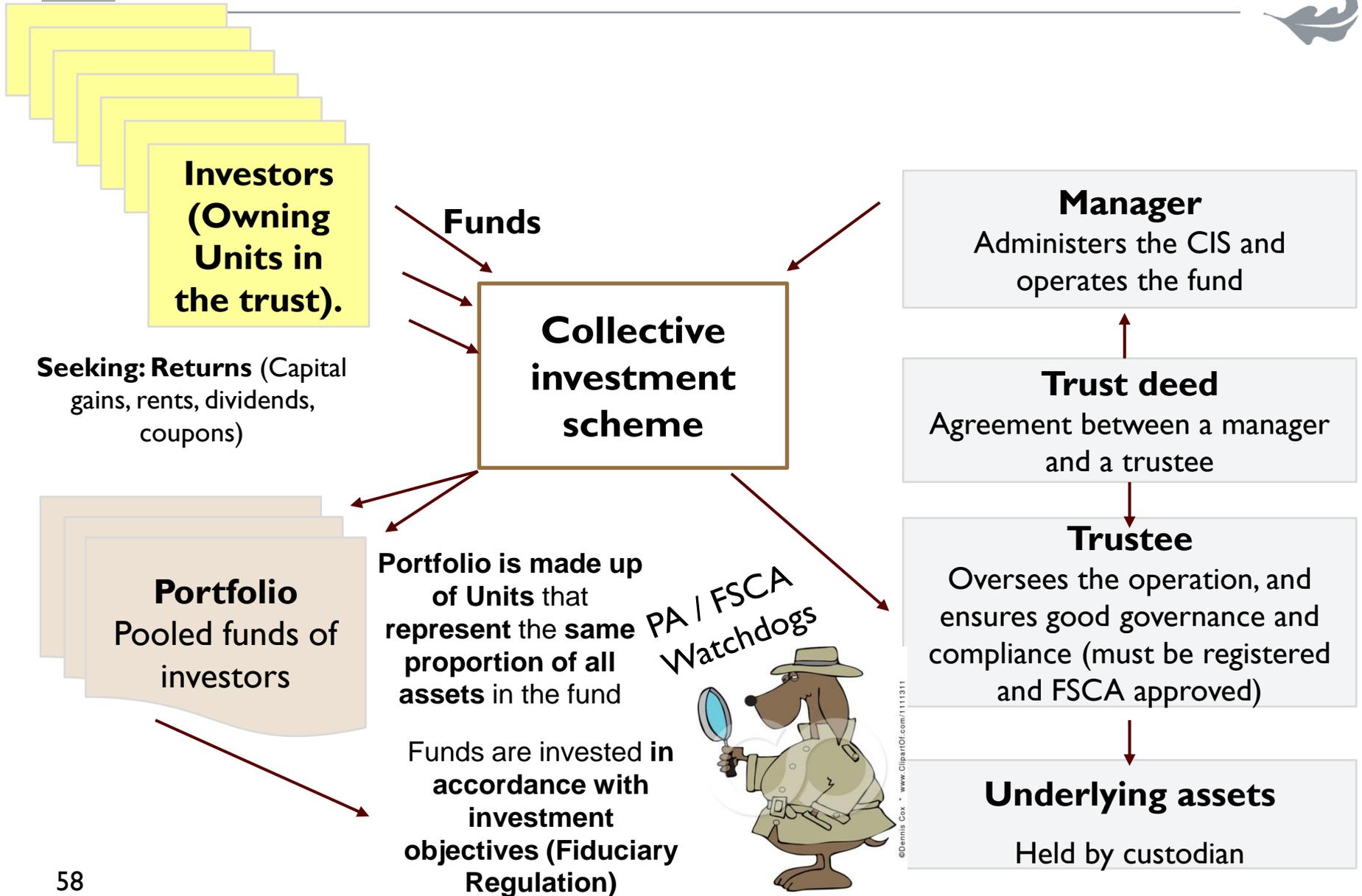


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CIS normally works as follows





CIS Regulation



- From the schematic, it follows that investors in CIS' hold an exact replicate (or **unit**) of the underlying assets. As these assets are normally held in trusts, they are referred to as **unit trusts** –they could also be in the form of shares issued in ETFs.
 - The units' prices normally closely track its Net Asset Value (**NAV**), or the value of the underlying portfolio.
- The main regulatory bodies overseeing CIS in SA is the FSCA (Fin Services Conduct Authority) and the Prudential Authority (PA – which is located in the SARB) – which recently replaced the FSB.
 - This is known as the twin-peaks approach to oversight, where the PA regulates financial soundness and the FSCA regulates the market conduct of financial institutions.



CIS Regulation



- The Cisca (Collective Investment Schemes Control Act) is the framework to regulate CIS in SA (see <https://www.gov.za/documents/collective-investment-schemes-control-act>).
- The FAIS (Financial Advisory and Intermediary Services) act regulates the provision of financial services by, e.g., advisers, asset managers and financial product platforms.
- The Financial Markets Act, in turn, regulates the JSE and related trading service providers (stock brokers, deposit taking insto's and clearing houses).
- SA is, internationally, highly regarded in terms of its regulatory frameworks and implementation, boasting a truly world class financial services market.



CIS Regulation



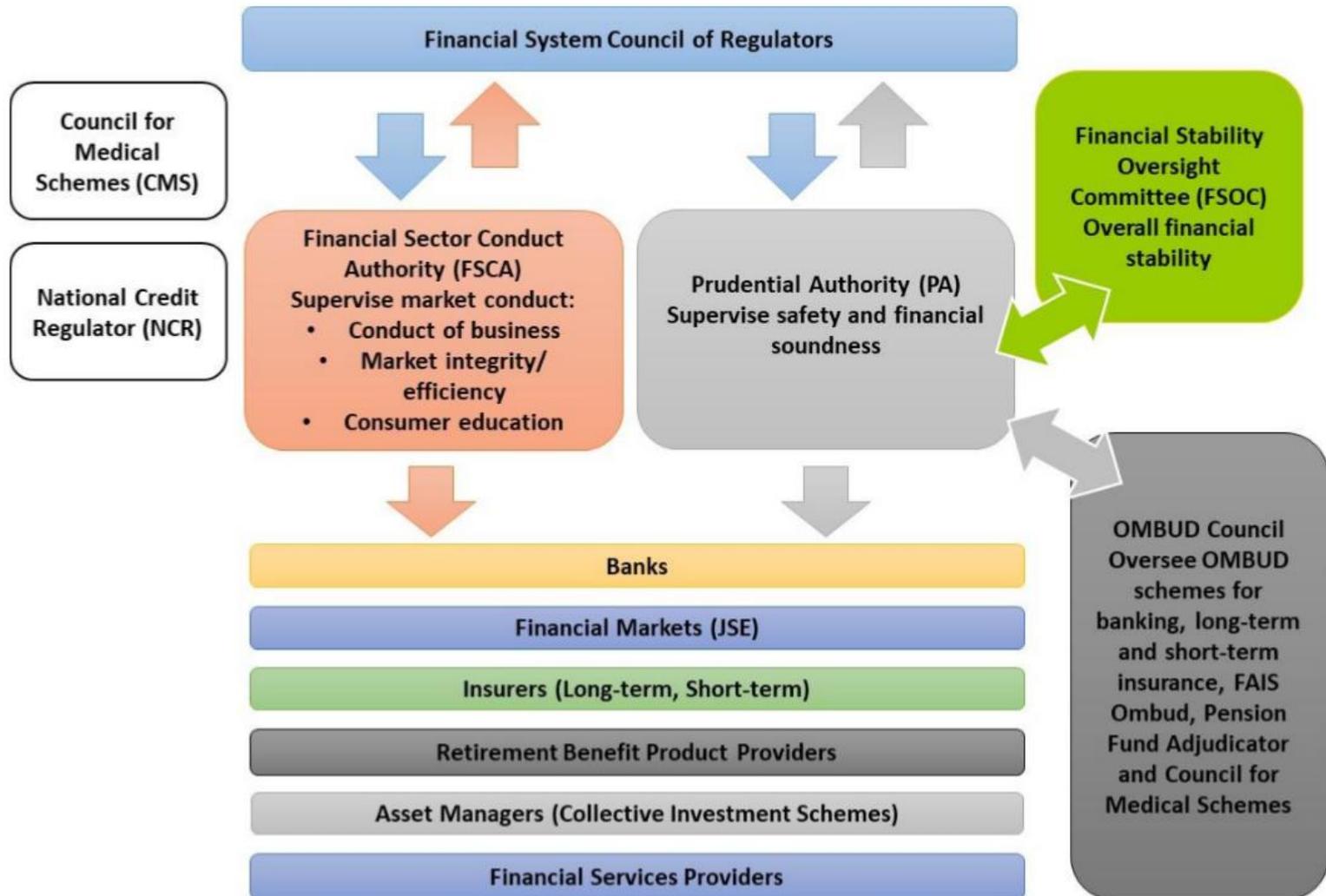
- For the protection of the investor, fund managers have to clearly formulate the investment goals of the fund.
- Such a mandate includes:
 - A defined plan regarding which assets the fund may be exposed to and what degree of **discretion** is provided to the managers.
 - Return objectives and clearly defined **benchmarks** which it intends to outperform (varies according to the fund's mandate)
 - The **potential risk** that the fund would be exposed to
 - Any potential **liquidity** constraints
 - Any information pertaining to **taxation** and **regulations** (taxes are luckily paid for by the fund administrators directly – as taxes vary according to capital gains-, dividend-, coupon- and rent income.



Twin Peak regulatory structure summary



Twin Peaks structure:





Deed and Manager?



- With respect to the deed of the collective investment scheme:
 - although CISCA potentially permits a variety of legal structures, in practice, collective investment schemes in securities are housed in unit trust-type schemes whose trust deeds follow model wording approved and published by the FSCA.
 - The consideration and approval of a trust deed forms part of the approval process of the manager, who itself needs to be registered, qualified and must satisfy FSCA adequacy measures its operational capacity, management-, risk management- and complaint resolution systems



Where are assets held?



- **CISCA regulation requires that a CIS fund's assets be held by a separate trustee or custodian.**
- In addition, the assets of the collective investment scheme are protected by the following regulatory provisions:
 - section 2 of CISCA states that the assets of a portfolio must be protected by application of the principle of segregation and identification (cf section 105 of CISCA requiring the manager to deposit cash received from investors within one day to the relevant trust account);
 - section 71 of CISCA states that any money or other assets received from investors and the assets of a portfolio are regarded as being trust property for the purposes of the Financial Institutions Act (i.e., the manager may not derive improper advantage from the investment activities of the portfolio and must declare relevant conflicts of interest). The manager, its authorised agent, a trustee or custodian must deal with such money or other assets in terms of CISCA and the applicable deed and in the best interests of investors;



Where are assets held?



- **CISCA regulation requires that a CIS fund's assets be held by a separate trustee or custodian.**
- In addition, the assets of the collective investment scheme are protected by the following regulatory provisions:
 - section 93 of CISCA: provides a list of permissible deductions against the portfolio for fees, charges and so forth; and
 - section 104 of CISCA: states that the assets of a portfolio are not available to satisfy third-party claims against the manager or trustee.
- All fees charged must be clearly detailed in the MDD and made publicly available by the managing institution.



When should managers report what?



- Managers of all CIS must do a full report to investors on a quarterly basis, at a minimum.
- This report must relate to all assets in the portfolio administered by the fund to the FSCA (regulation 3 of the regulations under CISCA) and they must also annually submit to the FSCA audited financial statements for each portfolio, as well as a compliance report (including the manager's income derived from all sources in the operation of the CIS and a list of all securities lent by the portfolio and the value of the collateral thereof).
- The above includes managers of retail and qualified investor hedge funds (FSCA Board Notice 52 of 2015).



How are CIS taxed?



- The regulatory acts treat CIS as conduit vehicles in relation to income generated by the underlying.
- Dividend and other cash payouts are taxed **in the hands of investors** with consideration of the investors' tax profile.
- Capital gains are exempt in the hands of a collective investment scheme in securities (i.e. the fund manager need not “pay” CGT on investors' behalf).
- Where an investor redeems her holdings in a collective investment scheme – this would be taxable in the hands of the investor as either revenue or capital depending on whether the participatory interests are acquired as part of a scheme of profit making or as capital assets. Where participatory interests were held for at least three years before their disposal, they will be deemed to be capital in nature for tax purposes.



Categories of CIS permitted under CISCA



- Five categories of collective investment schemes are currently permitted by CISCA, namely the following:
 - collective investment schemes in securities (ETF, UT, etc);
 - collective investment schemes in property;
 - collective investment schemes in participation bonds;
 - retail hedge funds;
 - qualified investor hedge funds.
- REITs, exchange-traded funds, exchange-traded notes and special purpose acquisition vehicles seeking a listing on the JSE must comply with the JSE Listings Requirements.



Who gets regulated by whom?



- ETF, UT and REITS CIS structures are regulated by the FSCA
- **Private** equity funds (since April 2015) that invite participation by members of the public (*CISCA definitions) – are regulated as per the Hedge Fund regulatory framework (private arrangements and segregated, or “seg-”, portfolios remain unregulated)
- Hedge Funds are labelled according to:
 - Qualified Investor Funds (where clients have a demonstrable knowledge of and experience in financial and business matters – implying they fully comprehend the risks taken in their fund and invest at least R 1 million)
 - * These are not subject to stringent regulation
 - Retail Hedge Funds – must comply with much more stringent regulation, including prudential investment requirements.



Fees and Taxes (the D&T* of financial markets)



- Fee arrangements of the manager of a CIS are subject to approval by the FSCA as part of the general oversight exercised over collective investment schemes.
 - Care should be taken when setting out the agreed fee arrangement, as only the agreed and disclosed fee of the manager may be deducted from the portfolio.
- In addition, consideration should be given to the tax implications of any structuring. Generally speaking, managers' compensation is often structured as a fixed percentage of the value of assets under management plus a performance fee.



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Classifying CIS

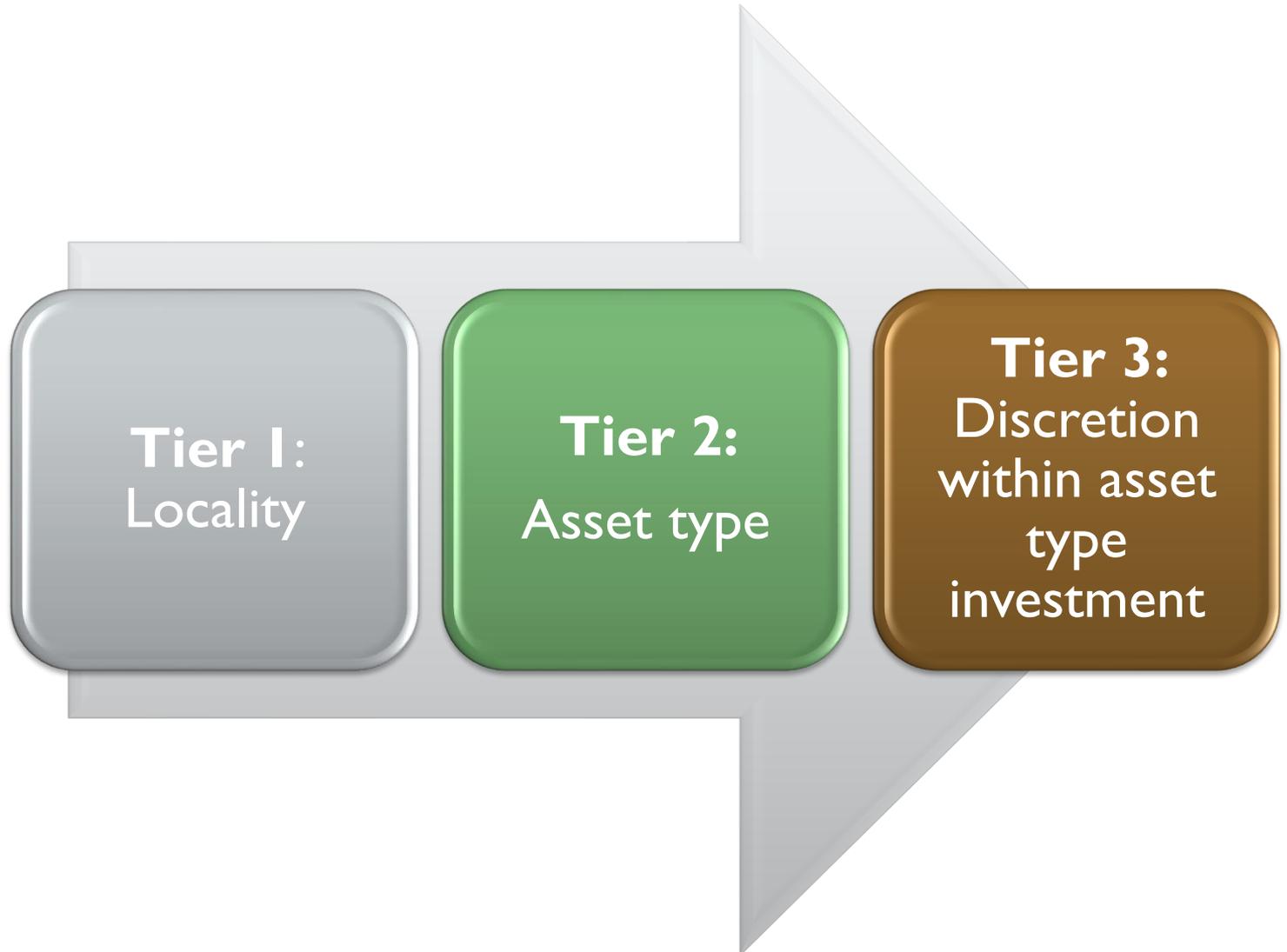


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CLS composition in SA: 3 tiers (broadly)





CLS composition in SA



- First tier :
 - **Domestic** portfolios (always at least 60% of portfolio invested in SA)
 - **Worldwide** (full discretion as to locality movement)
 - **Foreign** (always at least > 80% in foreign investments)
 - **Fund of Funds** (fund is diversified amongst many other funds – often a combination of the above)
 - With Fund of Funds, investors can add another layer of diversification, but also added to this is another layer of costs for its management!

Potential for ↑ volatility (as its exposed to currency risk too)

Higher fees –adding an extra layer



CLS composition in SA



- Second Tier:
 - **Equity funds** [> 75% invested in listed shares].
 - **Interest Bearing** [Bonds, fixed deposits, money market instruments, etc]
 - **Real Estate** [property and property listed shares – at least 50% of assets are real estate securities]
 - **Multi-Asset** [Investments are spread between equity, FI, MMI and property instruments at the discretion of the fund managers]



CLS composition in SA



- Tier 3: Splits tier 2 into different risk classes.

<p>Equity portfolios</p> <ul style="list-style-type: none">• Equity – General• Equity – Large cap• Equity – Mid & Small cap• Equity – Resource• Equity – Financial• Equity – Industrial• Equity – Unclassified• Equity – General – Africa	<p>Multi Asset portfolios</p> <ul style="list-style-type: none">• Multi Asset -- Flexible• Multi Asset -- High Equity• Multi Asset -- Medium Equity• Multi Asset -- Low Equity• Multi Asset -- Income• Multi Asset -- Unclassified
<p>Interest Bearing portfolios</p> <ul style="list-style-type: none">• Interest Bearing – Variable Term• Interest Bearing – Short Term• Interest Bearing – Money Market	<p>Real Estate portfolios</p> <ul style="list-style-type: none">• Real Estate – General



CIS composition within EQUITY

EQUITY FUNDS

Mandate and Benchmark

General funds

Shares across all groups – flexible (JSE ALSi **J203**)

Growth funds

Risky

Seek max capital gains by investing in growth stocks (JSE ALS growth **J331**)

Value funds

Traditionally performed very well – Fama idea

Seek out value stocks, such as low P/E's, seemingly undervalued share price, high dividend yields, etc (JSE ALS value **J330**)

Large Cap funds

Large market cap shares (JSE top 40 **J200**)

Smaller Companies funds

Risky

Small caps (JSE Midcap **J201** or AltX)

Varied Specialist funds

Can be Risky

Single economic group / sector that share common, specific mandates.

Resources & Basic Industries funds

Risky

At least 50% of company earnings are derived from resource business (metals, minerals, agric, forestry, etc: JSE Resi20 **J210**)

Industrial funds

Industrial companies (**J257**)

Financial funds

Banks, insurance-, brokerage, fin services-, etc.



ASSET ALLOCATION FUNDS	Mandate and Benchmark
Multi Asset Low Equity funds	These portfolios invest in a spectrum of investments in the equity, bond, money, or property markets. Maximum effective equity exposure (including international equity) of up to 40% and a maximum effective property exposure (including international property) of up to 25% of the market value of the portfolio
Multi Asset Medium Equity funds	These portfolios invest in a spectrum of investments in the equity, bond, money, or property markets. Can have a maximum effective equity exposure (including international equity) of up to 60% and a maximum effective property exposure (including international property) of up to 25% of the market value of the portfolio.
Multi Asset High Equity funds	These portfolios invest in a spectrum of investments in the equity, bond, money, or property markets. Maximum effective equity exposure (including international equity) of up to 75% and a maximum effective property exposure (including international property) of up to 25% of the market value of the portfolio.
Multi Asset Income	These portfolios invest in a spectrum of equity, bond, money market, or real estate markets with the primary objective of maximising income. These portfolios can have a maximum effective equity exposure (including international equity) of up to 10% and a maximum effective property exposure (including international property) of up to 25% of the market value of the portfolio.
Multi Asset Flexible	These portfolios invest in a flexible combination of investments in the equity, bond, money and property markets. The underlying risk and return objectives of individual portfolios may vary as dictated by each portfolio's mandate and stated investment objective and strategy



FIXED INTEREST FUNDS

Mandate and Benchmark

Interest Bearing - Variable Term portfolios

Invest in bonds, fixed deposits and other interest-bearing securities. May invest in short, intermediate and long-dated securities. Composition of the underlying investments is actively managed and will change over time to reflect the manager's assessment of interest rate trends.
SA Benchmark: JSE/ASSA All Bond index (ALBI)

Interest Bearing – Short Term portfolios

Invest in bonds, fixed deposits and other interest-bearing securities. May invest in short, intermediate and long-dated securities. To provide relative capital stability, the weighted average modified duration of the underlying assets is limited to a maximum of **two**.
SA Benchmark: STeFI Composite index

Interest Bearing - Money market portfolios

Aim: maximise interest income, preserve the portfolio's capital and provide immediate liquidity. This is achieved by investing in money market instruments with a maturity of less than thirteen months while the average duration of the underlying assets may not exceed 90 days and a weighted average legal maturity of 120 days. The portfolios are typically characterised as short-term, highly liquid vehicles.
SA Benchmark: STeFI 3-month index



Real Estate Funds	Mandate and Benchmark
Real Estate - General portfolios	<p>These portfolios invest in listed property shares, collective investment schemes in property and property loan stock and real estate investment trusts. The objective of these portfolios is to provide high levels of income and long-term capital appreciation. These portfolios invest at least 80% of the market value of the portfolio in shares listed in the FTSE / JSE Real Estate industry group or similar sector of an international stock exchange and may include other high yielding securities from time to time. Up to 10% of a portfolio may be invested in shares outside the defined sectors in companies that conduct similar business activities as those in the defined sectors.</p> <p>SA Benchmark: FTSE/JSE SA Listed Property index (J253T)</p>



- The regulating body makes the mandate public, and ensures that the investment parameters and distinguishing factors are kept (eg only one benchmark is allowed, and must be compared when announcing results, with fees included!)
 - This protects investors so that they know they get what they want when investing.
- The main regulatory frameworks followed are the CISCA and FAIS acts.
- See more details here:



Wrap funds



- Wrap funds (also known as model portfolios) – offer investors exposure to a combination of CIS vehicles – held in specific proportions to achieve a specific investment goal.

An investor's *risk profile* provides an understanding of the level of risk the investor is willing to take on or accept. It is shaped by his or her sense of balance between risk and return. Some investors can tolerate greater risk to earn greater returns. Some investors want less risk and are content with a reasonable return. A *conservative* investor requires stable investment growth or a high level of income. The primary investment goal is capital protection. A *moderate* investor invests for the longer term and requires no income. The investor can tolerate fluctuations in the value of his or her investment from time to time. An *aggressive* investor invests for the long term and seeks the highest possible growth. Typically, the investor is prepared to accept substantial fluctuations in the value of his or her investment. The primary investment goal is long-term capital growth.

Source: <https://www.glacierinsights.co.za/blog/investment-insights/what-you-should-know-about-wrap-funds>



Wrap funds



- Wrap funds (also known as model portfolios) – offer investors exposure to a combination of CIS vehicles – held in specific proportions to achieve a specific investment goal.

Skilled professionals manage the wrap funds

Only investment managers (including financial advisers) approved by the FSCA (Financial Sector Conduct Authority) may manage wrap funds. You can therefore rely on experienced investment professionals to select the funds within your portfolio from a collection of thoroughly researched funds, to create a solution that aim to deliver on your specific risk profile's required returns. These professionals manage the wrap funds in a rigorous and disciplined manner on investors' behalf, in accordance with their investment mandates and benchmarks.

This is especially convenient and comforting for investors who do not have the expertise to select the most suitable funds, nor the time to regularly review their investments.

Source: <https://www.glacierinsights.co.za/blog/investment-insights/what-you-should-know-about-wrap-funds>



Wrap funds



- Wrap funds (also known as model portfolios) – offer investors exposure to a combination of CIS vehicles – held in specific proportions to achieve a specific investment goal.

One of the greatest benefits of a wrap fund is that it provides the convenience of a ready-made solution for investors who do not have the time or expertise to select the most suitable portfolio of collective investment funds, and to regularly review their investments. A wrap fund is actively managed and continuously reviewed, taking into account the risk profile for which it was designed, thereby providing peace of mind for the investor.

Source: <https://www.glacierinsights.co.za/blog/investment-insights/what-you-should-know-about-wrap-funds>



IFA vs DFM



- The IFA (Independent Financial Advisor) / DFM (Discretionary Fund Manager) model is having a profound impact on the investment management market in SA and globally.
- It serves as an important disaggregator of the traditional asset management structure
- See some interesting perspectives on p.52 & p.54 here:
<https://www.fecos.nfkatzke.com/FANews/Apr23.pdf>



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Other types of CIS



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Hedge Funds



- In contrast to unit trust CIS', Hedge Fund investment pools have private investment structures, implying limited and privileged entry (normally due to its high risk and high fee structure, only high-net worth investors can enter).
- **As the fund mandates are often negotiated privately and mostly involve higher-income investors, there are far less regulation** – and the fund managers are mandated to chase returns often at any cost. Mandates can also be much more exotic... (investing in wine, hotels, vintage cars, etc. – but also e.g. investing in equities using high leverage)
- Normally characterised by a high level of discretion to managers
 - Investors pay high fees and have much higher potential upside (and downside!).



Hedge Funds



- These can be adventurous and expensive collective investment funds have in the recent past come under heavy criticism for its disruptive impact on the financial sector – mainly due to the distorted incentive schedules: managers have very high financial rewards when outperforming market, yet are not held personally liable when they fail.
- That being said, some hedge funds are mandated to be safer – employing at times complex strategies to, e.g., avoid sharp market downturns or hedge against large losses.
 - An example of this is a market-neutral hedge fund.
 - Hedge funds also can typically go long and short – providing upside to periods of downside risk.



Investment Banks & Shadow Banks



- While not a CIS vehicle, investment banking is a large player in the financial services sector.
 - Investment banking involves specialized investment tasks such as facilitating mergers, acquisitions and setting up and promoting IPOs.
- The shadow banking sector had after the global financial crisis gotten much attention for its role in perpetuating systemic instability.
 - This involves financial intermediary institutions developing outside the traditional financial sphere and scope of regulators to oversee.
 - **These non-bank institutions (NBIs) offer forms of banking services (custodian and transfer type services) without the same stringent oversight applied to traditional banks**
 - Following the GFC, it became clear that their actions collectively, while not necessarily illegal, had the potential to create collective instability flowing from their largely unmapped impact on markets



Investment Banks & Shadow Banks



- Shadow Banks (SB)
 - SB activities include OTC derivative trading, off-balance sheet vehicles (often of investment banks) such as special purpose vehicles (SPVs) and other non-banking institutions that offer some form of depositing of capital, without the stringent regulations imposed on banks for being custodians of capital (including, although not technically defined as such locally, certain types of hedge funds, investment funds, money market funds and other collective investment vehicles) that form part of a large and often un/underregulated (or partially regulated) sector.
 - Post 2009 – SA followed global protocol in adopting a more intrusive form of oversight on these previously unregulated activities, in an attempt to mitigate the build-up of systemic risk – formed the Financial Stability Board (FSB) to better oversee financial contagion.



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Performance Measurement



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Portfolio performance measurements



- When deciding whether to use the service of an intermediary to manage on their behalf, investors need to consider several factors related to its past performance:
 - Relative to peers: How the fund performed relative to similar funds (managers can try and compare their returns to that of the ALSi, when they actually manage a much higher risk fund). Considering a fund's classification in this regard is therefore important.



Portfolio performance measurements



- Normalize returns and compare relative to a relevant benchmark:
 - In this regard it is important to consider the performance after taking into account the **TER** (Total Expense Ratio) of the fund.
 - TER consists of management fees and operating fees (trading, legal, auditor fees). We then divide the total fees by the total assets under management to arrive at the % TER.
 - A fund returning 8% with a TER of 3%, generated a return roughly of 5%. The 5% is then compared to the relative benchmark (which should be defined up front)



Portfolio performance measurements



- As mentioned before when studying risk models, investors need to consider the risk-adjusted returns of their portfolios.
- Not doing so would distort relative returns, and potentially expose unknowing investors to greater volatility in subsequent periods.
- It is therefore important to consider a fund's α → the actual return minus the expected risk-adjusted return
- Use Sharpe, Treynor, Jensen measures in this regard.



Why invest in CIS'?



- Administrative benefits: in paying taxes, complying with regulations, conducting trades, etc.
- Timing: Investors value the ability of managers to *shift funds when markets turn*, hoping their skill and insight will lead to outperformance of the market (i.e. seeking α – effect).
- Varying the mix of assets in accordance to market expectations and stocking up on high β – *assets* in bull markets (opposite in bears) and hedging using appropriate instruments, investors trust managers to manoeuvre through the market better than the market as a whole.



Future: Active / Passive Funds in SA?



- Over the last decade we have seen an emergence of so-called Smart Beta funds, which endeavour to track apply active strategies in a passive manner.
- This implies identifying **factors** which have in the past consistently performed well (e.g. picking stocks based on Quality, Value, Low Volatility, Size, Momentum, Mean Reversion, etc.).
- Fund managers could then develop automated strategies whereby these factors are invested in, at a fraction of the cost.



Factor Definitions:



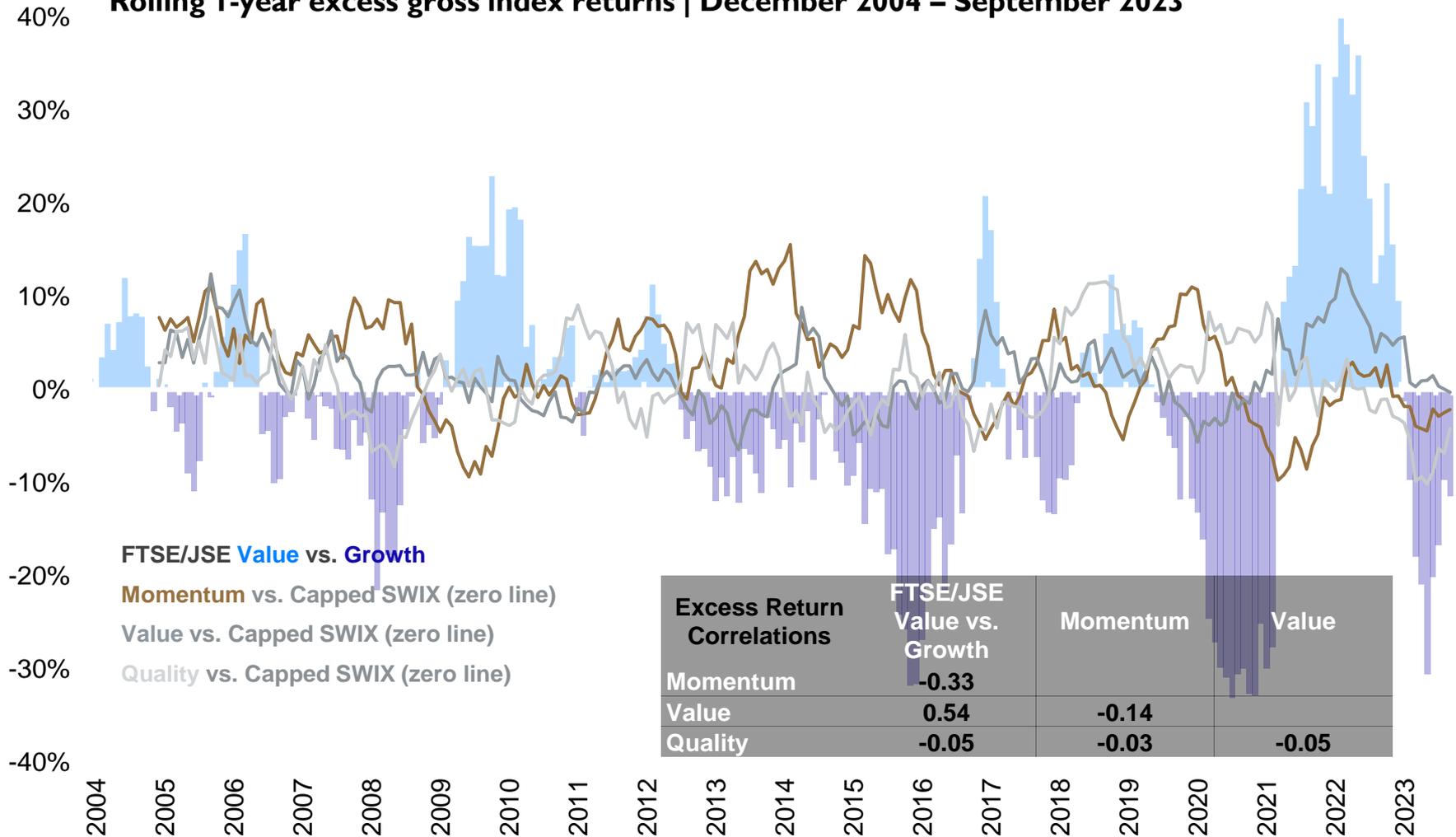
- **Value:** Assets with low prices relative to their fundamental values (whichever way defined, e.g. P/E ratios)
- **Quality:** Balance sheet quality of assets as measured by e.g. ROA or ROE, Earnings Yield, Low debt, stable earnings growth ,etc.
- **Momentum:** Stocks with strong immediate past performance (e.g. trailing 3,6 or 12 month price movements)
- **Volatility:** capturing excess returns of stocks with lower volatilities.
- **Size:** The classic paper by Fama and French which expanded the CAPM model to a three-factor model included SMB (Small minus Big to capture the premium to holding small stocks)



Factor Returns



Rolling 1-year excess gross index returns | December 2004 – September 2023





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Behavioural Finance

What influences investor behaviour?



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Behavioural Finance Theories



- This course covered various investment types and heuristics used to price assets, as well as what macroeconomic and other information should be used to price assets.
- Another interesting field worth noting here briefly, is the study of behavioural traits among investors.
 - In fact, various professionals have devoted much of their time understanding the psychological forces at play that influence people's behaviour.
- **Simply put, prices do not reflect mere fundamentals, but rather our *interpretation* of fundamentals, coupled with psychological and other elements that influence an asset's perceived worth**
 - We next highlight a few of these and explain how they relate to financial markets, but I recommend reading up more on these fascinating topics.



Behavioural Finance Theories



- Cognitive Dissonance
 - Inadequate incorporation of new information due to pre-existing beliefs – people tend to stick to heuristics;
 - People seek to confirm their biases and tend to avoid information that contradicts their beliefs / biases;
 - Investors often seek to disseminate new information in a way that is consistent with heuristics, even if it does not fit / make rational sense
 - Can you think of an example where you've applied this?
 - E.g. an irrational belief that an off-suit 2/7 combination in poker has an outsized probability of winning (due to e.g. past experiences where this anomaly was noticed, and a clear pattern formed for the player).
 - E.g. some people believe in *Sell in May and Go Away* as they've noticed (formed an irrational heuristic) that markets tend to sell-off in May
 - We are pattern seeking beings – you likely fall into this category too!



Behavioural Finance Theories



- Information Processing
 - Often we see a bias in the way investors interpret information when making decisions – based on some unscientific / irrational interpretation of information.
 - E.g. using mental shortcuts, rounded numbers or defining certain key threshold levels (e.g. sell if the stock price goes above R100)
 - This has to do with narrow framing while missing the big picture
- Loss Aversion
 - Investors have a stronger dislike for losses than gains, even after controlling for arithmetic impact of losses.
 - Leads, among other things, to holding onto losers too long – as selling would materialize losses.
 - At times it is better to cut your losses (acknowledge spilt milk) and not throw good money after bad – easier said than done!



Behavioural Finance Theories



- **Mental Accounting**
 - Bucketing / characterising assets differently
 - E.g. being considering the return of individual assets in a portfolio (e.g. equities portion or a single stock bet) as opposed to looking at the whole portfolio.
 - Also see investors exhibiting *house-money* characteristics
- **Endowment bias**
 - Valuing an asset held differently than one not held
 - Ideally should evaluate the investment potential of held and non-held assets equally.
- Various other attributes are commonplace to investors and fund managers, including over-confidence in one's own understanding of markets, weighing short term outcomes more heavily than long-term, preferring inaction to investment action (all things equal) and exhibiting positive reporting bias.



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Conclusion



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Conclusion



- In conclusion, we have studied the types of financial instruments and portfolios investors can use to secure their assets for future use and protect it from inflation and economic turmoil.
- How to best allocate such funds remains contentious, as the divide between actively- or passively investing funds on the behalf of investors remains significant.



Conclusion



- Although no serious academic or practitioner denies that there exists in asset markets the potential to outperform the rest – doing so **consistently** remains an elusive exercise.
 - Investors should ideally position their assets in such a way so as to avoid serious drawdowns, and cover their positions in such a way that should an asset class (e.g. equities) experience a sharp drawdown, a part of your portfolio is hedge by exposure to negatively correlated assets (resources or bonds).
 - But, ultimately, the ideal composition of a portfolio is vitally dependent on one's investment horizon, risk appetite, tax considerations and more.