

Actuarial Society of South Africa

EXAMINATION

October 2018

Subject F205 - Investment

Fellowship Applications

MARKING SCHEDULE

The scripts received suggested adequate bookwork preparation by most candidates and the quality of scripts was closely clustered (no FD's or FC's). Higher order thinking questions were also better handled than previous sessions, but for the most part the standard required for a pass was not evident. This exam was felt to be more approachable than previous diets. Questions were broken down into components in order to assist candidates. It appeared that the allocated time was adequately managed by candidates, with very few not finishing their paper in time.

Question 1

Part (i) was well answered suggesting adequate preparation. For part (ii) many candidates did devote a significant enough portion of their solution discussing the information provided in the question – i.e. the challenges associated with a small fund with high turnover. Part (iii) was, again well answered. Part (iv) – candidates showed poor to no understanding of how a smoothed bonus product works. Part (iv) was quite well answered but again not understanding smooth bonus meant that part (v) was poorly answered. This was a fairly straightforward application of performance measurement and the previous question on benchmarks should have helped with idea generation.

(i)

- Environment – understand the governance issues and any existing or new regulation around the default portfolio;
- Define the problem – Portfolio should meet fund objectives as defined - an analysis of liabilities using ALM modelling is recommended for “average” member;
- Develop the solution – formulate construction of the default portfolio, i.e. determine the asset allocation, platform and appoint asset managers;
- Monitor experience – monitor for compliance and whether the strategy is achieving objectives over appropriate term;
- Professionalism – engage with specialists where required, consider fiduciary duties of related parties and all stakeholders.

(ii)

- The existing default portfolio comprises cash/money market investments and so is unlikely to achieve the required investment objectives in the long term.
- But it might be considered low risk due to its low volatility for members who haven't made a choice and are financially unsophisticated.
- What are the fund's objectives – can be expressed as “Aims to provide a replacement ratio of x%”
- Consider the nature, term and currency of liabilities – generally real, long term and in local currency
- An ALM would be a useful exercise to determine appropriate strategy, but may be expensive for a small fund.
- Also consider acceptable level of diversion from strategic asset allocation of portfolio – e.g. for TAA purposes
- The default strategy should take into account the specific features of the fund membership and aim to consider the actual objectives of the membership.

- Membership is young so time to retirement is long – which implies a strategy aimed toward growth assets is appropriate
 - While recognizing the risk appetite of the membership and the high mobility of the workforce

- In this case liabilities are expected to be long term and real, but could be short term from the early withdrawal perspective. High turnover with low preservation rates means that members may have a lower risk appetite than their age/ALM would suggest – should capital preservation be considered?
- Liquidity needs are also quite high given the high turnover.
- Will need to avoid investments requiring lock-in periods such as private equity and hedge funds because of the likely liquidity need even if such investments might be otherwise considered suitable for achieving long-term growth - stick to the more vanilla investment options which are liquid.
- Size of assets is likely to be very small – it is a small fund and members are young and do not stay with the fund for very long. This may limit range of fund choice from an administrative and/or affordability perspective.
- Required returns – will need to earn returns in excess of CPI and probably around CPI + 4-6% in order to target a reasonable replacement ratio.
- Risk appetite – unsophisticated membership who don't stay in the fund long suggests a low risk appetite. Also may not understand market volatility
- What other investment portfolios are available to those who do not wish to use the default? For example will older members/risk averse members be able to choose a capital protection option, in which case this need not be a feature of the default strategy.
 - Perhaps retain the money market portfolio as a member choice option or offer another low risk option

- Statutory requirements and restrictions – these have been alluded to and must be considered together with the general requirements of Reg 28
- ESG consideration and SRI/local upliftment objectives – Fund is required by regulation to consider ESG and may have its own SRI objectives.
 - May wish to target development in their own local municipal area
- Should they offer different default strategies to different classes of membership or to different ages?
 - This will introduce unnecessary complexity to a small fund and investment choice is offered
- Lifestaging could be offered, but given few stay to retirement, this could just again introduce unnecessary complexity and additional administration costs which may be unnecessary
- The cost of the strategy must be considered. Costs must be kept as low as possible as this is a small fund
 - Expected value of the retirement saving is expected to be low as members are young and contributions are not high. Total fees per member are critical
 - Should be comparable to other small funds and must be disclosed in clear and understandable language

- The default strategy should consider the default annuity strategy to be followed by members
- The strategy should be easy to monitor for compliance and reporting as additional complexity will increase costs and could lead to misunderstanding
- Compare with other similar funds to see what is being offered in the space
- What asset classes are available as this is a developing country
- Use of passive investing should be considered given the cost sensitivity and need for a less complex solution
- Consider balanced vs specialist – balanced may be the better solution given the size of the fund
- The default strategy needs to be simple to explain as it needs to be communicated to members on a regulated basis
- This further limits exposure to some alternative asset classes and derivative based strategies
- Consider introducing an offshore component to the selected asset classes but ensure that members understand the associated volatility

(iii)

There are many, and there are also now methods to switch between different strategies based on changes in which style is “working” ie a multi-factor type of strategy.

The main ones are:

- The growth strategy – selecting stocks expected to experience higher growth indicated by higher PE ratio, rapid earnings growth, earnings revisions
- The momentum strategy tries to capture excess return available from stocks that have outperformed in the recent past. Measures used in the past 3,6,9 months’ performance for example.
- The value strategy tries to capture excess return available from undervalued stock based on measures such as price to book, price to earnings, sales, earnings, dividend yield etc.
- The low volatility strategy invests in stocks with low historic volatility or beta returns.
- Quality strategy seeks excess returns from high quality stocks measured according to (for example) the company’s debt levels, cash generating capabilities, past stable earnings, long-term sustainable earnings/dividends etc.
- Fundamental indexation based strategies (eg RAFI) – select stocks from the index with weighting per stock depending on a pre-defined set of fundamental measures (which might include SRI/ESG).
- Equal weighted – assigns same weight to each stock irrespective of size or any other factor. (May not be ‘smart’ but is considered a smart beta strategy nonetheless.
- Size – This strategy focuses on larger blue-chip type stocks.

[1 mark each max 4]

Smart beta:

- Will depend on what is the reference index/beta
- Active like returns – so this means one can implement a hypothesis
- Expected to be cheaper than full active portfolio
- But still costs a bit more than full passive

- Simple and easy to explain – (although not always necessarily)
- No subjectivity or judgement calls are required
- Can underperform or even be more volatile than passive or active

Fund of Funds:

- Can follow few strategies and see which one(s) works –
- Gaining access to FOF manager expertise
- Lower overall risk if one strategy significantly underperforms
- Yet still low cost (although layering of fees may negate this)
- But, could just be potential diluting alpha
- Or possible even compounding factor bets unintentionally
- Extra fees for the overlay/manager selection – although these can be reduced due to negotiating power of FoF manager
- More complicated performance reporting consolidating portfolios
- But possibly less volatile if funds are uncorrelated
- Has the back-testing been done to prove this approach more efficient?
- Given that it is quants driven it is worthwhile splitting amongst managers or rather just selecting the best quants house to manage all 4 strategies?
- Blending/combinations of strategies to diversify between styles
 - Can be extended to analysis of market conditions and rotating between different strategies which may work at certain times

(iv)

Smoothing specific:

- What formula will be used for the bonus declaration?
 - Is it transparent and simple enough to explain?
 - Does it provide sufficient smoothing whilst reacting quickly enough when markets are showing trends?
 - What are the Bonus Smoothing Reserve (BSR) limits that are involved in the formula?
 - Highers BSRs involve holding back more in good times and this leads to greater disconnect with actual returns, which could be less equitable for members.
 - Will the smoothing technique be hindered by or hinder the smart beta strategies followed?

- How large does the asset have to be to effectively apply the smoothing strategy?
Usually only large funds can effectively apply a smoothing only strategy due to the impact of cashflows on the smoothing reserve.
- Are there any lock-in periods? Will members be comfortable with this?
 - For example, the insurance companies might hold the right to pay withdrawn capital over a period of time if it is a large portion of the assets
- What are the specific terms and conditions when investing in this fund?
 - For example, these insurance companies may pay the lower of book and market value when a withdrawal payment is larger than 20% of the fund
- How many members are required to effectively apply the strategy? In the extreme, if members were paid out at a higher book value and there is only one member left in the fund, this member's BSR will never be able to recover.
 - What is the exit strategy if the membership becomes too small?
- If the assets are not managed by the insurance company, will they be able to apply the smoothing only overlay effectively?
 - How will this affect costs?
- Will there be any terms under which they take control or interfere in investment decisions?

Insurance company:

- Is this a reputable insurance company with sufficient track record in this space?
Preferably past performance needs to be evaluated to ascertain effectiveness
- The key to the solution would be the cost involved, known as Capital Charges – smoothing offerings are usually costly, however in recent years the associated costs have reduced. Since this is a small fund, the per-member cost might still be too high.
 - Although it is usually a percentage of assets.
- Where will the reserve be held? If on the insurer's balance sheet, will the assets be ring-fenced? What compliance measures does the insurer have in place to ensure that there is no misconduct in respect of these assets?
- What methodology will apply when BSR is zero or negative i.e. will a new series start?

Members:

- Will members understand and appreciate the benefit of being invested in a smoothed portfolio – after markets have turned, members can expect their returns to lag market linked investments since the BSR needs to be built up again
- Can the terms and conditions effectively be communicated to members?
- The potential benefit of applying a smoothing only overlay might be limited to the young members who have a long-term time horizon
- Smoothing only vs guarantees – will this be understood by members or might they react badly when a large fall results in a negative return.
 - This is especially relevant in relation to reasonable benefit expectations when a long period of successful smoothing is suddenly undone by a significant or

sustained downturn which necessitates a fall in values because there is no guarantee – only smoothing.

Other

- Are there any regulatory developments that might limit the extent to which this can be applied? (Until recently the regulator proposed not allowing smoothed bonus products to be used as the default investment)

(v) (a)

- Specified in advance
- Appropriate – consistent to investment manager's style
- Measurable – readily calculated on reasonably frequent manner
- Unambiguous – identities and weights clearly defined
- Reflective of current investment opinion – Should reflect the manager style and strategy
- Accountable – Manager is aware and accepts accountability for the constituents and performance of the benchmark
- Investable – should be able to trade all securities in the benchmark (eg illiquidity)
- Owned – is produced by an accountable party who takes responsibility for the integrity of the benchmark

(b)

- The above doesn't take into account the smoothing overlay. During bull markets, the fund is expected to lag the market-linked equivalent to an extent.
- Building up of reserves from scratch i.e. BSR
- The composite benchmark doesn't take into account costs the fund has to pay. It might be that Fund performance is net of fees, including overlay, whilst benchmark performance is gross.
- Stock selection might have underperformed
 - The smart beta style(s) might not suit the current market conditions. For example it would be expected that a value style would underperform when market is running due to momentum.
 - Some of the smaller stocks in the index might not be liquid enough to trade and as such the smart beta strategies are unable to own these assets. These assets might be outperforming the benchmark.
- Asset allocation – although limited impact
 - Rebalancing of the composite benchmark might be different to the fund's rebalancing strategy, giving rise to the potential underperformance
- Regulation 28 limits a single stock to 15% of the total portfolio. The benchmark might be dominated by a single stock (such as Naspers on the SWIX) which forces the fund manager to always be underweight the stock to remain compliant. Whilst the stock is outperforming the rest of the constituents of the benchmark, the fund manager will underperform the benchmark.

- Fixed interest portion or other asset classes which form part of the overall strategy might have lagged its benchmark if it is actively managed

Other benchmarks:

Inflation + target

- Usually used for absolute return and guaranteed funds. Given the smoothing overlay, this benchmark might be more appropriate.
- Might also be more relevant to the underlying objective i.e. delivering real retirement benefits.
- This is not necessarily an investable benchmark and as such there might be long periods of underperformance.

Peer benchmark

- Finding peers that incorporate a similar strategy will be difficult and not practical (info sharing will be limited)

Question 2

There was a clear distinction between candidates who understood the nature of the structured product and those who did not. The general points for (i) were identified but those relating specifically to the structured product yielded different results based on this. It was quite surprising how few candidates could explain how to structure such a product (part (ii)) and then discuss the finer aspects of this such as liquidity and pricing. For part (iii) we found candidates generally better prepared to answer market performance related questions than previous sessions. Parts (iv) and (v) related to a recent tax change proposed by the authorities. Part (iv) was very easy bookwork but many candidates did not consider the number of marks awarded and wrote far too little for each type of product. Part (v) required some higher order thinking around the implications of the proposal. A few of the more obvious points were identified by most candidates but again not enough was written to to achieve a pass mark here.

(i)

- Individuals may be too risk averse to invest in real assets like equities because of the risk of losing capital
- This may be because they lack sufficient funds to survive a permanent loss of capital
- Or because their time horizon is limited to 5 years (whereas equity investing should be done with a time horizon greater than 5 years due to shorter term volatility)
- The product described guarantees a positive return on the invested amount (i.e. the worst case scenario is still a positive return) and therefore reduces the risk.
- At the same time the product provides a chance of an inflation beating returns
- Investing in this product might be easier than investing in the equity index itself. There may be an ETF which tracks the index, but this requires an investor to have

a stock brokerage account. Buying this product from an established insurer may be easier.

- There may be tax benefits to following this policy route
- Downside is that the worst case return, despite being positive, is still likely to be negative in real terms (10% is equal to 1.9%pa which is less than the SARB's inflation target range)
- In addition, the upside is capped at CPI +3%. If the equity index returns anything higher than 9%pa (6% SARB upper inflation target + 3%) the investor in this product will not participate in this upside.
- Historically the JSE ALSI has returned far higher returns than CPI + 3%pa over most 5 year periods
- In effect the investor in this product buys downside protection by giving away upside potential
- The investor may like the fact that there are no explicit fees charged on this product
 - o However, the life insurance company writing this product will need generate a profit and set aside capital to back the guarantee and earn a return on this capital. These fees, profits need to come from the customer in some form. The cap to the upside is the "price" an investor pays
- Credit risk: the investor in this product does not own the underlying assets but rather owns a note or a contract with the product provider. In the event that the product provider goes bankrupt, the investor faces the possibility of not recovering his/her investment.
- The product does not include the payment of dividends earned by the underlying stocks, whereas investing directly in an index would include these. This can be up to about 2.5 or 3% p.a.
- The product is complex and there is risk of mis-selling
- Early withdrawal would likely incur sever penalties

(ii)

- Purchase zero coupon bond with maturity value equal to the guaranteed maturity value
- The guaranteed interest rate is low enough that the cost of the zero coupon bond will be lower than the initial investment.
- The balance of the upfront full amount invested can be used for fees and
- Buying long call option(s) on the equity index in question which will provide the additional return
- The price of these call options will depend on market forces driven by whether they are in/out of the money and by how much, the implied volatility.
- There could be a situation where at the money call option of the equity index are priced too high to deliver sufficient return to the product were the index to rise above CPI + 3%.
- In this scenario the insurer might be forced to write unprofitable business. Savvy investors might use this opportunity to anti-select against the life company en-masse
- If foreign equity indices are offered, would the currency be hedged at the outset?
- Are there liquid options available on all the indices offered?

(iii)

Inflation:

- Inflation for the early periods (2007-2012) starts at around 8% and reduces to 6.5% p.a. for the later periods.
- This is influenced by very high inflation in 2007/8 during the financial crisis.
- The SARB targets inflation of 3-6% p.a. and, on average, annual inflation has been persistently high at or above the upper bound.
- This means that inflation plus 3% will have come out at the 9-10% p.a. range over the last 10 years.
- In four of the seven year periods, the inflation plus 3% threshold would have kicked in compared with all indices

Equity market performance:

- SA equity markets have suffered from very volatile periods over the last 10 years.
- The overall performance measured above shows that the 10% guarantee over the five years would not have been triggered as all returns have been in excess of 15% over the period
- The global crisis in 2008 carried through to SA equity markets resulting in markets being down over 30% in early 2009.
- The following 5 years saw a sharp recovery in global and SA markets – certain SA equities being particularly attractive to investors seeking yield during the implementation of quantitative easing
- Markets had fully recovered by 2012 and reached new high levels in 2014
- Performance since 2015 has been lackluster as a result of commodity prices falling significantly in the period 2015-2017, and recovering at a slower pace thereafter
- December 2015 also brought about the start of a period of fiscal and policy uncertainty as the political landscape became tenuous
- SA's budget and trade deficits have widened significantly as the rand has weakened and government expenditure has increased
- SA debt being downgraded to junk as a result of the above two factors further deterred international investors from investing in SA
- The weaker rand did support markets to some extent.
- Global factors also weighed heavily on our markets as investor sentiment moved away from emerging market stocks in general, on the back of political uncertainty and populism in many emerging economies as well as signs of higher interest rates in developed markets as quantitative easing started to unwind

Different Indices

- The difference between the ALSI40, CAPI40, SWIX40 and the non-market weighted indices is quite significant
- All the indices are constructed using the top 40 shares in that index.
- ALSI40 is the top 40 shares weighted by market cap, and CAPI 40 is constructed by capping any share weighting to 10% of the overall index

- SWIX40 is constructed from ALSI shares, but limits each share's weighting based on its free float available on the JSE. This means that the dual listed stocks receive a much lower weighting than they would in ALSI40
- RAFI is a fundamentally weighted index based on non-market capitalization factors, such as profitability
- The JSE is a highly concentrated market with just a few shares making up a significant percentage of the total market cap
- In fact just one share – NPN – makes up more than 20% of the ALSI40.
- One would therefore expect that the different indices would show very different performance numbers, and that each has the potential to outperform the others depending on corporate and economic conditions over the period.

(iv)

Insurance Policy

- The investments are taxed within the insurance company
- According to five funds tax legislation this falls into the IPF (individual policy holder fund)
- This fund is taxed on an (income – expenses) basis at 30% rate
- Inclusion rate of 40% applies to capital gains, no annual exclusion for individuals. Dividends taxed at 20%.
- Which makes this attractive for high rate taxpayers

Unit trust

- Distributions and realization of units are currently taxed in hands of unit holder
- Dividends received within the UT taxed at dividend tax rate with the UT (except exempt investors claim credit)
- CGT paid when units are sold – using average purchase price of units and sales price
- So realized CG added to investors income using the formula and allowing for annual exclusion
- Interest and REIT income added to investors' income

(v)

New proposal rationale:

- Aligns tax for individuals investing via a CIS with those investing in their personal accounts and eliminates abuse of differences
 - Unit trust managers that are using trading strategy with high turnover of stocks within a unit trust structure to avoid tax for investors will now see their investors liable for income tax instead of CGT, effectively stopping this strategy.
- Encourage longer term thinking by asset managers

New proposal disadvantages

- Investors have no control over the unit trust manager's actions
- Where will they get the cash to pay SARS other than redeeming units?
 - Which will cause further redemptions of units and hence further trading in underlying, exacerbating problems for managers
- Where there is a large disinvestment from a unit trust this could negatively impact tax payable by remaining investors in the fund as a liquidation of stocks will be needed
- Unit trust investor could be a long-term investor, but is being penalised as if a short-term trader
- What about forced trades like rebalancing (especially for index trackers)?
 - But proposal may favour index trackers if they have a lower turnover
- Other forced trades for compliance – mandates and regulation will incur tax
- Can offset trading losses vs gains but different generations of investors will have different experience and this may encourage “generating” losses
- How will this be applied if using derivative instruments within the unit trust -possibly to hedge?
- If unit trust managers trade less frequently as a result of the revised tax law, this can severely impact market liquidity and price discovery and/or widen B-O spreads
- Admin burden – unitholders have a different income tax rate. Lots of additional admin – keep records of each trade for tax.
- This increases cost of investment
- Whole idea discourages saving (using UT) which goes against government policy to encourage personal savings
- Increases complexity making it more difficult for the “man in the street” to understand
- Index tracker UT vs ETF will have different tax consequences
- Complexity Increases operational risks for CIS investors
- May influence managers' buy/sell decisions away from fundamentals in order to manipulate timing of tax accrual.

Question 3

This was the most poorly answered of the three questions and time may have had an impact here – although very few unfinished scripts were found. Candidates did not demonstrate a clear understanding of the principles of LDI (which is not cashflow matching) and as a result were unable to answer the remainder of the question well enough. They did score points discussing some of the features and challenges associated with the energy security (Part (iv) onward), but could not discuss these in the context of LDI and the liabilities. It was surprising how many candidates did not know what breakeven inflation is – part (ii) was very poorly answered. Part (iii) was well answered as most could identify the key issues and challenges driving SA fixed interest markets over the near term.

(i)

- Broadly defined as an investment decision where the asset allocation is determined with reference to a specific set of liabilities – it is an approach to setting the investment strategy
- It is generally implemented for post-retirement liabilities to remove certain risks such as interest rate risk, inflation risk and takes into account the type and incidence of payments
- Implemented in post-retirement space using bonds typically, ILB in order to remove first two risks
- Need to be careful that yield on bond portfolio is representative of the yield used to value the liabilities for e.g. if liabilities valued using a real yield curve then range of ILB will be appropriate
- Need to immunize against changes in shape and level of yield curve used to value assets and liabilities
- In this case inflation risk will be hard to completely remove
- Can enter into swaps or use strips, zero coupon bonds etc. to more closely align the timing of asset proceeds and the liabilities – but this comes at additional cost

(ii)

- Breakeven inflation is the rate of inflation required for nominal and ILB to provide the same return over a given future period (annualized over the term of the bonds in question)
- It is often calculated as the difference between ILB and nominal bonds of same term/duration and by same issuer to avoid credit differences
- Using benchmark or liquid bonds (in SA R213 vs R210)
- This is considered acceptable as a rough estimate but this cannot be interpreted as the expected inflation number
- Need to take account of two additional factors that explain the difference between the two bond yields
- $\text{Nominal yield} = \text{Risk Free Rate} + \text{liquidity premium} + E(\text{inflation}) + \text{Inflation risk premium (IRP)}$
- So the difference in the two yields must also reflect the IRP as well as the difference in liquidity risk premium; as

- the liquidity of the ILB is unlikely to be as good as the nominal bonds because issues are smaller and are usually held by long term investors matching CPI liabilities
- So Expected Inflation = Yield difference + LP – IRP
- This Expected Inflation can then be compared with other measures of expected inflation or your own views to decide whether it is advantageous to buy the ILB or the nominal bond (all else being equal).
- ILB still offer a better match because of future unexpected inflation which is unknown (breakeven being a best estimate)
- ILB still not an exact match for medical inflation which is expected to be higher
- Maximum term of ILB in issue may be shorter than last liability cashflows so these cannot be hedged

(iii)

- There is still a degree of political and policy uncertainty until the next election eg property expropriation which investors would like resolution on and will demand extra yield for
- Risk of downgrade is still high – SA will then be junk status which could trigger a huge selloff
- Government will need to raise money to rescue beleaguered SOE's and meet economic promises such as NHI and zero tertiary education fees
- Fiscal position is unfavourable so investors will demand quite a high yield – particularly with the signs of corruption and an election year coming up
- US Fed is (slowly) raising rates and other international pressures such as trade-wars will impact demand for SA fixed interest
- Globally yields are also expected to increase and SA yields will have to go up to protect the level of the rand.
- Inflationary pressures due to higher taxes (VAT), oil prices, weaker ZAR etc may also put upward pressure on interest rates

(iv)

- Suitable as it is amortizing (i.e. has a level payment profile which looks more like the liability profile) so allocating a portion more closely matches the cashflow profile required
 - Except in later years if the medical group is a closed group
- Both securities match in respect of currency
- Energy security will need more expertise in evaluating and managing
- Both securities provide positive real return
- Both are CPI linked so a good match for liabilities. Energy costs do generally go up with inflation so their income should be in line with inflation and they should be able to keep up the CPI linked payments
- Both will be exposed to sovereign downgrade risks – especially if there is an underlying government guarantee
- But energy security has a range of additional risks which may mean that they struggle to get/pay CPI increases
 - Completion time –there may be costly delays

- Geography – what if wind conditions change and energy can't be created and sold
- What is their pricing power for annual increases (political/regulatory risk of increases being denied)
 - But at the end of the day people cannot do without power and it takes years to use another provider so they do have some degree of pricing power
- Maintenance costs may be higher than anticipated
- Risk of poor management
- Other issues such as alternative/better renewable technologies leading to obsolescence or a change in subsidy regime
- What is the possibility of non-renewal after the 10 year period
- Will there be market values available for valuation? Expect these to be quite stable which will help with demonstrating solvency compared to other CPI+ assets
- Higher yield on energy paper will help subsidise higher than inflation increases to the liabilities
- Higher credit risk associated with energy paper
- Project risks – no wind, higher input costs
- Both securities are long term which is a good match for liabilities, but energy is only 20 years whereas ILB can be for as long as 30 years or longer
- Energy paper far less liquid than ILB – but this may not be a problem because the cashflow profile removes some need for liquidity
 - But may need to sell at some stage which will be hard
- Is the 100bp spread a reasonable amount given the degree of risk involved?

(v)

- What is the minimum investment size?
- What will liquidity/marketability be?
- What is the experience, track record for the consortium?
- Is debt secured on anything –covenants?
- Debt vs Equity ratios; debt cover, income cover
- Is there an option for refinancing?
- Maybe rather look at a renewable energy fund
 - Diversification across different issuers is safer
- SRI considerations
- Does regulation allow for this investment?
- Political risks for e.g. Eskom, pricing