Goldman Sachs Asset Management

# Kent County Council Superannuation Fund
## Evolving the Current Asset Allocation of Your Credit portfolio
## June 2015

## Executive Summary

We have managed a Fixed Income portfolio for Kent Superannuation Fund since October 2000. Over that time we have worked with you to evolve the portfolio so that it can continue to meet the Fund's objectives and capture market opportunities effectively.

The current portfolio was constructed on the 4th of February 2013 with a target yield to maturity of 6% on a gross basis. Since then the portfolio has achieved a level of return that has been in line with the prescribed yield target, however due to its 'buy and hold' nature, the portfolio is now shorter in duration (around 3 years) and exhibits a reduced yield to maturity (4.6%).

As part of recent discussions with Nick Vickers, we reviewed the market environment and investment opportunities currently available and would like to suggest modifying the current asset allocation of your 'buy and hold' portfolio to a strategic asset allocation that:

- Favours asset classes that in the longer term can be expected to show a better risk-adjusted return profile;
- Sets a long-term duration target in line with the market indices of the asset classes shown in the table below, whilst selectively hedging duration risk on a tactical basis

We propose that we continue to manage the portfolio with a low level of turnover, although this may be slightly higher than historically, and estimate that the amended asset allocation could achieve long-term returns of 5.2% p.a. with an expected volatility of 4.0%.

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Targets are subject to change and are current as of the date of this presentation. Targets are objectives and do not provide any assurance as to future results. Expected returns are estimates of hypothetical average returns of economic asset classes derived from statistical models. There can be no assurance that these returns can be achieved. Actual returns are likely to vary. Please see additional disclosures. There is no guarantee that these objectives will be met.

## Current Market Environment

The table below shows a summary of the yields and spreads for the asset classes that currently represent the investment universe for the portfolio, along with the 'cost' that would be incurred in yield terms by hedging duration and currency risk to 3-month Sterling cash:

| | Current Portfolio | Global IG Corporates (3-7 Years) | High Yield Corporates (BB/B) | CLOs | MBS (Non Agency) | EMD External (Sovereign) | EMD External (Corporate) | EMD Local (Sovereign) |
|---|---|---|---|---|---|---|---|---|
| **Gross Yield (%)** | **4.6** | **2.0** | **5.5** | **2.5** | **4.6** | **5.6** | **5.2** | **6.3** |
| **Option Adjusted Spread (bps)** | **245** | **110** | **395** | **155** | **325** | **370** | **365** | **n/a** |
| **Duration (Years)** | **3.3** | **4.4** | **4.4** | **0.3** | **3.5** | **6.9** | **4.8** | **5.0** |
| **Hedging Cost (%)** | **n/a** | **-0.5** | **-1.3** | **+0.3** | **-1.1** | **-1.7** | **-1.3** | **n/a** |
| **Yield Net of Hedging (%)** | **n/a** | **1.5** | **4.2** | **2.8** | **3.5** | **3.9** | **3.9** | **n/a** |

As of 31 March 2015. Sources: GSAM, Barclays, Bloomberg, J.P. Morgan. Indices used are as follows - Investment Grade Corporates: Barclays Global Aggregate Corporates Index, High Yield Corporates: Barclays US High Yield 2% Cap Corporate Index, EMD Sovereign: JPM EMBI Global Diversified Index, EMD Corporates: JPM CEMBI Broad Diversified Index, EMD Local: JPM GBI-EM Global Diversified Index, Non-Agency Mortgages: GSAM internal model. **Past performance does not guarantee future results, which may vary.**

## Long-Term Assumptions

In order to build a robust strategic asset allocation for your portfolio we must consider the long-term expected return, the expected volatility of returns and the correlation of the different asset classes in the portfolio.

These assumptions do not directly apply to the returns and volatility of your current portfolio because of its 'buy and hold' nature, however they can provide an indication of the expected risk and return characteristics for each of the asset class considered within the context of a long-term investment, (ie: a 3 to 5 year horizon).

The previous table shows the current yield and spread levels for the investment universe. The following analysis combines long-term average yields, spreads, default and transition losses to estimate an expected return. We combine this estimate with current volatility to arrive at a risk-adjusted return estimate (Sharpe ratio):

| Asset Class | Base Rate | Long-Term Average Spread | Default Losses / Transition Rate | Expected Return | Expected Volatility | Expected Sharpe Ratio |
|---|---|---|---|---|---|---|
| **IG Corporates (GBP Hedged)** | 3.0% | 1.5% | 0.1% | 4.4% | 3.5% | 1.25 |
| **HY Corporates (GBP Hedged)** | 3.0% | 5.3% | 2.5% | 5.8% | 4.3% | 1.33 |
| **EMD External (GBP Hedged)** | 3.0% | 3.8% | 1.4% | 5.4% | 6.9% | 0.78 |
| **EMD Local (in GBP)** | - | - | - | 6.9% | 10.0% | 0.69 |
| **Non-Agency MBS** | 3.0% | 3.3% | 1.0% | 5.3% | 4.9% | 1.07 |

In building a revised portfolio allocation, we have also employed the following correlation matrix based on 3-year returns, which allows us to account for diversification effects:

| Asset Class | IG Corporates (GBP Hedged) | HY Corporates (GBP Hedged) | EMD External (GBP Hedged) | EMD Local (in GBP) | Non-Agency Mortgages |
|---|---|---|---|---|---|
| **IG Corporates (GBP Hedged)** | 100% | 59% | 79% | 59% | 72% |
| **HY Corporates (GBP Hedged)** | 59% | 100% | 75% | 49% | 72% |
| **EMD External (GBP Hedged)** | 79% | 75% | 100% | 65% | 58% |
| **EMD Local (in GBP)** | 59% | 49% | 65% | 100% | 58% |
| **Non-Agency MBS** | 72% | 72% | 58% | 58% | 100% |

Source: GSAM, as of May 8th, 2015. These examples are for illustrative purposes only and are not actual results. If any assumptions used do not prove to be true, results may vary substantially.
Return projections are based on the assumptions made for interest rates, default rates, recovery rates, and spreads. Volatility assumptions are based on historical proxy periods adjusted for assumptions made for interest rates, default rates, recovery rates, and spreads. Expected returns are estimates of hypothetical average returns of economic asset classes derived from statistical models. There can be no assurance that these returns can be achieved. Actual returns are likely to vary. Please see additional disclosures.
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## Current and Proposed Asset Allocation

Our analyses suggest Kent should consider a shift from the current allocation to a strategic asset allocation that favours asset classes with higher expected returns on a risk-adjusted basis (Sharpe ratio) such as Investment Grade Corporates, High Yield Corporates and Non-Agency Mortgage Backed Securities. We also suggest adding CLOs within the investment grade allocation, given their attractive spreads and absence of interest rate risk.

Consistent with the above, we would suggest reducing the allocation to asset classes that exhibit a lower expected Sharpe ratio such as External and Local Emerging Markets Debt. We would not suggest eliminating these altogether from our proposed allocation, however, because of the diversification benefits that they bring.

We have set out the proposed changes to the allocations to the below:

| Asset Class | Current Allocation | Proposed Allocation | Expected Return | Expected Volatility | Expected Volatility (Weighted) | Expected Sharpe Ratio |
|---|---|---|---|---|---|---|
| **IG Corporates (GBP Hedged)** | 23% | ▲ 30% | 4.4% | 3.5% | 1.0% | 1.25 |
| **HY Corporates (GBP Hedged)** | 27% | ▲ 30% | 5.8% | 4.3% | 1.3% | 1.33 |
| **EMD External (GBP Hedged)** | 17% | ▼ 6% | 5.4% | 6.9% | 0.4% | 0.78 |
| **EMD Local (in GBP)** | 7% | ▼ 4% | 6.9% | 10.0% | 0.4% | 0.69 |
| **Non-Agency Mortgages** | 22% | ▲ 30% | 5.3% | 4.9% | 1.5% | 1.07 |
| **Other** | 4% | - | - | - | - | - |
| **Total** | **100%** | **100%** | **5.2%** | | **4.0%** | **1.30** |

Based on the current cost for hedging interest rate risk, we would suggest the following:

- For asset classes with short/medium duration, we suggest holding the assets unhedged given the yield penalty incurred to hedge duration risk;
- Expected long-term returns on a risk-adjusted basis would suggest EMD External assets are duration hedged and the exposure to the asset class is reduced.

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In order to mitigate the impact of transaction costs on your portfolio, the transition from the current to the proposed portfolio allocation could be implemented in a period of up to three months. Also, in order to maintain the desired level of market exposure of the portfolio to the chosen allocations, we envisage a slightly higher level of turnover than experienced in the previous ‘buy and hold’ strategy. For example, as securities ‘roll down’ the yield curve, the period to maturity will shorten and the yield will fall as they approach maturity. If such securities become relatively expensive compared to the rest of the market, we will take the opportunity to switch into higher yielding securities.

Once the transition is complete GSAM will review the asset allocation on an annual basis – or more frequently if necessary – to ensure we are continuing to meet the portfolio’s objectives.

## Conclusions

In this analysis we explore a possible solution to improve the risk-adjusted return profile of Kent’s current credit portfolio by evolving the asset allocation towards asset classes that show more compelling risk-adjusted returns.

Whilst the current portfolio has already crystallised part of its return targets, because of its ‘buy and hold’ nature it may not represent an optimal allocation for the longer term. When considering long-term expectations for the asset classes that form the current investment universe, a larger allocation to sectors that are characterised by better Sharpe ratios would be advisable to target better risk-adjusted returns for the long-term.

Our analyses would therefore suggest an evolution of the current portfolio whereby part of the Emerging Markets Debt allocations would be reallocated towards Investment Grade corporates (including CLOs), High Yield corporates and Non-Agency Mortgage Backed Securities, still remaining within the broad parameters of the existing mandate.

Based on our analysis, the expected return from the new asset allocation would be 5.2% at an expected volatility of 4.0%.

We look forward to discussing our suggestions with you.

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