

2nd Quarter, 2010





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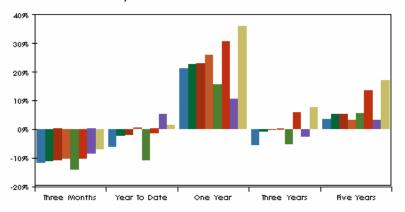
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### Equity Index Performance (in GBP)

Performance History



#### Performance Returns%

	Three Months	ïear To Date	One Year	Three Years	five Years
FISE All Share	-11.8	-6.1	21.1	-5.7	3.5
FI: World	-11.3	-2.5	22.9	-0.9	5.2
Fi: Worldex UK	-11.1	-2.0	23.2	-0.4	5.4
FT AW: United States	-10.4	0.7	26.0	-0.1	3.2
Fi: Developed Europe ex UK	-14.3	-11.0	15.7	-5.5	5.7
📕 FT AW: Japan	-8.7	5.4	10.5	-2.8	3.2
Fi: Developed Asia Pac × Jp	-10.4	-1.6	30.8	5.9	13.5
MSCI Emerging Markets GD	-7.0	1.4	35.9	7.8	17.2

All index returns are in GBP terms unless stated otherwise.



The second quarter of 2010 has seen equity markets falter with every single major index posting a 3 month return in the red. A much vaunted US recovery, the strength of the US Dollar and continued growth in China are crucial to the healing of the global economy. The Bank for International Settlements reiterated the warning that Sovereign Debt and the extended period of low interest rates could sow the seeds of the next disaster. A lack of coordination amongst European policy makers has left markets everywhere preoccupied with the health of Eurozone economies. Following the well documented economic issues in Greece, pressure increased as Spain was downgraded by Fitch and Portugal went to review with Moody's. The Bank of Canada became the first G7 central bank to move back towards reality, pushing its target rate back up to 0.5%. The shift to growth stocks has continued through quarter 2 as investors look for companies with good earnings potential. The quarter ended on worrying news from the manufacturing sectors of both China and the US on top of disappointing US unemployment figures and home sales. Despite that, most analysts are still predicting that the world will avoid a double dip recession. One year regional index returns are still firmly in the black and in the main show double digit growth. Gold prices ended June up again from March at \$1,210 per ounce. The price of crude oil finished Q2 down at \$72 per barrel. Commodities related shares with links to the emerging markets are still backed to do well. The FTSE World was down 11.3% (GBP) over quarter 2 2010 although remains ahead over 1 year, now by 22.9% (GBP).

The FTSE 100 returned -12.6% (£) over Q2. Two headlines have dominated in the UK over the last 3 months, the failure of the General Election to deliver an outright majority and the BP Deepwater Horizon oil rig tragedy in the Gulf of Mexico. The ensuing coalition government, hard-line economic budget and aftermath of the oil spill as well as negative sentiment emanating from mainland Europe has left the market mixed throughout the second quarter. The decision by Germany to ban shortselling in its top 10 financial institutions hit confidence hard. Quantitative easing and the record low interest rate were maintained despite the creeping threat of rising inflation. The second estimate of Q1 GDP came in at 0.3% up from 0.2%. Oil and gas were amongst the worst performers over the quarter while utilities, though still in the red faired best at sector level. RPI for March was up to 3.7% and unemployment showed a marginal increase to 7.9% in June. The FTSE All Share was down 11.8% (GBP) over the second quarter.

The FTSE Europe ex UK index returned -14.4% (GBP) continuing to underperform regional counterparts as it did ending 2009. The Euro fell 7.4% vs the US \$ during May alone extending its longest losing streak in 10 years. Huge budget deficit reduction plans show the extent of change required. On the upside 1,100 banks prepared to repay EUR 442bn in one year loans borrowed from the ECB and the take up of new 3 month loans was lower than expected. Exports continue to benefit from the weak Euro. The Healthcare sector performed well again as did Consumer Goods while Financials moved further into the red. Unemployment increased across the Eurozone and has now reached 10.1% although in Germany the rate fell. Eurozone CPI inflation ended May up again at 1.6%, remaining below the ECB's 2% ceiling. The ECB left its main rate unchanged at 1%.

The S&P 500 suffered its worst May return since 1962. US Stockmarkets continue to be influenced by external events; European government budgeting, the oil spill clean up and North Korean belligerence. The strong dollar has inspired concerns about the competitiveness of US exports. The US treasury sold a second tranche of Citigroup stock bringing government profit from this line to in excess of \$2bn while still owning an 18% stake. All sectors lost; the largest retreats coming in Materials, Financials and Energy. Utilities and Telecoms suffered least. US unemployment continues to increase; 8 million jobs have been lost over a period of 3 years. Sales of homes continued to fall (as expected) following the end of the temporary tax credit. 1st quarter GDP was revised down from 3% to 2.7%. The federal funds target rate was maintained at its all time low of 0-0.25%. The FTSE US index was down 10.4% (GBP) over the second quarter of 2010.

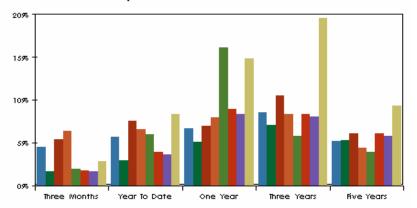
Japanese equities again outstripped all contemporaries over the 3 month period but also remained firmly in the red. Toyota forecast a rise in earnings with positive news from the US and demand from China. A 4.9% expansion of the Japanese economy was confirmed for Q1. The FTSE Japan returned -8.7% (GBP) for Q2 and the FTSE Asia Pacific ex Japan returned -10% (GBP). Commodity producing and Emerging Market currencies were hit hard as investors discounted a potential hit to global growth although recent declines in commodity prices should relieve some of the inflation experienced. Latin American equities again outperformed notably Peru and Chile. Sector wise the more defensive Consumer Staples and Telecoms were key. Brazil continues to perform well as the unemployment rate fell again to a record low and GDP is forecast to expand to 6.5% this year. Despite a drop in oil prices hitting the Russian economy the unemployment rate dropped off there too and sales data rose. MSCI Emerging Markets index returned -7% (GBP) for the second quarter.



## London Borough of Hillingdon

### Fixed IncomeIndex Performance (in GBP)

Performance History



#### Performance Returns%

	Three Months	Year To Date	One Year	Three Years	five Years
FISE All Stock Index	4.5	5.7	6.7	8.6	5.2
FISE All Stock 0-5 Yr. Gilts	1.6	2.9	5.1	7.1	5.3
FISE All Stock 5-15 Yr. Gilts	5.4	7.6	7.0	10.6	6.1
FISE All Stock > 15 Yr. Gilts	6.4	6.6	8.0	8.4	4.5
ML STG N-Gilts All Stocks	2.0	6.0	16.2	5.8	3.9
FISE Index Linked	1.7	4.0	9.0	8.3	6.1
FISE Index Linked 5+ yrs	1.6	3.7	8.4	8.1	5.8
📕 JPM GBI Global	2.9	8.3	14.8	19.6	9.3

Concern about the health of the world economy has resumed in recent weeks, as widespread declines in leading indicators of economic activity, suggest that the second half of 2010 could be one of a severe weakening in the pace of economic recovery. This saw the benchmark 10-year government bond yields in the US and UK slump to year lows. Worries about the risk of sovereign debt default in Europe and the fragility of European banks have not diminished, however they are now being seen in the greater perspective of growing signs of weaker growth and the sluggish labour market in the US. While building inflation pressures in the emerging economies are a concern, economic growth is more robust than in the developed markets. However should the major developed economies falter, there will be negative trade implications for the export driven emerging economies.

In the UK with a new coalition government in place after inconclusive elections in early May, the focus over the quarter was on the emergency Budget on the 22nd June and the strategy to reduce the budget deficit, currently at £156bn. The Chancellor held to his promise of an accelerated deficit reduction announcing additional net fiscal tightening of £40bn over the next five years, above the £73bn already announced by the previous government. Received well by the credit rating agencies, gilts rallied with the 10 year yields dropping to close June at 3.35 compared to 3.95 at the start of Q2. The Bank of England (BoE) continues to leave the base rate unchanged at 0.5% and the Asset Purchase Facility (APF) at £200bn, although one member of the Monetary Policy Committee (MPC) argued for an increase to 0.75% citing inflationary expectations. The National Institute for Economic and Social Research (NIESR) estimated that the UK grew by 0.7% in the second quarter, its fastest expansion since before the recession. However, export growth has slowed in June according to the purchasing managers' index (PMI), recording a level of 50.7 down sharply from the series high 59.9 two months ago. This has impacted UK growth forecasts looking for net exports to play a key role in the recovery. The FTSE All Stock Gilts closed up at 4.5% (GBP) for the quarter, while the ML Sterling Non Gilts returned 2.0% (GBP).

Considering that the sovereign debt crisis in Europe looks set to remain a dominant theme in the financial markets, unsurprisingly the European Central Bank (ECB) continues to maintain the main refinancing rate at the record low 1.0%. Although the financial support measures package from European governments has helped to calm fears of imminent default in the so-called peripheral countries – Greece, Ireland, Portugal and Spain; credit spreads, bond spreads over the benchmark German 10 year bund and the soaring cost of insurance against default risk all indicate these fears have not subsided. Worries about the health of banks in the euro-zone pushed stock-markets down around the world as around 1,120 banks prepared to repay €442bn for the 1-year Long Term Re-financing Operation loans they borrowed from the ECB last June. Investors were relieved by news that the take-up of new ECB three month loans offered to banks was much lower than expected, though signs of economic weakness in the US and China continued to trouble investors. The iTraxx Europe 5yr index, representative of 125 investment grade entities across 6 sectors saw spreads widen drastically from 78.63 at the end of Q1, to a high of 139.67 at the beginning of June and narrowing to 128.71 at quarter end. The JPM European Govt Bond index returned 3.5% (EUR) and the Barclay Capital Euro Aggregate Corporate bond index returned 0.3% (EUR) for Q2 2010.

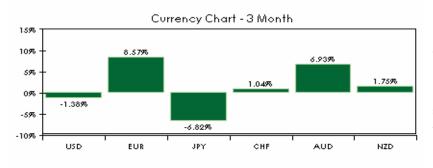
The US Federal Reserve open committee (FOMC) continues to hold the target rate at 0-0.25% at the interest rate-setting meeting in June. This followed weak economic data – disappointing job growth, unexpectedly low employment and surveys suggesting that manufacturing and services are losing momentum. Combined with the concerns with Europe's sovereign debt markets and banks, the FOMC focus has moved from when to sell its bond portfolio (some \$1,600bn of Treasury and mortgage backed bonds purchased since 2008), to consider more asset purchases. The 10 year Treasury yield closed the quarter down to 2.96%, as investors sold off equities and sought haven in Treasuries. On the corporate bond side, the year long rally in credit markets also ran out of steam in the second quarter. The quarter opened well, as corporate bonds continued a rally that lasted from late 2008 through the first quarter of 2010 and included the best annual returns for high yield bonds on record in 2009. That strength ended in late April with the flare of up sovereign debt worries in Europe. As borrowing costs in Greece and other European nations soared, US corporations had a harder time borrowing too. For the quarter, the JPM US Govt Bond index returned 4.8% (USD) while the Barclay Capital Global Aggregate Corporate Bond index return -1.1% (USD).

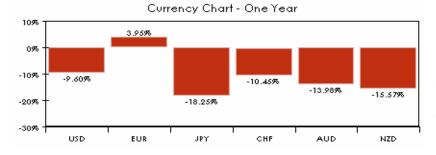
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### Currency Performance (in GBP)





### Currency Returns%

	Three Months	Year To Date	One Year	Three Years	five Years
United States dollar	-1.38	-7.64	-9.60	-9.77	-3.61
European Union euro	8.57	8.18	3.95	-6.52	-3.85
Japanese yen	-6.82	-12.71	-18.25	-20.87	-8.11
Swiss franc	1.04	-3.41	-10.45	-14.04	-7.06
Australian dollar	6.93	-1.36	-13.98	-9.63	-5.66
New Zealand dollar	1.75	-1.98	-15.57	-5.90	-3.38

All index returns are in GBP terms unless stated otherwise.



Severe volatility returned to the financial markets in the second quarter, as fears over the imminent sovereign debt default in euro-zone peripheral countries – Greece, Ireland, Italy, Portugal and Spain, required policy makers to take drastic measures to restore market confidence. Weak economic data from the US, combined with imminent fiscal tightening taking place in many countries has raised concerns of a global "double dip" recession. The key event in the emerging economies was the removal of the peg of the Chinese renminbi to the US dollar, surprising many by the timing ahead of the G20 conference in Canada. The VIX volatility index rose from 17.59 at the end of March, peaking at 45.79 mid May before closing at the end of the guarter at 34.54.

In the UK, the General Election in May delivered the first hung parliament since 1974, putting sterling under selling pressure and resulted in a Conservative – Liberal Democrat coalition government. Policy was left unchanged (base rate at 0.5% and £200bn of QE) at the Bank of England (BoE) June Monetary Policy Committee (MPC) meeting, although MPC member Andrew Sentence notably dissented arguing for a 0.25% hike due to rising inflation risks. Compared to the BoE's target rate of 2.0%, annual CPI came in at 3.4% for May, while the BoE's Inflation Attitudes survey in June revealed the public's 12-month inflation expectation rose from 2.5% to 3.3%. The Chancellor delivered an emergency Budget in June, announcing additional net fiscal tightening of £40bn above the £73bn already pencilled in by the previous Labour Government over the next five years. The Budget was well received by both credit rating agencies and financial markets although the level of austerity also raised the prospect of a double dip recession. The end of the quarter brought news of slowing housing market activity, while the manufacturing and construction PMI were steady in June, holding at 57.5 and 58.4 respectively vs May. Sterling closed the quarter down against the US dollar by -1.4% and the Yen by -6.8%, however was up against the Euro by 8.6%

The US dollar and traditional safe havens, such as the Swiss franc and Yen, have been clear beneficiaries of the crisis in Greece. However data in June pointed to a more fragile recovery than earlier in the quarter, with the Swiss franc replacing the US dollar as the preferred refuge in the G10. The dollar depreciated against the Swiss franc by -6.9% in June. The pace of growth in US private (non-farm) payrolls significantly dropped from April. Consumer confidence also declined sharply in June, per the Conference Board, a research firm. Its index fell to 52.9 from 62.7 in May. The federal funds target rate held at 0-0.25% and expectations for an increase have moved back to 2011. However Federal Reserve Chairman Bernanke has signalled that the Fed is unlikely to wait until the labour market fully recovers and 'we can't wait until inflation gets out of control before....normalising interest rates'. Despite the disappointing data, the dollar closed the quarter gaining against the Pound and Euro by 1.4% and 9.9% respectively, and down versus the Yen at -5.4%.

The euro-zone sovereign debt crisis remains the overarching theme in the region, although the intensity has eased from Q1. The EU announced in May a substantial aid package amounting to €750bn to support Greece and other euro members that might need funding. However markets were further shocked by Germany's unilateral decision to impose a temporary ban on the uncovered short selling of certain types of euro-zone debt and credit default swaps. As a consequence the euro came under intense selling pressure, falling to below \$1.20 for the first time since March 2006 and to a record low versus the Swiss franc. Market nerves were tested as the quarter ended with the expiration of the ECB's first 1-year €442bn Long Term Refinancing Operation (LTRO) loans. However the news that the take up of new unlimited ECB 3 month loans offered to banks was lower than expected relieved investors. The euro ended the quarter down versus sterling, the dollar and the Yen at -3.1%, -0.2% and -3.0% respectively.

2nd Quarter, 2010

#### **Scheme Performance**

During the second quarter of 2010 London Borough of Hillingdon underperformed the Total Plan Benchmark by -0.47% (relative), returning -8.24% vs.-7.81%. Although asset allocation contributed a strong +1.39%, the passive currency effect of -1.66% (Corporate Bonds (-0.73%) and Europe Ex UK (-0.45%)) brought the fund back into a negative position and was the primary source of the quarters underperformance. On an overall contribution basis, UK Equities (-0.79%) and Real Estate (-0.31%) are the main asset detractors from the fund this quarter, while Cash (+0.53%), Corporate Bonds (+0.30%) and Index-Linked (+0.18%) all contributed a positive affect.

Over the longer period of 1 year the underperformance of -1.90% is driven by currency affect of -1.24% and Stock Selection of -1.52%. Asset Allocation redeemed +1.02%. On an overall contribution basis over the 1yr period, UK Equities (-1.23%) and Cash (-0.66%), being the main negative contributors, with Japanese Equities (+0.25%), Index-Linked Gilts (+0.17%) and Government Bonds (+0.12%) were the main positive contributors

Of the six managers that had holdings for the full 3 months of this quarter, two managers, 29.11% of the portfolio, underperformed by over 250 basis points. 21.95% underperformed by a range of 45 - 87 basis points while 23.94% managed an outperformance of 11 - 13 basis points. The remaining 25% of the portfolio assets were either held for less than a 3 month period or remain in the Nomura transition account which is not measured for performance on an individual account basis, but is included in the overall total plan calculations.

Historically, the Fund remains showing a pattern of ten periods within the last twelve quarters as having negative relative returns. Consequently, the Fund underperforms over all short and long term periods.

### **Manager Performance**

#### Alliance Bernstein

Alliance Bernstein has had a reduction of 50% of the value of their mandate and a change to the definition of their mandate and therefore their benchmark. Because of this mid month mid period restructuring, attribution is unavailable at present for periods greater than 1 month. Over the quarter Alliance returned an underperformance of -2.65%. This extends the underperformance of the account to 12 periods out of 12 over the last 3 years. The account significantly underperformed over all time periods.

#### **Goldman Sachs**

After four consecutive quarters of outperformance Goldman Sachs returned to underperformance this quarter, returning 1.35% versus a benchmark of 1.81%. The fund remains slightly ahead over the year to date time period. However, the run of underperformance between q1 08 and q1 09 continues to drag the longer time periods of 3yrs, 5yrs and since inception into underperformance.

#### UBS

During the second quarter of 2010, UBS under performed the FTSE All Share -14.05% vs. -11.80%.

In Stock selection (-3.40%), Consumer Services (-0.96%), Oil and Gas (-0.93%), Health Care (-0.61%) and Industrials (-0.53%) were the main detractors. Asset Allocation of +0.86% in part redeemed some of the stock selection losses, but negative contributions from Oil and Gas (-0.42%) and Consumer Goods (-0.26%) offset gains in Basic Materials (+0.47%), Telecommunications (+0.40%) and Healthcare (+0.31%).

Over the longer period of 1 year the combined relative contribution from Oil and Gas (-1.35%), Health Care (-1.13%), Consumer Goods (-0.93%) and Financials (-0.92%) all contribute to an underperformance of -3.41%.

Over the longer time periods 3yrs and 5yrs the manager underperforms by, -2.82% and -2.46% respectively on a relative basis. Since inception in December 1988, UBS retains its outperformance, returning 9.40% vs. 8.40%.

#### **UBS Property**

UBS Property underperformed their benchmark (2.20% vs.3.10%). The underperformance of q4 09 (-3.74%) remains the single biggest factor for the underperformance of the fund over all the longer time periods, 1 and 3years. Since inception the funds return now stands at -4.11% vs. -3.27% an underperformance of -0.86 basis points on a relative basis.

Northern Trust



### **Manager Performance**

### SSGA

SSGA returned a slight outperformance of 11 basis points this quarter, the majority of this outperformance coming from the outperformance in UK equities (+0.05%) and the overweighting of Corporate bonds (+0.04%).

#### SSGA Drawdown

The fund slightly outperformed its benchmark by 13 basis points this quarter. Over the inception to date period the fund is now 39 basis points ahead of its benchmark on a relative basis.

#### M&G Investments

The funding of M&G on the 27th May has returned an absolute return on +0.25% over the period to date.

At present no benchmark has been applied to this mandate.

#### Ruffer

The funding of Ruffer on the 28th May has returned an absolute return of -2.69% over this period to date. At present no benchmark has been applied to this mandate.

#### Marathon

The funding of Marathon on the 9th June returned a positive impact with Marathon returning a relative outperformance of +0.36% over this shortened time period.





## London Borough of Hillingdon

### **Active Contribution**

#### By Manager

	Portfolio	Benchmark	Excess Return	Relative Return	Active Contribution 4/10	Portfolio	Benchmark	Excess Return	Relative Return	Active Contribution 5/10	Portfolio	Benchmark	Excess Return	Relative Return	Active Contribution 6/10	Active Contribution Q2 10
Goldman Sachs	0.80	0.61	0.19	0.19	121,227.93	-0.32	0.09	-0.41	-0.41	-257,757.21	0.87	1.11	-0.24	-0.24	-151,576.82	-288,106.10
UBS	-0.42	-1.39	0.97	0.98	1,011,930.72	-7.07	-6.23	-0.84	-0.90	-833,349.56	-7.12	-4.62	-2.49	-2.61	-2,310,671.93	-2,132,090.77
Alliance Bernstein	-1.89	-1.24	-0.65	-0.66	-731,458.66	-7.51	-6.61	-0.90	-0.96	-506,475.62	-6.38	-5.02	-1.36	-1.43	-720,088.49	-1,958,022.77
UBS Property	0.52	1.43	-0.91	-0.90	-400,635.22	1.36	1.12	0.24	0.23	103,861.25	0.31	0.51	-0.21	-0.21	-91,557.06	-388,331.03
SSGA	-0.91	-0.91	-0.00	-0.00	-1,424.27	-4.59	-4.62	0.03	0.03	32,266.78	-3.45	-3.53	0.08	0.08	76,409.61	107,252.12
SSGA Drawdown	0.47	0.45	0.02	0.02	3,955.75	0.01	-0.00	0.01	0.01	2,205.15	0.68	0.58	0.10	0.10	20,277.10	26,438.00

Total Fund Market Value at Qtr End: £489.6 M



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2nd Quarter, 2010

## London Borough of Hillingdon

Scheme Performance				<u>Thr</u> Mon				<u>Ye</u> <u>To I</u>				<u>On</u> Ye		
	Market Value £m	% of Fund	Portfolio	Benchmark	Excess Return	Relative Return	Portfolio	Benchmark	Excess Return	Relative Return	Portfolio	Benchmark	Excess Return	Relative Return
London Borough of Hillingdon	489.6	100.00	-8.24	-7.81	-0.43	-0.47	-2.41	-1.38	-1.03	-1.04	18.03	20.31	-2.28	-1.90

#### By Manager

	Market Value £m	% of Fund	Portfolio	Benchmark	Excess Return	Relative Return	Portfolio	Benchmark	Excess Return	Relative Return	Portfolio	Benchmark	Excess Return	Relative Return
M&G Investments	0.9	0.19	-	-	-	-	-	-	-	-	-	-	-	-
Nomura	25.1	5.12	-	-	-	-	-	-	-	-	-	-	-	-
Ruffer	49.0	10.00	-	-	-	-	-	-	-	-	-	-	-	-
Goldman Sachs	63.4	12.95	1.35	1.81	-0.46	-0.45	5.25	5.24	0.01	0.01	15.37	13.59	1.77	1.56
UBS	90.4	18.46	-14.05	-11.80	-2.24	-2.54	-8.97	-6.15	-2.82	-3.00	17.01	21.14	-4.13	-3.41
Alliance Bernstein	52.1	10.65	-15.05	-12.40	-2.65	-3.02	-9.29	-5.33	-3.96	-4.19	14.38	20.33	-5.96	-4.95
UBS Property	44.1	9.00	2.20	3.10	-0.90	-0.87	7.34	8.05	-0.70	-0.65	13.47	19.03	-5.56	-4.67
SSGA	96.6	19.73	-8.72	-8.82	0.10	0.11	-2.46	-2.54	0.08	0.08	19.94	19.71	0.23	0.19
SSGA Drawdown	20.6	4.21	1.16	1.03	0.13	0.13	3.30	3.07	0.23	0.22	8.48	8.06	0.42	0.39
Marathon	47.4	9.69	-	-	-	-	-	-	-	-	-	-	-	-

Total Fund Market Value at Qtr End: £489.6 M





Scheme Performance		<u>Thi</u> Ye				<u>Fiv</u> Yea					<u>Incepti</u> <u>To Da</u>		
	Portfolio	Benchmark	Excess Return	Relative Return	Portfolio	Benchmark	Excess Return	Relative Return		Portfolio I		Excess Return	Relative Return
London Borough of Hillingdon	-4.66	-1.70	-2.96	-3.01	2.83	4.90	-2.07	-1.97		5.83	6.21	-0.38	-0.36
By Manager			_				_	5.1.1				_	
	Portfolio	Benchmark	Excess Return	Relative Return	Portfolio	Benchmark	Excess Return	Relative Return	Inception Date	Portfolio	Benchmark	Excess Return	Relative Return
M&G Investments	-	-	-	-	-	-	-	-	27/05/10	0.25	-	-	-
Nomura	-	-	-	-	-	-	-	-	31/07/09	-	-	-	-
Ruffer	-	-	-	-	-	-	-	-	28/05/10	-2.69	-	-	-
Goldman Sachs	7.22	8.40	-1.18	-1.09	7.70	8.27	-0.57	-0.52	31/12/01	5.78	6.45	-0.67	-0.63
UBS	-4.96	-2.20	-2.76	-2.82	1.75	4.32	-2.57	-2.46	31/12/88	9.40	8.40	1.01	0.93
Alliance Bernstein	-9.08	-3.31	-5.77	-5.97	-	-	-	-	31/03/06	-3.60	0.52	-4.12	-4.10
UBS Property	-10.80	-9.94	-0.86	-0.96	-	-	-	-	31/03/06	-4.11	-3.27	-0.83	-0.86
SSGA	-	-	-	-	-	-	-	-	30/11/08	17.00	16.87	0.13	0.11
SSGA Drawdown	-	-	-	-	-	-	-	-	30/06/09	8.48	8.06	0.42	0.39
Marathon	-	-	-	-	-	-	-	-	09/06/10	-2.87	-3.22	0.35	0.36

Total Fund Market Value at Qtr End: £489.6 M



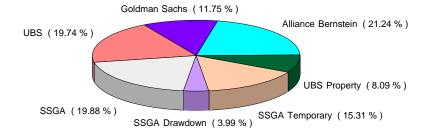




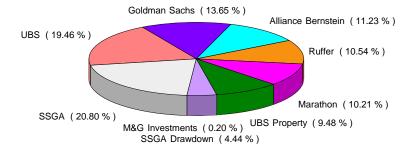
Alliance Bernstein Goldman Sachs UBS

SSGA

UBS Property



SSGA Drawdown SSGA Temporary



Weighting at End of Period



	Opening Market Value	% of Fund	Net Investment	Appreciation	Income Received	Closing Market Value	% of Fund
	£(000)		£(000)	£(000)	£(000)	£(000)	
London Borough of Hillingdon	535,665	100.00	-2,011	-46,853	2,781	489,582	100.00
Goldman Sachs	62,871	11.74	-332	775	74	63,388	12.95
UBS	105,710	19.73	-506	-15,979	1,156	90,380	18.46
Alliance Bernstein	113,731	21.23	-49,309	-13,073	796	52,145	10.65
UBS Property	43,331	8.09	-230	489	464	44,054	9.00
SSGA	106,415	19.87	-535	-9,267		96,613	19.73
SSGA Drawdown	21,393	3.99	-1,029	241		20,605	4.21
M&G Investments	-		922	2		924	0.19
Ruffer	-		50,295	-1,484	145	48,955	10.00
Marathon	-		48,835	-1,403		47,432	9.69
Nomura	282	0.05	30,349	-5,693	147	25,085	5.12
SSGA Temporay	81,933	15.30	-80,471	-750,576	0		



0.0-

-5.0

-10.0

Fund

Benchmark

Three Months

-8.24

-7.81

## London Borough of Hillingdon



Year To Date

-2.41

-1.38

One Year

18.03

20.31

Three Years

-4.66

-1.70

Five Years

2.83

4.90

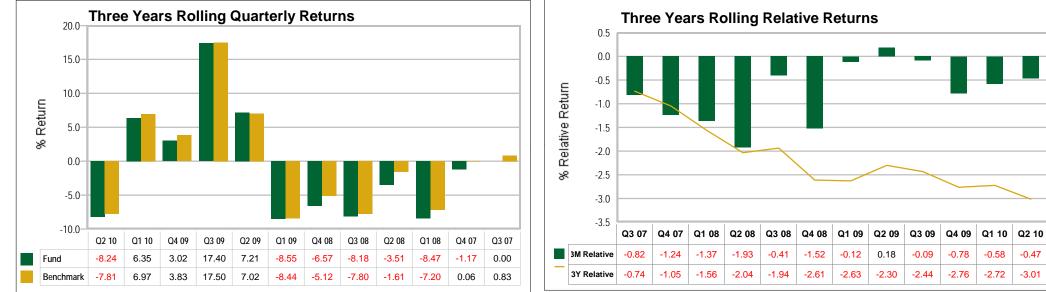
Inception To Date

5.83

6.21

### London Borough of Hillingdon







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Three Years

-3.73

-0.26

21.71

22.27

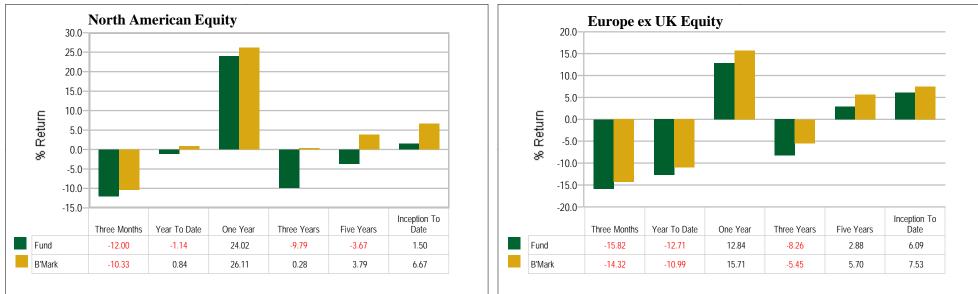
Five Years

4.58

6.90

## London Borough of Hillingdon





Northern Trust

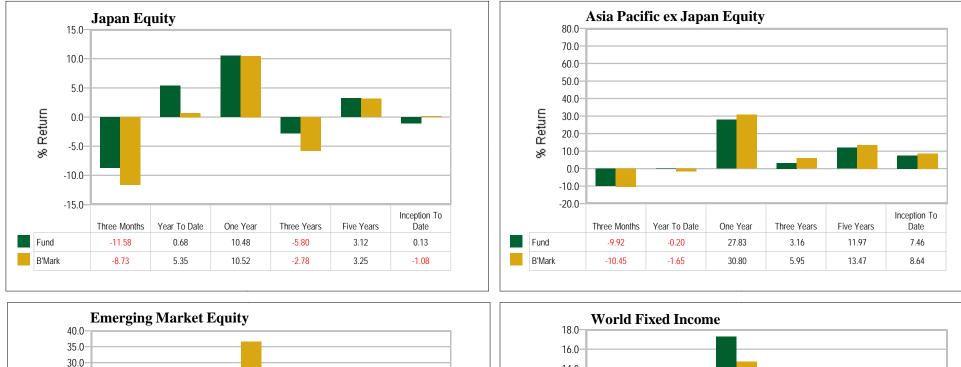
Inception To

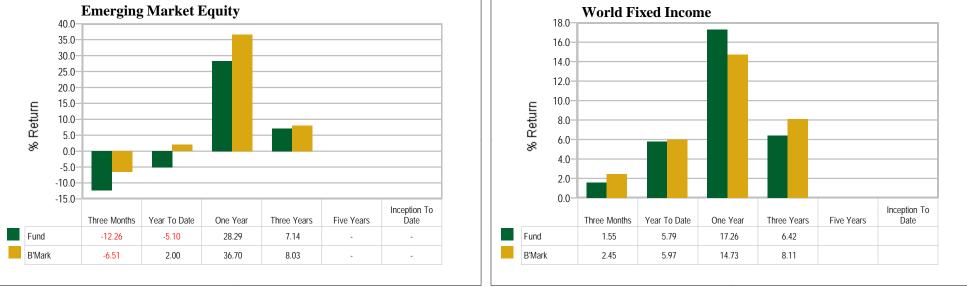
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5.66

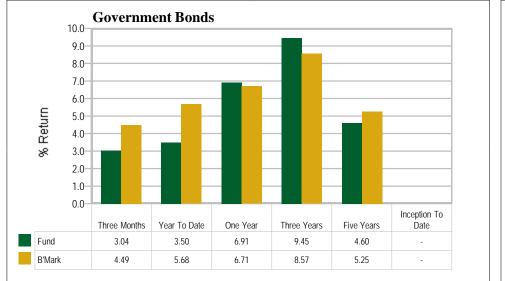


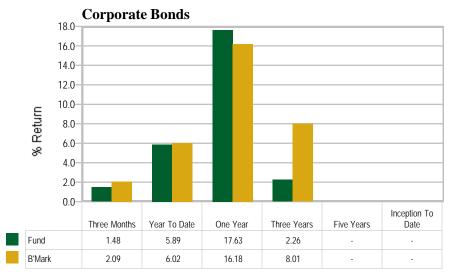


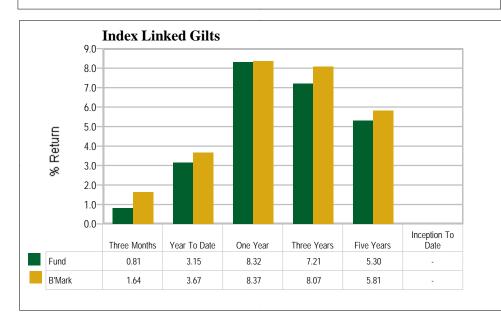


( Northern Trust







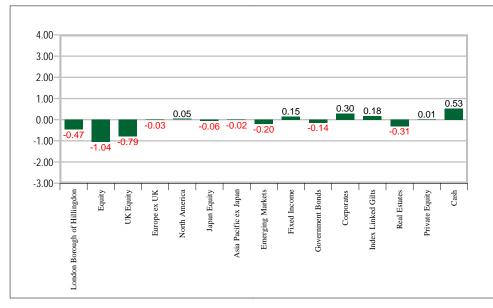


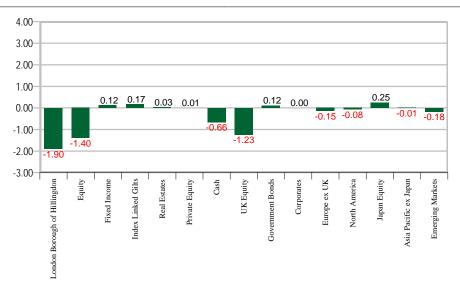


Northern Trust



### **Relative Contribution - Three Months**





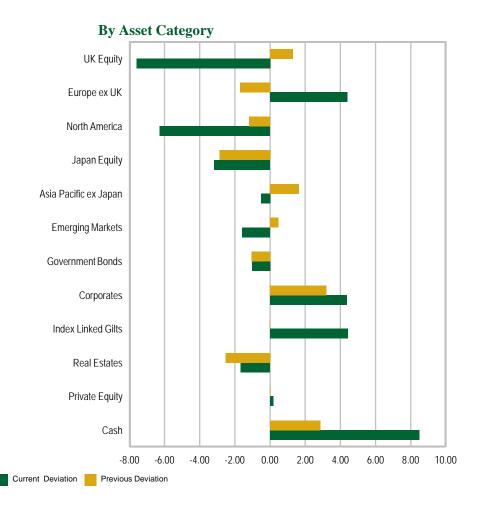
### **Relative Contribution - One Year**

	Return	B'mark	Relative Return	Hedging Effect	Currency Effect	Asset Allocation	Stock Selection	Relative Contribution		Return	B'mark	Relative Return	Hedging Effect	Currency Effect	Asset Allocation	Stock Selection	Relative Contribution
London Borough of Hillingdon	-8.24	-7.81	-0.47	0.02	-1.66	1.39	-0.19	-0.47	London Borough of Hillingdon	18.03	20.31	-1.90	-0.10	-1.24	1.02	-1.52	-1.90
Equity	-13.34	-	-13.34	0.00	-0.87	0.66	-0.82	-1.04	Equity	18.79	-	18.79	0.00	-0.68	1.24	-1.94	-1.40
UK Equity	-14.35	-11.80	-2.89	0.00	-0.04	0.15	-0.90	-0.79	UK Equity	16.25	21.14	-4.04	0.00	-0.09	0.22	-1.35	-1.23
Europe ex UK	-15.82	-14.32	-1.75	0.00	-0.45	0.14	0.28	-0.03	Europe ex UK	12.84	15.71	-2.48	0.00	0.05	0.02	-0.22	-0.15
North America	-12.00	-10.33	-1.86	0.00	0.00	0.15	-0.11	0.05	North America	24.02	26.11	-1.66	0.00	-0.35	0.09	0.19	-0.08
Japan Equity	-11.58	-8.73	-3.12	0.00	-0.24	0.23	-0.04	-0.06	Japan Equity	10.48	10.52	-0.04	0.00	-0.44	0.67	0.03	0.25
Asia Pacific ex Japan	-9.92	-10.45	0.59	0.00	-0.11	-0.04	0.13	-0.02	Asia Pacific ex Japan	27.83	30.80	-2.27	0.00	0.03	0.20	-0.24	-0.01
Emerging Markets	-12.26	-6.51	-6.15	0.00	-0.03	0.02	-0.18	-0.20	Emerging Markets	28.29	36.70	-6.15	0.00	0.13	0.05	-0.35	-0.18



## London Borough of Hillingdon

	Return	B'mark	Relative Return	Hedging Effect	Currency Effect	Asset Allocation	Stock Selection	Relative Contribution		Return	B'mark	Relative Return	Hedging Effect	Currency Effect	Asset Allocation	Stock Selection	Relative Contribution
Fixed Income	1.55	2.45	-0.88	0.00	-0.74	0.22	0.68	0.15	Fixed Income	17.26	14.73	2.21	0.00	-0.47	0.05	0.53	0.12
Government Bonds	3.04	4.49	-1.39	0.00	-0.01	-0.13	-0.01	-0.14	Government Bonds	6.91	6.71	0.19	0.00	0.04	0.08	0.00	0.12
Corporates	1.48	2.09	-0.60	0.00	-0.73	0.35	0.68	0.30	Corporates	17.63	16.18	1.25	0.00	-0.51	-0.03	0.53	0.00
Index Linked Gilts	0.81	1.64	-0.82	0.00	-0.05	0.23	0.01	0.18	Index Linked Gilts	8.32	8.37	-0.04	0.00	-0.07	0.18	0.05	0.17
Real Estates	2.47	3.10	-0.61	0.00	-0.01	-0.25	-0.05	-0.31	Real Estates	16.97	19.03	-1.73	0.00	0.13	0.06	-0.16	0.03
Private Equity	0.24	-	0.24	0.00	0.00	0.01	0.00	0.01	Private Equity	0.24	-	0.24	0.00	0.00	0.00	0.00	0.01
Cash	-0.43	-	-0.43	0.00	0.01	0.52	0.00	0.53	Cash	0.49	-	0.49	0.00	-0.15	-0.52	0.00	-0.66



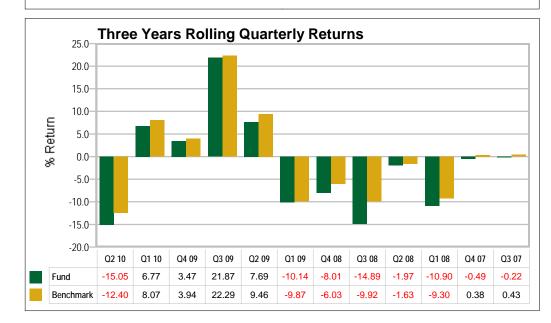
	Current Qtr	Previous Qtr	Current Benchmark	Current Deviation	Previous Benchmark	Previous Deviation
UK Equity	29.24	38.15	36.84	-7.60	36.84	1.31
Europe ex UK	15.46	9.35	11.06	4.40	11.06	-1.71
North America	6.62	11.71	12.90	-6.28	12.90	-1.19
Japan Equity	2.36	2.64	5.53	-3.17	5.53	-2.89
Asia Pacific ex Japan	3.16	5.32	3.68	-0.52	3.68	1.64
Emerging Markets	2.10	4.15	3.68	-1.58	3.68	0.47
Government Bonds	0.55	0.52	1.58	-1.03	1.58	-1.06
Corporates	13.29	12.13	8.94	4.35	8.94	3.19
Index Linked Gilts	9.69	5.24	5.26	4.43	5.26	-0.02
Real Estates	8.86	7.99	10.53	-1.67	10.53	-2.54
Private Equity	0.20	0.01		0.20		0.01
Cash	8.47	2.85		8.47		2.85

(SD) Northern Trust

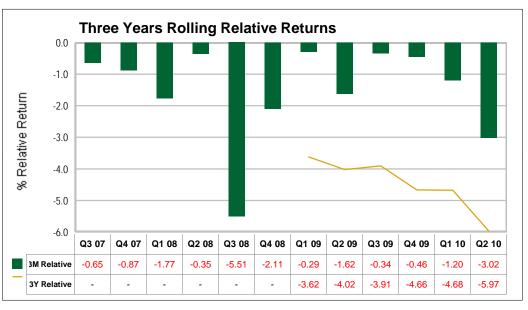


## London Borough of Hillingdon





<b>Risk Statistics - 3 years</b>	Fund	B'mark
Performance Return	-9.08	-3.31
Standard Deviation	21.10	20.12
Relative Return	-5.97	
Tracking Error	2.12	
Information Ratio	-2.72	
Beta	1.04	
Alpha	-5.52	
R Squared	0.99	
Sharpe Ratio	-0.63	-0.38
Percentage of Total Fund	10.7	
Inception Date	Mar-2006	
Opening Market Value (£000)	113,731	
Net Investment £(000)	-49,309	
Income Received £(000)	796	
Appreciation £(000)	-13,073	
Closing Market Value (£000)	52,145	





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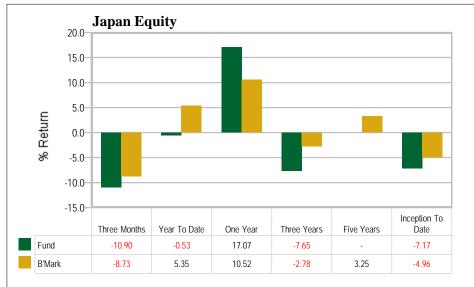
## **Alliance Bernstein**

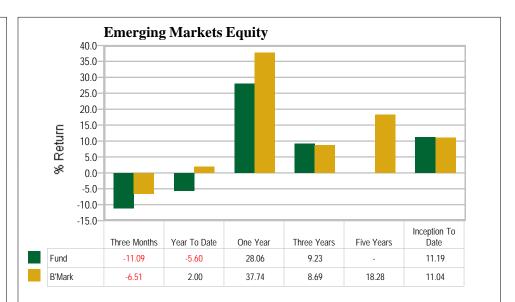


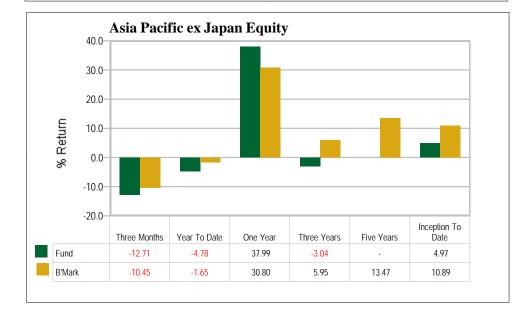
Northern Trust



## **Alliance Bernstein**











London Borough of Hillingdon

## **Alliance Bernstein**

**Relative Contribution - Three Months** 

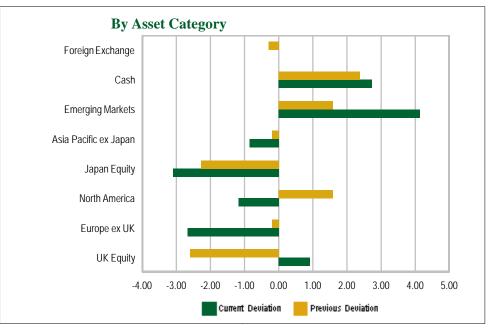
**Relative Contribution - One Year** 

Due to the large restructure and benchmark changes in this account Attribution for this quarter is unavaliable.





## **Alliance Bernstein**



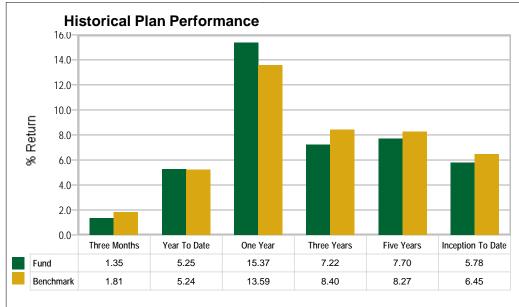
	Current Qtr	Previous Qtr	Current Benchmark	Current Deviation	Previous Benchmark	Previous Deviation
UK Equity	0.91	47.40		0.91	50.00	-2.60
Europe ex UK	27.33	14.81	30.00	-2.67	15.00	-0.19
North America	33.83	19.09	35.00	-1.17	17.50	1.59
Japan Equity	11.91	5.23	15.00	-3.09	7.50	-2.27
Asia Pacific ex Japan	9.14	4.81	10.00	-0.86	5.00	-0.19
Emerging Markets	14.14	6.59	10.00	4.14	5.00	1.59
Cash	2.74	2.38		2.74		2.38
Foreign Exchange	-0.00	-0.30		-0.00		-0.30

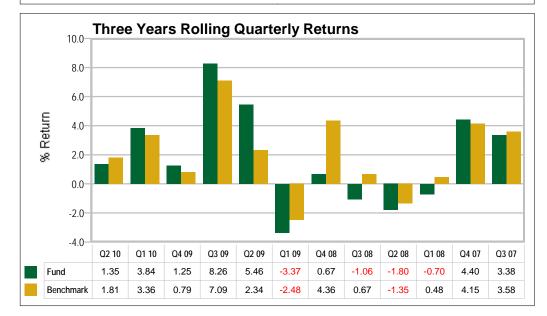




## London Borough of Hillingdon

### **Goldman Sachs**





<b>Risk Statistics - 3 years</b>	Fund	B'mark
Performance Return	7.22	8.40
Standard Deviation	7.13	6.52
Relative Return	-1.09	
Tracking Error	2.14	
Information Ratio	-0.55	
Beta	1.06	
Alpha	-1.31	
R Squared	0.92	
Sharpe Ratio	0.42	0.64
Percentage of Total Fund	12.9	
Inception Date	Dec-2001	
Opening Market Value (£000)	62,871	
Net Investment £(000)	-332	
Income Received £(000)	74	
Appreciation £(000)	775	
Closing Market Value (£000)	63,388	

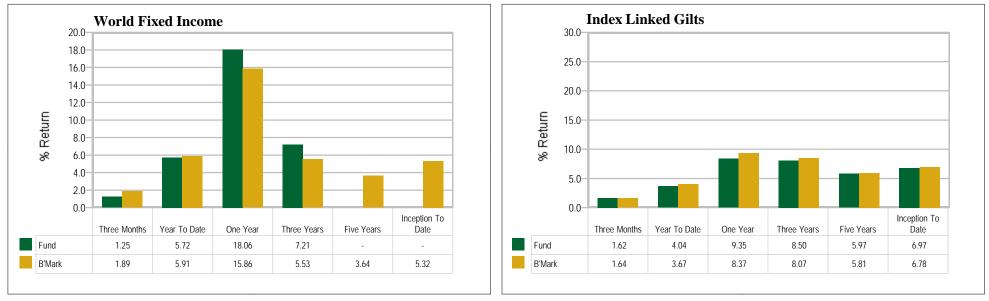




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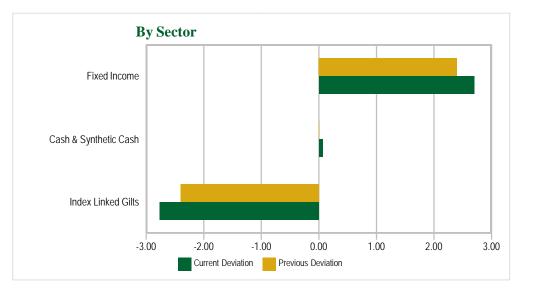
## **Goldman Sachs**



Northern Trust



## **Goldman Sachs**



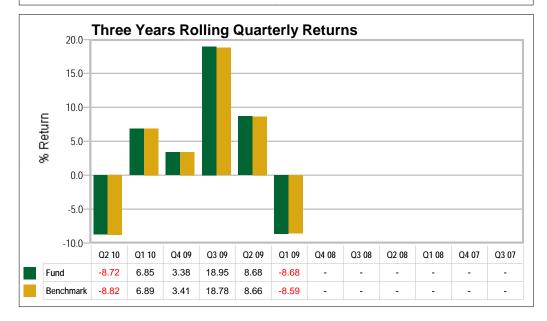
	Current Qtr	Previous Qtr	Current Benchmark	Current Deviation	Previous Benchmark	Previous Deviation
Fixed Income	72.70	72.40	70.00	2.70	70.00	2.40
Cash & Synthetic Cash	0.07	0.01		0.07		0.01
Index Linked Gilts	27.23	27.59	30.00	-2.77	30.00	-2.41



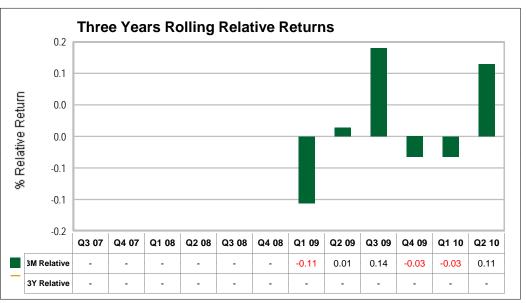


## London Borough of Hillingdon



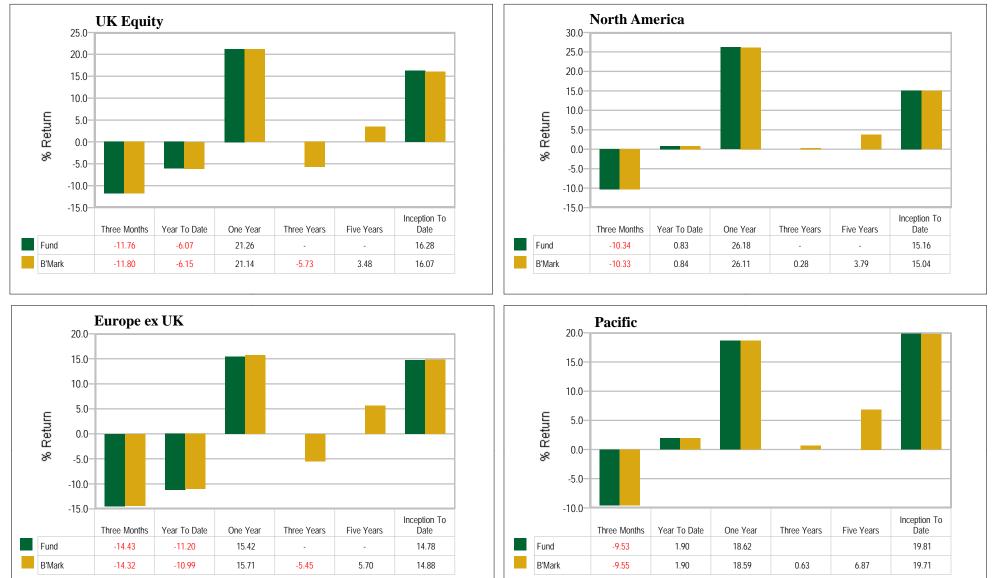


<b>Risk Statistics - 3 years</b>	Fund	B'mark
Performance Return	-	
Standard Deviation	-	
Relative Return	-	
Tracking Error	-	
Information Ratio	-	
Beta	-	
Alpha	-	
R Squared	-	
Sharpe Ratio	-	
Percentage of Total Fund	19.7	
Inception Date	Nov-2008	
Opening Market Value (£000)	106,415	
Net Investment £(000)	-535	
Income Received £(000)	0	
Appreciation £(000)	-9,267	
Closing Market Value (£000)	96,613	



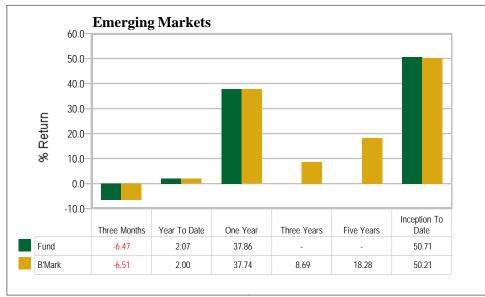






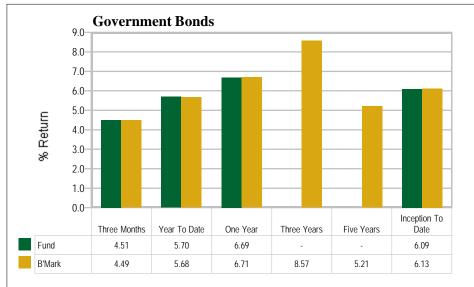


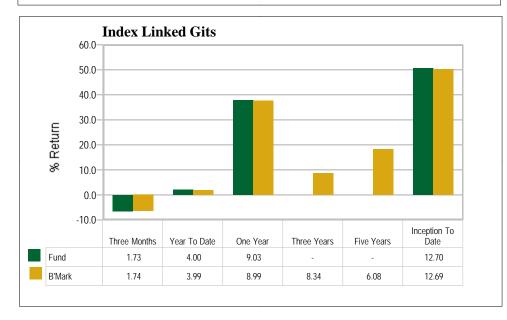
London Borough of Hillingdon

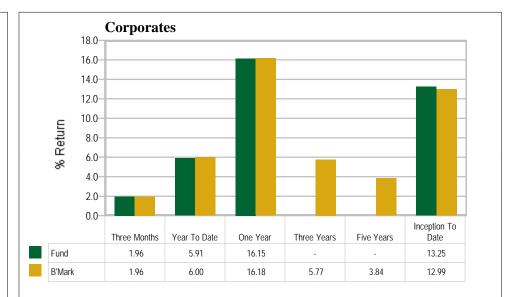




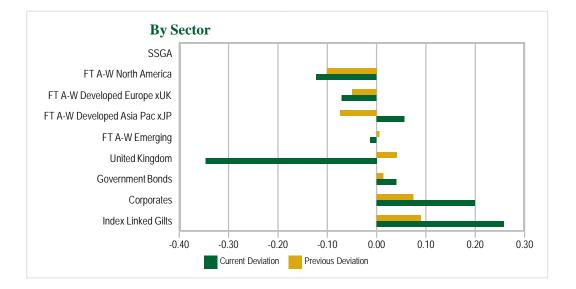












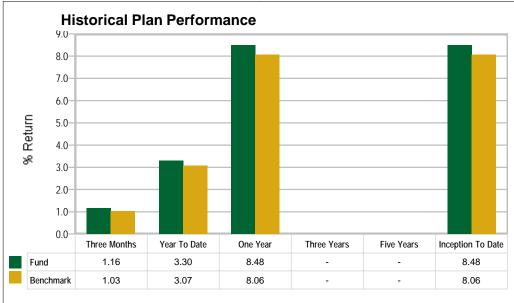
	Current Qtr	Previous Qtr	Current Benchmark	Current Deviation	Previous Benchmark	Previous Deviation
SSGA	100.00	100.00	100.00		100.00	
Equity	79.50	79.82		79.50		79.82
FT A-W North America	10.88	10.90	11.00	-0.12	11.00	-0.10
FT A-W Developed Europe xUK	10.93	10.95	11.00	-0.07	11.00	-0.05
FT A-W Developed Asia Pac xJP	11.06	10.93	11.00	0.06	11.00	-0.07
FT A-W Emerging	2.99	3.01	3.00	-0.01	3.00	0.01
United Kingdom	43.65	44.04	44.00	-0.35	44.00	0.04
Fixed Income	10.24	10.09		10.24		10.09
Government Bonds	1.54	1.51	1.50	0.04	1.50	0.01
Corporates	8.70	8.57	8.50	0.20	8.50	0.07
Index Linked Gilts	10.26	10.09	10.00	0.26	10.00	0.09

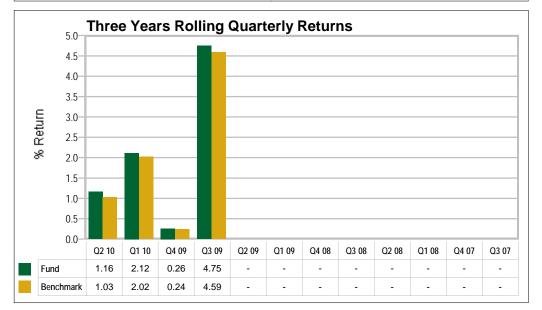




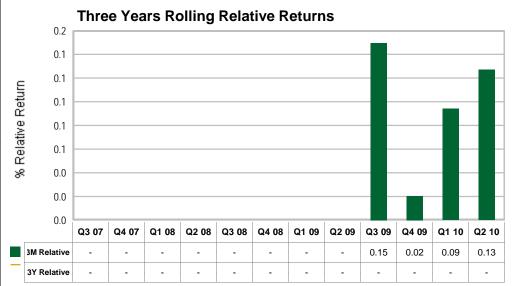
## London Borough of Hillingdon

### SSGA Drawdown





<b>Risk Statistics - 3 years</b>	Fund	B'mark
Performance Return	-	
Standard Deviation	-	
Relative Return	-	
Tracking Error	-	
Information Ratio	-	
Beta	-	
Alpha	-	
R Squared	-	
Sharpe Ratio	-	
Percentage of Total Fund	4.2	
Inception Date	Jun-2009	
Opening Market Value (£000)	21,393	
Net Investment £(000)	-1,029	
Income Received £(000)	0	
Appreciation £(000)	241	
Closing Market Value (£000)	20,605	

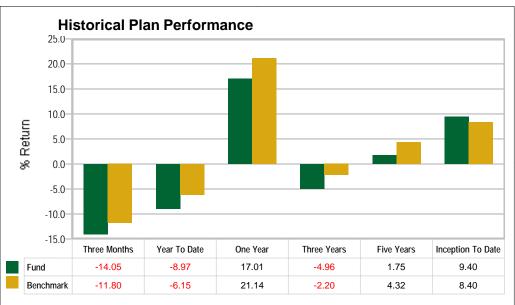


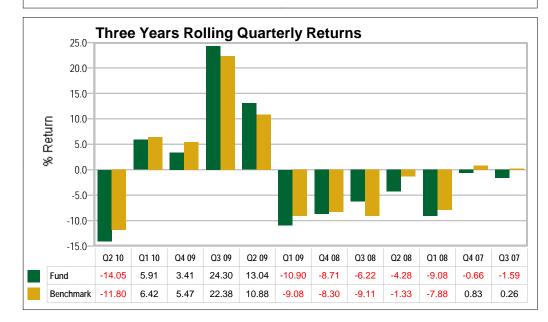


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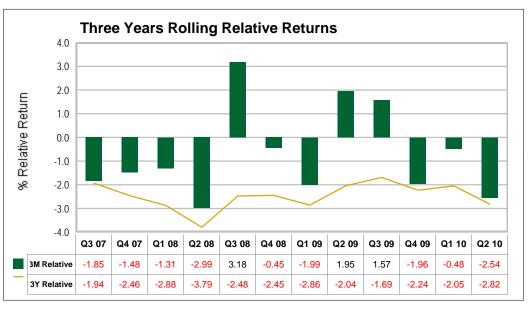
## London Borough of Hillingdon







<b>Risk Statistics - 3 years</b>	Fund	B'mark
Performance Return	-4.96	-2.20
Standard Deviation	19.85	17.88
Relative Return	-2.82	
Tracking Error	4.43	
Information Ratio	-0.62	
Beta	1.08	
Alpha	-2.07	
R Squared	0.96	
Sharpe Ratio	-0.46	-0.36
Percentage of Total Fund	18.5	
Inception Date	Dec-1988	
Opening Market Value (£000)	105,710	
Net Investment £(000)	-506	
Income Received £(000)	1,156	
Appreciation £(000)	-15,979	
Closing Market Value (£000)	90,380	



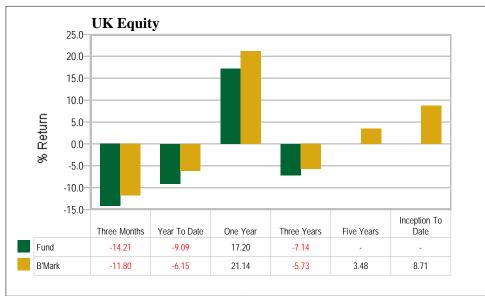


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London Borough of Hillingdon

## UBS



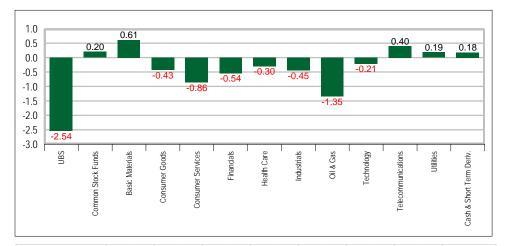




London Borough of Hillingdon

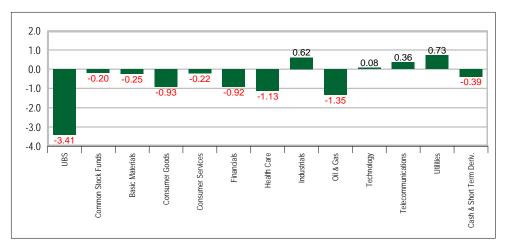
## UBS

### **Relative Contribution - Three Months**



	Return	Benchmark	Relative Return	Hedging Effect	Passive Currency	Asset Allocation	Stock Selection Effect	Relative contribution
UBS	-14.05	-11.80	-2.54	0.00	-0.00	0.86	-3.40	-2.54
Common Stock Funds	-6.00	-	-6.00	0.00	0.00	0.20	0.00	0.20
Basic Materials	-19.48	-20.96	1.86	0.00	0.00	0.47	0.14	0.61
Consumer Goods	-8.29	-6.43	-1.99	0.00	0.00	-0.26	-0.16	-0.43
Consumer Services	-15.09	-8.41	-7.30	0.00	0.00	0.10	-0.96	-0.86
Financials	-12.57	-10.15	-2.70	0.00	0.00	-0.16	-0.38	-0.54
Health Care	-7.52	-2.29	-5.36	0.00	0.00	0.31	-0.61	-0.30
Industrials	-10.15	-4.36	-6.05	0.00	0.00	0.06	-0.50	-0.45
Oil & Gas	-28.81	-24.82	-5.30	0.00	0.00	-0.42	-0.93	-1.35
Technology	-17.55	-4.33	-13.81	0.00	0.00	-0.03	-0.18	-0.21
Telecommunications	-3.31	-3.35	0.04	0.00	0.00	0.40	-0.00	0.40
Utilities	4.07	-1.49	5.65	0.00	0.00	0.00	0.18	0.19
Cash & Short Term Deriv.	-0.16	-	-0.16	0.00	-0.00	0.18	0.00	0.18

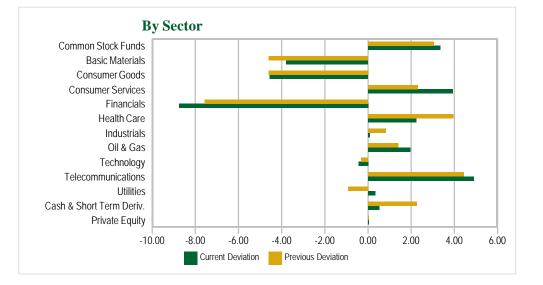
### **Relative Contribution - One Year**



	Return	Benchmark	Relative Return	Hedging Effect	Passive Currency	Asset Allocation	Stock Selection Effect	Relative contribution
UBS	17.01	21.14	-3.41	0.00	-0.00	-1.60	-2.08	-3.41
Common Stock Funds	14.65	-	14.65	0.00	0.00	-0.20	0.00	-0.20
Basic Materials	46.61	39.31	5.25	0.00	0.00	-0.58	0.33	-0.25
Consumer Goods	22.48	31.84	-7.10	0.00	0.00	-0.39	-0.54	-0.93
Consumer Services	21.80	23.99	-1.76	0.00	0.00	0.07	-0.29	-0.22
Financials	13.38	20.81	-6.15	0.00	0.00	0.02	-0.93	-0.92
Health Care	10.97	20.41	-7.84	0.00	0.00	-0.20	-0.93	-1.13
Industrials	45.33	35.03	7.63	0.00	0.00	0.05	0.56	0.62
Oil & Gas	-7.49	-2.29	-5.32	0.00	0.00	-0.41	-0.94	-1.35
Technology	40.09	39.34	0.53	0.00	0.00	-0.05	0.13	0.08
Telecommunications	28.61	26.57	1.61	0.00	0.00	0.20	0.15	0.36
Utilities	40.15	16.82	19.98	0.00	0.00	0.29	0.44	0.73
Cash & Short Term Deriv.	2.88	-	2.88	0.00	-0.00	-0.39	0.00	-0.39



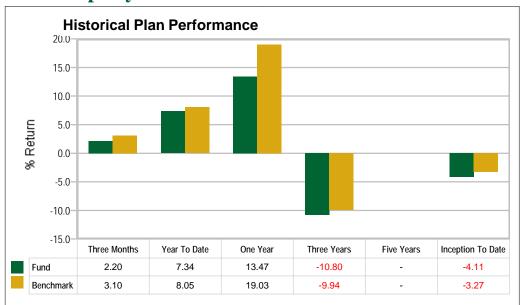
## UBS

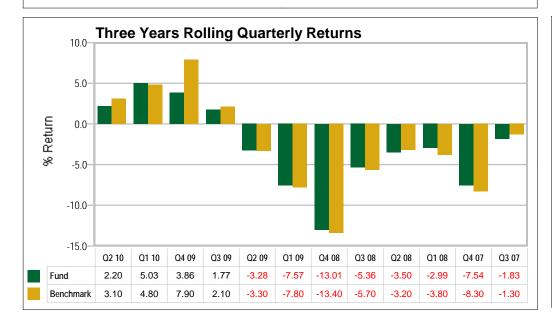


	Current Qtr	Previous Qtr	Current Benchmark	Current Deviation	Previous Benchmark	Previous Deviation
Common Stock Funds	3.35	3.05		3.35		3.05
Basic Materials	7.73	8.07	11.53	-3.80	12.67	-4.60
Consumer Goods	7.46	6.67	12.01	-4.55	11.29	-4.61
Consumer Services	14.09	12.19	10.15	3.94	9.88	2.32
Financials	14.62	15.36	23.38	-8.76	22.93	-7.57
Health Care	10.39	11.40	8.15	2.24	7.45	3.96
Industrials	7.75	7.96	7.66	0.08	7.14	0.82
Oil & Gas	17.37	19.41	15.41	1.96	17.99	1.42
Technology	1.27	1.25	1.72	-0.45	1.56	-0.31
Telecommunications	11.03	10.19	6.11	4.91	5.76	4.43
Utilities	4.21	2.40	3.86	0.34	3.33	-0.92
Cash & Short Term Deriv.	0.51	2.26		0.51		2.26
Private Equity	0.05	0.04		0.05		0.04

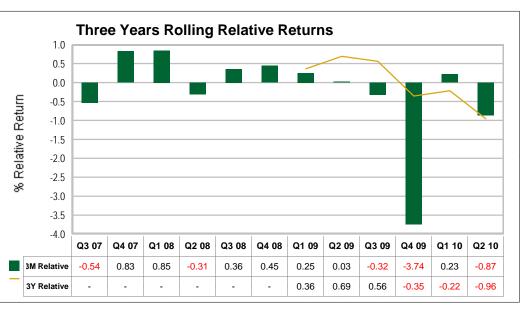


## London Borough of Hillingdon





<b>Risk Statistics - 3 years</b>	Fund	B'mark
Performance Return	-10.80	-9.94
Standard Deviation	6.51	6.90
Relative Return	-0.96	
Tracking Error	2.86	
Information Ratio	-0.30	
Beta	0.88	
Alpha	-2.74	
R Squared	0.86	
Sharpe Ratio	-2.31	-2.06
Percentage of Total Fund	9.0	
Inception Date	Mar-2006	
Opening Market Value (£000)	43,331	
Net Investment £(000)	-230	
Income Received £(000)	464	
Appreciation £(000)	489	
Closing Market Value (£000)	44,054	



# **UBS Property**

Northern Trust

Prepared by Investment Risk & Analytical Services

## London Borough of Hillingdon



### **Total Plan Benchmark**

36.8 FTSE All Share
12.9 FTSE AW North America
11.1 FTSE AW Developed Europe ex UK
5.5 FTSE AW Japan
3.7 FTSE AW Developed Asia Pacific ex Japan
3.7 FT AW Emerging
1.6 FTSE All Stock
8.9 iBox £ Non-Gilts (82.35%) / iBox £ Non-Gilt 15+ (17.65%)
5.3 FTSE Index Linked 5+yrs
10.5 UBS Property Index

### SSGA

44.0 FTSE All Share
11.0 FTSE World North America
11.0 FTSE World Europe ex UK
11.0 FTSE Pacific Basin ex Japan
3.0 FTSE All World All Emerging
1.5 FTA British Government Conventional Gilts All Stocks
10.0 FTA British Government Index Linked Gilts All Stocks
8.5 Merrill Lynch Sterling Non Gilt

### SSGA Drawdown

50.0 ML STG Non-Gilts 50.0 FT 7 Day LIBID

### **Alliance Bernstein**

30.0 FT AW Developed Europe ex UK35.0 FT AWI North America15.0 FT AW Japan10.0 FT AW Developed Asia Pacific ex Japan10.0 FT AW Emerging

### **Goldman Sachs**

70.0 ML Sterling Broad Market30.0 FTSE Index Linked 5+ yrs

### UBS

100.0 FTSE All Share

### **UBS Property**

100.0 HSBC All Balanced Funds



London Borough of Hillingdon

### **Previous Benchmark**

### Alliance Bernstein

50.0 FTSE All Share
15.0 FT AW Developed Europe ex UK
17.5 FT AWI North America
7.5 FT AW Japan
5.0 FT AW Developed Asia Pacific ex Japan
5.0 MSCI Emerging Markets





## London Borough of Hillingdon

**Tracking Error** 

$$\sigma_{ER} = \sqrt{\frac{\sum (ER_t - \overline{ER})^2}{T}} \quad \text{for } t=1 \text{ to } T$$

Annualised tracking error =  $\sigma_{ER} \times \sqrt{p}$ 

W hereEqualsERExcess return (Portfolio Return minus Benchmark Return)ERArithmetic average of excess returns (Portfolio Return minus Be<br/>Return)TNumber of observations

*p* Periodicity (number of observations per year)

The tracking error measures the extent to which a portfolio tracks its benchmark. The higher the tracking error, the higher the variability of the portfolio returns around the benchmark. The tracking error will always be greater than zero, unless the portfolio is exactly tracking the benchmark.

#### Information Ratio

Information Ratio =  $\frac{\overline{ER}}{\sigma_{ER}}$ 

Annualised Information Ratio = Information Ratio  $\times \sqrt{p}$ 

Where	Equals	$R_{yi}$	Portfolio excess return (Portfolio return minus Risk Free Proxy return)
<u>ER</u> Return)	Arithmetic average of excess returns (Portfolio Return minus Benchmark	eta those of the marl	Beta – measure of the sensitivity of a portfolio's rate of return against ket
Т	Number of observations	n	Number of observations
benchmark's volatility over time. The more sensitive a portf movements in the benchmark, the higher the portfolio's beta		beta is calculated by comparing the portfolio's volatility to the atility over time. The more sensitive a portfolio's returns are to e benchmark, the higher the portfolio's beta will be. A beta greater than portfolio is more volatile than the benchmark, whilst a beta less than one	

ratio, the higher the risk adjusted return.

<u>Alpha</u>

$$\alpha = \frac{\sum R_{yi}}{n} - \beta \frac{\sum R_{xi}}{n}$$

	Where	Equals
	R <sub>xi</sub> Proxy return)	Market / Benchmark excess return (Benchmark return minus Risk Free
	$R_{yi}$	Portfolio excess return (Portfolio return minus Risk Free Proxy return)
enchmark	eta those of the mark	Beta – measure of the sensitivity of a portfolio's rate of return against et

Number of observations

The alpha is the value added to the portfolio by the manager – the higher the alpha, the better the manager has done in achieving excess returns.

Market / Benchmark excess return (Benchmark return minus Risk Free

<u>Beta</u>

Where

Proxy return)

 $R_{xi}$ 

п

$$\beta = \frac{n \sum R_{xi} R_{yi} - \sum R_{xi} \sum R_{yi}}{n \sum (R_{xi})^{2} - (\sum R_{xi})^{2}}$$

Equals

implies the portfolio is less volatile than the benchmark.

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<u>R-Squared</u>

$$r^{2} = \frac{(n \sum R_{xi} R_{yi} - \sum R_{xi} \sum R_{yi})}{[n \sum (R_{xi})^{2} - (\sum R_{xi})^{2}][n \sum (R_{yi})^{2} - (\sum R_{yi})^{2}]}$$

Where Equals

R <sub>xi</sub> Proxy return)	Market / Benchmark excess return (Benchmark return minus Risk Free
$R_{yi}$	Portfolio excess return (Portfolio return minus Risk Free Proxy return)
n	Number of observations

The  $R^2$  is the square of the correlation co-efficient between the portfolio return and the benchmark return in the above equation and is a measure of the fund's sensitivity to the benchmark, i.e. the percentage of the portfolio's movement that can be explained by movement in the benchmark. The  $R^2$  statistic ranges from 0 to 1 (or 0 to 100%) with a score of 1 indicating that all the portfolio's movement can be explained by the benchmark.

#### <u>Sharpe Ratio</u>

$$\frac{(R_{ap}-R_{af})}{\sigma_{ap}}$$

Where	Equals
$R_{ap}$	Annualised (portfolio) rate of return
$R_{af}$	Annualised risk-free rate of return

 $\sigma_{ap}$  Annualised portfolio standard deviation

The Sharpe ratio measures the excess return over the risk-free rate per unit of volatility. For a given return, the lower the volatility of the portfolio, the higher the Sharpe ratio.





Price/Earnings Ratio (P/E) Security Level Calculation: Current price/Trailing 12 months earning per share Description:

The price/earnings ratio is a traditional indicator of how much an investor is paying for a company's earning power. Stocks have a p/e greater than the market are usually considered to be growth stocks.

5 Year Earnings Per Share Growth Rate Security Level Calculation: None Description:

This is the percentage change in the annual earning per share growth rate over the last five years of all stock in the portfolio. This measure is usually viewed as agrowth factor. A stock must have been public for at least five years to have this characteristic.

Price to Book Ratio Security Level Calculation: Current price/Most recent book value per share Description: This is usually considered to be a measure of "value", with stocks having high price to book ratios considered to be undervalued.

Dividend Yield Security Level Calculation: Dividend for current fiscal year/Period end closing price Description: This measures the annual rate that dividends are being paid by a company,

including any extra dividends. High dividend yields can also be an attribute of value stocks.

Debt to Capital

Security Level Calculation:

Long term liabilties, deferred taxes, tax credits, minority interest/Sum of debt, total common equity and total preferred stock

Description:

This measure indicates the amount of leverage (debt) being used. A large debt to capital ratio is usually indicative of a highly leveraged company. Stocks having a zero value are still included in the total portfolio calculation.

Price to Sales Ratio

Security Level Calculation:

Current price/Annual sales per share

Description:

This is used primarily by value managers to identify companies having low profit margins. Value managers use this as another indicator in finding undervalued stocks with the potential for improved profitability. This measure varies in informational value by industry, as different industries have different price to sales ratio expectations.

Return on Equity Security Level Calculation: Net profits after taxes/Book value Description: This relates a company's profitabaility to it's shareholders equity. A high ROE indicates that the portfolio is invested in companies that have been profitable. This measure is also impacted by financial leverage.

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#### Coupon Rate

Description:

The stated interest rate of a bond. It is a money weighted average for the portfolio.

#### Years to Maturity

#### Description:

The average number of years to the maturity date of all bonds held in a portfolio. Often, managers will use the weighted average life for mortgages and mortgage backed securities since most mortgages are prepaid and never reach maturity.

#### Macaulay Duration

#### Description:

The mathematical estimate of a fixed income portfolio's sensitivity to a change in interest rates, computed as the weighted average time to receipt of the portfolio's cash flows. The Macaulay duration does not take the impact of embedded options into consideration and this usually results in a higher value than the effective duration.

#### Yield to Maturity

Description:

This is the rate of return that is expected if a fixed income security is held to maturity. It is essentially an internal rate of return that uses the current market value and all expected interest and principal cash flows.

Moody Quality Rating

Description:

This is a measure of the quality, safety and potential performance of a bond issue. Also indicates the creditworthiness of a security's issuer. Moody's evalutes the bond issues and assigns a code with Aaa as the highest and C as the lowest.





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