EDHEC-RISK
Indices & Benchmarks

Efficient Index Factsheet

Capitalisation weighting in equity index construction has come in for harsh criticism. There is ample evidence that market-cap-weighted indices provide an inefficient risk-return trade-off. From the theoretical standpoint, the poor risk-adjusted performance of such indices should not come as a surprise, as market-cap-weighting schemes are risk-return efficient only at the cost of heroic assumptions that are not fulfilled in practice.

Modern portfolio theory teaches us that, for a rational investor, the goal is to hold a portfolio that achieves the highest risk-adjusted performance. Therefore, one should focus on designing a portfolio with the highest reward-to-risk ratio, i.e., with the highest Sharpe ratio. Our research on efficient indexation returns to the roots of modern portfolio theory to provide an alternative to the current methods of constructing equity indices. The aim of this efficient indexation approach is to provide investors with benchmarks that reflect the possible risk-reward ratio from a broadly diversified stock market portfolio, and that are thus a proxy for the normal returns of an exposure to equity risk.

Contact

Patrice Retkowsky
EDHEC-Risk Indices & Benchmarks

E-mail : indices@edhec-risk.com
EDHEC-Risk website : www.efficientindex.com
EDHEC-Risk website : www.edhec-risk.com

EDHEC-Risk Indices & Benchmarks
393 promenade des Anglais - BP 3116
06202 Nice Cedex 3 - France
Tel : +33 (0)4 93 18 78 63

EDHEC Risk Indices & Benchmarks — Europe
10 Fleet Place - Ludgate
London EC4M 7RB - United Kingdom
Tel : +44 207 871 6740

EDHEC Risk Indices & Benchmarks — Asia
1 George Street - #07-02
Singapore 049145
Tel : +65 6631 8580

EDHEC Risk Indices & Benchmarks — North America
1230 Avenue of the Americas - 7th Floor
New York, NY 10020 - USA
Tel : + 1 212 500 6476

The Efficient Index

The aim of efficient indexation is to improve the risk-reward ratio of a broadly diversified stock market portfolio compared to the cap-weighted index. To generate such an efficient index, we resort to mean-variance optimisation. Although our aim to maximise risk-return efficiency is fully consistent with financial theory, successful implementation of the theory depends not only on its conceptual grounds but also on the reliability of the input to the model. In our case, the results depend greatly on the quality of the parameter estimate (the covariance matrix and the expected returns of all stocks in the index).

The standard CAPM theory, as it happens, is a poor guide to the input parameters. For the CAPM, expected returns should be proportional to the stock's beta, though it has in fact been shown that such a relationship does not hold. Likewise, the single-factor nature of the CAPM would mean that there is a single (market) factor driving the correlation of stocks, whereas the consensus in both academe and business is that multifactor models do a better job of capturing the common drivers behind stock comovements.

We generate proxies for tangency portfolios that rely on robust input parameters for both the covariance matrix and expected returns. One challenge is the estimation of expected return parameters. Instead of relying purely on statistics, which is known to generate poor expected return estimates, we use a common sense estimate of expected returns that relies on a risk-reward trade-off. We use the insight that the return on a given stock in excess of the risk-free rate is proportional to the riskiness of the stock. Investors are often underdiversified and averse not only to systematic risk but also to the specific risk of a stock. Investors shun the volatility, negative skewness, and kurtosis of a stock's returns. We use a suitably designed risk measure that integrates these aspects and estimate expected returns by sorting stocks into high risk and low risk categories.

The second central ingredient in the tangency portfolio is an estimate of the covariance of stock returns. We use a robust estimation procedure that first extracts the common factors of stock returns and then uses these factors to model the comovement of individual stocks. This efficient indexation procedure allows us to construct indices whose risk/reward ratio is significantly better than that of cap-weighted indices.

Performance

The following table shows the long term performance of the efficient index method applied the 500 largest securities of the US stock market (see Amenc, Goltz, Martellini and Retkowsky, 2010, "Efficient Indexation: An Alternative to Cap-Weighted Indices", EDHEC-Risk Institute Publication).

Risk and Return of Efficient Indexation – Long-term performance

500 largest US stocks	Ann. Return	Ann. Standard Deviation	Sharpe ratio	Information ratio	Tracking Error
Efficient Index	11.63%	14.65%	0.41	0.52	4.65%
Cap-weighted	9.23%	15.20%	0.24	0.00	0.00%
Difference (Eff. Minus Cap-w.)	2.40%	-0.55%	17.31%	-	-
p-value for difference	0.14%	6.04%	0.04%	-	-

- *Universe consists of the 500 largest capitalisations on the US stock market, submitted to a quarterly review.*
- *Optimal efficient portfolios are constructed by maximising the Sharpe ratio given an expected return estimate and a covariance estimate. The expected return estimate is set to the median total risk of stocks in the same decile when sorting by total risk. The covariance matrix is estimated using an implicit factor model for stock returns. Weight constraints are set so that each stock's weight is between 1/2N and 2/N, where N is the number of index constituents.*
- *Rebalancing is quarterly subject to an optimal control of portfolio turnover, where the optimal efficient portfolio is implemented when the implied two-way turnover exceeds 50% of the portfolio value.*
- *Results are based on weekly total return data from 01/1959 to 12/2008, annualised assuming 52 weeks per year.*
- *Portfolios values are calculated in US dollar. Sharpe ratios are computed using the "Secondary Market US Treasury Bills (3M)" as the risk-free asset.*
- *P-values for differences are computed using the paired t-test for the average, the F-test for volatility, and a Jobson-Korkie test for the Sharpe ratio.*

FTSE EDHEC-Risk Efficient Index Series

The FTSE EDHEC-Risk Efficient Index Series aims to capture equity market returns with an improved risk/reward efficiency compared to cap-weighted indices. The weighting of the portfolio of constituents achieves the highest possible return-to-risk efficiency by maximising the Sharpe ratio.

The index series is based on all constituent securities in the FTSE All-World Index Series. Constituents receive weights which result from EDHEC-Risk's portfolio optimisation reflecting their ability to maximise the reward-to-risk ratio for a broad market index.

To date, the following fourteen indices have been launched:

- FTSE EDHEC-Risk Efficient USA Index
- FTSE EDHEC-Risk Efficient UK Index
- FTSE EDHEC-Risk Efficient Eurobloc Index
- FTSE EDHEC-Risk Efficient Developed Europe Index
- FTSE EDHEC-Risk Efficient Developed Europe ex. United Kingdom Index
- FTSE EDHEC-Risk Efficient Japan Index
- FTSE EDHEC-Risk Efficient Developed Asia Pacific ex. Japan Index
- FTSE EDHEC-Risk Efficient Asia-Pacific ex. Japan Index
- FTSE EDHEC-Risk Efficient Asia-Pacific Index
- FTSE EDHEC-Risk Efficient Developed Index
- FTSE EDHEC-Risk Efficient Emerging Index
- FTSE EDHEC-Risk Efficient All World ex. USA Index
- FTSE EDHEC-Risk Efficient All Word ex. UK Index
- FTSE EDHEC-Risk Efficient All World Index

Performance

The back history of the FTSE EDHEC-Risk Efficient Index Series has shown that the indices have outperformed their counterpart in the FTSE All-World Index Series (large- and mid-cap stocks) since 2002, by approximately 200 basis points annually, whilst typically lowering volatility, which leads to a higher reward-to-risk ratio for investors.

Performance of Efficient vs. Cap.-weighted indices (full history)

Historical Annual Performance	Efficient			Cap-weighted		
	Return	Volatility	Sharpe	Return	Volatility	Sharpe
United States	10.08%	21.08%	0.40	6.79%	20.70%	0.24
United Kingdom	11.29%	19.33%	0.43	7.85%	19.84%	0.24
Eurobloc	7.49%	18.30%	0.28	4.11%	22.04%	0.08
Dev. Europe	11.50%	22.59%	0.43	8.12%	24.30%	0.26
Dev. Europe ex. UK	11.58%	22.70%	0.43	8.24%	25.05%	0.26
Japan	3.56%	19.93%	0.18	0.92%	22.65%	0.04
Dev. Asia-Pac. ex. Japan	16.55%	19.34%	0.77	15.49%	23.21%	0.59
Asia-Pacific ex Japan	18.00%	17.81%	0.91	14.97%	21.87%	0.61
Asia-Pacific	13.22%	17.08%	0.67	10.39%	20.32%	0.43
Developed	10.79%	17.05%	0.53	7.63%	17.72%	0.33
Emerging	21.35%	17.19%	1.14	18.33%	21.55%	0.77
All World ex. US	13.42%	17.43%	0.67	10.03%	19.56%	0.42
All World ex. UK	11.64%	16.39%	0.60	8.31%	17.42%	0.38
All World	11.64%	16.64%	0.60	8.04%	17.76%	0.36

- *Universes of the FTSE EDHEC-Risk Efficient Indices are identical to the universes of their FTSE All-World Index cap-weighted counterparts.*
- *Optimal efficient portfolios are constructed by maximising the Sharpe ratio given an expected return estimate and a covariance estimate. The expected return estimate is set to the median total risk of stocks in the same decile when sorting by total risk. The covariance matrix is estimated using an implicit factor model for stock returns. Weight constraints are set so that each stock's weight is between 1/2N and 2/N, where N is the number of index constituents. From March 2011 onwards, the weight constraints are set to 1/3N and 3/N.*
- *Rebalancing is quarterly subject to an optimal control of portfolio turnover, where the optimal efficient portfolio is implemented when the implied two-way turnover exceeds 50% of the portfolio value. In emerging regions, the threshold is set to 80% of the portfolio value. From March 2011 onwards, the turnover thresholds are set to 70% and 90%.*
- *Statistics are based on weekly total return data, from 20-Dec-02 to 04-May-12, annualised assuming 52 weeks per year.*
- *Portfolios values are calculated in local currency in mono-currency regions and in US Dollar otherwise.*
- *Sharpe ratios are computed using the "Secondary Market US Treasury Bills (3M)" as the risk-free asset in US Dollar, "UK Treasury Bill Tender (3M)" in British Pound, "Euribor (3M)" in Euro, "Japan Gensaki T-Bill (1M)" in Japanese Yen.*

The following table reports the performance over the past five years.

Performance of Efficient vs. Cap.-weighted indices (past 5 years)

Historical Annual Performance	Efficient			Cap-weighted		
	Return	Volatility	Sharpe	Return	Volatility	Sharpe
United States	2.83%	26.62%	0.09	0.49%	26.00%	0.00
United Kingdom	1.95%	23.67%	0.06	0.61%	24.26%	0.00
Eurobloc	-6.27%	22.84%	0.09	-8.22%	26.52%	0.00
Dev. Europe	-3.85%	28.54%	0.06	-5.48%	30.48%	0.00
Dev. Europe ex. UK	-4.76%	28.75%	0.06	-6.52%	31.30%	0.00
Japan	-8.97%	23.15%	0.15	-12.54%	26.59%	0.00
Dev. Asia-Pac. ex. Japan	2.88%	24.20%	0.08	3.56%	29.30%	0.09
Asia-Pacific ex Japan	5.60%	21.95%	0.22	3.71%	27.05%	0.10
Asia-Pacific	2.75%	19.58%	0.15	-0.10%	23.80%	0.00
Developed	0.46%	21.45%	0.10	-1.69%	22.22%	0.00
Emerging	7.76%	20.61%	0.33	2.57%	26.33%	0.06
All World ex. US	0.02%	21.44%	0.12	-2.53%	24.18%	0.00
All World ex. UK	1.53%	20.50%	0.12	-1.01%	21.77%	0.00
All World	1.21%	20.87%	0.12	-1.39%	22.29%	0.00

- *Universes of the FTSE EDHEC-Risk Efficient Indices are identical to the universes of their FTSE All-World Index cap-weighted counterparts.*
- *Optimal efficient portfolios are constructed by maximising the Sharpe ratio given an expected return estimate and a covariance estimate. The expected return estimate is set to the median total risk of stocks in the same decile when sorting by total risk. The covariance matrix is estimated using an implicit factor model for stock returns. Weight constraints are set so that each stock's weight is between 1/2N and 2/N, where N is the number of index constituents. From March 2011 onwards, the weight constraints are set to 1/3N and 3/N.*
- *Rebalancing is quarterly subject to an optimal control of portfolio turnover, where the optimal efficient portfolio is implemented when the implied two-way turnover exceeds 50% of the portfolio value. In emerging regions, the threshold is set to 80% of the portfolio value. From March 2011 onwards, the turnover thresholds are set to 70% and 90%.*
- *Statistics are based on weekly total return data, from 06-May-07 to 04-May-12, annualised assuming 52 weeks per year.*
- *Portfolios values are calculated in local currency in mono-currency regions and in US Dollar otherwise.*
- *Sharpe ratios are computed using the "Secondary Market US Treasury Bills (3M)" as the risk-free asset in US Dollar, "UK Treasury Bill Tender (3M)" in British Pound, "Euribor (3M)" in Euro, "Japan Gensaki T-Bill (1M)" in Japanese Yen.*
- *Note that since negative Sharpe ratios cannot be interpreted, the Sharpe ratios are adjusted in the event they are negative by replacing the risk-free rate with the average return on the cap-weighted index.*

The following table reports the performance over the past three years.

Performance of Efficient vs. Cap.-weighted indices (past 3 years)

Historical Annual Performance	Efficient			Cap-weighted		
	Return	Volatility	Sharpe	Return	Volatility	Sharpe
United States	20.20%	20.13%	1.00	16.48%	19.14%	0.86
United Kingdom	14.41%	18.37%	0.76	13.47%	18.33%	0.71
Eurobloc	7.36%	20.64%	0.31	3.93%	23.04%	0.13
Dev. Europe	12.72%	25.07%	0.50	10.01%	26.03%	0.38
Dev. Europe ex. UK	10.50%	26.35%	0.39	7.09%	27.85%	0.25
Japan	2.89%	17.68%	0.20	-0.71%	19.37%	0.00
Dev. Asia-Pac. ex. Japan	21.70%	19.30%	1.12	19.79%	22.58%	0.87
Asia-Pacific ex Japan	22.42%	17.36%	1.29	17.47%	20.39%	0.85
Asia-Pacific	17.66%	15.37%	1.14	13.13%	17.76%	0.73
Developed	17.14%	17.48%	0.97	13.65%	17.80%	0.76
Emerging	23.55%	16.09%	1.46	15.50%	20.18%	0.76
All World ex. US	16.17%	17.71%	0.91	11.82%	19.28%	0.61
All World ex. UK	17.91%	16.61%	1.07	13.60%	17.26%	0.78
All World	17.87%	16.94%	1.05	13.73%	17.79%	0.77

- *Universes of the FTSE EDHEC-Risk Efficient Indices are identical to the universes of their FTSE All-World Index cap-weighted counterparts.*
- *Optimal efficient portfolios are constructed by maximising the Sharpe ratio given an expected return estimate and a covariance estimate. The expected return estimate is set to the median total risk of stocks in the same decile when sorting by total risk. The covariance matrix is estimated using an implicit factor model for stock returns. Weight constraints are set so that each stock's weight is between 1/2N and 2/N, where N is the number of index constituents. From March 2011 onwards, the weight constraints are set to 1/3N and 3/N.*
- *Rebalancing is quarterly subject to an optimal control of portfolio turnover, where the optimal efficient portfolio is implemented when the implied two-way turnover exceeds 50% of the portfolio value. In emerging regions, the threshold is set to 80% of the portfolio value. From March 2011 onwards, the turnover thresholds are set to 70% and 90%.*
- *Statistics are based on weekly total return data, from 05-May-09 to 04-May-12, annualised assuming 52 weeks per year.*
- *Portfolios values are calculated in local currency in mono-currency regions and in US Dollar otherwise.*
- *Sharpe ratios are computed using the "Secondary Market US Treasury Bills (3M)" as the risk-free asset in US Dollar, "UK Treasury Bill Tender (3M)" in British Pound, "Euribor (3M)" in Euro, "Japan Gensaki T-Bill (1M)" in Japanese Yen.*
- *Note that since negative Sharpe ratios cannot be interpreted, the Sharpe ratios are adjusted in the event they are negative by replacing the risk-free rate with the average return on the cap-weighted index.*

The following table reports the live performance of the indices.

Performance of Efficient vs. Cap.-weighted indices (since live date)

Historical Annual Performance	Efficient			Cap-weighted		
	Return	Volatility	Sharpe	Return	Volatility	Sharpe
Panel A : indices with live date 23rd November 2009						
United States	15.32%	19.43%	0.78	11.34%	19.06%	0.59
United Kingdom	7.67%	17.80%	0.41	6.14%	18.41%	0.31
Eurobloc	0.45%	20.56%	0.16	-2.78%	23.43%	0.00
Japan	2.30%	17.77%	0.16	-0.59%	19.26%	0.00
Dev. Asia-Pac. ex. Japan	8.71%	18.85%	0.46	7.67%	22.27%	0.34
Panel B : indices with live date 4th October 2010						
Dev. Europe	1.17%	24.49%	0.08	-0.84%	26.58%	0.00
Dev. Europe ex. UK	2.24%	26.41%	0.24	-4.21%	28.89%	0.00
Asia-Pacific ex Japan	2.37%	17.11%	0.13	1.31%	20.35%	0.06
Asia-Pacific	3.18%	15.39%	0.20	1.40%	18.01%	0.07
Developed	8.67%	16.81%	0.51	6.86%	18.27%	0.37
Emerging	2.47%	15.45%	0.43	-4.18%	19.32%	0.00
All World ex. US	2.57%	17.27%	0.15	-0.10%	19.52%	0.00
All World ex. UK	8.05%	16.00%	0.50	5.63%	17.63%	0.32
All World	7.88%	16.27%	0.48	6.32%	18.19%	0.34

- *Universes of the FTSE EDHEC-Risk Efficient Indices are identical to the universes of their FTSE All-World Index cap-weighted counterparts.*
- *Optimal efficient portfolios are constructed by maximising the Sharpe ratio given an expected return estimate and a covariance estimate. The expected return estimate is set to the median total risk of stocks in the same decile when sorting by total risk. The covariance matrix is estimated using an implicit factor model for stock returns. Weight constraints are set so that each stock's weight is between 1/2N and 2/N, where N is the number of index constituents. From March 2011 onwards, the weight constraints are set to 1/3N and 3/N.*
- *Rebalancing is quarterly subject to an optimal control of portfolio turnover, where the optimal efficient portfolio is implemented when the implied two-way turnover exceeds 50% of the portfolio value. In emerging regions, the threshold is set to 80% of the portfolio value. From March 2011 onwards, the turnover thresholds are set to 70% and 90%.*
- *Statistics are based on weekly total return data, from 20-Nov-09 (or 04-Oct-2010) to 04-May-12, annualised assuming 52 weeks per year.*
- *Portfolios values are calculated in local currency in mono-currency regions and in US Dollar otherwise.*
- *Sharpe ratios are computed using the "Secondary Market US Treasury Bills (3M)" as the risk-free asset in US Dollar, "UK Treasury Bill Tender (3M)" in British Pound, "Euribor (3M)" in Euro, "Japan Gensaki T-Bill (1M)" in Japanese Yen.*
- *Note that since negative Sharpe ratios cannot be interpreted, the Sharpe ratios are adjusted in the event they are negative by replacing the risk-free rate with the average return on the cap-weighted index.*

The following table reports, when available, the live performance over the last year.

Live Performance of Efficient vs. Cap.-weighted indices (last year)

Historical Annual Performance	Efficient			Cap-weighted		
	Return	Volatility	Sharpe	Return	Volatility	Sharpe
United States	2.92%	21.82%	0.13	3.66%	22.73%	0.16
United Kingdom	-1.88%	19.50%	0.00	-1.88%	20.87%	0.00
Eurobloc	-14.10%	22.99%	0.13	-17.09%	27.54%	0.00
Dev. Europe	-15.28%	27.68%	0.05	-16.62%	30.19%	0.00
Dev. Europe ex. UK	-20.21%	29.65%	0.07	-22.18%	32.96%	0.00
Japan	-2.36%	14.03%	0.35	-7.22%	16.83%	0.00
Dev. Asia-Pac. ex. Japan	-7.65%	21.17%	0.00	-7.65%	25.57%	0.00
Asia-Pacific ex Japan	-5.93%	19.03%	0.13	-8.34%	23.01%	0.00
Asia-Pacific	-4.32%	16.06%	0.21	-7.62%	19.52%	0.00
Developed	-4.26%	19.20%	0.05	-5.20%	20.99%	0.00
Emerging	-5.14%	17.21%	0.34	-11.00%	21.80%	0.00
All World ex. US	-9.56%	19.21%	0.16	-12.56%	21.99%	0.00
All World ex. UK	-4.40%	18.27%	0.09	-6.01%	20.27%	0.00
All World	-4.36%	18.54%	0.07	-5.59%	20.88%	0.00

- *Universes of the FTSE EDHEC-Risk Efficient Indices are identical to the universes of their FTSE All-World Index cap-weighted counterparts.*
- *Optimal efficient portfolios are constructed by maximising the Sharpe ratio given an expected return estimate and a covariance estimate. The expected return estimate is set to the median total risk of stocks in the same decile when sorting by total risk. The covariance matrix is estimated using an implicit factor model for stock returns. Weight constraints are set so that each stock's weight is between 1/2N and 2/N, where N is the number of index constituents. From March 2011 onwards, the weight constraints are set to 1/3N and 3/N.*
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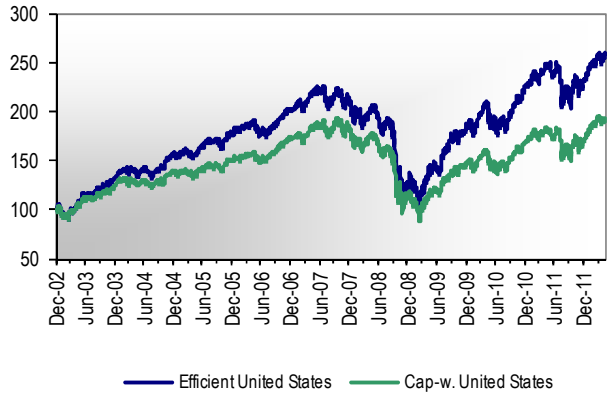
- *Statistics are based on weekly total return data, from 05-May-11 to 04-May-12, annualised assuming 52 weeks per year.*
- *Portfolios values are calculated in local currency in mono-currency regions and in US Dollar otherwise.*
- *Sharpe ratios are computed using the "Secondary Market US Treasury Bills (3M)" as the risk-free asset in US Dollar, "UK Treasury Bill Tender (3M)" in British Pound, "Euribor (3M)" in Euro, "Japan Gensaki T-Bill (1M)" in Japanese Yen.*
- *Note that since negative Sharpe ratios cannot be interpreted, the Sharpe ratios are adjusted in the event they are negative by replacing the risk-free rate with the average return on the cap-weighted index.*

Performance Charts

The following charts report the index values of the FTSE EDHEC-Risk Efficient Indices, compared to their market-cap-weighted counterparts in the FTSE All-World Index Series (large- and mid-cap stocks). When covering a single-currency market, the FTSE EDHEC-Risk Efficient Index is valued in the local currency and in US Dollar otherwise. At inception date (20-Dec-02), the index values are set to 100, and the latest index value is dated 04-May-12. Top 10 holdings and sector weights are based on stock values on 04-May-2012.

United States Index



Current top 10 holdings – United States

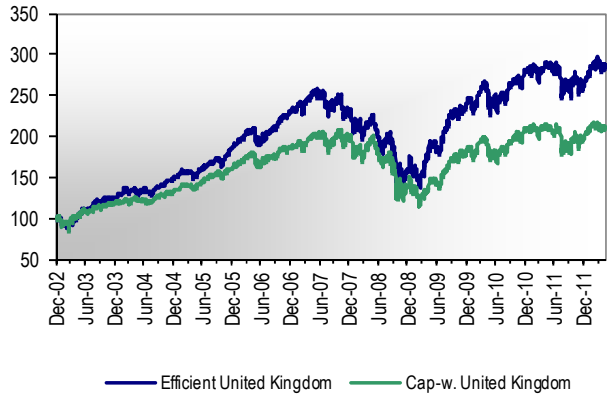
Stocks	Country
Dollar Tree	USA
O Reilly Auto	USA
Biogen Idec	USA
Watson Pharmaceuticals	USA
Visa	USA
CVS Caremark	USA
Autozone	USA
Accenture Cl A	USA
Abbott Laboratories	USA
McDonalds Corp	USA

Current sector weights – United States

Sector	Weight
Oil & Gas	5.1%
Basic Materials	2.9%
Industrials	7.8%
Consumer Goods	15.2%
Health Care	13.8%
Consumer Services	18.7%
Telecommunications	2.1%
Utilities	5.8%
Financials	17.7%
Technology	10.8%

Efficient Index Factsheet

United Kingdom Index



Current top 10 holdings – United Kingdom

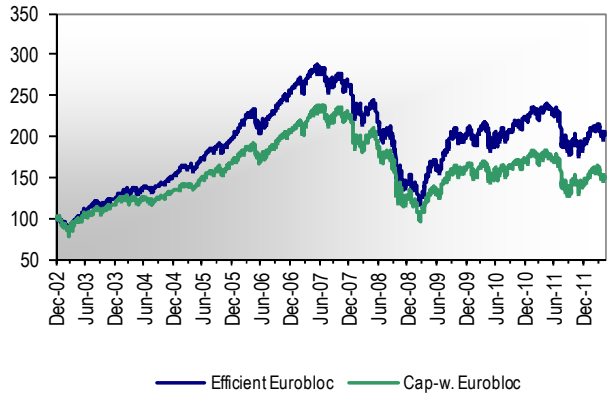
Stocks	Country
Randgold Resources	UK
SSE	UK
Experian	UK
United Utilities Group	UK
Rexam	UK
British Land Co	UK
Bunzl	UK
Resolution	UK
Smith & Nephew	UK
Fresnillo	UK

Current sector weights – United Kingdom

Sector	Weight
Oil & Gas	5.3%
Basic Materials	10.2%
Industrials	19.7%
Consumer Goods	5.5%
Health Care	6.4%
Consumer Services	15.3%
Telecommunications	2.7%
Utilities	11.4%
Financials	21.1%
Technology	2.6%

Efficient Index Factsheet

Eurobloc Index



Current top 10 holdings – Eurobloc

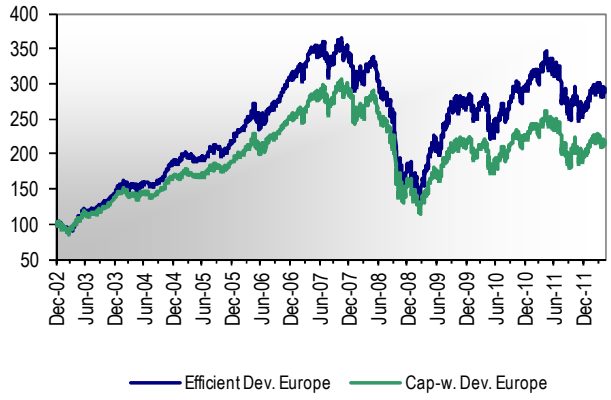
Stocks	Country
Hermes International S.C.A.	FRA
Merck Kgaa	GER
Grifols	SP
Essilor Intl	FRA
SAP	GER
Bureau Veritas S.A.	FRA
Kerry Group 'A'	IRE
Fresenius Medical Care	GER
Ryanair Holdings	IRE
Ahold	NETH

Current sector weights – Eurobloc

Sector	Weight
Oil & Gas	3.3%
Basic Materials	7.0%
Industrials	14.5%
Consumer Goods	17.9%
Health Care	11.2%
Consumer Services	13.1%
Telecommunications	4.9%
Utilities	7.7%
Financials	13.9%
Technology	6.4%

Efficient Index Factsheet

Developed Europe Index



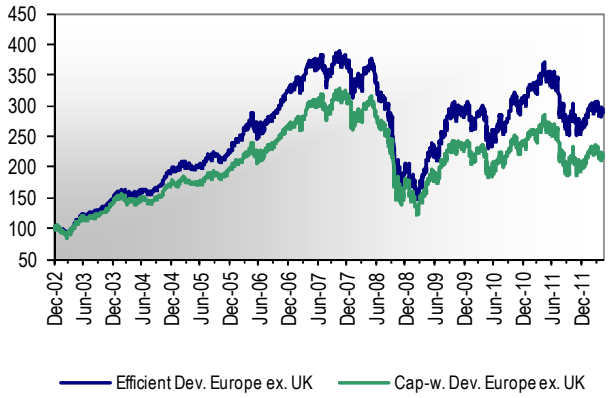
Current top 10 holdings – Developed Europe

Stocks	Country
Randgold Resources	UK
SSE	UK
Experian	UK
United Utilities Group	UK
Hermes International S.C.A.	FRA
Rexam	UK
British Land Co	UK
Merck Kgaa	GER
Grifols	SP
Bunzl	UK

Current sector weights – Developed Europe

Sector	Weight
Oil & Gas	4.5%
Basic Materials	8.5%
Industrials	17.2%
Consumer Goods	13.1%
Health Care	13.3%
Consumer Services	11.6%
Telecommunications	4.1%
Utilities	7.4%
Financials	16.4%
Technology	3.9%

Developed Europe ex. UK Index



Current top 10 holdings – Developed Europe ex UK

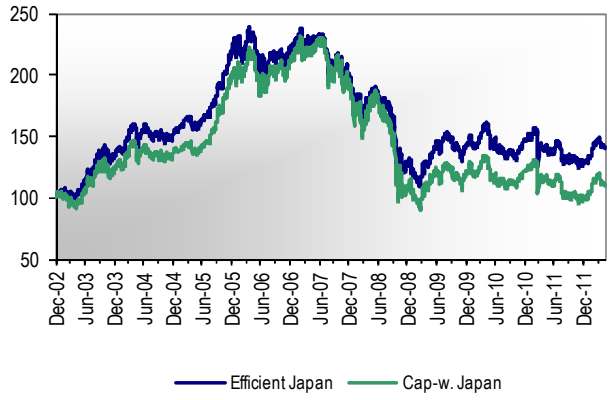
Stocks	Country
Hermes International S.C.A.	FRA
Merck Kgaa	GER
Grifols	SP
Novo-Nordisk B	DEN
Essilor Intl	FRA
Coloplast B	DEN
SGS S.A.	SWIT
Givaudan N	SWIT
Sonova Holding AG	SWIT
SAP	GER

Current sector weights – Developed Europe ex UK

Sector	Weight
Oil & Gas	4.2%
Basic Materials	7.6%
Industrials	15.9%
Consumer Goods	17.1%
Health Care	16.9%
Consumer Services	9.6%
Telecommunications	4.8%
Utilities	5.3%
Financials	14.0%
Technology	4.6%

Efficient Index Factsheet

Japan Index



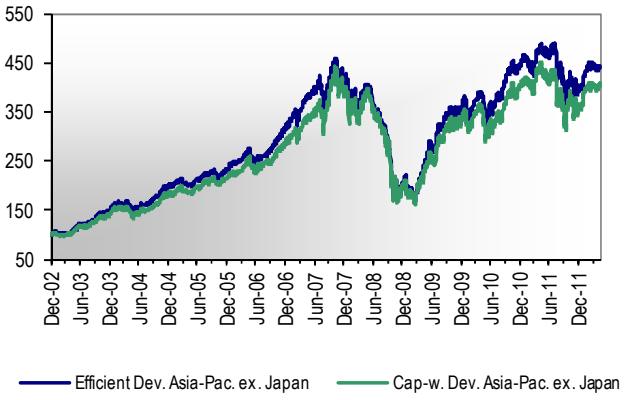
Current top 10 holdings - Japan

Stocks	Country
Lawson	JA
Uni-Charm	JA
Shimano	JA
Oriental Land	JA
Toyo Suisan Kaisha	JA
Namco Bandai Holdings	JA
Fast Retailing	JA
Benesse Holdings	JA
Familymart	JA
Keikyu Corporation	JA

Current sector weights – Japan

Sector	Weight
Oil & Gas	1.3%
Basic Materials	8.7%
Industrials	19.6%
Consumer Goods	19.8%
Health Care	8.8%
Consumer Services	16.8%
Telecommunications	1.1%
Utilities	5.3%
Financials	12.6%
Technology	6.0%

Developed Asia-Pacific ex. Japan Index



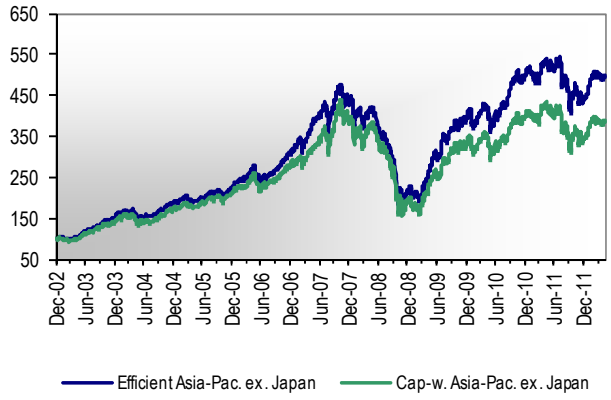
Current top 10 holdings – Dev. Asia-Pac. ex. Japan

Stocks	Country
Hengan Intl Group	HK
Iluka Resources	AU
Singapore Telecom	SI
Link Real Estate Investment Trust	HK
CSL	AU
United Overseas Bank	SI
Commonwealth Property Office Fund	AU
Amorepacific Corp	KOR
Telecom Corp. Of Nz	NZ
Tingyi (Cayman Islands) Holdings	HK

Current sector weights – Dev. Asia-Pac. Ex. Japan

Sector	Weight
Oil & Gas	2.1%
Basic Materials	6.4%
Industrials	15.5%
Consumer Goods	17.1%
Health Care	4.1%
Consumer Services	15.4%
Telecommunications	6.5%
Utilities	6.3%
Financials	23.4%
Technology	3.3%

Asia-Pacific ex. Japan Index



Current top 10 holdings – Asia-Pac. ex. Japan

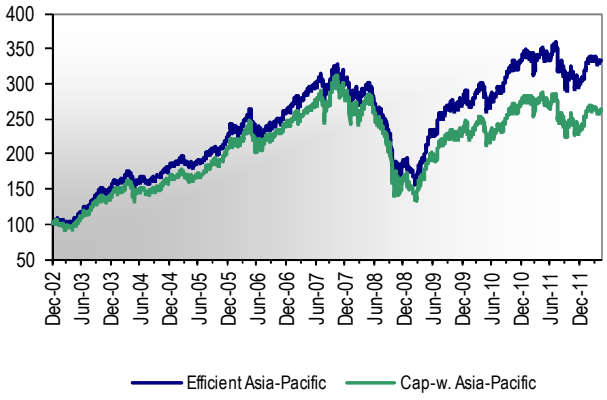
Stocks	Country
Hengan Intl Group	HK
Iluka Resources	AU
Singapore Telecom	SI
Link Real Estate Investment Trust	HK
CSL	AU
United Overseas Bank	SI
Commonwealth Property Office Fund	AU
Amorepacific Corp	KOR
Telecom Corp. Of Nz	NZ
Tingyi (Cayman Islands) Holdings	HK

Current sector weights – Asia-Pac. Ex. Japan

Sector	Weight
Oil & Gas	4.2%
Basic Materials	5.9%
Industrials	16.3%
Consumer Goods	16.3%
Health Care	4.2%
Consumer Services	12.1%
Telecommunications	8.3%
Utilities	6.2%
Financials	22.1%
Technology	4.4%

Efficient Index Factsheet

Asia-Pacific Index



Current top 10 holdings – Asia-Pacific

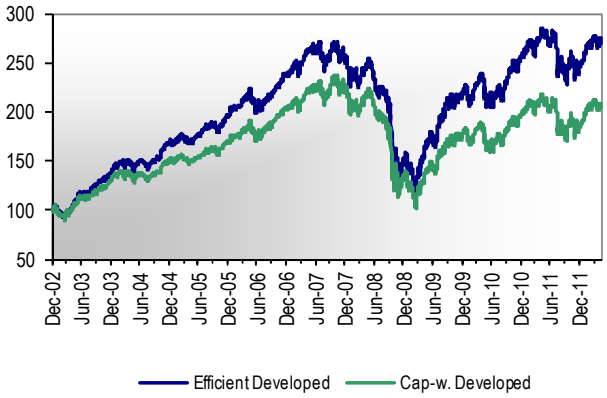
Stocks	Country
Hengan Intl Group	HK
Iluka Resources	AU
Singapore Telecom	SI
Link Real Estate Investment Trust	HK
CSL	AU
United Overseas Bank	SI
Commonwealth Property Office Fund	AU
Amorepacific Corp	KOR
Telecom Corp. Of Nz	NZ
Tingyi (Cayman Islands) Holdings	HK

Current sector weights – Asia-Pacific

Sector	Weight
Oil & Gas	3.2%
Basic Materials	6.9%
Industrials	17.4%
Consumer Goods	17.5%
Health Care	5.8%
Consumer Services	13.8%
Telecommunications	5.8%
Utilities	5.9%
Financials	18.8%
Technology	5.0%

Efficient Index Factsheet

Developed Index



Current top 10 holdings – Developed

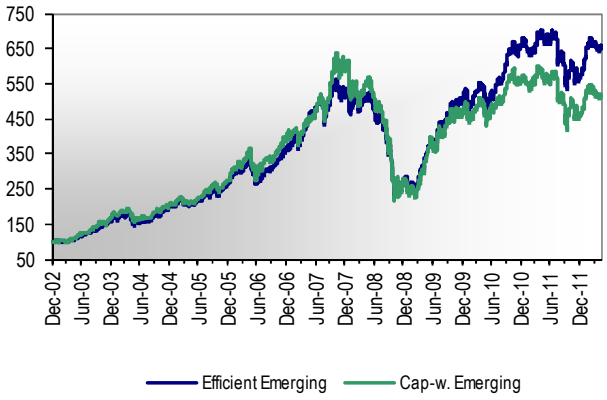
Stocks	Country
Dollar Tree	USA
O Reilly Auto	USA
Biogen Idec	USA
Watson Pharmaceuticals	USA
Visa	USA
CVS Caremark	USA
Autozone	USA
Accenture Cl A	USA
Abbott Laboratories	USA
McDonalds Corp	USA

Current sector weights – Developed

Sector	Weight
Oil & Gas	4.9%
Basic Materials	5.6%
Industrials	11.8%
Consumer Goods	14.7%
Health Care	11.9%
Consumer Services	16.3%
Telecommunications	3.5%
Utilities	6.4%
Financials	17.4%
Technology	7.5%

Efficient Index Factsheet

Emerging Index



Current top 10 holdings – Emerging

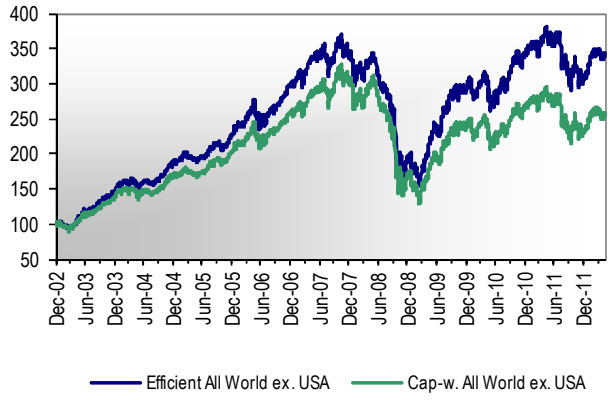
Stocks	Country
Empresa Nacional de Electricidad /Chile	CHL
Sabesp ON	BRAZ
BIM Birlesik Magazalar	TUR
Souza Cruz ON	BRAZ
Walmex Stk V	MEX
Cemig PN	BRAZ
Grupo Modelo C	MEX
Advanced Info Serv	THAI
CP ALL	THAI
Grupo Bimbo S.A.B. de C.V.	MEX

Current sector weights – Emerging

Sector	Weight
Oil & Gas	5.9%
Basic Materials	7.2%
Industrials	12.6%
Consumer Goods	13.7%
Health Care	3.9%
Consumer Services	10.0%
Telecommunications	11.3%
Utilities	11.4%
Financials	20.9%
Technology	3.1%

Efficient Index Factsheet

All-World ex. USA Index



Current top 10 holdings – All-World ex. USA

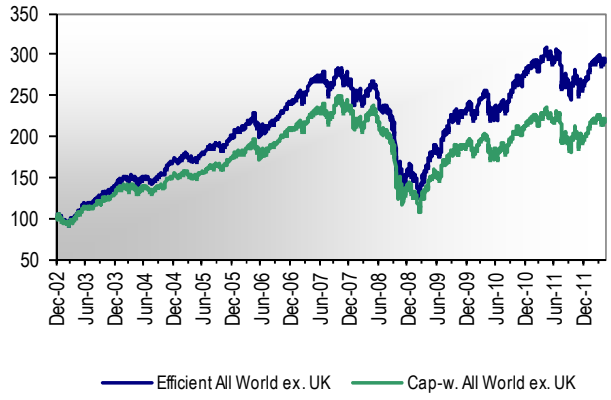
Stocks	Country
Randgold Resources	UK
SSE	UK
Experian	UK
Enbridge	CAN
United Utilities Group	UK
Tim Hortons	CAN
Hermes International S.C.A.	FRA
Rexam	UK
British Land Co	UK
Merck Kgaa	GER

Current sector weights – All-World ex. USA

Sector	Weight
Oil & Gas	5.0%
Basic Materials	8.1%
Industrials	15.3%
Consumer Goods	14.0%
Health Care	8.6%
Consumer Services	12.9%
Telecommunications	6.3%
Utilities	7.9%
Financials	17.9%
Technology	3.9%

Efficient Index Factsheet

All-World ex. UK Index



Current top 10 holdings – All-World ex. UK

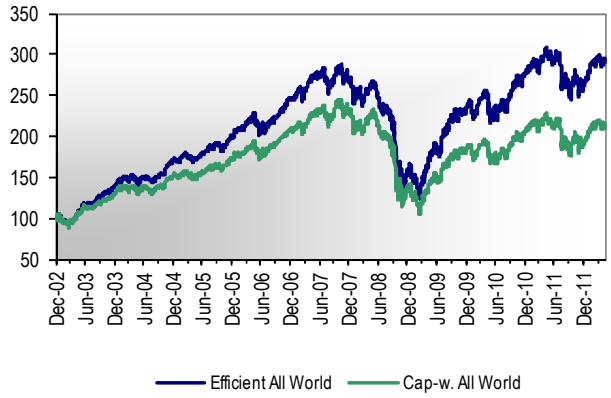
Stocks	Country
Dollar Tree	USA
O Reilly Auto	USA
Biogen Idec	USA
Watson Pharmaceuticals	USA
Visa	USA
CVS Caremark	USA
Autozone	USA
Accenture Cl A	USA
Abbott Laboratories	USA
McDonalds Corp	USA

Current sector weights – All-World ex. UK

Sector	Weight
Oil & Gas	5.0%
Basic Materials	5.4%
Industrials	11.2%
Consumer Goods	15.4%
Health Care	11.4%
Consumer Services	15.6%
Telecommunications	4.5%
Utilities	6.6%
Financials	17.5%
Technology	7.4%

Efficient Index Factsheet

All-World Index



Current top 10 holdings – All-World

Stocks	Country
Dollar Tree	USA
O Reilly Auto	USA
Biogen Idec	USA
Watson Pharmaceuticals	USA
Visa	USA
CVS Caremark	USA
Autozone	USA
Accenture Cl A	USA
Abbott Laboratories	USA
McDonalds Corp	USA

Current sector weights – All-World

Sector	Weight
Oil & Gas	5.0%
Basic Materials	5.8%
Industrials	11.9%
Consumer Goods	14.6%
Health Care	11.0%
Consumer Services	15.5%
Telecommunications	4.4%
Utilities	7.0%
Financials	17.8%
Technology	7.0%

Regional coverage

The following table lists the countries covered by the constituents of the FTSE EDHEC-Risk Efficient Index Series.

Regional coverage of the FTSE EDHEC-Risk Efficient Indices

Country	United States	United Kingdom	Eurobloc	Dev. Europe	Dev. Europe ex. UK	Japan	Dev. Asia-Pac. ex. Jap.	Asia-Pacific ex. Japan	Asia-Pacific	Developed	Emerging	All World ex. USA	All World ex. UK	All World
Australia							x	x	x	x		x	x	x
Austria			x	x	x					x		x	x	x
Belgium/Luxembourg			x	x	x					x		x	x	x
Brazil											x	x	x	x
Canada										x		x	x	x
Chile											x	x	x	x
China								x	x		x	x	x	x
Colombia											x	x	x	x
Czech Republic											x	x	x	x
Denmark				x	x					x		x	x	x
Egypt											x	x	x	x
Finland			x	x	x					x		x	x	x
France			x	x	x					x		x	x	x
Germany			x	x	x					x		x	x	x
Greece			x	x	x					x		x	x	x
Hong Kong							x	x	x	x		x	x	x
Hungary											x	x	x	x
India								x	x		x	x	x	x
Indonesia								x	x		x	x	x	x
Ireland			x	x	x					x		x	x	x
Israel										x		x	x	x
Italy			x	x	x					x		x	x	x
Japan						x			x	x		x	x	x
Korea							x	x	x	x		x	x	x
Malaysia								x	x		x	x	x	x
Mexico											x	x	x	x
Morocco											x	x	x	x
Netherlands			x	x	x					x		x	x	x
New Zealand							x	x	x	x		x	x	x
Norway				x	x					x		x	x	x
Pakistan								x	x		x	x	x	x
Peru											x	x	x	x
Philippines								x	x		x	x	x	x
Poland											x	x	x	x
Portugal			x	x	x					x		x	x	x
Russia											x	x	x	x
Singapore							x	x	x	x		x	x	x
South Africa											x	x	x	x
Spain			x	x	x					x		x	x	x
Sweden				x	x					x		x	x	x
Switzerland				x	x					x		x	x	x
Taiwan								x	x		x	x	x	x
Thailand								x	x		x	x	x	x
Turkey											x	x	x	x
UAE											x	x	x	x
UK		x		x						x		x		x
USA	x									x			x	x