



HSBC GLOBAL MARKETS INDICES

HSBC Optimised FX Forwards Index Series *January 2009*

This is not a Research document

GLOBAL MARKETS

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Contents

HSBC Optimised FX Forwards Index Series

Summary	2
Why invest in high yield currencies?	2
Diversify your portfolio – Benefit from low correlation	4
Put the FX World in your portfolio – The single currency indices	6
Utilising FX forward agreements	7
HSBC Optimised FX Forwards 10 Index	8
HSBC Optimised Dynamic FX Forwards Index	9
Historical theoretical performance	10
Indices at HSBC	12
Important Note	13

HSBC Optimised FX Forwards Index Series

Summary

World interest rates have historically always been very unequal with large differences between low yielding currencies, like the US dollar, and historically high yielding currencies, like the Turkish Lira and the Brazilian Real. The HSBC Optimised FX Forwards Index Series aims to offer investors equivalent returns under normal market conditions to those achieved in rolling 3-month foreign currency deposits. The index series offers 14 single currency indices as well as two composite indices. These 14 single currency indices cover currencies of every continent in the world, offering great geographical diversification. One of the benefits of the geographic diversification is the low correlation between some of these currencies. The two composite indices, which are baskets of up to ten single currency indices, can profit from this low correlation, except in the most extreme circumstances such as the one being experienced in the last quarter of 2008 as a result of the global credit crunch. Additionally, correlation between these FX Forwards Indices and traditional asset classes, such as equities and USD cash deposits, has been very low historically.

The HSBC Optimised FX Forwards 10 Index invests in an equally weighted basket of ten pre-defined single currency indices, where weights are reset quarterly. The HSBC Optimised Dynamic FX Forwards Index invests in an equally weighted basket of the ten highest yielding currencies, which are fixed every quarter. With this index series potential investors have the choice of exposure to one single currency, a bespoke basket of several currencies, or to one of the composite indices. HSBC will offer structured products linked to these FX Forwards Indices.

Why invest in high yield currencies?

In general, short term interest rates in the developed countries such the US, Europe, Switzerland and Japan have been low compared with emerging countries. For countries such as Brazil and Turkey this difference has been particularly large. Exceptions, however, include South Korea and some other countries such as Singapore, where interest rates have been historically low. High yielding currencies often play an important role in direct investment flows and portfolio flows as well as in yield enhancement investments.

Several causes result in yield differences between emerging markets and developed countries. GDP for the developing world was 6.3% in 2008 (expected value) compared with 1.3% for high income countries.¹ As the developing economies grow, the further development of businesses, construction, infrastructure and alike increases the demand for credit in these countries. This historically has and usually would result in higher interest rates. Higher rates of interest are also a function of credit risk and inflation outlook. Table 1 shows the credit ratings of the countries included in the HSBC Optimised FX Forwards Index Series.

¹ World Bank: Global Economic Prospects 2009

Table 1: Country credit ratings

Country	Issuer Name	Moody's	S&P	Fitch
Australia	Australian Government	Aaa	N/A	AAA
Brazil	Federal Republic of Brazil	Ba1	BBB-	BBB-
Hungary	Republic of Hungary	A3	BBB	BBB
India	India Government	Ba2	N/A	BBB-
Mexico	United Mexican States	Baa1	BBB+	BBB+
New Zealand	New Zealand Government	Aaa	AAA	AAA
Poland	Republic of Poland	A2	A-	A-
Russia	Russian Federation	Baa1	BBB	BBB+
Singapore	Singapore Government	Aaa	AAA	AAA
South Africa	Republic of South Africa	Baa1	BBB+	BBB+
South Korea	Republic of Korea	A2	A	A+
Thailand	Kingdom of Thailand	Baa1	BBB+	N/A
Turkey	Republic of Turkey	Ba3	BB-	BB-
Great Britain	United Kingdom Treasury	Aaa	AAA	AAA

Source: Bloomberg, as of 5 January 2008

In normal market conditions high yielding currencies have often encouraged carry trades. These involve investors using their own cash or borrowing in low yielding currencies to invest in high yielding currencies. Over the last few years, the total accumulated returns from this type of carry trade have been very significant, even when one takes into account the recent sell off. Obviously, markets can become overstretched in either direction. There is always the risk of the low yielding currency appreciating when risk aversion becomes high. The HSBC Optimised FX Forwards Index Series is exposed to this risk.

Diversify your portfolio – Benefit from low correlation

Currency investments help to diversify client portfolios as they often have low correlation with traditional asset classes, such as equities and USD cash deposits. The correlation between currency strategies and stock markets lies around 0.08 (where a correlation of zero represents no correlation between two variables and a correlation of 1 represents the strongest possible positive correlation).² This is one of the reasons why currencies are becoming a progressively popular asset class. Investors in this asset class also profit from the greater liquidity traditionally offered by the foreign exchange market, which, under normal conditions, has been one of the most liquid financial markets in comparison to other markets such as the equities market. According to the Bank for International Settlement the average daily traded volume in foreign exchange dealing amounts to the equivalent of USD 3 billion.³

The utilised FX forward agreements (discussed further below) benefit from this potential liquidity and aim to capture the interest rate differential of the two relevant currencies. In addition to the liquidity, the FX market also makes some restricted local emerging markets accessible.

Table 2: Correlation between asset classes

Asset Class	Index	Currencies	Currencies	US Equity	European Equity	Japanese Equity	USD LIBOR	Commodity	Property
Currencies	HSIX10FX Index	100%	90%	41%	57%	22%	-3%	32%	40%
Currencies	HSIXDYFX Index	90%	100%	45%	63%	20%	-2%	35%	45%
US Equity	SPX Index	41%	45%	100%	48%	2%	-1%	14%	77%
EU Equity	SX5E Index	57%	63%	48%	100%	31%	-2%	31%	49%
Jap. Equity	NKY Index	22%	20%	2%	31%	100%	3%	16%	11%
US LIBOR	USC0TR03 Index	-3%	-2%	-1%	-2%	3%	100%	-5%	-4%
Commodity	SPGCCITR Index	32%	35%	14%	31%	16%	-5%	100%	14%
Property	SREIT Index	40%	45%	77%	49%	11%	-4%	14%	100%

Source: HSBC Global Markets, Bloomberg; calculated for the period from 19 March 2003 to 31 December 2008 using historically simulated data for the HSBC Optimised FX Forwards Composite Indices; all returns are measured in the currency of the relevant index.

Past results are not indicative of future results. Note that correlation is based on static assumptions which may change in real life. Economic conditions may change. Correlation does not include systemic risk factors.

² <http://www.banklounge.de>, 2. October 2008

³ Frankfurter Allgemeine Zeitung, 21 July 2008

Additional diversification effect – Low correlation between currencies

Correlations between the economies of countries should be reflected in the correlation of currency returns. Comparatively stronger economies with low inflation and sound fiscal positions, on the whole, lead to strong currencies. In addition, currencies should normally be influenced by factors such as trade balances, the structure of drivers for the domestic economies as well as the regulation of exchanges within a country.

While the economies in Brazil and Russia are mainly driven by their natural resources, India's economy is focused primarily on information technology, while the potential of China's and Mexico's economies is due to their comparatively strong manufacturing sectors. While Mexico's foreign trade is mainly with the US (75%)⁴, in Brazil trade relations with the EU (25%) play a major role.⁵ Russia, meanwhile, generates most of its external trade with Germany.

These differences lead to low correlations between the currencies of the regarded regions, therefore generating a further diversification effect in addition to the low correlation with other asset classes.

It must be pointed out that despite the diversity of the currencies, the recent market environment of 2008 has been driven initially by the subprime credit crisis in the US, but has then spread to a credit crisis across the globe. The repatriation of funds from developing countries has caused indiscriminate falls in all currencies versus the 'safe havens' of the US dollar, the Japanese Yen and the Swiss Franc.

Table 3: Benefits of diversification: Correlation between single currency indices (base USD)

	HSIXAUDF Index	HSIXBRLF Index	HSIXGBPF Index	HSIXHUFF Index	HSIXINRF Index	HSIXKRWF Index	HSIXMXNF Index	HSIXNZDF Index	HSIXPLNF Index	HSIXRUBF Index	HSIXSGDF Index	HSIXTHBF Index	HSIXTRYF Index	HSIXZARF Index
HSIXAUDF Index	100%	48%	56%	58%	34%	23%	41%	84%	57%	28%	57%	14%	43%	55%
HSIXBRLF Index	48%	100%	25%	40%	17%	17%	54%	41%	40%	17%	35%	7%	49%	47%
HSIXGBPF Index	56%	25%	100%	57%	20%	20%	30%	56%	58%	34%	48%	14%	27%	35%
HSIXHUFF Index	58%	40%	57%	100%	21%	16%	45%	56%	77%	35%	52%	13%	49%	60%
HSIXINRF Index	34%	17%	20%	21%	100%	33%	14%	26%	21%	21%	28%	11%	31%	15%
HSIXKRWF Index	23%	17%	20%	16%	33%	100%	20%	21%	15%	17%	35%	13%	25%	15%
HSIXMXNF Index	41%	54%	30%	45%	14%	20%	100%	37%	41%	15%	30%	5%	40%	47%
HSIXNZDF Index	84%	41%	56%	56%	26%	21%	37%	100%	54%	25%	54%	15%	42%	50%
HSIXPLNF Index	57%	40%	58%	77%	21%	15%	41%	54%	100%	39%	53%	14%	47%	54%
HSIXRUBF Index	28%	17%	34%	35%	21%	17%	15%	25%	39%	100%	32%	9%	23%	18%
HSIXSGDF Index	57%	35%	48%	52%	28%	35%	30%	54%	53%	32%	100%	26%	35%	40%
HSIXTHBF Index	14%	7%	14%	13%	11%	13%	5%	15%	14%	9%	26%	100%	13%	9%
HSIXTRYF Index	43%	49%	27%	49%	31%	25%	40%	42%	47%	23%	35%	13%	100%	51%
HSIXZARF Index	55%	47%	35%	60%	15%	15%	47%	50%	54%	18%	40%	9%	51%	100%

Source: HSBC Global Markets; calculated for the period from 19 March 2003 to 31 December 2008 using historically simulated data. Past results are not indicative of future results. All returns are measured in US dollars.

⁴ <http://www.auswaertiges-amt.de/diplo/de/Laenderinformationen/Mexiko/Bilateral.html> , March 2008

⁵ <http://www.auswaertiges-amt.de/diplo/de/Laenderinformationen/Brasilien/Wirtschaft.html>, April 2008

Put the FX World in your portfolio – The single currency indices

The HSBC Optimised FX Forwards Index Series offers a broad geographical and economical diversification to investors. This index series offers 14 single currency indices, which are all listed in Table 4.

The HSBC Optimised FX Forwards Index Series makes the yield of currencies like the Brazilian Real, the Indian Rupee or the South African Rand easily accessible to investors. Local currency deposits for several of the countries included are not accessible to off-shore investors.

Recent developments in financial markets have shown the importance of transparency and liquidity in investment products. HSBC Global Markets has come up with a novel index creation methodology, which focuses on transparency and liquidity. For several of the markets covered, the FX markets are more liquid than the money markets at the present time. Only adequately tradable currencies are incorporated in the Index Series. The transparent index mechanism is therefore explained on the following page.

Table 4: Countries covered by the HSBC Optimised FX Forwards Index Series

Region	Currency	Bloomberg Ticker	Implied Interest Rate as on 4 th December 2008 (last decision date)
Africa	South African Rand	HSIXZARF Index	11.12%
Asia	Indian Rupee	HSIXINRF Index	16.42%
	Singaporean Dollar	HSIXSGDF Index	1.89%
	South Korean Won	HSIXKRWF Index	-0.40%
	Thai Baht	HSIXTHBF Index	6.85%
	Turkish Lira	HSIXTRYF Index	15.97%
Australia	Australian Dollar	HSIXAUDF Index	4.29%
	New Zealand Dollar	HSIXNZDF Index	4.99%
Eastern Europe	Hungarian Forint	HSIXHUFF Index	7.80%
	Polish Zloty	HSIXPLNF Index	5.07%
	Russian Rouble	HSIXRUBF Index	45.77%
Latin America	Brazilian Real	HSIXBRLF Index	18.48%
	Mexican Peso	HSIXMXNF Index	11.08%
Western Europe	British Pound	HSIXGBPF Index	2.19%

Source: HSBC Quantitative Techniques; implied interest rates were calculated using historically simulated data. Simulated results are not indicative of future results.

Single currency indices – Index mechanism

The index series invests in the currencies by entering in FX forward agreements (see next section for details). At the same time the index value is placed at rolling 3-month USD LIBOR interest rates. The index value on any day is determined by the sum of the mark to market value of the FX forward agreements and the accruing USD cash position invested at the 3-month USD LIBOR rate.

Settlement date: The third Wednesdays of March, June, September and December of each year and if such date is not a business day the following business day.

Roll date: Four business days prior to a settlement date. On these roll dates, the current FX forward agreement is off-set and it is entered into a new FX forward agreement until the next settlement date. The equivalent of the index value in USD is reinvested at the 3-month USD LIBOR rate.

The method aims to capture foreign interest rates, as the FX forward agreement takes the interest rate differential between USD and the respective foreign currency into account. At the same time the value of the FX forward agreement is influenced by the current spot exchange rate of the respective local currency against the USD.

Utilising FX forward agreements

A FX forward agreement is a contract that obligates the holder to buy one currency against the sale of the other for a predetermined forward rate at a predetermined future time. One has to note that it is only a contract and that no money is exchanged initially. In a 3-month forward agreement, for example, both parties agree on the forward rate for which they will exchange the two relevant currencies in three months time. For foreign countries, where cash deposits are available for off-shore investors, entering into a 3-month forward agreement and investing the money at the 3-month USD LIBOR rate should result in the same payoff as 1) transferring your money at current spot, then 2) investing it at the 3-month interest rate in the foreign country, then 3) transferring it back into US dollars after 3 months. Therefore, an investor participates in the foreign 3-month interest rate. In both investment strategies the final payoff also depends on the spot rate in 3-month time. This can move in or against the investor's favour and can result in additional gains or losses.

To calculate the forward rate, the market usually assumes that, over the contract period, the currency with the higher interest rate appreciates against the currency with the lower interest rate to offset the implied interest rate difference. Stated differently, the spot rate is assumed to slowly move towards the forward rate. If this were to happen, and in the absence of any transaction costs, the investor's returns would be the same as the returns from a USD LIBOR deposit. Historically however, it has been observed that the spot rate has not changed to exactly offset the interest rate difference implied in the forward rates, but has produced net positive performance over the last five years. The HSBC Optimised FX Forwards Index Series aims to capture this outperformance. The value of the HSBC Optimised FX Forwards Index Series may go up as well as down in accordance with market conditions and fluctuations.

Possible reasons for outperformance by investing in historically high yielding currencies

Observed outperformance can be attributed to three key factors:

- 1) The higher volatility, and thus risk/return characteristics, of higher yielding currencies versus lower yielding currencies
- 2) The intrinsically higher risk of investing in currencies of countries with lower credit rating (please see credit ratings for each country in Table 1)
- 3) The diversification effect of the composite indices that helps to reduce the overall currency volatility

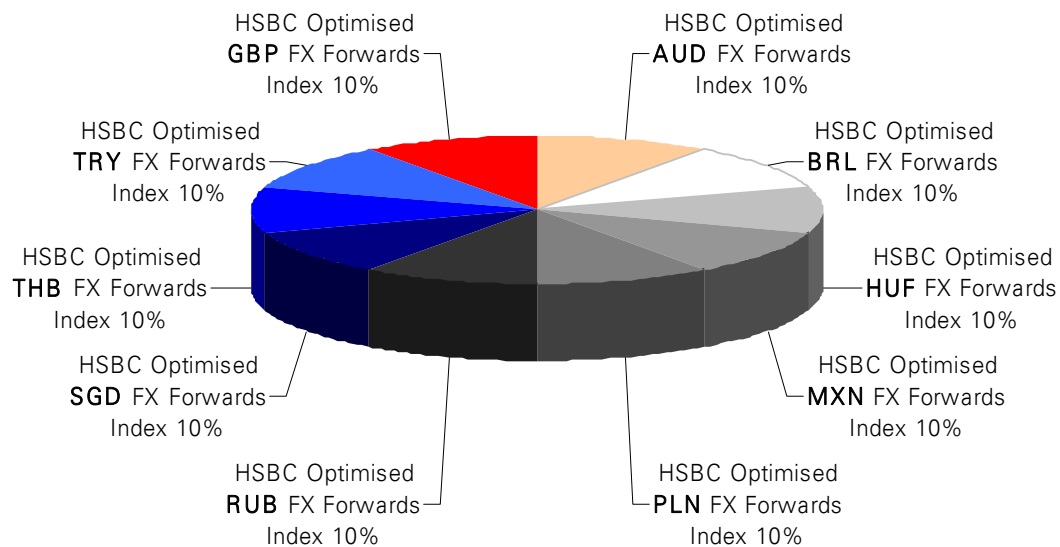
HSBC Optimised FX Forwards 10 Index

The HSBC Optimised FX Forwards 10 Index (Bloomberg Ticker: HSIX10FX Index) is a fixed basket of ten single currency indices.

- ▶ Australia (AUD)
- ▶ Brazil (BRL)
- ▶ Hungary (HUF)
- ▶ Mexico (MXN)
- ▶ Poland (PLN)
- ▶ Russia (RUB)
- ▶ Singapore (SGD)
- ▶ Thailand (THB)
- ▶ Turkey (TRY)
- ▶ United Kingdom (GBP)

The single currency indices are equally weighted on the base date (19 March 2003) and on every roll date thereafter. The respective currencies were selected according to an optimised risk/reward ratio. By adding the British Pound and the Singaporean Dollar indices to the basket (British Pound and Singaporean Dollar are generally considered to be relatively stable currencies against the US dollar) volatility should be reduced.

Initial Index composition as of 4 December 2008: HSBC Optimised FX Forwards 10 Index



Source: HSBC Global Markets, December 2008

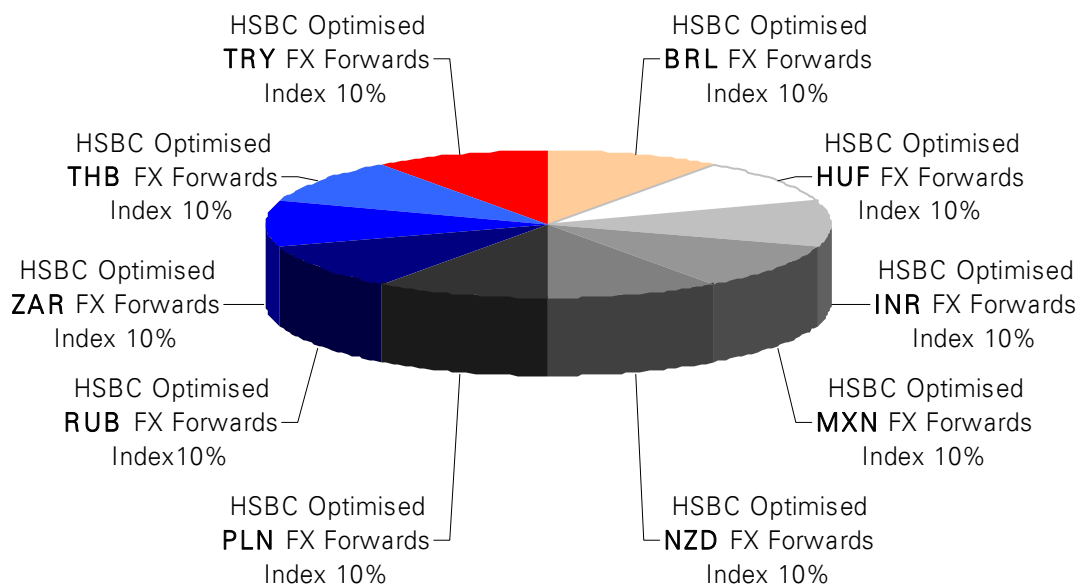
HSBC Optimised Dynamic FX Forwards Index

The HSBC Optimised Dynamic FX Forwards Index (Bloomberg Ticker: HSIXDYFX Index) is a dynamic basket of up to ten single currency indices. The index is dynamic because quarterly it reselects the currencies with the highest implied interest rates for each roll date. The selected single currency indices are equally weighted on the base date (19 March 2003) and on every roll date thereafter.

The current composition (decision date: 4 December 2008) comprises the following ten single currency indices:

- ▶ Brazil (BRL)
- ▶ Hungary (HUF)
- ▶ India (INR)
- ▶ Mexico (MXN)
- ▶ New Zealand (NZD)
- ▶ Poland (PLN)
- ▶ Russia (RUB)
- ▶ South Africa (ZAR)
- ▶ Thailand (THB)
- ▶ Turkey (TRY)

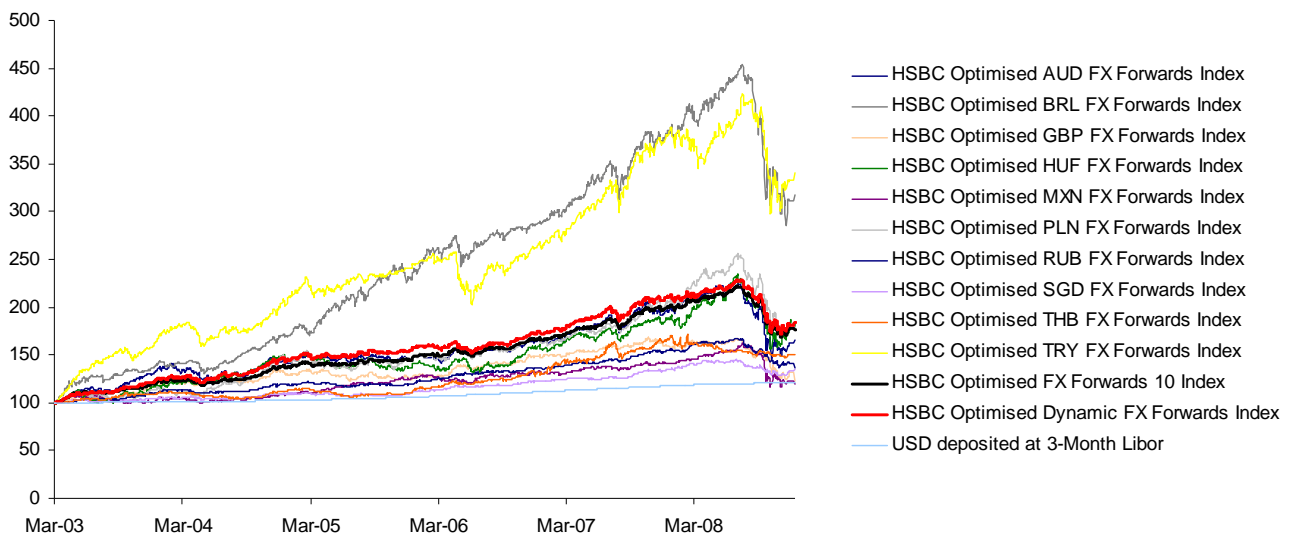
Initial Index composition (as of 4 December 2008): HSBC Optimised Dynamic FX Forwards Index



Source: HSBC Global Markets, December 2008

Historical theoretical performance

Historical Performance of the FX Forwards 10 and the Dynamic FX Forwards indices as well as the single currency indices contained in the FX Forwards 10 Index (the graph is shown for the period from 19 March 2003 to 31 December 2008).



Source: HSBC Global Markets; historical values prior to the indices' Creation Date have been obtained by simulating the performance of the FX Indices based on the Index Rules and do not reflect actual trading and are calculated by HSBC Quantitative Techniques. Simulated results are not indicative of future results

Table 5: HSBC Optimised FX Forwards Index Series Historical Theoretical Performance

Index	Annualised Return	Annualised Volatility
HSBC Optimised AUD FX Forwards Index	9.78%	15.42%
HSBC Optimised BRL FX Forwards Index	22.43%	17.67%
HSBC Optimised GBP FX Forwards Index	3.50%	9.52%
HSBC Optimised HUF FX Forwards Index	10.67%	15.04%
HSBC Optimised INR FX Forwards Index	4.81%	7.93%
HSBC Optimised KRW FX Forwards Index	1.81%	12.21%
HSBC Optimised MXN FX Forwards Index	2.95%	11.09%
HSBC Optimised NZD FX Forwards Index	8.87%	14.32%
HSBC Optimised PLN FX Forwards Index	10.49%	13.85%
HSBC Optimised RUB FX Forwards Index	5.10%	5.64%
HSBC Optimised SGD FX Forwards Index	5.29%	5.06%
HSBC Optimised THB FX Forwards Index	7.32%	8.94%
HSBC Optimised TRY FX Forwards Index	23.18%	16.26%
HSBC Optimised ZAR FX Forwards Index	5.30%	20.73%
HSBC Optimised FX Forwards 10 Index	10.20%	8.21%
HSBC Optimised Dynamic FX Forwards Index	11.01%	9.56%

Source: Bloomberg; backtesting by HSBC Quantitative Techniques; calculated for the period from 19 March 2003 to 31 December 2008

Indices at HSBC

About HSBC Optimised Indices

HSBC Optimised Indices have been promoted by HSBC Global Markets ('GM') to provide reference underlying indices for creating structured products which either track the index performance or provide pay-offs linked to the specified index. These indices have been optimised to take into account the unique characteristics of each underlying theme or strategy and the availability of the universe of currencies which best captures this. The number of eligible constituents varies in each case in accordance with the objectives for each index. The aim of HSBC GM is to provide liquid, transparent, tradable instruments, which can act as robust references for a variety of investment products.

HSBC combines its expertise in indices with its knowledge both of local markets and investment products in its provision of HSBC Optimised Indices.

About HSBC Indices

HSBC, through the HSBC Global Research department, started publishing indices in 1993 with the launch of the HSBC (formerly James Capel) Smaller European Companies Indices. Other indices followed, such as HSBC Dragon 300 (June 1996), HSBC Latin America 100 (May 1994), and HSBC Subcontinent of India (February 1996). HSBC has remained focused on smaller companies indices, emerging markets indices, and custom indices. HSBC calculates a total of 5,471 indices covering 69 countries and territories worldwide.

The HSBC Indices are maintained and distributed by HSBC Quantitative Techniques ('QT'). QT is part of HSBC's Global Research business, which in turn is part of HSBC's Global Banking and Markets division. QT provides advisory services, indices and data products to customers on a commercial basis. QT is both structurally and physically separated from other parts of HSBC and hence provides an independent service to users of the HSBC Indices and its other customers.

Investors should be aware that the HSBC Optimised FX Forwards Index Series is constituted by HSBC GM and is not an independent research index operated by the Global Research department.

The HSBC Global Markets Indices are a distinct series of indices from the range offered by HSBC Global Research, of which the Calculation is a part. HSBC Global Research operates as a separate business within HSBC from HSBC Global Markets.

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For more information concerning the index rules and the calculation of the HSBC Global Markets Indices, please contact the calculation agent, QT, at +44 84 5584 7360 or e-mail qt-inquiries@hsbcib.com.

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