

# Active Currency Managers as an Underlying Asset

Baskets of Active Currency Managers offer access to a truly decorrelated asset

## Executive Summary

A well chosen basket of Active Currency Managers with consistent long term performance, can offer a truly decorrelated asset that has performed well over the cycle, including throughout the present global financial crisis (Sharpe Ratio > 1.1 for 1Jul07-31Oct08).

Investors can access this asset in funded or unfunded (overlay) format through Deutsche Bank's FX Select platform with the liquidity, flexibility and transparency that comes with it - key features sought after by alternative asset managers and tactical asset allocators alike.

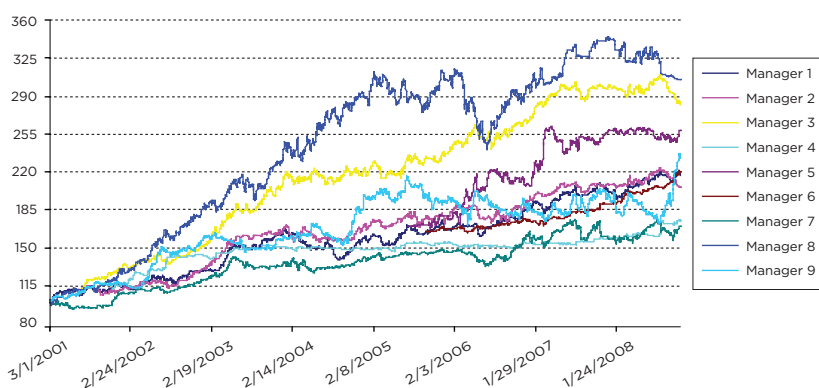
## A different asset class, and with it a difference in risk-adjusted performance

Currency has traditionally been seen as a zero sum game, however there is now ample evidence over a long period of time that a variety of currency trading styles can and do show systemic returns, and moreover that high quality active currency managers can deliver significant alpha over time. The medium term performance of 9 high quality active currency managers (with names removed) is illustrated in Chart 1. Performance is shown as excess returns (alpha), net of all fees.

**“But these guys are all trading currency – surely they are highly correlated to each other...”**

Each of the managers trades differently. Some are G10 focused, others include Emerging Markets currencies in their models. For some an average position is held for a few hours, for others a few weeks. Some managers are believers in

Chart 1. Performance of 9 high quality active currency managers



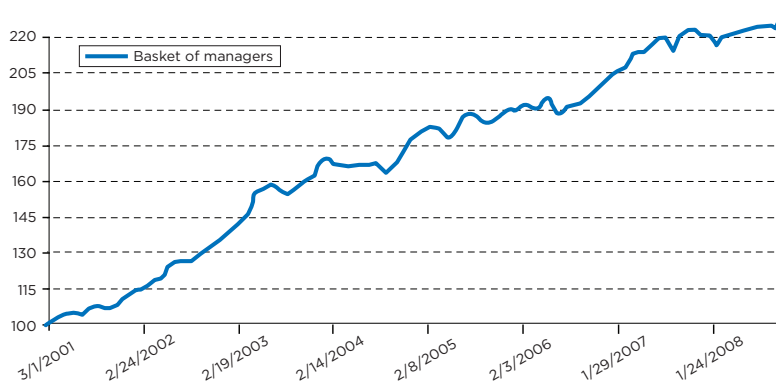
SOURCE: DEUTSCHE BANK

Table 1. Low intra-manager correlations

Correlations	Manager 2	Manager 3	Manager 4	Manager 5	Manager 6	Manager 7	Manager 8	Manager 9
Manager 1	0.38	0.07	-0.04	-0.03	0.35	0.18	0.09	0.01
Manager 2	0.12	-0.06	-0.02	-0.01	0.09	0.04	0.03	
Manager 3	0.00	-0.01	0.02	0.07	0.04	0.02		
Manager 4	0.05	-0.02	-0.13	-0.01	0.03			
Manager 5	-0.06	-0.09	-0.01	0.04				
Manager 6	0.19	0.05	-0.01					
Manager 7	0.23	0.07						
Manager 8	0.02							

SOURCE: DEUTSCHE BANK

Chart 2. Basket of managers: low volatility, low drawdowns



SOURCE: DEUTSCHE BANK

trend following, others in mean reversion, others in fundamentals (differentiating between cheap and expensive currencies) and still others are focused on interest rate differentials.

The upshot of this variety of trading styles

is a generally low correlation between the manager returns as shown in Table 1.

**Portfolio benefits of this low average correlation**

While individual managers may

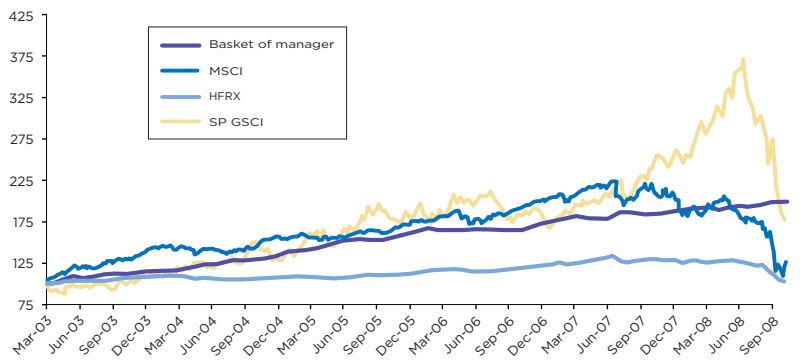
experience periods of higher volatility and drawdown, an equally weighted “alpha” basket of these 9 managers shows impressive risk-adjusted performance, over many different market conditions - including through the current financial crisis, as seen in Chart 2. Performance statistics of the manager-average versus the basket of managers (Table 2) further reinforce these portfolio benefits.

**Table 2. Diversification by numbers**

Performance Statistics (March 2001-October 2008)	Average for the 9 managers	Basket of currency managers
Annualised return (excess net of fees)	10.9%	11.7%
Annualised volatility	9.3%	4.3%
Sharpe Ratio	1.3	2.7
Maximum Drawdown	12.3%	4.6%
Positive return months	62%	71%
Negative return months	38%	29%
Return/Maximum drawdown	0.9	2.6
Best month	5.8%	5.0%
Worst Month	-3.6%	-2.5%
Average positive month	2.5%	1.6%
Average negative month	-1.6%	-0.8%
Downside Volatility	6.2%	2.7%
Sortino Ratio	1.7	4.3

SOURCE: DEUTSCHE BANK

**Chart 3. Currency managers vs other asset classes**



SOURCE: DEUTSCHE BANK, BLOOMBERG

**Diversification against other asset classes, both traditional and alternative**

In Chart 3, we show medium-term performance of the proposed basket of active currency managers against Global Equities, a broad Hedge Fund Index and a broad Commodities Index (all returns are excess over LIBOR). The accompanying performance statistics (Table 3) demonstrate superior risk-adjusted returns over the medium term of the basket of currency managers.

**A fairer comparison - construct a basket of active currency managers to have an overall volatility equal to that of global bonds**

Chart 4 shows long term performance of a basket of active currency managers, constructed to have a long term volatility closer to that of Global Bonds (around 7%pa). As the Deutsche platform allows investors to access pure excess returns, scaling the allocation up or down to a desired risk/volatility budget is very straightforward and cost effective.

**Table 3. Performance statistics: Currency managers vs other asset classes**

Apr-03 to Oct-08	Basket of currency managers	MSCI World	HFRX	GSCI
Growth over period	94.4%	6.6%	27.9%	93.5%
Compounded Annual Growth	12.62%	1.16%	4.49%	12.53%
Volatility	4.5%	15.2%	4.4%	24.9%
Sharpe Ratio	2.8	0.1	1.0	0.5
Maximum Drawdown	4.6%	50.4%	23.4%	52.2%
Length of Max Drawdown Period (days)	206	253 and counting	330 and counting	253
Average month return	0.9%	0.2%	0.1%	1.1%
Best Month	5.5%	7.5%	2.6%	14.1%
Worst Month	-2.5%	-19.2%	-8.9%	-26.7%
% winning months	75%	64%	61%	57%
% losing months	25%	36%	39%	43%
Correlation to HFRX	2.29%	80.29%	100.00%	32.74%
Correlation to MSCI World	2.93%	100.00%	80.29%	22.85%

SOURCE: DEUTSCHE BANK, BLOOMBERG

**The test of true diversification is when most asset return correlations are heading to 1**

In the current financial crisis, we have seen many 'diversifying' assets turn out to be anything but. The true test of an asset's claim to have diversifying power is in periods such as the current one where asset correlations are heightened. Can an asset class hold its own when "risky assets" are

being sold down? Again, the basket of active currency managers seems to tick this box, exhibiting low or negative correlation to other "risky" asset classes during this period of heightened asset correlations. Table 4 particularly highlights the strong correlation between HFRX (hedge fund index) and the MSCI World Index (Equities) through the crisis, and the strong negative correlation between both

these assets and active currency. Chart 5 highlights the performance through the crisis of active currency, even through the period of market volatility post the Lehman bankruptcy.

**How to access this diversifying asset - Deutsche Bank's FX Select platform provides transparency, liquidity and flexibility**

Deutsche Bank's FX Select platform has been built to enable easy access to around 70 active currency managers, including the 9 managers described in this paper. Clients transact via a single contract with Deutsche Bank, whatever the number of managers in the basket. The delivery mechanism is extremely flexible, whether a funded investment (eg principal protected note, delta 1 certificate, Shariah compliant structure) or an unfunded 'overlay' arrangement (Total Return Swap under ISDA/CSA, European call option, margin trading arrangement on collateral with defined stop loss).

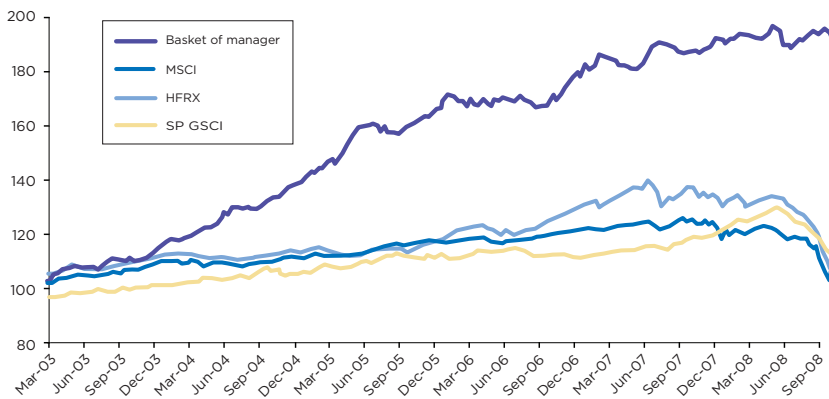
Ability to transact a basket of active currency managers on the FX Select platform via an unfunded arrangement also makes this a convenient and attractive "portable alpha" overlay for balanced portfolios.

Chart 6 and Table 5 show the effect on long term performance of having a FX overlay on 1/3 of a typical pension fund portfolio (60% Equities/40% Bonds).

**Key features of Deutsche Bank's FX Select Platform - the simple way to implement investments and unfunded overlay in active currency managers**

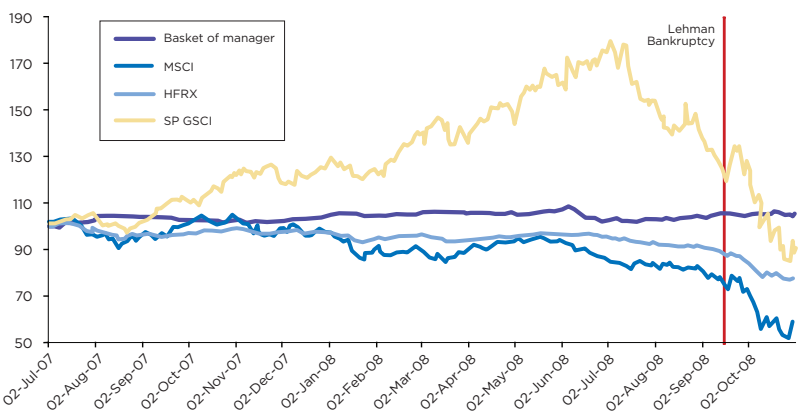
- The platform consists of a number of segregated, managed accounts.
- Portfolio returns are translated into an index shown net of all fees, allowing intuitive understanding of investment performance
- No capital required for investment
- Performance is automatically translated hedged into any currency of your choice
- Single contract with Deutsche Bank, a AA rated Bank
- Pre-negotiated capacity reservation with managers

**Chart 4. A 7% volatility basket of currency managers: bond market volatility with superior performance**



SOURCE: DEUTSCHE BANK, BLOOMBERG

**Chart 5. Performance through crisis: Sharpe Ratio still significant**



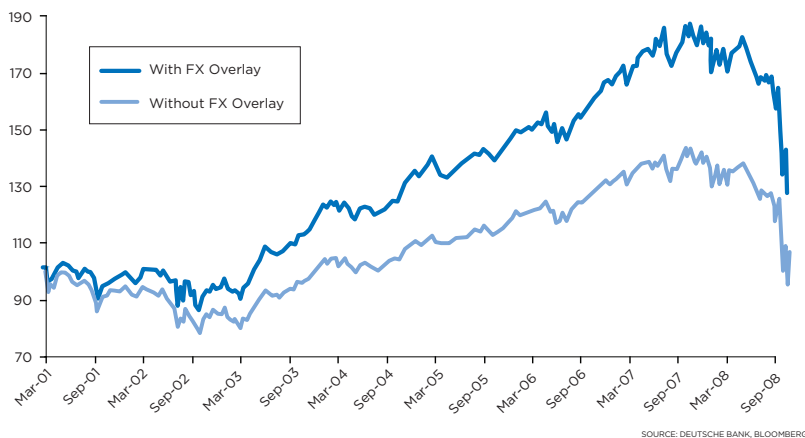
SOURCE: DEUTSCHE BANK, BLOOMBERG

**Table 4. Correlation in the crisis: hedge funds and equities strongly correlated, currency managers a true decorrelated asset**

Correlations Since July 07	Basket of managers	MSCI	HFRX	SP GSCI
Basket of managers	100.00%			
MSCI	-65.04%	100.00%		
HFRX	-58.40%	95.09%	100.00%	
SP GSCI	33.81%	-3.77%	17.43%	100.00%

SOURCE: DEUTSCHE BANK, BLOOMBERG

**Chart 6. A simple overlay of active currency managers has consistently added value to a typical portfolio**



SOURCE: DEUTSCHE BANK, BLOOMBERG

**Table 5. Performance statistics of adding a simple currency multi-manager overlay**

Mar-01 to Oct-08	With FX Overlay on 33%	Without Fx Overlay
Growth over period	40.1%	5.7%
Compounded Annual Growth	4.49%	0.73%
Volatility	9.9%	9.7%
Sharpe Ratio	0.5	0.1

SOURCE: DEUTSCHE BANK, BLOOMBERG

**Table 6. Sample 2 year structured investment linked to the basket of active currency managers**

<b>Form</b>	Deposit/Note
<b>Notional</b>	[USD 10 million]
<b>Tenor</b>	2 years
<b>Issue Price</b>	100%
<b>Redemption Price at Maturity</b>	100% If the NAV hits 95% during the life of the trade, 100% + max (0, PF * Index performance) otherwise.
<b>Participation Factor (PF)</b>	140%
<b>Backtested / Simulated returns</b>	Average IRR: 17.5%pa Maximum IRR: 40.3%pa Minimum IRR: zero Probability of trigger: <1%
<b>Vary risk/reward</b>	PF can be increased or lowered according to client's risk tolerance. The maximum historical drawdown of 4.6% leads to high PFs while maintaining a conservative structure.

SOURCE: DEUTSCHE BANK

- No funding cost for cash balances held by managers
- Deutsche Bank retains custody over the managers' underlying FX transactions, allowing full risk and exposure reporting to be provided on a daily basis.
- Example of a simple, principal-protected investment linked to the proposed basket of active currency managers is shown in Table 6.

**Conclusion**

In the challenging global macro environment which we find ourselves, investors and asset allocators are placing renewed emphasis on finding true diversifying assets and asset classes.

A portfolio of well chosen, active currency managers, can be shown to provide true diversification over the cycle, and specifically through the financial crisis. Whether this asset class is transacted by direct investment or as an overlay to provide portable alpha to an existing portfolio, risk adjusted performance has been shown to be significantly improved. Moreover, Deutsche Bank's FX Select platform enables this decision to be implemented with transparency, flexibility and at low cost. ■

**CONTACT**

For further information, please contact

**Deutsche Bank**

+65 6423 5339

www.db.com/fx

**Deutsche Bank** 

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