

## **LINING UP THE DX**

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**LINING UP THE DX (WITH DOLLARS)  
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The currency markets have been traditionally exploited for their inherent inefficiency; namely, that since an exchange rate is a medium of exchange many participants (corporate treasurers, central banks, international equity and bond managers) use the exchange rate to purchase or sell goods internationally or manage economies, but not always to make a profit. This constant non-profit backdrop to participants who seek positive excess returns cannot be found in many other securities such as equities and bonds. A growing currency overlay business has added value to client currency benchmarks using forward contracts (see **Baldrige, Meath and Myer (2000) and Hersey and Ogunc (2000), Strange (1998)**). In addition, recent research has demonstrated that value can be added from trading options as a complement to strategies based on forward contracts (**Muralidhar and Neelakandan (2002)**). In this paper, we demonstrate that clients may be ignoring an attractive source of returns from a futures contract; namely, the Dollar Index (or the DX).

Futures contracts can be used by individuals and institutions to either hedge exposures or attempt to generate returns. The latter activity is generally termed speculation, but speculation suggests unlimited risk-taking and generally lack of controls. On the other hand, a large number of participants in this market are very disciplined about how they take risk and hence we rephrase this activity as return or alpha generation. Unfortunately, the DX is an index on the US dollar that was weighted based on the trade relationships with major countries. The index currently has fixed weightings and represents the value of the US dollar against other G-10 nations. As a result, the index can be decomposed as follows (as of December 2000):

<b>Currency</b>	<b>Weight</b>
<b>Euro</b>	<b>57.6%</b>
<b>Japanese yen</b>	<b>13.6%</b>
<b>British pound</b>	<b>11.9%</b>
<b>Canadian dollar</b>	<b>9.1%</b>
<b>Swedish krona</b>	<b>4.2%</b>
<b>Swiss franc</b>	<b>3.6%</b>

The trouble with these weightings is that they make it difficult for institutional clients that benchmark their international equity mandates to indices such as the MSCI EAFE or bond indices to the JP Morgan or Salomon Global bond indices to use this contract to hedge currency risk. The currency risk inherent in these indices reflects market

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capitalization weightings and creates exposures for clients that are more likely to be of the type in the attached table for the MSCI EAFE adjusted for Canada (as of February 2002):

<b>Currency</b>	<b>Weight</b>
<b>Euro</b>	<b>34.4%</b>
<b>Japanese yen</b>	<b>19.2%</b>
<b>British pound</b>	<b>24.0%</b>
<b>Canadian dollar</b>	<b>5.1%</b>
<b>Swedish krona</b>	<b>2.2%</b>
<b>Swiss franc</b>	<b>7.2%</b>
<b>Other</b>	<b>7.9%</b>

Even though previous research has shown that the DX can be used to hedge against currency risk if clients have trade-weighted exposures (**Eden (2001)**), the likelihood of clients having such exposures is low and the closest clients would get to such a weighting from an economic perspective is if they had GDP-weighted international indices.

But all is not lost for the DX – any tradeable contract provides opportunities for return, especially when volumes are reasonable (DX volume on average is a daily 1500 contracts) and a backstop exists in the market whereby clients have non-profit motives. In this paper, we make use an extremely naïve model to trade the DX and show that such trading strategies have attractive properties.

FX Concepts has traded many currency pairs and has extensive experience trading currencies for alpha. As a result, we took the recommendations of our various currency models for our absolute return programs and weighted them by the respective weights in the DX index. This gave us a daily recommendation to not only buy and sell the DX contract, but also how much to buy and sell. For ease of evaluation, we ignored the cost of margin and transactions cost as this was a naïve strategy. What amazed us was that this naïve strategy, assuming generated an annualized 16.2% return over the January 1990-December 2001 period. The key statistics for this naïve strategy are provided in the table below. This strategy, though naïve, has success rate of 52.7% (i.e., 52.7% of the time, returns are greater than or equal to 0%). More important though, the strategy lacked correlation with the standard investments that institutional investors in the US would make; namely, US equities, US bonds and the international equity portfolio

<b>Annualized Return</b>	<b>16.2%</b>
<b>Annualized Standard Deviation</b>	<b>34.5%</b>
<b>Return/Risk Ratio</b>	<b>0.47</b>
<b>Correlation with S&amp;P500</b>	<b>-0.04</b>
<b>Success Ratio</b>	<b>52.7%</b>
<b>Correlation with Salomon Govt. Bond Index</b>	<b>0.02</b>
<b>Correlation with MSCI EAFE</b>	<b>-0.02</b>

Hence, we can conclude that this strategy is a valuable strategy in a portfolio context for the average US pension fund as it generates an attractive risk-adjusted return, while at the same time lacks correlation with the returns of basic investments held in the portfolio.

This naïve strategy was adopted assuming that the position sizes were generated as a naïve composite of different currency strategies and hence the risk taken tends to be relatively high. However, if a strategy were developed on the index itself the return to risk ratio would be even higher. In addition, transactions costs and margin will detract a portion of the performance, but unlikely to greatly reduce the attractive returns. Moreover, since futures contract can be implemented with or without leverage, clients can achieve any desired target return they desire.

In summary, the DX contract provides attractive opportunities for positive excess returns from return-focused strategies and this strategy does not correlate with the standard assets in client portfolios. If naïve strategies can generate reasonable return-risk ratios, one should expect that a more focused strategy could perform much better. Further, given the liquidity and ease of implementation, clients should seek to add this to their portfolios to enhance and diversify their sources of return.

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