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Academic Research on Eurex Derivatives

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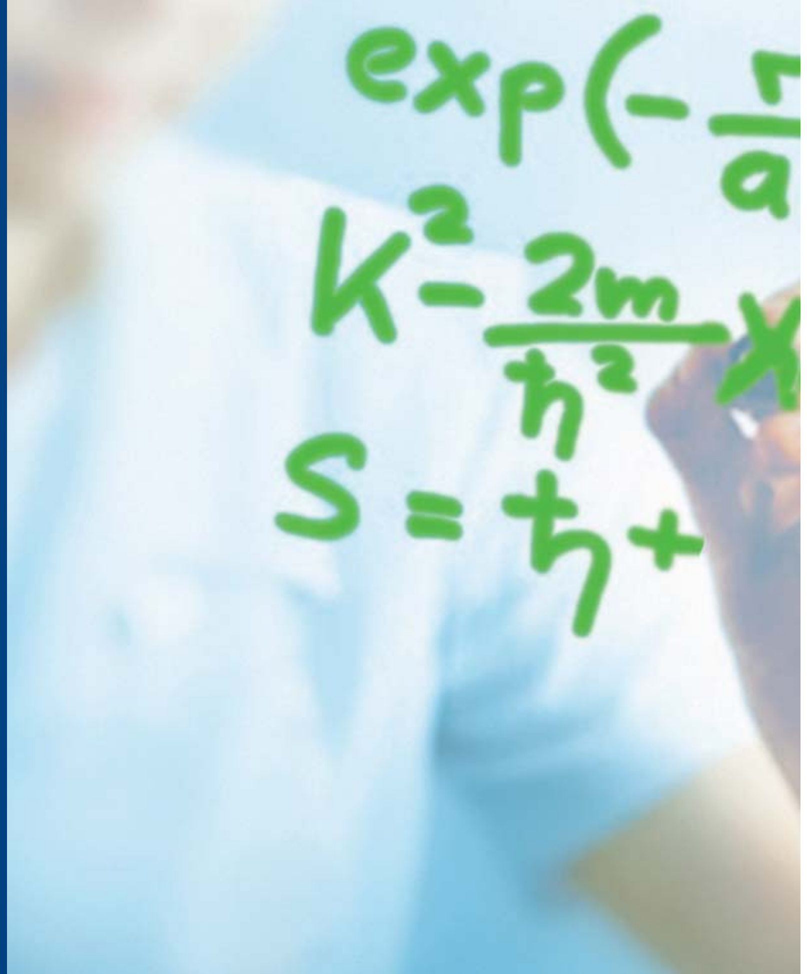

Alternative Investment Opportunities

A key reason for the continued growth in international derivatives trading lies in their increasing application as a complementary, or alternative market exposure to traditional asset classes such as stocks or bonds. Hedge funds, for example, with over EUR 1.400 billion in assets under management worldwide, remain one of the fastest growing sectors of alternative investments.

A number of academic studies by renowned international "think tanks", each from a different perspective, have proven the relative advantages of Eurex derivatives when looking for alternative investment opportunities:

The Case for Managed Futures (CISDM)

This report provides an update on the potential benefits of incorporating Eurex futures contracts in CTA programs. In a previous report it was shown that incorporating Eurex futures contracts in trend-following programs would have improved the performance of CTAs employing those trading techniques over the period 1992-2002. This report covers the period 1992-2005. Results show that the Eurex futures contracts continue to provide the benefits illustrated in the previous report. Results also show that these strategies would have improved returns and lowered volatility for an investor holding a typical stock/bond portfolio. Although global equity indexes are highly correlated the returns from momentum strategies employed in these markets are surprisingly different. In particular, a 40% allocation to Eurex futures contracts would have resulted in similar volatility levels as an equity portfolio with a 200 basis point increase in annualized returns.

The Case for Hedge Funds (CISDM)

This report provides an analysis on the potential benefits of incorporating Eurex futures contracts in portable alpha programs. In a previous report it was shown that Eurex futures contracts could be used to replicate hedge fund strategies. In this article, CISDM examines the benefits of portable alpha programs using equity index futures contracts as an overlay. CISDM examined the performance of these programs using the convertible arbitrage, distressed securities, emerging markets, equity long/short, equity market neutral, event driven, merger arbitrage, global macro and managed futures strategies. The analysis is conducted for the period 1992-2005 using the DAX® Index and 1998-2005 using the Dow Jones EURO STOXX 50® Index. CISDM finds that in most cases portfolio performance is enhanced. A broad based hedge fund portfolio combined with DAX® futures would yield an annualized return of 11.66%, more than 300 basis points higher than the return on the DAX® Index of 8.54%. A broad based hedge fund portfolio combined with Dow Jones EURO STOXX 50® Index futures would yield an annualized return of 9.13%, almost 200 basis points higher than the return on the Dow Jones EURO STOXX 50® Index of 7.31%.

Portable Alpha & Portable Beta Strategies in the Eurozone (Edhec)

"Portable Alpha and Portable Beta Strategies in the Eurozone – Implementing Active Asset Allocation Decisions using Equity Index Options and Futures", shows how long/short managers in the Eurozone can use derivatives markets to help actively implement their asset and sector allocation decisions in a systematic manner, so as to enhance the overall performance of their portfolio. The benefits of active asset allocation decisions reported in this paper originate from the combination of a robust econometric and portfolio process with the efficient trading of low-cost investible products such as Eurex equity index futures and options. This strongly suggests that most long/short managers could use a similar methodology to enhance the performance of their portfolios on two levels: first, using an overlay portfolio designed to capture excess and factor allocation decisions on the European markets (an effect referred to as "portable alpha") and secondly, using option strategies designed to consistently add value during calm markets ("portable beta").

From Delivering to Packaging of Alpha (Edhec)

Using Fixed Income Derivatives to Design Hedge Fund Type Offerings that Better Fit Investors' Need

In this paper, Edhec emphasizes the need for the hedge fund industry to adopt a consumer (investor)-driven approach, as opposed to the current producer (manager) perspective, and we call for the emergence of new types of offering with characteristics better suited to the needs of institutional investors. Using active bond portfolio management as an example, we present evidence that derivatives can be used by managers not only for generating and delivering abnormal performance, but also for packaging such performance in a form that is consistent with the modern core-satellite approach to institutional portfolio management, for which we explore both a standard static version and also a dynamic extension allowing for dissymmetric control of active management risk.

Derivatives Strategies for Bond Portfolios (Edhec)

In this paper, Edhec examines how standard exchange traded fixed income derivatives (futures and options on futures contracts) can be included in a sound risk and asset management process so as to improve risk and return performance characteristics of managed portfolios. The results show that the non-linear character of the returns on protective option strategies offers appealing risk reduction properties in the pure asset management context. Consequently, such strategies should optimally receive a significant allocation, especially when investors are concerned with minimizing extreme risks. In an asset liability management context, Edhec also shows that fixed income derivatives in general, and recently launched long-term futures contracts in particular, offer significant shortfall risk reduction benefits. These results have potentially significant implications in the context of an increased focus on matching liability portfolios.

Replication Hedge Fund Returns Using Futures (CASS Business School)

Hedge funds tend to put a lot of effort into generating their returns and charge substantial fees to do so. However, with the latest performance evaluation studies indicating that hedge fund performance is not truly superior (anymore), the question arises whether it is possible to generate similar hedge fund-like returns in a more mechanical way and with less effort. In other words, is it possible to design dynamic trading strategies, mechanically trading stocks, bonds, et cetera, that generate hedge fund-like returns? If such strategies indeed exist, then this would solve a respectable number of problems surrounding hedge fund investments and alternative investments in general, including the need for extensive due diligence, liquidity, capacity, transparency, style drift and regulatory problems, as well as excessive management fees. In this paper, CASS develops and demonstrates the workings of a technique that allows the derivation of dynamic futures trading strategies, which generate returns with statistical properties similar to hedge funds. Trading nothing else than Eurex DAX® and Euro-Bund Futures, we show that this technique is not only capable of replicating fund of funds returns, but is equally capable of replicating individual hedge fund returns. Accurately replicating the risk-return profile, but sharing none of the drawbacks of real hedge funds, the synthetic hedge fund returns are a worthwhile alternative to direct hedge fund investment.

Country versus Sector Rotation after the Introduction of the EMU (University St. Gallen)

The introduction of the European monetary union (EMU) led to a convergence of the participating countries in many ways. One particular aspect is the diversification potential among different financial markets. While during the 1990s country effects typically dominated industry effects in magnitude, more recent studies stress the importance of industry diversivication when it comes to portfolio construction. We show the increasing correlations among countries' equity market returns and the contemporaneous decrease in sector correlations and confirm the growing importance of industry effects by applying a bootstrapping method.

Supported by this finding we implement momentum strategies based on countries and industries, respectively, in order to compare their performance. Due to the better diversification potential, most of the sector models outperform the country frameworks on a risk adjusted basis.

Further Information

English versions of these studies are available free of charge on the Eurex website **www.eurexchange.com > Documents > Publications & Research > Brochures**. Print versions can be ordered there as well.