Press Release **Singapore, Nice, London, July 21, 2011**

EDHEC-Risk Institute proposes an integrated approach to sovereign wealth risk management

This new publication, "**An Integrated Approach to Sovereign Wealth Risk Management**," contains the results of the second-year research work conducted at EDHEC-Risk Institute within the Deutsche Bank research chair on asset-liability management (ALM) techniques for sovereign wealth fund (SWF) management.

The publication extends earlier work on the optimal investment policy and risk management practices of sovereign wealth funds by integrating these funds into the economic balance sheets of their sponsoring countries. This echoes recent advances in corporate pension fund management that consider the fund an integral part of the corporate balance sheet and jointly analyse capital structure and pension fund allocation choices. **The research shows how to derive the optimal asset allocation for sovereign assets given different drivers of economic risks as well as varying degrees of indebtedness.**

It puts forward a model that decomposes a SWF's demand for risky assets into a combination of speculative and hedging demands. Speculative demand is the demand for assets which maximise risk-adjusted returns while total hedging demand arises from liability-hedging motives and from the demand for assets whose dynamics mitigate fluctuations in combined sovereign assets or lessen shocks to government budgets. **Assets with low correlation with changes in the sovereign's budget or that offer insurance against tail risks for the sponsor are desirable from a hedging perspective**. Speculative demand is an important driver of total asset demand only if risk aversion is low or if financial wealth is very large relative to the underlying economy. **Other things equal, (high) economic leverage is found to (strongly) reduce speculative demand while leaving hedging demand unchanged.**

The publication comments on the asset allocation implications of both the key budgetary risks and the leverage of China, Russia, and Gulf Cooperation Council countries. It also uses an empirical application to illustrate the impact of leverage and the relevance of dynamic allocation for a commodity SWF.

Finally, the publication looks at constraints on dynamic asset allocation. Dynamic decision making increases the amount of equity risk a SWF can take and the advantage is greatest for high leverage. Although they may appear conservative, investment constraints such as narrow allocation bands are found to limit a SWF's ability to manage its risks. This analysis has important implications in terms of investment and risk management advice for sovereign investment vehicles, central banks, national treasuries, and ministries of finance.

To download a copy of the publication, please click on the following link: **An Integrated Approach to Sovereign Wealth Risk Management**

This study was sponsored by Deutsche Bank as part of the "Asset-Liability Management Techniques for Sovereign Wealth Fund Management" research chair.

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About EDHEC-Risk Institute

EDHEC-Risk Institute is part of EDHEC Business School, one of Europe's leading business schools and a member of the select group of academic institutions worldwide to have earned the triple crown of international accreditations (AACSB, EQUIS, Association of MBAs). Established in 2001, EDHEC-Risk Institute has become the premier European centre for financial research and its applications to the industry. In partnership with large financial institutions, its team of 66 permanent professors, engineers and support staff implements six research programmes and fourteen research chairs and major strategic research projects focusing on asset allocation and risk management in the traditional and alternative investment universes. The results of the research programmes and chairs are disseminated through the three EDHEC-Risk Institute locations in London, Nice and Singapore. EDHEC-Risk Institute will also be located in North America from the beginning of the 2011/2012 academic year, not only for its research and executive education activities, but also to transfer the expertise of EDHEC-Risk Indices & Benchmarks, headed in North America by Vijay Vaidyanathan.

EDHEC-Risk Institute validates the academic quality of its output through publications in leading scholarly journals, implements a multifaceted communications policy to inform investors and asset managers on state-of-the-art concepts and techniques, and forms business partnerships to launch innovative products. Its executive education arm helps professionals to upgrade their skills with advanced risk and investment management seminars and degree courses, including the EDHEC-Risk Institute PhD in Finance.

www.edhec-risk.com

About Deutsche Bank

Deutsche Bank is a leading global investment bank with a substantial private clients franchise. Its businesses are mutually reinforcing. A leader in Germany and Europe, the bank is continuously growing in North America, Asia and key emerging markets.

With more than 100,000 employees in 73 countries, Deutsche Bank offers unparalleled financial services throughout the world. The bank competes to be the leading global provider of financial solutions, creating lasting value for its clients, shareholders, people and the communities in which it operates.

Despite turbulence in financial markets, Deutsche Bank maintained its capital strength. This gives the bank a firm foundation from which to focus on its responsibilities: responsibilities to its clients, who continue to look to the bank as a dependable business partner; responsibilities to its shareholders and staff, to whom the bank seeks to remain attractive in future; and finally, the responsibilities to the financial system, of which the bank is a part, and which now needs to be rigorously analysed and re-engineered.

Deutsche Bank comprises three Group Divisions: Corporate and Investment Bank (CIB); Private Clients and Asset Management (PCAM) and Corporate Investments (CI). Within Asia Pacific all of the bank's key business divisions are long and well established with over 18,000 staff located within 17 markets. The region was recently highlighted in the fourth phase of the bank's Management Agenda, announced in late 2009, as a key driver of additional revenue growth.