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Country risk and stock market volatility, predictability, and diversification in the Middle East and Africa

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Abstract

With globalization, an understanding of country risk (political risk (PR), financial risk (FR), and economic risk (ER)) and its impact on stock market return volatility and predictability is important for evaluating direct investment and country selection decisions in globally and regionally diversified portfolios. This paper examines these issues in the context of the Middle East and Africa (MEAF) and analyzes 10 stock markets in the region over the period 1984–1999. After examining volatility and predictability, this paper explains how portfolios of stocks can be formed from these countries in order to achieve mean–variance efficient portfolios. This paper generally finds that country political, financial and economic risks significantly determine stock volatility and predictability. The diversification exercise shows that an international investor can still benefit by diversifying into the stock markets of Middle East and African countries.

JEL classification: G11; G12; G15

Keywords: Asset pricing; Portfolio formation; Country risk

1. Introduction

There is consensus in recent international finance literature that emerging markets are highly volatile, promise high returns and have low correlation with each other and with the global market factors (Bekaret and Campbell, 1995; Harvey, 1995a,b; Divecha et al.,

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zz1992). Goetzamann and Jorion (1999) found that the average dollar return for a sample of 11 emerging and frontier stock markets is 9.1% compared to 6.9% for developed markets. For volatility, they found that the average standard deviation of the dollar return is 34.8% for the emerging market sample compared with 19.8% for the developed market sample.

According to these statistics, emerging stock markets appear very attractive investment for international investors. By investing in emerging markets, it would appear that a global investor could successfully exploit additional diversification. The dramatic increase in net private inflows to emerging markets during the last decade provides a clear picture of the attractive investment opportunities available for the global investor in emerging markets. During the period 1990–1996, net private inflows to emerging market doubled six times to reach US$ 240 billion in 1996 (Goetzamann and Jorion, 1999).

During the last two decades, emerging markets expanded dramatically. These asset markets have grown from tiny markets with very little volume and limited global participation to large markets playing a significant role in the international financial system. In terms of size, the market capitalization of emerging markets increased from US$ 67 billion in 1982 to US$ 2.25 trillion in June 1999. Also, its share in the international stock markets increased from 2.5% in 1982 to 16% in June of 1999.

Bekaret and Campbell (1995) explain that the higher expected returns in emerging markets are due to the pricing of local factors preceding the emergence and the integration with international markets. Erb et al. (1997) contend that publicly available assessments of a country's political risk (PR), financial risk (FR) and/or economic risk (ER) are good proxies for explaining a majority of variations in the expected returns and volatility of a cross-section of countries. These macro-assessments of host countries grouped into measures of political, financial and economic risk can assist in selecting country weights for a globally diversified portfolio.

This paper explores three issues—stock market volatility, predictability and portfolio diversification—in the context of 10 emerging markets in the Middle East and Africa (MEAF). This paper examines the effects of local factors (through utilizing the country's credit rating of political, financial and economic risk) on volatility and predictability of the stock return in emerging markets using a sample of 10 emerging markets in the Middle East and Africa, which includes Cote d'Ivoire, Egypt, Jordan, Kenya, Morocco, Nigeria, South Africa, Tunisia, Turkey, and Zimbabwe. The emerging markets of these countries are largely unexplored as compared with other emerging markets in Asia and Latin America. Haque et al. (in press) investigates stability, volatility, risk premiums and persistence of volatility in the standardized 1988–1998 exchange converted US dollar equity returns of Argentina, Brazil, Chile, Columbia, Mexico, Peru and Venezuela without explicitly incorporating political, economic and financial risks. The MEAF emerging markets have potential for explosive growth due to continuing market deregulation and accelerating economic openness. This study explicitly incorporates economic, financial and economic risks into asset pricing models in these markets. We also examine the diversification benefits of MEAF markets to a globally diversified portfolio.

The paper is organized as follows: Section 2 describes the data, definition of variables and descriptive statistics; Section 3 analyzes the impact of political, financial and economic risk on the volatility of the stock markets in the MEAF; Section 4 examines the effect of the country risk on stock return predictability of MEAF countries; Section 5 discusses the effect