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Transition to the Euro and its impact on country portfolio diversification☆

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ABSTRACT

By examining the impact of the introduction of the Euro on stock markets and on country diversification within the Eurozone, the evidence does not suggest a high risk to the stock market to justify a risk premium as a result of currency union. Although the Euro market integration has increased inter-country correlations, it does not preclude gains from international diversification, which partially rely on the non-Eurozone countries for an optimal portfolio in a mean-variance framework. Furthermore, the empirical evidence supports that there is a significant stationarity of average correlations over time between pre-Euro and post-Euro periods, and it has improved since the introduction of the Euro. Also, results show that the Euro produced a change in volatility with a different pace within the Eurozone vis-à-vis non-Eurozone countries, to support a direct and opposite relationship between volatility and correlation.

1. Introduction

Monetary unions are groups of countries that share a currency, usually sharing geographical borders but not always and that often have close trade and other financial relationships with one another. The

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Eurozone is the largest and best-known monetary union is the "Eurozone" utilized by 16 of the 27 countries in the European Union.[1] The 16 members are Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Slovenia, Slovakia, Cyprus, and Malta.

In January 1999, the decision of 11 EU members to form an island of fixed exchange rates among themselves gave birth to the Euro. Since then, the European popular press has been flooded with reports about whether the Euro is better for the European stock markets than the previous non-Euro currencies. Nevertheless, given the possibility of more EU countries adopting the Euro, the transaction domain of the Euro may become larger than that of the United States (US) dollar in the future as the "accession countries" fulfill the monetary requirements one-by-one.[2]

The Noble Prize winner Mundell (2000) stated, "*The creation of the Euro area will eventually, but inevitably, lead to competition with the dollar area, both from the standpoint of excellence in monetary policy, and in the enlistment of other currencies*."

This strategy has been initiated by adopting various preliminary steps such as the integration and coordination of the member countries' monetary and fiscal policies, and the establishment of the European Central Bank (ECB) in Frankfurt, Germany to regulate banks within the European borders and to issue the Euro.

In the history of world financial systems, the introduction of the Euro in 1999 represents a momentous event that has had profound ramifications for the world economy for various aspects of international finance and, most likely, for other potential monetary unions (e.g., Gulf Arab States and Southern African Development Community unions). Due to the strong trade relationships among European countries, the perceived benefits of the Euro are great. The creation of a single currency is expected to improve market goods and services and allow capital to move easily within the Eurozone without restrictions, establishing in effect a much larger efficient market (e.g., Hasan and Lothian, 2004; Seeder, 2003; Billio and Pelizzon, 2003; Cheung and Westermann, 2001). Since its inception, the Euro has already brought about revolutionary changes in European finance. For instance, by redenominating corporate and government bonds and stocks from 12 different currencies into the common currency, the Euro has precipitated the emergence of continent-wide capital markets in Europe that is comparable to US market in its depth and liquidity.[3]

The rest of the paper is structured as follows. Section 2 presents a short review of related studies. Section 3 outlines the suggested method and introduces the data and the notation used in this paper. Section 4 discusses the impact of the Euro on stock behavior and presents the initial results. Section 5 investigates whether the change of currency has influenced the benefits of international diversification within the Eurozone and in other non-Eurozone countries. Section 6 tests the hypotheses concerning

[1] Also, the six Arab Gulf states plan to ask the European Central Bank for guidance on how to implement a single regional currency. The six states are Saudi Arabia, Qatar, Bahrain, Oman, Kuwait, and the United Arab Emirates. The six states aim to achieve a single currency by 2010. Southern African countries aim for monetary union by 2016. Countries within the 13-member Southern African Development Community (SADC) have decided to achieve monetary and economic union by 2016, South Africa's central bank governor Tito Mboweni said on Monday February 28, 2005. "The idea as I said is that by about 2016 there should be a SADC monetary union by definition a SADC common currency," Mboweni told reporters in reply to a question. "What the currency is going to be I don't know that will be a subject of negotiation and discussion." Mboweni was speaking after a meeting of SADC central bank governors in Cape Town, which was also attended by European Central Bank President Jean-Claude Trichet.

[2] The EU is a union of 27 independent states based on the European Communities and founded to enhance political, economic and social co-operation. Before May 1, 2004 the EU members are Austria (EUR), Belgium (EUR), Denmark (DKK), Finland (EUR), France (EUR), Germany (EUR), Greece (EUR), Ireland (EUR), Italy (EUR), Luxembourg (EUR), The Netherlands (EUR), Portugal (EUR), Spain (EUR), Sweden (SEK), Switzerland (CHF, not a member of the European Union), the UK of Great Britain (GBP) and Northern Ireland. Ten countries joined the EU on May 1, 2004: Cyprus (Greek part), the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia. On January 2007, Romania and Bulgaria joined the EU.
The EU may expand in the near future to include other countries such as the former socialist countries Georgia, Ukrania, and possibly Turkey. (EUR: Euro currency).

[3] By furthering the economic integration of Europe, the single currency would promote corporate restructuring through M&As, encourage optimal business location decisions, and ultimately strengthen the international competitiveness of European companies. In the past, the use of national currencies and localized legal/regulatory frameworks resulted in largely illiquid, fragmented capital markets in Europe that prevented European companies from raising capital on competitive terms. For a full discussion of the benefits and costs of the Euro, see Modigliani and Askari (1997).