

# **GLOBALIZATION IN THE FUTURES MARKETS; THE CASE OF A BRAZIL – U.S. PARTNERSHIP**

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## **Abstract**

The CME Group (Chicago) and the BM&FBOVESPA (Sao Paulo), each a leading financial institution in its own nation's economy, have agreed to cooperate with the goal of expanding the global reach of their respective futures markets. This article examines this agreement, its motivations, and the potentially beneficial outcomes within the context of on-going globalization in the financial markets.

## **Key Words**

BM&FBOVESPA, CME Group, futures markets, globalization

## **Resumo**

O grupo CME (Chicago) e a BM&FBOVESPA (São Paulo), cada uma considerada como instituição financeira líder nas suas próprias economias nacionais, acordaram em cooperar com o objetivo de expandir seus alcances globais nos seus respectivos mercados futuros. Esse artigo examina esse acordo, suas motivações e potenciais resultados benéficos junto ao contexto do estabelecimento dos mercados financeiros.

## **Palavras Chaves**

BM&FBOVESPA, CME Group, mercados futuros, globalização



## INTRODUCTION

Financial markets have experienced a dramatic growth in globalization in recent years. What is “globalization?” The International Monetary Fund (IMF) defines it as “...the increasing integration of economies around the world, particularly through the movement of goods, services and capital across borders.” (IMF, 2008) While not all policy makers and academics agree that globalization has been beneficial, its proponents argue that it promotes efficiency and innovation, and gives people access to a broader array of market opportunities beyond those available in their own countries.

One measure of the rapid globalization of the financial markets in the last three decades is provided by IMF capital flow statistics. During the period 1980-1995, for example, global capital flows were between 2% and 6% of world GDP, but since then have grown to around 15%. In 2006, these capital flows were estimated to be \$7.2 trillion, more than triple the levels of 1995 (IMF, 2008).

Futures markets are an important and rapidly growing sector of the overall financial markets. A number of new futures exchanges have been established in the world’s financial centers in recent years, and exchanges which have existed for many years have seen their markets grow dramatically. An important driver of this growth is globalization.

An interesting case study of globalization in the financial markets is provided by recent cooperation between two of the world’s largest and most innovative futures markets, the CME Group in the United States and the BM&FBOVESPA in Brazil. Review of what the two exchanges are doing together reveals how and why globalization is proceeding in the financial markets, and illustrates the potential advantages that can come from globalization.



In this note, we provide a brief description and analysis of the CME Group-BM&FBOVESPA cooperation. We start with a discussion of the expansion and integration of the overall U.S. and Brazilian economies, and then summarize the role of futures markets in the broader financial markets, examine the history of the two exchanges and their motivations to cooperate, describe the specific agreement they have reached, and consider the positive effects their cooperation might have on the exchanges themselves and the participants of the national financial markets in the U.S. and Brazil.

## **EVOLUTION OF THE ECONOMIC AND FINANCIAL RELATIONSHIP BETWEEN BRAZIL AND THE UNITED STATES**

Brazil is the largest economy in Latin America and the tenth largest in the world. It has come through some difficult economic times in recent decades, but now the economy is strong. GDP is expected to grow as much as 6% in 2010 and it has been predicted that by 2050, the country could have the world's fourth largest economy (Prada, 2010). Brazil has weathered the recent financial crisis relatively well. Last year, when economic growth in the U.S. slipped 2.4%, Brazil's fell only 0.2%.

As Brazil has emerged as a world economic power, its commercial ties with the U.S. have grown concurrently. In 2008, for example, the U.S. was the largest foreign market for Brazil's goods, purchasing 14% of the country's exports, and the largest supplier, providing 14.9% of the Brazil's imports (U.S. Department of State, 2010).

Brazil's financial markets have grown with its overall economy. In Brazil, as in the U.S., the financial markets have grown not only in size, but in sophistication. For example, market participants in Brazil and the U.S. are no longer satisfied with the traditional set of investment products, stocks and bonds,



for example. They want alternative investment choices to diversify their portfolios. Moreover, with growth in the economy and the financial markets comes increased risks and, consequently, more and better risk management tools are needed. These changes in the attitudes, goals and needs of investors and risk managers have triggered a dramatic increase in financial market innovation in both countries. The futures exchanges in the U.S. and Brazil have responded and been on the cutting edge of this innovation.

### WHAT ARE FUTURES?

A wide variety of products trade in futures markets – bonds, gold, foreign currencies, grains, etc. What is bought and sold in futures markets are contracts agreeing to buy or sell the underlying asset – e.g.; corn or gold – at some time in the future. The value of the contract is derived from the value of the underlying asset. Consider a corn futures contract. If corn prices rise (fall), the price of the corn futures contract will rise (fall) concurrently. For example, if an investor thinks corn prices will rise, he can buy a corn futures contract. If corn prices rise, corn futures contract prices will rise also, and the investor can sell his contract for a profit. However, if corn prices fall, corn futures contract prices will fall, too, and the trader will lose money when he sells his contract.

In a liquid, properly functioning futures market, arbitrage will keep futures contract prices tied to the underlying asset prices. As long as this is the case, futures prices correlate closely with the prices of the assets. Thus, investors and risk managers can use futures contracts as proxies for holding the actual asset.

There are three economic purposes of futures markets – price discovery, risk management and investment. Price discovery is the process of drawing on all available information to determine, in a transparent fashion, the price of a physical or financial asset. This is particularly helpful in a world of fragmented



and opaque cash markets. The information is brought to the centralized futures market by firms which are active in the underlying asset market, by investors with a perspective on supply and demand, and by other participants, and this information is incorporated into the futures price through their trading activity. The futures prices “discovered” in this way are then used as price references throughout the economy.

Risk management, or hedging, is the process by which futures market users who have a price risk in the underlying asset that they do not want, transfer the risk to another futures market participant who is willing to accept it. For example, a multinational firm exposed to foreign exchange risk in its global operations can transfer this risk to speculators in the futures markets by hedging.

Investment is facilitated in the futures markets which offer an increasing array of futures products to invest in and low transactional costs of investing. If, for example, an investor thinks that gold prices are going to fall, it may be difficult for him to position himself in the cash market to profit from a decline in gold prices. However, in the futures market, it is easy and inexpensive to do so by selling gold futures contracts.

Futures markets have been used for many years by producers, processors, consumers and manufacturers to manage price risk. In recent years, as globalization has fostered increased financial market sophistication and greater use of the futures markets, non-traditional participants such as pension funds, banks, swap dealers and money managers have become actively involved.

## **THE LEADING FUTURES EXCHANGES IN THE U.S. AND BRAZIL – CME GROUP AND BM&FBOVESPA**

The CME Group comprises three exchanges – the Chicago Mercantile Exchange, the Chicago Board of Trade, and the New York Mercantile Exchange.



It is by far the largest futures exchange in the U.S. It was the largest “derivatives” exchange in the world in 2008, but with a 21% decline in trading activity in 2009 as a result of the financial crisis, it is now the third largest (Burghardt and Acworth, 2010). A derivatives exchange offers futures as well as options and other products whose value is derived from underlying assets. The CME Group offers a wide variety of commodity, interest rate, stock index, foreign exchange and energy futures contracts, including the largest contract in the world by value, Eurodollar futures. The Chicago Mercantile Exchange became a for-profit corporation in 2002, and merged with the Chicago Board of Trade in 2007 and the New York Mercantile Exchange in 2008 creating the CME Group. The Chicago Board of Trade, the oldest marketplace in the Group, was established in 1848.

BM&FBOVESPA is similar to the CME Group in terms of its long history, size and recent domestic merger activity. It is one of the world’s largest derivatives exchanges, ranking sixth in the world and first in Latin America. The Sao Paulo Stock Exchange (Bovespa) was founded in 1890. It became a for-profit corporation in 2007, and in 2008, merged with the Brazilian Mercantile and Futures Exchange (BM&F) to become BM&FBOVESPA. It differs from the CME Group in that it trades stocks, as well as futures and other derivatives. In the BM&F division of the exchange, which offers derivatives, the most actively traded futures include contracts based on interest rates, the U.S. dollar, the Ibovespa stock index and a variety of agricultural commodities.

The CME Group and the BM&FBOVESPA have been leaders in the financial innovation which has accompanied globalization in the financial markets. The two exchanges focused first on responding to the demands of their domestic users. For example, BM&FBOVESPA expanded its offerings of investment and risk management products demanded primarily by Brazilian firms and individuals. A recent example of product innovation at the exchange is its May 17<sup>th</sup> launch of ethanol futures. Likewise, the CME Group has focused first on the needs of



participants in the U.S. markets. As an example, the exchange's new "Ultra" Treasury bond futures and options contracts were developed in response to the U.S. government's recent shift toward greater use of long maturity debt instruments.

For both exchanges, domestic mergers created synergies which helped them serve domestic participants more effectively. Then, as globalization continued, participants at both exchanges became interested in broadening their portfolios internationally. Americans wanted to trade Brazilian futures products – i.e., those offered by BM&FBOVESPA – and Brazilians wanted to trade U.S. futures products – i.e., those offered by the CME Group. The exchanges sought the best means of broadening their markets to international users. This led to the decision of the two exchanges to work together.

### **COLLABORATION BETWEEN THE CME GROUP AND BM&FBOVESPA**

In February, 2008, the CME Group and BM&F announced an agreement aimed at expanding the global reach of both exchanges. The basic plan was for each exchange to open its markets to participants of the other, to share electronic trading technology, and to jointly develop new futures and other derivative products. In addition, there would be cross investment between the exchanges. BM&F took a 2.2% stake in the CME Group becoming the seventh largest shareholder in the exchange. The CME Group became the BM&F's largest shareholder with a 10% stake. The CME Group's CEO became a director of BM&F.

In May, 2008, when Bovespa and BM&F merged to form BM&FBOVESPA, the CME Group took a 5% stake in the new exchange. BM&FBOVESPA took a 1.8% stake in the CME Group. Subsequently, the U.S. and Brazilian exchanges agreed to connect their respective electronic trading



systems – the CME Group’s Globex system and the BM&FBOVESPA’s GTS system – to allow traders from one exchange to send orders to the other. Now, participants in the CME Group’s Globex electronic market – traders based both in the U.S. and in other countries around the world – would have direct access to the Brazilian markets in interest rate, Ibovespa stock index, agricultural, metals and energy futures and options. The Globex system comprises over 100,000 trading terminals, installed in more than 80 countries, in four continents. In return, traders located in Brazil or elsewhere using the BM&FBOVESPA’s GTS system were given direct access to the CME Group’s products. There are approximately 700 terminals in the GTS network (CME Group, 2010).

The two exchanges extended their cooperation in February 2010 with the intention of further globalizing and integrating their markets. They agreed to jointly develop a new electronic trading system that would allow BM&FBOVESPA to electronically trade stocks, as well as futures and other derivatives. The system, expected to be launched in early 2011, will replace BM&FBOVESPA’s current electronic system and will be made available, through licensing agreements, to other exchanges around the world. Further, the exchanges further solidified their relationship with BM&FBOVESPA increasing its stake in the CME Group to 5% and CME adding a representative from the Brazilian exchange to its board of directors.

## **INITIAL BENEFITS OF THE COOPERATION BETWEEN THE EXCHANGES**

Perhaps the most obvious impact of the cooperation between the exchanges is the growth in the trading activity sent from the CME Group’s Globex system to the BM&FBOVESPA’s GTS system. In March, 2009, 272,540 contracts were sent from the CME Group to BM&FBOVESPA. In December, 2010,



2,144,247 contracts were sent to the Brazilian exchange via the electronic link and in March, 2010, this volume had risen to over 3.9 million. Thus, during the March 2009 – March 2010 period, there had been more than a fourteen-fold increase in this trading activity. At the end of the period, approximately 2.7% of BM&FBOVESPA's derivatives volume came from the CME Group's Globex system (CME Group, 2010).

### **EXPECTATIONS FOR FUTURE BENEFITS**

Future benefits from the collaboration between the exchanges can be expected to come from several sources. First, existing participants in the CME Group and BM&FBOVESPA markets will have greater trading opportunities because of their access to the combined markets. To cite just one example, Brazilian investors now have direct access to the S&P 500, Dow Jones Industrial Average and Nasdaq stock index futures trading at the CME Group and American investors now have access to the Ibovespa stock index trading at BM&FBOVESPA.

Second, new participants can be expected to seek access to the two exchanges as financial markets continue to grow and the advantages of the of the integrated U.S.-Brazilian futures markets become evident. Global investors and risk managers will find that access to the Globex and GTS systems is now even more desirable with the Brazil-U.S. link.

Third, the exchanges may choose to broaden their alliance to include new partners. Indeed, the leaders at both exchanges have spoken about his possibility. For example, the CME Group has other partners in the global futures arena – the National Stock Exchange of India, Bursa Malaysia, and Dubai Mercantile Exchange, for example – and it is conceivable that these exchanges might have an interest in being a part of the CME Group-BM&FBOVESPA venture.



Fourth, as the new, jointly developed electronic system comes on line in 2011, and stocks, futures and other derivatives can be traded on the same platform, new opportunities may be opened up apart from those in the derivatives markets alone. There are numerous trading strategies spanning the stock market and the stock index futures markets, for example, that will be made easier with the new trading system.

Finally, as the synergies from the cooperation become realized, the benefits will flow to the broader financial markets and even to those not participating directly in the two exchanges. For example, with access to more products in the integrated markets and with possibly reduced transactions costs, investors and risk managers will have greater flexibility in achieving their money management goals. If pension funds using the integrated futures markets can do a better job of managing their portfolios, the pensioners will benefit. If importers and manufacturers can manage their price risks more cost effectively in the integrated CME Group-BM&FBOVESPA futures markets, the savings can be passed on to the consumers. If Brazilian-based and U.S.-based multinationals using the linked futures markets have greater flexibility in managing the risks associated with their global operations, they have the potential to generate greater income and create more jobs in the Brazilian and American economies-at-large.

## CONCLUSION

In the 30 years or so since the term “globalization” has gained currency, there have been many examples of countries and companies working together to achieve greater production efficiencies, increased access to products and services, a wider range of investment opportunities, and other joint benefits. As technologies have advanced, the scope for positive outcomes from globalization has increased.



In this note, we have examined a case in which two futures exchanges, prominent in two of the world's largest economies, have decided to work together to further their mutual interests. Both the CME Group and BM&FBOVESPA seek to grow their markets internationally and they believe that, by cooperating, they will be better able to do so. Their collaboration is just beginning, but there is strong reason to believe that the hoped-for synergies – leading to more efficient provision of a broader set of investment and risk management opportunities for financial market participants in Brazil, the U.S. and elsewhere – are likely to be realized.

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