Analyzing the Relationship between Multinational Corporate Strategy and Financial Derivatives in Taiwan

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ABSTRACT

This article examines the connection/relationship between multinational corporate strategy and the effect of the financial derivatives market in Taiwan. The paper uses a qualitative methodology and an interview research method to determine which types of firms would be most able to benefit from a full-fledged and open derivatives market in Taiwan. Dividing the firms into three types—multinational firms operating with branches in Taiwan; local firms operating as multinationals with branches outside Taiwan; and pure domestic firms, the paper analyzes and compares the determinants and impacts in the adoption of different forms of internationalized strategies. It is hoped that an optimized strategy can be worked out. The significance of the article is that the reaction of Taiwanese industry to derivatives could well determine the country's economic performance in the 21st century. Most commentators agree that derivatives will play a major role in the future with derivatives markets enjoying vast amounts of equity. Taiwan has all the equipment, infrastructure, advanced technology and skilled labor to benefit from a mastering of the derivatives market.

Keywords: Derivatives, swaps, options, forwards, OTC, equity markets.

INTRODUCTION

There is no question that traditional financial services have undergone massive changes over the last several decades, between the pivotal points of the late 20th century and the early 21st. The reasons for this are numerous, but any list would include ever-changing technologies, demographic shifts, globalization, previously dormant and emerging markets, and increased competition among financial institutions. These forces have led to “change in how financial firms make money; in how and by whom they are regulated; in where they raise capital; in which markets they serve; and in what role they play in society.” All of these global factors and forces impact corporate finance decision-making and strategic planning in Taiwan, and around the world.

For example, the explosive growth of the financial derivatives market world-wide has been one of the more incredible phenomena of the past two decades. In the first quarter of 2004 alone, the value of trading combined for interest rate, currency and stock index contracts was $272 trillion. And that only takes into account exchange-traded financial derivatives contracts and not over-the-counter (OTC) contracts. According to the International Swaps and Derivatives Association, Inc. (ISDA), the total interest rate and currency swaps outstanding at the end of any year have risen from $865.60 billion in 1987 to $213.2 trillion in 2005. The jump represents an increase of 16 percent from 2004.

There is little doubt that derivatives, defined as “financial contracts whose values depend on—and are derived from—the value of an underlying asset, reference rate, or index” have become extremely important in the world financial markets. In fact, some argue that they have become indispensable. It is generally argued that markets, countries, regions, and individual firms looking to capitalize on globalization and the freer flow of financial instruments can ill afford to ignore the derivatives market if they want to take full advantage of all the opportunities to maximize their profit and expansion potential. The growth in derivatives has come about for numerous reasons, the most important being:

- The general internationalization of capital markets
- The floating of exchange rates, leading to foreign exchange speculation
- Advances in technology, especially telecommunications and high-speed computer processors, thus speeding up transactions and increasing volumes
Increased and increasingly more rabid competition among various financial institutions such as banks and securities houses, leading to the lowering of costs associated with issuing securities.

Similarly, Fornari & Jeanneau point to the way the OTC market is set up and its tendency to concentrate money-making in the hands of a few dealers, so that “failure of one dealer could result in large losses for its counterparties and end in a chain of defaults”5. Finally, there is the real fear of destabilization as banks scramble to keep up, with some banks choosing the easy way out by simply taking more risks: “In the United States, this tendency led to massive loan losses in the S&Ls and in commercial banks … It also led to massive misallocation of capital into commercial real estate”6.

Study Rationale/Significance

The purpose of this article is to examine the relationship between the global strategy of multinational corporations and the financial derivatives markets in Taiwan. The article examines three specific types of financial behaviors among Taiwan-based enterprises:
1. The motivations for using derivatives among the corporations adopting different types of internationalized strategies;
2. The influence on the return of equity through the use of derivatives;

It is important that Taiwanese industries and firms, both financial and non-financial, not be left behind as the world economy and markets mutate and mature, becoming more and more globally interdependent. Table 1 below gives the breakdown worldwide of the OTC derivatives market, signalling not only massive amounts of equity but also a continuing expansion of such trading.

Table 1: Global OTC Derivatives Market through 20037.

This article assumes that becoming involved in the international financial derivatives markets is now and will continue to be a key to the sustained growth of both Taiwanese firms and the island’s economy. It asks the following question: What is the best way for Taiwanese firms to go about maximizing their involvement while minimizing their risks? As well, under this general research question heading, the article also attempts to answer the following questions:
(a) Which Taiwanese firms stand the best chance of being able to maximize their utilization of the derivatives markets?
(b) Which firms are the least likely to be able to make full use of these markets? And why?
(c) What role do Taiwanese financial institutions play in making the derivatives market work?
(d) What needs to be done to improve the way these financial institutions handle derivatives?
(e) Are there specialized derivatives on which the Taiwan firms should concentrate? If so, why?

Methodology

The study’s research design consists of a qualitative methodology: an explanatory/instrumental case study of Taiwanese companies that make use of the financial derivatives market. A series of semi-structured interviews were conducted with eight respondents. Six executives from three different types of Taiwanese firms agreed to be interviewed: (a) two foreign multinational firms with satellite offices and facilities in Taiwan; (b) two Taiwanese multinationals with their head offices in Taiwan and branches elsewhere in the world; and (c) two purely domestic Taiwanese firms. Two executives from each type of firm agreed to take part in a semi-structured interview (on condition of anonymity). As well, two academic experts in economics were also interviewed to serve as a way to balance the self-interest of particular executives. These interviews, eight in all, were conducted face to face on neutral territory chosen by the respondents.
Supporting Literature

The literature review is broken down into three main sections:

(a) Derivatives’ definitions and types, problems associated with derivatives trading (especially financial derivatives), advantages, and arguments for the necessity of such trading;

(b) Some empirical studies on the effects of the derivatives market, debt loads, quantitative risk analysis, and lessons to be learned;

(c) Derivatives trading in emerging markets with special reference to Taiwan: differences and similarities.

Derivatives have been described and defined in various ways, but basically the definitions revolve around the same elements. According to The Economist: “Derivatives are contracts which give one party a claim on an underlying asset (or the cash value of an underlying asset) at some point in the future, and bind a counter-party to meet a corresponding liability”\(^8\). Specifically, financial derivatives are defined as:

Financial contracts whose value is based upon the value of other underlying financial assets such as stocks, bonds, mortgages, commodities, or foreign exchange. Derivative instruments take the form of futures, options, and interest and currency swaps. They are contractual agreements for future exchange of assets whose present value are equal; however, the value of the derivatives will change over the term of the contract as market evaluations change the value of each side of the contract\(^9\).

There are two basic types of derivatives markets: those that operate on exchange-traded instruments (organized derivative exchange markets or ODEs) and those that use over-the-counter (OTC) instruments. The difference between the two is that exchange-traded instruments work with standardized contracts; OTC trades are created continually to meet the requirements and the risk tolerance levels of the specific parties involved\(^10\). Table 2 below outlines the differences between the two types of derivatives markets.

<table>
<thead>
<tr>
<th>Cleared, regulated</th>
<th>Standardized</th>
<th>Not Standardized</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODE markets</td>
<td>Tailor-made clearing</td>
<td></td>
</tr>
<tr>
<td>International Currency and Swap market</td>
<td>Pure OTC derivatives</td>
<td></td>
</tr>
</tbody>
</table>

There are two types of risks involved in transactions on the derivatives market: firm-specific and systemic. Firm-specific risks include such things as credit or default, legal, market and liquidity, and operating risk\(^12\). As opposed to firm-specific risk endangering only one or two specific companies, systemic risk can cause havoc across both the financial system and physical assets sector. According to McClintock, while derivatives have allowed new benefits for world-wide markets, they also served to ratchet up the danger of systemic risk:

The blurring of distinctions between bank and non-bank financial institutions has expanded the breadth of potential sources and impacts of systemic failure. Increased concentration in OTC derivative markets, such as swaps, also focuses attention on the possible impact of the failure of a large bank or securities firm on financial markets. The simultaneous use of a range of markets for funding and position taking purposes combined with the possibility of rapid transmission of market shocks act to intensify systemic risk\(^13\).

For cross-border derivatives transactions, there are some special risks involved. Among the various risks: Default, delivery, foreign exchange settlement, legal, custody and intermediary, and operational. According to Fornari & Jeanneau: “[P]olicy makers and regulators have often been worried by the structure of the OTC market, where the high concentration of market-making could result in a concentration of credit risks in a few dealers. In such conditions, failure of one dealer could result in large losses for its counterparties and end in a chain of defaults”\(^14\).

Kelly (1995) argues that, in order to understand the events leading to the European financial market frenzy of the spring of 1994, one must examine how the entire financial structure had changed, “in particular, the reams of novel financial instruments spawned by the gradual abolition of exchange controls … it was the growth of financial derivatives which made aggressive speculation against currencies cheaper and faster than had previously been possible …”\(^15\). This was further exacerbated by the ability of so-called hedge funds to (a) take advantage of highly leveraged positions; and (b) have to only put up a small percentage of the notional cost up front. Under these circumstances, Kelly argues that the danger of systemic risk becomes “much increased by this myriad of interlinkages
between derivative products and the institutions trading in them. It can be sparked off by any of three occurrences: the default of a major player, a large market movement which wipes out a trader, and the inability to match obligations and receipts of market participants.\textsuperscript{16}

**Empirical Studies**

Several studies have been conducted to examine the effects of derivatives market trades and the relationship between optimal financial innovations and the transaction costs involved. According to a model created originally by Duffie and Jackson, for example, a derivative contract is optimal if it cuts across as large a part of a beforehand unaccessed portion of the market as possible.\textsuperscript{17} Tashjian and Weissman (1995) analyzed the futures market to determine how such a market will always design the next contract so that the highest possible revenue is generated—through the targeting of potential investors who are in greatest need for hedging combined with their risk aversion.\textsuperscript{18}

Nystedt has set up a model whereby an ODE market and an OTC market both offer contracts, the difference being that the ODE contract is standardized while the OTC one can be tailored to suit the risk aversion and hedging of an individual investor. Nystedt concludes that:

OTC and ODE derivative markets can both complement and compete with each other. For example, the large broker/dealers of OTC derivatives frequently rely on a liquid ODE market to dynamically hedge their market risk. Conversely, organized futures and derivatives markets in the U.S. face competitive pressure from OTC markets, who are offering fairly similar contract but are unburdened by regulatory and supervisory oversight. To a certain extent, the competition between OTC derivatives and ODE derivatives is determined by the structure of the contracts and what type of risk the end users would want to hedge.\textsuperscript{19}

In their 1997 study of derivatives exchanges in developed and emerging markets, Tsetsekos and Varangis came to the conclusion that, while derivatives exchanges offer certain key benefits to emerging market economies, they are not substitutes for needed reforms in the financial, capital and commodity markets. They concluded that:

\textit{[T]he form of ownership structure of derivatives exchanges is not identical across markets … while the performance of core functions in the financial system are the same across time and place, the institutional arrangements are not … According to our survey, higher potential for success have derivatives based on a domestic stock index, followed by derivatives based on local interest rates and currencies (p. 2).}

As outlined by Merton and Bodie, the core functions of the financial system include such things as clearing and settling payments, pooling resources, providing shares to make diversification easier, resource transference, uncertainty management and risk control, instrument and contract pricing information, and handling asymmetric information and agency problems.\textsuperscript{20}

In a study of debt use in East Asia, Allayannis, Brown, and Klapper examined 327 of the largest East Asian non-financial companies between 1996-98 to determine what the effect of choosing between local currency, foreign currency, and synthetic local currency (hedged foreign currency) debt had on the firms. The study took advantage of the Asian financial crisis as a backdrop for the examination. Contrary to much theory and commentary, the study found no evidence that foreign currency debt was connected to a worse performance during the crisis than natural local currency debt. In fact, the biggest asset drop was connected to hedged foreign currency debt, “a result explained by evidence related to derivatives market illiquidity during the crisis which forced some firms to leave their positions largely unhedged”.\textsuperscript{21} Allayannis, Brown and Klapper conclude that

\textit{[T]he evidence suggests that non-financial firms with adequate risk management tools may be able to support substantial levels of foreign currency debt even when there exists a significant risk of a currency crisis. In a similar vein, local and global financial institutions … should construct emergency plans for stabilizing the foreign exchange derivatives market in times of crisis}.\textsuperscript{22}

Overall, the empirical research seems to indicate that derivatives trading can be a positive for emerging economies, provided there is a clear understanding of the risks and hazards involved. As well, the indications are that foreign currency debt is not in itself a liability. But it can become one when this currency debt is hedged and crisis situations arise (such as the Asian crisis of 1997). As well, the studies show that, because there is a variance in the ownership structure of various derivatives exchanges, emerging markets have a better chance of success if they base their derivatives on domestic stock indices, local interest rates and local currencies.
Emerging Markets and Derivatives

The Chinese derivatives exchanges, which came into existence in the early 1990s, proved an example of what not to do to set up such markets and instruments in an emerging economy. The major failure of these unregulated exchanges had to do with a lack of the clearinghouse. This led to extensive market manipulation where those who ran the exchanges made large amounts of money at the expense of investors. While this proved to be a rough start, Shah argues that it actually helped China get its markets into shape and served as a painful learning experience. Ironically, Shah also argues that the weak legal system of commercial law China actually helped establish these markets:

Under a weak legal environment, individuals and firms in the economy face problems in their contractual arrangements … There are strong temptations to renege on a contract given the poor legal support for contract enforcement. In this situation, the futures clearinghouse is a vital institution which enables the functioning of the economy by supplying credit guarantees and producing contract performance23.

The launch of trading in index derivatives has also led to changes in the equity spot market. Table 3 below shows the changes in market capitalization and trading volume. All except Brazil experienced fairly substantial increases immediately following the introduction of index derivatives.

<table>
<thead>
<tr>
<th></th>
<th>One Year Before (in billions)</th>
<th>Two Years After (in billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Brazil</td>
<td>43</td>
<td>21</td>
</tr>
<tr>
<td>Spain</td>
<td>148</td>
<td>41</td>
</tr>
<tr>
<td>Singapore</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>35</td>
<td>10</td>
</tr>
</tbody>
</table>

In Taiwan, a futures exchange was opened in 1997. However, the Taiwan Futures Exchange (TAIFEX) could not have resulted without several deregulatory and re-regulatory measures that paved the way. Among them:

- Liberalization in the trade regulatory regime with tariff reductions in the 1980s and elimination of non-tariff barriers;
- Liberalization of manufacturing preferred policies on foreign direct investment in the mid-1980s;
- The lifting of foreign exchange controls on current account transactions in 1987;
- The passing of the Foreign Futures Trading Law in 1992 to control illegal futures trading and to allow Taiwan investors access to foreign futures.

According to Liu, economic growth and financial reform in Taiwan has been impeded by certain conditions, including25:

- Cultural Factors: a social structure based on Confucian principles that places merchants at the lowest level.
- Political and Ideological Factors: the position that a strong central command economy was for the best as well as fears of “infiltration” from mainland China leading to the “20%” law, for example, whereby the government may deny a foreign firm from doing business in Taiwan through a branch of it has more than 20% capital from the mainland.
- Bureaucratic factors: a civil law system that sides more often than not with the government and a tendency to deny legality to a financial institution’s interpretation if a rule is not clear. Also, a tendency for multiple regulation both horizontally and vertically.
- Legal system factors: lack of a transparent and professional legal system with judges not equipped with cases involving financial law.

Clearly there are numerous obstacles to the reform and modernization of financial institutions and systems in Taiwan, despite many recent improvements. Liu concludes that the key to reform and the way to stabilize that Taiwanese financial system is to ensure that investors have a predictable outcome:
Such predictability has to be founded on an enlightened economic policy that stresses competitive parity, market access, and a presumption of permission. It also has to be reinforced by the rule of law and political accountability. In other words, a workable financial system can only be found in an open system that allows a free flow of information and restricts the government’s discretion. Although the performance of Taiwan’s capital market and financial sector still lags far behind its potential, progress made in the financial industry in the last ten years surpassed that in the three decades before. Therein lies the hope for Taiwan to aspire to excel in financial services.26

In her study of equity market integration in the Asia-Pacific region, Chelley-Steeley noted that Thailand had the fastest rate of global integration and Singapore the fastest rise in local integration27. This was a far cry from even 10 years or so before, when the markets of Korea, Thailand and Taiwan were closed to foreign investment. Chan and Leung28, Lee at al.29, and Chung and Liu30 all concluded that the Korean and Taiwanese markets faced severe segmentation problems—both within Asia itself and the rest of the world. In an effort to ease that segmentation, Taiwan in 1996 and Korea in 2000 removed all restrictions on foreign investment; Taiwan (1996) and Thailand (1992) removed exchange rate controls; and Taiwan (1997) and Korea (1996) opened derivatives markets. Table 4 below gives a breakdown of the financial markets deregulation that took place in the four countries under study.

<table>
<thead>
<tr>
<th>Year</th>
<th>Singapore</th>
<th>Taiwan</th>
<th>Korea</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>99: stock exchange merged with derivatives exchange</td>
<td>96: limits imposed on foreign investors raised to 20%</td>
<td>93: blueprint for financial liberalization introduced</td>
<td>92: Securities Investment Board set up to prevent manipulation, corruption and poor corporate disclosure</td>
<td></td>
</tr>
<tr>
<td>99: electronic trading mechanism introduced</td>
<td>96: limits on foreign investor security holdings removed</td>
<td>95: foreign stocks allowed to be listed</td>
<td>92: exchange controls lifted</td>
<td></td>
</tr>
<tr>
<td>2001: cross-border trading introduced</td>
<td>96: outward bound capital controls abolished</td>
<td>96: foreign companies allowed to issue depository receipts</td>
<td>96: stock exchange introduced SET-30 as the market index</td>
<td></td>
</tr>
<tr>
<td>97: futures market opened</td>
<td>96: foreign shareholder limits raised to 20%</td>
<td>96: stock index futures traded</td>
<td></td>
<td></td>
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</table>

A breakdown of the daily market wide returns between the 6th January 1995 and the 5th January 2001, taken from the daily stock market index values, shows that the returns from the Asia-Pacific country markets are lower for the most part when compared to those from developed markets (US, UK, Germany, France, and Japan). At the same time, they show a higher volatility (Table 5), which Goetzmann and Jorion (1999) found to be one of the characteristics of such emerging markets world-wide32.

<table>
<thead>
<tr>
<th>Year</th>
<th>Singapore</th>
<th>Taiwan</th>
<th>Korea</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-2001</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Aside from lower daily return percentages and higher volatility, cross-correlation examinations show that the Asia-Pacific markets on the whole show higher integration among the regional markets than they do with the developed markets (Table 6 below).

Table 6: Daily Correlations for 1995-2001

<table>
<thead>
<tr>
<th></th>
<th>Thailand</th>
<th>Taiwan</th>
<th>Korea</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>0.0864</td>
<td>0.07787</td>
<td>0.1061</td>
<td>0.2906</td>
</tr>
<tr>
<td>US</td>
<td>0.1371</td>
<td>0.1496</td>
<td>-0.3358</td>
<td>0.3687</td>
</tr>
<tr>
<td>Germany</td>
<td>-0.0159</td>
<td>-0.1977</td>
<td>-0.1921</td>
<td>-0.4991</td>
</tr>
<tr>
<td>Japan</td>
<td>0.1843</td>
<td>0.0864</td>
<td>-0.1396</td>
<td>0.1625</td>
</tr>
<tr>
<td>France</td>
<td>0.1745</td>
<td>0.0614</td>
<td>0.2965</td>
<td>0.4779</td>
</tr>
<tr>
<td>Thailand</td>
<td>-0.2962</td>
<td>-0.2962</td>
<td>0.1026</td>
<td>0.0943</td>
</tr>
<tr>
<td>Taiwan</td>
<td>-0.2962</td>
<td>-0.3664</td>
<td>0.3380</td>
<td>-0.1229</td>
</tr>
<tr>
<td>Korea</td>
<td>-0.1026</td>
<td>-0.2308</td>
<td>-0.1229</td>
<td>-</td>
</tr>
<tr>
<td>Singapore</td>
<td>0.0943</td>
<td>0.3381</td>
<td>-0.1229</td>
<td>-</td>
</tr>
</tbody>
</table>

For example, Taiwan shows the strongest daily correlation with Thailand and Singapore, while its correlations with developed markets never rise above 0.15. Overall, the least segmented of the Asia-Pacific markets seems to be Singapore. In conclusion, Chelley-Steeley states that:

We find that the markets of Thailand, Korea and Singapore are becoming progressively less segmented both locally and globally. In contrast, the market of Taiwan is not showing evidence of local or global integration.

When we study the pace of local integration, we find that local integration between Asia-Pacific countries is occurring at a faster pace than global integration with the region.

Study Results

There were several dominant recurring themes that emerged from the interviews conducted with the eight respondents. With regard to the key aspects of derivatives market trading, it was generally agreed that larger, multinational firms (either foreign with branch offices in Taiwan or Taiwanese with branch offices in other parts of the world) were best equipped to take advantage of this type of trading. Another theme that came across was the effect of the particular (and unusual) relationship between the People’s Republic and Taiwan—with the majority of respondents agreeing that the relationship needs to be normalized for Taiwan to be able to take full advantage of derivatives trading. The third dominant theme had to do with the effect of government rules and regulations on such trading, the majority agreeing that such regulations in Taiwan have hampered the markets and prevented them from becoming fully integrated. The fourth theme had to do with the importance of such integration in Taiwan’s efforts to take full advantage of world trade. The fifth theme related to the motives for using derivatives trading as the major diversification strategy for firms hoping to achieve a global reach. The sixth, and final, theme was one that went unstated in the questions but which the respondents talked about anyway—and that was the amount of risk involved in such trading. Again, the majority did not express that much concern as long as the firms doing the trading were well-informed, experienced and with the finances to withstand the occasional financial storm.
Table 7 below summarizes the dominant themes found from these interviews. The themes were extracted from the interview material, and can be correlated indirectly to the analysis of the earlier literature review.

<table>
<thead>
<tr>
<th>#</th>
<th>Firms Best Equipped</th>
<th>China Relationship</th>
<th>Effect of Gov’t Rules &amp; Regulations</th>
<th>Integration Importance</th>
<th>Reason for derivative trading</th>
<th>Risk Involved</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1</td>
<td>Multi-national</td>
<td>More trade needed</td>
<td>Less control needed</td>
<td>Necessary</td>
<td>Needed to globalize &amp; integrate</td>
<td>Not high</td>
</tr>
<tr>
<td>#2</td>
<td>Multi-national</td>
<td>Ease tensions</td>
<td>Less control needed</td>
<td>Necessary</td>
<td>Imperative to compete globally</td>
<td>Can be managed</td>
</tr>
<tr>
<td>#3</td>
<td>Multi-national</td>
<td>Must be opened up</td>
<td>Too restrictive</td>
<td>Necessary</td>
<td>Needed to keep up globally</td>
<td>Risk of shakeout</td>
</tr>
<tr>
<td>#4</td>
<td>Multi-national</td>
<td>Must look to West</td>
<td>Dropping controls good</td>
<td>Very</td>
<td>Fear of being left behind</td>
<td>Can be managed</td>
</tr>
<tr>
<td>#5</td>
<td>Multi-national</td>
<td>Must look to West</td>
<td>Less control needed</td>
<td>Necessary</td>
<td>Need to keep pace</td>
<td>Could be risky</td>
</tr>
<tr>
<td>#6</td>
<td>None</td>
<td>Self-sufficient</td>
<td>Controls needed</td>
<td>Not important</td>
<td>Left with no choice</td>
<td>Very risky</td>
</tr>
<tr>
<td>#7</td>
<td>Multi-national</td>
<td>Needs to work</td>
<td>Less control needed</td>
<td>Very important</td>
<td>Needed to compete globally</td>
<td>Not risky</td>
</tr>
<tr>
<td>#8</td>
<td>None</td>
<td>Stay separate</td>
<td>More control needed</td>
<td>Not important</td>
<td>Need to show ever-increasing profits</td>
<td>Too risky</td>
</tr>
</tbody>
</table>

**General Findings**

The general conclusion arrived at through the use of the interviews and the secondary literature is:

*Taiwanese firms who wish to adopt different types of internationalized strategies must get involved in derivatives trading if they wish those strategies to be effective and to provide them with sufficient returns to please their shareholders. Firms that do not get involved in such trading risk missing out on a massive financial engine that drives trillions of dollars worth of trades annually. In fact, derivatives trading has become one of the most commonly used ways of increasing equity returns even among firms whose main activity is the production of commodities. Finally, it is concluded that the use of derivatives is the most commonly used global diversification strategy—to the point where it may become the only viable strategy in the future. In effect, this contradicts the conclusion reached by Mas & Saá-Requejo where they state that: “Futures are not a financing or investment vehicle per se, but a tool for transferring price risks”*. In fact, they have become financing and investment vehicles.

The implications of this conclusion are far-reaching for Taiwanese firms: both those who wish to partake in derivatives trading and those who do not. For those who wish to partake, the implication is that only certain types of firms will succeed. The patterns of success have to do more with the size of the firm, its knowledge-base, and its previous experience in this area than it has to do with any particular commodities that the firm produces or deals with. As Dillard points out: “The production of goods and services by which we live is a byproduct of the expectation of businessmen to ‘make money’”*. Ideally, it seems the firm has to be large enough and liquid enough to be able to hedge it derivatives trading to the point where the risk factors almost even out (for they can never truly even out because the system is always incomplete). For other Taiwanese firms wishing to compete on the world markets, the implications are less rosy. Unless such firms can grow themselves into the ideal multinational size to have a chance of succeeding in the derivatives market, it would seem they are doomed to failure. The problem now, however, is that, in order to reach such an ideal size, these firms would have to partake in the derivatives market. So we have the makings of a vicious circle.

Further, even those firms who do not wish to compete globally may eventually be drawn into the vortex of derivatives trading. It is the nature of such trading that a firm might not even be aware that derivatives trading has taken place. This is because many firms indulge in off-balance sheet accounting so that some transactions involving
derivatives trading will not show up. As well, there will be more pressure for such firms to be rationalized, amalgamated and otherwise rounded up so as to create firms closer to the ideal size for proper derivatives trading.

As has already been indicated, this paper is very much a preliminary one and leaves as many questions unanswered as it provides solutions to. At the same time, it sets up a solid basis for (a) laying out the parameters and boundaries of the given field of study; and (b) stimulating further studies. It also seems to agree with most of the major studies in the literature with reference to the importance of the derivatives market around the world and its effect on firms of a particular size (See, for example, Bryan\(^8\); Steinherr\(^9\); and Fornari & Jeanneau\(^10\)).

The paper has left little doubt that there is a strong connection (even if only qualitatively explored thus far) between the use of derivatives and the success of multinationals to expand and/or produce higher returns on equity for their shareholders. As well, the study indicates a close relationship between multinational firms’ global diversification strategies and the use of such derivatives, thus creating strong ties between the two and providing an important clue for firms who wish to get involved in such diversification strategies.

This paper also makes fairly clear what must be done in Taiwan with respect to improving the chances of its firms to compete globally: improve the financial derivatives market through further deregulation and a less hands-on attitude on the part of the government. In other words, create a financial model that makes even more use of the free market capitalist system involving self-regulation and industry checks and balances rather than regulatory controls. In this way, Taiwan’s economy can become more integrated with that of the rest of the world (See Chelley-Steeley\(^41\)).

**Concluding Notes**

The writer’s personal opinion on this subject is that this case study combined with the literature review represents a fairly definitive outlook on Taiwan, the derivatives market, and multinational firms in Taiwan. Whether or not Taiwan can succeed in the integration process depends on the actions of the government to loosen regulations even further—and to make a further rapprochement with the People’s Republic. As much as we would prefer not to be, our future economic health is closely tied in with that of Mainland China. However, the manner in which the politics of such a rapprochement could be carried out is beyond the scope of this paper.

The writer also does not agree with those who feel that the derivatives markets are too risky for Taiwanese firms. What that seems to imply is that these firms are not mature enough or intelligent enough to take those risks, risks that are found in any business venture. Taiwan needs to get in step here. Any risk is to be shared with the rest of the world. In the event of a catastrophic collapse of the global market system, it will not make much difference if Taiwan is in or out. Everyone will either sink or swim together in this new globalized markets.

**REFERENCES**

12. Ibid., 222.

19 Nystedt, *supra* n. 15, at 31.


22 Ibid., 854.


27 Chelley-Steeley, *supra* n. 38, at 7.

28 Ibid., 8.

29 Ibid., 15-16.

30 Mas & Saá-Requejo, *supra* n. 22, at ii.