

## Chapter 1: INTRODUCTION

### 1.1 Commodity Futures

Commodities trading have been regularly practiced since many centuries ago. Kroll and Shishko (1973) pointed out that in Ancient Sumerian, circa 3,000 B.C., a systematic use of credit based on loans of grain by volume and loans of metal by weight has been used. Baer and O.G. Saxon (1947, p.4) added that commodities trading already existed during the heyday of the Roman Empire. There were nineteen trading markets in Rome called "fora vendalia" specialising in the distribution of specific commodities brought by many merchants from other countries. The development of commodities futures accelerated further by the advent of the Industrial Revolution beginning in the late eighteenth century. This revolution marked the use of machinery to replace hand labour. As a result, the time taken for production and processing of goods was substantially reduced; thus, the demand for raw materials such as commodities increased tremendously. However, the price of these commodities was entirely dependent on the supply and demand of the market. Therefore, the entrepreneurs were exposed to price uncertainty should there be any market debacle that affects the price of these commodities.

In the Orient, the first recorded organised commodities futures trading, according to Teweles et.al (1974), is the Japanese "rice ticket" practised in Osaka in the seventeenth century. This was the time of the Shogunate government. The government empowered all feudal lords to appoint "rice agents" and these agents were authorized to bring their commodities from all rice producing areas in Japan to rice warehouses in Osaka. In return, the warehouse issued certificates, which was regarded as negotiable and tenderable against future agreements. Meanwhile, in the West, the commodity was traded on a "to-arrive" basis. This

method was introduced in order to minimise price risk that occurred due to considerable time taken in shipping the commodities; it was done by shipping details and samples via fast ships to intended importers, while the actual commodities were shipped aboard slower vessels. In 1821, the earliest organised to-arrive market was established in Liverpool.

In 1848, the Chicago Board of Trade (CBOT) was founded and commodities were first traded on an organised exchange. CBOT started its futures trading in 1859. After the establishment of the CBOT, farmers could know what price they could receive at harvest, prior to planting a crop. Thus, a farmer could determine if a crop was worth planting in spring for harvest in fall. Just as the existence of stock markets serves an important economic function, having a "forward" pricing mechanism serves an important economic purpose for commodity related businesses.

## **1.2 Overview of Crude Palm Oil Futures (CPO futures) on the Malaysia Derivatives Exchange (MDEX)**

CPO futures was the earliest form of futures contract traded in Malaysia. It was introduced and traded on the Kuala Lumpur Commodity Exchange (KLCE) in 1980. Besides CPO futures, KLCE also traded several other commodity-based futures such as rubber, tin, cocoa, palm olein and crude palm kernel futures. On December 1998, KLCE merged with the Malaysia Monetary Exchange (MME), whose task was to trade interest rate futures contract, the 3-month KLIBOR, and changed its name to the Commodities and Monetary Exchange of Malaysia (COMMEX) to reflect the diversity of its products.

Despite several restructuring and merging of derivatives exchanges, CPO futures has been the mainstay of Malaysia's futures market. Currently, it is traded on MDEX, Malaysia's only derivatives market. MDEX was formed by the merging of two derivatives exchanges namely, COMMEX, and the Kuala Lumpur Options

and Financial Futures Exchange (KLOFFE). It started its operation on 11 June 2001. This merging is in-line with the Capital Market Masterplan of the Securities Commission of Malaysia and establishes a single derivatives exchange offering a multitude of products for investors. MDEX is a wholly-owned subsidiary of the Kuala Lumpur Stock Exchange (KLSE).

### **1.3 Objective of the Study**

Many academicians and practitioners have been arguing about whether commodity investment can be regarded as an asset class, which in turn could reduce risk of holding a portfolio through diversification. Many researchers had undertaken studies to analyse the issue. Most of the studies done had used the data derived from well-developed financial markets, e.g. the United States and the United Kingdom, and analysed the world commodity consumption products e.g. metal, corn and soybean oil by utilizing the passive investable commodity indices such as Goldman Sachs commodity indices (GSCI) and Standard and Poor commodity indices.

Most of the studies found out that by investing in the commodity, institutional and retail investors will be able to: 1) diversify a portfolio against adverse economic condition such as unexpected inflation which may affect the price of stocks, bonds and other traditional investment; 2) gain natural sources of returns such as convenience yield and scarcity return; and 3) take advantage of pricing inefficiencies that may occur in the commodity markets.

However, no prior studies have been undertaken to analyse CPO futures trading on MDEX as a commodity investment. Thus, the objectives of this research project are as follows:

- i) To study the risk and return involved in CPO futures;
- ii) To analyse the CPO futures returns correlation with other assets such as stocks and bonds;

- iii) To determine the effectiveness of CPO futures as a stand-alone investment and part of the fully diversified portfolio; and
- iv) To study whether CPO futures may offer some benefit during the period of traditional asset markets decline e.g. stocks and bond.

#### **1.4 Significance of the Study**

The importance of this study is to analyse CPO futures whether it can be considered as an asset class that can contribute to risk reduction in a well-diversified portfolio. In addition, this study may change the traditional perspective of investors, in particular the Malaysian investors, pertaining to CPO futures as well as MDEX. CPO futures, which is traditionally a market for traders, hedgers and speculators, may now provide benefit for investors.

Due to the Asian Financial Crisis in 1997, most of the traditional investments such as stocks and bonds suffered a significant decrease in value. Thus, it is imperative to find other asset classes that can offer some downside protection against such adverse economic condition. Unlike either bonds or stocks, commodity prices rise and fall based on near term supply and demand as well as near term perceptions of unexpected inflation.

#### **1.5 Scope and Limitation of the Study**

The study is confined to the study of CPO futures in MDEX, the only available organised exchange for CPO futures in the world. The study will assume that CPO futures traded on MDEX as liquid and efficient market i.e. trade volumes are sufficiently large and all publicly available information is embedded in the prevailing prices as well as current futures price is a consensus forecast of the value of the spot price in the future on the expiry date of the futures contract.

Moreover, this study, unlike other studies conducted previously, will not be using passive investable commodity index. This is because MDEX does not have such index in place. Hence, there would be a slight possibility of getting a result that is not comparable to previous studies done on capital markets of the developed countries. Besides that, the bond index that is used in this study may not represent the actual trend of bond securities. This is because interest accrued is included in the calculation of index. The bond price index includes the value of accumulated interest that will cause the accumulation bond index to steadily increase over time. The effect of accumulated interest occurs daily rather than just on coupon payment days. Thus, the effect must always be positive. This situation could cause the index to appear relatively stable even during adverse economic condition. Nevertheless, this study does not have other alternatives since this is the only bond index available in the Malaysia's capital market. Hence, the results of this study need to be viewed with caution.

## **1.6 Organisation of the Study**

This study is organised as follows:

Chapter 1 describes the historical background, the objectives of the study, significance of the study, scope and limitation of this study and the organisation of the study. Chapter 2 of this study provides extensive reviews regarding this area of study. The data and research methodology are carefully described in Chapter 3. Chapter 4 presents the results and analyses of the study. Chapter 5 offers concluding remarks and some recommendations for future research in this area.