

Chapter 1

Introduction

1.1 Statement of the Problem and the Significance of the study

Gold, as the precious metal since the recorded history (human history) has been used as coinage, jewel, arts, tools and many others things. There is no record about the first found of gold in this world, but there are many stories about gold in many ways. For centuries, people had been using gold as the exchange vehicle. Even we use gold as the exchange vehicle no more, but gold still plays the important role in the exchange or trading process. Many countries in the world still have gold in their banks as the “Foreign Exchange Reserves” (FOREX).

Gold seems important for human for long time. This might be the reason why we value gold above any other metals (silver, coppers, brass, etc). When we changed from using gold to paper money, we still need gold for the Foreign Exchange Reserves. Even in these last years many countries has changed their gold portion in their Foreign Exchange Reserves, nevertheless, gold still plays its important role in the market.

That is the reason why the gold price is related to the exchange rate in last 4-5 decades, especially the main currency as the US Dollar which is accepted to exchange and trade all over the world. That also makes things much more complicated; because we use gold as a reserve to make money, then we use that money to trade and exchange in many markets even the stock markets, bond markets and etc, finally we trade gold by the money we made again.

Now, gold price does not just depend on demand and supply of gold. If we need to study the dynamics or systems of gold price, we still need to study the exchange rate and Foreign Exchange Reserves market system, money market, capital market and also the US economy and social, as the USD is the world's acceptable currency.

Nowadays, the financial crisis (Hamburger Crisis) has affected the world's economy for years (since 2007). That causes illiquidity and instabilities in the economics in many countries. The investment (capital) just flow to something which has more stability and lower risks and one of the answer is "GOLD".

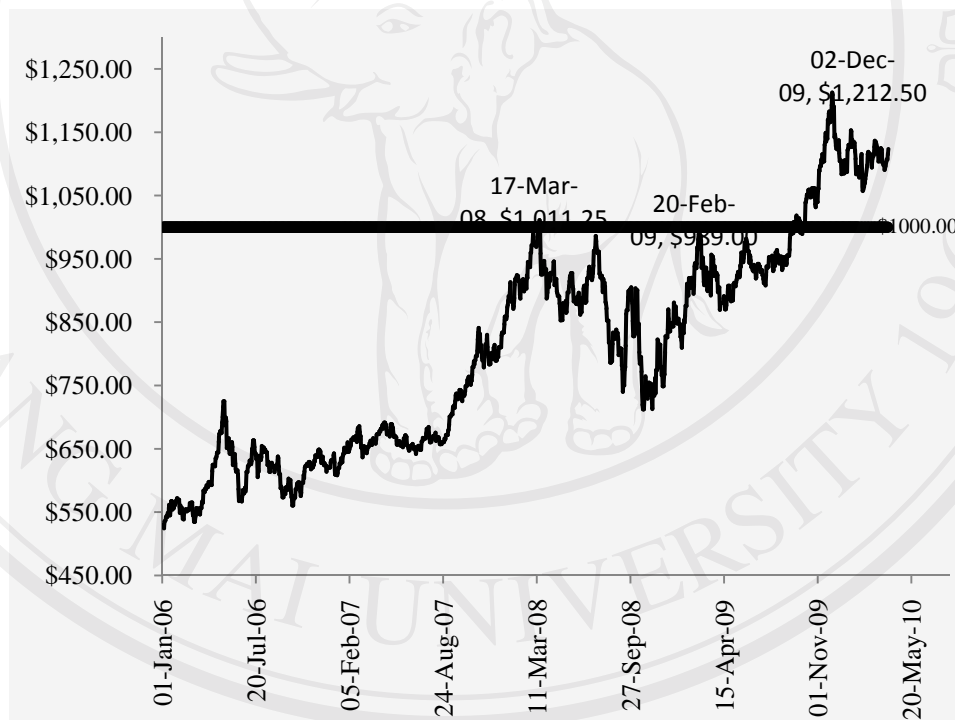


Figure 1.1 Gold Spot Price in other countries quoted in USD

Gold price has strongly fluctuated since the world faced the recession. It reached 1,000 USD per ounce once in March 2008, which was the highest price in the history at that time. After it fluctuated around that price for months, in February 2009 it almost reached 1,000 USD per ounce again. The world gold price has increasing along these times. In the beginning of 2006, there was just 530 USD per ounce and it

had been increasing until March 2008 and gone beyond 1000 USD per ounce in March 17th 2008 (1,011.25 USD/Ounce). A year later, the price had been fluctuated around 720-1,000 USD and again, it almost reached 1,000 USD per ounce again in February 20th 2009 (989 USD/Ounce). After that the price was fluctuating again, in late 2009 the price has gone over 1,000 USD per ounce again and this time it reached the highest price in history in December 2nd 2009 at 1,212.50 USD per ounce and stay over 1,000 USD per ounce until the end of January 2010.

Supply of Gold, mined gold has less portion of gold which is trading in the world now. Old gold has been sold out especially at this time, because people see how they can make benefits from the price that is getting higher. Otherwise, the European Central Bank (ECB) sold their gold out from their Foreign Exchange reserves and some countries buy gold for their Foreign Exchange reserves. For these reasons, amount of gold in the market is getting less. Demand of Gold, is increasing day by day as the negative relation with the supply. Investors need gold for their investment either in direct or indirect, people (non-investors) are more interesting in gold than before (some of them have become gold investors respectively). Low supply – high demand is one of the reasons for the increasing in Gold Price in present days.

Thailand is known as “Suvarnabhumi” or “The land of gold” because there were many gold mines in Thailand in the past. Ancient Thai people used gold for Buddha image, money and also the insignia, etc. Nowadays in Thailand, we trade gold in THB (Thai Bath), and here is where the Foreign Exchange reserves concerns. The gold price which is trading in Thailand is refer and calculated from the gold price in Hong Kong Gold Market which is close to the price in Commodity exchange (COMEX). In Thailand, trading gold is Gold Bullion with a purity of 96.5% but other countries is

99.5%. Then, the price from HK gold market needs to be adjusted before been used in Thailand, at this point, Foreign Exchange reserves becomes a factor again.

Baht is a unit of weight measurement for Gold in Thailand where 1 Baht is equal to 15.244 grams in raw bullion form or 15.16 grams when it sold as jewelry. Thai Gold is also measured in "Salung" which is a smaller unit than Baht, where 1 salung is a quarter baht (0.25 baht) or 3.81 grams. A purity of 96.5 percent means in 1 Baht of Gold 96.5 percent of it is pure gold while the rest is made of metals such as silver.

Hence, in 1 Baht Gold there is normally 14.71 grams of pure gold which is a little less than half a troy ounce (0.473 ozt).

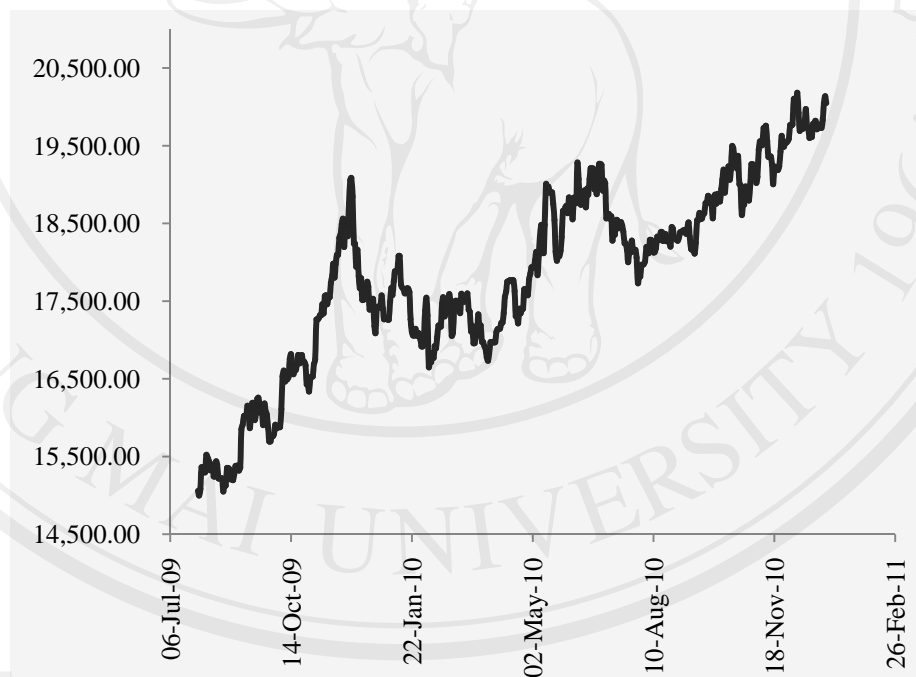


Figure 1.2 Gold Spot Price in Thailand quoted in THB

Figure 1.2 shows Thai Gold Spot price in Thai Baht, we can see that the line shape is as same as the Gold Spot price in US dollar. Which also shows that gold domestic price in Thailand follows the world's price, if it is increasing in other countries it will be increasing in Thailand as well. Even though Thai Gold market

uses different measurement from other countries, but Thailand Gold Spot price still flows in the same wind. When the price is increasing in other markets, Thai Gold Traders association will calculate the price for domestic gold by using the exchange rate and gold portion to get the price for 1 Baht Gold in Thai currency (Thai Baht: THB).

Futures exchange or derivatives exchange is a place where people can trade standardized futures contracts. That is, investors can trade a contract to buy or sell specific quantities of a commodity or financial instrument at a specified price with delivery set at a specified time in the future. The first modern future exchange in the world began in 1710 at the Dojima Rice Exchange in Osaka, Japan. In 1800s followed the future market in Chicago, USA. New York Commodity Exchange (COMEX) is the first exchange market where Gold Futures had been traded in USA and nowadays, the largest exchange markets are the Chicago Board of Trade (CBOT) and the Chicago Mercantile exchange (CME).

There are many products such as options, forward and futures of indices, crops, metals or etc. The one which would be studied is "GOLD FUTURE". February 2nd 2009, Thailand Future Exchange (TFEX) announced "Gold Future" to be trade in this market. Gold Future is still new for Thai investors. Even though futures are already reducing risks of trading asset but there is also another risk in trading the futures. Which price should be accepted? That would come to their mind. The price of the gold future contract should depend on its underlying asset 'GOLD', but how? The relation between these two factors is interested in this case. If people just jump in the market and are trading without any basic knowledge or information that would be very risky for them and also the market and that is absolutely not the purpose of the

market. That should be some mechanism or model which helps them in calculating their risks and also expected returns.

From two years of trading, the Gold Spot price and Gold Future price in Thailand Future Exchange (TFEX) are going in the same way. But no one knows the actual market behavior. That brings us to this study of the relationship between Gold Spot Price and Gold Future Price in Thailand Future Exchange (TFEX), to study the relationship between these two factors in three months long before exercise date.

From this study, there would be models for future contracts and those would be compared. Investors can use those models to calculate the future price which should be bought and also be able to calculate their risks and returns.

1.2 Objectives

1. To find the relationship between Gold Spot price and Gold Future price in Thailand Future Exchange (TFEX).
2. To compare the model fitness for Gold Spot price and Gold Future price in Thailand Future Exchange (TFEX).
3. To reduce risks for investors in Thailand Future Exchange (TFEX).

1.3 Educational/Application Advantages

From this study, the investors in Thailand Future Exchange (TFEX) can see the relationship between Thai Gold Spot price and Future price in four periods of time. Otherwise, they can also compare the relationship between those two factors from the result of this study for calculate or estimate their risks in investing in Gold Future in TFEX.

From the method of this study, investors can use it as a tool for finding the relationship between these two factors in other lengths of time. To get more information and knowledge about derivatives they are interested. Because in Thai derivative market, there are many trading derivatives such that SET50 index futures, SET50 index options, Stock futures and Interest rate futures. Method of this study can be adapted and applied to those derivatives with another factor which related to derivative itself, i.e. SET50 futures and SET index.

1.4 Scope and Study

This research studies the relation between Gold Spot Price in Thailand and The Gold Future price in Thailand Future Exchange (TFEX). This research also studies the relationship between these two factors in six different periods for six contract months. With this study we will find out six different relations between gold spot price and future price in Thailand Future Exchange (TFEX).

In Thailand, we trade gold in THB (Thai Bath). The gold price which is trading in Thailand is refer and calculated from the gold price in Hong Kong Gold Market which is close to the price in COMEX (Commodity exchange). In Thailand, trading gold is Gold Bullion with a purity of 96.5% but other countries is 99.5%. Then, the price from HK gold market needs to be adjusted before been used in Thailand. The price which be used in this research is one from the Gold Traders Association in Thailand. Gold Future price in Thailand Future Exchange (TFEX) would be conducted from websites.

Information under study:

- Gold Spot price from August 2009 to December 2010

- Gold Future price in four contract months which are:
 - GFC09 (December 2009)
 - GFG10 (February 2010)
 - GFQ10 (August 2010)
 - GFV10 (October 2010)