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IS DIRHAM BETTER PERFORMED THAN DINAR IN HEDGING FLUCTUATED PRICES?

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ABSTRACT

Previous researches had shown that the coinage system can make the whole economic system sustainable rather than fiat money system. Of course the reason for that is the Gold Dinar and Silver Dirham are capable of reducing the fluctuation in goods price, thus it can reduce the inflation and deflation. Despite the fact that the both gold dinar and silver dirham are in a same kind, but they are in a different weight age, hence each of them would bring different result in case of stabilizing or hedging the price fluctuation. The question may arise here is which one of these metal can be a better tool to stabilize or hedge the price fluctuation. As a response to this matter, an empirical study would be carried out to find the answer. Therefore, this study is purposely compared the performance of gold dinar and silver dirham in hedging the price fluctuation, and subsequently to identify which one of these commodity monies could be a better hedging tool.

Keywords: Performance, Dinar and Dirham, Fluctuated Prices, Hedging

Paper type: Literature review

Introduction

At the time of the Prophet, Muslims used raw metal or Byzantine coins as money. Three sorts of metal were used for economic transactions: gold (Dinar), silver (Dirham), and copper (*fals*, pl.: *fulus*). The Muslim Government struck its own Dirhams as early as 18H although gold and silver coins from the Byzantine Empire were still accepted throughout Islamic society (Grohmann, 1955). However, gold coins were not struck before the Government of Mu'awiya Ben Abi Sufyan (41-60H), and Byzantine coins were accepted until the monetary reform of 'Abd al-Malik Ibn Marwan in 75 or 76H.

Initially, the quality of coin striking was poor, and weight varied. Therefore, coins were treated like raw metal: people continued to weigh rather than count them (Balog, 1961). Another reason that weighing remained the most important way of measuring the value of money was that wear and tear afflicted coins so that they would lose weight over time (Miskimin, 1989). Finally, even the official weight of the Dirham varied between 2.8 and 3.1 gram (Grohmann, 1955). In general, coins were still objects of trade with respect to their silver or gold content rather than simply an exchange medium, and were weighed rather than counted (Udovitch, 1975). However, silver and copper coins were frequently exchanged in counting because they were less valuable (Balog, 1961). This indicates that the idea of money as a numeraire was already present in early times.

Previous study

There are number of researches about the advantages of Dinar and Dirham in hedging price fluctuation. Meera (2004) frequently emphasized on how these precious metals could play an important and significant role in stabilizing economic disasters such as inflation and recession. These commodity monies could be able to sustain from the economic disaster because it has its own intrinsic value and could stop money to become cheaper as what fiat money system has been producing in banking sector (Abdul Hamid, 2002). Dinar and dirham which is gold and silver originated could realistically replace

existing currency and leads to be able to become a single global currency (Bonpasse, 2007). Besides, these commodities monies has their own characteristics which enabling them to eradicate or minimize the negative effects and impacts of modern monetary system (Freeman, 2003).

The existing financial tools also could invite the disasters in economy. Thus, several studies have been carried out such as the comparison between the performances of gold with other derivatives instruments in hedging foreign exchange risk. Meera (2004) has argued that foreign exchange risk would be totally eliminated if a comprehensive gold dinar system is implemented. This means there is no need for forwards, futures or options on the currencies of the participating countries. Meera (2004) has also argued that the gold system in this case would be able to reduce currency speculation and arbitrage between the currencies.

Based on the foregoing arguments, it can be concluded that the commodity money is capable of reducing the fluctuation in goods price. Today many investors become interested in gold and silver model. The concept of gold also was mooted out by the former Malaysian Prime Minister Tun Dr. Mahathir Mohammad, when he had called on such countries to formulate a gold payment (Mahathir, 2000). The price of export and import the commodities product like food, construction product and others are to be quoted in weight of gold and silver, thus it can hedge the price fluctuation due to the price of gold and silver is more stable, so in this structure the gold itself is used for pricing and not national currencies backed by gold. On top of that, it is already proven the prices of commodities can be hedged and stabilized in 10 years time tough it is been used merely depend on intrinsic value, not only being backed.(Sharif, 2008).

Though the both of gold dinar and silver dirham are in a same genus, but they are in a different weight age, hence each of them would bring different result in case of stabilizing price fluctuation. The question may arise here is which one of these metal can be a better tool to stabilize or hedge the price fluctuation. Since there is no clear evidence has been pointed out pertaining to this issue, the study on this matter would become necessary in current days

Methodology

Data of oil, consumer products and construction products' prices were gathered separately in 10 years to see the performance of gold Dinar and silver Dirham's capability in hedging the wild fluctuation of prices. Meanwhile, the measurement of the performances of commodity monies, dinar and dirham has been formulated through the conversion of gold and silver's price based on the prices determined in kitco index. The data of the products are selected based on the significance in consumers' daily life and then became the variables of this study. Besides, it is also has given a big impact to people who are continuously struggling against the increasing prices and its fluctuation in market.

The main source of data collection came from secondary source. The data of products' prices are collected from mundi index and some of them gathered from the document of the related company. The price of gold dinar, silver dirham, oil, consumer's product, and construction product then accumulated to do comparisons between them. Another source came from recorded perusal or published information like magazine, annual report, other documents and many more. The national statistic department and world market price for each product also have been a part of the resource to make sure the prices is really true and accurate.

Paired sample T-test procedure was used to test the difference of mean for a pair of variable. This analysis was conducted because researcher needs to measure if there is a significant difference between performance of Gold Dinar and Silver Dirham in hedge the price fluctuation in commodities product. The paired test usually results in a more powerful test of a false null hypothesis. The output gives the sample means and the mean difference, their standard deviations and the standard errors. The 95% confidence interval for the mean difference is also shown as well as the t-test of the null hypothesis that the "mean difference = 0" versus (vs) the alternative hypothesis that the mean difference is "not = 0". The p-value equals 0.144. Both the paired and independent sample t-tests make assumptions about the data, although both tests are fairly robust against departures from these assumptions. In the paired samples t-test it is assumed that the differences, calculated for each pair, have an approximately normal distribution.

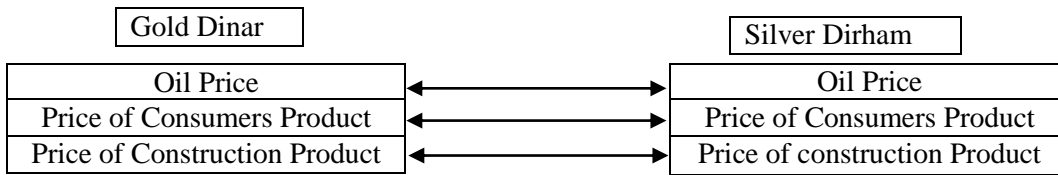
Techniques are available to test this assumption. An alternative procedure that makes no assumptions about the distribution of the data is the Wilcoxon Test, but this test is less powerful than the paired sample t-test. 25

Theoretical Framework

Variables: Gold Dinar, Silver Dirham

Variables: Oil Price, Price of Consumer Product and Price of construction product.

Figure 1: Schematic Diagram (Relationship Diagram)



Data Analysis and Treatment

The statistical tool used in this study is T-test. A statistical test establish significant mean different in a variable between two groups in the variables. The T-test employs the statistic to test a given statistical hypothesis about the mean of population (or about the means of two populations) it determine if there is a significant relationship between the dependent and each independent variables. The standard error of coefficient this is need in order to compare the calculate T with critical ‘T’ from.

$$t = \frac{\bar{X}_D}{\hat{\sigma}_{\bar{X}_D}} = \frac{\frac{\sum D_i}{n}}{\frac{\sqrt{\frac{\sum D_i^2 - (\sum D_i)^2/n}{n}}}{\sqrt{n-1}}}$$

- \bar{X}_D = Means difference score
- D_i = (Dinar minus Dirham)
- $\hat{\sigma}_{\bar{X}_D}$ = variance
- t = t – test analysis
- n = Samples size

Hypothesis Statement

1. Hypothesis 1

H₀: There is no significant different between in Gold Dinar and Silver Dirham in hedging consumer product price

H₁: There have significant different between in Gold Dinar and Silver Dirham in hedging consumer product price

2. Hypothesis 2

H₀: There is no significant different between Gold Dinar and Silver Dirham in hedging oil price

H₁: There have significant different between Gold Dinar and Silver Dirham in hedging oil price

3. Hypothesis 3

H₀: There is no significant different between Gold Dinar and Silver Dirham in hedging construction price

H₁: There have significant different between Gold Dinar and Silver Dirham in hedging construction price

Findings

Consumer's product

Figure 2

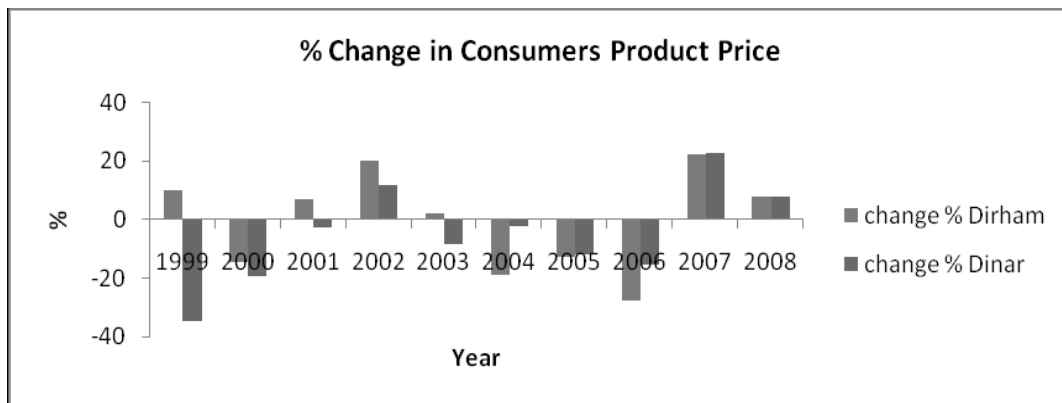


Table 1

	Mean	T	Sig. (2 tailed)
Dirham	1434.2987	15.560	.000
Dinar	17.0613		

The significant value is lower than 0.05 (.000 < 0.05), it means there is significant difference between gold dinar and silver dirham in hedging the consumers' product price fluctuation. Thus the study reject the H₀ = (X₁=X₂). Base on figure 2, it shows dirham is more perform in hedging consumer product's price than dinar. The p < 0.05 in the table refer to mean that shows silver dirham more perform in hedging the consumer products' price fluctuation. However, both of commodity monies are better medium in hedging consumer products' price.

Figure 3

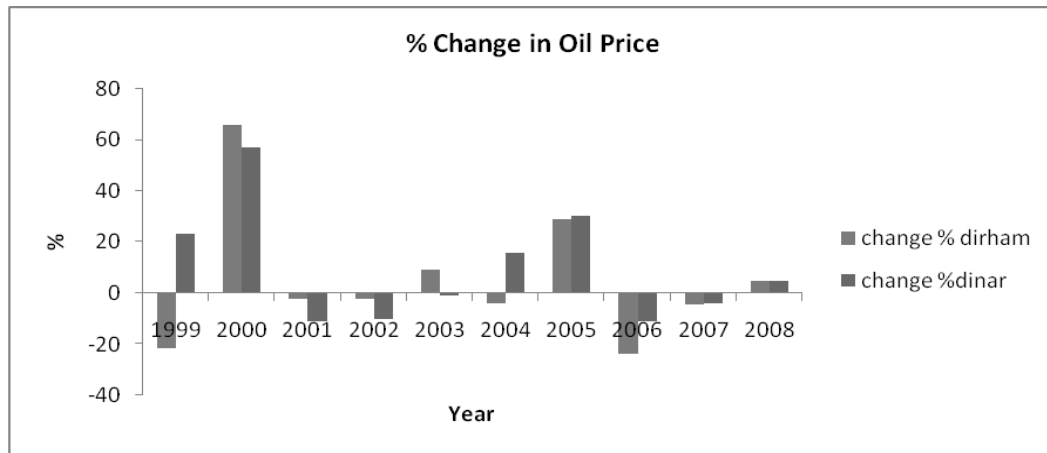


Table 2

	Mean	t	Sig. (2 tailed)
Dirham	57.4898	18.851	.000
Dinar	.6900		

The significant value is lower than 0.05 (.000 < 0.05) in this study result is significant difference between Gold Dinar and Silver Dirham in hedging oil price. This study reject the null hypothesis $H_0 = (X_1=X_2)$. Base on figure 3, it also shows the same result with table 1, which is, Dirham is perform in hedging crude oil price fluctuation.

Base on result in table 2, the mean of Dirham is higher than Dinar, which means Dirham is more perform in hedging crude oil fluctuation. However, it does not mean Dinar is not functionally good in hedging crude oil price's fluctuation because the transaction of gold has freely traded in the market that leads to exploitation and manipulation. Thus, this brings the effect of being easily increasing as well as decreasing.

Construction product

The significant value is lower than 0.05 (.000 < 0.05). The result creates significant difference between Gold Dinar and Silver Dirham in hedging oil price. This study reject the null hypothesis $H_0 = (X_1=X_2)$

Table 3 shows Dirham is more perform in hedging construction product price's fluctuation. It also shows the mean of dirham is higher than dinar. Thus, it shows the Dirham is performed due to the absence of being openly exposed to speculation. The similar result has found in figure 4.

Figure 4

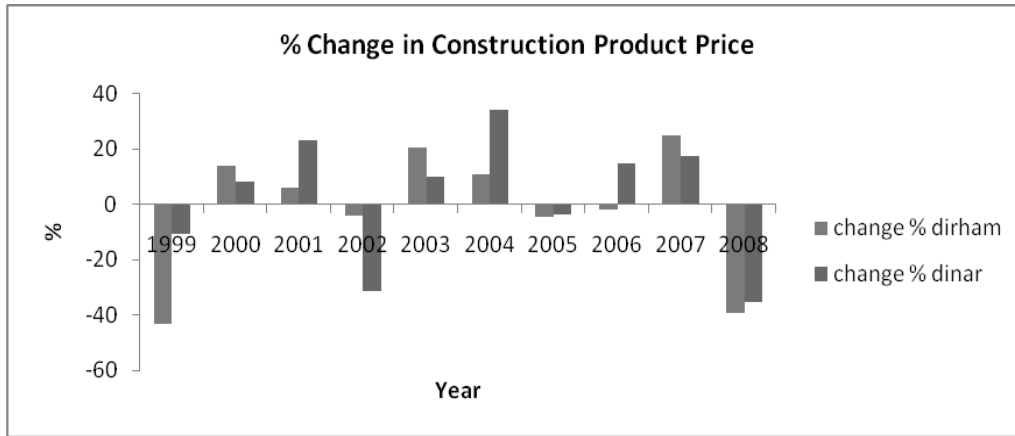


Table 3

	Mean	t	Sig. (2 tailed)
Dirham	38591.0612	17.156	.000
Dinar	472.7848		

Conclusion

This research is not intend to prove which one is better than another in term of features but more to the games of current market situation which open to speculation and manipulation. The comparison between both dinar and dirham is not proper to be conducted in term of features and intrinsic values because in Quran had mentioned to use both of metals and thus, considered good tools for medium of exchange and transaction. Dirham performs better than Dinar in this paper because silver (Dirham) is not bare to speculation for certain reason but gold is highly speculated. More than that, gold is highly demanded due to its intrinsic value and the other usage such as jewelry, thus, make people to control it by speculation and manipulation. If the price of gold increases, it is not merely decreases by its own value but by exploitation.

Obviously, Dinar and Dirham are advocated for having exchange rate stability in practice not in theory. Exchange rate diverged much among countries if left unattended to fluctuate. The fluctuating exchange rate seriously hampers international trade and finance. Implementation of Dinar and Dirham such money multiplier activities will not be happened if not impossible to occur. This is because each Dinar and Dirham must be represented with actual money that contains a certain weight of gold and silver. Thus, it is hoped the implementation of the system related dinar and dirham will eventually be responded by the world.

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