The Consumer Price Index as a Measure of Consumer Price Inflation

Paul Asif Ali Naqvi, Abdullah Saeed Sulaiman Bagaba, Sara Ravan Ramzani

Abstract: This study examines the relationship between the Consumer Price Index and consumer price inflation within Malaysia. The purpose is to establish whether or not the Consumer Price Index can be used as an accurate measure of consumer price inflation, the paper contrasts and compares historical data in order to establish a relationship between the two variables. Hence, a correlational methodology and approach has been adopted as is it imperative for an accurate comparison to be drawn. The historical data used and compared ranges from 2014 – 2017 however, a brief history was also required in order to gain an accurate understanding of the Consumer Price Index and inflation within the country, along with the factors that influence it; therefore, data from as far as 1973 was utilized within the literature review. Through this comparative study we can also gain an understanding of the type of impact (in terms of figures) that consumer price inflation has on the Consumer Price Index as either a percentage increase or decrease.

Keywords: consumer price index, inflation, Malaysia.

I. INTRODUCTION

The concern for inflation has been raised several times in light of the media, economists and the public. A substantial percentage of middle and lower middle-class Malaysians have been struggling with the increase in prices of goods and services which have not only had an impact on the disposable income but also reduced their general spending power, hence increasing the costs of living. (Murdipi, Law 2016).Murdipi and Law 2016 further state that with the opinion that higher inflation rates have an adverse impact on the economy, it is imperative that policies are designed to control inflation as the Consumer Price Index is utilized as a measure of inflation, it is correlated with various prices, for instance; import prices, producer price and industrial production.

Hence, changes in inflation issues have given way to repeated interest in the connection between the price indices which aim to classify the category of inflation within Malaysia.Since attention is given to the rising prices in Malaysia; consumers tend to be concerned about the increasing costs of goods and services. This seems to have impacted the consumer spending power within the market. Therefore, since costs are rising the aim is to use the Consumer Price Index as an effective means to measure consumer price inflation within the country. The objective is to understand the CPI and establish how accurately it can be utilized as an effective measure of consumer price inflation. Thus it is imperative to contrast and compare historical data and establish a comparison or relation between the CPI and consumer price inflation in Malaysia.

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II. Literature Review

The Consumer Price Index being used as a measure of inflation, interrelates various prices such as industrial production, producer price and import price indexes. Malaysia was experiencing high economic growth between 1988-1996 and was able to maintain a stable and low rate of inflation. However, between the 1970s and 1980s the world was going through a major increase in global food and energy prices; due to this it experienced its worst years during 1973-1974 and in 1981, because of increasing global food and oil prices, the inflation within Malaysia correspondingly hit its peak at 17.3% and 9.7% (Annual Report Bank Negara Malaysia, Ministry of Finance, various years). The Asian financial crisis of 1997-1998 also had a major impact on the inflation rate, causing it to rise above 5.5%. Nevertheless, during the 1990s Malaysia was able to manage low and stable rates of inflation that averaged at about 3% annually (expect from the 1997-1998 financial crisis). Moreover, during the early 2000s the increase in worldwide food and fuel prices again caused the inflation within Malaysia to rise. The inflation within Malaysia began to increase in 2005 which again reached its peak in July 2008 at a rate of 8.5%. Between 2001 to 2007, the global oil consumption rose at a greater pace due to worldwide economic growth. The changes in global demand and supply have been major drivers of commodity prices, particularly during 2004 to 2008 (Annual Report Bank Negara Malaysia, various years). Simply put, the inflation rates related to pervious years within Malaysia were caused due to imported inflation. For a country such as Malaysia, an increasing Consumer Price Index of 97.86187 points within half a century (1960-2013) is not very common. Countries like Singapore whom depend almost entirely on external supply (imports) and process limited physical commodities have lower point over the same period (96.71595) in comparison to Malaysia.

Headline inflation was measured by the annual percentage change in the CPI and averaged at 3.2% in 2014 (in 2013 it was 2.1%) and was well within the lower end of the rage that the bank had forecasted which was 3 to 4%. Headline inflation continued to rise during the first three months of the year and peaked at 3.5% in March before it stabilized at 3.3% during April to August. However, the percentage decreased within the last four months of the year and averaged at 2.8%. This was also a reflection of moderation in food inflation as well as the lapse of the impact of the September 2013 fuel price adjustments (Bank Negara Annual Report 2014). Consequently, in 2015 headline inflation that was measured by the annual percentage change in the CPI reduced to 2.1%.

However, according to sources headline inflation was more instable within 2015 as it greatly decreased during the beginning of the year to 0.1% during February but then peaked within the second quarter to 3.3% in July before curbing slightly. Due to this volatility, a series of adjustments arose in domestic fuel prices. During this year, the lower headline inflation was greatly due to the impact of decreased global commodity and energy prices, which counterbalanced the weaker ringgit exchange rate, application of GST and other "upward adjustments" in prices that were made near to the end of the year. (Bank Negara Annual Report 2015)

Furthermore, according to Bank Negara Malaysia Annual Report 2016 headline inflation as per the CPI remained unaffected at 2.1% in 2016, this was at the lower end of Bank Negara's forecast range which was 2%-3%. Within this year inflation was mainly driven by adjustment that were made to pricing which were administered during the fourth quarter of 2015. However, the pressures of inflation were countered by the lapse of GST's impact and reduced domestic fuel prices. Conditions of moderate domestic demand and subdued external price environment, helped contain the domestic pressures of inflation. Therefore, core inflation was largely stable within the year and averaged at 2.1%. Alternatively, in Bank Negara's 2017 Annual Report it stated that headline inflation was expected to average 2% - 3% in 2018 as according to the CPI it was recorded at 3.7% in 2017. This is because global energy prices and commodity prices were expected to be higher within 2018. Also, the higher base within 2017 will cause a reduced contribution to headline inflation. Moreover, the stronger ringgit exchange rate in comparison to 2017 will in part counter the effects of increased global energy and commodity prices but will also cause increases in import costs.

III. METHODOLOGY

This report is a comparison study of historical data that compares and contrasts the relationship between the Consumer Price Index and the consumer price inflation, as such the methodology approach that has been used to correlational. Correlational research is concerned with establishing relationships between two or more variables in the same population or between the same variables in two populations (Leedy&Ormrod 2010). We utilized secondary quantitative data and compared the historical figures of the Consumer Price Index for the previous 4 years and drew a correlational comparison to determine the percentage increase or decrease of inflation within Malaysia. Thereby, using the Consumer Price Index as an instrument to measure the shift of inflation within the country.

IV. RESULTS AND DISCUSSION

The results from our research paint an accurate picture of the Consumer Price Index being utilized as an accurate measure of the consumer price inflation. The graphs data taken from Bank Negara and the Department of Statistics, Malaysia pertaining to the topic at hand represent a positive relationship between the CPI andinflation impacting the consumer market. Logically, it can also be determined that as the prices increase, a growth in inflation will be experienced and therefore causing the consumer spending power to decrease; this will in turn have obvious impacts on the Consumer Price Index of the country.

Fig 1: Consumer PriceInflation

Source: Department of Statistics, Malaysia and Bank Negara Malaysia (2017)

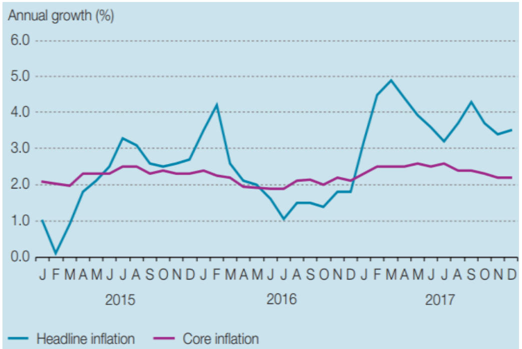

Fig 1.1: Consumer Price Inflation

Source: Department of Statistics, Malaysia and Bank Negara Malaysia (2018)

Consumer Price Index	Weights (%) (2010=100)	2014	2015	2016	2017
		Annual change (%)			
Total	**100.0**	**3.2**	**2.1**	**2.1**	**3.7**
Food and non-alcoholic beverages	30.2	3.3	3.6	3.8	4.0
Alcoholic beverages and tobacco	2.9	11.6	13.5	17.2	0.2
Clothing and footwear	3.3	-0.2	0.5	-0.4	-0.3
Housing, water, electricity, gas and other fuels	23.8	3.4	2.5	2.4	2.2
Furnishings, household equipment and routine household maintenance	3.8	1.0	2.7	2.4	2.1
Health	1.7	2.9	4.5	2.7	2.5
Transport	13.7	4.9	-4.5	-4.6	13.2
Communication	5.2	-0.7	1.9	-1.5	-0.4
Recreation services and culture	4.9	1.5	1.7	2.5	1.9
Education	1.1	2.4	2.4	2.1	1.7
Restaurants and hotels	2.9	4.7	4.1	2.8	2.5
Miscellaneous goods and services	6.5	0.7	4.1	2.9	1.2

Fig 1.2: Consumer Price Index

Source: Department of Statistics, Malaysia (2018)

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The figures show the direct relationship between the two variables i.e. Consumer Price Index and consumer price inflation as seen in the graphs and charts, the annual growth of inflation has caused a similar annual percentage change in the consumer price index. For example; in 2017 the annual percentage change in the Consumer Price Index was 3.7% and we can see a similar change in the annual growth percentage in consumer price inflation that is depicted in Fig 1.1.

It is essential to note that in this report the figures of headline inflation were given more weightage than that of core inflation as headline inflation is mainly CPI based and thus a comparative study between the two can be drawn more easily rather than with that of with core inflation; as in this scenario it represents the underlying inflation rate which is made apparent after excluding the price-volatile and price-administered items as the price movements of these items are expected to not have an impact on demand conditions. However, it should also be stated that it is not possible for demand related and supply related inflation to be specifically separated as the prices of goods and services within the core CPI basket are likely to represent spillover effects from the transitory changes in cost and supply factors.

V. CONCLUSION

Upon reviewing the literature and analyzing the results from the data gathered, it can be determined that the Consumer Price Index is in fact an accurate measure of consumer price inflation. The CPI however, not only depicts a measurement of a percentage change in consumer price inflation but also to an extent reveals as to what impacts it would have as shown in the study. Therefore, an increase in consumer price inflation rates would cause a percentage increase in the CPI as well which thereby fundamentally reduces the consumer spending power as the prices of the items within the basket of goods rise.

The CPI can hence be used as a means to depict the impacts on consumer price inflation on the consumer spending power and to an extent the impacts it has on the economy; it is important to remember that it is not enough to only consider the values of the index in order to determine what impacts of inflation that pertain to the economy as other influencers will have to be considered in order to draw a complete picture. However, in regards to using the CPI as a means of measure, the study as shown that it can draw an accurate picture and provide a clear-cut comparison providing the data and values used are true.

VI. RECOMMENDATION

It has been established that the CPI can in fact be as an efficient means of measurement for consumer price inflation, for further studies it is recommended that a greater in depth study is done based on the type of inflation that is dominant within Malaysia and to what extent it impacts the standards of living of the people. This will further our own research within the same field and give an even greater understanding of how inflation impacts the economy in terms of consumer spending power and what potential solutions might be possible to curb these impacts.

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