The Impact of Macroeconomic Factor to Household Debt in Malaysia: A Theoretical Framework

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Abstract—**Malaysian household debt is keep on increasing year by year. Even the economic condition shows the unstable performance of Malaysian economy. Therefore, this study attempts to study how macroeconomics factor give an impact to the household debt. Considering both mortgage and consumer debt hence the study will add more reference to an analyst in analyzing the debt offered to the consumer. The study used 10 years period from 2008 to 2017. Five variables are determined to be included in this study such as gross domestic product (GDP), interest rate (IR), house price index (HPI), Unemployment Rate (UNEM), and consumer price index (CPI). The relationship of macroeconomic performance and household debt will be tested using multiple regression models. Secondary data from reliable sources will be gathered.**

Keywords—*macroeconomic indicator, household debt, GDP,*

I. INTRODUCTION

THE Household debt is one of the critical parts in the country's economic development. The relationship between macroeconomic factors and household debt performance has been widely studied by researchers in the developed and developing countries. Household debt in both developed and developing countries are growing excessively and raises the economist's concerns about the risk of financial instability [55]. Some fundamental macroeconomic factors such as gross domestic product (GDP), interest rate (IR), house price index (HPI),

unemployment rate (UNEM) and consumer price index (CPI) are being argued to be the determinants of household debt. Most of previous studies discussed the above variables individually, hence this study is significant because it combined all the mentioned variables in a single study.

Central Bank of Malaysia, [2], stated that thehousehold debt is the sum of money that is owed to borrowers to purchase property, personal utilize, securities, motor vehicles and credit cards. While, the Organization for Economic Cooperation and Development, OECD, defines household debt as the amount of liability to be paidor the payment of interest or principal made by the household to the creditor including for the future dates. Although some of the research stated strong macroeconomic performance in recent years, there is little concern that shows the high GDP growth will not improve

Malaysian well-being. Factors that have contributed to this household debt performance are uneven distribution of income, rising cost of living, high debt obligations, deteriorating housing affordability and perceptions of corruption. However, in filing of Annual Report, Central Bank of Malaysia, [2] stated it does not affect the household ability to spend a certain amount of time as well as for all its ability to repay debt.

In December 2017, Malaysia's household debt accounted for 84.2 % of the country's nominal GDP compared to the previous year's ratio of 88.2 % (CEIC data of Malaysia, 2017). Basically, the annual household debt can be calculated with GDP nominal annual.
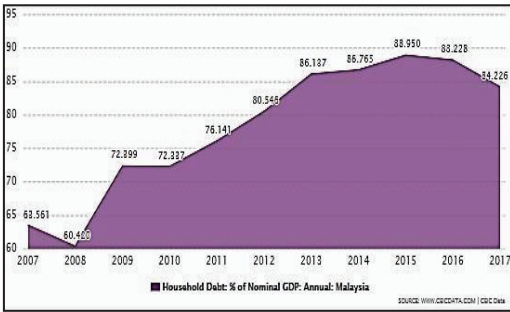
Figure 1: Household Debt % of Nominal GDP

The data reached a total high point of 89.0% in December 2015 and a record low of 60.4% in December 2008. The CEIC calculates household debt as a percentage of GDP per annum from household debt and annual GDP per annum. Central Bank of Malaysia stated, despite positive developments in the statistics. However, Malaysia is still cautious of the risks that will arise from the household debt. Moreover, changes in household income can now have a major impact on the real economy and financial stability. It not only affects households with the ability to spend in a certain time even their ability to pay off debts. In future, global growth continues to grow and supported by advanced economies and emerging economies. Beside GDP, there have some macroeconomic factors that contributed to household debt in Malaysia.

Figure 1 shows the household debt % of nominal GDP that influence household expenditure in the market value of all goods and service. Although household debt levels are still high, there is no need to tighten existing measures as household debt increases while moderating. This is also driven by household debt ratios with lower GDP and the degree of a rigorous debt servicing ratio in stable economic growth conditions. It is important to avoid excessive adjustments which can eventually lead to a serious overflow of economic and financial stability. Measures to increase resilience in households also need to address more structural issues, such as income, housing and public transport, in order to enhance capacity and reduce excessive household debt [12]. Importantly, efforts to reduce debt are made without prejudice to private consumption and economic growth.

This study attempts to add more references to researcher and consumer on how the macroeconomic factors affected to household debt. This is slightly important to ensure the household debt was not overburden by the debt offered by lending institution. In addition, financial institution may straighten the model in measuring the capacity of the household before giving out loan to them. The performance of macroeconomic factors seems to hint the lender about the stability of household performance indirectly.

II. LITERATURE REVIEW.

A. Concept of Household Debt

According to Central Bank of Malaysia, household debts are liabilities to be repaid in the future and comprise loans to buy a real estate and securities, and finance the used. Household debt in both developed and developing countries are growing excessively, raising the economist's concerns about the risk of financial instability [55]. Indeed, both in absolute terms and relative to household income, the concerns raised regarding the sustainability of household debt must exist and the implications for the financial system stability if it is not sustainable. The rise of household debt has created worry to the government and household sectors. This issue has attracted the attention of economists based on macroeconomists to study and investigate the factors and impact of household debt in Malaysia.

Relationship between household debt and GDP, interest rates and housing prices of household debt and independent factors has a significant long - term relationship [47]. Investigation of the household debt trends probably contributing to the issue, the composition and consequences of monetary and financial stability policies [12]. This clearly shows that the areas and challenges in macroeconomics are so complicated and interconnected. In fact, the Malaysian Ministry of Finance, monitors household debt worries that the level has fell from (89.1%) in 2016 to (88.4%) in 2017. According to The Financial Stability Review (RBA), the household debt sector grew by (RM billion) in 2014 was 960.1b

whilst, in 2017 was 1,139.9b. In other words, a key factors of financial strength in the country will be evidence that household debt grows up.

Introduction of maqasid Al - Shariah, which can solve financial imbalances is a priority in stabilizing an economy before excessive GDP growth targets are taken into account [37]. The researcher proves that Islamic financial management industry has a great emphasis on the aspect of the growth and maintenance of property. The issues of the principle of household debt and finance according to the Islamic economic perspective and finding are the principle of debt and finance according to Islam for households and financial institutions is discussed widely in recent year [57].

B. Concept of Macroeconomic

Macroeconomics study group focuses on several aspects, such as the study of economics from a general perspective, focusing on the overall performance of the economy and the links between the different sectors of the economy are among the highlighted issue [51]. As usual, In other words, macroeconomics is a study of collections of individuals and companies and how their market interaction assesses the overall economic performance. The macroeconomic impact of greater debt is mainly attributable to the distribution of debt across the household sector and to the economic shocks. Meanwhile, the researcher said that the increase in household debt was closely related to macroeconomic effects [9].

The deepening and rising debt will lead to an improvement economic well being and without debt, economic growth will not be possible and macroeconomic growth would be greater than desirable. Debt is either trivial or intractable for a macroeconomist who works to build a theoretical structure for understanding the economy as a whole [4]. All borrowers ' liabilities always match the assets of all lenders exactly. The long-term and short-term relationships between household debt and seven macroeconomic factors should be examined such as house price index, consumer price index, real income, real prime rate, real gross domestic product, real household consumption expenditures, and real savings [36].

However, more studies need to be carried out in other to investigate the impact of selected macroeconomic factors was evaluated through a multivariate panel regression analysis that resolves the linear relationship between savings and disposable income, gross domestic product, unemployment and inflation. Hence, the findings are only inflation rate and unemployment rate have strong positive impact on the volume of household savings in the vise grad four countries [3]. Study of the effect of household debt on overall US performance based on the estimate of vector error correction models (VECM) using macroeconomics factors, which are debt, GDP and net value as factors was conducted heavily by previous study [56].

C. Concept of Gross Domestic Product with Household Debt

Gross Domestic Product can be defined as the market value of all final goods and services produced in countries for a period of one year. Nominal Gross Domestic Product is measured by the current price and the real Gross Domestic Product by the base year price. Nominal GDP has the problem that GDP increases year by year, but output has not increased. But real GDP solves the nominal GDP problem by correcting prices. It compares the actual year - to - year number from real GDP, which can clearly know and real changes in output.

According to Trading Economics, (2018), first quarter of 2018, Malaysian household debt remained unchanged at 67.10% of GDP, compared to 67.10% of GDP in the fourth quarter. Household debt In Malaysia, GDP accounted for 61.56% of GDP as between 2006 and 2018, reaching an all-time high of 70.90% of GDP in the fourth quarter of 2015 and a record low of 48.60% of GDP in the third quarter of 2008. Khans, (2016), reveal the connection between household debt and GDP in Malaysia using the non-causality theory. The results of this study show that the direction of causality ranges from household debt to GDP and is consistent with the results based on debt composition.

GDP and household debt is closely related, either in the short term or in the long term [43].

The researcher found that positive economic growth reflects higher GDP, eventually resulting in households earning higher incomes that encourage banks to issue more debt. Major changes of GDP could not affect household debt, although the result has been found to be profoundly unhelpful, the researchers stressed that GDP can play a vital role in the development of household debt in Malaysia as a proxy for income [47].

D.   Concept of Interest Rate with Household Debt

Interest rate is the price that balances the desire to keep wealth in cash with the provision of cash resources and at the same time the reward for liquidity [25]. Thus, Interest rates are earnings from the use of capital in monetary value, such as savings in financial synthesis, cash contribution in business, investment in shares and company shareholders [51].

In Norwegian households, the debt growth has been higher than the revenue growth in recent years. The high debt growth is linked to housing developments and the decline in interest rates [21]. However, the results is supported by previous study stated a low interest rate environment has reduced borrowing costs and indirectly increased households incentives to borrow to smooth their desired consumption path throughout their life cycles [12]. Previous study demonstrated that low interest rates contribute to household debt growth. Low interest rates also contributed to household property and mortgage debt increases [5]. Higher interest rates are boosting financial pressure on high -debt households. It will make it worse for borrowers and savers [1].

E.   Concept of House Price Index with Household Debt

There is a strong two- way interaction between housing prices and loans for housing [45]. The interaction is expected to increase the economic boom cycles and increase the financial sector's fragility. The movements in housing prices appear to have a significant positive effect on consumer loans and it is found that housing markets affect macroeconomic cycles. Besides that, previous research found that growth in housing prices will be moderate to match household debt growth in broad terms [52]. Household debt could continue to rise because higher house prices could lead to higher final wealth and better borrowing [21].

Moreover, households will be given greater incentives to raise collateral loans for consumption and investment financing. Housing prices are substantial the increase in housing prices will increase debt further [43]. House prices are the main factor in the long - term increase in household debt [47]

F.   Concept of Unemployment Rate with Household Debt

In the last two decades, the rise in Australian household debt is mainly responsible for reducing unemployment [15]. Unemployment is the biggest and most significant negative shock to household income. Hence, payment defaults occur because it is difficult for borrowers to keep their mortgage payments through periods of unemployment. Unemployment has a negative short- term relationship. Moreover, households tend to increase borrowing in the face of increased spending or low unemployment [37].

About one-third of total unemployment rises in Spain can be traced back to high levels of household debt [24]. Unemployment will create labor market uncertainty and prevent households from borrowing money. Financial bodies will also avoid debt issuance [17]. A high level of unemployment means that there is less income for all households and hence a higher desire for consumer financing loans. As a result, household debt has increased [18]. Two consequences of unemployment are that it increases the possibility of financial constraints and discourages households from borrowing because households may not be able to repay loans.

Malaysia's unemployment is relatively low and stable at around three percent which means the population is experiencing close to full employment. The Statistic portal proved the country achieved its lowest unemployment rate in 2014 with a rate of 2.85%. The vibrant economy of Malaysia is considered one of the strongest in South - East Asia.

G.   Concept of Consumer Price Index with Household Debt

The CPI is a measure of changes in the cost of living of households (IMF, 2009). It is often used as a general inflation measure. The increase in household debt from total outstanding loans is consistent with the tendency of households to borrow more for consumption [22]. Hence, with more open view of borrowing for consumption, which differs from the traditional view that people spend their income purely instead of borrowing for spending. Initially, an increase in household debt increased consumption and thus fostered economic growth in Vietnam between 2000 and 2016. As a result, the trend toward new consumer products has also accelerated consumer lending among young people. In filling of Annual Report, (2017), reveals total of annual change for consumer price index increased between in 2016 is 2.1% while in 2017 is 3.7%. By that, CPI also can contribute to economic growth of household debt.

Moreover, lower interest rates and lower credit constraints have led to a significant increase in household debt. According to Nizar, (2015), also support to investigate the relationship on CPI towards household debt. Then, GDP is linked to a long - term or short-term increase in consumer debt and mortgage debt. The higher of GDP, which can be reflected in positive economic growth and more debt from the consumer price index directly in the higher earnings. The consumer price index reflects the change in the cost of acquiring a basket of goods and services for the average user that can be fixed or actually change at certain intervals, such as annually. Generally, the Laspeyres formula is used [55].

Some studies also show that changes in the wealth of housing would have a greater effect on household consumption than on other assets [39]. Moreover, other studies show that rising housing prices have a positive effect on household debt, mainly because of the increase in mortgage payments [9]. Study of the composition-based investigation Debt will be plausible because higher housing prices can influence mortgage debt more. To support ether consumer price index can influence economic growth [14].

III. RESEARCH METHODOLOGY

This study is carried out through conducting review on scholar journals and academic literatures. Articles from previous study was evaluated and analyzed mostly on the process of systematic review that was used previously. Using three steps which are planning conducting and reporting the review. The preliminary step is planning review that is obtainable earlier in the introduction section that argues the path of this paper. The second step is to conduct the review by recognizing applicable research in journal articles on macroeconomic factor affected to household debt. Among the database that are widely refer are:

(1) EBSCO Business Source Elite.
(2) Elsevier Science Direct.
(3) Emerald Management Extra Plus.
(4) Google Scholar.
(5) ProQuest
(6) Scopus.

In order to monitor through massive pools of documents in database, main keywords are used with the grouping of vital words, and also grouping of words present in an abstract of an article. The first keyword used is macroeconomics factors. Second keyword is on "household debt". And third combination keyword, which we search for, is " impact of macroeconomic to household debt". Most of the articles excerpt from high impact journal namely Journal of Economics and finance. The search leads to numerous journal articles then are further examined through to suit the standard of this study. Weak articles were rejected from further analysis, as they do not made any reference to macroeconomics but focusing on microeconomic performance.

IV CONCLUSION

In a nutshell, the focus of study is on the household debt in Malaysia. This research is beneficial for the economic growth, which can distribute among households due to the existence of income inequality. From that, the government also can reduce this problem

and give advantages to all household could enjoy the benefits of economic growth. The research can explain more comprehensive relationship between household debt and the macroeconomic factors. The factors discuss in this research are gross domestic product (GDP), house price index (HPI), interest rate (IR), unemployment rate (UNEM) and consumer price index (CPI).

This research will provide a huge advantage to households about how they manage the risks that may arise from the household debt, despite the positive developments of the Central Bank of Malaysia, (2017) as saying that household debt concern has decreased by 89.1% from 2016 to 88.4% of 2017. Moreover, government also can take a few alternative ways to reduce the household debt growth. This research helps the government and economists for knowing the better insight of the impact of macroeconomic factors towards household in Malaysia. It also can provide the current knowledge of the household debt performance.

This research help on investigating the impact between the different macroeconomic factors with the household debt and also present that which factors have significant impact with the household debt in Malaysia. Similarly, the economists have capabilities to enhance which part will helps in improving decision making by knowing the effects of macroeconomic factors on household debt in Malaysia.

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