

The Impact of Family Consumption on the Gross Domestic Product (GDP): Analytical Study of the Jordanian Economy

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Abstract

This study aimed at identifying the impact of the family consumption of the Jordanian GDP during the period from 1976-2013. The study's community consisted of all Jordanian families, therefore, the study' sample included all Jordan families for the period under examination and analysis. To reach the goal of the study, data were analyzed using the least squares method. The results of the test indicated that there is an impact of the family consumption on the Jordanian GDP for the years of study under examination and analysis.

Keywords: Family consumption, Gross Domestic Product (GDP)

Introduction

What is meant by the words of consumer and consumption is relatively complicated. In fact, the idea of consumption was only specified, gradually, after a long time. It seems that the consumer's role in the GDP was not known at first, then, it started renewing in confronting the product until new theories about the value emerged and outweighed it.

Despite this development, the idea of consumption did not have a defined and clear shape, and there is still disagreement among contemporaneous economists about defining the consumption and the Family consumption and determining the GDP that falls in its scope.

Hence, the following dilemma emerges: what is consumption? What is the family consumption? What is the GDP? What is the role of family consumption in GDP? And this is what this analytical study will show the impact of the family consumption on the Jordanian GDP for the period from 1976-2013.

1. Objectives of the study:

- 1- Identify the family consumption and the GDP.
- 2- Identify the impact of the family consumption on the Jordanian GDP.

2. The importance of the study:

A lot of studies have dealt with the subject of GDP in different ways and methodologies. In light of the rapid development of the global economy in general, and the Jordanian economy in particular, and as a result of the evolution of consumer habits of individuals and families, it became necessary to discuss the issue of family consumption and its impact on GDP.

The importance of this study lies in its attempt to identify the impact of family consumption on the GDP.

3. The problem of the study

The problem of the study is represented in knowing the extent of the impact caused by the family consumption on the GDP of Jordan through descriptive and benchmark analysis of the study's data during the period from 1976-2013.

The problem of the study can be summarized in this main question:

Is there an impact of the family consumption on the Jordanian GDP for the period from 1976-2014?

4. Theoretical framework:

What is meant by the words of consumer and consumption is relatively complicated. In fact, the idea of consumption was only specified, gradually, after a long time. It seems that the consumer's role in the GDP was not known at first, then, it started renewing in confronting the product until new theories about the value emerged and outweighed it.

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is the GDP? What is the role of family consumption in GDP? And this is what this analytical study will show the impact of the family consumption on the Jordanian GDP for the period from 1976-2013.

First: The definition of consumption:

(Nasr, 1996) defined the consumption as using or consuming goods or benefit from their services, in order to satiate particular needs or desires. And it is defined as the target or primary purpose for all economic activities. (Abu Eideh, 2013) defined the consumption as spending on goods and services used to meet the needs and desires during a certain period, and it is usually a calendar year.

While (Kanaan, 2005) defined it as a set of activities and behaviors that the consumers do while looking for goods and services that they need to fulfill their needs for them and their desires in them, during assessing, gaining, using them as well as disposing them, in addition to what accompanies that with decision-making processes.

Second: The factors affecting the family consumption:

The factors affecting the consumption are the factors that impact the relationship between the income and consumer spending. The most important factors are:

1. Income level:

The income is one of the most important elements that affect consumption. If the individual has no income, then, he is forced to spend his savings or get others' help or he might be forced to sell parts of his fortune, such as real estate and others. Therefore, the relationship between income and consumption is strong, if the income increases, the consumption increases.

Milton Friedman, head of the Chicago Monetary School, presented an explanation of the relationship between the income and consumption, saying that the family consumption is determined, to a large extent, by the income expected to get over a long period in the future, or by the permanent income.

The citizen spends according to his permanent or continuous income. If his income dropped, he will not reduce his consumption and he will be forced to borrow money. While, if the individual's income increased in a short time, the consumption will not increase, but will be devoted to saving. This means that the capital or the family consumption is determined by the permanent income rather than current income, and what happens in a short period does not reflect the relationship between the income and consumption. (Jawartiny, 1988).

2. The general level of prices:

Inflation leads to a rise in the general level of prices, therefore, the purchasing power of the income drops and the consumption gets reduced. After the rise in prices, the income, which allowed its owner to buy 100 goods and services, will not be able to buy the same amount of goods and services. So, the individual will sacrifice the saving, and if the rise is so high, then capita consumption will be reduced or he may sell a part of his real estate to face these conditions.

The prices affect consumption, and usually, states and governments determine wage levels at the price levels. Therefore, the rise in the price will push the governments to raise the incomes level to maintain a stable level of consumption for individuals. (Assayed Ali, 2003).

3. Interest rate:

The high-interest rate encourages saving, and the consumption is the victim, as the consumer reduces purchase amounts in order to save money and gain a high return. The interest is the postponement of today's consumption for a greater consumption in the future. The more the interest rate increases, the more the savings increase. In return, the drop in the interest rate increases the consumption, because individuals feel that keeping funds won't be useful in the future, so they prefer current consumption.

So, when a country determines the interest rate, it takes consumption into account, because the low volume of consumption will affect the production itself, which the country encourages. (Jawartiny, 1988)

4. Assortment of goods and services:

The consumer uses his income according to what he witnesses of goods and services. If the income increased and the consumer did not find a great offer of goods and services, he will be forced to save money, and the consumption will be affected by the supply, which will be affected, in turn, by the investment, capital, the labor force and the availability of raw materials, etc.

In general, the production capacity or the production power of the National economy affect the overall demand and the consumption. If the investment increases and if there is a wide variety of goods and services available, there will be a wider space for a new consumption. (Ali, 2003).

5. Social customs and traditions:

They are a set of social relations that arise between social groups. And within these categories and groups, in the course of joint activity, the social relations are divided into: material: that are formed independently from the life of individuals awareness and conception, and ideological: that appears on the ground of social ideas that reflect the interests of social classes and social, and they appear in the form of political, legal, moral and religious ideas. The social relations, in their spiritual side of ideas, values, ethics, customs and traditions, have a direct impact on the consumption and saving together. (Afar, 1985).



6. Religion and social consumption:

Islam has organized consumer spending clearly. It prevented wastefulness and called for moderation in spending. In holy Quran, (Isra'a, 26-27), Allah ordered us to give the relative his right, and also the poor and the traveler, and not to spend wastefully. Allah said that indeed, the wasteful are brothers of the devils, and ever has Satan been to his Lord ungrateful.

The moderation in consumption on the individual and members of the community with the prohibition of extravagance, wastefulness, Usury and hoarding money in addition to performing Zakat will lead to providing savings necessary for the investment process in the community, which leads to developing and improving the working conditions and the conditions of society in general. (Afar, 1985).

7. The Social Culture:

It is the entire shapes of the Althoira activity of human and society, as well as the product of this activity. And this culture is divided into two sections:

- A. The Material Culture: which includes the methods of producing material goods.
- B. Spiritual culture: which includes all forms of social consciousness (philosophy, ethics, science, the right, art, religion)

The elements of material and spiritual culture are closely linked to each other and they are the outcome of knowledge developed by man. The man seeks to change the natural environment in which he lives for the better. And with this change, customs and traditions and patterns of consumption develop. (Abu Eideh, 2013).

Third: the concept of the GDP

The GDP is an economic indicator that measures the monetary value of total goods and services produced within the borders of a geographic region (e.g. country) during a specific period of time (e.g. a year or half a year).

But it is not an indicator of social welfare or total wealth. The GDP measures total goods and market services, those destined for sale, as well as some service, non-market products, which the government provides for free, such as education, health, security, and defense, that are produced within the borders of a specific geographical area, during a specific period of time. (Mazroui, 2012).

Fourth: Measuring the GDP

- 1. Through production: it is collecting the added values for all productive activities that are set to be included. The added value is the difference between total sales and the value of intermediate inputs in the production process.
- 2. Through spending: it is collecting expenditures of the final consumption of families, enterprises and the government sector in addition to the investment costs and the balance of trade with the outside world (the difference between exports and imports).
- 3. Through income: it is through collecting all the incomes generated from production, such as employee wages and corporate profits and taxes.

Fifth: the relationship between family consumption and GDP

Consumption is considered as one of the most important components of the GDP. It comes on both sides of the equation, as it is considered an income and spending while measuring the Gross Domestic Product.

Out of this context, the capita consumption (spending) is considered an income for another individual. And consumption largely depends on several factors, most notably is the income. In this case, the income is divided into consumption and saving. In cases of low-income, individual or family consume most of the income or all of it. But when the income increases, the rate directed from this income begins to drop. (Kanaan, 2005).

(Kanaan, 2005) pointed out to the difference in the rate of saving and consumption from one community to another. Some communities tend more to consumption and some communities have high saving rates.

We cannot ignore the importance of consumption to economic growth. The increase in consumption, especially in durable goods, encourages production, which in turn, encourages increasing employment and creating new jobs.

Saving money, which is often directed to investment, leads to the promotion of investments, which by nature are long-term ones, which will enhance the economic development and economic growth. During periods of economic prosperity, jobs become available, and the size of consumer and investment spending increases, and thereby the real size of the GDP grows.

It must be remembered that in any economy there will be periods of prosperity followed by periods of recession, and that is called economic cyclical.

In periods of recession, the growing rate of both consumer spending and investment spending slows down, which leads to a lack of new job opportunities, and this will raise the rate of unemployment. Then financial crises will be created, pushing banks and capital markets to lose their ability to perform their role successfully. This may lead to low profits and falter stock prices, in addition to low levels of real GDP, comparing to the levels that could be achieved. (Abu Eideh, 2013).

Empirical studies have proved that the size of consumer consumption is directly proportional to the size



of the ideal income as other factors remain as they are. It is important to notice the difference of individuals in their behaviors as well as consuming and saving habits at different levels of incomes. In addition to that, the difference of individuals among themselves in terms of their commitment to some social customs and traditions, such as counterfeiting and simulation. (Abu Eideh, 2013)

5. Previous studies

(Weiza, 2014) The study pointed out to the attempt to find relationship linking the family consumption in Algeria with other variables by showing the better model in the reflection of the Algerian reality. The study used the descriptive method in order to display the basic concepts of the overall consumption. And to test the theoretical, economic models to build a suitable model for Algerian families' consumption, the analytical model was used to analyze the results of the assessment.

The results of this study revealed that the disposable income and consumption in the previous period are the most important determinants of the family consumption. And that there is a relationship between family consumption and the factors determining it, in accordance with the economic theory and it obtained more than a model to explain the phenomenon of families consumption in Algeria.

While (Abu Eideh, 2013) study pointed out to analyzing the factors affecting consumer spending of the Palestinian family sector. The study used the benchmark analysis to measure the impact of the factors affecting the Palestinian family consumption. The results of analyzing the study' sample showed that consumer spending of the Palestinian family sector is affected by a variety of factors and internal variables such as income, saving and non-internal ones such as interest rate and the general level.

The (Banaganh, 2013) study aimed at trying to answer the possibility of building a holistic standard model that tests the shocks that may be drawn as a result of internal or external crises that affect them and their impact on the followed economic policies.

One of the results of the study is that the economy is nothing but a group of interconnected variables that among them there is real, monetary and information flows.

The study also concluded that the overall offer of the market consists of income and imports versus the overall demand, which includes spending on consumption, investment, government spending and exports to the outside world.

The (al-Sous, 2007) study explained the impact of the budget deficit on the GDP of Jordan. The study used the descriptive analysis method in analyzing the data of the study period. The results of analyzing the study' sample showed an increase in the rate of deficit to the GDP and the existence of a proportional relationship between the deficit in the budget and the national income and consumption. There is also a strong impact of private consumption on the GDP.

(Kanaan, 2005) The study worked to measure the impact of private consumption (family) on economic development, using the descriptive analysis method in analyzing the data of the period of study. The results of analyzing the study' sample showed that the family consumption has an impact on the GDP through the strong proportional relationship between them which reaches up to 80%, and the presence of an increased frequent growth of the GDP according to the rise in the family consumption (private).

(Othman, 2003) The study aimed at analyzing the impact of economic theories on private consumption, using the descriptive and benchmark analysis of data for the period of the study. The results of analyzing the study' sample showed that there is an impact of the private consumption on the GDP for the years of the study.

6. The Study's Hypotheses

Through the study's key question, the following main hypothesis can be formulated:

The Main Null hypothesis: there is no statistically significant impact of the family consumption on the Jordanian GDP for the period under examination and analysis.

The Main Alternative hypothesis: there is a statistically significant impact of the family consumption on the Jordanian GDP for the period under examination and analysis.

7. The methodology of the study

The study used the descriptive and benchmark analysis model in analyzing the data of the study during a timing chain that extends from 1976-2013. The last two years were ignored because of the lack of their own data.

The simple regression equation, analyzing data through the Unit root test, the least squares method and testing the significant levels of the function variables were all used to know the impact of the family consumption on the Jordanian GDP during the period of the study.

And since the family consumption is the independent variable and the GDP is the dependent variable, then the function takes the following form:

GDP = & + BPFC + u

The GDP is the Gross Domestic Product of Jordan, & is the fixed term, PFC is Jordanian family consumption and u is the random error.

8. The Community of the study and the study' sample

The study community consists of the Jordanian economy for the period 1976 to 2013. And the study' sample



included the Jordanian GDP for the period under examination and analysis.

9. Statistical analysis and test hypotheses:

1. Descriptive statistics:

The descriptive variables of the study's variables were calculated as in Table (1) where the arithmetic mean and standard deviation for each of the GDP and family consumption were calculated.

Table (1) descriptive analysis of the variables of the study

| | PFC | GDP | |
|--------------|----------------|-----------------|--|
| Mean | 5013.782 | 6572.613 | |
| Median | 2990.4 | 4536.05 | |
| Maximum | 19268.3 | 23851.1 | |
| Minimum | 452.6 | 567.3 | |
| Std. Dev. | 5022.087 | 6437.747 | |
| Skewness | 1.426241 | 1.376891 | |
| Kurtosis | 4.072983 | 3.782681 | |
| | | | |
| Jarque-Bera | 14.70592 | 12.97685 | |
| Probability | 0.000641 | 0.001521 | |
| | | | |
| Sum | 190523.7 | 249759.3 | |
| Sum Sq. Dev. | 0.000000093308 | 0.0000000015309 | |
| _ | | | |
| Observations | 38 | 38 | |

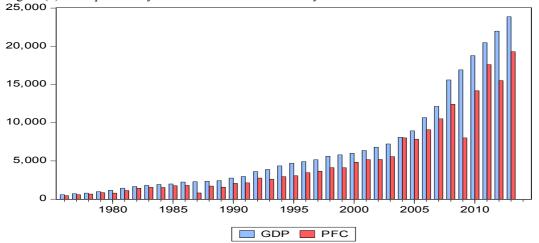
Source: prepared by the researchers, as the PFC: family consumption, GDP: Gross Domestic Product.

Through the table above, you can notice that the arithmetic mean of the independent variable of the study, represented in the family consumption, reached 5013.782 JDs with a standard deviation amounted to 5022.087 JDs.

While the arithmetic mean of the dependent variable of the study, represented in the GDP, reached 6572.613 JDs with a standard deviation of 6437.747 JDs.

Figure (1) shows the independent variable and the dependent variable for the period under examination and analysis. The figure shows the rise in the Jordanian GDP according to the increase in the family consumption for most of the years of study.

Figure (1) descriptive analysis of the variables of the study



Source: prepared by the researchers, as the PFC: family consumption, GDP: Gross Domestic Product.

2. Pearson correlation matrix

Table (2) displays the Pearson correlation matrix, which shows that the correlation coefficients between the independent variable (family consumption) and dependent variable (GDP) are linked by a strong, proportional relation that reached (0.9783958). And this is due to the fact that these variables are in the original one unit but were fragmented for the purposes of this study.



Table (2) Pearson correlation matrix

| | GDP | PFC |
|-----|------------|-------------|
| GDP | 1 | 0.978395867 |
| PFC | 0.97839587 | 1 |

Source: prepared by the researchers, as the PFC: household consumption, GDP: Gross Domestic Product

Table (3) (Dickey-Fuller) Test

| 1 4010 (3) | Dickey-Fulle | 1,1000 | | N 11 II work with CDD have with most |
|------------|--------------|------------|-------------|--|
| | | | | Null Hypothesis: GDP has a unit root |
| | | | | Exogenous: Constant |
| | | | | Lag Length: 0 (Automatic - based on SIC, maxlag=9) |
| | | | | |
| Prob.* | t-Statistic | | | |
| | | | | |
| 1 | 7.755982 | | | Augmented Dickey-Fuller tests statistic |
| | -3.621023 | | 1% level | Test critical values: |
| | -2.943427 | | 5% level | |
| | -2.610263 | | 10% level | |
| | | | | |
| | | | | *MacKinnon (1996) one-sided p-values. |
| | | | | ` |
| | | | | |
| | | | | Augmented Dickey-Fuller Tests Equation |
| | | | | Dependent Variable: D(GDP) |
| | | | | Method: Least Squares |
| | | | | Date: 03/14/16 Time: 12:54 |
| | | | | Sample (adjusted): 1977 2013 |
| | | | | Included observations: 37 after adjustments |
| | | | | |
| Prob. | t-Statistic | Std. Error | Coefficient | Variable |
| | | | | |
| 0 | 7.755982 | 0.013111 | 0.101688 | GDP(-1) |
| 0.9394 | 0.076537 | 110.0354 | 8.421746 | С |
| | | | | |

Source: prepared by the researchers, as the PFC: family consumption, GDP: Gross Domestic Product

Table (3) clarifies the benchmark analysis of the Unit root through (Dickey - Fuller) test to show the extent of the stability of the time chains. The table shows each of the Null hypothesis, the fixed term and the number of periods of time Deceleration. The table shows that the (t-statistic) value, which reached (7.755982), is not a negative value and its absolute value is higher than the tabulated, meaning that the timing chain is unstable.



Table (4) (Phillips-Perron) analysis

| | Null Hypothesis: GDP h | as a unit root | | | | |
|--------------|---|------------------------|-------------|-----------------------|--|--|
| Bandwidth: 3 | (Newey-West automatic) usi | _ | | | | |
| Prob.* | Adj. t-Stat | | | | | |
| 1.0000 | 7.755982 P | hillips-Perron test st | atistic | | | |
| | -3.621023 | | 1% level | Test critical values: | | |
| | -2.943427 | | 5% level | | | |
| | -2.610263 | | 10% level | | | |
| | *MacKinnon (1996) one | e-sided p-values. | | | | |
| 199489.4 | Residual variance (no correction) | | | | | |
| 318228.2 | HAC corrected variance (Bartlett kernel) | | | | | |
| | Phillips-Perron Test Equation | | | | | |
| | Dependent Variable: D(GDP) | | | | | |
| | Method: Least Squares | | | | | |
| | Date: 03/17/16 Time: 13:48 | | | | | |
| | Sample (adjusted): 1977 2013 | | | | | |
| | Included observations: 37 after adjustments | | | | | |
| Prob. | t-Statistic | Std. Error | Coefficient | Variable | | |
| 0.0000 | 7.755982 | 0.013111 | 0.101688 | GDP(-1) | | |
| 0.9394 | 0.076537 | 110.0354 | 8.421746 | C | | |

Source: prepared by the researchers, as the PFC: family consumption, GDP: Gross Domestic Product (Phillips-Perron) The analysis in table no. (4) Points out to the lack of stability of the parameter (t) because its absolute value (7.755982) is less than its tabulated value and it is not a negative value, as the tabulated is higher than 5%.



Table (5) unit root test

| 1 4010 (3) | unit root test | | | |
|------------|----------------|------------|-------------|--|
| | | | | Null Hypothesis: D(GDP,2) has a unit root |
| | | | | Exogenous: Constant |
| | | | | Lag Length: 0 (Automatic - based on SIC, maxlag=9) |
| | | | | |
| Prob.* | t-Statistic | | | |
| | | | | |
| 0 | -12.28963 | | | Augmented Dickey-Fuller tests statistic |
| | -3.6329 | | 1% level | Test critical values: |
| | -2.948404 | | 5% level | |
| | -2.612874 | | 10% level | |
| | | | | |
| | | | | *MacKinnon (1996) one-sided p-values. |
| | | | | |
| | | | | |
| | | | | Augmented Dickey-Fuller Tests Equation |
| | | | | Dependent Variable: D(GDP,3) |
| | | | | Method: Least Squares |
| | | | | Date: 03/14/16 Time: 13:01 |
| | | | | Sample (adjusted): 1979 2013 |
| | | | | Included observations: 35 after adjustments |
| | | | | |
| Prob. | t-Statistic | Std. Error | Coefficient | Variable |
| | | | | |
| 0 | -12.28963 | 0.134005 | -1.646874 | D(GDP(-1),2) |
| 0.3162 | 1.017787 | 74.78693 | 76.11715 | C |

Source: prepared by the researchers, as the PFC: family consumption, GDP: Gross Domestic Product

By applying the two tests on the first difference of the variables, the results of the two tests above, through the table, rejected the null hypothesis by the existence of Unit root at the significant level of 1%, 5%, and 10%.

We can also conclude that the time chains are not at stable level but with a stable difference (first-degree integrated). The chain was stable at the second difference, the calculated (t) (-12.28963) and the potential (0) less than (5%).

3. Testing the hypothesis of the study:

There is no statistically significant effect of family consumption on the Jordanian GDP for the period under examination and analysis.

Table (6) displays the results of the multi-test of the main hypothesis of the study through the least squares methods. And through that, it became clear that the value of (Durbin-Watson) pointed to the lack of (Autocorrelation) between the errors involved in the regression equation which reached the value (1.896087).

Accordingly, the multi-test results pointed out to the rejection of the main null hypothesis, and the acceptance of the main alternative hypothesis, which stated that there is an impact of the family consumption on the GDP for the period under examination and analysis.

The impact of the independent variable indicated the presence of high explanatory power of the independent variable, represented in the family consumption, on the dependent variable, represented in the GDP, as the value of determination coefficient R2 reached (95.7%), which means it explained 95.7% of the change in the GDP of the study sample.

Regarding the test results, shown in Table No. (6), of the independent variable and its impact on the dependent variable, you can notice that there is an impact of the family consumption on the GDP reaching significance level (0.000). This means rejecting the null hypothesis, which states that there is no impact of statistically significant of the family consumption on the GDP, and accepting the alternative hypothesis that says that there is an impact of the family consumption on the GDP for the period under examination and analysis.



Table (6) results of testing the main hypothesis of the study

| Dependent Variable (GDP) | | | | |
|--|----------|----------|-----|--|
| Method: Panel ELS Least Squares | | | | |
| P- Value(Probability) T-Test Coefficient Variables | | | | |
| 0.000 | 28.39493 | 1.254193 | PFC | |
| (R ²):95.7 % | | | | |
| Test) DW:(1.896087 | | | | |
| Probability0.0000: | | | | |

Source: prepared by the researchers, as the PFC: family consumption, GDP: Gross Domestic Product

To know if there is or there isn't a serial Auto-correlation problem and a variance in the random error term, we detect these problems and address them, if found, through the E-views program, as the GDP function is: $GDP = 284.3637 + 1.254 \ PFC$

Where 284.36 is the fixed term, and 1.254 is the value of B.

Table (7) the results of E-views analysis

| | | | | Breusch-Godfrey Serial Correlation LM Test: |
|----------|-------------|---------------------|------------|---|
| 0.4122 | | Prob. F(2,34) | 0.909867 | F-statistic |
| 0.3809 | | Prob. Chi-Square(2) | 1.930498 | Obs*R-squared |
| | | | | Test Equation: |
| | | | | Dependent Variable: RESID |
| | | | | Method: Least Squares |
| | | | | Date: 03/14/16 Time: 13:12 |
| | | | | Sample: 1976 2013 |
| | | | | Included observations: 38 |
| | | | | Presample missing value lagged residuals set to |
| | | | | zero. |
| | | | Coefficien | |
| Prob. | t-Statistic | Std. Error | t | Variable |
| | | | | |
| 0.8886 | 0.141127 | 0.046349 | 0.006541 | PFC |
| | - | | | |
| 0.892 | 0.136815 | 320.1549 | -43.80193 | C |
| 0.7353 | 0.340839 | 0.1731 | 0.058999 | RESID(-1) |
| 0.1072 | - | 0.1552.50 | 0.000010 | DEGLE (2) |
| 0.1973 | 1.314923 | 0.177358 | -0.233212 | RESID(-2) |
| -6.46E- | | | | |
| 13 | | Mean dependent var | 0.050803 | R-squared |
| 1330.941 | | S.D. dependent var | -0.03295 | Adjusted R-squared |
| | | Akaike info | | 1 |
| 17.35688 | | criterion | 1352.691 | S.E. of regression |
| 17.52926 | | Schwarz criterion | 62212291 | Sum squared resid |
| | | Hannan-Quinn | | |
| 17.41821 | | criter. | -325.7807 | Log likelihood |
| 1.87488 | | Durbin-Watson stat | 0.606578 | F-statistic |
| | 11 .1 | 1 DEC | 0.615294 | Prob (F-statistic) |

Source: prepared by the researchers, as the PFC: family consumption, GDP: Gross Domestic Product

Table (7) shows that the potential and non-significant value of F, as shown in the analysis no. (7) Above, that it reached (0.4122) which is higher than 5%. While the calculated f reached (0.909867), which is less than the tabulated. Also, the value of Obs * R-squared reached (1.930498) which is higher than 5% and higher than the calculated (0.3809), therefore, we reject the existence of an Auto-correlation with the random error term.



Table No. (8) E-views analysis

| Table No. | (o) E-views a | anarysis | | |
|-----------|---------------|-----------------------|-------------|---|
| 0.9016 | | Prob. F(2,33) | 0.103922 | F-statistic |
| 0.8935 | | Prob. Chi-Square(2) | 0.22532 | Obs*R-squared |
| | | | | Test Equation: |
| | | | | Dependent Variable: RESID^2 |
| | | | | Method: Least Squares |
| | | | | Date: 03/29/16 Time: 21:13 |
| | | | | Sample (adjusted): 1978 2013 |
| | | | | Included observations: 36 after adjustments |
| Prob. | t-Statistic | Std. Error | Coefficient | Variable |
| 0.1903 | 1.337 | 1309827 | 1751334 | C |
| 0.8595 | -0.178 | 0.17357 | -0.03097 | RESID^2(-1) |
| 0.6814 | 0.414 | 0.17395 | 0.072048 | RESID^2(-2) |
| 1815731 | | Mean dependent var | 0.006259 | R-squared |
| 7222829 | | S.D. dependent var | -0.05397 | Adjusted R-squared |
| 34.5556 | | Akaike info criterion | 7415169 | S.E. of regression |
| 34.6876 | | Schwarz criterion | 1.81E+15 | Sum squared resid |
| 34.6017 | | Hannan-Quinn criter. | -619.001 | Log likelihood |
| 2.01434 | | Durbin-Watson stat | 0.103922 | F-statistic |
| | | | 0.901589 | Prob(F-statistic) |
| | | | | |

Source: prepared by the researchers, as the PFC: family consumption, GDP: Gross Domestic Product

The analysis in Table No. (8) Shows that the potential value of F reached (0.9016) which is higher than 5%, and it is not significant. While the calculated f reached (0.103922) and it is less than the tabulated. And the value of (Obs * R-squared) was (0.22532) which is higher than 5%.

The potential value Chi-Square (2) reached (0.8935) which is less than the tabulated and this means accepting the null hypothesis of a fixed variance of the random error (there is no variance problem of the random error term)

4. Discussing results and recommendations:

Discussing the results:

- 1. Results of the Unit root test showed that the variables of the study did not settle at their levels where the potential value was greater than 5%, while they settled at the second difference at a significance level of 10% or less
- 2. Results of detection of autocorrelation analysis and the variance of error term showed that there is no problem in that analysis to be addressed.
- 3. it is clear from the results of the assessment of this model that (95.7%) of the changes of the function of the GDP go back to the impact of the total independent variables included in the model, and this parameter indicates the strength of the relationship between the actual values (estimated values). This means that the family consumption clarifies and explains a large proportion of independent changes.

While the residual value which is (4.3%), goes back to the impact of other variables, not included in the measurement, and are called a variable of the random error term. The value of testing the calculated (F) points out to the models significant at a significant level (0.05), therefore, we reject the hypothesis that says there is no statistically significant impact of the family consumption on the Jordanian GDP and accept the alternative hypothesis that says there is a statistically significant impact of the family consumption on the GDP.

- 4. The results of the correlation matrix, as shown in the analysis, indicated that there is a high correlation between family consumption and GDP.
- 5. The results of the assessment indicated that there is a proportional relationship with a significant effect on the consumption function and GDP. It means that the change in family consumption rate by one unit will lead to an opposite relative change in the GDP rate by (95.7%) unit, with other factors remain fixed, and this is what was confirmed by statistical analysis.
- 6. Family consumption has significant economic importance, whether on the level of the Micro or Macro theory. The increase in consumption by families sector leads to the activation of economic resources and increase the usage and operating level, and this was confirmed by the analysis.

Recommendations:

In light of the results of the analysis of the study, which showed that there is a strong positive relation between the Jordanian family consumption and GDP of Jordan, then we have to:



- 1. Study factors, other than family consumption, affecting the Jordanian GDP such as government spending, investment, and net exports.
- 2. Adopt the Keynesian theory: the principle of increased demand to encourage producers to increase production and the state supports the demand before the supply to increase public spending to reach a significant level of GDP (meaning it must create important initiatives to support family consumption, which in turn leads to a rise in the GDP).
- 3. Take measures to show the importance of family consumption because of its impact on the GDP of Jordan.
- 4. Jordan's economy, like other developing economies, is characterized by being unable to produce goods and services needed by members of the community.

The Jordanian family sector, as well as the Arab one, seeks to follow civilization based on consumption in general terms, as it is a double-edged sword: on one hand, it works to reach advanced levels of living through the purchase of goods and material commodities necessary to do so, and works to stabilize the economy in the state on the other hand.

Therefore, it is important to take necessary plans and policies to overcome the deficit in the production of goods and services needed by the community members.

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