Effects of Unemployment Rate Fluctuations on Exchange, Interest and Inflation Rates in the Kingdom of Saudi Arabia, State of Qatar, and United Arab Emirates

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Abstract: The study determined the effects of fluctuations in unemployment rates on planned aggregate expenditures, in particular, inflation, interest and exchange rates in the Kingdom of Saudi Arabia, State of Qatar and United Arab Emirates. It focused on the status of changes in unemployment rates, inflation, interest, and exchange rates; the significant effects of unemployment rates on the three dependent variables; the levels of unemployment rates in the three respondent regions in the GCC; and the type of relationship between unemployment rates and inflation rates in the region. The study was a documentary analysis, based on actual data of unemployment rates, inflation rates, interest rates, and exchange rates in Saudi Arabia, Qatar, and United Arab Emirates. The dependent variables in this study are indicated by the changes in the levels of inflation, interest, and exchange rates with unemployment rate as the independent variable. Documentary analysis was supported by review of literatures on the variables under investigation. The frequency, percentage, mean, and standard deviation were the descriptive tools in presenting the data for the status of the variables in the respondents regions considered in the study. Pearson Correlation was used to measure the degree of relationship between unemployment rates and the effects on the level of inflation, interest and exchange rates in the Kingdom of Saudi Arabia. Multiple Regression Analysis was used to assess the relationship between several dependent variables and one independent variable. To test the hypothesis that the categorical variables of unemployment rates and inflations rates are independent of each other, Chi-Square Test was used. Findings revealed no significant correlation between unemployment rate, interest rate, inflation rate, and exchange rate at both 1% and 5% significance level. The null hypothesis is accepted for the three variables. There are no significant effects of unemployment rates on interest rates, inflation rates, and exchange rates in the United Arab Emirates. Unemployment rate is not positively related to inflation rates and does not predict inflation rates in the Kingdom of Saudi Arabia, Qatar and United Arab Emirates. With F-value of 19.639 and the corresponding $\rho$ value of 0.000, the levels of unemployment rates in the three GCC countries are different from each other. The Chi-square value equivalent to 73.500, with 48 degrees of freedom, and $\rho$ value of 0.1, indicate a significant relationship between unemployment rates and inflation rates at 10% level of significance. The null hypothesis was rejected, unemployment rates and inflation rates are not significantly independent of each other in the three GCC countries, the Kingdom of Saudi Arabia, State of Qatar, and United Arab Emirates.

Keywords: Exchange Rate, Interest Rate, Inflation Rate, Unemployment rate, Employment Rate.

I. Introduction

Unemployment rate of any country imposes heavy costs on the labor force and society at large. It affects the levels of inflation, interest and exchange rates and aggregate demand and supply in the economy. Therefore, it has been one of the major concerns of macroeconomic policy makers, and will remain so in the future. A thorough scrutiny of the effects of unemployment rate is to conclude whether or not the classical and contemporary theories of the labor market can be generally and adequately used to justify the changes in the levels of inflation, interest and exchange rates in a given national economy. The validity and generalizability of the existing theories of the labor markets effects are highly questionable. Consequently, the extent to which the level of changes in unemployment rate leads to changes in the level of inflation, interest and exchange rates is also highly questionable. Ryan (2014) concludes that unemployment hurts the rest of the economy of a nation and creates a cyclical problem. People will have reduced capacity to purchase goods and services and business organizations will suffer from less demand from consumers. Unemployment rate will rise resulting in drop of
overall spending. Increased expenditures of money from the people stimulate the economy and the growth of jobs.

II. Objectives of the Study
The study determined the effects of unemployment rates fluctuations on exchange, interest, and inflation rates in the Kingdom of Saudi Arabia, State of Qatar, and the United Arab Emirates. The study investigated the significant relationship of the unemployment rates fluctuations with the three dependent variables. It tested the significant difference in the level of unemployment rate in those countries, and the independence of unemployment rates and inflation rates therein.

III. Null Hypotheses
Ho1: There is no significant effect of unemployment rates on exchange rates, interest rates, and inflation rates in the Kingdom of Saudi Arabia, Qatar, and United Arab Emirates.
Ho2: Unemployment rates in the Kingdom of Saudi Arabia, Qatar, and United Arab Emirates are not significantly related to exchange rates, interest rates, and inflation rates.
Ho3: There is no significant difference in the level of unemployment rate in the Kingdom of Saudi in the State of Qatar and United Arab Emirates?
Ho4: Unemployment rates and inflation rates are not independent of each other in Saudi Arabia, Qatar, and United Arab Emirates.

IV. Significance of the Study
This study is deemed significant to the following beneficiaries:
The Kingdom of Bahrain: This research will provide information to the different government agencies, on factors that affect the economy of the neighboring countries in the GCC region in terms of inflation, interest and exchange rates, and planned aggregate expenditure. Findings of the study can be used as reference by practitioners and specialists in governmental and private sectors.
The Banking Industry: The study will provide the banking industry increased awareness of how unemployment leads to changes in the level of planned aggregate in the subject GCC regions which can be used to improve their existing operating environment.
Members of the Academe: The result of the study will provide a valuable source of information in class discussions to enhance the learning rate of students.
Students: The findings of the study can provide students with better understanding of the applications of theories dealing with unemployment, in the different industries in the Kingdom of Bahrain.
AMA International University Bahrain: The study contributes to the body of knowledge in AMAIUB.

V. Scope and Limitation
The study identified the effects of fluctuations of unemployment rate on inflation, interest and exchange rates in the Kingdom of Saudi Arabia, Qatar, and United Arab Emirates. It focused on the variables of unemployment rate, inflation, interest rates, and exchange rates. Findings of the study were based on documentary analysis of data in the banking industry and governmental agencies. Documentary analysis was used to evaluate the effects of the levels of unemployment rates on inflation, interest and exchange rates. Other areas of planned aggregate expenditures, not mentioned in the statement of the problem, will not be included in the study.

VI. Definition of Terms
For better understanding of the terms used in the study, terms are defined conceptually and operationally.
Unemployment: It refers to the state of being unemployed, and used as a measure to determine the number of persons who are unemployed and those in the labor, Riley (2012). In this study, it refers to the measure of unemployment in the three GCC countries which influence changes in the level of inflation, interest and exchange rate, and planned aggregate expenditure.
Inflation: It refers to the sustained increase in real gross domestic product in the economy over a period of time, Blanchard (2000). In this study, it is the reduction in the value of money in the three GCC countries as a result of fluctuations in unemployment rate.
Interest Rate: It is the amount being charged by the lender to a borrower, usually expressed as a percentage of the principal, for the use of resources or assets, Zuberi (2014). In this study, it refers to amount of money charged by lenders in the three GCC countries, for the loss of the use of assets.
Exchange Rate: It refers to the price of the currency of a country in terms of the currency of another country. In this study, it refers to the current market price for which the currencies of the three GCC countries can be exchanged for the United States Dollar.
VII. Conceptual Framework of the Study

<table>
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<th>Independent Variable</th>
<th>Dependent Variables</th>
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<tr>
<td>Fluctuations in Unemployment Rates in KSA, SQ and UAE</td>
<td>Changes in the Level of Inflation, Interest and Exchange Rates in KSA, SQ and UAE</td>
</tr>
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</table>

Figure 1: Research Paradigm Cause and Effect Relationships of Independent and Dependent Variables.

A cause and effect relationship implies two variables being tested and measured wherein the independent variable influences the dependent variable. The independent variable affects the dependent variable in such a way that it can be considered solely a result of the manipulation done to the independent variable, can be tested and have the same results. This study adopts the notion that fluctuations in unemployment rate in economies in the three GCC countries will cause changes in the level of inflation, interest and exchange rate. As depicted in Figure 1, increase or decrease in the level of inflation, interest and exchange rate is derived from fluctuations in the rate of unemployment. Figure 2, presents the conceptual framework of the study.

VIII. Theoretical Framework of the Study

Figure 2: Theoretical Framework of the Study “The Macroeconomic Logic of the Phillips Curve”, Palley (2009).

The theoretical framework of the study in Figure 2, presents the taxonomy of the Phillips Curve as a structural macro model for determining the rate of inflation as a function of unemployment rate. The model of backward bending long run Phillips highlights the relationship of unemployment rates with inflation in a multi-sector economy. The role of labor market militancy is emphasized which is the sensitivity of nominal wage demands of workers in unemployment sectors. As workers become more militant, the curve steepens quicker and bends back at a higher rate of unemployment. Workers fully incorporate inflation expectations into their nominal wage demands, including those in sectors with unemployment. Policy perspectives assume that economic outcomes are constrained to lie on the Phillips curve. The economic logic represented in Figure 1, indicates that the long run Phillips curve is a locus of points in inflation-unemployment rate space rather than a causal relation. This locus emerges due to the nominal demand growth that generates a negative correlation between inflation and unemployment. The correlation is the result of the nominal demand growth. The rate of aggregate nominal demand growth simultaneously increases the rate of inflation, causing inflation in sectors at full employment, and lowering the rate of unemployment through creation of jobs in sectors with unemployment. Higher inflation rate and lower unemployment result from faster nominal demand growth.

IX. Literature Review

This chapter discusses the literature and studies that have been sourced out from local and foreign materials that were reviewed from various libraries and the internet. Unemployment hurts the rest of the economy of a nation and creates a cyclical problem, Mankiw (2002). People will have reduced capacity to purchase goods and services and business organizations will suffer from less demand from consumers. Unemployment rate will rise resulting in drop of overall spending. Increased expenditures of money from the people stimulate the economy and the growth of jobs. The employed will also be affected because of the ripple effects that affect the economy of a country and the communities where people live. Case and others (2012) consider that people who are unemployed are those who are available, able and are willing to work, are actively searching for work, but unable to find a job. Unemployment means that human resources of a nation are not being utilized for production of goods and services to satisfy the needs and wants of consumers. Persistent high levels of unemployment rate create both damaging consequences on economy and social costs. Zuberi (2014) submits that the effects of inflation in the economy may be positive and negative. This can include increase in the opportunity of holding money which can discourage savings and investments and shortages of consumer goods. Consumers begin to hoard to anticipate increase in prices in the future. As general price level rises, unit of currency can buy fewer goods and services, and loss in the value in medium of exchange in the economy. The positive effects of inflation are encouragement of non-monetary capital project investments and ensuring that
central banks can make effective adjustments in real interest rates. Unemployment rate in April, 2014 was 11.7% across eighteen countries in the eurozone, which is 50% of the overall rate on 7.4% across thirty four countries in the Organization for Economic Cooperation and Development, Perry (2010). The outlook for the lost generation, the young people finding work in the OECD countries is slowly improving. 10.7 million young people, in April 2014, were unemployed, and a quarter of the people in the organization area are without work. Unemployment among fifteen to twenty four year olds are high is countries such as Spain with 53.5%, Greece with 56.9%, Italy with 43.3%, and Portugal with 36.1%. About forty five million people are without work across thirty four democracies covered by the OECD. US unemployment rate fell by 0.4% in April, 2014, from the March level to 6.3% and was stable in Japan with 3.6% and Canada with 6.9%. Unemployment is seen as a lagging indicator when businesses cut recruitment and behind upturns, even as labor market is more quickly responding in both directions in open economies. Britain revealed an unemployment record of 6.6% to the end of April, from 6.8% to the end of March. In June 18, 2014, the UN Secretary General, Ban Ki-Moon warned that governments around the world on the epidemic of youth unemployment, Outhwaite (2014). The International Labor Organization called for investments on initiatives for youth employment. The Report states that young people are stuck in low wage jobs without protection in the informal economy and the belief that education has not provided them with the right knowledge and skills. Half of the young people of the world are working poor or unemployed. Youth unemployment situations across the globe are intolerable. The Report emphasized that about four hundred million jobs need to be created over the next decade to keep up with the new entrants in the labor market who are mostly young people.

Out of work employees across the United States struggle to find new jobs and unhappy workers hesitate to leave their current positions for fear of being unable to find a better job, Doha News Team (2011). Forecasts indicate that unemployment rate in the United States remain high in the next several years. Countries with robust unemployment fall into broad classifications: The first group consists of European nations with strict laws in firing employees. The International Monetary Fund reports that Denmark, Switzerland, Norway, and Austria have unemployment rates lower than the US. Growing Asian countries such as Singapore, South Korea, Hong Kong, and Malaysia comprise the second group of nations to be considered by job seekers. Economies of the Asian countries are seen as fastest growing in the world. Abu Dhabi, Kuwait, and the British Virgin Islands are places to find jobs. The third group of countries with well diversified economies are worth a further look, specifically in financial services and tourism. The GCC region, Qatar has the lowest unemployment rate at 0.5%, however, future trends show towards escalation of unemployment rate rather than decline. In the GCC states, the Kingdom of Bahrain and Oman top the unemployment list with high rate of 15%, and Saudi Arabia trailing at 10.8%. Kuwait and the United Arab Emirates have lower unemployment rates at 2.4% and 2.2% respectively. The MENA region has the highest rate in the world, due to the political upheaval jolting certain countries in the region. Results of the QSA labor force survey serve as basis in formulating the labor market policies in the State of Qatar. The survey reveals 3.1 % unemployed Qatari in 2010 and 3.9% in 2011. For non-Qatari, unemployment rate remained at a fixed rate of 03% since 2011. For population aged 15 years and over, the economic participation rate was 86.5 percent. Unemployment rate amounted to 0.5 percent in 2012, the number of unemployed was 6,000 in 2012. 0.5% is the overall unemployment rate where 0.1% are males, and 2.8% are females, in the year 2012. Fifty five percent of the labor force of Qatar was recorded as specialists. Economically active population who worked in professional occupation comprised 69.2%. Three workers out of 10 Qatari workers were noted to be in clerical work. The purpose of the study on the recent history of price is to bring out diversity of relationship which can exist between factors on price-making, Lionel (1928). The study assumes that it can be utilized in showing how the economic activities can be financed without experiencing inflation. The study focused on the approach that stresses mutations in price factors relationship in the different types of fluctuations. Importance is given to the utilization of the same kind of price fluctuations approach during normal peace times and those of abnormal times. China’s dependency on the importation of foreign oil was 55% percent in year 2010, making the country the world’s 2nd largest oil consumer, Hongyun, Qin, and Zhang (2011). This increased dependency will result in a prominent influence of oil price fluctuations on the domestic economy. The soar of oil prices in the country has negative influence on the environment of oil firms with slump on oil prices having advantages on national development. Fluctuations in international oil price have significant influence on the performance of oil companies. The study focused on the analysis of the impact of fluctuation of international oil price aimed at improving the competitive advantage of oil firms in the country and achieving sustainable oil enterprises development.

Fluctuations in real exchange rates are attributed to changes in relative price of non-traded goods, in the traditional theory, Kehoe and Betts (2005). The study investigated the relation between the rates of US bilateral real exchange and the relative price of non-traded goods in its trade relationships. Findings of the study revealed that the relation is dependent on choices of price series which are used in the measurement of relative prices and in choosing price series for measuring relative prices and choice for trade partner. Findings reveal stronger relationship if relative prices are measured utilizing producer prices than consumer prices. Stronger relationship indicates more importance on trade relationships between the US and a partner in trade. Large fraction of real
exchange rate fluctuations is a result of deviations from the law of one price for traded goods, even when there is a strong relation between real exchange rate and relative price of non-traded goods. Persistent appreciation of the United States dollar posed a challenge to uncover change and support long term wage contracts in the macroeconomic adjustment, Rudiger (2014). His study adopted a perspective of the given wages and focused on the equilibrium that set determinants of price changes of a group of goods. Hypotheses of the study dealt with exchange rate change that lead to large price changes and where price effects are negligible. Ideas focused on drawing models that explain price adjustments on the degree of market concentration, extent of product substitutability and homogeneity, and relative market shares of firms. Need for adjustment in prices resulted from interaction of exchange rate movement and fully flexible money wage.

Findings on the study of a new model on price fluctuation derives results of variables and presents new model useful as representation of prices series in speculative markets, Clark (2014). Results show stability for mixed normal varieties though it will need further clarification. There is no correlation between changes in price, with each component drawn from normal variance distribution. The study on commodity prices that focused on financialization of commodity markets which are goods classified as distinct asset class, being considered by financial investors, forecasts and trends of prices of commodities, and shorthand of emergence of new sources of energy supply, Arezki et. al (2014). Findings present the role of expectations and fundamentals that influence rapid changes in the nature of commodity markets. The article examined the effects of share prices in the capital market in India on fluctuations in foreign exchange rates. Findings of the study revealed auto correlation of exchange rate and share prices. Long term relationship exists between stock prices and exchange rate in the industry levels of several sectors. Comparison of the rules for properties of rates of interest and those that respond to the level of fluctuations of price-level called Wicksellian rules, Giannoni (2014). The rules perform optimal in welfare, and robustness as an alternative to shock processes and was found to be less prone to equilibrium indeterminacy. The rule augmented to high degree of interest rate.

X. Research Synthesis

The cited literature cover topics on unemployment and its effects on inflation, interest and exchange rates, and planned aggregate expenditure, that are adaptable to local setting, which adequately discussed the parameters of the study. The present study is similar to the article which deals with the overall effects of unemployment. As unemployment rate rise, the people in a country will have reduced purchasing capacity and business organizations suffer from reduced demand of consumer goods and services. The present study focused on similar variables of unemployment that influence changes in exchange, interest and inflation rates in the three GCC countries. The article which explains the concept of unemployment and its effects on the economy of a nation, particularly in the production of goods and services is similar to the present study which utilized similar concepts and theories to determine the influence of unemployment on the planned aggregate expenditure in the three GCC countries.

(A) Research Methodology

This chapter presents the method of research used, the sample and sampling design, and the techniques that were used in the study. The procedure of the study, and the data management tools that were applied on the data were discussed.

(B) Research Design

The research is qualitative, quantitative and descriptive in nature, using both descriptive and inferential statistics to analyze data pertaining to the rates of unemployment, inflation, interest, exchange rates. The data obtained from various resources such as International Bank, International Monetary Fund, and other Statistics published in the Ministries of the three GCC countries, the Central Bank, and Standard Scores. Qualitative research were utilized and data analysis involved the search for patterns and features aimed at forming contextual descriptions of the variables of unemployment, inflation, interest and exchange rates. Quantitative data were collected based on precise measurements utilizing archival data sources and analysis involved the establishment of statistical relationships. The research study involved a documentary analysis of the data on unemployment rates in the GCC countries, specifically in the Kingdom of Saudi Arabia, Qatar, and the United Arab Emirates, and its effects on the level of inflation, interest and exchange rates. Historical research and content analysis were used as methods of research which involved the critical investigation of developments of the past and interpretation of the weighted evidence. The researcher interpreted and evaluated the data for validity. Document analysis was used as descriptive research to explain the status of phenomenon at a period of time and its development over time.

XI. Research Instruments and Techniques

The followings are the research instruments and techniques used in the study:

(A) Documentary Analysis

The researcher reviewed and analyzed annual reports, brochures, office records available, and government manuals and standards. These provided explanations to the issues that were raised by this study.
(B) Statistical Treatment of Data

The data were collected, tabulated, analyzed and interpreted. The following statistical tools were used in the analysis:

(i) Arithmetic Mean: The arithmetic mean is a measure of the central tendency of raw data. It describes the nature of observations. The formula is:

$$\bar{X} = \frac{\sum F \cdot X}{N}$$

Where: $\bar{X}$ = weighted mean, $\sum$ = summation, $X$ = value of the response, $F$ = number of times item occurs, and $N$ = responses.

(ii) Correlation: This statistical tool was used to measure the degree of relationship between unemployment and its effects on the level of inflation, interest and exchange rates in the Kingdom of Saudi Arabia, Qatar, and United Arab Emirates. The formula is:

$$r = \frac{N \sum xy - (\sum x)(\sum y)}{\sqrt{[N \sum x^2 - (\sum x)^2][N \sum y^2 - (\sum y)^2]}}$$

Where: $N$ = number of pairs of scores, $\sum x$ = sum of $x$ scores, $\sum y$ = sum of $y$ scores, $\sum xy$ = sum of products of paired scores, $\sum x^2$ = sum of squared $x$ scores, and $\sum y^2$ = sum of squared $y$ scores $X$ and $Y$ are the deviation scores of two variables under study.

(iii) Multiple Regression Analysis: This statistical tool was used to assess the relationship between several dependent variables and one independent variable. It was also used to determine the significant relationship between unemployment rates and inflation, interest and exchange rates and the degree to which unemployment rates predict exchange rates, interest rates, and inflation rates in three GCC countries. The formula is:

$$Y = a + bx$$

Where: $N$ = number of observations, $X$ = year index, $y$ = population size

(iv) Analysis of Variance: This statistical tool was used to compare the means of one independent variable with three dependent variables, to uncover the main interaction effects of unemployment rates on inflation, interest and exchange rates, in the Kingdom of Saudi Arabia, Qatar, and United Arab Emirates. The formula is:

$$F = \frac{MST}{MSE}$$

Where: $F$ = ANOVA Coefficient, $MST$ = mean sum of squares due to treatment, and $MSE$ = mean sum of squares due to error.

(v) Chi-Square Test: This statistical tool was used to test the hypothesis that the categorical variables of unemployment rates and inflation rates are independent of each other. The Formula is:

$$X^2 = \frac{(\text{observed frequency} - \text{expected frequency})^2}{\text{expected frequency}}$$

(C) Data Management Tool

To simplify the necessary statistical calculations, computer software was used. For this purpose, the Microsoft Excel was used for data management while the SPSS facilitated the analysis of the data. An appropriate coding system was designed to enable the gathered data to fit into the computer software application.

XII. Results and Discussion

This chapter presents the actual values, forecasts, economic calendar, historical data, analysis, interpretation and discussion of statistical findings of the study.

(A) Saudi Arabia Unemployment Rate

Figure 3, presents unemployment rate as a measure of the number of people, actively looking for a job, and computed as percentage of the total labor force. The Figure reflects a decrease in unemployment rate from 5.60% in the third quarter to 5.5% in the fourth quarter in Saudi Arabia. From year 1999 to year 2013, the average unemployment rate is 5.44%, with a 4.35% data of low unemployment rate in 1999 and reaching the highest of 6.30% in 2006. Data indicates a decline in unemployment rate from 5.8 percent in 2011 to 5.5% of the overall labor force in year 2012. Figures 3 and 4 show the table and corresponding graph of the unemployment rates in the Kingdom of Saudi Arabia from year 2002 to 2014.
These findings on declining rates of unemployment reveal continuous efforts of Saudi Arabia to tackle the problem in the country. Not all of Gulf Cooperation Council countries are as forthcoming as Saudi Arabia regarding a nation’s commitment to bring out sustainable vital unemployment statistics, Palley (2009). Foreign nationals working in the country, which is home to 8 million workers, double the size of the local workforce. Jobless rate for expatriates constitutes a mere 0.2% of the total expat workforce and shows statistical insignificance.

Forecasts reveal that unemployment rate in the Kingdom of Saudi Arabia is 5.4% in year 2015, 5.55% in year 2020, and 5.5% in year 2030. Figure 5 shows the unemployment rate trend of the Kingdom of Saudi Arabia for the year 2002 to year 2014, which is the basis for the long term unemployment rate projection. A large number of youngsters are assumed to enter the local job market in the next 5 year period, so creation of jobs sufficient to serve the needs of the current market will be challenging, Clarke (2011). Implications of the findings include improvement of productivity of the local workforce needs and competitiveness with expatriates’ workers. Education has been identified by the government as one area that can harness the potential of the young population with 97% literacy rates among Saudi adults.
**Saudi Arabia Exchange Rate**

Spot exchange rate of USD/SAR specifies how much the United States Dollar is worth in terms of the Saudi Riyal. The (SAR) Saudi Arabia Riyal was recorded to remain unchanged at 3.75 percent from May, 2014 to June, 2014. The average was 3.7 percent from year 1988 to 2014, which reached an all time high of 3.7 percent in 2009 and a 3.67% low record in December 2012. Forecasts of the Saudi Arabia Riyal indicate an exchange rate of 3.75% in 2015, 3.75% in 2020, and 3.7% in 2030. Figures 6 and 7 present the chart and graph of exchange rates of Saudi Arabia from year 2002 to 2014.

![Figure 6: Exchange Rates (KSA), Year: 2002-2014.](image)

As presented in Figure 6, findings reveal stability of the exchange rate for the past thirteen years, presenting a fixed exchange rate policy of the country which can serve as basis for reduction of investor risk. Exchange rates in Saudi Arabia are central to monetary policy. Fixed dollar has worked well; riyal is fully backed by foreign exchange reserves which are results of oil reserves and investment income. Stability of the dollar / riyal exchange rate sharply reduces risks of foreign investments. As shown in the Figure, the country did not experience upheavals seen in other countries during years of currency risks.

![Figure 7: Graph of Saudi Arabia Exchange Rates, Year: 2002 - 2014.](image)

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<th>U.S. Dollar</th>
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<tr>
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<td>2.4444</td>
<td>0.0956</td>
<td>0.0022</td>
<td>0.2971</td>
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</tbody>
</table>
Presented in Table 1, are the exchange rates of foreign currencies against Saudi Riyal. The kingdom is shown to have a fixed exchange rate regime, with USD/SAR exchange rate remained unchanged at 3.7500 since June 1986, allowing domestic banks to meet the demands of the private sector. Earnings from foreign exchange predominantly come from oil exportation, deposited with the Saudi Arabian Monetary Agency (SAMA). The agency is tasked to meet the public and private sector’s foreign exchange needs through the sale of dollars against Saudi Riyals to domestic markets.

(C) Saudi Arabia Interest Rate

Figure 8 indicates a record of 2% benchmark interest rate of the Kingdom of Saudi Arabia. The average is 3.75% in March 2004, which reached to an all time high of 7% in the year 2000 and a 1.5% low record in 2004. Interest rate of Saudi Arabia uses repo rate to influence daily liquidity of the financial system and interest rate. Interbank interest rates are influenced with changes in repo rate with consequences on loans, mortgages, and savings accounts. SAMA repo rate refers to Saudi Arabian interest rate. Figure 9 shows the graph of interest rates of the Kingdom of Saudi Arabia.

Findings show key interbank rates move higher with main drivers of US policy rate and Saudi domestic credit growth, the relationship of the two drivers, shown to be weak in recent years. Saudi rates will have no change to the US dollar, which implies that Saudi interest rates will remain intimately tied to the outlook for the US economy. Saudi economies are assumed to move out of synch as the country move towards the fast growing Asian countries. Oil prices are assumed to continue to climb putting pressure on US consumer as the country’s economy is booming.

<table>
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<th>Change</th>
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<th>4.7500</th>
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<td>5.7979</td>
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<td>3.9856</td>
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<tr>
<td>2012</td>
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<td>6.0435</td>
<td>0.0433</td>
<td>4.0912</td>
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</table>

Trends in interest rates reveal 2.11% in the year 2015, 2.49% in 2020, and 3.24% in 2030. Figure 10 shows the interest rate trend line from year 2002 to year 2014. As presented in the graph, interest rates move up by the end of 2015, with monetary agency reverse repo to follow suit, pushing interest rates higher. Drawing analysis together, interest rates forecast can be set to fresh tightening cycle in the US, set to begin in the next few years assuming a 50% increase in the US Federal Funds rate.

![Figure 10: Trends in Interest Rates (KSA), Year: 2002-2014.](image)

(D) Saudi Arabia Inflation Rate
Figure 11 presents the inflation rates of the Kingdom of Saudi Arabia for the past 12 years. A record of 2.70% in May 2014 is shown with an average of 2.81% from year 2000 to year 2014. Data indicates an all time high of 11.1% in July 2008 and 2% low record in January 2001. Price index historical data show the most important categories are beverages and foodstuffs with 26% of total weight, telecommunication and transport, with total weight of 18%, home furniture with 11% total weight, clothing with 8%, education and entertainment is 6%, and medical care with 2% of total weight. Figures 11 and 12 show the inflation rates chart and graph of the Kingdom of Saudi Arabia for the period, 2002 to 2014. Inflation rates projection are 2.77% in year 2015, 3.71% in 2020, and 3.6% in year 2030.

![Figure 11: Inflation Rates Chart (KSA), Year: 2002-2014.](image)

![Figure 12: Percentage Impact of Major Groups on the General Inflation Rate of Saudi Arabia for the Year 2014](image)

Saudi Arabia’s undesirably high inflation rate is a symptom of deeper structural problems in the economy, specifically in housing and food, Clarke (2011). The all time high rate of 11% was driven largely by the rise in...
global food prices. As shown in the Figure, rates moderated during the recession and another data point in the long term trend line demonstrates that the country has reached a structurally higher level of inflation. The Figure reveals inflationary trend driven by escalating prices in food items and housing, both caused by bottlenecks in supply and inefficiencies in the economy which need to be addressed to cure inflation in the long term. Economists suggest that the country considers investments in developed agricultural markets and looking into a strike of strategic agreements with global food businesses. Inflation cures cannot be achieved quickly, resolving the current inflation problem will require tackling underlying imbalances in the Saudi economy.

Figure 13 shows inflation rates in the Kingdom of Saudi Arabia in 2014, which were affected by increases in prices of electricity, gas, tobacco, water, housing, and health. 23.6 percent was registered for water, electricity, housing, and gas in December 2013. The highest effect ratio of 26.9% on the general inflation rate was recorded in March 2014. Inflation rate is projected to continue on its decline in the year 2014 which can be attributed to continuous fall of the rates of inflation in the country.

Table 2: Major Developments GCC Economies.

As shown in Table 2, inflation rate of Saudi Arabia decreased from 5.3% in 2010 to 5.0% in year 2011. United Arab Emirates has an unchanged rate of 0.9%, and Qatar, registered a growth rate of 1.9% against contraction in 2010. Gulf Cooperation Council countries are under the combined threats of accelerating inflation rates against surging oil revenues, rising rents, sub-prime crisis, soaring global food prices, and a weak U.S. dollar. Middle
East & Africa Database Team (2013). These problems are attributed to rising inflation level stemming from global commodity prices. Putting pressures on oil prices are political instability and continued uprising across the region which lead to economic growth for oil-rich countries in the GCC and sustained inflationary pressures. The GCC develops measures to get inflation back under control and use the policy tool to intervene in the markets aimed at controlling prices and commits to a fixed exchange policy with the US dollar.

(E) Qatar Unemployment Rate

The State of Qatar measures unemployment rate by the number of people actively looking for a job in terms of percentage of the total labor force. As presented in Figure 14, a decrease of 0.30% unemployment rate in year 2013 was recorded from 3.10% in 2012. Average unemployment rate from 2001 to 2013 was 2.73%, with an all time high of 3.90% in 2001 and 0.30% low record in 2013. Figure 15 shows the graph of unemployment rates of the State of Qatar for the period 2004 to 2012.

As shown in the Figure, as little as 0.6% of the total population of Qatar is unemployed, the lowest of any country in the Middle East and the only country with double-digit economic growth in 2011. This percentage rate is due to extremely low unemployment amongst expatriates, as residence permits are linked to employment and few unemployed expatriates remain in the country, Doha News Team (2012). March 2011 sets the jobless rate at 3.9%, the last Figure measuring unemployment in the State of Qatar.

Figure 14: Chart of Unemployment Rates (Qatar).

Figure 15: Graph of Unemployment Rates (Qatar), Year: 2004–2012.

Figure 16 shows the unemployment rates trend line for the State of Qatar, for the year 2001 to year 2016. Projections indicate the nation’s unemployment rate of 0.08% in year 2015, 2.06% in year 2020, and 3.05% in 2030. Qatar enjoys one of the lowest unemployment rates in the world, the smallest percent of the labor force unemployed. Middle East & Africa Database Team (2013). As presented in table 3, historic data suggests that is unlikely for any dramatic increase in unemployment. Influx of Non-Qataris is expected to increase the country’s population growth over the next future period.
Table 3: Trends in Unemployment Rates of the State of Qatar, Year: 2001-2016.

(F) Qatar Exchange Rate
The United States Dollar Qatari Riyal spot exchange indicates how much one currency, the United States Dollar is currently worth in terms of the Qatari Riyal. It is quoted on the day but for delivery on a specific future period. As presented in Figure 17, the Qatari Riyal is unchanged at 3.64% exchange rate in June 2014 from a percentage of 3.64 in May 2014. An all time high percentage of 3.67 in December 2008 was recorded and a 0.64% low record in April 2010 was reported. Figure 18 presents the graph of historical values of the exchange rates in the State of Qatar, for the year 2002 to year 2014. Exchange rates projections show an exchange rate of 3.38% in 2015, 3.64% in year 2020, and 3.63% in year 2030.
(G) **Qatar Interest Rate**

In Qatar, Repo Rate is the official interest rate, with decisions on interest rates being taken by the Central Bank of Qatar. Figure 19 shows a benchmark interest rate of 4.5%, with an average interest rate of 4.84% year 2004 to year 2014. An all time high percentage level of 5.85 is recorded in May 2006 and a record of low percentage rate of 1.53 in March 2004. Interest rates forecast reveal a percentage rate of 2.52 in year 2015, 4.59% in year 2020, and 4.72% in 2030. Figures 19 and 20 present the interest rates chart and graph in the State of Qatar, for years 2002 to 2014.

![Interest Rates Chart (Qatar), Year: 2002–2014.](image)

![Interest Rates Graph (Qatar), Year: 2002 – 2014.](image)

(H) **Qatar Inflation Rate**

With a base of 100 as of year 2007, the main components of Consumer Price Index in the State of Qatar are energy and fuel at 32.2%, 20.5% for communication and transport, 13.2% for food and beverages, 10.9% for entertainment, 8.2% for home appliances, 5.8% for garments, and 2% for medical care. Figure 21 indicates 3.40% inflation rate in May 2014, with an average of 3.80% from year 2005 to year 2014. Highest percentage inflation rate is recorded at 16.59% in June 2008 and a low record of -9.96% in December 2009. Projections on inflation rates show 2.73% in year 2015, 3.8% in year 2020, and 3.755 in 2030. Figure 22 shows inflation rate graph in the State of Qatar for years 2004 to 2012.

![Inflation Rates Chart (Qatar), Year: 2002–2014.](image)
As presented in the Figure, the country’s inflation rate has significantly reduced in year 2010. Inflation is expected to stabilize from three to four percent annually.

![Figure 22: Inflation Rates Graph (Qatar), Year: 2002–2014.](image1)

Projections on inflation rates show 2.73% in year 2015, 3.8% in year 2020, and 3.755% in 2030. Figure 23 shows inflation rate graph in the State of Qatar for years 2004 to 2012.

![Figure 23: Inflation Rates Trend Line (Qatar), Year: 2006 – 2014.](image2)

(I) United Arab Emirates Unemployment Rate

Unemployment rate in the United Arab Emirates measures the number of people who are looking for a job, taken as percentage of labor force. Figure 24, shows a decrease in unemployment rate from 4.60% in year 2011 to 4.20% in 2012. Data indicates an average rate of 3.12% from 1985 to year 2012, reaching a high rate of 4.60% in 2011 and 1.15% low record in 2005. Figure 25, presents the graph of unemployment rates, from year 2004 to 2014.

![Figure 24: Unemployment Rates Chart in UAE, Year: 2002 – 2014.](image3)
As shown in Figure 24, unemployment levels in the country are safe though percentage rate reached 4.6% in 2011. Unemployment rate in the United Arab Emirates is at an economically safe level as nationals focus on public sector and administrative jobs. Majority of the nationals want jobs from the public sector which entails government task to help economy create jobs and focus on the need for cultural change. Low unemployment rate in UAE is attributed to the high level of economic activity. And unexpected increase in the country’s population, in the previous years.

![Graph of Unemployment Rates in UAE](image1)

**Figure 25: Unemployment Rates Graph in UAE, Year: 2002 – 2014.**

Figure 26 presents the unemployment trend line in United Arab Emirates in the long term. Forecasts show an unemployment rate assumed to be 3.6% in year 2015, 5.4% in 2020, and 6.04% in 2030.

![Graph of Unemployment Rates Trend](image2)

**Figure 26: Unemployment Rates Trend Line (UAE), Year: 2002 – 2014.**

**(J) United Arab Emirates Exchange Rate**

Spot exchange rate of USDAED specifies how much the United States Dollar is currently worth in terms of the AED. Figure 27 reveals exchange rate of UAE Dirham unchanged at 3.67% in June 2014 from 3.67 in May 2014. Data indicates an average percentage rate of 3.67 from 1988 until year 2014. The highest rate of 3.68 was recorder in October 2003 and the lowest rate value of 3.65% in November 2007. Figure 28 presents the exchange rate graph of UAE for the period, 2002 to 2014.

![Exchange Rates Graph](image3)

**Figure 27: Exchange Rates Chart (UAE), Year: 2002 – 2014.**
It is assumed that exchange rate is 3.67% in the year 2015, 3.67% in 2020, and 3.67% in year 2030. Figure 29 shows the projections of exchange rates in the long term.

(K) United Arab Emirates Interest Rate
United Arab Emirates benchmark interest rate was recorded at 1%, with an average of 1.31% from year 2007 until 2014. A high rate of 4.75% was reached in November 2007 and lowest percentage rate of 1% in January 2009. Interest rate in the United Arab Emirates is reported by the Central Bank with overnight repurchase rate as the official interest rate since November 2007. Figures 30 and 31 show the interest rates chart and graph in the United Arab Emirates for the year 2002 to 2014.
It is assumed that interest rate in year 2015 is 1.25%, 1.45% in year 2020, and 1.36% in year 2030. Table 4 shows the interest rates in United Arab Emirates, from year 1998 to 2011 and the trend line in the long term.

(1) United Arab Emirates Inflation Rate

Presented in Figure 33, are the inflation rates from year 2002 to year 2014. Inflation rate was 2.12% in April 2014 with an average of 2.04 % from year 1990 until year 2014. The highest rate of 12.305 was seen in December 2008, and was in its lowest percentage of -1.60, in January 2011. The Ministry of Economy reports inflation rates in the country. With national index base of 100 as of 2007, the main components of consumer price index with are housing with 3905 of the total weight, 13.9% for food, 9.9% for transportation, 7% for clothing, 6.9% for communications, 5% for goods and services, 4.3% for restaurants, 4.2% for furniture, 4% for education, 3% for recreation, 2% for beverages, and 1% for medical care. Figure 34 presents the graph of inflation rates of the United Arab Emirates, from year 2002 to 2014.
Inflation rates in UAE was running at its highest in years 2006 to 2008, driven by soaring prices of housing and utility costs as inflationary pressure. The last few years have been easier due spare capacity in the labor market that helped keep prices low. Employers and the government have taken measures in response to rising inflation.

![Inflation Rates Graph (UAE), Year 2002 – 2014.](image)

Projections of inflation rates indicate interest rates in the long run, with 2.61% in 2015, 3.81% in 2020, and 3.96 in year 2030. Figure 35 presents the inflation rates in the United Arab Emirates graph from 2002 to 2014.

![Inflation Rates Trend Line (UAE), Year 2002 – 2014.](image)

XIII. Significant Effects of Unemployment Rates on Exchange Rates, Interest Rates, and Inflation Rates in the Kingdom of Saudi Arabia, State of Qatar and United Arab Emirates

(A) Saudi Arabia

Table 4: Significant Effect of Unemployment Rates on Exchange Rates, Interest Rates, and Inflation Rates (Saudi Arabia).

<table>
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<th>Dependent Variables</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
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<td>0.106</td>
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</table>

As presented in Table 4, correlation coefficient of unemployment rates on interest rates is 0.39 and a ρ value of 0.187 for two tailed test significance, inflation rate has a Pearson Correlation value of -0.476 and ρ value of 0.100(2-tailed), and -0.468 r value and ρ value of 0.106 for exchange rate. Data revealed no significant correlation between unemployment rate, interest rate, inflation rate, and exchange rate at both 1% and 5% significance level. The null hypothesis is accepted for the three variables. There are no significant effects of unemployment rates on interest rates, inflation rates, and exchange rates in the Kingdom of Saudi Arabia. These findings imply that an increase or decrease in the level of unemployment rates will not influence the level of interest rates, inflation rates, and exchange rates in the Kingdom of Saudi Arabia.
(B) State of Qatar

Table 5: Significant Effect of Unemployment Rates on Exchange Rates, Interest Rates, and Exchange Rates (Qatar).

<table>
<thead>
<tr>
<th>Dependent Variables</th>
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<th>Mean</th>
<th>Std. Dev</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
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Table 5 presents the significant effect of unemployment rates on the three dependent variables. Correlation coefficient of unemployment rates on interest rates is -0.388 and a ρ value of 0.190 for two tailed test significance, inflation rate has a Pearson Correlation value of 0.042 and ρ value of 0.891(2-tailed), and -0.228 r value and ρ value of 0.455 for exchange rate. The data revealed no significant correlation between unemployment rate, interest rate, inflation rate, and exchange rate at both 1% and 5% significance level. The null hypothesis is accepted for the three variables. There are no significant effects of unemployment rates on interest rates, inflation rates, and exchange rates in the State of Qatar. These findings imply that fluctuations in the level of unemployment rates will not have an impact on the level of interest rates, inflation rates, and exchange rates in the State of Qatar.

(C) United Arab Emirates


<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
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Table 6 shows the significant effect of unemployment rates on the three dependent variables. Correlation coefficient of unemployment rates on interest rates is -0.237 and a ρ value of 0.435 for two tailed test significance, inflation rate has a Pearson Correlation value of -0.378 and ρ value of 0.203 (2-tailed), and -0.026 r value and ρ value of 0.934 for exchange rate. The data show no significant correlation between unemployment rate, interest rate, inflation rate, and exchange rate at both 1% and 5% significance level. The null hypothesis is accepted for the three variables. There are no significant effects of unemployment rates on interest rates, inflation rates, and exchange rates in the United Arab Emirates. These findings imply that a change in the level of unemployment rates will not influence the level of interest rates, inflation rates, and exchange rates in the United Arab Emirates.

XIV. How Strongly Unemployment Rates Predict Inflation Rates in the Kingdom of Saudi Arabia, State of Qatar, and in the United Arab Emirates

(A) Saudi Arabia

Table 7: Model Summary.

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<th>Model</th>
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<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.476*</td>
<td>.227</td>
<td>.156</td>
<td>2.70709</td>
<td></td>
</tr>
</tbody>
</table>

|       |       |       |                   |                           |                   |
|       | R Square | F Change | df1 | df2 | Sig. F Change |
| 1     | .227    | 3.223   | 1   | 11  | .100          |

a. Predictors: (Constant), Unemployment Rate

Table 8: Multiple Regression Coefficients.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1(Constant)</td>
<td>28.815</td>
<td>14.257</td>
<td></td>
</tr>
<tr>
<td>Inflation Rate</td>
<td>-4.546</td>
<td>2.532</td>
<td>-.476</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Inflation Rate
Tables 7 and 8 reveal the results of the multiple regression analysis conducted to measure how strongly unemployment rates predict inflation rates in the Kingdom of Saudi Arabia, State of Qatar, and in the United Arab Emirates. The adjusted R Square value of 0.156 shows that unemployment variable in the model accounts for 15.6% variance in the inflation rates. The ρ value of 0.100 for inflation rate is not significant at both 1% and 5% significance level, thus the null hypothesis was accepted. Unemployment is not positively related to inflation rates and does not predict inflation rates in the Kingdom of Saudi Arabia.

**B) State of Qatar**

Table 9: Model Summary.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.042 a</td>
<td>.002</td>
<td>.089</td>
<td>6.21116</td>
<td>.002</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Unemployment Rates

Table 10: Multiple Regression Coefficients.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>4.475</td>
<td>2.095</td>
<td>2.136</td>
</tr>
<tr>
<td>UR2</td>
<td>0.202</td>
<td>1.449</td>
<td>0.042</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Inflation Rates

As shown in tables 9 and 10 the adjusted R Square value of 0.089 shows that unemployment variable in the model accounts for 8.9% variance in the inflation rates. The ρ value of 0.891 for inflation rate is not significant at both 1% and 5% significance level, thus the null hypothesis was accepted. Unemployment rate is not positively related to inflation rate and is not a predictor of inflation rate in the State of Qatar.

**C) United Arab Emirates**

Table 11: Model Summary.

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.378 a</td>
<td>.143</td>
<td>.065</td>
<td>3.91292</td>
<td>.143</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Unemployment

Table 12: Multiple Regression Coefficients.

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>8.533</td>
<td>3.198</td>
<td>2.668</td>
</tr>
<tr>
<td>UR3</td>
<td>-1.227</td>
<td>.907</td>
<td>-1.354</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Inflation Rate

Tables 11 and 12 presents the findings on the regression analysis conducted to determine how strongly unemployment predicts inflation rate in United Arab Emirates. The adjusted R Square value of 0.065 shows that unemployment variable in the model accounts for 6.5% variance in the inflation rates. The ρ value of 0.203 for inflation rate is not significant at both 1% and 5% significance level, thus the null hypothesis was accepted. Unemployment rate is not positively related to inflation rate and is not a predictor of inflation rate in United Arab Emirates.
XV. Significant Difference in the Level of Unemployment Rate in Saudi Arabia and Level of Unemployment in Qatar and United Arab Emirates

Table 13: Analysis of Variance.

<table>
<thead>
<tr>
<th>REG</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>25.250</td>
<td>24</td>
<td>1.052</td>
<td>19.639</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>.750</td>
<td>14</td>
<td>.054</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>26.000</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 14: Tests of Between-Subjects Effects.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>149.838</td>
<td>2</td>
<td>74.919</td>
<td>70.697</td>
<td>.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>413.108</td>
<td>1</td>
<td>413.108</td>
<td>389.831</td>
<td>.000</td>
</tr>
<tr>
<td>REG</td>
<td>149.838</td>
<td>2</td>
<td>74.919</td>
<td>70.697</td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>38.150</td>
<td>36</td>
<td>1.060</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>601.095</td>
<td>39</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>187.987</td>
<td>38</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To test the means of groups formed by a combination of independent variables, are significantly different, and if the two variances do not differ significantly, analysis of variance was used. F-statistic determined the ratio between the variance caused by the difference between groups and error variance. As shown in Table 13, the F-value is 19.639 and the corresponding p value is 0.000 which are significant at both 1% and 5% significance level. The null hypothesis is rejected. The levels of unemployment rates in the three GCC countries are different.

XVI. Unemployment rates and inflation rates are independent of each other in Saudi Arabia, Qatar, and United Arab Emirates

Table 15: Case Processing Summary.

<table>
<thead>
<tr>
<th>Region Unemployment</th>
<th>Cases</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Valid</td>
<td>Missing</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
<td>Percent</td>
</tr>
<tr>
<td>Region Unemployment</td>
<td>39</td>
<td>100.0%</td>
<td>0</td>
<td>.0%</td>
</tr>
</tbody>
</table>

Table 16: Chi-Square Tests.

<table>
<thead>
<tr>
<th>C-Square Tests</th>
<th>Value</th>
<th>df</th>
<th>Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>73.500</td>
<td>48</td>
<td>.1</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>81.193</td>
<td>48</td>
<td>.002</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>6.983</td>
<td>1</td>
<td>0.008</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>39</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To test the independence of two categorical variables unemployment rates and inflation rates are independent of each other, in the three different GCC countries, Chi-Square Test was used. As presented in Table 16, X² is equal to 73.500, with 48 degrees of freedom, and p value of 0.1, there is significant relationship between unemployment rates and inflation rates at 10% level of significance. The null hypothesis was rejected. Unemployment rates and inflation rates are not significantly independent of each other.

XVII. Conclusions and Recommendations

This chapter presents the summary of findings of the study, the conclusions and the proposed recommendations. The treatment of data revealed the following essential findings:
(A) Status of Unemployment Rates, Inflation Rates, Interest Rates, and Exchange Rates in the Kingdom of Saudi Arabia for the year 2002 to 2014

A1. Saudi Arabia
- The average unemployment rate is 5.44% from 2002 to 2014, with the highest percentage of 6.30 in year 2006 and lowest in 1999, at 4.35%. Data indicates a declining trend in unemployment rates in the Kingdom of Saudi Arabia, at 5.8% in 2011 to 5.5% in 2012.
- Exchange rates recorded an unchanged percentage of 3.75 in 2014 with the highest rate of 3.7% in 2009 and low record of 3.67% in 2012.
- Interest rates averaged at 3.75% in 2004 with the highest rate of 7% in year 2000 and low at 1.5% in 2004.
- Inflation rate is 2.7% in year 2014, with an average of 2.81% from year 2000 to 2014. The rate was highest at 11.1% in 2008 and lowest at 2% in 2001.

A2. State of Qatar
- The average unemployment rate in the State of Qatar is 2.73% from 2001 to 2013. It was highest at 3.9% in 2001 and a low record of 0.30% in year 2013.
- Exchange rate was unchanged at 3.64% in 2014. It reached the highest level of 3.67 in 2008, and a low record of 0.64% in 2010.
- The average interest rate was 4.84% from 2004 to 2014, with the highest level at 5.85% in 2006 and lowest at 1.53% in year 2004.
- Inflation rates in the State of Qatar has an average of 3.8% from 2003 to 2014. It reached a high level percentage of 16.59 in year 2008 and was lowest in 2009, with a percentage value of -9.96%.

A3. United Arab Emirates
- A decrease in unemployment rate in United Arab Emirates was recorded at 4.6% in year 2011 to 4.25 in 2012. The average rate was 3.12% in 1985 to 2012, with the highest level at 4.6 in 2011 and was lowest at 1.15% in 2005.
- Exchange rate unchanged at 3.67% in 2014. The average Rate was 3.67 from year 1988 to 2014. The highest level was recorded at 3.68% in 2003 and was lowest at 3.655 in 2007.
- The average interest rate from year 2007 to 2014 was 1.31%, with the highest rate at 4.75% in 2007 and was lowest at 1% in 2009.
- Inflation rate is 2.12% in year 2014, with an average of 2.04% from 1990 to year 2014. It reached the highest level of 12.305% in 2008 and a low record of 0.60% in 2011.

(B) Significant Effects of Unemployment Rates on Exchange Rates, Interest Rates, an Inflation Rates in the Kingdom of Saudi Arabia, State of Qatar and United Arab Emirates
- Findings revealed no significant correlation between unemployment rate, interest rate, inflation rate, and exchange rate at both 1% and 5% significance level. The null hypothesis is accepted for the three variables. There are no significant effects of unemployment rates on interest rates, inflation rates, and exchange rates in the Kingdom of Saudi Arabia.
- The data show no significant correlation between unemployment rate, interest rate, inflation rate, and exchange rate at both 1% and 5% significance level. The null hypothesis is accepted for the three variables. There are no significant effects of unemployment rates on interest rates, inflation rates, and exchange rates in the State of Qatar.
- Findings of the study show no significant correlation between unemployment rate, interest rate, inflation rate, and exchange rate at both 1% and 5% significance level. The null hypothesis is accepted for the three variables. There are no significant effects of unemployment rates on interest rates, inflation rates, and exchange rates in the United Arab Emirates.

(C) How Strongly Unemployment Rates Predict Inflation Rates in the Kingdom of Saudi Arabia, State of Qatar, and in the United Arab Emirates
- The ρ value of 0.100 for inflation rate is not significant at both 1% and 5% significance level, thus the null hypothesis was accepted. Unemployment rate is not positively related to inflation rates and does not predict inflation rates in the Kingdom of Saudi Arabia.
- The ρ value of 0.891 for inflation rate is not significant at both 1% and 5% significance level, thus the null hypothesis was accepted. Unemployment rate is not positively related to inflation rate and is not a predictor of inflation rate in the State of Qatar.
- The ρ value of 0.203 for inflation rate is not significant at both 1% and 5% significance level, thus the null hypothesis was accepted. Unemployment rate is not positively related to inflation rate and is not a predictor of inflation rate in United Arab Emirates.
(D) Significant Difference in the Level of Unemployment Rate in Saudi Arabia and Level of Unemployment in Qatar and United Arab Emirates

The F-value is 19.639 and the corresponding p-value is 0.000 are significant at both 1% and 5% significance level. The null hypothesis is rejected. The levels of unemployment rates in the three GCC countries are different from each other.

(E) Unemployment rates and inflation rates are independent of each other in Saudi Arabia, Qatar, and United Arab Emirates

Chi-square value is equal to 73.500, with 48 degrees of freedom, and p-value of 0.1, indicating a significant relationship between unemployment rates and inflation rates at 10% level of significance. The null hypothesis was rejected. Unemployment rates and inflation rates are not significantly independent of each other in the three GCC countries, Kingdom of Saudi Arabia, State of Qatar, and United Arab Emirates.

XVIII. Conclusions & Recommendations

The findings derived from this study led to the following conclusions:

(a) There is no significant effect of unemployment rates on exchange rates, interest rates, and inflation rates in the Kingdom of Saudi Arabia, State of Qatar, and United Arab Emirates.

(b) Unemployment rate is not positively related with exchange rate, interest rate, and inflation rate in the three GCC countries. Unemployment rate is not a predictor of exchange rate, interest rate and inflation rate.

(c) The level of unemployment rates in the three GCC countries is different.

(d) Unemployment rates and inflation rates are not significantly independent of each other in the three GCC countries.

The stated conclusions merit the following recommendations:

(a) Conduct further researches that will focus on other variables that will strongly influence the level of inflation rates, interest rates, and exchange rates.

(b) Develop measures that will further reduce the level of unemployment rate in the subject GCC regions which can also be implemented in other parts of the region.

References


