

# **Trade Openness, Economic Growth and Unemployment Reduction in Arab Region**

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**By:**

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# Introduction

The paper investigates the impact of trade openness and growth unemployment in selected Arab countries. The subject of this study is becoming more important in light of the spread of unemployment problem especially among young and educated workers in many Arab countries.

Main question of the study is whether achieving economic growth and liberalizing international trade contribute to creating more jobs and hence alleviate unemployment problem in Arab region



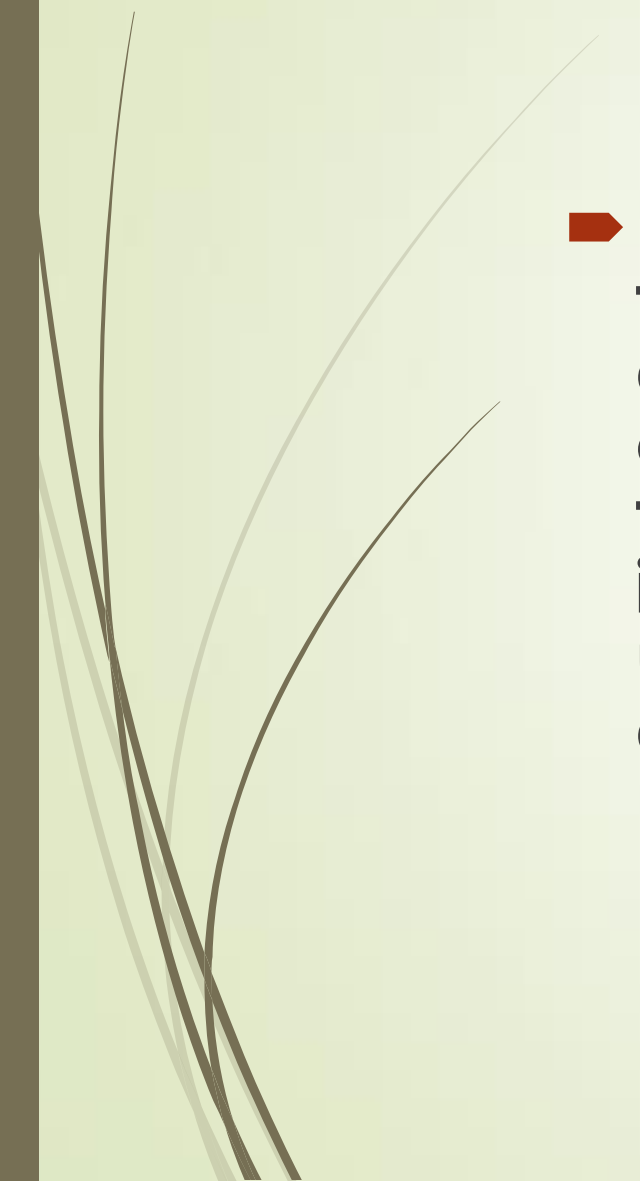
# OUTLINE

The main topics are as follows:

- Literature review
- Study sample
- Development of some key macroeconomic variables: unemployment, growth and trade openness in selected Arab countries
- Theoretical background and the econometric model
- Econometric analysis
- Conclusion



# Literature Review

- ▶ **Nwaka I.D., Uma K.E.Tuna G. (2015) investigated the empirical relationship between trade policy and unemployment in Nigeria using vector error correction methodology. Their findings revealed that in the long run, increase in real output and income per capita lead to a decline in unemployment, but trade openness policy is associated with an increase in unemployment.**
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## Literature Review...

- ▶ **Gozgor G. (2013)** examined the impacts of four different measures of trade openness and globalization on the unemployment rate in the G7 countries: Canada, France, Germany, Italy, Japan, the United Kingdom (UK), and the United States (US). The results of estimation found evidences that, along with macroeconomic indicators and market size, all the measures of trade openness and globalization are significantly and negatively associated with the unemployment rate.



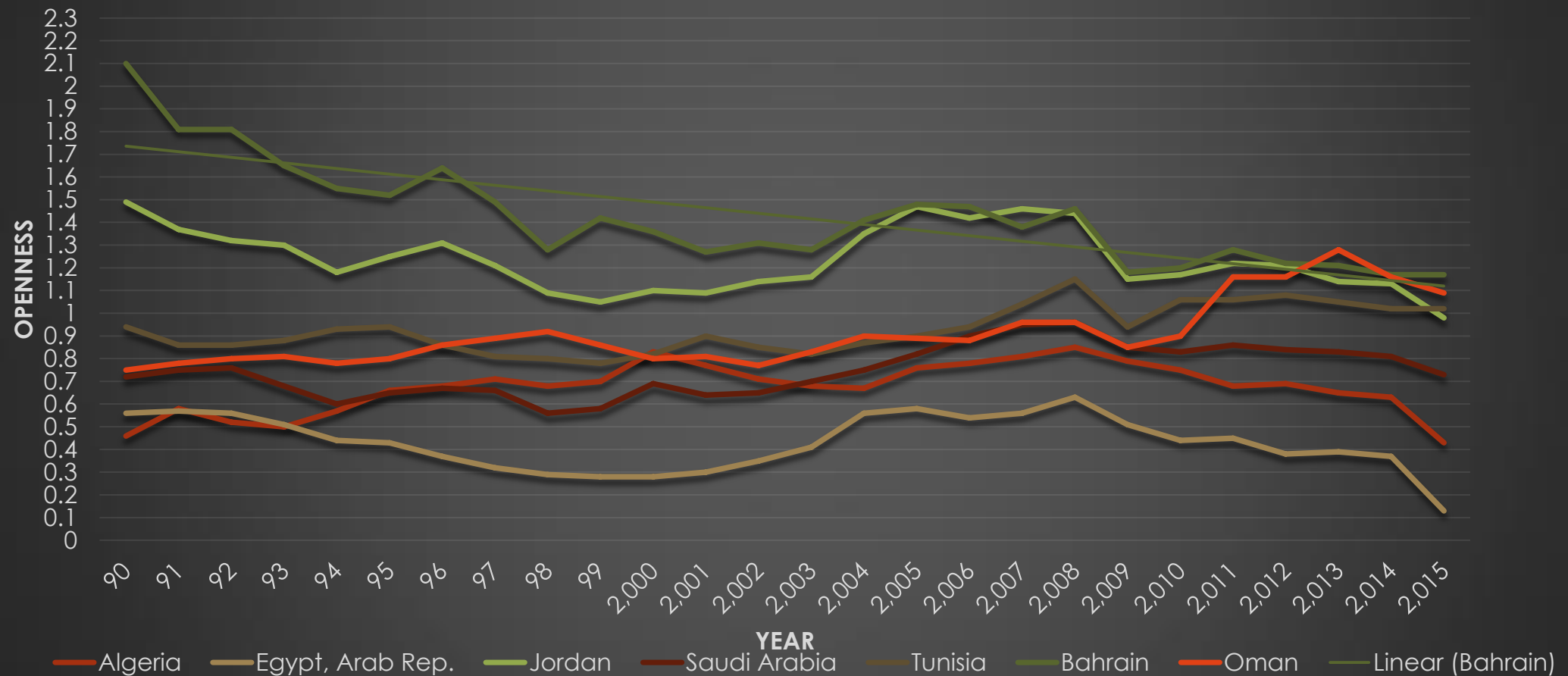
## Literature Review...

- ➔ **Halit Y. (2013) examined how trade liberalization affects the growth rate of sectoral employment in developed and developing countries. The estimation results implied that trade openness in the form of higher trade volumes has not been successful in generating jobs in developing countries. In addition, they found that higher trade volumes have adverse effect on industrial employment in developed countries. Moreover, while they have positive effect on employment in industry and services in developing countries, trade barriers have adverse effect on employment growth in services for developed countries.**

# Study Sample

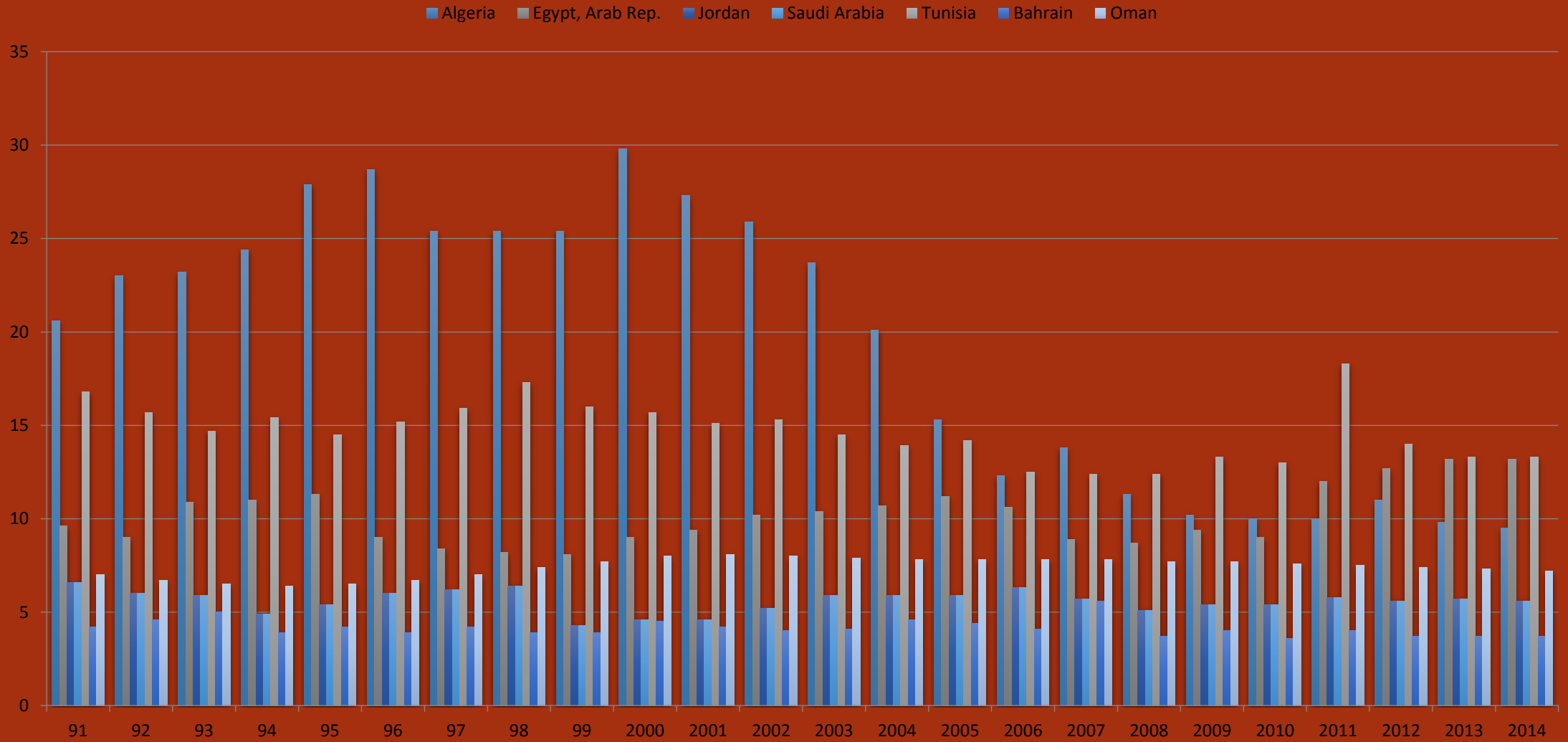
- The researcher selected certain Arab countries taking into account data availability and sub-regional representation
- The selected countries are Algeria, Bahrain, Egypt, Jordan, Oman, Saudi Arabia, and Tunisia
- Most recent time series data is used for the period 1990-2015
- For consistency and harmonization data were taken from one source: The World Bank, <http://data.worldbank.org>

# Development of openness for selected Arab countries: 1990-2015.

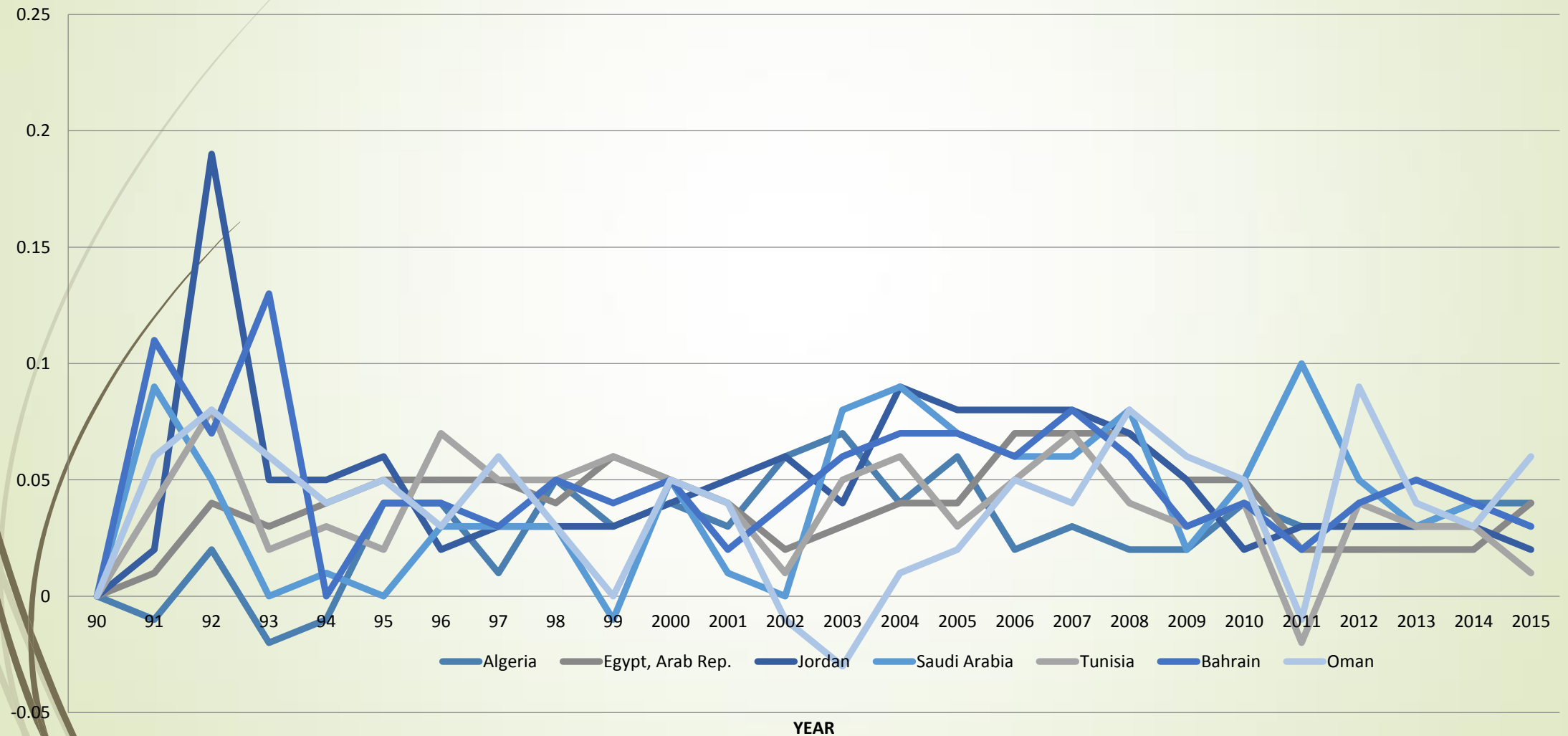




# Development of unemployment for selected Arab countries: 1991-2014.



# Development of real growth for selected Arab countries: 1990-2015



- ▶ According to the openness indicator shown above Bahrain was the most open economy followed by Oman during the study period, while Egypt was the least open economy followed by Algeria
- ▶ Real economic growth was volatile during the period for all selected Arab countries. The highest achieved growth in Algeria was 6% in 2005, while the lowest was negative 2% in 1993
- ▶ In Saudi Arabia the highest growth was recorded in 1991 at 9%, while the lowest was negative 1% in 1999. The highest rate of growth recorded in Jordan was 19% in 1992, while the lowest was recorded in 2015 at 2%.
- ▶ In Tunisia the highest rate of real growth was achieved in 1992 at 8%, while the lowest was negative 2% in 2011.

➔ Paradoxically, the highest rate of unemployment was recorded in Jordan at 19.7% in 1992, the same year that witnessed the highest rate of growth. During the 90s and early 2000s the unemployment was soaring in Algeria (20-30%) as a result of domestic violence. Bahrain followed by Saudi Arabia recorded the lowest unemployment rates which were not much above the normal rates during the whole study period. Oman also recorded lower unemployment rates compared to Jordan, Tunisia and Egypt, during most years of the study.

# Econometric Unemployment Model

- Economic theory suggests the following determinants to overall unemployment rate:
- Unemployment =  $f(\text{trade openness, real growth rate, fixed capital formation, population growth, exports \& imports})$
- Real Economic Growth: real economic growth is expected to promote employment and hence to reduce overall unemployment rate.
- Trade flows: there are two main international trade flows, exports and imports of goods and services. Exports expansion comes through domestic production expansion of goods and services in which a country enjoys comparative advantages which results in less unemployment rates. Imports expansion come at the expense of domestic production and hence may contribute to higher unemployment rates.

## Unemployment Model ...

- **Trade openness:** there are several measures to trade openness including ratio of exports to GDP, ratio of imports to GDP, and ratio of the sum of exports and imports to GDP. According to major international trade theories and under certain assumptions, more trade liberalization is pro growth and hence expected to reduce unemployment rate.
- **Fixed capital formation:** investment through accumulation of capital goods contribute over time to the usage of more capital-intensive methods of production. This may contribute to higher or lower unemployment rates.
- **Population growth:** population growth enlarges the size of labor force. This may increase or decrease unemployment rates depending on the absorption capacity of the labor market.

# Empirical Results

Before presenting the results of estimation the following pretests were pursued:

- All model variables were checked for the problem stationarity
- Econometrics evidences indicate that panel based unit root tests have higher power test compared to single time series test. Therefore, this study uses Levin-Lin-Chu pooled ADF test (Green, 2012)
- In light of heterogeneous errors across countries as was evident from the results of pooled OLS, the unemployment model in double-log form was re-estimated using panel WLS.

**WLS estimation, using 175 observations Included 7 cross-sectional units, Dependent variable: I\_Unemp  
Weights based on per-unit error variances**

	Coefficient	Std. Error	t-ratio	p-value
const	7.01322	0.586333	11.96	<0.0001
I_Export	-0.394574	0.0804978	-4.902	<0.0001
I_Import	0.394268	0.0886215	4.449	<0.0001
I_Rcap	0.218979	0.102530	2.136	0.0341
I_Pop	-0.0344529	0.0057141	-6.029	<0.0001
		3		
I_Open	-0.538819	0.0619354	-8.700	<0.0001
I_RGDP	-0.395489	0.0984667	-4.016	<0.0001



## Estimation Results

- ▶ The model overall fit is satisfactory as indicated by both adjusted R-square and Fisher test. All estimated coefficients carry the correct expected sign and are statistically significant at 5% or better. While more exports lowers unemployment rate, imports increase it by almost the same percentage (0.39). However, the sign of “trade openness” turned out to be the largest in size and negative (equal to about 0.54); meaning that a 1% increase in trade openness decreases unemployment rate in Arab countries covered in the study by 0.54%

# Estimation Results....

- Economic growth also lowers significantly unemployment rate by 0.40%, seemingly population growth contributes slightly to lower unemployment. Finally, accumulation of capital goods over time, seems to slightly increase unemployment rate by enabling more capital-intensive methods of production
- One possible extension of this study is to enlarge the sample, by either increasing number of countries or number of years or taking shorter span periods: monthly or quarterly), so that further econometric analysis can be applied to each country separately

# Conclusion

- **The study provides evidence of large and significant impact of trade openness on employment rate in the selected ARAB countries. On the other hand, real economic growth affected favorably unemployment rates in these group of countries. The main conclusion that come out of this analysis is that trade openness is playing the expected favorable effect on unemployment) in the Arab region.**



**The End**



**THANK YOU**

