



9TH MALAYSIA STATISTICS CONFERENCE

Department of Statistics, Malaysia

Dealing with Uncertainties: Unearthing Measures for Recovery

The Relationship of Economic Freedom and Governance Quality on the Unemployment Rate in Selected Asian countries

01

Introduction

Unemployment rate (UE) is always a concern in labour market view globally. This study investigates the assumption that the greater the degree of economic freedom and good governance quality, it will reduce a country's unemployment rate, ceteris paribus. The findings of the study will give useful insights for policymakers, employers, and labour market in improving workforce policies and fighting labour-market problems. It is critical for policymakers to develop policies, projects, and program, particularly those focused at lowering unemployment rates in the labour sector.

02

Objective

To study the relationship of economic freedom index (EFI), governance quality and economic indicators toward the unemployment rate for Asian countries.

04

Result and Discussion

The Most Appropriate Model for Unemployment Rate Model in Selected Asian Countries

Poolability F-test		LM-test		Hausman Test	
F-test	131.64	chi-square (χ^2)	3276.70	chi-square (χ^2)	26.82
p-value	<0.0001	p-value	<0.0001	p-value	0.0436

Since the chi-square (χ^2) value for Hausman test is more than significant level of 5%, the null hypothesis is rejected. The FEM is better than the REM in this case.

Diagnostic checks for Most Appropriate Model Countries

Modified Wald test for groupwise heteroskedasticity	
chi-square (χ^2)	14802.69
p-value	<0.0001
The Wooldridge test for autocorrelation	
F-test (1, 37)	30.195
p-value	< 0.0001

The results indicate the heteroscedasticity and serial correlation problem, the FEM has to rectify by using the panel-robust estimates.

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Methodology

The data set used in this study are annual unemployment rate of selected Asian countries from year 2002 to 2018, which was collected from various sources: World Bank data, Worldwide Governance Indicators (WGI) and Heritage Index. This study provides an overview of unemployment rate using an appropriate statistical modelling known as PANEL DATA APPROACH.

Model estimation
POLS, FEM, REM

Appropriate Model
•Chow test (POLS vs FEM)
•LM test (POLS vs REM)
•Hausman test (FEM vs REM)

Diagnostic Check
•Heteroscedasticity
•Autocorrelation

05

Conclusion

In conclusion, the best suited model for overall unemployment rate is the Fixed Effect Model with Panel-Robust and Cluster. This model have also taken into consideration of overcoming the heteroscedasticity and serial correlation problems. The Investment Freedom and Voice and Accountability variables show positive relationship with overall unemployment rate. Meanwhile, the Tax Burden, Government Spending, Labour Freedom and Political Stability No Violence show the negative relationship with overall unemployment rate.

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Recommendations for Policy

- Increase the education or labour force training expenditure to overcome the occupational immobility and improve the skill for by the labour force.
- Increasing the tax burden on employer but reducing tax for employee to boost the aggregate of demand.
- Increasing the labour freedom to encourage firms to take on the long-term unemployed and reduce the real wage unemployment rate.

References

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2. Cebula, R.J., M. Foley, and D. Capener, *The impact of economic freedom on the unemployment rate in OECD nations: an exploratory study accepting the validity of Okun's law*. *Economia Internazionale*, 2015. 68(4): p. 423-436.

