


“The impact of fiscal policy on female labor force participation in Egypt”

AUTHORS

Emad Attia Mohamed Omran 



Yuriy Bilan 



ARTICLE INFO

Emad Attia Mohamed Omran and Yuriy Bilan (2023). The impact of fiscal policy on female labor force participation in Egypt. *Problems and Perspectives in Management*, 21(4), 361-369. doi:[10.21511/ppm.21\(4\).2023.28](https://doi.org/10.21511/ppm.21(4).2023.28)

DOI

[http://dx.doi.org/10.21511/ppm.21\(4\).2023.28](http://dx.doi.org/10.21511/ppm.21(4).2023.28)

RELEASED ON

Tuesday, 14 November 2023

RECEIVED ON

Wednesday, 02 August 2023

ACCEPTED ON

Monday, 30 October 2023

LICENSE



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

JOURNAL

"Problems and Perspectives in Management"

ISSN PRINT

1727-7051

ISSN ONLINE

1810-5467

PUBLISHER

LLC “Consulting Publishing Company “Business Perspectives”

FOUNDER

LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

54



NUMBER OF FIGURES

2



NUMBER OF TABLES

7

© The author(s) 2024. This publication is an open access article.



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10,
Sumy, 40022, Ukraine
www.businessperspectives.org

Received on: 2nd of August, 2023
Accepted on: 30th of October, 2023
Published on: 14th of November, 2023

© Emad Attia Mohamed Omran, Yuriy Bilan, 2023

Emad Attia Mohamed Omran, Ph.D.,
Lecturer, Faculty of Commerce, Sohag
University, Egypt. (Corresponding
author)

Yuriy Bilan, Ph.D., Professor,
Bioeconomy Research Institute,
Vytautas Magnus University, Lithuania.

Emad Attia Mohamed Omran (Egypt), Yuriy Bilan (Lithuania)

THE IMPACT OF FISCAL POLICY ON FEMALE LABOR FORCE PARTICIPATION IN EGYPT

Abstract

There is no doubt that women play a vital role in all aspects of economic activities around the globe. However, despite the great efforts that governments have made over the past three decades to increase women's integration into the labor market, their participation is still relatively low compared to men. On the other hand, economic literature argues that the government can use fiscal policy tools such as tax revenue and spending to decrease gender inequality in the labor market. The aim of this paper is to investigate the impact of government spending and tax revenue shocks on the female labor force participation rate (the share of women in the total labor force) in Egypt. Annual time-series data were collected from the Central Bank of Egypt and the World Bank from 1990 to 2021, where the vector autoregressive (VAR) model and impulse response functions have been used. The results suggest that government spending and tax revenue shocks increase gross domestic product (GDP) growth rate, female labor force participation, and inflation. Results validated the research hypotheses and showed that a one standard deviation shock to either government spending or tax revenue has a positive impact on female labor force participation. Therefore, the study recommends that using an expansionary fiscal policy may increase the accessibility of Egyptian women to the labor market.

Keywords

fiscal policy, VAR, GDP, female labor force participation, labor market, Egypt

JEL Classification

O23, J16

INTRODUCTION

Fiscal policy is one of the tools that government uses to affect economic conditions. During recessions, the government increases spending and decreases taxes to enhance economic activities, while it cuts spending and raises taxes to combat inflation. On the other hand, it has been argued that higher participation of women in the labor force enhances economic growth by increasing labor productivity and introducing new ideas essential for production. Although globalization has increased the accessibility of women to economic activities, there is still a significant gender gap. Moreover, the catastrophic consequences of the recent COVID-19 pandemic have widened this gap, especially in developing countries.

According to the World Bank (2022), the global female labor force participation is only 50% compared to 80% for men. Despite the increasing trend of women's participation in the labor market in the last decades, it is still 20 % less than men's (Fruttero et al., 2020). For example, despite women's increasing educational attainment in Egypt, their involvement in the labor market is very low compared to men. It dropped from 24.5% in 2017 to 17.6% in 2021. Therefore, there is a significant gender gap in labor market participation (Hassan & Zaharia, 2021). Many barriers stifle Egyptian women from accessing the labor market, such as child care, home responsibilities, the lack of proper work laws, and sexual harassment (Omran & Bilan, 2022).



This is an Open Access article, distributed under the terms of the [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.



Conflict of interest statement:
Author(s) reported no conflict of interest

Nevertheless, it has been alleged that the government can use tax revenue and spending tools to decrease gender inequality (Hill, 2020). Spending and taxation tools of governments can stabilize the economy and decrease gender inequality in the labor market. Fiscal policy and women's labor force participation can have a significant impact on enhancing economic development.

1. LITERATURE REVIEW AND HYPOTHESES

Fiscal policy is vital in decreasing unemployment, income inequality, and poverty (Jappelli & Pistaferri, 2014; Tanjung et al., 2019; Cevik & Correa-Caro, 2020; Omran & Bilan, 2020). However, economists debate the channels through which fiscal policy can affect the labor market (Buti & Franco, 2005; DeLong & Summers, 2012; Auerbach et al., 2022). Fiscal policy can have short- and long-term effects on the labor market (Yoshino & Miyamoto, 2017). In the long run, it affects the number of goods and services (Alberola et al., 2021). In the long run, it moves the output from its potential level by affecting the demand for goods and services (Blanchard et al., 2021).

The United Nations Economic and Social Council has defined a gender mainstreaming approach as assessing the effects of any planned action, including legislation, policies, or programs on women and men in all sectors and at all levels. It is a strategy according to which the problems faced by women and men and their accumulated experience should become one of the integral areas of activity in developing, implementing, monitoring, and evaluating policies and programs in all spheres of political, economic, and social life. Thus, women and men can equally benefit from the fruits of such efforts so that there is no room for inequality (Sari et al., 2022; Pasko et al., 2022; Hapsoro et al., 2022; Islam et al., 2023; Mansour et al., 2023).

A gender mainstreaming approach includes gender-specific measures and compensatory actions taken whenever women or men are particularly disadvantaged. The ultimate goal of a comprehensive gender approach is to ensure gender equality (Ramlal et al., 2022; Thinh et al., 2022; Sudaryanto et al., 2022; Jagirani et al., 2023; Dahal et al., 2023; Miniailo et al., 2023). However, currently, one of the factors affecting the difference in wages, unemployment, and education is the gender difference.

On the other hand, some studies have highlighted the impact of female labor force participation on economic development (Fatima & Sultana, 2009; Tsani et al., 2013; Klasen et al., 2021; Altuzarra et al., 2021). According to Omran and Bilan (2022), female labor force participation has a positive impact on the long-run economic growth in Egypt. Decreasing regional-specific barriers to female labor force participation may boost economic growth (Dursun & Damadoğlu, 2020). Similarly, Mujahid and uz Zafar (2012) reported a positive relationship between female labor force participation and economic growth in Pakistan.

Some studies focused on the impact of fiscal policy on female labor force participation (Thévenon, 2013; Givord & Marbot, 2015; Jensen, 2017; Guner et al., 2020; Kuitto & Helmdag, 2021; Borella et al., 2023). An effective fiscal policy can increase female labor force participation by reducing the inequality in human capital (Cameron et al., 2020). It is essential in reducing gender gaps (Fruttero et al., 2020). Paid parental leaves, childcare subsidies, and tax reforms have been widely used to promote female labor force participation in developed countries (Kalb, 2018). Givord and Marbot (2015) reported a positive impact of paid childcare services on the mothers of preschool children in France. Guner et al. (2012) reported a positive impact of tax reforms on the labor supply of married females in the United States. According to Bergemann and Riphahn (2010), paid parental leave benefits increased mothers' labor supply by 14% in Germany. Ayala and Paniagua (2019) reported a positive impact of tax benefits on female labor force participation and poverty reduction in Spain.

A fundamental labor market reform that considers women's work-life balance and offers an affordable childcare system would enhance female labor force participation (Jones & Seitani, 2019). Government spending on infrastructure and education has been widely used in developing countries to promote female labor force participation. For example, Klasen (2019) highlighted the positive impact of education on women's participation in the labor

force in developing countries. Moreover, Lei et al. (2019) reported a positive impact of the government spending on infrastructure on non-farm employment of women in India. However, changing society's perception of women's participation in the labor market is crucial for the success of this policy (Jayachandran, 2021).

Thus, the literature highlighted the impact of fiscal policy and female labor force participation on enhancing economic development, on the one hand and the role that fiscal policy can play in boosting female labor force participation on the other hand. Therefore, this paper aims to investigate the impact of tax revenue and government spending shocks on female labor force participation in Egypt. The research hypotheses are as follows:

H1: *An increase in government spending increases female labor force participation in Egypt.*

H2: *A decrease in taxes increases female labor force participation in Egypt.*

2. METHODS

To see how the female labor force participation rate reacts to a favorable fiscal policy shock, annual time-series data from 1990 to 2021 were taken.

Table 1. Definition of the study variables

| Variable | Definition |
|----------|--|
| LGDP | Real gross domestic product growth rate |
| LTAX | Tax revenue % GDP |
| LINF | Consumer price index % |
| LGEXP | Government spending % GDP |
| LFLFP | Female labor force participation % (the share of women in the total labor force) |

Table 2. Descriptive statistics

| Mean | LGDP | LGEXP | LTAX | LFLFP | LINF |
|--------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 0.607361 | 1.035823 | 1.179362 | 1.343272 | 0.915530 |
| Median | 0.645580 | 1.053596 | 1.166575 | 1.353829 | 0.972852 |
| Minimum | 0.051309 | 0.898897 | 1.087076 | 1.232066 | 0.355979 |
| Std. Dev. | 0.184827 | 0.056799 | 0.059292 | 0.036342 | 0.276627 |
| Skewness | -1.070169 | -1.339431 | 0.380393 | -1.898102 | -0.317292 |
| Kurtosis | 4.002501 | 4.130019 | 2.009056 | 6.079766 | 2.399920 |
| Jarque-Bera | 7.448075 | 11.27099 | 2.081020 | 31.86151 | 1.017059 |
| Probability | 0.024136 | 0.003569 | 0.353274 | 0.000000 | 0.601379 |
| Sum | 19.43554 | 33.14634 | 37.73958 | 42.98471 | 29.29697 |
| Sum Sq. Dev. | 1.058993 | 0.100008 | 0.108982 | 0.040943 | 2.372202 |
| Observations | 32 | 32 | 32 | 32 | 32 |

The data were collected from the Central Bank of Egypt and the World Bank. The variables of the model are represented in Table 1.

Table 2 demonstrates the descriptive statistics of the variables of the VAR model. The results show that all the variables except LFLFP and LGEXP follow the normal distribution at 1%, 5%, and 10% significance levels.

According to Sims (1980), the vector auto-regressive (VAR) model is presented as follows:

$$y_t = \beta_0 + \beta_1 y_{t-1} + \dots + \beta_m y_{t-m} + u_t, \quad (1)$$

where y_t is the set of endogenous variables, β_0 is the constant of the equation, y_t is the coefficient matrices, t is the time trend, u_t is the stochastic error term of the model.

The five variables of VAR models can be specified as follows:

$$GDP_t = \sigma + \sum_{i=1}^k \beta_i GDP_{t-i} + \sum_{j=1}^k \phi_j GEXP_{t-j} + \sum_{m=1}^k \delta_m TAX_{t-m} + \sum_{L=1}^k \alpha_L FLFP_{t-L} + \sum_{L=1}^k \phi_g INF_{t-g} + u_{1t}, \quad (2)$$

$$\begin{aligned}
 GEXP_t = & a + \sum_{i=1}^k \beta_i GDP_{t-i} + \sum_{j=1}^k \phi_j GEXP_{t-j} + \\
 & + \sum_{m=1}^k \delta_m TAX_{t-m} + \sum_{L=1}^k \alpha_L FLFP_{t-L} + \\
 & + \sum_{L=1}^k \phi_g INF_{t-g} u_{2t},
 \end{aligned} \tag{3}$$

$$\begin{aligned}
 TAX_t = & d + \sum_{i=1}^k \beta_i GDP_{t-i} + \sum_{j=1}^k \phi_j GEXP_{t-j} + \\
 & + \sum_{m=1}^k \delta_m TAX_{t-m} + \sum_{L=1}^k \alpha_L FLFP_{t-L} + \\
 & + \sum_{L=1}^k \phi_g INF_{t-g} + u_{3t},
 \end{aligned} \tag{4}$$

$$\begin{aligned}
 FLFP_t = & \chi + \sum_{i=1}^k \beta_i GDP_{t-i} + \sum_{j=1}^k \phi_j GEXP_{t-j} + \\
 & + \sum_{m=1}^k \delta_m TAX_{t-m} + \sum_{L=1}^k \alpha_L FLFP_{t-L} + \\
 & + \sum_{L=1}^k \phi_g INF_{t-g} + u_{4t},
 \end{aligned} \tag{5}$$

$$\begin{aligned}
 INF_t = & \lambda + \sum_{i=1}^k \beta_i GDP_{t-i} + \sum_{j=1}^k \phi_j GEXP_{t-j} + \\
 & + \sum_{m=1}^k \delta_m TAX_{t-m} + \sum_{L=1}^k \alpha_L FLFP_{t-L} + \\
 & + \sum_{L=1}^k \phi_g INF_{t-g} + u_{5t}.
 \end{aligned} \tag{6}$$

Then, the variables have been set using Cholesky ordering: GDP, GEXP, TAX, FLFP, and INF.

3. RESULTS AND DISCUSSION

According to Granger and Newbold (1974), using non-stationary data could lead to a spurious regression. Therefore, the Augmented Dickey Fuller test (ADF) has been run at 1 %, 5%, and 10% significance levels to ensure that all the variables of the VAR model are stationary. Tables 3, 4, and 5 show the results of the Augmented Dickey Fuller test with intercept, trend and intercept, and with no trend and intercept. All the variables at levels have a unit root, but after the first difference, they become stationary.

Table 3. Augmented Dickey-Fuller test with intercept

| Variable | P-value | Unit Root | Stationary |
|-----------------------|---------|-----------|------------|
| LEVELS | | | |
| LRGDP | 0.0048 | YES | NO |
| LGEXP | 0.6420 | YES | NO |
| LTAX | 0.3619 | YES | NO |
| LFLFP | 0.9007 | YES | NO |
| LINF | 0.2167 | YES | NO |
| 1st DIFFERENCE | | | |
| LRGDP | 0.0000 | NO | YES |
| LGEXP | 0.0063 | NO | YES |
| LTAX | 0.0001 | NO | YES |
| LFLFP | 0.0005 | NO | YES |
| LINF | 0.0000 | NO | YES |

Table 4. Augmented Dickey-Fuller test with trend and intercept

| Variable | P-value | Unit Root | Stationary |
|-----------------------|---------|-----------|------------|
| LEVELS | | | |
| LRGDP | 0.0247 | YES | NO |
| LGEXP | 0.7932 | YES | NO |
| LTAX | 0.6860 | YES | NO |
| LFLFP | 0.9689 | YES | NO |
| LINF | 0.4722 | YES | NO |
| 1st DIFFERENCE | | | |
| LRGDP | 0.0000 | NO | YES |
| LGEXP | 0.0019 | NO | YES |
| LTAX | 0.0008 | NO | YES |
| LFLFP | 0.0000 | NO | YES |
| LINF | 0.0002 | NO | YES |

Table 5. Augmented Dickey-Fuller test with no trend and intercept

| Variable | P-value | Unit Root | Stationary |
|-----------------------|---------|-----------|------------|
| LEVELS | | | |
| LRGDP | 0.6210 | YES | NO |
| LGEXP | 0.4063 | YES | NO |
| LTAX | 0.8311 | YES | NO |
| LFLFP | 0.2598 | YES | NO |
| LINF | 0.2631 | YES | NO |
| 1st DIFFERENCE | | | |
| LRGDP | 0.0000 | NO | YES |
| LGEXP | 0.0012 | NO | YES |
| LTAX | 0.0000 | NO | YES |
| LFLFP | 0.0000 | NO | YES |
| LINF | 0.0000 | NO | YES |

The LR, FPE, AIC, SC, and HQ lag selection criterion tests suggest running the VAR model with one lag, as shown in Table 6.

The diagnostic tests of the VAR model in Table 7 show that the model's validity is ensured since it

Table 6. Lag selection criterion test

| Lag | LogL | LR | FPE | AIC | SC | HQ |
|-----|----------|-----------|-----------|------------|------------|------------|
| 0 | 176.8756 | NA | 7.27e-12 | -11.45837 | -11.22484 | -11.38366 |
| 1 | 256.5977 | 127.5554* | 1.94e-13* | -15.10651* | -13.70532* | -14.65826* |
| 2 | 267.7652 | 14.14548 | 5.69e-13 | -14.18435 | -11.61548 | -13.36255 |

Note: * * indicates lag order selected by the criterion; LR = sequential modified LR test statistic (each test at 5% level); FPE = Final prediction error; AIC = Akaike information criterion; SC = Schwarz information criterion; HQ = Hannan-Quinn information criterion.

does not suffer from serial correlation, stability, normality, or heteroskedasticity problems.

Table 7. Diagnostic tests for the VAR model

| Diagnostic test | Test statistic | P-value |
|-------------------------------------|---------------------|----------------------------------|
| Residual Serial Correlation LM Test | 15.17489 | 0.9372 |
| Residual Heteroskedasticity Test | 137.3337 | 0.7624 |
| Normality Test (Jargue-Bera) | 15.08669 | 0.1289 |
| Stability Test | The model is stable | No roots outside the unit circle |

Figure 1 shows the response of variables to a one-standard-deviation shock to government spending. According to Cholesky's ordering, the following variables were presented: LGDP, LTAX, LFLFP, and finally, LINF. Looking at the first panel, a one standard deviation shock to government spending increases GDP until it reaches period two. After that, it decreases without hitting the

steady state. Therefore, government spending increases the gross domestic product (GDP) growth rate. Moving to the second panel, tax revenue responds positively to a one-standard-deviation shock to government spending. Panel three shows that a one standard deviation shock to government spending increases female labor force participation. Furthermore, panel four shows that inflation responds positively to a one-standard-deviation shock to government spending.

Figure 2 shows how variables react to a one-standard-deviation shock to tax revenue. The first panel shows that the gross domestic product growth rate increases due to a tax shock. The second panel shows that government spending responds positively to a one-standard-deviation shock to tax revenue. The third panel shows that a one standard deviation shock to tax revenue increases female labor force participation. Finally, the fourth panel indicates that inflation increases due to

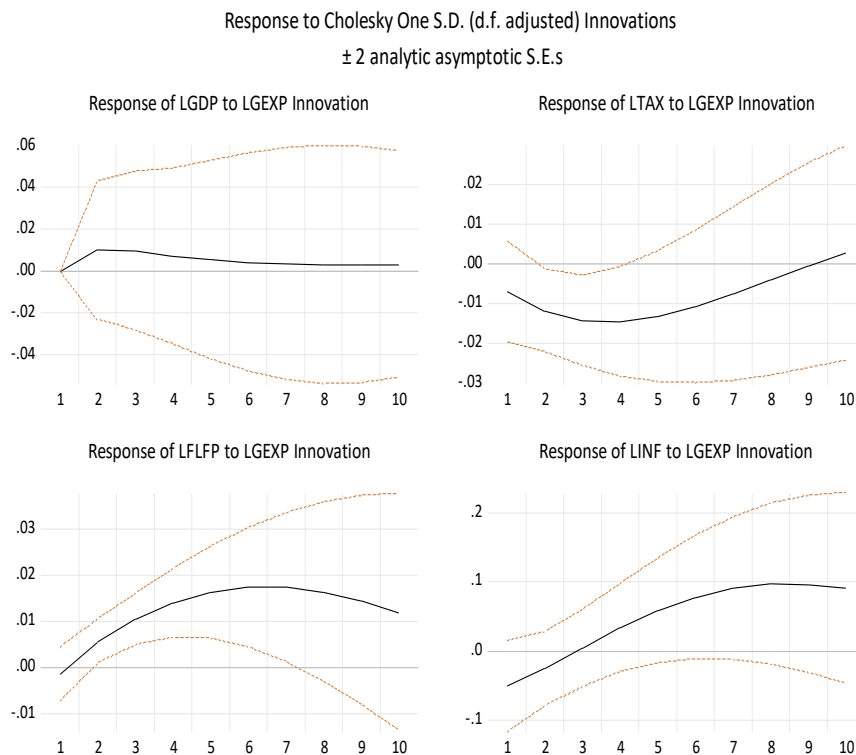


Figure 1. Responses to government spending shocks

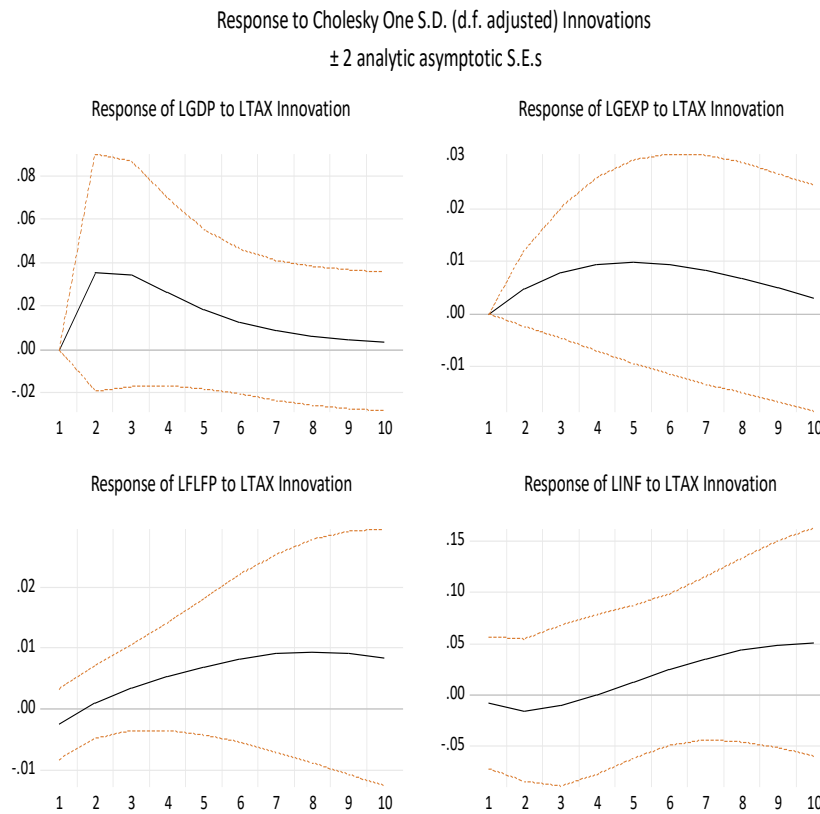


Figure 2. Responses to tax shocks

a one-standard-deviation shock to tax revenue. Thus, the fiscal policy promotes the female labor force participation.

The main objective of this study was to investigate the impact of fiscal policy shocks on the female labor force participation rate in Egypt. The vector autoregressive (VAR) model and the impulse response function have been used. The variables of the VAR model are tax revenue, government spending, GDP growth rate, consumer price index, and female labor force participation rate, which is the share of women in the total labor force. The augmented Dicky Fuller (ADF) test showed that the variables were non-stationary at levels, but they became stationary after taking the first difference. The lag selection criterion suggested using one lag. The results of the impulse response function suggest that increasing government spending

increases GDP, inflation, and female labor force participation rate. On the other hand, a decrease in tax revenue has a positive impact on inflation, GDP, and female labor force participation.

These results validated the research hypotheses and showed that a one standard deviation shock to either government spending or tax revenue has a positive impact on female labor force participation. However, the effect of government spending is more considerable than taxes. Therefore, the Egyptian government can use fiscal policies that focus more on increasing spending to enhance the accessibility of Egyptian women to the labor market. These results are consistent with the findings of Severini et al. (2019), Asongu and Odhiambo (2020), Cameron et al. (2020), Agénor et al. (2021), and Reshi and Sudha (2023).

CONCLUSION

Equality between women and men is a prerequisite for the sustainable development and prosperity of any country. Given the existing gender inequality and scientific research on the topic of increasing the

role of women in the economic growth of the country's economy, the aim of this paper is to investigate the impact of government spending and taxation shocks on female labor force participation in Egypt.

Annual times series data collected from the Central Bank of Egypt and the World Bank from 1990 to 2021 have been used. By employing the vector auto-regressive (VAR) model and impulse response functions, the results showed that increasing government spending and decreasing taxes can play a positive role in enhancing female labor force participation.

Analyzing the response of variables to the shock of government spending by one standard deviation, it is possible to observe an increase in GDP before reaching the second period. After that, it decreases without reaching the steady state. That is, government spending increases the rate of GDP growth. It was also found that tax revenues respond positively to a government expenditure shock by one standard deviation. Also, a one standard deviation shock to government spending increases female labor force participation. In addition, inflation responds positively to the shock of government spending by one standard deviation. Therefore, an expansionary fiscal policy can increase female labor force participation in Egypt.

AUTHOR CONTRIBUTIONS

Conceptualization: Emad Attia Mohamed Omran.

Data curation: Emad Attia Mohamed Omran.

Formal analysis: Yuriy Bilan.

Funding acquisition: Yuriy Bilan.

Investigation: Emad Attia Mohamed Omran.

Methodology: Emad Attia Mohamed Omran.

Project administration: Yuriy Bilan.

Resources: Yuriy Bilan.

Software: Emad Attia Mohamed Omran.

Supervision: Yuriy Bilan.

Validation: Yuriy Bilan.

Visualization: Emad Attia Mohamed Omran.

Writing – original draft: Emad Attia Mohamed Omran.

Writing – review & editing: Yuriy Bilan.

REFERENCES

1. Agénor, P. R., Ozdemir, K. K., & Pinto Moreira, E. (2021). Gender gaps in the labour market and economic growth. *Economica*, 88(350), 235-270. <https://doi.org/10.1111/ecca.12363>
2. Alberola, E., Arslan, Y., Cheng, G., & Moessner, R. (2021). Fiscal response to the COVID-19 crisis in advanced and emerging market economies. *Pacific Economic Review*, 26(4), 459-468. <https://doi.org/10.1111%2F1468-0106.12370>
3. Altuzarra, A., Gálvez-Gálvez, C., & González-Flores, A. (2021). Is gender inequality a barrier to economic growth? A panel data analysis of developing countries. *Sustainability*, 13(1), 367. <https://doi.org/10.3390/su13010367>
4. Asongu, S. A., & Odhiambo, N. M. (2020). How enhancing gender inclusion affects inequality: Thresholds of complementary policies for sustainable development. *Sustainable Development*, 28(1), 132-142. <https://doi.org/10.1002/sd.1977>
5. Auerbach, A., Gorodnichenko, Y., McCrory, P. B., & Murphy, D. (2022). Fiscal multipliers in the COVID-19 recession. *Journal of International Money and Finance*, 126, 102669. <https://doi.org/10.1016/j.jimonfin.2022.102669>
6. Ayala, L., & Paniagua, M. (2019). The impact of tax benefits on female labor supply and income distribution in Spain. *Review of Economics of the Household*, 17(3), 1025-1048. Retrieved from https://econpapers.repec.org/article/kapreveho/v_3a17_3ay_3a2019_3ai_3a3_3ad_3a10.1007_5fs11150-018-9405-5.htm

7. Bergemann, A., & Riphahn, R. T. (2010). Female labour supply and parental leave benefits – The causal effect of paying higher transfers for a shorter period. *Applied Economics Letters*, 18(1), 17-20. <https://doi.org/10.1080/13504850903425173>
8. Blanchard, O., Leandro, A., & Zettelmeyer, J. (2021). Redesigning EU fiscal rules: From rules to standards. *Economic Policy*, 36(106), 195-236. <https://doi.org/10.1093/epolic/eiab003>
9. Borella, M., De Nardi, M., & Yang, F. (2023). Are marriage-related taxes and social security benefits holding back female labour supply? *The Review of Economic Studies*, 90(1), 102-131. <https://doi.org/10.1093/restud/rdac018>
10. Buti, M., & Franco, D. (2005). *Fiscal policy in Economic and Monetary Union: Theory, evidence, and institutions*. Edward Elgar Publishing.
11. Cameron, L., Suarez, D. C., & Rowell, W. (2020). *Female labour force participation in Indonesia: Why has it stalled?* The Australian National University. <http://dx.doi.org/10.22459/AIGAP.2020.10>
12. Cevik, S., & Correa-Caro, C. (2020). Growing (un) equal: Fiscal policy and income inequality in China and BRIC+. *Journal of the Asia Pacific Economy*, 25(4), 634-653. <https://doi.org/10.1080/13547860.2019.1699985>
13. Dahal, A. K., Bhattarai, G., & Budhathoki, P. B. (2023). Effect of gender participation on determining the maturity of crossed-due loans: Evidence from microfinance companies of Nepal. *Banks and Bank Systems*, 18(1), 184-195. [https://doi.org/10.21511/bbs.18\(1\).2023.16](https://doi.org/10.21511/bbs.18(1).2023.16)
14. DeLong, J. B., & Summers, L. H. (2012). Fiscal policy in a depressed economy [with comments and discussion]. *Brookings Papers on Economic Activity*, 2012(1), 233-297. <http://dx.doi.org/10.1353/eca.2012.0000>
15. Dursun, G., & Damadoğlu, J. (2020). Female labour force participation and economic growth in the South Mediterranean countries: Structural shifts in causal linkages. *Journal of Current Researches on Business and Economics*, 10(1), 69-82. Retrieved from <https://www.jocrebe.com/dergi/female-labour-force-participation-and-economic-growth-in-the-south-mediterranean-countries-structural-shifts-in-causal-linkages20221017024552.pdf>
16. Fatima, A., & Sultana, H. (2009). Tracing out the U-shape relationship between female labor force participation rate and economic development for Pakistan. *International Journal of Social Economics*, 36(1/2), 182-198. <https://doi.org/10.1108/03068290910921253>
17. Fruttero, A., Gurara, D., Kolovich, M. L. L., Malta, V., Tavares, M. M. M., Tchelishvili, N., & Fabrizio, M. S. (2020). *Women in the labor force: The role of fiscal policies* (IMF Staff Discussion Notes 2020/003). International Monetary Fund. Retrieved from <https://ideas.repec.org/p/imf/imfstdn/2020-003.html>
18. Givord, P., & Marbot, C. (2015). Does the cost of child care affect female labor market participation? An evaluation of a French reform of childcare subsidies. *Labour Economics*, 36, 99-111. <https://doi.org/10.1016/j.labeco.2015.07.003>
19. Granger, C. W., & Newbold, P. (1974). Spurious regressions in econometrics. *Journal of Econometrics*, 2(2), 111-120. [https://doi.org/10.1016/0304-4076\(74\)90034-7](https://doi.org/10.1016/0304-4076(74)90034-7)
20. Guner, N., Kaygusuz, R., & Ventura, G. (2012). Taxation and household labour supply. *The Review of Economic Studies*, 79(3), 1113-1149. <https://doi.org/10.1093/restud/rdr049>
21. Guner, N., Kaygusuz, R., & Ventura, G. (2020). Child-related transfers, household labour supply, and welfare. *The Review of Economic Studies*, 87(5), 2290-2321. <https://doi.org/10.1093/restud/rdaa011>
22. Hapsoro, D., Saputro, J. A., Indraswono, C., Hatta, A. J., & Sabandi, M. (2022). Effect of gender as a moderating variable on financial vulnerability using hierarchical regressions: Survey evidence from Indonesian traditional market traders. *Investment Management and Financial Innovations*, 19(4), 171-182. [https://doi.org/10.21511/imfi.19\(4\).2022.14](https://doi.org/10.21511/imfi.19(4).2022.14)
23. Hassan, H. E., & Zaharia, R. M. (2021). Women access to the labour market in Egypt: The view of private sector experts. *Transformations in Business & Economics*, 20(2), 276-296. Retrieved from <http://www.transformations.knf.vu.lt/53/article/wome>
24. Hill, E. (2020). *Reducing gender inequality and boosting the economy: Fiscal policy after COVID-19*. Committee on Economic Development in Australia (CEDA). Retrieved from <https://www.ceda.com.au/ResearchAndPolicies/Research/Workforce-Skills/Labour-market-policy-after-COVID-19>
25. Islam, K. M. A., Islam, S., Al-Kharusi, S., Bhuiyan, A. B., & Haque, M. S. (2023). Individuals' purchase intention of the Sukuk bond: A study on developing economy. *Innovative Marketing*, 19(3), 187-196. [https://doi.org/10.21511/im.19\(3\).2023.16](https://doi.org/10.21511/im.19(3).2023.16)
26. Jagirani, T. S., Chee, L. C., & Kosim, Z. B. (2023). Board characteristics and firm value: The moderating role of capital adequacy. *Investment Management and Financial Innovations*, 20(2), 205-214. [https://doi.org/10.21511/imfi.20\(2\).2023.18](https://doi.org/10.21511/imfi.20(2).2023.18)
27. Jappelli, T., & Pistaferri, L. (2014). Fiscal policy and MPC heterogeneity. *American Economic Journal: Macroeconomics*, 6(4), 107-136. <https://doi.org/10.1257/mac.6.4.107>
28. Jayachandran, S. (2021). Social norms as a barrier to women's employment in developing countries. *IMF Economic Review*, 69(3), 576-595. <https://doi.org/10.1057/s41308-021-00140-w>
29. Jensen, P. H. (2017). Cause and effects of female labour force participation in local welfare systems. *European Societies*, 19(2), 121-137. <https://doi.org/10.1080/14616696.2016.1268706>
30. Jones, R. S., & Seitani, H. (2019). *Labour market reform in Japan to cope with a shrinking and aging population* (OECD Economics Department Working Papers No. 1568). Paris: OECD Publishing. <https://doi.org/10.1787/73665992-en>

31. Kalb, G. (2018). Paid parental leave and female labour supply: A review. *Economic Record*, 94(304), 80-100. <https://doi.org/10.1111/1475-4932.12371>
32. Klasen, S. (2019). What explains uneven female labor force participation levels and trends in developing countries? *The World Bank Research Observer*, 34(2), 161-197. <https://doi.org/10.1093/wbro/lkz005>
33. Klasen, S., Le, T. T. N., Pieters, J., & Santos Silva, M. (2021). What drives female labour force participation? Comparable micro-level evidence from eight developing and emerging economies. *The Journal of Development Studies*, 57(3), 417-442. <https://doi.org/10.1080/00220388.2020.1790533>
34. Kuitto, K., & Helmdag, J. (2021). Extending working lives: How policies shape retirement and labour market participation of older workers. *Social Policy & Administration*, 55(3), 423-439. <https://doi.org/10.1111/spol.12717>
35. Lei, L., Desai, S., & Vanne-man, R. (2019). The impact of transportation infrastructure on women's employment in India. *Feminist Economics*, 25(4), 94-125. <https://doi.org/10.1080/13545701.2019.1655162>
36. Mansour, M., Al Zobi, M., Saram, M., Daoud, L., & Marei, A. (2023). Does executive compensation matter to bank performance? Experimental evidence from Jordan. *Banks and Bank Systems*, 18(3), 164-176. [https://doi.org/10.21511/bbs.18\(3\).2023.14](https://doi.org/10.21511/bbs.18(3).2023.14)
37. Miniailo, V., Bezverkhyi, K., Hotsuliak, V., & Miniailo, O. (2023). Gender analysis of the workforce in the sphere of financial and insurance activities in Ukraine. *Financial and Credit Activity: Problems of Theory and Practice*, 1(48), 388-398. <https://doi.org/10.55643/fcaptop.1.48.2023.3853>
38. Mujahid, N., & uz Zafar, N. (2012). Economic growth-female labour force participation nexus: Empirical evidence for Pakistan. *The Pakistan Development Review*, 51(4), 565-585. Retrieved from <https://ideas.repec.org/a/pid/journal/v51y2012i4p565-586.html>
39. Omran, E. A. M., & Bilan, Y. (2020). The impact of fiscal policy on the unemployment rate in Egypt. *Montenegrin Journal of Economics*, 16(4), 199-209. <http://dx.doi.org/10.14254/1800-5845/2020.16-4.16>
40. Omran, E. A. M., & Bilan, Y. (2022). Female labour force participation and the economic development in Egypt. *European Journal of Interdisciplinary Studies*, 14(1), 1-12. Retrieved from <https://ideas.repec.org/a/jis/ejstu/y2022i01id478.html>
41. Pasko, O., Yang, Z., Tkachenko, V., Proskurina, N., & Pushkar, I. (2022). Does female representation on corporate boards boost the strengthening of internal control in socially responsible firms? *Investment Management and Financial Innovations*, 19(4), 294-308. [https://doi.org/10.21511/imfi.19\(4\).2022.24](https://doi.org/10.21511/imfi.19(4).2022.24)
42. Ramlal, P., Manjusha, K., & Khan, S. (2022). The nexus between emotional intelligence and academic performance. *Knowledge and Performance Management*, 6(1), 38-48. [https://doi.org/10.21511/kpm.06\(1\).2022.04](https://doi.org/10.21511/kpm.06(1).2022.04)
43. Reshi, I. A., & Sudha, T. (2023). Women's economic involvement and self-help groups in the Pulwama district of Jammu and Kashmir. *Morfai Journal*, 2(4), 872-882. <https://doi.org/10.54443/morfai.v2i4.711>
44. Sari, A., Sucherly, Hasan, M., & Oesman, Y.M. (2022). Brand-consumer relationship of female millennials toward K-beauty. *Innovative Marketing*, 18(2), 72-84. [https://doi.org/10.21511/im.18\(2\).2022.07](https://doi.org/10.21511/im.18(2).2022.07)
45. Severini, F., Felici, F., Ferracuti, N., Pretaroli, R., & Soggi, C. (2019). Gender policy and female employment: A CGE model for Italy. *Economic Systems Research*, 31(1), 92-113. <https://doi.org/10.1080/09535314.2018.1431612>
46. Sims, C. A. (1980). Macroeconomics and reality. *Econometrica: Journal of the Econometric Society*, 48(1), 1-48. <https://doi.org/10.2307/1912017>
47. Sudaryanto, S., Courvisanos, J., Dewi, I. R., Rusdiyanto, R., & Yuaris, J. R. (2022). Determinants of purchase intention during COVID-19: A case study of skincare products in East Java. *Innovative Marketing*, 18(1), 181-194. [https://doi.org/10.21511/im.18\(1\).2022.15](https://doi.org/10.21511/im.18(1).2022.15)
48. Tanjung, A. A., Daulay, M., Irsad, I., & Ruslan, D. (2019). The impact of monetary and fiscal policy on poverty in Indonesia. *Journal of Applied Economic Sciences*, 4(66), 1068-1073. Retrieved from https://www.researchgate.net/publication/338389343_The_Impact_of_Monetary_and_Fiscal_Policy_on_Poverty_in_Indonesia
49. Thévenon, O. (2013). *Drivers of female labour force participation in the OECD* (OECD Social, Employment and Migration Working Papers, No. 145). OECD Publishing. <http://dx.doi.org/10.1787/5k46cvgngms6-en>
50. Thinh, T. Q., Tuan, D. A., & Danh, L. C. (2022). The impact of control activities on the information efficiency of financial reports: Evidence on Forbes enterprises in Vietnam. *Investment Management and Financial Innovations*, 19(1), 313-321. [https://doi.org/10.21511/imfi.19\(1\).2022.24](https://doi.org/10.21511/imfi.19(1).2022.24)
51. Tsani, S., Paroussos, L., Fragiadakis, C., Charalambidis, I., & Capros, P. (2013). Female labour force participation and economic growth in the South Mediterranean countries. *Economics Letters*, 120(2), 323-328. <https://doi.org/10.1016/j.econlet.2013.04.043>
52. West, J. (2022). *Work, women and the labour market*. London: Routledge.
53. World Bank. (2022). *Labor force participation rate, female (% of female population ages 15+) (modeled ILO estimate)*. Retrieved from <https://data.worldbank.org/indicator/SL.TLFC.ACT.FE.ZS>
54. Yoshino, N., & Miyamoto, H. (2017). Declined effectiveness of fiscal and monetary policies faced with aging population in Japan. *Japan and the World Economy*, 42, 32-44. <https://doi.org/10.1016/j.japwor.2017.06.002>