İzmir İktisat Dergisi
İzmir Journal of Economics

ISSN:1308-8173 **E-ISSN:** 1308-8505 **Year:** 2022 **Vol:** 37 **No:** 3 **Pages:** 810-827
Received: 22.03.2022 **Accepted:** 25.04.2022 **Published Online:** 26.07.2022 **Doi:** 10.24988/ije.1091641

RESEARCH ARTICLE

Employer of Last Resort in the Framework of Post-Keynesian Theory: The Case of Turkey[1]

Nihan ÖKSÜZ NARİNÇ [2] , Sayım IŞIK [3]

Abstract

In today's economies, where insecurity and unemployment are the norm, it has become critical for the government to develop policies aimed at reducing unemployment and creating jobs for people who want to work but can't find work. According to those who advocate for the state to be the Employer of Last Resort (ELR) this will help reduce unemployment in mainstream approaches while also covering the social issues that arise because of unemployment. The purpose of this research is to investigate the impact of the government providing employment as the ELR in Turkey. Input-output and social accounting matrix was used to look at changes in demand and household incomes in this case, after a shock to low-income people and women at the minimum income level was caused by the state in the Public Administration sector. The study's findings indicate that the ELR program is applicable in Turkey. It also demonstrates that income multipliers for women operate on both the demand and supply sides.

Keywords: *E*mployer of last resort, Job guarantee, Social accounting matrix, Unemployment
Jel Codes: *J60, J64, E16,*

Post-Keynesyen Teori Çerçevesinde Devletin Nihai İşveren Olma Rolü: Türkiye Örneği

Özet

İstikrarsızlığın ve işsizliğin bir norm olduğu günümüz ekonomileri için devletin işsizliği hedef alan politikalar üretmesi ve çalışmak isteyip iş bulamayan kimseler iş yaratması artık zorunlu bir hal almıştır. Devletin nihai işveren olması (DNİR) önerisini sunanlara göre anaakım yaklaşımlarda işsizliğin azaltılmasına yardımcı olacak aynı zamanda işsizlikle beraber ortaya çıkan sosyal sorunları da kapsayacaktır. Bu çalışmanın amacı, Türkiye'de devletin nihai işveren olarak istihdam sağlamasının etkisini araştırmaktır. Bu bağlamda Girdi Çıktı ve Sosyal Hesaplar Matrisi kullanılarak, düşük gelirli bireyler ile kadınlara devlet tarafından Kamu yönetimi sektöründe yaratılan asgari gelir düzeyinde bir şokun talepte ve hanehalklarının gelirlerindeki değişim gözlemlenmiştir. Çalışmanın bulguları Türkiye'de ELR programının uygulanabilir olduğunu göstermektedir. Ayrıca kadınlar için de gelir çarpanlarının hem talep hem arz yanlı çalıştığını göstermektedir.

Anahtar kelimeler:*Devletin nihai işveren rolü, İstihdam garantisi, Sosyal hesaplar matrisi, İşsizlik*
Jel Kodu: *J60, J64,E16,*

---

[1] This article was produced from Nihan Öksüz Narinç's doctoral dissertation titled "Employer of Last Resort in the Framework of Post-Keynesian Theory: The Case of Turkey", supervised by Prof. Dr. Sayım Işık.

Acknowledgments: We thank Prof. Dr. Selim Çağatay for his valuable support. Also, we thank the anonymous referees for their useful suggestions.

CITE (APA): Öksüz Narinç, N., Işık, S. (2022). Employer of Last Resort in the Framework of Post-Keynesian Theory: The Case of Turkey. *İzmir İktisat Dergisi*. 37 (3). 810 - 827. Doi: 10.24988/ije.1091641

[2] Asst. Prof., Akdeniz University, Faculty of Applied Science, Department of Finance and Banking, Antalya, Turkey,

EMAIL: nihanoksuz@akdeniz.edu.tr **ORCID:** 0000-0001-7650-0085

[3] Prof. Dr., Akdeniz University, Faculty of Economics and Administrative Sciences, Department of Economics, Antalya, Turkey, **EMAIL:** sayim@akdeniz.edu.tr **ORCID:** 0000-0002-2708-0253

1. INTRODUCTION

Both passive and active employment policies have been used as policy tools in the fight against unemployment at various points in history and continue to be used today. Active employment policies have been implemented, particularly since the 1990s, with the support of international institutions (such as the World Bank, IMF, and ILO) and OECD countries (Bonoli, 2010: 6; Hieda;2011:1). With mainstream economic policies increasingly dominated by rational individual and reliance on the welfare state's social assistance, the importance placed on active employment policies has begun to grow. Simultaneously, this development has resulted in an increase in funding for active employment programs (Bonoli, 2010:6). While the ratio of funds allocated to active employment policies varies by country, it has begun to increase. The Humphrey-Hawkins full employment law, enacted in the 1970s as inflation and unemployment began to rise in full agreement, was unable to prevent unemployment (Wray 1998: 124).

Globalization's foundations were laid in the 1990s through free market policies and a series of financial and economic regulations. Simultaneously, with the OECD's work in 1994, job guarantee programs were phased out and replaced with job search tools (Mastromatteo and Esposito, 2014: 5). The mainstream economics approach involves trade-offs, and unemployment is used to combat inflation. In the mainstream economics approach, inflation and unemployment are mutually exclusive, and unemployment is used to combat inflation (Juniper and Mitchell, 2005: 15).

According to Post Keynesians, unemployment is not necessary to achieve price stability. With ELR a policy that reduces unemployment and ensures full employment without jeopardizing price stability is possible (Minsky, 2008: 308–312; Wray, 1998: 94–95; Mosler and Forsater, 1999). As an employment policy, there are two basic components that the state must undertake in order to be the ELR. First, the state acts as the final employer, and second, the state externally determines the marginal price of labor. (Wray, 1998: 124). The program has been created to offer work to anyone who is ready and willing to work, without being subjected to any tests and without time constraints (Forstater, 2013: 146). It is possible to think of it as a program that guarantees zero unemployment by employing everyone who cannot find a job in the private sector and wants to work for a base wage determined by the state. It is important that someone who will work in the ELR program is willing to work because no one can be forced to work in this program. Also, ELR does not mean a type of workfare (Wray, 1998:124). ELR offers a base wage to everyone who wants to work, and this wage has to be lower than the current wage of the private sector (Mastromatteo and Esposito, 2014: 5).

Many countries around the world have ELR-style employment programs in place. Countries such as India, Argentina, and South Africa have seen economic and social success as a result of the application. The study's motivation is to forecast the effects of other countries' ELR programs if they are implemented in Turkey. Because it is the first research on Turkey, the study will make an important contribution to the literature. In this study, using the social accounting matrix, the macroeconomic effects of the ELR-like public employment program (PWP) implemented in Turkey will be analyzed. In the next section, the general outlines of the ELR theory will be presented. In the third chapter, the literature will be presented by considering the impact analyzes from the studies on ELR. In the fourth chapter, the material and method used in the study will be introduced. After the findings are presented in the fifth chapter, the article will be concluded with a discussion and conclusion.

2. EMPLOYER OF LAST RESORT

ELR policy calls for the elimination of unemployment by direct job creation, not increasing aggregate demand. Among the unemployed, the less skilled and educated are the last to be hired and laid off by the private sector. In this respect, ELR differs from growth and investment pro-aggregate demand policies. Because these policies increase the demand for more skilled, educated, and well-paid

workers (Minsky, 2008 and Tcherneva, 2013). Due to its buffer employment feature, ELR will act as an automatic stabilizer, stabilizing total expenditure and employment and providing better price stability than the current one (Wray, 1998: 94). However, it does not exclude the private sector by allowing market forces to affect nominal or relative prices and is a complement rather than a substitute for alternative employment policies provided by private sector firms or other government programs. (Wray, 2000:1).

It is foreseen that the increase in the unemployment stock will be prevented by employing the unskilled labour force, which is undesirable by the private sector, especially in periods when the economy is stagnating. The government's intervention in the employment stock as an employer will create budget deficits, which are generally related to the economic conjuncture. In periods when the planned savings are greater than the planned investment, the segment that the private sector does not want to employ will be employed by the government, and thus the budget deficits will increase. In the opposite situation, when the economy recovers, the demand for employment in the private sector will increase, and the state will employ workers from its employment stock. Therefore, the private sector's demand for employment will reduce the government's budget deficits (Wray, 1998: 94; Tcherneva, 2013: 81). The most highly skilled workers are the most attractive to the private sector and are therefore the first to be employed. Since workers will be paid a uniform wage in the ELR program, skilled workers will be paid below the market wage, which will be an incentive to exit the ELR program as much as possible (Wray, 2009, p. 6).

According to some economists, including Keynes, it is not possible to talk about a labour market because labour is different from other goods. The reason why labour differs from other goods is that it cannot be owned, stored, or mobile like other factors of production. In addition, there is a significant informational cost and uncertainty for workers entering the workforce. With ELR, these difficulties can be reduced or eliminated. That is, when it is not needed by private employers, this practice will allow labour to be stored and act as buffer stock (Wray, 1998: 135). The jobs envisaged for the ELR are not competitors or substitutes for the private sector as they are jobs in sectors with no private sector supply. Services such as classroom assistant in public schools, local security, public works in poor areas, environmental cleaning and security, library assistant, childcare and health services assistant, history and cultural services, art and musicianship are examples of elderly care and accompanying services(Wray, 1998: 141–142).If the government pays a living wage to those who want to work in the public sector, this wage should be close to the current wage paid to an uneducated worker (Wray, 2000: 3-8).

The most important criticism of the theory is that this policy is inflationary. ELR advocates argue that the theory is different from aggregate demand policies. While traditional Keynesian policies may cause inflation, it is argued that this theory will not cause demand-pull inflationary pressure by raising the living standards of those at the bottom of society who want to work for a living wage and a slight increase in total demand (Wray, 2000: 6). Even if compensatory payments for unemployment have an effect on aggregate demand, their effect on supply is negligible. On the contrary, ELR policy could increase human capital, provide physical infrastructure, increase potential aggregate supply, and reduce inflationary pressure. Voluntary unemployment would occur if the nominal savings planned by the private sector exceed the actual savings. The state will realize the nominal savings planned with this policy, but this will cause a budget deficit. This increase in the budget deficit will increase employment until the savings planned and realized by the private sector are balanced. Expenditures of the state creating a budget deficit will continue until full employment is achieved and inflationary pressure will only emerge with a budget deficit beyond this level (Wray, 1998: 129-130). The implementation of the ELR policy is easier in modern economies than in the past, since

state obligations are met with modern money[1]. In these modern economies, states spend by issuing modern money. If states have monopoly power over the money they issue, government expenditures will not face real financing constraints. If full employment is the goal, government expenditures and budget deficits will be faced. If the wage level is not adjusted well, for example, if an ELR wage is determined higher than the minimum wage paid by the private sector, employment will shift from the private sector to the public sector. As a result, private sector wages will increase, which will once again increase prices. Thus, in general, the government setting wages higher than the market will result in a one-time wage and price increase. If the wage demand of workers in the private sector is higher than their productivity, the employer will demand workers from the alternative public sector employment pool by placing a mark-up on the wages set by the government. That is, the ELR fee constantly acts as an anchor for market fees (Wray, 1998: 135; Juniper and Mitchell, 2005: 15).

3. RELATED WORKS

Programs in countries that have implemented an ELR-like public employment scheme are designed to provide temporary income to meet the basic needs of poor households in the face of an external shock. These shocks can generally be caused by a one-time economic crisis, natural disaster, or seasonal demand contractions (Subbarao et al., 2012: 12). According to McCord, implemented public employment programs do not exist in a monolithic form and differ in terms of duration, relationship with the labor market, scale targeting, and implementation. Therefore, for short-term periods, large-scale employment programs can be classified as labor-intensive programs or employability-enhancing programs (2008: 10). When the countries implementing public employment programs are examined, the reasons for implementing the programs differ. For example, drought and climate change (Yemen, Rwanda, Malawi, Ethiopia, Tanzania, Nepal, Morocco), economic crises (USA, Chile, Mexico, Korea, Latvia, Greece, Turkey), ensuring the right to work (Argentina, India, and South Africa) There are examples of countries applying for different reasons, such as the programs are organized according to the needs and various constraints, taking these needs into consideration. Generally, it may differ in terms of time, the share of the wages to be received by the workers in the total cost allocated for the program, the duration and type of the work to be done, and the type of payment (Subbarao et al., 2012: 31).

Countries such as the USA, Switzerland, and Australia were the first to implement these programs in the 1930s and 1940s (Subbarao et al., 2012: 331-371). For example, public employment policies implemented in Switzerland, Argentina, and India are based on the right to work. On the other hand, Indonesia and South Korea, on the other hand, implemented public employment policies to eliminate the effects of the East Asian financial crisis. Similarly, countries like Bolivia and Chile have put in place social fund programs to ensure structural adjustment (Papadimitriou, 2008: 7). In countries like Latvia, Greece, and Turkey, public employment programs were implemented as a temporary solution to increasing unemployment in the 2008 economic crisis. The targets of rural unemployment and drought have generally been taken into account in various African countries (Işık and Öksüz Narinç, 2016: 342).

The first study to measure the effects of public employment programs was based on a simulation for the US economy by Majewski and Nell (2000). The study found that despite the lower deflation, it increased private sector employment and output. Fullwiler (2003) measured the potential impact of an ELR by simulating the stabilizing effects on the economy of government spending that automatically offsets changes in unemployment. Accordingly, the ELR can increase capacity

[1] For Modern Monetary Theory (MMT), see. (Mosler, 1997, Wray, 1998 and 2012, , 2019, Fostater, 2006, Kelton, 2020, Tunez, 2020).

utilization without promoting higher inflation rates. In addition, it has been determined that the increase in real GDP will exceed the cost of the program. According to the simulation results of Murray (2017), the ELR program can be designed to be budget-independent and support full employment and economic growth. It shows that governments without a sovereign currency can develop a policy of full employment without getting themselves into a debt crisis.

According to a study examining the effects of the public work program Jefes de Hogar implemented in Argentina, while 3 million people were unemployed in May 2003, just after the crisis, this figure fell to 1.3 million people in 2006. Moreover, the purchasing power of minimum wages had doubled at the end of 2006 compared to December 2001 (Kostzer, 2008: 28). Argentina's total expenditure for this plan is less than 1 percent of GDP in 2005 (Kaboub, 2007: 15). Shortly after its implementation, the program reduced poverty by 25% (Tcherneva, 2013: 90-92). Argentine official sources, the program assisted 29.3 percent of poor families in 2003 to escape poverty (Ronconi et al., 2006: 6 -21). The effects of ELR were examined in a simulation study for Argentina recently, which was carried out by considering the Fair Model. According to this study, it has been determined that ELR will eliminate voluntary unemployment in a properly functioning buffer employment stock. In addition, it will eliminate poverty, with its effect on the determination of minimum wages, and maintain the balance between unemployment and inflation due to the worker pool (Mario, 2020).

In a study examining the effects of the implemented NREGA public employment program in India, its effect on agricultural wages was taken into account. For the 2010-2011 fiscal year, the program increased the annual growth rate of agricultural wages by 4.8 percent. It has been observed that the effect of the program on women's wages is higher than that of men's (Berg et al., 2014: 12-16). In a simulation study on India, a positive macroeconomic effect was found, and it was estimated that a resource allocation equivalent to 0.65 percent of GDP increased the GDP by 0.4 percent. The overall expansionary effect of the program has increased, in line with the Keynesian concept of the balanced budget multiplier. In the same study, the distribution effect of the program was also found to be positive. There was an increase in welfare among poor rural households and a marginal increase among poor urban households (Zepeda et al., 2013: 247).

The PSNP public employment program implemented in Ethiopia has been shown to have an asset protection effect. Beneficiaries experienced significant income and wealth growth compared to non-beneficiaries. Income growth and asset growth as livestock were 59 percent and 62 percent, respectively, for those who received wages as food, while no such impact charge was found for those who received cash. Food security increased by 11% between 2006 and 2008, while farm animal ownership increased by 7% (Koohi-Kamali, 2010: 10). Acting in concert with the PSNP, the food security program also provided beneficiaries with various productivity-enhancing transfer services, access to credit, agricultural extension services, and technology transfer. Being both PSNP and OFSP beneficiaries 18 months after PSNP produced a more positive outcome. It has been pointed out that the positive effect of the public work program beneficiary on the use of credit increases consumption (Gilligan et al., 2009: 1685-1703). In the analysis for Korea, male workers and young workers are more likely to participate in work after projects. Those who are dissatisfied with job conditions, wage rates, and the project process are more likely to find a job (Lee, 2001: 186).

In a study examining the impact of public employment programs on Latvia, the program was successful in targeting poor and socially excluded people, and the relatively lower salaries and labor-intensive jobs helped prevent the non-poor from participating in the program. In the short term, the WWS program increased beneficiaries' incomes by 37% compared to non-beneficiary households (Azam et al., 2012: 17-18). The effect of the ELR-like program on Greece has been estimated by simulation. Accordingly, if 200,000 to 500,000 jobs are created and a minimum wage is foreseen for employed people, how this will affect the macroeconomic process has been calculated. It has been found that if this level of employment is realized, an increase from 4.731 million euros to 16.671

million euros can be created in the total output and a tax income that will reach 6.233 million euros from 1.769 million euros (Antonopoulos et al., 2014: 10).

According to a simulation study created with the South African Social Accounts Matrix, it is predicted that an expenditure on public employment programs will increase GDP by 1.8 percent, while an increase in household income and industrial production will increase tax revenues by 1.5 percent, so this tax increase can finance this expenditure on employment. Furthermore, direct, and indirect positive effects on employment and poverty were discovered in a variety of categories (Antonopoulos and Kim, 2008: 73–83).

4. MATERIALS AND METHOD

A social accounting matrix (SAM) refers to a double-entry table that shows all relationships in an economy. The rows and columns of the matrix are composed of numerical data showing transactions between institutions and intermediaries for a certain period (Antonopoulos and Kim, 2008: 23). The primary purpose of SAM is to provide information about the economic and social structure of a country or region in a given year. Because computable general equilibrium (CGE) models can look at the whole economy at the same time, the second goal is to provide data for these models (Erten, 2009: 33). In its current form, SAM is a matrix representing socio-economic relations. The main goal of making SAM is to show how the social-economic system is linked together, as far as possible through the records (Round, 2003: 161-162).

SAM has three main features. The first of these accounts is expressed as a square matrix. Income and expenses of each account are in the relevant rows and columns of this square matrix. Second, it covers all the economic activities of the system, namely consumption, production, accumulation, and distribution. Third, while it usually has a standard framework, it is flexible in terms of decomposition and studies on different parts of the economy (Round, 2003: 301). For the final employer role of the state, the effects will be analyzed in the case of employment creation with an ELR-like Public Work Program (PWP) according to various scenarios in the SAMs created using 2014 data in Turkey. In the scenarios to be used, the low-income unemployed and women's employment are considered. A template representing the effect of a payment made from the public account on other accounts for job creation through a program such as PWP is shown in Table 1.

Table 1. Definition of Internal and External Accounts in SAM

				Expenditure					
				Internal Accounts				**External Accounts**	**Total**
				Activities	Commodities	Factors	Households	Public +Capital +External World	
				1	2	3	4	5	6
Income	**Internal Accounts**	Activities	1	0	T_{12}	0	0	X_1	Y_1
		Commodities	2	T_{21}	0	0	T_{24}	X_2	Y_2
		Factors	3	T_{31}	0	0	0	X_3	Y_3
		Households	4	0	0	T_{43}	0	X_4	Y_4
	External Accounts	Public+ Capital+ External World	5	L_1	L_2	L_3	L_4	t	
		Total	6	Y_{j1}	Y_{j2}	Y_{j3}	Y_{j4}		

Source: Defourny, I. and E. Thorbecke (1984: 112).

When these calculations are considered, the effect that will emerge when an external shock is given to the T12 account in the goods column is the direct transfer effect. The effect of this transfer on T31 in the production factors calculation is called the open loop effect. In addition, this change in the

factors of production affects the factor incomes of the households (T43), the increase in the income of the households affects the demand for goods of the households (T24), and the repeat goods account (T12), resulting in a closed-loop effect. Similarly, when an addition is made to T31 in the production factors calculation, the said effects occur. Internal accounts in the matrix can be used by following the same interaction as the policies that are being looked at. Y_{j1}, Y_{j2}, Y_{j3}, Y_{j4} representing the column totals represent incomes from production activities, incomes from goods, factor incomes and household incomes, respectively. X_1, X_2, X_3, and X_4, which are the totals of rows in the external accounts where the public sector, capital accounts and the external world are shown together, represent the additions made to the external accounts. Also, column sums L_1, L_2, L_3 and L_4 show their corresponding leaks. Y_1, Y_2, Y_3, Y_4, which are the sum of each line, show the sum of external and internal accounts. An A_{ij} matrix is obtained by dividing the internal accounts (T_{ij}) column by their corresponding column totals. Here Yj represents the column totals of each internal account.

$$A_{ij} = T_{ij} Y_j^{-1} \qquad (1)$$

$$A = \begin{bmatrix} 0 & A_{12} & 0 & 0 \\ A_{23} & 0 & 0 & A_{24} \\ A_{31} & 0 & 0 & 0 \\ 0 & 0 & A_{43} & 0 \end{bmatrix} \qquad (2)$$

A matrix is obtained, which represents the average propensity to spend for internal accounts. If we rearrange Equation 1;

$$A_{ij} Y_j = (T_{ij} Y_j^{-1}) Y_j \qquad (3)$$

$$T_{ij} = A_{ij} Y_j \qquad (4)$$

If we substitute equation 4 in the equation $y = T_{ij} + x_i$, which represents the sum of internal and external calculations;

$$\begin{matrix} Activities = \\ Commodities = \\ Factors = \\ Household = \end{matrix} \begin{bmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \end{bmatrix} = \begin{bmatrix} 0 & A_{12} & 0 & 0 \\ A_{23} & 0 & 0 & A_{24} \\ A_{31} & 0 & 0 & 0 \\ 0 & 0 & A_{43} & 0 \end{bmatrix} \cdot \begin{bmatrix} Y_{j1} \\ Y_{j2} \\ Y_{j3} \\ Y_{j4} \end{bmatrix} + \begin{bmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \end{bmatrix} \qquad (5)$$

$$Y = AY + X \qquad (6)$$

In the equation, Y represents the total revenue vector of the internal accounts and X represents the additions of the other external accounts. Here, the total revenue of each internal account is found by multiplying the income corresponding to the expenditure coefficient, plus the income from the external accounts. Equation 7 is obtained by solving Equation 6 for Y.

$$X = (I - A)Y \qquad (7)$$

$$(I - A)^{-1}(I - A)Y = (I - A)^{-1}X \qquad (8)$$

$$Y = (I - A)^{-1}X \qquad (9)$$

In this equation, $(I - A)^{-1}$ is defined as the SAM multiplier matrix. In this way, the effect of external accounts on internal accounts can be analyzed (Pyatt and Round, 1979: 856). As a result, although it is observed that SAMs are an extension of the input-output analysis, the fact that the matrix also includes data based on national accounting accounts and household surveys in addition

to the data in the input-output table increases the importance of the harmony between the accounts in terms of the results of the analysis. In addition, matrix A shown in the second equation is divided into sub-accounts according to the policies to be analyzed and different multiplier effects are calculated. Matrices B and C are obtained by dividing the matrix A, which has four internal calculations above, into two sub-matrices.

$$B = \begin{bmatrix} 0 & A_{12} & 0 & 0 \\ 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 \end{bmatrix} \qquad (10)$$

$$C = \begin{bmatrix} 0 & 0 & 0 & 0 \\ A_{23} & 0 & 0 & A_{24} \\ A_{31} & 0 & 0 & 0 \\ 0 & 0 & A_{43} & 0 \end{bmatrix} \qquad (11)$$

$$(I - B)^{-1} = \begin{bmatrix} I & (0 - A_{12})^{-1} & 0 & 0 \\ 0 & I & 0 & 0 \\ 0 & 0 & I & 0 \\ 0 & 0 & 0 & I \end{bmatrix} \qquad (12)$$

When matrices 10 and 11 are added instead of matrix A in equation 6;

$$Y = (B + C)Y + X \qquad (13)$$

$$Y - BY = CY + X \qquad (14)$$

$$Y(I - B) = CY + X \qquad (15)$$

$$Y = (I - B)^{-1}CY + (I - B)^{-1}X \qquad (16)$$

Equation 17 is obtained when equation 16 is written in matrix form with four internal calculations in accordance with the SAM format defined in Table 1.

$$\begin{bmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \end{bmatrix} = \begin{bmatrix} (0 - A_{12})^{-1}.A_{23} & 0 & 0 & (0 - A_{12})^{-1}.A_{24} \\ A_{23} & 0 & 0 & A_{24} \\ A_{31} & 0 & 0 & 0 \\ 0 & 0 & A_{43} & 0 \end{bmatrix} \begin{bmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \end{bmatrix} + \begin{bmatrix} I & (0 - A_{12})^{-1} & 0 & 0 \\ 0 & I & 0 & 0 \\ 0 & 0 & I & 0 \\ 0 & 0 & 0 & I \end{bmatrix} \begin{bmatrix} X_1 \\ X_2 \\ X_3 \\ X_4 \end{bmatrix} \qquad (17)$$

The first matrix on the right side of equation 17, obtained as a result of writing equation 16 in matrix form, represents the effect between internal calculations. For example, in the matrix prepared according to Table 1, the effect of a transfer made from an external account to an account in the column of production activities on the line of production activities is seen in the matrix in question. This matrix showing the effect between the accounts is shown in equation 18.

$$A^* = (I - B)^{-1}C \tag{18}$$

$$\begin{bmatrix} 0 & 0 & 0 & 0 \\ A_{21}^* & 0 & 0 & A_{24}^* \\ A_{31}^* & 0 & 0 & 0 \\ 0 & 0 & A_{43}^* & 0 \end{bmatrix} = \begin{bmatrix} (0 - A_{12})^{-1}.A_{23} & 0 & 0 & (0 - A_{12})^{-1}.A_{24} \\ A_{23} & 0 & 0 & A_{24} \\ A_{31} & 0 & 0 & 0 \\ 0 & 0 & A_{43} & 0 \end{bmatrix} \tag{19}$$

Equation 20 is obtained when it is defined as A^* and substituted in equation 16.

$$Y = A^*Y + (I - B)^{-1}X \tag{20}$$

This equation gives the sum of a transfer from the external account and its effect on the internal account. If the equation number 20 is rearranged in order to calculate the net effect of the transfer from the external account on the internal account, equation number 21 is obtained.

$$A^*Y = Y - (I - B)^{-1}X \tag{21}$$

When equation 21 is written in matrix form as shown below, the following form will be obtained.

$$\begin{bmatrix} 0 & 0 & 0 & 0 \\ A_{21}^* & 0 & 0 & A_{24}^* \\ A_{31}^* & 0 & 0 & 0 \\ 0 & 0 & A_{43}^* & 0 \end{bmatrix} \begin{bmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \end{bmatrix} = \begin{bmatrix} Y_1 \\ Y_2 \\ Y_3 \\ Y_4 \end{bmatrix} - \begin{bmatrix} I & (0 - A_{12})^{-1} & 0 & 0 \\ 0 & I & 0 & 0 \\ 0 & 0 & I & 0 \\ 0 & 0 & 0 & I \end{bmatrix} \begin{bmatrix} X_1 \\ X_2 \\ X_3 \\ X_4 \end{bmatrix} \tag{22}$$

Equation 20 is obtained for the first endogenous variable. As explained in Table 1, four endogenous variables are used in the SAM. Here, the account defined as the first internal variable is located in the row representing the production activities. As stated above, the effect that occurs in one of the endogenous variables is also reflected in the other variables. Therefore, in order to determine the effects of a transfer to production activities on production factors, household factor incomes, and demand for goods, both sides of equation 20 are multiplied by A* and the equation calculated for each internal variable is multiplied by the number of internal variables. In this case, the equation for the second endogenous variable is written as:

$$A^*Y = A^* A^*Y + A^*(I - B)^{-1}X \tag{23}$$

Equation 26 is obtained when $A^*Y = Y - (I - B)^{-1}X$ the calculated for the first endogenous variable is written and rearranged instead of A*Y in equation 23.

$$Y - (I - B)^{-1}X = A^{*2}Y + A^*(I - B)^{-1}X \tag{24}$$

$$Y = A^{*2}Y + (I - B)^{-1}X + A^*(I - B)^{-1}X \tag{25}$$

$$Y = A^{*2}Y + ((I + A^*)(I - B)^{-1})X \tag{26}$$

Equation 26 is multiplied again by A* for the other endogenous variables, and equation 27 is obtained when the operations are repeated for the third endogenous variable.

$$A^* Y = A^* A^{*2} Y + A^* ((I + A^*)(I - B)^{-1} X \quad (27)$$

Equality 30 is obtained when $A^* Y = Y - (I - B)^{-1} X$ is written and edited instead of A*Y in this equation.

$$Y - (I - B)^{-1} X = A^{*3} Y + A^* ((I + A^*)(I(I - B)^{-1} X \quad (28)$$

$$Y = A^{*3} Y + (I - B)^{-1} X + ((A^* + A^{*2})(I - B)^{-1} X \quad (29)$$

$$Y = A^{*3} Y + (I + A^* + A^{*2})(I - B)^{-1} X \quad (30)$$

The same process is repeated for equation 30, multiplied by A* again, and when the operations are repeated for the fourth internal variable, equation number 31 will be obtained.

$$A^* Y = A^* A^{*3} Y + A^* ((I + A^* + A^{*2})(I - B)^{-1} X) \quad (31)$$

Equation 37 will be obtained when $A^* Y = Y - (I - B)^{-1} X$ is written instead of A*Y in this equation and rearranged

$$Y - (I - B)^{-1} X = A^{*4} Y + A^* ((I + A^* + A^{*2})(I - B)^{-1} X) \quad (32)$$

$$Y = A^{*4} Y + (I - B)^{-1} X + (A^* + A^{*2} + A^{*3}(I - B)^{-1} X) \quad (33)$$

$$Y = A^{*4} Y + (A^* + A^{*2} + A^{*3})(I - B)^{-1} X) \quad (34)$$

$$Y - A^{*4} Y = (I + A^* + A^{*2} + A^{*3})(I - B)^{-1} X) \quad (35)$$

$$Y - (I - A^{*4}) = (I + A^* + A^{*2} + A^{*3})(I - B)^{-1} X) \quad (36)$$

$$Y = (I - A^{*4})^{-1} (I + A^* + A^{*2} + A^{*3})(I - B)^{-1} X) \quad (37)$$

Equation 37 is divided into parts within itself and decomposes as closed-loop multiplier matrix: $M_3 = (I - A^{*4})^{-1}$, open-loop multiplier matrix: $M_2 = (I + A^* + A^{*2} + A^{*3})$, direct transfer multiplier matrix: $M_1 = (I - B)^{-1} X$.

Considering the accounts in Table 1, the effect that will emerge when an exogenous shock is given to account A_{12} in the goods column is the direct (direct) transfer effect. The effect of this transfer on A_{31} in the production factors calculation is called the open loop effect. In addition, this change in the factors of production affects the factor incomes of the households (A_{43}), the increase in the income of the households affects the demand for goods of the households (A_{24}) and the repeat goods account (A_{12}), creating a closed-loop effect. Similarly, when an addition is made to A_{31} in the production factors calculation, these effects occur. Here, an addition to A_{44} in the households account is limited only to the direct transfer effect. The internal accounts in the matrix can be applied by following the same interaction according to the policies to be analyzed. Closed loop, open loop and transfer effects shown in Equation 37 are defined as cumulative effects. These effects are decomposed as in the equations shown below.

$$Y = M_3 . M_2 . M_1 \quad (38)$$

$$M = M_3 . M_2 . M_1 \quad (39)$$

$$M = I + (M_1 - I) + (M_2.M_1 - M_1) + (M_3M_2M_1 - M_2M_1) \quad (40)$$

$$M = I + N_1 + N_2 + N_3 \quad (41)$$

In Equation 41, I: Defines the additions made externally, N_1: Defines the net transfer effect and shows the cumulative effect of an addition from an external account to any internal account. N_2: It shows the open loop multiplier effect and represents the effect of adding to one internal account on another internal account. N_3: It represents the closed-loop multiplier effect and shows the effect of adding an internal account to the original account by affecting other accounts (Pyatt and Round, 1979: 857).

A social accounting matrix for 2014 was created for Turkey in the study in order to make an analysis targeting employment increase with a public employment program similar to ELR. TURKSTAT and the Ministry of Development statistical data were used to create the social accounting matrix. The SAM structure for the Turkish economy in 2014 consists of production activities, goods, factors of production, institutions, the capital account, and the foreign world. While the activities and goods accounts were divided into sub-sectors, the 2012 Input-Output Table published by TURKSTAT was used by combining them into twelve sectors. TUIK 2014 corporate sector accounts were used to create the accounts in the social accounts matrix. The household account is differentiated according to the purposes of the scenarios and divided into four groups. These household groups are divided into households with individuals aged 15-24 looking for a job, households with individuals over the age of 25 looking for a job, households seeking a job and households not seeking a job.By adding the public sector, private savings, public investments, and the outside world, a 35 x 35 matrix is formed. A simulation analysis was conducted targeting the unemployed and female unemployed from low-income households. In order to perform the simulation analysis, changes in aggregate demand were measured with supply-side I-O analysis, and external shocks as well as total demand changes were given to the micro-SAM established for 2014. According to the simulation results, the change in the demand and incomes of households was observed when the state's secure employment creation in the public administration sector and the cost incurred by the state for this were comparedThe first scenario considered for the study is about measuring the impact to be created by hiring low-income unemployed people through the public employment program. The aim of the first scenario is to discuss the implications of providing low-income households with a minimal job rather than social assistance. As shown in Table 2, there were 2,293 household who defined themselves as job seekers during the Survey of Income and Living Conditions (SILC) period.

Table 2. Number of Households for the First Scenario

Total Number of Households in SILC	22.740
Number of Households in Turkey in 2014	21.091.075
Number of households with at least one job seeker within the SILC	2.005
2014 Turkey Estimated number of households with at least one job seeker	1.859.613
Households with at least one job seeker in SILC with an income between 0 and 30,000 TL	1.419
2014 Turkey Households with at least one job seeker whose income is between 0-30,000 TL	1.316.606

Source: Calculated using the TURKSTAT 2014a and 2014b.

Since there is more than one job seeker in a household, taking all of these people would be to act as if there were 2,293 households. Therefore, by eliminating repetitive bulletin numbers, 2005 households in which at least one person sought a job were identified. 70.8 percent of these households earn between 0 and 30.000 TL per year. In this context, the numbers have been adapted

to approximately 21 million households, according to Turkey's 2014 data. When compared to the survey data, the number of households in which at least one person is looking for a job in Turkey has been estimated at 1 million and eighty-five thousand. And among them, the number of households with an annual income of 0–30,000 TL is approximately 1 million 316 thousand. The scope of the first scenario is to measure the impact if these households were given a job at the minimum income level with a program such as PWP.

Another striking detail about the type of unemployment is that women's unemployment and women's employment participation rates are quite low in Turkey. Looking at the data from TURKSTAT for 2014, 71 percent of those not included in the labor force are women in Turkey. Because they were caring for their children and homework, 11 million 600,000 women did not enter the labor force in 2014. Women's participation in the workforce is important for economic and social development, on the one hand. In addition to the practices in which the state provides various supports to the private sector to support women's employment, there are also various social support projects such as grandmother's salary and caregiver assistance to working mothers. However, this support is narrow scoped as various conditions and tests are introduced. In addition, if we look at the sectors in which women are employed, it is known that they are mostly employed in the agriculture and services sectors, where unregistered employment is intense.

The second scenario targets women's employment in this context. According to descriptive data, 21 percent of women in 2005 households with at least one person looking for work were unemployed. While this ratio was found, the ratio of all women was evaluated, regardless of whether the women were in the low- or high-income group. As can be seen in Table 3, considering that the number of households in Turkey in 2014 was approximately 21 million and adapted to descriptive data, it is determined that there are 1,763,412 households with at least one job seeker and 370,317 of them are women.

Table 3. Number of Households for the Second Scenario

2014 Turkey Household Number	21.091.075
Number of households with at least one job seeker within the SILC	2.005
2014 Turkey Estimated number of households with at least one job seeker	1.859.613
Number of households with at least one job-seeking woman within the SILC	424
2014 Turkey Estimated number of households with at least one job-seeking woman	370.317

Source: Calculated using the TURKSTAT 2014a and 2014b.

5. FINDINGS

Public administration and defense services are among the sectors that we have gathered as 12 sectors in the input-output table; employment has been created for the Compulsory Social Security Services sector, amounting to 1,316,606 people, which we have determined according to annual income. As a result of the supply-side input-output analysis, the change in total demand for 2014 is shown in Table 4.

Tablo 4. Supply Side I-O Analysis for Scenario 1 for 2014 Demand Change by Sectors

Total demand/Output change	Change amount	Initial level	New values	Change rate %
Agriculture	280,833	192,778,277	193,059,110	0.146
Mining and Quarrying	200,735	108,866,069	109,066,804	0.184
Manufacturing industry	4,866,888	1,227,414,077	1,232,280,965	0.397

Electricity, gas, steam and air conditioning; Water supply, sewage, waste management and remediation activities	587,302	172,968,788	173,556,090	0.340
Constructions and civil works; real estate services	1,783,470	470,916,637	472,700,107	0.379
Commerce, Transportation, Storage, Accommodation, Food services	4,131,329	653,468,073	657,599,401	0.632
Security and investigation services; building and landscaping services; office management, office support and other business support services	498,769	37,301,654	37,800,423	1.337
Public administration and defense services; compulsory social security services	1,701,343	91,378,512	93,079,856	1.862
Education services	1,316,822	72,260,126	73,576,947	1.822
Human health services	1,035,788	71,668,320	72,704,108	1.445
Services provided by member organizations	171,968	9,922,406	10,094,374	1.733
Other speed; Financial, Professional, Scientific, Technical, Information and Communication service	2,205,487	296,144,120	298,349,607	0.745
Total	18,780,733		3,423,867,791	

Source: Calculated using the 2012 I-O Table.

The total change for the sectors was found to be 18,780,733 TL. The highest change in total demand is seen in the public administration and defense services sector at a rate of 1.86%, in education services by 1.82%, and in the services provided by the member organizations at a rate of 1.73%. When we inject this increase in total demand, which occurred after the increase in physical employment in the economy, into 12 sectors in Micro SAM, the effects were observed. If we look at the transfer effects according to scenario 1, the biggest effect was experienced in the manufacturing sector. Construction and construction work in the manufacturing industry sector under the open loop effect, real estate services and trade, transportation, storage, accommodation, and food services follow. The three sectors in which external shocks caused the most change in labor demand as an indirect effect are: public administration and defense services; compulsory social security services; education services; and human health services. On the other hand, the sector with the highest impact on capital demand is the manufacturing industry sector. With the direct income transfer that occurs with the job created, the final household demand will be 874,076,678 TL. As a result of this increase in demand, the demand for intermediate goods will rise by 166,021,308 TL, employment payments will rise by 231,460,443 TL, and capital payments will rise by 107,340,514 TL. The income increase created by the increase in the demand for intermediate goods, labor, and capital will once again return to the economy as a total of 185,942,895 TL in the form of an increase in demand for intermediate goods, labor, and capital. These increases in factor demand create an increase in household income. According to this effect, which we call the household open loop effect, public administration and defense services are the sectors with the highest increase in household income in the compulsory social security services sector. If we look at the closed-loop effects, there was a total demand increase of 47,020,935 TL in all sectors with the increase in household income, and 28,345,997 TL of this was experienced in the Manufacturing Industry sector. For households with at least one job seeker whose income is between 0 - 30,000 TL per year, a payment of 1 TL by the public through job creation creates a total increase of 0.968 TL in household income in all sectors. In terms of sectors, a 1 TL increase is to be made by the public through job creation, 0.7213 TL in the manufacturing sector, construction and construction works, and real estate services, creating an increase in the household income of 0.1182 and in the commerce, transportation, storage,

accommodation, and food services sector of 0.169 TL. This increase in household income will increase the total final demand by 47,020,935 TL.

The effect of a job given to 370,317 women at the minimum wage level in the second scenario is shown in Table 5. In this context, the sector where this job is given is public administration and defense services, which are also used in the other scenario; it is the compulsory social security services sector, and the employment provided to women in this sector has created a demand change of 5,282,389 TL in all sectors. Again, the employment created in this sector increased the most in the manufacturing industry. This increase is followed by sectors such as commerce, transportation, storage, and accommodation.

Table 5. Supply Side I-O Analysis for Scenario 2 for 2014 Demand Change by Sectors

Total demand/Output change	Change amount	Initial level	New values	Change rate %
Agriculture	78,989	192,778,277	192,857,266	0.0410
Mining and Quarrying	56,46	108,866,069	108,922,529	0.0519
manufacturing industry	1,368,892	1,227,414,077	1,228,782,969	0.1115
Electricity, gas, steam and air conditioning; Water supply, sewage, waste management and remediation activities	165,188	172,968,788	173,133,976	0.0955
Constructions and civil works; real estate services	501,63	470,916,637	471,418,267	0.1065
Commerce, Transportation, Storage, Accommodation, Food services	1,162,004	653,468,073	654,630,076	0.1778
Security and investigation services; building and landscaping services; office management, office support and other business support services	140,287	37,301,654	37,441,941	0.3761
public administration and defense services; compulsory social security services	478,531	91,378,512	91,857,043	0.5237
Education services	370,378	72,260,126	72,630,503	0.5126
human health services	291,332	71,668,320	71,959,652	0.4065
Services provided by member organizations	48,369	9,922,406	9,970,775	0.4875
other speed; Financial, Professional, Scientific, Technical, Information and Communication service	620,329	296,144,120	296,764,449	0.2095
Total	5,282,389		3,410,369,447	

Source: Calculated using the 2012 I-O Table.

The effect of this increase in demand on the entire economy. The employment created for women created a total of 18,067,874 households with an open loop effect. This increase in the income of the households increased the total demand again with the closed loop effect of 46,721,410 TL.

6. DISCUSSION AND CONCLUSION

In this study, the social accounting matrix created with 2014 data was used to measure the applicability of the ELR policy in Turkey. The SAM structure for the Turkish economy in 2014 consists of production activities, goods, factors of production, institutions, the capital account, and the foreign world. The production activities account has been aggregated into 12 sectors with the adaptation of the 2012 I-O table by TURKSTAT to 2014. Labour force and capital account are examples of factors of production, whereas firms and household accounts are examples of institution accounts. The household account is differentiated according to the purposes of the scenarios and divided into four groups for each scenario. The analysis is done with a 35 x 35 matrix with the addition of public sector private savings, public investments, and the outside world. The income group and gender are considered in the scenarios to be used. In the scenarios, employment was created on a household basis. The number of people who will be employed is obtained by dividing the data obtained from TURKSTAT's SILC with Turkey's Address-Based Population Statistics

According to the findings of the study (scenario 1), every 1 TL spent by the government to create public employment will result in an increase of 0.968 TL in household income in all sectors, and this increase will increase the total final demand. This finding indicates that an ELR income and expenditure multiplier implemented in Turkey will be effective. According to another important finding of the study (scenario 2), an increase of 1 TL in public expenditures will result in a 3.42 TL increase in women's household incomes. For Turkey, this finding shows that the ELR program is a very important policy tool for women's employment, both in terms of income and socially. It is possible to say that public expenditures for public employment programs in each simulation are quite low when compared to the GDP of the Turkish economy, so there will be no shortage of financial resources. The ELR program's low cost and self-financing demonstrate its viability.

The findings obtained as a result of the study support the results of the impact assessment for South Africa and Greece. Contrary to what mainstream economics suggests, the Employer of Last Resort is built on a solid theoretical foundation. It should be seen as an important employment policy for reducing unemployment, ensuring price stability, reorganizing the distribution system, and ensuring sustainable development and growth. Considering the country examples, studies examining the costs of ELR policy in countries such as India, Argentina, and South Africa have found that there are important economic and social consequences despite the costs of the programs. Today, when capitalist economies fail to create employment, the state needs to develop new employment strategies for the unemployed and poor. In particular, the global and local crises experienced by the countries in the last period show the need for ELR type programs. In addition, globalization and rapidly developing technologies increase unemployment without adequate education. For this, the ELR policy will employ the unemployed and unemployed workforce and increase flexibility by supplying them to the private sector when necessary. In order for such a policy to be put into practice, the concepts of institutionalism, political will, social reconciliation and social dialogue, and social rights must be filled in. Considering the inadequacy of mainstream economics in solving unemployment and poverty, employment policies based on social rights should be created by leaving the logic of social assistance. The ELR policy, which is one of these policies, seems to be applicable when its economic and social effects are taken into account in a country's examples.

REFERENCES

Antonopoulos , R., Adam S., Kim, K., Masterson, T. & Papadimitriou, D.B. (2014)., *Responding to the Unemployment Challenge: A Job Guarantee Proposal for Greece.* Research Project Report, The Levy Economics Institute of Bard College.

Antonopoulos , R. & Kim, K.(2008). *South Africa Scaling Up The Expanded Public Works Programme: A Social Sector Intervention Proposal.*The Levy Economics Institute of Bard College

Azam, M., Ferre, C. & Ajwad, M. I.(2012). *Did Latvia's Public Works Program Mitigate the Impact of the2008-2010 Crisis? .* World Bank Policy Research Working Paper No. 6144.

Berg, E., Bhattacharyya, S., Rajasekhar, D., & Manjula, R. (2018). Can public works increase equilibrium wages? Evidence from India's National Rural Employment Guarantee. *World Development*, *103*, 239–254. https://doi.org/10.1016/j.worlddev.2017.10.027

Bonoli, G. (2010). The Political Economy of Active Labour Market Policy. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1561186

Defourny, J., & Thorbecke, E. (1984). Structural Path Analysis and Multiplier Decomposition within a Social Accounting Matrix Framework. *The Economic Journal*, *94*(373), 111. https://doi.org/10.2307/2232220

Erten, H. (2009). *Türkiye İçinSektörel Sosyal Hesaplar Matrisi Olusturma Yöntemi ve Istihdam Üzerine Bir Hesaplanabilir Genel Denge Modeli Uygulamasi.* Ankara: DPT.

Forstater, M. (2013). «The JobGuarantee and Municipal Confederalism: Exploring the National and Local Levelsof Program Operation.» *Employment Guarantee Schemes* içinde, yazan MichaelJ. Murray ve Mathew Forstater, 145-155. New York: Palgrave Macmillan.

Fostater, M. (2006). Tax-Driven Money: Additional Evidence from the History of Economic Thought, Economic History and Economic Policy. In M. Setterfield (Ed.), *Complexity, Endogenous Money and Macroeconomic Theory* (pp. 202–220). Edward Elgar Publishing.

Fullwiler, S. T. (2003). Further simulations of an employer of last resort policy. *Center for Full Employment and Price Stability*, *27*.

Gilligan, D. O., Hoddinott, J., & Taffesse, A. S. (2009). The Impact of Ethiopia's Productive Safety Net Programme and its Linkages. *Journal of Development Studies*, *45*(10), 1684–1706. https://doi.org/10.1080/00220380902935907

Hieda, T. (2011). The Politics of Active Labor Market Policy in Post-Industrial Democracies: Divergent Policy Responses to New Social Risks among Pro-Welfare Parties Ver.1.2. *Undefined*. https://www.semanticscholar.org/paper/The-Politics-of-Active-Labor-Market-Policy-in-to-Hieda/1295e094214ef5a765f8783aaec38f3390bbc9b4

Isik S.ve Öksüz Narinç , N. (2016) "Yoksullukve Istihdama Post-Keynesyen Yaklasim: Devletin Nihai Isveren Rolü", Post-Keynesyen Yaklasim AlternatifParasal Iktisat içerisinde, ed. Isik S., Cin M. F., Palme Yayin Dagitim, Ankara,ss.327-362

Juniper, J.& William, M. (2005) .Towards a SpatialKeynesian Macroeconomics, CofFEE, Working Paper No: 05-09.

Kaboub, F. (2013). The Fiscal Cliff Mythology and the Full Employment Alternative. *Review of Radical Political Economics*, *45*(3), 305–314. https://doi.org/10.1177/0486613413487162

Kelton, S. (2020). *Deficit Myth : modern monetary theory and the birth of the people's economy.* Public Affairs.

Koohi-Kamali, F. (2010). *Public Works and social Protection*. https://cadmus.eui.eu/bitstream/handle/1814/40079/KoohiKamali_PublicWorks.pdf?sequence=1&isAllowed=y

Kostzer, D. (2008). *Argentina: A Case Study on the Plan Jefes y Jefas deHogar Desocupados, or the Employment Road to Economic Recovery.* WorkingPaper No.534, The Levy Economics Institute of Bard College.

Lee, J. (2001). Income Assistance and Employment Creation through Public Works in Korea. In F. Park, Y. Park, G. Betcherman, & A. Dar (Eds.), *Labor market reforms in Korea : policy options for the future* (pp. 175–195). The World Bank and Korea Labor Institute.

Majewski, R.,& E. Nell. (2000). "Maintaining Full Employment: Simulating an Employer of Last Resort Program." Seminar Paper N°6, Center for Full Employment and Price Stability (CFEPS). http://www.cfeps.org/pubs/sp-pdf/SP6-

Mario, A. (2020). Simulating an employer of last resort program for Argentina (2003–2015). *Journal of Post Keynesian Economics*, *44*(2), 208–238. https://doi.org/10.1080/01603477.2020.1734467

Mastromatteo , G.& Esposito , L.(2014). "Banking on ELR. How the ideas of Minsky can tackle unemployment" *55thAnnual Conference of the Società Italiana degli Economisti.* Trento.

McCord,A. (2008), 'Recognising Heterogeneity: AProposed Typology for Public Works Programmes', Southern Africa Labour andDevelopment Research Unit (SALDRU), Working Paper no. 26, SALDRU, School ofEconomics, University of Cape Town, South Africa, December.

Minsky, H. P. (2008). *Stabilizing an unstable economy*. Mcgraw-Hill Professional.

Mosler, W. (1997). Full Employment and Price Stability. *Journal of Post Keynesian Economics*, *20*(2), 167–182. https://doi.org/10.1080/01603477.1997.11490146

Mosler, W. & Mathew,F. (1999). A General Framework for theAnalysis of Currencies and Commodities, Full Employment and Price Stability ina Global Economy içinde P. Davidson and J.Kregel (ed.), Edward Elgar.

Murray, M. J. (2017). Public Policy for Working People. In M. J. Murray & M. Forstater (Eds.), *The Job Guarantee and Modern Money Theory: Realizing Keynes's Labor Standard*. Palgrave Macmillan.

Papadimitriou, D.B. (2008). *PromotingEquality Through an Employment of Last Resort Policy.* Working Paper No.545, The Levy Economics Institute of Bard College.

Pyatt, G., & Round, J. I. (1979). Accounting and Fixed Price Multipliers in a Social Accounting Matrix Framework. *The Economic Journal*, *89*(356), 850. https://doi.org/10.2307/2231503

Ronconi, L., Sanguinetti, J., & Fachelli Oliva, S. (2006). Poverty and Employability Effects of Workfare Programs in Argentina. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.908566

Round, J. (2003). Constructing SAMs for Development Policy Analysis: Lessons Learned and Challenges Ahead. *Economic Systems Research*, *15*(2), 161–183. https://doi.org/10.1080/0953531032000091153

Subbarao , K., Ninno, C., Andrews,C. And Rodriguez Alas, C.P. (2012). *Public works as a safety net : design, evidence, and implementation.*Washington D.C.: The Worldbank.

Tcherneva, P. R. (2013). "BeyondFull Employment: What Argentina's Plan Jefes Can Teach Us about the Employer ofLast Resort". *Employment Guarantee Schemes* içinde, yazan Michael J.Murray ve Mathew Forstater, 79-102. New York: Palgrave Macmillan.

Túñez Area, N. (2020). A Post Keynesian Review of Modern Monetary Theory. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3573406

TURKSTAT. (2014a). Address-Based Population Registration System http://www.tuik.gov.tr/PreIstatistikTablo.do?istab_id=2430. (ErisimTarihi: 1 Mayis 2017)

TURKSTAT. (2014b). *SILC-Survey of Income and Living Conditions*. TURKSTAT.

Wray, L. R. (1998). *Understanding modern money : the key to full employment and price stability*. Edward Elgar.

Wray, L. R. (2000). The Employer of Last Resort Approach to Full Employment. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1010336

Wray, L. R. (2009). *The Socialand Economic Importance of Full Employment.* Working Paper No. 560, The LevyEconomics Institute of Bard College.

Wray, L. R. (2016). *Modern Money Theory: A Primer on Macroeconomics for Sovereign Monetary Systems*. Palgrave Macmillan.

Zepeda, E., Alarcon, D., Mcdonald, S., Sapkota, C., Panda, M., & Kumar, G. (2013). Guaranteeing Jobs for the Rural Poor: An Assessment of India's MGNREGA public works programme. In *Social Protection, Growth and Employment: Evidence from India, Kenya, Malawi, Mexico, Peru and TajikistaN* (pp. 235–256.). United Nations Development Programme.