

Unemployment Scarring Effect in Micro and Macroeconomics in Different Countries: Literature Review

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ABSTRACT: Labor is a human resource that is important for the progress of a country and is necessary for economic growth. Understanding the relationship between labor and the scarring effect can help to minimize or reduce the occurrence of the scarring effect in the future. The potential effects of scarring effects on productivity and labor markets are analyzed in macro and microeconomics. The methodology used is a literature review that presents the scarring effect that occurs in several countries and improvement steps to reduce the scarring effect. Policy implications are identified by synthesizing previous research. The results showed that the scarring effect occurred varied across several countries. The scarring effect predicts that the current unemployment effect has the potential to last for the remainder of an individual's working life. The right policy will certainly be useful in dealing with the scarring effect of labor in the future. Knowing the scarring effect of labor in several countries will help determine policies that suit needs. Unemployment leaves young workers with scars. The failure of the youth labor market is actually costly even though most adolescents have a relatively short period of unemployment, economic shocks that cause the scarring effect of the labor market present important policy issues. These findings are important and urgent to build resilience to avoid the scarring effect for countries vulnerable to natural disasters. The implication of this literature review is that it can contribute to the workforce experiencing a scarring effect and prevent the occurrence of a scarring effect in the future. Regarding the direction of further research, this research can be continued by conducting research on other scarring effects besides the scarring effect of labor. This is done to find out the scarring effect other than labor. This research and subsequent research are important for policymakers to mitigate the potential long-term effects of the scarring effect in the future.

KEYWORDS: Scarring Effect, Unemployment, Micro, and Macroeconomics

I. INTRODUCTION

The *scarring effect theory* predicts that the current effects of unemployment have the potential to last for the remainder of an individual's working life. Self-employed in the informal sector, not unemployment itself, affects the *scarring effect* in Indonesia. Limited opportunities for human resource accumulation in the self-employed and/or the use of this information as an indicator of low productivity by employers.(Pritadrajati et al., 2021). The potential *scarring effect* of the pandemic on the labor market in Indonesia was investigated by combining macro and micro analyses. Macro data on Indonesia's economy is used to estimate the potential *scarring effect* of the COVID-19 pandemic and compare it with two previous crises, notably the Asian Financial Crisis (AFC) in 1997 and the Global Financial Crisis (GFC) in 2008. The findings show that after 40 quarters, permanent supply shocks will increase prices and unemployment, while output per worker, investment, and output decrease. For micro-analysis the results show that all crises are negatively correlated with income and working hours (except the GFC). These findings have important information for policymakers to mitigate the potential long-term effects of future pandemics (Ridhwan et al., 2022).

The cost of job loss is concentrated among workers who find work back in low-skilled jobs, and that the cost and incidence of such job moves are higher for workers who lost their jobs during the recession. Hiring was more selective during the recession, causing some unemployed workers to optimally seek employment back in low-skill jobs. This should take into account estimates of the size and cost cycle of job loss of current value, and the cost of entering the labor market during a recession. *The scarring effect* occurs when a bad experience for workers related to macroeconomic conditions has a negative long-term impact on their labor market results. Workers who entered the labor market during the macroeconomic downturn experienced unemployment. Recent studies have found that the scarring effect is very substantial, for example in Australia, the *scarring effect* found that

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graduates who entered the labour market at a time of youth unemployment decreased graduates' annual income after five years (Borland, 2020). Based on the data of Norwegian individual lists of young workers, from the period 1986-2008, it was analyzed whether there was a large and persistent negative relationship between unemployment and the risk of recurrent and exit from the labor force. The results of the study found that unemployment has a negative effect on labor market attachment later in life. The negative effects diminish over time. This study suggests that a relatively high level of unobserved selection bias can be present in the data before changing conclusions. Thus, unemployment leaves young workers with long-term scarring effects (Nilsen & Reiso, 2021).

Past unemployment may have had widespread psychological repercussions that occur across the country. Research on the relationship between unemployment events across working life and psychological well-being was conducted in 14 European countries. Each six-month period of past unemployment was found to predict a decline in quality of life and life satisfaction after age 50, after adjusting for various individual and country-specific covariates. In contrast, the impact of past unemployment on depression is explained by individual demographic factors. This study identifies the first comparative long-term evidence that the scarring effect of unemployment welfare may be a broad international phenomenon (Mousteri et al., 2018). A percentage increase in the probability of unemployment and a reduction in annual income after 5 years due to post-graduation unemployment. The results show that the failure of the youth labor market is actually costly even though most adolescents have a relatively short period of unemployment (Nordström Skans, 2004). Japanese men have a lower employment status after they switch back to standard jobs. In a highly segmented labor market like Japan, the tight separation of labor pools for standard and contingent jobs makes being labeled as contingent workers very detrimental. Meanwhile, Japan's legacy of welfare corporatism reduces the stigma of unemployment, making individuals better off being unemployed than having contingency jobs. This study shows the importance of the labor market context in shaping the scarring effect of contingency work arrangements. (Bailey et al., 2013).

Unemployment does have a scarring effect on individuals who experience it, in terms of loss of income on re-employment jobs. Specifically, it was found that, individuals who were unemployed when returning to work would earn about 6% less than equivalent individuals who made the transition from job to job, during the first year of employment. This difference is expected to increase to about 14% in the fourth year before it starts to decline. In addition, the first unemployment is expected to have the greatest effect with repeated incidents causing further scarring effects. The most affected in this regard are men over 45 years of age without educational qualifications. The study could not find a significant effect of the duration of unemployment on subsequent wages other than the incident effect (Arulampalam, 2001). Research on the long-term relationship between the experience of unemployment and mental health over a lifetime. The experience of single unemployment does not appear to have the same long-term negative effects. Yet there was an accumulation of worse mental health among respondents with experience of unemployment for two, and even more than three periods. The conclusion is that there is a long-term mental health scarring effect of adolescent unemployment exposure and multiple unemployment exposure over the course of life (Strandh et al., 2014). Having a bad start in the labor market has a scarring effect on future jobs and well-being. Indeed, unemployment at any point in the course of life can be a scar. Although there is extensive quantitative research examining the effects of scarring effects at the macro level, evidence on the scarring effect at the micro level provides insight into individuals' perceptions, values, attitudes and abilities, and how they shape the trajectory of work. Such an approach contrasts with active labor market policies that focus on the supply-side that are characteristic of neo-liberal welfare states (Egdell & Beck, 2020).

The study found that there was a detrimental consequence called the scarring effect of early unemployment among young adults with vocational credentials in Switzerland. This study shows that young adults who hold vocational certificates are more likely to be out of work or in education, and earn less and are more dissatisfied with their career advancement later in their working life than they would have been had they not experienced early unemployment. These findings contradict expectations that vocational standard degrees, liberal and flexible labor market structures, and largely short periods of unemployment protect skilled young workers from the scarring effect if they experience early career instability (Helbling & Sacchi, 2014). A new conceptual framework on the scarring effect of the labor market was developed. Due to economic shocks such as the COVID-19 pandemic, the scarring effect of the labor market presents important policy issues. This paper first outlines the theoretical mainstream view of the *scarring effect* and argues that the existing theoretical framework on the scarring effect of the labor market is insufficient to understand the post-COVID labor market for graduates. The researchers identified three areas in which mainstream understanding ignored and discussed the explanatory value of understanding contextual mediating factors and the non-economic effects of the *initial carrying effect*. A case is made for qualitative research and career development approaches to understand the scar tissue process as this provides further insight into its manifestations and socio-psychological consequences (Tomlinson & Tholen, 2023). The latest conceptual framework of the labor market scarring effect was developed. Due to economic shocks such as the COVID-19 pandemic, the scarring effect of the labor market presents important policy issues. (Tomlinson & Tholen, 2023). Several approaches are being taken to explore the medium-term scarring effects of natural disasters for countries

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vulnerable to climate change. These findings are important and urgent to build resilience to avoid the scarring effect for countries vulnerable to natural disasters, such as in the Caribbean region (Lian et al., 2022).

Using panel data from Hong Kong, the study observed that macroeconomic situations, especially periods of economic crisis, have a detrimental effect on the workforce. The adverse impact will occur in the economic crisis on the insecurity of the first job and the subsequent scarring effect on career prospects (Xu et al., 2024). Becker (1964) What drives unemployment scarring? Different competing explanations have been proposed in order to frame unemployment scarring, such as economic assumptions about returns on accumulation of human capital. Becker's (1964) economic approach to the return on human capital assumes that training in a particular workplace is an investment in human capital and thus goes hand in hand with higher wages in later careers. Those who experience early unemployment may be seen to lose the likelihood of acquiring job-specific training and thus have a lower price value when employed compared to members of their cohort (Helbling & Sacchi, 2014). Mortensen (1986), said that following the perspective of seeking unemployment wages, it is considered to reduce their reservation wages with the search period. As time spent in unemployment passes, individuals become more vulnerable to applying for jobs and receiving job offers that do not match their initial expectations. Thus, not only the incidence of unemployment but also its duration can be seen as a mechanism that drives the scarring effect of unemployment (Helbling & Sacchi, 2014). The UK has one of the highest proportions of highly educated workers in Europe but also has one of the highest graduate unemployment rates. An important implication in these findings is with the argument of equality and efficiency for policies helping graduates achieve graduate-level jobs. Graduate-level graduates and salaried jobs must be able to ensure that increased productivity of higher education is realized, that graduates earn more (and pay more taxes) and that taxpayer subsidies for higher education are reduced (Dickson et al., 2022). Italy is one of the countries with the highest levels of inequality and the transmission of losses between generations. This study aimed to verify the effects of different vulnerability conditions such as low socioeconomic family background and prolonged periods in a job school transition, on an individual's future career. According to the consolidated economic theory of the scarring effects then to expect that the longer the period of exit from the labor market, the more difficult it is to get a good job and have a regular career path (Fabrizi & Rocca, 2024).

The scarring effect is defined as an increased probability of future unemployment and a subsequent reduction in wages as a result of unemployment at the beginning of a person's working year. Many young people experience the habit early in their professional careers when they become unemployed thus hampering the individual's prospects in the future and resulting in negative consequences for the economy as a whole. There is ample evidence in the United States that early job transfers are followed by a higher risk of subsequent unemployment and a lower trajectory for future earnings after re-entry (Glatt & Wunnava, 2018). The cost of earning job loss is concentrated among workers who find work back in low-skill jobs and that the cost and incidence of those job moves are higher for workers who lost their jobs during a recession (Huckfeldt, 2016).

The economic crisis of 2008 was attributed to a persistently lower growth rate in Austria's non-profit social service sector. The magnitude of this damping effect varies across subsectors. The findings of the study show an increase in market concentration and reveal the long-term scarring effect of the economic crisis on Austria's social services sector, casting doubt on the sector's future resilience (Pennerstorfer et al., 2020). In the case of the labor market transition from unemployment and inactivity, the study found that long-term dependency lags behind that causes the scarring effect. This suggests that having one previous unemployment (or inactivity) in the past is worse than having several short periods of being in and out of a state of unemployment (or inactivity). Based on this, policy recommendations are directed to help young people and adults from the risk of becoming NEET (Not in Education, Employment or Training) as early as possible in their careers and promote a flexible labour market system that is balanced with job security (Quarina, 2017). Projecting long-term dynamics after a large demand contraction that causes a scarring effect in the economy. Financial constraints leave the deepest scars (Lucidi & Semmler, 2023). Based on this, it is important to carry out a literature review related to the scarring effect of labor so that appropriate and necessary policies can be made to reduce and deal with the scarring effect in the future.

II. METHOD

This research is research using a literature study method. This research describes the potential effects of the scarring effect on the labor market in macro and microeconomics. This literature review presents the scarring effect that occurs in several countries and improvement measures to reduce the scarring effect. The scarring effect varies in several countries. The scarring effect predicts that the current unemployment effect has the potential to last for the remainder of an individual's working life. The right policy will certainly be useful in dealing with the scarring effect of labor in the future. Unemployment leaves young workers with scars, labor market failures that are important for policymakers to mitigate the potential long-term effects of the scarring effect in the future. A literature review or theoretical framework in empirical research has various functions, especially providing a theoretical basis for the research.

III. RESULT AND DISCUSSION

1. Indonesia

The scarring effect theory predicts that the current unemployment effect has the potential to last for the rest of an individual's working life. Limited opportunities for human resource accumulation in the self-employed and/or the use of this information as an indicator of low productivity by employers (Pritadrajati et al., 2021). The potential scarring effect of the pandemic on productivity and the labor market in Indonesia was investigated by combining macro and micro analyses. Macro data on Indonesia's economy is used to estimate the potential scarring effect of the COVID-19 pandemic and compare it with two previous crises, notably the Asian Financial Crisis (AFC) in 1997 and the Global Financial Crisis (GFC) in 2008. The findings show that after 40 quarters, permanent supply shocks will increase prices and unemployment, while output per worker, investment, and output decrease. For micro-analysis the results show that all crises are negatively correlated with income and working hours (except the GFC). These findings have important information for policymakers to mitigate the potential long-term effects of future pandemics (Ridhwan et al., 2022).

2. Australia

A recent study found that the scarring effect was very substantial, for example in Australia the scarring effect found that graduates who entered the labour market at a time of youth unemployment decreased the annual income of graduates after five years.(Borland, 2020).

3. Norwegia

The results of the study found that unemployment has a negative effect on labor market attachment later in life. The negative effects diminish over time. This study suggests that a relatively high level of unobserved selection bias can be present in the data before changing conclusions. Thus, unemployment leaves young workers with long-term scarring effects.(Nilsen & Reiso, 2021).

4. Some Countries in Europe

Past unemployment may have had widespread psychological repercussions that occur across the country. Research on the relationship between unemployment events throughout working life and psychological well-being was conducted in 14 European countries. The failure of the youth labor market is actually costly even though most teens have a relatively short period of unemployment (Nordström Skans, 2004).

5. Jepang

Japanese men have a lower employment status after they switch back to standard jobs. This study shows the importance of the labor market context in shaping the scarring effect of contingency work arrangements.(Bailey et al., 2013).

6. Swiss

This study found that there is a detrimental consequence called the scarring effect of early unemployment of young adults who have vocational credentials/certificates in Switzerland. A new conceptual framework on the scarring effect of the labor market was developed. Due to economic shocks such as the COVID-19 pandemic, the scarring effect of the labor market presents important policy issues. The career development approach is used to understand the process of scarring effect as it provides further insight into its socio-psychological manifestations and consequences (Tomlinson & Tholen, 2023).

7. Karibia

Several approaches are being taken to explore the medium-term scarring effects of natural disasters for countries vulnerable to climate change. These findings are important and urgent to build resilience to avoid the scarring effect for countries vulnerable to natural disasters, such as in the Caribbean region (Lian et al., 2022).

8. Hong Kong

This study observed that macroeconomic situations, especially periods of economic crisis, have a detrimental effect on the workforce. The adverse impact will occur in the economic crisis on the insecurity of the first job and the subsequent scarring effect on career prospects (Xu et al., 2024).

9. The UK

The UK has one of the highest proportions of highly educated workers in Europe but is also one of the most highest graduate unemployment. An important implication in these findings is that the argument from equality and efficiency to policies helps graduates achieve graduate-level jobs (Dickson et al., 2022).

IV. CONCLUSION

The right policy will certainly be useful in dealing with the scarring effect of labor in the future. Knowing the scarring effect of labor in several countries will help determine policies that suit needs. Based on the literature review conducted, the scarring effect occurs in various countries with different occurrences but has the same main problem, namely the labor scarring effect. The scarring effect theory predicts that the current unemployment effect has the potential to last for the rest of an individual's

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working life. Unemployment leaves young workers with scars. The failure of the youth labor market is actually costly even though most adolescents have a relatively short period of unemployment, economic shocks that cause the scarring effect of the labor market present important policy issues. These findings are important and urgent to build resilience to avoid the scarring effect for countries vulnerable to natural disasters. The implication of this literature review is that it can contribute to the workforce experiencing a scarring effect and prevent the occurrence of a scarring effect in the future. Regarding the direction of further research, this research can be continued by conducting research on other scarring effects besides the scarring effect of labor. This is done to find out the scarring effect other than labor. This research and subsequent research are important for policymakers to mitigate the potential long-term effects of *the scarring effect* in the future.

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