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Gender labor market outcomes during the COVID-19 pandemic: Evidence of she-cession in the Visegrád countries

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The effects of the COVID-19 pandemic showed that women's employment declined disproportionately than men's, prompting economists to coin the term "she-cession." This study examines the incidence and persistence of this phenomenon in the Visegrád economies using quarterly data on gender labor market outcomes from 2007Q1-2021Q4. The paper demonstrates that there is significant cross-country heterogeneity in the extent and severity of she-cession, with all the V4 countries demonstrating greater declines in women's employment rates than in men's. The Czech Republic suffered a severe she-cession compared to Hungary, Poland, and Slovakia. The COVID-19 she-cessions were often short-lived, lasting an average of one or two quarters, hence, it can be concluded that the V4 nations do not need to worry about the hysteresis effect of unemployment rates. The panel fixed effect model shows the significance of the gender labor market outcomes on economic progress measured by per capita GDP. Evidence demonstrates that women's labor market outcomes in the V4 countries have a significant impact on per capita GDP, which explains the advantage of eliminating gender disparities in the labor market.

Keywords: She-cession, COVID-19 pandemic, Gender Labor market outcomes

1. Introduction

Recently, gender equality and women's empowerment, both in wealthy and developing nations, have been at risk because of the converging effects of the COVID-19 pandemic, the global financial recession, and geopolitical warfare (Duflo, 2012). To close the gender gaps, a well-diversified economy that generates worthwhile employment opportunities, in particular industries like health and services, is needed (Dang–Nguyen, 2021). However, the COVID-19 shock resulted in enormous worldwide economic disruptions that had uneven economic ramifications on different groups of people in the labor market, with marginalized persons (women) being the most severely affected (Chetty et al., 2020; International Monetary Fund [IMF] 2021). The economic effects of the COVID-19 outbreak contrast those of a regular economic slump. Proponents contend that the COVID-19 pandemic had a significant impact on industries with a significant female workforce, leading to a situation known as "She-Cession," in which women's labor market outcomes and potential significantly decline in comparison to men's (Fabrizio et al., 2021; Alon et al., 2021; Albanesi–Kim, 2021). Contrarily, women in the United States saw lower unemployment rates than males during the global recession and had fewer cyclical employment patterns than men. Hence, the US experienced a "Man-cession" during the global 2008/9 financial crisis, which had a significantly greater negative impact on men's employment than it did on women's (Hoynes et al., 2012; Doepke–Tertilt, 2016). Determining the nature, extent,

and implications of gender labor market outcomes during the COVID-19 epidemic is, thus, a research concern.

The assumption that the pandemic recession would be a "she-cession" at the start of the crisis was made by Alon et al. (2020), based on many reasons. First, it rapidly became clear that the pandemic recession would have its greatest effects on more contact-intensive industries that are dominated by women, even as typical recessions heavily harm sectors with a male predominance, including construction and manufacturing (Mongey et al., 2021; Albanesi–Kim, 2021). Second, when schools are closed, as they were due to lockdowns associated with COVID-19, women typically shoulder a greater childcare responsibility (Adams-Prassl et al., 2020; Fuchs-Schündeln et al., 2020; Russell–Sun, 2020). Third, more women work part-time and in temporary employment, which are more likely to be terminated during a recession (Bahn–Cumming, 2020). Women were disproportionately affected by the associated job losses due to their predominance in service occupations. In addition, childcare responsibilities and school closures caused many women to quit the workforce. As a result, during the pandemic, both the supply and demand of female employment in the labor market suffered, eliminating a significant source of household welfare (Alon et al., 2020).

Even though the COVID-19 shock was associated with a high prevalence of transitory she-cessions, there is a great deal of country-to-country heterogeneity in policy interventions. Colombia experienced a severe she-cession, which was partially caused by the disproportionate number of women employed in the severely affected informal economy (Alvarez–Pizzinelli, 2021; García–Rojas et al., 2020). In the United States, the COVID-19 she-cession resulted in women with young children significantly exiting the job market because there were no other options for childcare due to lockdowns (Fabrizio et al., 2021). The UK, in contrast, did not experience a severe she-cession, probably because of better employee retention policies as well as other pro-women policies (Adams-Prassl et al., 2020). In the UK, mothers initiated furloughs more frequently than fathers did, but among employees without children, no such gender differences were revealed. Moreover, to avoid interruptions to the workforce, the United Kingdom specifically permitted nurseries and early childcare facilities to keep open (Pizzinelli–Shibata, 2023). In Hungary, Acheampong (2021) analyzed gendered COVID-19 impacts on the Hungarian labor market, depicting only the descriptive statistics of the gender gap. The study revealed that females were adversely affected by the COVID-19 pandemic in terms of employment and unemployment rates.

However, there are currently very few studies investigating the impact of the pandemic on gender disparity in a multi-country environment. Using a cross-country approach, Alon et al. (2021) discovered significant variations in the pandemic she-cessions across nations. They observed that the epidemic caused a sizable gender discrepancy in the number of hours worked in Germany and the US. In addition, they detected a significant gender disparity emerging in employment in the United States but not in Germany. These discrepancies suggest that governmental interventions (comprehensive furlough and short-time employment programs in Germany) played a significant role in supporting women's job retention following the downturn. Bluedorn et al. (2023) revealed a significant country-level heterogeneity, with around

two-thirds in a sample of 38 economies showing greater decreases in female employment rates. The average duration of these gender-specific COVID-19 effects was one or two quarters. Additionally, they demonstrated how the effects of COVID-19 on gender disparities in jobs across industries are closely tied to She-cessions.

The present analysis of pandemic-related "She-cessions" focuses on Visegrád countries (the Czech Republic, Poland, Hungary, and Slovakia) classified as emerging economies, contributing to the limited cross-country analyses. Using cross-country gendered labor market indicators at a quarterly frequency, the novelty of the study lies threefold. First, the period of analysis is extended from 2020 to 2021 to investigate the incidence and persistence of COVID-19 related She-cessions. A country is classified as being in a She-cession in a given quarter if the employment rate of women in that quarter has fallen more than that of men relative to their respective base year levels. Second, using the Panel fixed effect OLS model and incorporating global financial recession and the COVID-19 pandemic as dummies, the impact of gender labor market outcomes on the economic performance of V4 countries is investigated. Third, impulse-response functions are constructed to analyze how V4 economic growth reacted to either a reducing or increasing shock on the gender labor market outcomes and vice versa. Following this introduction of the effects of the pandemic on the labor market outcomes, this study aims to answer the following research questions:

1. What was the extent and implication of the COVID-19 she-cessions in the Visegrád countries?
2. How did the decline in the gender labor market outcomes affect the economic performance of the Visegrád countries?
3. Are the labor markets of the Visegrád countries at risk of the hysteresis effect?

The rest of the paper consists of 5 sections. I review the literature in Section 2 before discussing the she-cession concept and methodology in Section 3. I present the estimation results in Section 4 and finally conclude in Section 5.

2. Literature Review

2.1. Theoretical Framework

The idea of equal opportunity and the principle of social justice form the foundation for the requirement for gender parity in the workplace. While social justice addresses issues of the allocation of earnings and wealth, gender equality in employment, and the principle of equality of opportunity about individuals being treated equally (Burchardt, 2006; United Nations, 2006). In connection, many theories of the labor market explain the state of the labor market dynamics, notably for the suppression of unemployment and the achievement of full employment (Snowdon–Vane, 2005). The neoclassical approach contends that full employment is typical and that labor markets are inherently fair and efficient. Contrarily, the opponents – the radical and institutionalists likened to Marxism, Post-Keynesianism, Feminism, and the

segmented labor market theory – contend that the market structure is essentially unjust, with unemployment serving as the norm (Acheampong, 2021; Grimshaw et al., 2017).

Neoclassical proponents hold that the point at which labor supply and demand intersect at a specific wage rate is considered to be the equilibrium of labor markets. The amount of labor demanded by employers at the equilibrium wage rate is equal to the number of hours that people are willing to put in for that pay. Thus, the internal mechanisms in the economy will naturally adjust labor demand and supply to full employment and its natural rate of unemployment if the market deviates from the equilibrium condition (McConnel–Brue, 2008). Importantly, Say's Law forms the basis for the market-clearing premise of the neoclassical perspective, which holds that supply generates demand for itself (Sayre–Morris, 2006). In a similar vein, Muth's (1961) rational expectations theory holds that employers and employees have complete knowledge of the labor market, allowing them to foresee and adapt to future economic outcomes, notably, adjustments to the demand and supply of labor.

Neoclassical labor market assessments are disregarded by critical segmented labor market theory. The primary contention of the labor market segmentation hypothesis is that, as a result of prejudice and preconceptions in society, some groups of people are overrepresented in particular occupations and industries based on personal traits like sex and race (Blackburn, 2009), hence, the idea that labor markets are inherently fair is at odds with this viewpoint. The segmented labor market divides the labor market into two segments, the "good" and "bad" jobs, being distinguished on a qualitative level (Tilly, 2004). The secondary segment, which composes the bad jobs, is characterized by occupations with low pay, substantial turnover, random monitoring, and frequently horrific working environment as opposed to the primary segment, the good jobs, which are well-paying with favorable working conditions. Marginalized groups in the labor market including women more often occupy the secondary segment (Elder–Smith, 2010).

In connection with these theoretical underpinnings, economic downturns appear to have a variety of effects on the gender labor market's dynamics. More specifically, during the first year of the COVID-19 pandemic, many people experienced involuntary unemployment and shift cutbacks that significantly impacted their quality of life (ILO, 2020). The COVID-19 pandemic had an unequal effect on men and women globally and in different nations when it came to the labor market. Based on ILO (2020), there was a historic global employment loss of 114 million jobs in 2020 compared to 2019, however, in terms of relative employment losses, women, as well as young individuals, severely suffered more than men and older workers. Contrary to what was predicted by neoclassical theory, demand-side factors might be linked to the negative effects of the financial crisis on the labor markets, while both demand and supply factors in the labor market were linked to the negative effects of the COVID-19 pandemic on gender labor market outcomes.

2.2. COVID-19 and the Labor Market

Many nations implemented restrictions on individuals and enterprises in March 2020 to halt the spread of COVID-19, going as far as closing all business operations (Liu

et al., 2021; Feitelson et al., 2022). Constraints on economic activity caused a slump, which by historical standards resulted in a sharp rise in unemployment rates (Jena et al., 2021). The COVID-19 economic downturn hit its worst point after two months, with severe ramifications for the loss of lives and individuals' livelihoods (Groshen, 2020). Earlier recessions piled up over time, with rising unemployment lasting for at least five months (Rožman et al., 2021). In terms of the global greatest economies, the US GDP shrank by 5 percent and 32 percent in the first and second quarters of 2020, respectively, hiking the rate of unemployment from 3.5 percent to 14.7 percent, and experiencing the loss of 22 million jobs (Groshen, 2020). Similarly, in China, the first quarter of 2020 saw a sharp decline in GDP by 6.8 percent, the highest-ever contraction since 1992 (Kazunobu–Hiroshi, 2020). Moreover, the COVID-19 pandemic led to a drop in world trade, which aggravated the downturn in economies dependent on the network of international trade (Vidya–Prabheesh, 2020).

The COVID-19 pandemic had different effects on different industries, which were correlated with the severity of the restrictions put in place (Montenovo et al., 2020). In the first few months of lockdown, there were significant interruptions in the industries connected to the service sector, which is traditionally female-dominated, such as in transportation, hospitality, and tourism. The only exemptions were for critical essential service providers and nursing care, where the rate of employment remained stable or just slightly decreased (Bartik et al., 2020). Home confinement was one of the effects of the temporary shutdowns on households. This resulted in a sharp plunge in consumption expenditures (Jena et al., 2021) as well as income and wealth creation. This led to a rise in savings, which weakened aggregate demand. Because of this, expenditure on durable goods decreased, which in turn caused entrepreneurs to spend less on business investments (Meyer et al., 2022; Stiglitz, 2021), lowering the demand for labor. Regarding labor supply, people's capacity, and desire to work decreased as well because of the pandemic's danger to childcare services and school closures (Montenovo et al., 2022).

The main issue about labor market equilibria was the protracted permanence of increased unemployment rates brought on by the lockdown, which could result in a hysteresis effect (Stiglitz, 2021). Because of the rapid and severe economic shock brought on by the COVID-19 pandemic, conventional macroeconomic instruments were only partially effective in sustaining aggregate demand or supplying enterprises with liquidity (Chetty et al., 2020). Individuals did not believe in the success of the implemented government stimulus initiatives because of the economy's instability, and as a result, they did not react as anticipated (Coibion et al., 2020). Budgets for state and municipal governments were put under strain during the recession because of falling income and rising spending demands, hence, a considerable reduction in public service provisions, capital expenditures, and labor costs. Public expenditures acted procyclically due to the inability to finance expenses by taking on more debt coupled with a reduction in employment levels (Green–Loualiche, 2021).

Segmentation mechanisms on both the supply and demand sides of the labor market occur because it does not operate perfectly (Pissarides, 2000). Due to this, there are discriminatory access possibilities and working conditions (Holzer, 2005). The literature supports the notion that some workforce groups are discriminated against, as seen by increased unemployment and lower salaries. Women, those with

limited education, and skill levels (Belan et al., 2010), young people and the elderly (Golsch, 2004), immigrants, and members of racial and ethnic minorities (Pereira, 2012) are among those who experience discrimination. The rising rate of unemployment predominantly impacted the listed demographics in the early months of the COVID-19 pandemic (Montenovo et al., 2022). The forced switch to part-time work, implemented to lessen the number of layoffs during the crisis, had a greater significant negative impact on them (Cowan, 2020). A larger fall in employment among women attributes this phenomenon to the feminization of labor in sectors most affected by economic barricades. Also, parenting school-age children during the pandemic contributed to women's withdrawal from the job market and a drop in hours worked (Groshen, 2020).

In the European Union, the youth, particularly those with elementary or secondary education, suffered from financial hardship (Gavriluță et al., 2022), while in the US, low-income people were disproportionately impacted by the loss of employment (Chetty et al., 2020). More than 35% of workers in the lowest quintile of the income spectrum had experienced temporary joblessness, while just 9% of individuals in the highest quintile experienced the same (Cajner et al., 2020). In contrast, high-income employees endured temporary unemployment that lasted for a few weeks, whereas low-pay workers suffered far worse losses that prolonged for several months (Chetty et al., 2020). Employers started recruiting their former workers again as early as 2020 once the infection rate was put under control. Since nearly the whole economy was constrained, laid-off employees struggled to rapidly find new employment, and from the employer's standpoint, the re-hired employee did not need to be re-trained (Cajner et al., 2020).

In fact, following the initial lockdown restrictions, there was a lot of discussion about the economic impacts on the job market of social-distancing initiatives and a total lockdown. While some studies have concentrated on the rise in unemployment (Coibion et al., 2020), others have assessed what proportion of ordinary jobs can be performed without putting employees in danger of contracting COVID-19 or working from home. Lockdown tactics decrease contagion and mortality (with significant social and economic gains), but at the danger of a total shutdown of the economy – with significant consequences on the economic expansion. (Policy proposals that enable a return to normal economic functioning while protecting the most vulnerable were adopted to reduce this threat.) Other studies examined the distribution effects and asserted that COVID-19 had probably increased the income gap because it had greater detrimental effects on more vulnerable groups and people who work in the gig economy (Alon et al., 2020; Adams-Prassl et al., 2020).

2.3. Labor Market of Visegrád Countries Before the COVID-19 She-cession

The Visegrád Group was founded in 1991 in Visegrád, a town in Hungary (Zieliński, 2022). Integration was centered on the territories' proximity, a considerable degree of both cultural and historic cohesiveness, and shared customs. The survival of the V4 group – Poland, Czechia, Slovakia, and Hungary – was greatly aided by the similar economic development levels, institutional commonalities, and economic

systems of the member countries (Miljkovic, 2021; Dmytrów–Bieszk-Stolorz, 2019; Bieszk-Stolorz–Dmytrów, 2020). Due to the adoption of institutional reforms, huge technological advancements, enhancements in the quality of human capital, and fiscal consolidation policies, the Visegrád countries are now regarded as an example of the successful transition that increased their economic viability in the international market (Balcerzak–Pietrzak, 2016). The V4 economies' employment structures are dominated by the service sector, however, industry jobs still account for a sizable portion of total employment with agriculture accounting for a negligible portion. By 2019, the employment structure in the Czech Republic was 37.25% for industry, 60.09% for services, and 2.66% for agriculture. In Hungary, it was 32.09% for industry, 63.19% for services, and 4.727% for agriculture. In Poland, it was 32.13% for industry, 58.71% for services, and 9.15% for agriculture. In Slovakia, it was 36.09% for industry, 62.12% for services, and 2.79% for agriculture (Distribution of Employment by economic sector 2019).

The V4 group embarked on a phase of multi-year economic expansion after a time of hiked unemployment rates in the early 1990s brought on by the revolutionary recession (Tvrdon, 2011). Once the V4 nations joined the EU in 2004, favorable developments in the job markets accelerated. Foreign direct investment (FDI), which improved earnings and generated jobs, boosted the labor markets in V4. Czechia had a portion of employment in foreign-controlled firms 28.3%, Hungary had a portion of 26%, Poland had 19.9%, and Slovakia had 28.4% in 2018 (Distribution of Employment by economic sector 2019). Economic emigration to nations in Western Europe also hurt the labor supply in the V4 countries and, consequently, the unemployment rate (Lemos–Portes, 2008). The Visegrád nations have lower employment levels in comparison to Western Europe, which is counterbalanced by relatively high average working hours and better human capital (Sulich, 2016). However, with the declining trend in unemployment, the labor input in the V4 nations is no longer lower than in Western Europe when the total number of hours is taken into consideration (Kónya, 2008).

Due to their open economies and membership in the EU, the V4 nations are subject to labor market changes (employment and unemployment rates). The extent of openness is demonstrated by the GDP shares of exports and imports, which in 2020 were respectively 71% and 64.2% in the Czech Republic, 79.5% and 77.8% in Hungary, 56.2% and 49.4% in Poland, and 85.4% and 84.5% in Slovakia (World Bank, 2023). Poland participates significantly in global (EU) supply chains despite having the relatively lowest GDP share of the trade balance (Zieliński, 2022). The usage of flexible job options was one strategy for reducing unemployment (Mura et al., 2020). Employers benefit from non-standard employment arrangements since they lower personnel costs and make it simpler to end a contract in a recession (Mikołajczak, 2021). Employees' desire to work in non-standard forms (fixed-term employment, part-time employment, and self-employment) depends on the state of the market and the laws that are in effect; these laws affect the extent to which these forms are used in various economies. When flexible work is their only source of income, whether it began because of their initiative or the absence of traditional job offers, employees approach it uniquely (Blundell et al., 2014). In response to the financial crisis of 2008, temporary employment and part-time employment

increased significantly in the Czech Republic and Slovakia, self-employment decreased in Hungary, while part-time employment and self-employment increased in Poland (Zieliński, 2022).

To provide liquidity to businesses and safeguard workers during the epidemic, the V4 nations actively pursued fiscal and monetary strategies (reducing interest rates). Jobs were subsidized, social security premiums were eliminated or lowered, temporary changes were made to the income tax laws, and subsidies for rent, loans, and guarantees were given to businesses in all V4 nations (Zieliński, 2022). The Czech Republic provided the most assistance to enterprises in terms of GDP, followed by Hungary, Poland, and Slovakia. When direct non-returnable subsidies were used, Poland saw the highest proportion of entrepreneurs' gain (Czech et al., 2020). Hungary, in particular, devised a five-point economic protection strategy to lessen the possible negative effects of the lockdown restrictions on labor market outcomes: the first stage in the state's interventions was to take over a share of the wages paid by businesses that had to resort to reducing hours of work owing to the pandemic. The government also invested HUF 450 billion (EUR 1.23 billion) to create jobs. Giving economic stimulus to pandemic-hit sectors like tourism and hospitality was the third intervention. The fourth step was to make HUF 2,000 billion worth of discounted, treasury direct loans to Hungarian firms, while the fifth plan, named the "Family and Pensioner Protection Program," was to progressively reinstate 13th-month pensions (The Hungarian Government, 2020). The goal of all these government initiatives in Hungary was to lessen the negative effects that the COVID-19 pandemic had on the country's job market (Acheampong, 2021).

3. Methodology

From 2007 to 2021, quarterly OECD data were used to address the research questions. The data used is related to individuals aged between 15 and 64 years, defined as the working population by OECD. The comparison of quarterly data spanning the period 2019Q1 – 2021Q4 served as the starting point for the examination of labor market responses to the effects of the pandemic in the Visegrád nations. The choice of the study period was to determine the trends in the labor markets two years before the pandemic, and whether the COVID-19 pandemic disturbed those patterns. The table below includes information on the unemployment rate, employment levels, labor force participation, inflation, and GDP since 2007Q1.

Table 1. Variables and Measurement

Variable	Measurement	Source
Employment, men	Men, % of the working population aged 15-64	OECD database
Employment, women	Women, % of the working population aged 15-64	OECD database
Unemployment, men	Men, a percentage of the labor force	OECD database
Unemployment, women	Women, a percentage of the labor force	OECD database
Gross Domestic Product	Gross domestic product - US $, current prices, current PPPs, seasonally adjusted	OECD database
Labor force participation, men	Men, a percentage of individuals aged 15-64 (OECD estimate)	OECD database
Labor force participation, women	Women, a percentage of individuals aged 15-64 (OECD estimate)	OECD database

Source: own construction based on OECD database

I apply the idea of she-cession to enable an evaluation of the implications of the COVID-19 pandemic on the extent and growth in asymmetries in the labor market outcomes and evaluate changes in the pattern of employment and unemployment using 2019 as the base year. Equation 1 defines the percent changes in the employment rates of men and women.

$$\Delta\, e_{t,2019\ Average}^{Diff\ Ratio,W-M} = \frac{e_t^w}{e_{2019\ average}^w} - \frac{e_t^m}{e_{2019\ average}^m} \qquad (1)$$

Where $e_{2019\ average}^w$ and $e_{2019\ average}^m$ represent the average rates of employment between women and men respectively in 2019 (a year before pandemic). while e_t^w and e_t^m define the women and men employment rates in a certain quarter between 2020Q1 – 2021Q4. Equation 1 denotes the change in She-cession gender inequality, which shows the relative variations in employment rates between women and men. A country is said to be in she-cession if the change in employment gender disparity $\Delta\, e_{t,2019\ Average}^{Diff\ Ratio,W-M}$ is negative, implying that the proportionate change in women employment is higher than that of men.

I construct the impulse-response functions from an estimated Panel Vector autoregression to evaluate the dynamic relationship between labor market outcomes and macroeconomic indicators arising from the COVID-19 pandemic effect. The PVAR model order m is therefore described as follows:

$$Y_{it} = \beta_1 Y_{it-1} + \beta_2 Y_{it-2} + \cdots\cdots\cdots + \beta_{m-1} Y_{it-m+1} + \beta_m Y_{it-m} + \mu_{it} \qquad (2)$$

Where

$i = 1 \ldots \ldots \ldots \ldots \ldots \ldots n$ captures country-specific,
$t = 1 \ldots \ldots \ldots \ldots T$ represents the time (year)
$Y_{it} =$ represents the vector of endogenous variables $(1\ x\ k)$
$\beta_1, \beta_2, \ldots \ldots \ldots \ldots \beta_{m-1}, \ldots . \beta_m =$ captures the coefficients to be estimated denoted as (k x k) matrix, $\mu_{it} =$ vector of the idiosyncratic errors

The following process entails the PVAR model estimation procedure. Using the Im, Pesaran, and Shin (2003) (IPS) or Levin, Lin, and Chu (LLC) approaches, series stationarity is tested first. These tests examine the degree to which the series' value in the current t period is influenced by its value in the preceding t period expressed as AR (1) process.

$$Y_t = \gamma_i Y_{t-1} + \mu_t \quad (3)$$

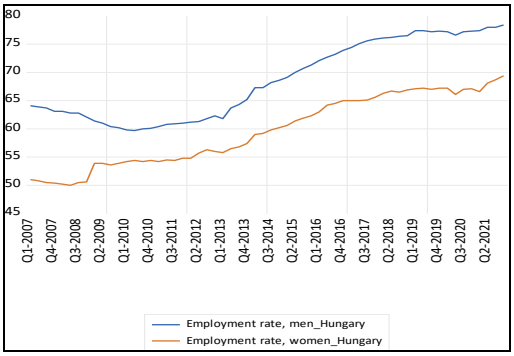
LLC operates under the premise that unit root coefficients are homogeneous ($\gamma_i = \gamma$), while IPS operates under the assumption that unit root coefficients are heterogeneous. Second, using the F test, LM/Honda test, and Hausman test, it is determined whether the pooled, random, or fixed effect model is appropriate for estimation before PVAR estimation. Last, the impulse response functions (IRFs) are estimated to ascertain how a shock to the GDP affects labor outcomes for men and women over time and vice versa. IRFs have the benefit of separating the dynamic behavior of one variable brought on by shock to another parameter in the system while keeping the shock constant (Love–Zicchino, 2006).

4. Results and Discussion

A trend analysis of the employment and unemployment patterns in Visegrád countries from 2007Q1 to 2019Q4 identified a gender gap in the labor market outcomes, with on average more males employed than women in relation to unemployment rates, before the COVID-19 epidemic. The discrepancy grew from 2020Q1 to 2021Q4 due to the pandemic, which has been continuously widening over time. Since 2007Q1, all of the V4 countries have seen men with higher employment levels than women, as shown in Figures 1, 2, and 3. With 64.1% of men's employment levels and 51% of women's employment levels as a percentage of all employment levels in Hungary, there is a significant gender pay difference. However, the disparities between men's and women's work levels began to reduce in the second quarter of 2009, when men's employment levels fell by 4.1% and women's employment rates rose by 3%. At the same time period, Slovakia likewise had a sharp decline in male employment rates, whereas Poland and the Czech Republic saw very modest differences in employment between men and women. The global recession induced by the global financial crisis of 2008/2009 and the European debt crisis resulted in a fall in men's employment levels relative to women's between 2009Q1 and 2013Q3. This demonstrates that the V4 nations also went through a "He-cession" during the global recession, just like the US. However, the labor market prospects bounced back from the shock starting in

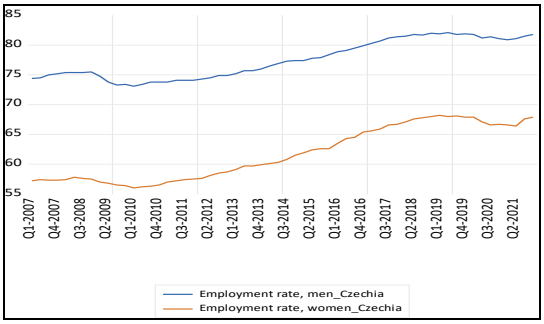
2014, with employment levels rising for both men and women but maintaining a gender disparity in employment throughout the V4 countries.

Figure 1. Trends in employment levels in Hungary by gender (2007Q1-2021Q4)



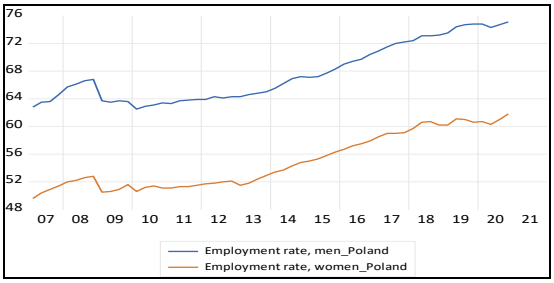
Source: own computation based on OECD database

Figure 2. Trends in employment levels in the Czech Republic by gender (2007Q1-2021Q4)



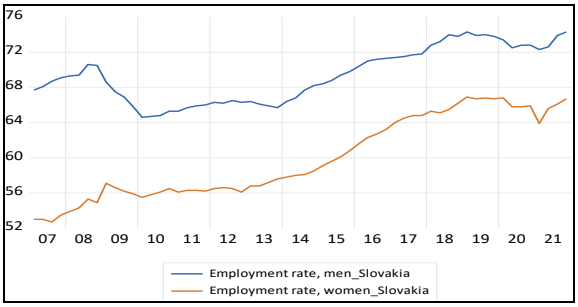
Source: own computation based on OECD database

Figure 3. Trends in employment levels in Poland by gender (2007Q1-2021Q4)



Source: own computation based on OECD database

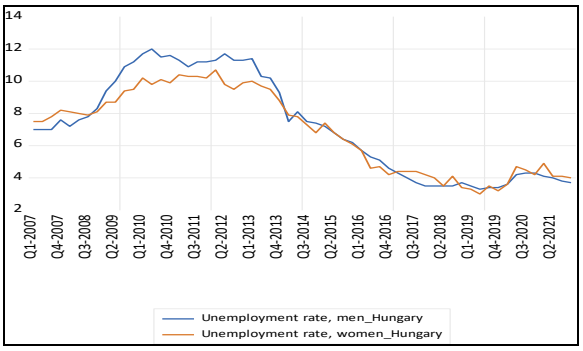
Figure 4. Trends in employment levels in Slovakia by gender (2007Q1-2021Q4)



Source: own computation based on OECD database

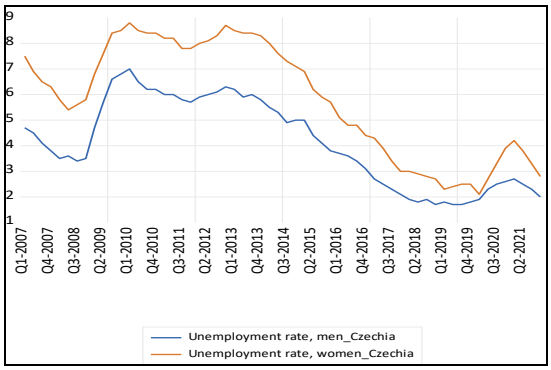
In the Czech Republic, there was a significant gender disparity in unemployment, with a dramatic increase from 2009Q1 to 2010Q1. In Poland, Slovakia, and the Czech Republic, women experienced greater unemployment rates than males did, but the difference had closed up by 2019Q1, shortly before the COVID-19 pandemic (Poland closed the gap in 2015Q4). Interestingly, the gender gap in unemployment rates in Hungary closed down in 2008Q3 (7.8%), and intriguingly, the unemployment rate for males increased relative to that for women from 2008Q4 to 2014Q1, after which the pattern became cyclical for both sexes. Notably, even during the COVID-19 pandemic period, the gap between the jobless rates for men and women had significantly closed. Figures 6, 7, and 8 below demonstrate the trends in the unemployment rates in the V4 nations. The findings offer the conclusion that during the period of the European debt crisis and the global recession, when men's labor market outcomes were most negatively impacted by the shocks, there was evidence of "he-cession" in all of the Visegrád nations, though the effects were short-lived.

Figure 5. Trends in Unemployment levels in Hungary by gender (2007Q1-2021Q4)



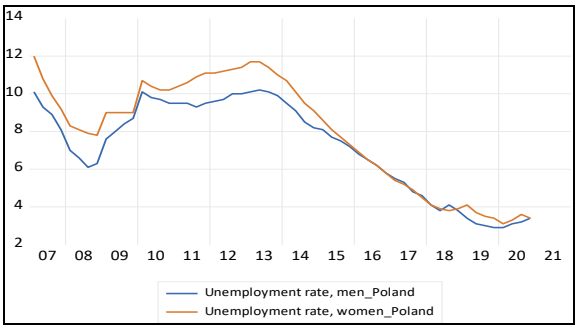
Source: own computation based on OECD database

Figure 6. Trends in Unemployment levels in the Czech Republic by gender (2007Q1-2021Q4)



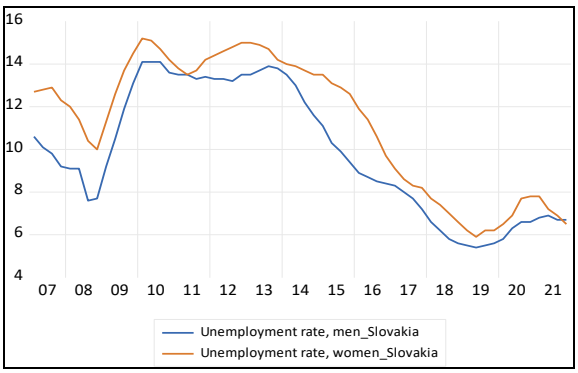
Source: own computation based on OECD database

Figure 7. Trends in Unemployment levels in Poland by gender (2007Q1-2021Q4)



Source: own computation based on OECD database

Figure 8. Trends in Unemployment levels in Slovakia by gender (2007Q1-2021Q4)



Source: own computation based on OECD database

The severity of the labor market inequities in the V4 economies has been significantly impacted by the pandemic, as shown by Table 2's quarterly trends in employment and unemployment rates. The findings indicate that the pandemic had a variety of effects on gender disparities in labor market outcomes, but it also temporarily reverted the declining trend in unemployment rates that had been observed in all V4 countries before the COVID-19 outbreak. Slovakia (1.3%), Hungary (0.9%), Czechia (0.9%), and Poland (0.8%) saw the largest increases in the unemployment rate for men compared to the fourth quarter of 2019 (Q4). Slovakia (1.6%), Czechia (1.7%), Hungary (1.7%), and Poland (0.3%) all had considerable increases in the unemployment rates for women compared to the fourth quarter of 2019. We see that Slovakia had the highest rates of unemployment for both sexes during the pandemic, whereas Poland saw a return to pre-pandemic unemployment levels in 2021Q4. Employment in Czechia had been rising before the pandemic, but the COVID-19 outbreak reversed the trend (a decrease in employment) for both men and women until 2021Q4 when the pre-pandemic levels were restored. Comparable trends were observed in Slovakia, however there was a slower decline there than in Czechia. Women's employment levels were restored in 2021Q4, while men's employment levels were restored in 2021Q3. Men and women's employment levels in Hungary and Poland reached their pre-pandemic levels in 2020Q4 and 2020Q3, respectively, and started to rise again.

Table 2. Trends in employment and unemployment levels across gender in V4 countries

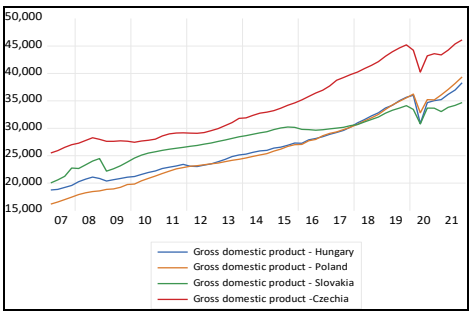
		Czechia				**Hungary**		
Year	Emp_ men	Emp_ women	Unemp_ men	Unemp_ women	Emp_ men	Emp_ women	Unemp_ men	Unemp_ women
2019Q4	81.9	67.9	1.8	2.5	77.3	67.2	3.4	3.2
2020Q1	81.8	67.9	1.9	2.1	77.2	67.2	3.6	3.6
2020Q2	81.2	67.1	2.3	2.7	76.6	66.1	4.2	4.7
2020Q3	81.4	66.6	2.5	3.3	77.2	67	4.3	4.5
2020Q4	81.1	66.7	2.6	3.9	77.3	67.1	4.3	4.2
2021Q1	80.9	66.6	2.7	4.2	77.4	66.6	4.1	4.9
2021Q2	81.1	66.4	2.5	3.8	78	68.1	4	4.1
2021Q3	81.5	67.6	2.3	3.3	78	68.7	3.8	4.1
2021Q4	81.8	67.9	2	2.8	78.4	69.4	3.7	4
		Poland				**Slovakia**		
	Emp_ men	Emp_ women	Unemp_ men	Unemp_ women	Emp_ men	Emp_ women	Unemp_ men	Unemp_ women
2019Q4	74.8	60.6	2.9	3.4	73.8	66.7	5.6	6.2
2020Q1	74.8	60.7	2.9	3.1	73.4	66.8	5.8	6.5
2020Q2	74.3	60.3	3.1	3.3	72.5	65.8	6.3	6.9
2020Q3	74.7	61	3.2	3.6	72.8	65.8	6.6	7.7
2020Q4	75.1	61.8	3.4	3.4	72.8	65.9	6.6	7.8
2021Q1	76.5	62.4	3.7	3.7	72.3	63.9	6.8	7.8
2021Q2	76.5	63.7	3.7	3.5	72.6	65.6	6.9	7.2
2021Q3	77	64.5	3.2	3.3	73.9	66.1	6.7	6.9
2021Q4	77.2	64.6	3.1	3.2	74.3	66.7	6.7	6.5

Source: own computation based on OECD database
Note: Emp_men – employment rate, men; Emp_women – employment rate, women; Unemp_men – unemployment rate, men; Unemp_women -unemployment rate, women (expressed in percentage, Quarterly)

Variations in the rate of economic productivity were the reason behind the different changes in the unemployment rate and employment rate in V4 economies. The

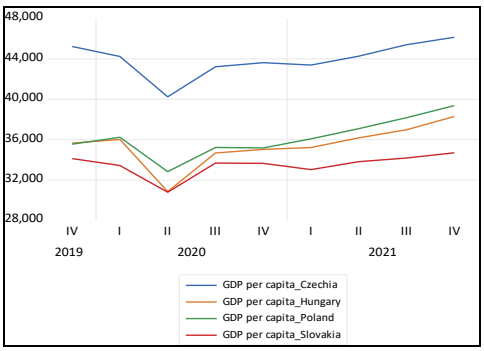
increase in employment in Poland during the pandemic period was matched by a minor recession in 2020 (GDP declined by 2.5%), which was more than offset in the following year (GDP expanded by 5.7%). The rest of the V4 countries performed slightly worse in terms of growth, posting the following annual growth rates: Slovakia at 3.0% in 2021, following a growth rate of 4.4% in 2020; Czechia at 3.3% in 2021, following a growth rate of 5.8%; and Hungary at 7.1% in 2021, following a growth rate of 4.7% in 2020, which supported their recovery of pre-pandemic employment rates (Zieliński, 2022). Figure 9 shows the patterns in per capita GDP in the V4 countries from the first quarter of 2007 to the fourth quarter of 2021, with a severe decline shown during the COVID-19 era before the economies recovered from the recession. Since 2007, the Czech Republic has had the greatest economy among the V4 nations, followed by Slovakia, Hungary, and then Poland. Nonetheless, Slovakia was surpassed by Hungary and Poland in terms of a rise in GDP per capita in 2018. Since a minor recession in 2008, brought on by the global financial crisis of 2008–2009, which Slovakia experienced more severely than the other V4 nations, the trajectory in economic growth in those nations has been growing.

Figure 9. Trends in GDP per capita of Visegrad countries (2007Q1-2021Q4)



Source: own computation

Figure 10. Trends in GDP per capita of Visegrád countries (2019Q4-2021Q4)



Source: own computation

Figure 10 shows indications of a COVID-19 recession with a trough in 2020Q2 when considering developments in the per capita GDP of the V4 nations over the COVID-19 pandemic era. By 2020Q2, Poland had seen a 7.65% decline in GDP per capita, the Czech Republic had experienced a 10.99% decline, Slovakia had experienced a 9.75% decline, and Hungary had experienced a 13.48% decline in GDP per capita compared to 2019Q4 projections. The economies began to improve in 2020Q3, but 2021Q1 saw a minor decline in the economies of the Czech Republic, Hungary, and Poland. It is noteworthy that, resuming an upward trend in growth, all of the V4 countries recovered from the COVID-19 recession and reached their pre-pandemic per capita GDP by 2021Q2.

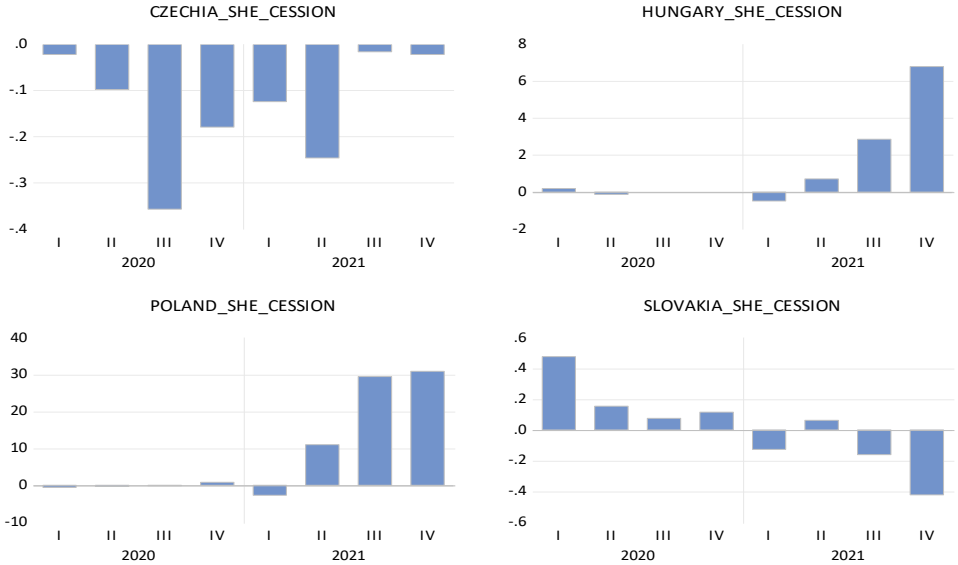
The results of the She-cession gender gap shift are shown in Table 3 and Figure 11, which is represented by Equation 1 and reflects the significant variations in employment levels between men and women compared to its average in 2019. She-cession, as has been noted, happens when the decline in women's employment rates is disproportionately bigger than that of men's. In the Czech Republic, the progression of the employment rate by gender fell below the 2019 average during the whole COVID-19 period, from 2020Q1 to 2021Q4. This is evidence of severe she-cession in Czechia relative to Hungary, Poland, and Slovakia. Predictably, there is a precipitous drop (trough) in the employment rate by gender in Czechia in 2020Q3 and 2021Q2 (see Figures 10 and 11). This decline was caused by the country's severe lockdowns that were implemented to stop the spread of COVID-19. In Hungary, Poland, and Slovakia, the she-cession trough was noted in the first quarter of 2021. The entire COVID-19 period (2020Q1-2021Q4) saw a severe she-cession in Czechia, whereas Hungary and Poland only had a modest decline in 2020. It is interesting to note that Slovakia did not undergo she-cession in 2020, unlike the other V4 nations, however, it experienced a she-cession trough in 2021Q1 and 2021Q4. This demonstrates the surprising degree of variation in She-cession experiences among the Visegrád countries. The heterogeneity might be attributed to the variety of policies that were enacted and put into place at different times in order to stop the spread of COVID-19, flex the labor market, and ease containment measures. The results are in line with those of Zieliński (2022), whose she-cession analysis found cross-country heterogeneity.

Table 3. Visegrád She-cession

	CZECH_ She-cession	HUN_ She-cession	POL_ She-cession	SLVK_ She-cession
2020Q1	-0.0218	0.1945	-0.5930	0.4765
2020Q2	-0.0976	-0.1255	-0.2974	0.1541
2020Q3	-0.3570	0.0000	-0.1026	0.0760
2020Q4	-0.1790	0.0000	0.8129	0.1157
2021Q1	-0.1242	-0.4863	-2.6847	-0.1263
2021Q2	-0.2461	0.7111	11.0047	0.0622
2021Q3	-0.0162	2.8667	29.4435	-0.1611
2021Q4	-0.0218	6.7980	30.8948	-0.4222

Source: own construction based on OECD database

Figure 11. Trends in GDP per capita of Visegrád countries (2020Q1-2021Q4)



Source: own construction based on OECD database

In the Czech Republic, the economy hit a she-cession low in 2020Q3, meaning that the employment rates of women fell more sharply than those of men. In 2020Q4 and 2021Q1, the economy returned to pre-pandemic levels. But, in 2021Q2 and 2021Q4, the economy saw a second decline into a she-cession trough. After the she-cession trough in Slovakia's economy in 2021Q2, there was a trend reversal in 2021Q2, but in 2021Q3 and 2021Q4, the economy experienced another she-cession trough. Discussions about the hysteresis effect on labor market results in V4 countries may be sparked by the differences in she-cession experiences in those countries. Slovakia did not have a she-cession trough in 2020, but from the start of the COVID-19 pandemic until 2020Q4, women's employment levels began to decline. It is claimed here that the V4 countries did not experience the hysteresis effect since women's employment rates began to rise after the recovery and the she-cessions impacts were transient because the rise in unemployment rates during the pandemic period was rather moderate in all countries.

The gradual recovery in some of the originally hardest-hit economic sectors, like the hotel and service industries, which are dominated by women, may help to explain the she-cession recovery paths in different regions of V4 countries. In addition, the containment measures put in place to stop the pandemic's spread had been eased, and by 2020Q4 schools and childcare facilities had reopened, allowing women to return to the workforce. It should be noted that by 2020Q4 the economies had also recovered from the GDP recession, implying a rise in production capacity and, consequently, a rise in employment for both men and women. Gender disparities in employment rates that already existed did not change, even when the initial COVID-19 exacerbation of the gender gap subsided.

Notwithstanding the she-cession recovery in V4 countries, COVID-19 increased the gender employment gap. These results contrast with those from the global financial crisis, which showed that the U.S. labor market experienced a "He-cession" during the global financial recession (Hoynes et al., 2012; Wall, 2009).

I also investigated how the gender labor market outcomes affected economic performance, as assessed by per capita GDP, in light of the evidence that COVID-19 significantly affected gender labor market outcomes, i.e. She-cession in V4 countries. In order to accomplish this goal, we used the Panel Fixed effect OLS model for quarterly data between 2007Q1 and 2021Q4, with GDP per capita as the predicted variable, and the gender labor market outcomes of employment, unemployment, and labor force participation as the predictors. To better understand the structural flaws in the economy, I also incorporated dummy variables for the COVID-19 pandemic and the 2008 global financial crisis.

An economic or political shock to one of the panel's countries can be tested for cross-sectional dependence to see if it has an impact on the other countries. When conducting the analysis, it is important to account for any such interactions. Results could be skewed when a cross-sectional dependence exists but is neglected. I tested cross-sectional dependence using LM, scaled LM, and CD tests (Breusch–Pagan, 1980; Pesaran, 2007). The results in Table 4 depict that the prob < 0.05 at a 5% level of significance, hence, I reject the null hypothesis of no cross-sectional dependency and conclude that there is cross-sectional dependency among the V4 countries. This implies that the financial crisis or the COVID-19 shock to one of the Visegrád member countries resulted in spillover effects to other member countries.

Table 4. Cross-sectional Dependence test

Residual Cross-Section Dependence Test			
Null hypothesis: No cross-section dependence (correlation) in residuals			
Equation: Untitled			
Periods included: 60			
Cross-sections included: 4			
Total panel observations: 240			
Cross-section effects were removed during estimation			
Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	23.91189	6	0.0005
Pesaran scaled LM	5.170717		0.0000
Bias-corrected scaled LM	5.136819		0.0000
Pesaran CD	2.022204		0.0432

Source: own computation

Consequently, I also applied the F test to ascertain the choice of the Panel fixed effect model instead of Panel Pooled OLS. The null hypothesis is of no fixed effects on the panel and if it is rejected then it is decided that the individual effects are fixed in the panel over time. From Table 5, the null hypothesis is rejected for cross-section and period since prob = 0.000 < 0.05 implying that cross-section (individual) effects and time effects are fixed. Evaluating the two effects together (cross-section/period F) also leads to the rejection of the null hypothesis since prob = 0.000 < 0.05, hence, the effects are fixed, ascertaining the choice of Panel fixed effect OLS in the analysis.

Table 5. F-test for fixed effect model

Redundant Fixed Effects Tests			
Equation: Untitled			
Test cross-section and period fixed effects			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	72.795633	(3,171)	0.0000
Cross-section Chi-square	197.498374	3	0.0000
Period F	8.760191	(59,171)	0.0000
Period Chi-square	334.058171	59	0.0000
Cross-Section/Period F	9.178357	(62,171)	0.0000
Cross-Section/Period Chi-square	351.615641	62	0.0000

Source: own computation

Table 6. Panel Fixed Effect Model

Dependent Variable: LNGDP				
Method: Panel Least Squares				
Date: 04/10/23 Time: 22:49				
Sample: 2007Q1 2021Q4				
Periods included: 60				
Cross-sections included: 4				
Total panel (balanced) observations: 240				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNEMPLOYMENT_MEN	-0.006343	0.010015	-0.633299	0.5272
LNEMPLOYMENT_WOMEN	0.009655	0.004071	2.371315	0.0186
LNLABORFORCE_MEN	0.030354	0.009410	3.225905	0.0014
LNLABORFORCE_WOMEN	0.013546	0.004051	3.343915	0.0010
LNUNEMPLOYMENT_MEN	0.044685	0.010444	4.278480	0.0000
LNUNEMPLOYMENT_WOMEN	-0.051037	0.007816	-6.530127	0.0000
COVID_19	0.033505	0.017227	1.944968	0.0530
FINANCIAL_CRISIS_2008	-0.017878	0.017036	-1.049396	0.2951
C	7.035788	0.210795	33.37747	0.0000
R-squared	0.927860	Mean dependent var		10.24474
Adjusted R-squared	0.924379	S.D. dependent var		0.223662
S.E. of regression	0.061505	Akaike info criterion		-2.690681
Sum squared resid	0.862500	Schwarz criterion		-2.516649
Log-likelihood	334.8818	Hannan-Quinn criteria.		-2.620559
F-statistic	266.5924	Durbin-Watson stat		0.256651
Prob(F-statistic)	0.000000			

Source: own computation

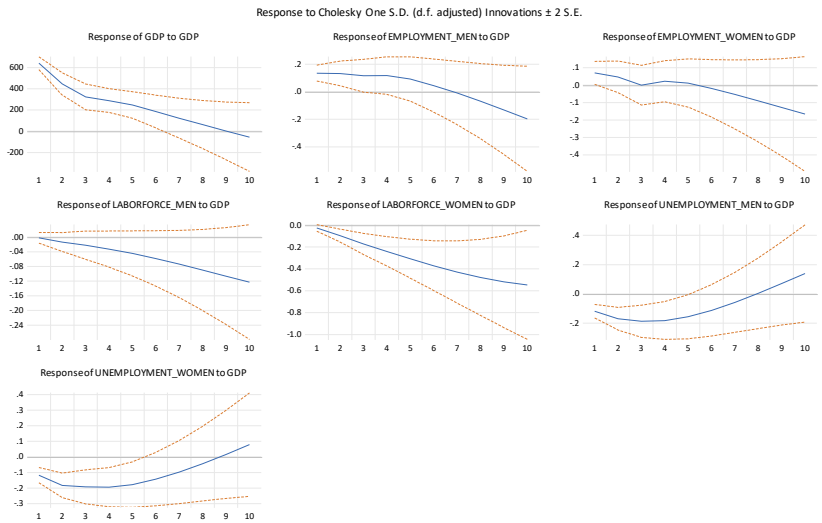
The findings in Table 6 demonstrate the model's overall significance at a 5% level of significance (F-statistics 266.5924, prob = 0.0000 < 0.05). Additionally, the model's explanatory power, as indicated by Adjusted R^2 and R^2, demonstrates that between 2007Q1 and 2021Q4, the gender labor market outcomes accounted for 92.4% of the differences in per capita GDP. Apart from men's employment levels (prob = 0.5272 > 0.05), labor market outcomes were found to significantly affect per capita GDP (p-value < 0.1). Men's employment levels have a negative impact on GDP per capita ($\beta = 0.6343\%$), however, it is insignificant, whilst women's employment levels have a positive significant impact ($\beta = 0.009655$). This implies that women's employment levels raise per capita GDP in V4 countries by 0.9655%, ceteris paribus. The labor force participation rates of males ($\beta = 0.030354$) and females ($\beta = 0.013546$) both increase per capita GDP by 3.0% and 1.3%, respectively. Women's unemployment rate has a negative significant impact on per capita GDP while men's unemployment positively influences economic growth. As was the case during the COVID-19 period, there was evidence of she-cession in the V4 countries where women employment levels declined disproportionately than men's. This resulted in the withdrawal of women from the labor force hence increasing involuntary unemployment and reducing domestic

demand and consumption in the economy. Based on these results, women's labor market outcomes in V4 countries have a significant impact on per capita GDP, which helps explain the advantages of eliminating gender disparities in the workforce. The results are in line with feminist perspectives that gender equality, in the labor market, is a macroeconomic variable and when women's full potential is realized in the economy then it results in macroeconomic efficiency.

The global financial crisis had an insignificant effect (prob = 0.2951 > 0.05), however, the COVID-19 pandemic had a significant impact (prob = 0.000 < 0.05) on per capita GDP, all treated as dummies to account for structural breaks in the model. Interestingly, the COVID-19 outbreak contributed to a rise in economic growth in V4 nations ($\beta = 0.033505$). This implied that during the COVID-19 period, the shock had a cross-sectional fixed effect on all V4 countries, and their economies grew by 3.35% on average. This result confirms the findings in Figure 10, which showed an increase in per capita GDP in the V4 countries during the COVID-19 pandemic period despite a slight decline. Manufacturing and other non-contact-intensive industries were less affected by the COVID-19 outbreak and continued to operate, necessitating production in the economy, and boosting economic growth.

Figure 12 shows the impulse-response functions that illustrate how per capita GDP and gender labor market outcomes respond to either a diminishing or an increasing shock. I initially identified the response of the series to its own shock to ascertain whether the shock on the series is lessening or increasing. When we look (top left) at how per capita GDP reacted to its own shock (by initially declining), we may infer that it was a decreasing shock. So, in response to a decreasing shock to per capita GDP, women's employment rate and both men's and women's labor force participation responded in the direction of the drop, whereas men's and women's unemployment rates responded by rising. The COVID-19 pandemic resulted in a slight recession (decline in per capita GDP) which also negatively impacted the gender labor market outcomes (see Figures 1-8).

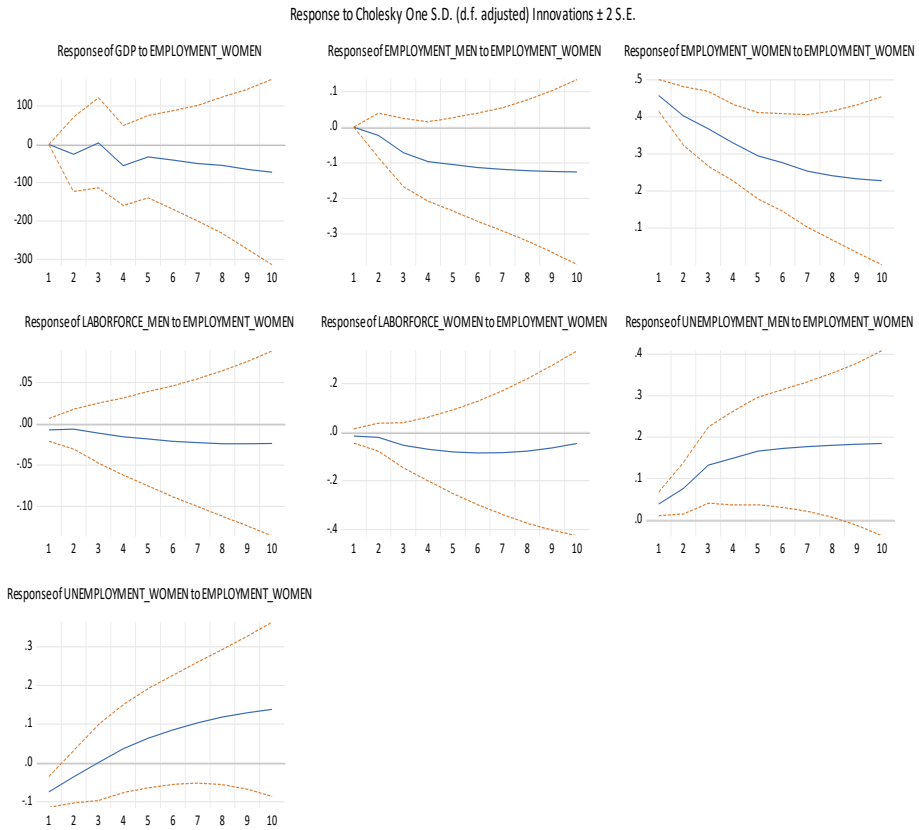
Figure 12. Impulse-Response functions computed from Panel VAR estimation



Source: own computation

In a similar vein, we can see how changes in the per capita GDP and other gender labor market outcomes were influenced by a shock to the employment rate of women (the She-cession scenario). Figure 13 shows that following a decreasing shock (top right) to women's employment levels, per capita GDP, and men's employment rates, both men's and women's unemployment rates reacted by initially increasing. The panel fixed effect model showed the significance of women's employment rates on economic progress hence a reducing shock on the former reciprocate similar effects to the latter. The fact that both men's and women's employment levels declined as a result of the COVID-19 epidemic, but that women's employment levels declined proportionately more than men's did, and that both men's and women's unemployment rates rose, supports the behavior of the impulse-response functions.

Figure 13. Impulse-Response functions computed from Panel VAR estimation



Source: own computation

5. Conclusion

Unique characteristics of the COVID-19 pandemic recession, such as extensive economic lockdowns, school closings, and significant losses in contact-intensive industries, raised worries about the disproportionately negative effects on women's

employment prospects. This paper has examined a panel of Visegrád economies through 2021 and found significant heterogeneity in the extent and severity of the she-cessions, where women's employment rate declines proportionately higher than men's. In the Czech Republic, the progression of the employment rate by gender falls below the 2019 average during the whole COVID-19 period, from 2020Q1 to 2021Q4. This shows that Czechia suffered major she-cession compared to Hungary, Poland, and Slovakia. Predictably, there was a significant decline (trough) in Czechia's employment rate by gender in 2020Q3 and 2021Q2, which was spurred by the country's rigorous lockdowns and containment procedures designed to stop the spread of COVID-19. In Hungary, Poland, and Slovakia, the she-cession trough was noted in the first quarter of 2021. The entire COVID-19 period (2020Q1-2021Q4) saw a severe she-cession in Czechia, whereas Hungary and Poland only had a modest decline. It is interesting to note that Slovakia did not undergo she-cession in 2020, unlike the other V4 nations. There was a she-cession trough in 2021Q1 and 2021Q4 in Slovakia. Moreover, she-cessions also tended to be short-lived, with the Hungary and Poland recovering from she-cession by 2021Q1.

The significant inter-country heterogeneity raises the question of what structural features or differences in policy responses might account for inter-country heterogeneity in the incidence of COVID-19-related she-cessions. One institutional aspect that may have caused women's worse labor market outcomes in the acute period of the COVID-19 epidemic was the gender discrepancy in the fraction of workers on temporary employment and variations in the stringency of job protection. For pandemic policy responses, stricter lockdowns were linked to less significant alterations in the gender imbalance in the labor market, but harsher school closures were linked to larger gender differences. Before the pandemic, the labor markets of three of the four V4 nations (Poland 2.9% men and 3.4% women; Czechia 1.8% men, 2.1% women; Hungary 3.4% and 3.2% for men and women, respectively) were described by unemployment rates similar to frictional unemployment, remaining in a state of close equilibrium. In these countries, the pandemic led to a slight uptick in the unemployment rate for all genders. In Slovakia, where the jobless rate was already the worst among the V4 countries (2019Q4), with 5.6% for males and 6.2% for females, the effects of the pandemic on the unemployment rate were slightly more pronounced. Furthermore, the lack of an impact on Czechia and Slovakia and the return to pre-pandemic employment levels in Poland and Hungary by 2021Q2 may be attributed to differences in economic systems. Both the percentage of employment in industry and the percentage of employment in businesses under foreign ownership are lower in Poland and Hungary. This could mean that the disruption of supply chains has a greater negative impact on employment in the industry than it does on services.

The low unemployment rate at the end of 2019Q4 may have led to weak employer responses in the form of layoff decisions, i.e. employers may have been concerned about the difficulty of recovering laid-off workers who may have found another job. The modest severity of the recession in 2020 and the recovery in 2021, as well as financial help from public funding for businesses affected by the lockdown, granted that employment was preserved, were two further factors preventing an increase in unemployment in the V4 countries. It is safe to conclude that V4 nations do not need to worry about the hysteresis effect as a result of a slight increase in

unemployment caused by the COVID-19 pandemic. Moreover, labor market outcomes have a significant impact on economic growth measured by per capita GDP in Visegrád economies. The impulse-response functions revealed two-way nexus between gender labor market outcomes and economic growth in case of a shock like the COVID-19 pandemic.

To conclusively determine what generated cross-country disparities in COVID-19 she-cessions, future research utilizing cross-country microdata analysis on gender labor market outcomes across the pandemic would be needed. Significant structural factors that contribute to women's poor employment trends during the COVID-19 she-cessions include women's higher employment ratios in the service and hospitality sectors. Policymakers could work to ensure that there are affordable and dependable childcare alternatives (public or private) open throughout, that family leave is accessible for equitable use by men and women (acknowledging evolving gender responsibilities), and flexibility in working hours.

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