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Revisiting Social Protection and Labor Policies: A Panel Data Analysis of Their Impact on Economic Growth

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This study comprehensively examines the impact of social protection and labor policies on economic growth using a panel data approach, incorporating a diverse set of countries and economic conditions. The empirical analysis reveals that social protection and labor policies do not exhibit a statistically significant effect on economic growth in the observed period. However, another key variable in the model demonstrates a strong and significant positive relationship with economic growth, highlighting the presence of alternative influential factors that drive economic performance. The findings suggest that while social protection and labor policies serve crucial roles in fostering social equity, stability, and workforce productivity, their direct contribution to economic growth remains limited in the analyzed framework. This underscores the complexity of economic growth determinants, where structural factors, institutional quality, technological advancements, and macroeconomic stability may exert a more pronounced influence. Additionally, the study raises important considerations for policymakers regarding the trade-offs between economic efficiency and social welfare objectives. Given the intricate nature of these relationships, further research is essential to explore the long-term implications of social protection and labor policies on economic development. Future studies should incorporate additional variables, such as innovation capacity, capital accumulation, and policy implementation effectiveness, to provide a more nuanced understanding of the interactions between social policies and economic growth. Expanding the dataset and employing alternative econometric techniques could also offer deeper insights into potential indirect effects and contextual variations across different economic environments.

1. Introduction

Economists and political scientists have investigated the relationship between a country's economic performance and democracy. They often examine how democracy is impacted by economic growth. Economists also investigate the effects of economic freedom and democracy on the development of a nation's economy. (Scully, 1992; Olson, 1993). Success to high growth and economic expansion are amongst important objectives that economics are following. The reasons are profits and payback that are to be completed in the growth procedure (such as advertising and improvement of living standard minimizing poverty and unemployment). For this cause existing many growth theories. The objective of growth is clarifying the determiner dynamic of growth rates in single country and is the reason for variances of growth rate and per capita income between various countries. Neoclassical growth models ignore the entrepreneur and view knowledge as an exogenous factor (Braunerhjelm, 2007). For example, Solow's 1956 neoclassical growth model examined population and technology as external influences that affect how effectively we utilize resources. This model states that when physical capital and production increase at the same pace as the labor force, growth is balanced (Jajri and Ismail, 2009).

Nonetheless, empirical evidence indicates that the growth of production cannot be entirely explained by labor and physical capital alone (Denison, 1962). Several variables have been identified by Lucas (1988) and Romer (1989) as influencing the rate of economic growth. These include the capacity of enterprises to innovate and become more efficient as they expand, the ability to generate new concepts and technologies, the willingness to engage in international trade, the ability to invest globally in research and development, and the ability to educate and train individuals to possess important skills (Lucas, 1988 and Turnovsky, 1999). These variables are thought to be essential for comprehending how economies expand throughout time. Visionary thinking, a strong drive for personal accomplishment, a willingness to take chances, and self-assurance are characteristics that set entrepreneurs apart. These characteristics inspire them to start creative businesses. Many people see entrepreneurship as a driving force behind innovation, technology development, and information sharing—all of which support economic expansion. Academics have emphasized how important entrepreneurship is to creating knowledge spillovers and advancing technology. The core tenet of endogenous growth theory is that innovation serves as the main catalyst for economic growth.

Furthermore, entrepreneurship impacts economic development via encouraging industrial variety and rivalry, which both make it easier for businesses to share information. All things considered, entrepreneurship is a key driver of economic progress, encouraging innovation and building a vibrant corporate environment. (Djankov, Qian, Roland, & Zhuravskaya, 2006; Lee, Florida, & Acs, 2004), (Cohen & Levinthal, 1989; Acs & Audretsch, 1990; Audretsch & Feldman, 1996; Audretsch & Stephan, 1996; Caves, 1998), (Romer, 1986, Lucas, 1988; Aghion and Howitt, 1997), (Audretch and Keilbach (2004),. There has been a significant rise in social protection due to growing concerns about severe poverty, rising inequality, and individuals experiencing dangers and suffering. Social protection encompasses several initiatives that provide financial or material

support to individuals to address these problems. Many developing nations have launched large-scale initiatives in the last 10 years to provide financial aid or other forms of support to the impoverished and disenfranchised segments of society. (Hanlon, Barrientos and Hume, 2010).

Expanding social protection programs is a great way to assist many nations achieve other critical development objectives. The UN's Millennium Development Goals (MDGs), which aim for improved access to healthcare and education, have been greatly aided by initiatives like conditional cash transfers. Safety nets, such as these initiatives, have also prevented negative outcomes from occurring during times of crisis, such as starvation or poverty. Numerous studies demonstrate the significant impact that these safety net programs—particularly conditional cash transfers have (in Fiszbein and Schady, 2009). Since 2009, a few countries, including those with lower incomes, have expanded their social protection programs in response to challenges including food shortages, rising gasoline costs, and financial difficulties. To ensure that these programs function properly and assist more people, they have done this by developing new ones, expanding the scope of the ones that already exist, and improving the way these programs are managed. (Fiszbein, Ringold and Srinivasan, 2011). As a nation grows, it is typical for some regions to be wealthier than others. There are occasions when measures designed to accelerate economic growth instead widen the wealth disparity between affluent and poor regions. This is a serious issue as some areas rapidly get wealthier, others remain impoverished. People often relocate from impoverished to affluent neighborhoods, which may generate issues in the more affluent places. Furthermore, when some regions of the nation do better than others, it might incite jealousy and hostilities amongst them. This might cause instability and damage to the nation's economy if it continues.

Provinces in the Western Region account for about 80% of Indonesia's GDP, with the remaining provinces being in Eastern Indonesia, according to BPS statistics (BPS, 2019). Greater efforts are being made to lower inequality, combat poverty, and increase employment possibilities in the Western Region due to the region's stronger tendency toward inclusive development. (Sholihah: 2014). As to Todaro (2006), the crux of the matter lies not only in augmenting the GDP overall, but also in determining the beneficiaries of such expansion - whether it the whole populace or a limited group. If a tiny portion of the population or a few affluent people are the only ones benefitting from GDP development, then poverty and inequality are likely to intensify, and the rest of the population may not experience any change. Thus, the main goal in attaining progress should be to guarantee that everyone has the chance to take part in and profit from it. Many central banks have prioritized maintaining stable prices in recent years. To strive to maintain low and stable inflation, they use monetary policy, which includes regulating interest rates and the quantity of money in circulation. Most experts and central bankers consider inflation to be costly, which is why they think price stability is crucial. Some of these expenses are related to average price increases, while others are related to the degree of unpredictability in inflation. The main thesis is that unstable and excessive inflation causes problems for both families and corporations. Academic circles have conducted a great deal of study on the costs of inflation, as recently described by Briault in 1995. Although this study indicates that inflation is typically bad, the argument isn't

totally compelling in the absence of strong support from facts. Although other research (which Briault also evaluated) suggests that inflation is harmful, the data is inconclusive. For this reason, it's essential to do more study using actual data to comprehend the connection between inflation and economic performance. Using data collected over the last 30 years from many different nations, this essay investigates this link.

2. Literature Review

Economic growth means the steady increase in a country's real gross national product (GNP) or real national income over time. This growth usually happens when there's more actual production of goods and services. Factors like political stability, economic policies, natural resources, workforce size and skill, and innovative entrepreneurs influence this production increase. (Todaro, 2006). For economic growth to happen, there needs to be a greater increase in the ratio between what's put into producing something and what's gained from it. This leads to higher efficiency and productivity, meaning we get more output from the same amount of input. This is key for both economic growth and development. Today, economies worldwide are moving towards relying more on knowledge. Having and supporting knowledge is becoming increasingly important for economic growth. Globalization, where countries are more interconnected economically, has made competition a major driving force for progress. In this setup, economies that prioritize knowledge become more competitive. The idea of knowledge-based economies gained traction in the getting on 1990s over information from organizations like the Organization for Economic Co-operation and Development (OECD) and the World Bank.

These reports highlighted the importance of knowledge in economic development then competitiveness. By focusing on knowledge, countries can better adapt to the demands of the global economy and sustain long-term growth. (Bank 2007; OECD 1996). The rise of digital technology brings about a knowledge revolution and heightens global competition. Embracing a knowledge-based economy and enhancing knowledge management overall are crucial for fostering creativity, improving social welfare, and driving economic growth. This idea, emphasized by underscores the importance of leveraging knowledge for societal progress and prosperity. David and Foray (2002). Numerous studies have aimed to explore how a knowledge-based economy influences the growth of different countries or regions. Even though economic situations vary, research indicates that certain key factors consistently lead to positive outcomes. For instance, in the Middle East and North Africa (MENA) region, evidence suggests that investing in human capital, capital resources, research, infrastructure, strong institutions, and fostering business growth are essential dimensions of a knowledge-based budget that contribute to improved fiscal growth. (Barkhordar, Fattahi and Azimi, 2018). A lot of past research on how taxes influence income and growth has mostly looked at taxes overall, instead of focusing specifically on income taxes. Most of these studies, though not all, indicate that taxes tend to have a bad influence on different aspects of economic performance. While many studies in this area usually consider the average amount of taxes people pay, some do take a closer look at income taxes explicitly. Romans and Subrahmanyam (1979) discovered that the actual amount of income taxes didn't seem to

influence income growth. However, they noted that the level of progression in tax systems did matter, with additional advanced tax classifications linked to lower growth rates. Conversely, Dye (1980) found, after considering other factors, that income taxes didn't affect economic growth rates. Mullen and Williams (1994) examined how the negligible state income tax rate affected state income and found a negative impact. Similarly, Besci (1996) also identified a negative impact associated with higher income tax rates.

Salop and Salop (1976) put forward a theory explaining how wage growth happens over time on the job. They suggested that workers have different chances of quitting their jobs, and this information is known only to them. When workers leave, it costs companies money to train new employees. So, it makes sense for companies to offer higher wages over time to attract and keep workers who are less likely to quit. This way, only workers with a lower chance of leaving apply for the jobs. According to their theory, self-employed workers have flatter wage growth compared to employees because they don't need to use higher wages to attract the right workers. Interestingly, both Salop and Salop's theory and Lazear's contract theory make similar predictions about the difference between self-employed and salaried workers' wage growth. So, just by looking at how wage profiles differ between these two types of workers, we can't tell which theory is right. The Neoclassical Hypothesis offers insight into the economic disparities observed between different regions within a country. According to proponents of this hypothesis, during the initial stages of a country's development, these regional economic gaps tend to widen. This trend continues until it reaches a point of saturation. However, as the development process progresses, the economic divide between regions begins to diminish.

At the onset of development, regions with more favorable conditions seize available opportunities more readily, leading to accelerated economic growth. Meanwhile, underdeveloped regions struggle to capitalize on these opportunities due to inadequate infrastructure, limited facilities, and a less skilled workforce. Consequently, the economic gap widens as developed regions experience faster growth compared to their less developed counterparts. Conversely, in developed countries, where infrastructure and human resources are generally of higher quality across regions, development opportunities are more evenly distributed. This results in a more equitable utilization of resources and opportunities among regions. Consequently, the development process in developed countries tends to alleviate economic disparities between regions over time (Anggraeni, 2012). The study of Hussain, Z., Huo, C., Ahmad, A. et al. (2024) aims to assess the health performance of Organization for Economic Cooperation and Development (OECD) economies by using economic and transport-related indicators and examining the role of health expenditure and governance in improving efficiency.

Anggraeni (2012) suggests that in developed countries, every opportunity for development is distributed more evenly among regions, leading to a reduction in economic disparities over time. This means that resources and opportunities are shared more fairly, helping to bridge the gap between affluent and less developed areas. Card and Krueger (1994) examined the impact of minimum wage laws by comparing similar restaurants in New Jersey and eastern Pennsylvania.

Their study found empirical evidence on how minimum wage laws affect businesses and employment in different regions, providing valuable insights into state policy effects. Fox (1986) discovered that increases in state and local sales tax rates had a negative impact on retail activity in certain metropolitan areas. This finding highlights how changes in tax policy can influence economic behavior and outcomes at the local level. Isserman and Rephann (1995) compared counties within Appalachia with similar "twin" counties outside the region. Their analysis revealed that, over a period of several decades, Appalachian counties experienced faster growth compared to their counterparts, shedding light on regional development dynamics.

Bronars and Lott (1998) investigated the effects of concealed-weapons laws and found that allowing individuals to carry concealed handguns acted as a deterrent to crime. Their study, although not focused on specific regions, provides important insights into the impact of state policies on public safety and crime rates. The debate about social protection responses comes up as countries deal with both a health crisis and financial problems. Firstly, governments need to figure out how to handle the health crisis caused by COVID-19. They must balance providing healthcare for COVID-19 while still taking care of other health issues. This plan must work even in places where strict social distancing isn't easy. How strict and how long the restrictions on movement and economic activity will affect how much money households make right away. So, the government needs to decide how much support to give to households to help them out. This support might also make people more likely to follow health rules. Secondly, governments must find ways to pay for both health and economic measures. But they're facing problems because tax money isn't coming in like it used to. Before the crisis, many developing countries were already in a lot of debt, and now it's even harder for them to borrow money. If they can't find new ways to get money fast, they won't be able to help people as much, and it might be too expensive for them to handle a health crisis that needs strict rules to control it. These discussions reveal that Lazear's, Salop and Salop's, and Jovanovic's theories all have the potential to explain why self-employed (SE) workers tend to have flatter earnings profiles compared to salaried or wage (SW) workers. However, this paper focuses exclusively on exploring human capital theory as an alternative explanation for these findings.

Unlike the other theories mentioned, human capital theory doesn't rely on any kind of information imperfection. It's particularly interesting to see if the theoretical predictions align with the observed patterns in earnings profiles, assuming perfect information. Therefore, the aim of this paper is to develop a model that explains the flatter earnings-tenure profile among self-employed workers solely based on the principles of the human capital theory. Comparing 1990 to 2015, there's been a big change in how much attention social protection gets, both in real life and in discussions about development. Back then, it wasn't really talked about much in the MDGs (Millennium Development Goals), which were the big goals for global development at the time. But now, social protection is seen as a crucial part of development efforts. Still, less than half of the world's poor people get any kind of social protection. And in Africa, less than a quarter of the poorest households have access to it. Even in middle-income countries where more people are covered, the programs often have problems, like not enough money, not reaching the right people,

or not making the impact they should. One solid thing we know about economics is that workers usually get higher wages as they gain more experience. Lazear (1979) explained this by saying that employers can't always keep an eye on what their workers are doing, and they only catch them slacking off by chance.

According to Lazear's theory, it's smart for employers to pay workers less than what they're worth when they're new, and more than what they're worth when they've been around for a while. This way, workers are less likely to slack off because if they do get caught, they lose their job and can't get their money back. The human capital theory also says that wages go up as workers gain more experience because they become more skilled. Since both Lazear's contract theory and the human capital theory make sense in different ways, it's hard to say for sure which one explains why wages go up as people work longer. Understanding how wages for workers paid by the hour or with a fixed salary relate to inflation and consumer prices is important for knowing how the economy grows and stays stable. This review of previous studies investigates how the money earned by male hourly and salary workers affects inflation and consumer prices. It also looks at how the average income per person might affect this relationship. Additionally, it checks out other things that might play a part, like how fast the economy is growing, how many people are out of order, and how high interest rates are. The study highlights the need for policymakers to adopt a multi-strategy approach that includes green finance, technological innovation, low-carbon energy, and supportive government programs (Iqbal, et al., 2025).

Research shows that when men earn more from their jobs, it can affect inflation and consumer prices a lot. When people have more money, they tend to buy more things, which can push prices up. This happens especially if there isn't enough staff to meet all the demand. On the flip side, if wages stay the same or go down while prices go up, people might buy less, and that can push prices down (Mankiw, 2014; Blanchard, 2017). The study of Ullah, U., Shaheen, W.A (2024) identifying the role of economic indicators in achieving sustainable development. Per capita income, which is how much money the average person makes, is important in how wages affect inflation and consumer prices. In places where people make more money on average, the impact of higher wages on prices might not be as big because everyone has more buying power. But in places where people don't make much money, raising wages could lead to higher prices because there's not enough stuff to go around (Tanzi, 2000; Gupta & Kaushik, 2018). Depending on the country and area, there may be a distinct relationship between air pollution and dividend yield (Shaheen & Ullah, 2024). There are some other important things to consider when looking at how wages affect inflation and consumer prices. For example, how fast the economy is growing (GDP growth rate) can affect how much people get paid and how much stuff costs (Blanchard & Johnson, 2013). The unemployment rate, which shows how many people can't find work, can also affect how much people spend and how much stuff costs (Mortensen & Pissarides, 1994). And the interest rates set by the government can influence how much people borrow and spend, which can affect prices too (Romer, 2006). Understanding the relationship between male wages, inflation, and consumer prices is tricky and involves lots of different factors. Per capita income plays a big part, shaping how changes in wages affect prices. Other things like GDP growth rate,

unemployment rate, and interest rates also matter, showing how connected everything is in the economy. To understand these relationships even better, more research is needed. This could include looking at things like how flexible the job market is, what kinds of industries are important, and what the government does to help. By studying all these factors, policymakers and economists can come up with better ways to keep the economy stable and make life better for everyone.

3. Methodology

3.1 Operationalization of Variables

This study will examine The Impact of Wage and Salaried Worker Male on Inflation and Consumer Prices. This study takes Social Protection and labor as an independent variable and the dependent variable is Economy and Growth. The study will explore the role of Poverty as a moderate variable. This study takes GDP Growth, Unemployment Rate and Interest Rate as a controlled variable.

3.1.1 Dependent Variable

The expansion of the economy is dependent variable. Researchers who use "Economy and Growth" as a dependent variable in their studies often use a range of measuring indicators to evaluate economic growth and performance. The fundamental indicator, the gross domestic product (GDP), measures the entire market value of goods and services generated in a nation. By including net income received from outside sources, gross national income (GNI) offers more information. The Human Development Index (HDI) provides a combined metric for assessing progress in quality of living, health, and education. Employment rates and inflation are important indicators of labor market conditions and absolute economic stability. These indicators have been defended at length in scholarly publications such as the Human Development Report for HDI by the United Nations Development Program (UNDP), the employment rate by Blanch flower & Oswald (1995), inflation by Fischer (1995). 1981) was given, and in GDP by Mankiw, Romer, & Weil (1992). Together they provide a comprehensive framework for analyzing and understanding trends in economic growth and development.

3.1.2 Independent Variable

Where "social protection and labor" are independent variables, a range of measurement indicators are used to assess the effectiveness and influence of interventions social protection expenditure as a percentage of GDP in 2009 is an important indicator of a country’s financial support for social protection programs (Barrientos & Santibañez, 2009). Another important factor that can be changed by social protection measures is the labor force participation rate, which refers to the current working age population (World Bank, 2020) Also, social assistance programs often aim to reduce the headcount of poverty (by Alkire & Foster, 2011). of labor force participation World Bank report on the subject (World Bank, 2020), Barrientos and Santibanez study on social protection costs in Latin America (2009).

3.1.3 Controlled Variables

Differential measurement indicators are often used to examine how control variables such as "GDP growth rate," "unemployment rate," and "interest rate" affect economic growth GDP growth rates, usually computed annually or quarterly each, refers to the rate of growth or decline in a country's economy over a specific period (Romer, 1986). The unemployment rate provides information about both labor market conditions and economic activity because it represents the percentage of workers who are actively seeking employment but cannot find it (Blanchard & Diamond, 1989). Profitability affects decisions about lending, saving and investing, which in turn affects inflation and economic growth. Interest rates are usually represented by the central bank's policy rate (Taylor, 1993).

3.1.4 Moderating Variable

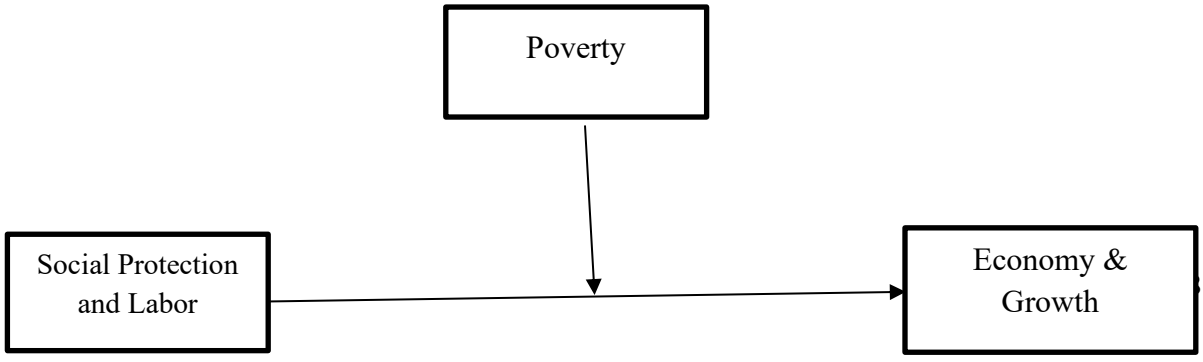
When assessing how control variables like "GDP Growth Rate," "Unemployment Rate," and "Interest Rate" affect economic dynamics, differential measurement indicators are often used. The GDP Growth Rate, which is often computed annually or quarterly, indicates the rate of growth or contraction of a country's economy over a certain period (Romer, 1986). The unemployment rate provides information on the status of the labor market and the general level of economic activity since it represents the percentage of the labor force that is actively seeking work but is unable to find it (Blanchard & Diamond, 1989). The interest rate influences decisions about borrowing, saving, and investing, which in turn influences inflation and economic development. The interest rate is frequently represented by the central bank's policy rate (Taylor, 1993).

3.2 Data Composition and Collection

This research utilizes secondary data from several sources. The data on poverty came from the WDI and OECD statistics, while the data on the economy and growth came from the WDI website. For the World Bank Indicators, more variable data was acquired. Due to problems with data availability, the study could only be conducted in the 30 nations globally. The years were extended from 2012 to 2023 since financial help was available.

3.3 Theoretical Framework

Figure No 1: Theoretical Framework



3.4 Hypothesis Development

The statement "Social protection and labor has an impact on economy and growth" implies that social protection and labor-related policies and initiatives may have an impact on the growth and performance of the economy. This theory is consistent with previous studies showing that spending on social protection—such as job training programs and unemployment benefits—can improve labor market outcomes and support general economic development (Betcherman et al., 2004). Furthermore, research has shown that nations possessing strong social security frameworks often exhibit more stable economies and elevated levels of human development (Barrientos & Santibañez, 2009). Furthermore, labor market regulations that support job opportunitiesThe phrase "Social protection and labor has an impact on economy and growth" suggests that policies and programs pertaining to social protection and labor may influence the expansion and efficiency of the economy. As previous research suggests (Betcherman et al., 2004), spending on social protection programs, such as job training and unemployment compensation, can improve labor market outcomes and boost economic growth all have improved. This hypothesis is consistent with these findings.

H1: Social Protection and Labor has a significant impact on economic growth.

The declaration "poverty weakens the relationship among social protection, exertions, profits and increase" suggests that the extent of poverty in a community can influence how nicely exertions and social protection laws promote financial growth, . 2018). Furthermore, studies have shown that efforts aimed at decreasing poverty, specifically those that include social protection packages, may have a considerable impact on sustainable improvement and inclusive growth (Alkire)

H2: Poverty has a moderating influence on the association between social protection, Labor and economic growth.

3.5 Empirical Model

Economic Growth=β0 + β1Social Protection +β2 Labor + β3Poverty + β4 (Social Protection × Poverty) + β5 (Labor Poverty) + β6X_{it} + ϵ

The hypothesis is that social protection and labor is directly affecting economy & growth. economic growth serves as the dependent variable, representing the overall expansion of economic activity. The key independent variables include social protection and labor, which capture the extent and effectiveness of social safety programs and labor market indicators, respectively. Poverty acts as the moderating variable, reflecting the level of economic hardship within the population. The model includes an intercept term, denoted as $\beta 0$, while the coefficients $\beta 1$, $\beta 2$, and $\beta 3$ measure the direct effects of social protection, labor, and poverty on economic growth,

respectively. Additionally, the coefficients $\beta 4$ and $\beta 5$ account for the interaction effects between social protection and poverty, as well as labor and poverty, highlighting how these relationships evolve under different poverty levels. The model also incorporates a set of control variables, represented by Xit, to account for additional factors influencing economic growth. Finally, ϵ denotes the error term, capturing unobserved factors and potential deviations in the model's predictions. This model allows for the testing of both direct effects of social protection, labor, and poverty on economic growth, as well as the moderating effect of poverty on the relationship between social protection, labor, and economic growth.

3.6 Sample Size of Countries

The samples of OECD and OIC nations will be used in this research; however, the ultimate sample size will be determined based on the panel and the accessibility of data on important factors. This research will focus on the years 2012–2022, using several diagnostic and major regression tests.

3.7 Data Analysis Tools and Tests

This study will use STATA 17 software for data analysis and empirical results. Stata is a popular statistical program used by social scientists, economists, and academics for data analysis. It provides a range of statistical techniques, including regression analysis, data analysis across time, and modeling. Microsoft Excel Office is software that can be utilized to analyze and analyze data. It provides regression analysis along with common statistical operations like calculating averages, medians, and standard deviations.

4. Analysis

4.1 Descriptive Statistics

The mean value of Economy and Growth is 2.039, indicating that on average, the economy and growth measure stands at 2.039 units. However, considerable variability in data, as evidenced by a standard deviation 4.01. This high standard deviation suggests significant fluctuations in the economy and growth figures within the sample. The minimum value recorded is -2.54, indicating some observations with negative growth, while the maximum value is 59.22, pointing to substantial growth in certain instances. The mean for Social Protection and Labor is 4.289, suggesting that, on average, this variable is relatively stable and high. The standard deviation is 0.338, which is relatively low compared to the mean, indicating that the values of SP & L do not contrast widely from mean. The minimum value 2.545 & maximum value 4.601 further illustrate the narrow range of variation in social protection and labor across the observations.

Table No 1: Descriptive stats

Variable	Obs	Mean	Std. Dev.	Min	Max
E & G	300	2.039	4.01	-2.54	59.22
SP & L	300	4.289	.338	2.545	4.601
POVERTY	300	1.268	4.532	-27.178	16.341

The mean value for Poverty is 1.268, which shows that the average poverty measure is 1.268 units. The standard deviation is 4.532, which is quite high, indicating substantial variability in poverty levels within the sample. The minimum value of -27.178 suggests that some observations record negative values, which could be interpreted as a significant reduction in poverty or potentially errors in data reporting. The maximum value of 16.341 indicates that some regions experience relatively high poverty levels.

4.2 Correlation Matrix

Table No 2: Correlation

Variables	(1)	(2)	(3)	(4)	(5)
(1) E & G	-0.209	-0.121	1.000		
(2) SP & L	0.220	0.035	-0.008	1.000	
(3) POVERTY	0.002	-0.031	0.051	-0.008	1.000

The correlation between E & G and SP & L is -0.209, indicating a weak negative relationship. This suggests that as economy and growth increase, social protection and labour tend to decrease slightly, though the relationship is not strong. The correlation between E & G and Poverty is -0.121, which also indicates a weak negative relationship. This implies higher levels of economic growth associated by slightly lower level of poverty; however, relationship is not significant. The correlation b/w SP & L and Poverty 0.035, showing very weak positive relationship. This indicates there is almost no linear link b/w social protection and labour and poverty levels, as the correlation coefficient is very close to zero.

4.3 VIF Results

Table No 3: VIF

	VIF	1/VIF
POVERTY	1	1
SP & L	1	1
Mean VIF	1	.

The VIF values for all three variables are 1, indicating no multicollinearity. The reciprocal of the VIF (1/VIF) is also 1 for each variable. These results suggest that none of the variables (Economy and Growth, Social Protection and Labour, and Poverty) are highly correlated with each other in the context of a regression model. Therefore, each variable provides unique information without redundancy, and the model is not adversely affected by multicollinearity. The mean VIF is also 1, further confirming the absence of multicollinearity in the dataset.

4.4 B&P Test

The test statistic (chibar2(01)) is 175.98. The corresponding p-value (Prob > chibar2) is 0.000, which is highly significant. This means that p-value is less than conventional significance levels (e.g., 0.05, 0.01, or even 0.001), leading to the rejection of the null hypothesis.

Table No 4: B&P

" Test: Var(u) = 0"	
"chibar2(01)"	175.98
Prob > chibar2	0.000

4.5 Slope Homogeneity Test

Table No 5: Slope Homogeneity

Delta	***p-value***
-0.316	0.752
adj. -0.407	0.684

In this instance, the Delta test and the adjusted Delta (adj. Delta) test are the two available test variants. The two tests contrast the substitute hypothesis that slope coefficients are heterogeneous with the null hypothesis, which holds that they are homogenous. The Delta test has p-value of 0.752 & a value of -0.316. p-value of 0.684, the adjusted Delta test value is -0.407. The two p-values are significantly more than typical significance thresholds (e.g., 0.05). This suggests that, in both tests, we are incompetent to eliminate the null hypothesis of slope uniformity. Consequently, the findings imply that the requirement for distinct slope coefficients in various units is not significantly supported by the available data. For the panel data on poverty, social protection and labor (SP & L), and economy and growth (E & G), the slopes can be regarded as homogeneous.

4.6 Cross sectional Dependency

Table No 6: CD Test

"Variable"	**"CD test"**	**"P value"**	**"Average Joint T"**	**"Mean P"**	**"Mean Abs"**
E & G	20.192	0.000	10	0.31	0.42
SP & L	13.338	0.000	10	0.2	0.68
POVERTY	25.247	0.000	10	0.38	0.45

The average joint test statistics (Average Joint T), the p-value, the mean of the pairwise correlations (Mean P), mean of absolute values of pairwise correlations (Mean Abs), and the CD test statistic are all shown in the table. The CD test statistics for E and G is 20.192, & p-value is 0.000. p-value of less than 0.05, which is highly significant, cross-sectional dependence is clearly demonstrated. There appears to be a modest degree of positive correlation between the cross-sectional units, as indicated by the Mean P of 0.31 and Mean Abs of 0.42. The CD test statistic for SP & L is 13.338 with a 0.000 p-value. Once more, there is substantial evidence of cross-sectional dependence indicated by the significant p-value. In comparison to E and G, the mean correlation is lower (mean P of 0.2 and mean Abs of 0.68), but the absolute correlations are larger, indicating a stronger overall dependency. The CD test statistic for poverty is 25.247, with a 0.000 p-value. Cross-sectional dependence is strongly supported by the substantial value. There is a moderately strong positive correlation between the cross-sectional units, as indicated by the Mean P of 0.38 and Mean Abs of 0.45.

4.7 Cointegration Test

Table No 7: Cointegration Test

"Modified Phillips-Perron t	4.2504	0.0000
Phillips-Perron t	-4.1059	0.0000
Augmented Dickey-Fuller t"	-2.3814	0.0086

With p-value of 0.0000, the test statistic for Modified Phillips-Perron t-test is 4.2504. With a p-value of less than 0.05, the correlation between the variables is clearly demonstrated. This implies that variables have long-term equilibrium link despite short-term changes. The test statistic for the Phillips-Perron t-test is -4.1059, and the p-value is 0.0000. Similarly, considerable evidence of cointegration is indicated by the extremely significant p-value. This lends credence to the theory that the variables move in tandem over time. The test for the ADF t-test is -2.3814, & p-value is 0.0086. There is additional proof of cointegration in this p-value, which is likewise significant (less than 0.05).

4.8 Unit Root Tests

We eliminate null hypothesis that their unit root in Economy and Growth because the CIPS test statistic of -3.359 is more negative than any of crucial values at the 10%, 5%, & 1% significance levels. This suggests that series is stationary, which denotes that its statistical characteristics, including variance and mean, remain unchanged across time.

Table No 8: Stationarity Tests

Variables	CIPS	CADF
ECONOMY AND GROWTH	-3.359	-3.359
Social Protection and Labor	-2.578	-2.578
Poverty	-2.474	-2.474

We reject the null hypothesis that Social Protection and Labor includes a unit root because the CIPS test of -2.578 is more negative against crucial values at 10%, 5%, and 1% significance levels. It suggests that the series is stationary, which denotes that its statistical characteristics, including variance and mean, remain unchanged across time. We reject null hypothesis that unit root exists in the Poverty series because CIPS test of -2.474 is more negative than crucial values at 10%, 5%, and 1% significance levels. According to this, the Poverty variable is stationary, which means that its statistical characteristics, such its variance and mean, don't change over time.

The observed t-bar statistic of -3.359 is more negative than all these crucial values. At all conventional significance levels, this would normally imply that we reject null hypothesis that series has unit roots. On other hand, p-value is 0.547 and the Z[t-bar] statistic is 0.117. Under the null hypothesis of a unit root, Z[t-bar] statistic offers a standardized way to assess how severe the t-bar statistic is in relation to its distribution. Based on the Z[t-bar] statistics, the p-value of 0.547 is significantly higher than standard limits of 0.10, 0.05, and 0.01, suggesting that we are unable to reject the null hypothesis of a unit root. The t-bar -2.578 is more negative than the critical values. This implies that the series is probably stationary & null hypothesis of unit root able to reject. But we also consider the Z[t-bar], which has a p-value of 0.547 and a Z[t-bar] statistic of 0.117. The t-bar statistics are normalized by the Z[t-bar] statistics, and the statistical significance is ascertained in part by the p-value. The test analysis shows that p-value of 0.547 is significantly more than standard significance levels 0.10, 0.05, & 0.01). This indicates that null hypothesis of a unit root unable to reject. The t-bar of -2.474 is nearer to the critical value than it is more negatively correlated with it. This implies that the series might be stationary, and that null hypothesis of a unit root can be rejected at 10% and 5% levels. But we also take into account the Z[t-bar], which has p-value of 0.547 and a Z[t-bar] statistic of 0.117. The t-bar statistics are normalized by the Z[t-bar] statistics, and the statistical significance is ascertained in part by the p-value. The test analysis shows that p-value of 0.547 is significantly higher than standard significance levels (0.10, 0.05, and 0.01). This suggests a null hypothesis of unit root cannot be rejected.

4.9 Fixed Effect Without Moderation

The coefficients for SP and L indicate a negative association with E and G, with a value of -11.326. Its statistical significance, with $p = 0.085$, is only slightly above the traditional cutoff, suggesting a mildly significant negative connection. This suggests that increases in labor laws and social protection may be linked to declines in economic growth, albeit given the relationship's ambiguous significance, care should be used in evaluating how strong the link. The independent variables in the model acc for roughly 4.8% of variance in Economy and Growth, according to the R-squared value of 0.048. Furthermore, the model is significant corresponding to the statistical significance of the F-test ($p = 0.000$).

Table No 9: Fixed Effect

E & G	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
SP & L	-11.326	6.554	-1.73	.085	-24.232	1.579	*
GDPG	.037	.045	0.82	.411	-.052	.126	
UNEMP	-.199	.099	-2.00	.047	-.395	-.003	**
INTP	-.151	.157	-0.96	.336	-.46	.158	
Constant	52.735	28.218	1.87	.063	-2.824	108.294	*

Mean dependent var	2.039	SD dependent var	4.010
R-squared	0.048	Number of obs	300
F-test	3.372	Prob > F	0.000
Akaike crit. (AIC)	1514.067	Bayesian crit. (BIC)	1532.586

4.10 Random Effect

All variable coefficients are presented for random effects model having coefficient of -0.166 & a p-value of 0.029, unemployment rate (UNEMP) is the only independent variable having a statistically significant coefficient. This implies that lower levels of the economy and growth are linked to higher unemployment rates.

Table No10: Random Effect

E & G	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
SP & L	-.633	1.454	-0.44	.663	-3.482	2.216	
GDPG	.049	.043	1.14	.255	-.035	.133	
UNEMP	-.166	.076	-2.19	.029	-.314	-.017	**
INTP	-.127	.118	-1.08	.28	-.359	.104	
Constant	6.49	6.321	1.03	.305	-5.899	18.878	

Mean dependent var	2.039	SD dependent var	4.010
Overall r-squared	0.041	Number of obs	300
Chi-square	11.750	Prob > chi2	0.019
R-squared within	0.038	R-squared between	0.050

At conventional levels, the coefficients for GDP growth rate (GDPG), inflation rate (INTP), and Social Protection and Labour (SP & L) are not statistically significant ($p > 0.05$). This suggests that, within the framework of the random effects model, these factors do not significantly

correlate with Economy and Growth. With p-value of 0.305 & coefficient of 6.49, the constant term is not statistically significant. This implies that, when all other variables are held constant, the baseline level of Economy and Growth does not change substantially from zero. The IV in the model acc for around 4.1% of variance in Economy and Growth, allowing to the overall R-squared value 0.041 for the model. With p-value of 0.019 & Chi-square test score 11.750, random effects model is statistically significant overall.

4.11 Hausman Results

Table No 11; Hausman Results

	Coef.
Chi-square test value	3.829
P-value	.043

The chi-square test result in this case is 3.829, & related p-value is 0.043. We refuse null hypothesis because p-value smaller against traditional significance criterion of 0.05. This suggests the FEM model is more appropriate and consistent than the REF, based on a substantial body of research. It is therefore advised to adopt the fixed effects model for the panel data analysis rather than the random effects model based on Hausman test results.

4.12 GMM without Moderation

Table-12 GMM Results

E & G	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
L	.601	.031	19.46	0	.54	.661	***
SP & L	20.54	4.822	4.26	0	11.09	29.99	***

Mean dependent var	1.686	SD dependent var	2.166
Number of obs	240	Chi-square	.

With a standard error of 0.031 and a coefficient for lagged economy and growth (L) of 0.601, the high t-value of 19.46 & p-value of 0 are obtained. This suggests that current Economy and Growth and the lagged Economy and Growth have a highly substantial positive association. Stated differently, historical economic growth rates accurately forecast current rates. With a standard error of 4.822 and a coefficient of 20.54 for Social Protection and Labour (SP & L), t-value is 4.26 & p-value is 0. This indicates a strong positive correlation between labor, economy, and growth and social protection. This implies that there is a strong correlation between increases in labor and social protection policies and increases in economic growth.

4.13 Moderation Results

High t-value of 46.99 and p-value of 0 are produced by coefficient for lagged Economy and Growth (L), which is 0.589 with a standard error of 0.013. This shows that the current Economy and Growth and the lagged Economy and Growth have a highly significant positive association that is consistent with the previous analysis without moderating. A high t-value of 12.84 & p-value of 0 are obtained from the coefficient for the moderating impact of Social Protection and Labour (Socialprotection_P~y), which is 0.025 with a standard error of 0.002. This indicates increases in labor and social protection policies to boost the relationship between the current and lagging economies and growth. It also demonstrates a highly substantial positive moderation effect.

Table No 13: Moderation Pathway Results

E & G	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
L	.589	.013	46.99	0	.565	.614	***
Socialprotection_P~y	.025	.002	12.84	0	.021	.029	***
Mean dependent var	1.686		SD dependent var		2.166		
Number of obs	240		Chi-square		.		

4.14 Robustness Through AMG

Table No14: AMG Results

E & G	Coef.	Std.Err.	z	P>z	[95%Conf.	Interval]
SP & L	17.975	56.464	0.320	0.050	-92.692	128.641
__00000R_c	1.035	0.423	2.450	0.014	0.205	1.864
_cons	-72.442	256.730	-0.280	0.778	-575.625	430.740

The coefficient for Social Protection and Labour (SP & L) is 17.975 with a standard error of 56.464. At the 0.05 level, the p-value of 0.050, which is obtained from the z-value of 0.320, is marginally significant. This implies that, when using the AMG estimator, there may be some evidence of a relationship between Social Protection and Labour and Economy and Growth, although caution is advised because of the marginal significance level. With a standard error of 0.423, the coefficient for the extra variable denoted as _00000R_c is 1.035. At the 0.05 level of significance, the z-value of 2.450 yields a p-value of 0.014, signifying statistical significance. This implies that, when considered within the framework of the AMG estimator, this extra variable significantly affects Economy and Growth.

5. Conclusion Recommendations & Limitations

This study discovers the relationship between social protection and labor policies and economic growth using a complete panel data approach. Although a complete analysis, our results direct that social protection and labor policies do not have a statistically significant impact on economic growth. This indicates that these policies, in segregation, may not be adequate teamsters of economic growth. Contrary to say, we found another variable in our model that demonstrates a significant positive influence on economic growth, highlighting the comprehensive nature of growth factors. These outcomes emphasize the complication of economic growth and the need for a holistic approach to policymaking that reflects multiple factors beyond social protection and labor policies. While labor laws and social protection are essential for the welfare and stability of society, policymakers should be aware that these measures might not include a significant direct impact on economic growth. Hence, it's possible that a well-rounded approach including a mixture of economic measures can promote sustainable development more successfully. Future studies should examine the relationship between different policy measures and economic growth in more detail, considering moderating factors and other variables.

By offering understanding information for determinant future policy preferences to ensure rightful and balanced economic growth, this research adds to the continuing debate about the effectiveness of economic policies. Based on the findings of this look at, several tips may be made for policymakers. First, it's clear that social protection and hard work rules by myself are not sufficient to drive financial boom. Policymakers need to use a much wider method that combines social protection and exertions policies with investments in infrastructure, training, technology, and innovation to foster sustainable increase. It's important to tailor those guidelines to in shape the unique financial desires of different regions or international locations, making sure they're each effective and green. Additionally, there should be sturdy systems in region to continuously screen and compare the effect of these regulations. This ongoing evaluation will assist in recognizing their effectiveness and permit essential modifications to enhance their contribution to monetary increase. It is likewise important to recognition on inclusive increase techniques that make certain the monetary advantages are shared extensively across all segments of society, including marginalized groups. Strong social protection measures must be in place to guide prone populations. Lastly, future research should investigate how social protection, hard work policies, and different monetary factors engage to determine the situations underneath which these guidelines have a vast impact on increase.

Despite the precious insights provided by using this observe, there are several obstacles to bear in mind. The use of panel records evaluation, whilst useful for analyzing traits over the years and throughout distinct devices, may additionally introduce capacity biases inclusive of endogeneity, wherein there can be -manner causal relationships among the variables. This can affect the reliability of the outcomes. Additionally, the examination might not have protected all applicable variables that could have an impact on the connection among social protection, exertions guidelines, and monetary growth. Measurement inaccuracies or boundaries in records

availability could also impact the findings. Furthermore, outcomes are based on statistics from a selected period and geographic region, this means that they'll not be relevant to different contexts with one-of-a-kind socio-monetary conditions or coverage environments. Therefore, care must be taken while applying these findings to other settings. Finally, the point of interest on quantitative analysis may also forget vital qualitative aspects that could offer precious insights into the mechanisms underlying the connection among social safety, hard work guidelines, and financial boom. Future studies incorporating qualitative strategies, along with case research or interviews with policymakers, may want to provide a more complete expertise of these problems.

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