Research Article

Does Using Different Indices Change the Results for Inclusive Growth?[1]

Farklı Endeks Kullanımı Kapsayıcı Büyüme Sonuçlarını Değiştirir mi?

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Abstract

Traditionally, economic growth has been defined by production expansion and per capita income increases. The neoclassical theory, however, hypothesizes that growth would naturally reduce inequality. With deepening disparities across the world, the term "inclusive growth" has been coined to emphasize social justice and equal opportunities alongside quantitative growth. This study presents a comparative analysis from 2002 to 2023 for France, the UK, Israel, Italy, Sweden, and Türkiye using four inclusive growth indices. Evaluations using composite methods and PCA reveal that methodological approaches, specifically indicator selection and weighting, substantially affect how a country's internal progress is reflected. Because each country is normalized within its own historical trajectory, results reflect internal improvement rates rather than absolute cross-country rankings. For instance, Türkiye exhibits the highest relative momentum in the growth-oriented Hakimian index, while Sweden demonstrates greater internal stability in the sustainability-focused UNCTAD index. In contrast, mature economies often show lower scores in growth-centric indices due to the "saturation effect" of established structures. Findings indicate that despite strong absolute growth, the perceived rate of progress in countries like Türkiye and Israel varies significantly depending on the index employed, especially when prioritizing structural challenges like income inequality over quantitative expansion.

Keywords: Inclusive Growth, Composite Index, Principal Component Analysis (PCA), Methodological Bias, Türkiye

_Öz_

Geleneksel olarak ekonomik büyüme, üretim kapasitesindeki artış ve kişi başına gelirin yükselmesi ile tanımlanmıştır. Neoklasik teori ise büyümenin doğal olarak gelir eşitsizliğini azaltacağını varsaymaktadır. Ancak dünya genelinde artan eşitsizlikler nedeniyle, nicel büyümenin yanında sosyal adalet ve eşit fırsatları da vurgulamak amacıyla "kapsayıcı büyüme" kavramı ortaya çıkmıştır. Bu çalışma, 2002–2023 dönemi için Fransa, Birleşik Krallık, İsrail, İtalya, İsveç ve Türkiye'yi dört farklı kapsayıcı büyüme endeksi kullanarak karşılaştırmalı olarak analiz etmektedir. Bileşik endeks yöntemleri ve PCA (Temel Bileşenler Analizi) ile yapılan değerlendirmeler; metodolojik yaklaşımların, özellikle gösterge seçimi ve ağırlıklandırmanın, bir ülkenin içsel ilerlemesinin yansıtılma biçimini önemli ölçüde etkilediğini ortaya koymaktadır. Her ülkenin kendi tarihsel

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[1] This study was presented as an abstracts at the 14th Ege Internatıonal Social Sciences Conference.

yörüngesi içinde normalize edilmesi nedeniyle, sonuçlar mutlak ülkeler arası sıralamalardan ziyade içsel iyileşme oranlarını yansıtmaktadır. Örneğin Türkiye, büyüme odaklı Hakimian endeksinde en yüksek göreceli ivmeyi sergilerken; İsveç, sürdürülebilirlik odaklı UNCTAD endeksinde daha yüksek bir içsel istikrar ortaya koymaktadır. Buna karşılık, gelişmiş ekonomiler, kurulu yapıların 'doygunluk etkisi' nedeniyle büyüme merkezli endekslerde genellikle daha düşük puanlar almaktadır. Bulgular, güçlü mutlak büyümeye rağmen, Türkiye ve İsrail gibi ülkelerde algılanan ilerleme hızının, özellikle gelir eşitsizliği gibi yapısal zorlukların niceliksel genişlemeye tercih edildiği durumlarda, kullanılan endekse bağlı olarak önemli ölçüde değiştiğini göstermektedir.

Anahtar Kelimeler: *Kapsayıcı Büyüme, Bileşik Endeks, Temel Bileşenler Analizi (PCA), Metodolojik Yanlılık, Türkiye*

1.Introduction

Within mainstream economic literature, the topic of inclusive growth has become a significant area of study. The primary reason for this is that, despite rising economic growth figures, the issues of worsening income distribution, increased social inequalities, and the fact that development is in the hands of a few have questioned the relevance of the existing growth model. This has demonstrated that the neoclassical growth model is not able to correctly forecast that the shares of capital and labor in national income will converge in the long run and that economic growth will lead to a reduction in inequality.

According to neoclassical theory, capital accumulation serves as the primary engine of growth during the early stages of development. Solow (1956) argued that when the starting capital stock fell short of the steady state, both capital and output would expand more rapidly than the workforce until convergence is achieved. In the model, the marginal productivity of capital rises without bound as the capital-labor ratio declines (Solow, 1956). The conditional convergence hypothesis, one of the model's most important empirical predictions, holds that economies with scarce capital (high marginal productivity) tend to grow faster and achieve higher rates of return, thereby reaching their steady states ($k < k^*$). As a result of growth, higher income levels are expected to raise the average income of the segment with the lowest share of GDP, thereby helping reduce poverty.

The hypothesis that neoclassical growth would result in poverty reduction, together with the arguments advanced by Kuznets regarding the process of economic development itself, made quite heavy contributions to the optimistic view of growth and inequality. Kuznets (1955) argued that income inequality has a tendency to naturally fall and stabilize in higher stages of capitalism, beyond a critical threshold in the process of economic development. Although the supporting evidence for this hypothesis was weak, the ideological climate of the Cold War fostered the hope, particularly in less developed countries, that industrialization would lead to economic prosperity (Piketty, 2014).

Currently, there is widespread criticism in the literature regarding the narrow vision of the Neoclassical Model, leading to a shift towards a multi-dimensional view subscribed to by the majority of economists. According to Piketty (2014), if the return on capital (r) exceeds economic growth (g), inequality increases since wealth tends to concentrate in the hands of a few. Based on these economic assumptions, Yeldan (2010) notes that economic growth should be seen in association with income distribution and allocation in society, rather than as a simple quantitative measurement.Stiglitz (2012), in addition, gives a political perspective within this landscape, by considering that the free-market economy has failed as a mechanism for decreasing inequality, and that the model favors groups benefiting from fiscal policies (tax, bank policies), implemented by the finance sector. Moreover, according to Stiglitz (2012), income inequality is not only viewed as a social issue, but it further favors the wealth of the upper echelons and diminishes the purchasing power of the low-income groups, as it contributes to economic stagnation. Chang (2002), in his critique of the free market, argues that neoliberal free trade policies imposed by the IMF and the WB result in the deindustrialization of developing nations, thereby creating an inequitable international order that favors developed countries. Nonetheless, the aforementioned considerations are not only focused on economic distribution and international trade, as various economists, among them neoclassical school adherents, criticized the spatial and environmental considerations of the neoclassical growth model. For instance, Harvey (2005), citing the redistributive role of neoliberal policies, states: This further undermines spatial inequalities through land commodification and expropriation of public space. This environmental degradation is referred to by Sachs and Ban (2015) as the "global sustainability crisis," and it is noted that current economic growth cannot be described as real development unless it addresses social inequality and ends environmental

degradation.

In the light of increasing income inequality, labor market imbalances, a neoliberal global trading system, environmental sustainability, inequalities in accessibility to education and healthcare, gender inequalities, and ethnic and class divisions, there is a need to rearticulate an alternative framework for more inclusive processes of economic growth and development. According to Anand et al. (2013), inclusive growth embodies a kind of economic growth whereby the well-being of the general population is derived from economic growth, and this growth does not remain a monopoly of any particular class but spreads equitably to larger groups of society. The concept of inclusive growth emerges as a necessary evolution from some previous paradigms that looked at "trickle-down economics" and "pro-poor growth," which proved insufficient in addressing widening global disparities. While "pro-poor growth" approaches focus primarily on the welfare of the poor, with income redistribution outcomes, according to Ravallion & Chen (2003), inclusive growth distinguishes itself through emphasis on the process of growth as much as the outcomes. According to this theory, inclusive means that within broad-based sectors, the majority of a country's workforce can participate in, and contribute to, the process of growth by experiencing productive employment opportunities (Klasen, 2010; Ianchovichina & Lundstrom, 2009). Unlike traditional theories that focus only on the quantitative expansion of GDP, the concept of inclusive growth has created an understanding that the long run sustainability of economic growth is dependent on structural change and equalizing opportunities/market access. Therefore, it is not merely about how the benefits of growth are shared, but how they are created.

Yet, there is still no consensus on what constitutes an operational definition of inclusive growth; its measurement is also not agreed upon, nor have the conditions been reached that would spell out determinants of inclusive growth (Ianchovichina & Lundström, 2009). In fact, inclusive growth is considered and defined differently by institutions from their own perspectives. For instance, according to World Economic Forum (WEF) definitions of inclusive growth: Inclusive growth is a process that is broad-based, generates productive employment, and alleviates poverty (Samans et al., 2015). The United Nations Development Programme (UNDP) has its own definition of inclusive growth as: The broad and fair sharing of the prosperity generated by economic growth (UNDP, 2017). The OECD (2014) has put forward its definition of inclusive growth as "the human-centered process of growth in which all parts of society get a fair chance to enjoy an effective sharing of increased prosperity". According to the IMF (2017), inclusive growth is a process in which opportunities are equally distributed in society, and as a result of which employment is generated.

This will ensure an exhaustive analysis without any methodology-related bias. Four different indices have been selected, namely, those by Anand et al. (2013), McKinley (2010), Hakimian (2016), and UNCTAD (2022), to account for the entirety of inclusive growth whose definitions significantly differ. The index developed by Anand et al. (2013) for economic growth and income equity within the framework of the IMF is mainly concerned with the outcomes of growth, distinguishing between "pro-poor" and "inclusive" growth solely based on the distribution of income. On the other hand, the McKinley index (2010), developed within the ADB framework, takes up a more comprehensive structural approach. It goes beyond the outcomes achieved through growth, as it includes "productive employment" as well as "economic infrastructure," which are vital components of inclusive growth absent in the framework presented by Anand et al. (2013). It is more relevant from a practical viewpoint, as presented in the study by Hakimian (2016). Here, it is feasible to monitor the effect that regional weaknesses have on global rankings. It is relevant in the context of developing economies due to the emphasis on social or spatial inclusiveness. The approach of UNCTAD (2022) is perhaps more holistic in its support for the sustainability concept. There is a remarkable variation from the other three approaches, as seen in the discussion above. This is due to the inclusion of "Environmental Sustainability" as well as "Gender Equality" within the index.

The rationale used for employing the four indices carries with it several trade-offs. For instance, a country with a high standing in Anand's index due to equality in income distribution could find its position compromised in McKinley's index due to lower rankings in terms of infrastructure. Likewise, high rankings in Hakimian's index could be offset by environmental penalties in UNCTAD's index. Accordingly, the basic aim of the current research is to establish a "theoretical background" for "inclusive growth," and as a secondary step, include calculations pertaining to inclusive growth indices

for six different nations: France, the UK, Israel, Italy, Sweden, and Türkiye, from 2002-2023.

The rest of this study is organized as follows: Section 2 outlines the historical development, conceptual framework, and measurement methodologies for the four inclusive growth indices. Section 3 reviews the relevant literature. Section 4 details the data compilation and the scope of the analysis. Section 5 presents the empirical findings and comparative country rankings. Finally, Section 6 offers concluding remarks and policy implications.

2. The Historical Development and Conceptual Framework of Inclusive Growth

2.1. Historical Development

Throughout the 1950s and 1960s, the poverty-oriented development approach was based on trickle-down economics, using GDP and its related measures as indicators of economic progress and welfare (Yinusa et al., 2020). According to this theory, the gains of economic growth first accrue to the wealthy, the wealthy increase their spending, and the poor benefit indirectly from these expenditures (Berber et al., 2024). However, economists (e.g., McCulloch and Baulch, 2000; Kakwani and Pernia, 2000; Ravallion and Chen, 2003) realized that this understanding was not always valid and subsequently developed the concept of "pro-poor growth." This approach emphasizes that economic growth must alleviate poverty by reducing the number of poor people.

Following the shortcomings of the Washington Consensus observed in the early 1990s, combined with the emergence of New Institutional Economics, international organizations and NGOs exerted pressure regarding adverse social impacts. Therefore, the World Bank and the IMF had to introduce policies that addressed the issues of poverty and inequality through pro-poor strategies (Filho, 2010). In the 2000s, the strategies mainly targeted the satisfaction of basic needs and the equitable distribution of resources; however, they were still inadequate in dealing with non-income dimensions (Klasen, 2003).

Critically, a pro-poor approach has also been seen to emphasize distributional issues rather than opportunities offered by employment creation to a majority of the labor force. Because of these weaknesses in sustaining poverty reduction strategies, particularly structural constraints not being addressed, this approach became a controversial issue. In order to address this in a more effective manner in both absolute and relative terms, inclusive growth was introduced, emphasizing institutional quality and employment generation (Aslam et al., 2020; Ianchovichina, 2009).

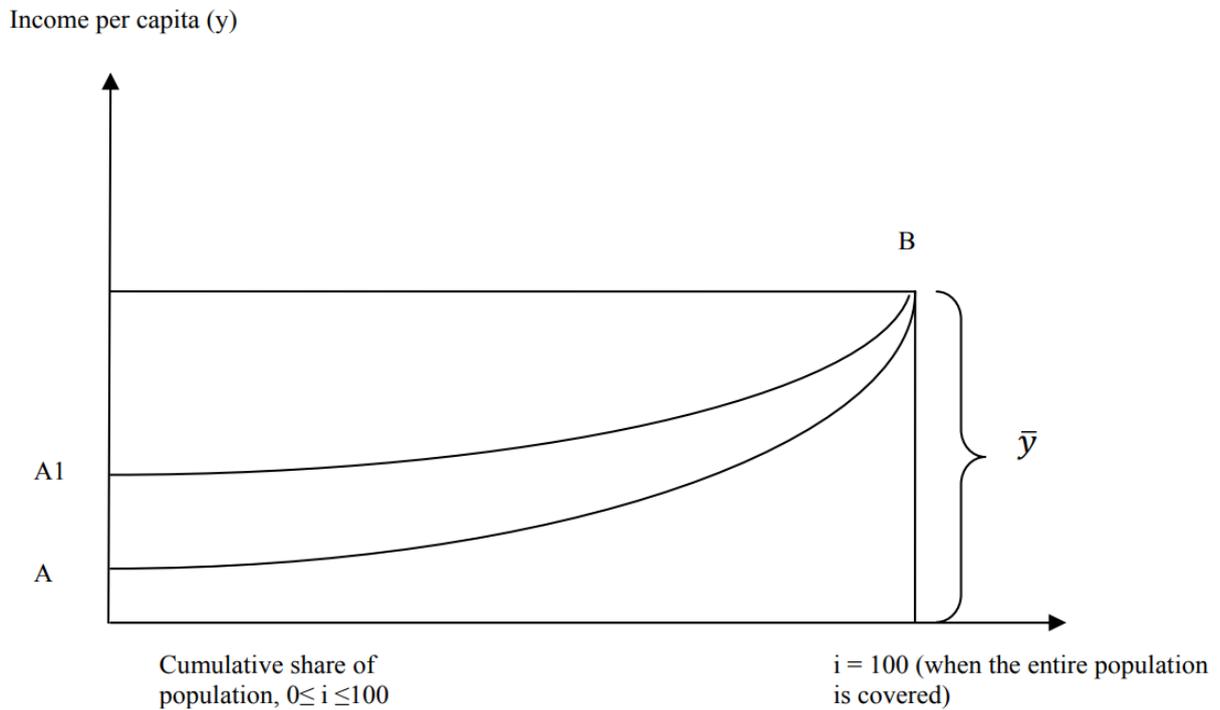### 2.2. Main Measurement Approaches and Their Methods

In order to conduct a robust comparative analysis, this study incorporates four different methodologies to measure inclusive growth. These range from social opportunity functions to composite indices and statistical derivation methods.

2.2.1. Social Opportunity Function Approach

According to the Asian Development Bank (ADB), inclusive growth is defined as economic growth ensuring equal opportunities for everyone. Such growth provides opportunities not only to the poor but to all individuals in society, enabling every segment to access these opportunities (Ali, 2007; Ali & Zhuang, 2007; Ali & Son, 2007). Ali and Son (2007) developed a measurement framework based on the "social opportunity function" and "opportunity curves", applying it to data from the Philippines to assess access to basic services, particularly health and education. In this study, inclusive growth is shaped by the average level of opportunities in society and how these opportunities are shared (equity).

As illustrated in Figure 1, distinct levels of inclusiveness (income distributions) can exist even when the average income ($\bar{y}$) remains identical. The higher the curve, the more inclusive the economic growth. Stated differently, growth is deemed inclusive provided that the social mobility curve shifts upward. Curve A1B exhibits a higher degree of inclusiveness than curve AB, primarily due to the elevated income levels found in the bottom segment of society (Anand et al., 2013).

Figure 1. Social Mobility Curves

Income per capita (y)

B

$\bar{y}$

A1

A

Cumulative share of
population, 0≤ i ≤100

i = 100 (when the entire population
is covered)

Source: Anand et al., 2013.

Anand et al. (2013) measure the changes in the distribution of income by calculating the social mobility index ($\bar{y}^*$), which is indicated by the integral of the social mobility curve.[2] This is expressed in Equation 1:

$$\bar{y}^* = \int_0^{100} \bar{y}_i di \tag{1}$$

If the income of everyone in a population is identical, then the value of $\bar{y}^*$ equals $\bar{y}_i$. When $\bar{y}^*$ falls below $\bar{y}_i$, it suggests an uneven distribution. Therefore, the divergence between $\bar{y}^*$ and $\bar{y}_i$ functions as a metric for income disparity. Utilizing this property of $\bar{y}^*$, Ali and Son (2007) proposed the Income Equity Index (IEI), denoted as ω. This relationship is defined in Equation 2:

$$\omega = \frac{\bar{y}^*}{\bar{y}_i} \tag{2}$$

The parameter ω falls within the closed interval [0, 1], where a value of unity ($\omega = 1$) signifies perfect equality. In contrast to the Gini coefficient, the closer ω is to one, the more equally income is distributed. Equation 3 is obtained by rearranging Equation 2:

$$\bar{y}^* = \omega * \bar{y}_i \tag{3}$$

In Equation 3, increasing the value of $\bar{y}^*$ requires: (i) increasing $\bar{y}_i$ by raising average income via economic growth; or (ii) enhancing the index of equity via improvements in distributional balance; or (iii) combining (i) and (ii). The derivative of Equation 3 is shown in Equation 4:

$$d\bar{y}^* = \omega * d\bar{y}_i + d\omega * \bar{y}_i \tag{4}$$

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[2] The dataset constructed for the Anand approach utilizes the following variables sourced from the TÜİK and World Bank (WDI): GDP per capita, PPP (current international $), Income share held by lowest 20%, Income share held by second 20%, Income share held by third 20%, Income share held by fourth 20%, and Income share held by highest 20%.

Equation 4 demonstrates that $\bar{y}^*$ reflects variations in growth inclusiveness. If $\bar{y}^* > 0$, full inclusiveness is achieved. Via this formulation, growth and equity are incorporated into the measurement of growth inclusiveness.

Figure 2. Changes in the Social Mobility Curve
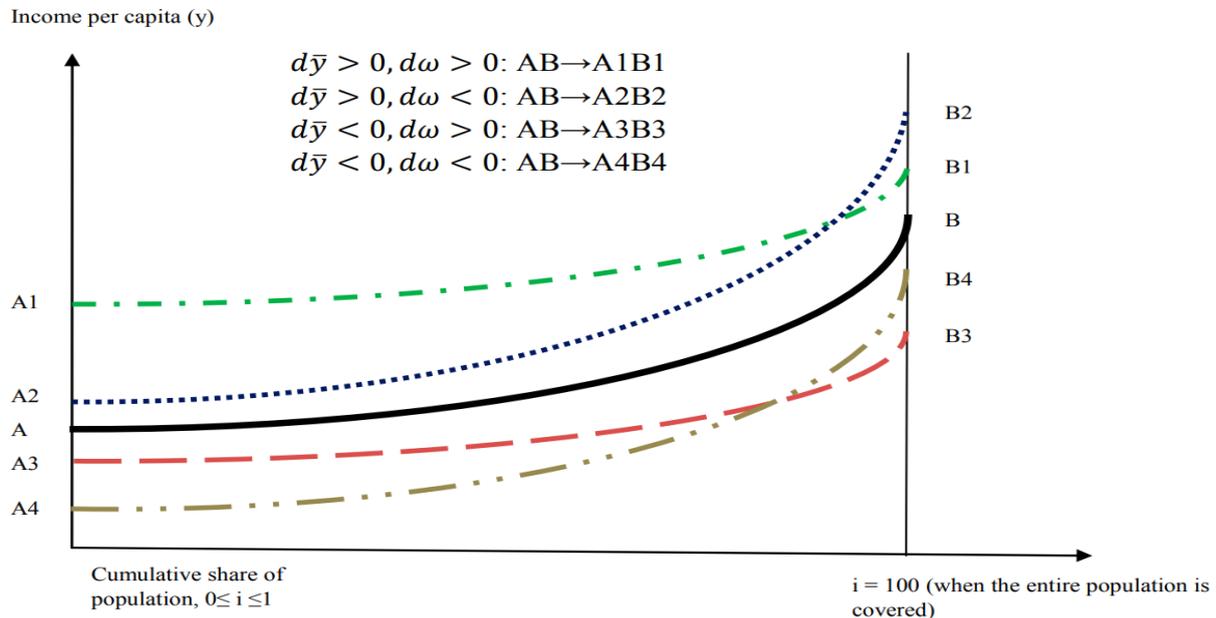
Source: Anand et al., 2013.

However, the shifts in social mobility curves are not always uniform as depicted in the idealized scenario. As illustrated in Figure 2, Anand et al. (2013) argue that growth processes can exhibit different dynamics where opportunities are created but not distributed equally. By way of explanation, non-parallel shifts, for example a shift to curves like A2B2 or A3B3, show important trade-offs, because they express how or to what extent countries' economic growth stems primarily from increased average opportunities or from improved equity of distribution of these opportunities for the poor groups.

2.2.2. Composite Index Approaches

While the Anand approach focuses on income and equity, literature suggests that poverty must be addressed multidimensionally (Habito, 2009). According to the OECD (2008), the importance of a composite index is that it combines different indicators into a single measure, making it possible to analyze such multidimensional phenomena. The first composite index used in this study is based on McKinley (2010). This index comprises four categories: "Economic Growth, Productive Employment, and Access to Economic Infrastructure," "Poverty and Inequality Measures," "Human Capabilities," and "Social Protection." As explicitly detailed in Appendix 1, these four categories encompass a broad scope of data, consisting of 23 specific indicators. The "Weights" column in Appendix 1 shows the contribution rate of each of the variables to the final score of the index. For instance, assigning a weight of 0.50 (50%) to a category implies that its variables contribute 50% to the total index score.

The second composite index is based on the framework developed by Hakimian (2016). It is somewhat similar to McKinley's but more specifically includes "Environment" and "Governance" dimensions through variables such as CO_2 emission levels. It encompasses eight significant policy areas, each equally weighted at 12.5%, based on 15 variables: Growth (Real GDP Growth per capita), Labor & Employment, Health & Demography, Education, Gender (Gender Inequality Index), Environment (Environmental Performance Index), Inequality & Poverty (Gini Coefficient & Poverty Gap), and Governance (Corruption Perceptions Index). The debate on "inclusiveness in growth" has deepened further by incorporating issues of sustainability, the environment, income and gender inequality, which are addressed in Hakimian's study. The complete list is shown in Appendix 2 of the study.

After selecting the indicators for both the McKinley and Hakimian indices, normalization is imperative to handle different scales. Although the z-score method is often advocated (OECD, 2008), this study

utilizes the min-max normalization method, as there were no significant outliers in the dataset. This normalizes all values to a [0, 1] scale. Equation 5 illustrates this normalization process, where the resulting normalized score is denoted by i. In this formulation, X_i represents the raw observed value, while the range is defined by the maximum (X_{max}) and minimum (X_{min}) values of the indicator (UNECE, 2019).

$$i = \frac{X_i - X_{min}}{X_{max} - X_{min}} \tag{5}$$

This equation is applicable for variables that have a positive impact on the value of the index. However, Equation 5 assigns higher scores to higher values, leading to incorrect results for indicators where higher values indicate a negative situation (e.g., Under-5 Mortality Rate, Gini Coefficient, CO_2 Emissions). To overcome this problem and reverse the direction of the indicator, Equation 6 should be applied:

$$i = \frac{X_{max} - X_i}{X_{max} - X_{min}} \tag{6}$$

Following normalization, the final index is constructed by calculating the weighted sum of these normalized values using the weights specified in Appendix 1 and Appendix 2. This process generates a composite index ranging from 0 to 10, where scores approaching 10 signify superior inclusive growth.

2.2.3. Principal Component Analysis

The fourth index follows the framework provided by UNCTAD. UNCTAD (2022) defined inclusive growth as "ensuring fair and unbiased access of all people to contribute to and benefit from economic growth while prioritizing gender parity and ecological sustainability in particular." The first measure of this index, released in 2019, examined inclusive growth in three dimensions: Economy, Living Conditions, and Equality. However, in response to the finding that the COVID-19 pandemic magnified existing issues and weaknesses mainly in areas relating to inequality and vulnerability, UNCTAD released an upgraded edition in 2023 (Barnat et al., 2023b). In this iteration, the indices were structured around four pillars, with the addition of the new Environment pillar, which deals with sustainability issues, for instance, in terms of carbon emissions/rates and usage. Aligned with 15 of the 17 SDGs, this integrated method aims to measure sustainable development that is not only inclusive but also environmentally viable.

Based on this four-dimensional framework (Economy, Living Conditions, Equality, and Environment) the research establishes 21 representative indicators specific to these pillars. Unlike previous composite indices that relied on pre-set weights, this index is utilizes Principal Component Analysis (PCA). The primary rationale for applying PCA in this study is to achieve dimensionality reduction and eliminate subjectivity in weighting. According to Rusu and Stan (2023), the PCA method transforms numerous variables into a smaller set that retains the maximum possible variation from the original data. This is achieved by computing the eigenvectors and eigenvalues of the correlation matrix. In this method, the linear component with the highest variance is represented by the first eigenvector, while the remaining components are captured by subsequent eigenvectors (Jolliffe, 2002).

In the application of this method, specific adjustments were made to ensure data consistency. Before applying PCA, indicators such as Under-5 Mortality Rate, Gini Coefficient, Poverty Rate at $8.30 a Day, Carbon Intensity of GDP, and Energy Intensity of Primary Energy were identified as variables with a negative impact. The final index was created using the averages of components with eigenvalues greater than 1, offering a statistically derived weighting scheme rather than a subjective one.

3. Related Literature

One of the pioneering studies laying the foundation for the inclusive growth literature is by Ali and Son (2007). Based on the concepts of the "social opportunity function" and the "opportunity curve", this model is the first study in its field to measure not only the increase in average opportunities but also the distribution of these opportunities within the population, when evaluating the inclusiveness of growth. According to the findings of the study, though access to primary education was highly available in the Philippines, a decline was seen in secondary education, and inequality of opportunity was observed both in education and in health services. The study found that inequality increased further, especially while

there was an average decline in access to health services. Building upon the work of Ali & Son (2007), Anand et al. (2013) subsequently assessed the inclusive growth dimension across 143 nations. As a part of this study, a dynamic index for inclusive growth that incorporates economic growth and income distribution using a combined indicator was created. As revealed by the study's result, while macroeconomic stability, human capital development, trade openness, foreign direct investment, and the quality of infrastructure positively impact inclusive growth, there is no significant impact on it by financial deepening and technological change. Moreover, in the case of countries that exhibited high growth, such as China, the gain in growth and, to some extent, income distribution together led to inclusive growth in countries like Brazil, Mexico, and Malaysia. A modest change in growth performance and income distribution (ω), measured as 0.2, resulted in inclusive growth for Türkiye, according to the study.

The research undertaken by McKinley in 2010, commissioned by the ADB, sought to create the first-ever inclusive growth index at a national level. In their study involving Cambodia, Bangladesh, Uzbekistan, Indonesia, India, and the Philippines, they provide a diagnostic assessment utilizing a range of indicators including economic growth, employment, infrastructure, poverty reduction, inequality, human capacity development, and social protection. Based on their results, Uzbekistan with a score of 6.80 and India with a score of 5.70 demonstrated relative success in inclusive growth. However, the Philippines with a score of 3.80 and Indonesia with a score of 4.40 demonstrated inefficient performance. Others demonstrated moderate progress.

Hakimian (2013) focused their analysis on inclusive growth for the economies of North African countries such as Libya, Algeria, Egypt, Tunisia, and Morocco. The results show that the North African economies actually performed better in the period from 2000 to 2010. This is supported by the slow growth rates witnessed in the 1980s and 1990s as well as in other emerging economies such as those in East Asia and Latin America. The problem of unemployment still poses a major concern for the economies in North Africa, especially for the youth, as a result of the high population growth. The same economist later designed an enhanced model that sought to create an analysis that would be applicable to the economies of the Middle East and 53 least developed economies, as shown in Hakimian (2016). This analysis helped deepen an understanding of the dynamics of inclusive growth and other key ongoing issues such as environmental sustainability and social forces like income and gender inequality.

Ramos et al. (2013) attempted to apply the concept of inclusive growth to 43 emerging countries by identifying two major dimensions: "benefit sharing," which focuses on equality in growth outcomes, and "participation," which measures social inclusion in economic activities. To operationalize these dimensions, they constructed an index that uses poverty and income inequality to capture the benefit-sharing aspect, and the employment-to-population ratio to reflect participation. With respect to inclusive growth for Türkiye, it was noted that a considerable improvement was achieved during the period of 1996-2006 in the aspect of "benefit sharing." In this context, poverty rates reduced to 6% from 10%, and inequality also reduced as the Gini coefficient decreased from 44 to 40. However, in terms of "participation," the situation deteriorated significantly, as the employment-to-population ratio declined from 50% to 42%. Hence, in regard to 2006 data, Türkiye was found to be a moderately inclusive economy (0.44) with this high unemployment rate.

Bocutoğlu (2017) analyzed the performance of D-8 member countries using the "Inclusive Growth and Development Framework" of the WEF, which includes 7 broad pillars and 15 sub-pillars. The result indicated that the economies of D-8 countries in all groups of income on average performed less than average, but Malaysia, Türkiye, Indonesia, and Iran were exceptions as they surpassed the average performance in their respective groups. Specifically, the study found that Malaysia displayed "excellent" performance in all indicators except 2 indicators on poverty rate; Türkiye also remained above average on all indicators except on poverty rate. The analysis concluded that the D-8 member countries overcame convergence in growth rates but lacked the inclusive elements of growth that supports productive employment and poverty reduction.

To fill the shortcomings of other indices (Human Development Index - HDI, Inequality-adjusted HDI, and Inclusive Development Index - IDI), Dörffel & Schuhmann introduced the notion of the Multidimensional Inclusiveness Index (MDI) that comprises two sub-dimensions: development

achievements & equity. This index was computed for 171 countries using 14 factors. In the 2018 MDI Basic ranking, Sweden (7th), Italy (31st), France (18th), the United Kingdom (23rd), and Israel (30th) are present, while Türkiye is in 63rd place. It was determined that despite the increase in global averages, the negative trend in income inequality limited MDI performance, and inclusive growth remained limited to progress in the achievement dimension.

Barnat et al. (2023) developed an inclusive growth index covering 167 countries based on 2019 data in cooperation with the United Nations Conference on Trade and Development (UNCTAD) and the Eurasian Economic Commission (EEC). In the index built on three main pillars (Economic, Living Conditions, and Equality) European countries such as Sweden, the United Kingdom, France, and Italy ranked at the top; Türkiye remained in the middle ranks; and Israel remained in relatively lower ranks. The general finding of the study is that inequality issues are generally focused on after reaching a certain level of economic development.

Research conducted specifically in Türkiye highlights structural issues and disparities alongside overall positive developments. Employing the method suggested by Anand et al. (2013), the study by Taşkın (2014), covering the 2002-2011 period, found growth in Türkiye to be inclusive on average (5.8%), but with differential trends at the regional and periodic levels. Of particular relevance in the study is the trade-off between efficiency and equity at the regional level and how inclusiveness declined during the Global Crisis of 2009 but increased with gains in female and low-skilled employment. Avcı and Tonuş (2020) and Karakoyun and Yorulmaz (2024) made evaluations for Türkiye at the national level. Avcı and Tonuş (2020) created an index with five different techniques utilizing the McKinley (2010) method. Karakoyun and Yorulmaz (2024) constructed their indices utilizing the methodologies of both McKinley (2010) and Hakimian (2016). In both studies, it is a common finding that high growth rates, reduction in poverty, improvement in income distribution, increase in social protection expenditures, and positive developments in female employment increased inclusive growth in Türkiye during the majority of the 2000s. However, this positive performance was interrupted by external shocks such as the 2009 Global Crisis, the 2011-2012 period, and COVID-19 pandemic, as well as structural problems such as the slowdown in economic growth, deterioration in productive employment (industrial employment), and increased income inequality.

Berber et al. (2024) carried the McKinley (2010) approach to the regional level. The study, which estimated indices for the years 2014-2021 in NUTS Level 2 regions, determined that although there was an increase throughout Türkiye, there were still significant differences between the West and East. The conclusion was made that the reason for the difference in performance due to differences in development was based on elements such as migration, the dependency of the elderly, and the degree of industrialization. Soyyiğit and Elverdi (2021) conducted an analysis at the regional level for the period 2006-2019. The Opportunity Equality Index, calculated using the social opportunity function developed by Ali and Son (2007), found that there has been a regression in Türkiye in terms of inclusive growth since the post-2016 period. It was determined that Istanbul had the lowest equality of opportunity and East Marmara the highest, while only Southeast Anatolia Region converged to the latter region. The study underlined the crucial role of real production activities in increasing equality of opportunity.

The relationship of inclusive growth with macroeconomic factors has also been discussed. The study done by Can et al. (2019) emphasizes the relationship of globalization and inclusive growth using data from 1991 to 2015. The results indicate that there is a long-term relationship and causal link from the inclusive growth index, which is formed based on the McKinley (2010) framework, to globalization measured by the KOF Index. The relationship is explained as an advancement in factors such as education, health, infrastructure, and economic conditions that drive globalization. Keyifli et al. (2022) conducted another interesting research that explored the relationship between the growth of public sectors and the advancement of inclusive growth across eight emerging economies, including Türkiye, China, and Brazil, from 1985 to 2019. This result implies that in the Turkish case, public expenditure could be a driving force for inclusive growth in areas such as education, health, infrastructure, and social protection, if these expenditures are optimized. In the study conducted by Avcı and Tonuş (2022), inclusive growth indices developed according to five different techniques utilizing indicators proposed by McKinley (2010) for Türkiye for the period of 2006-2018. According to the study, using the ARDL test, it has been seen that healthcare and education expenses primarily had a negative effect on inclusive

growth indices, whereas a positive effect stemmed from social transfers. Additionally, it has been interpreted that indirect taxes adversely affected inclusive growth.

In light of the synthesis of the literature on various methodological techniques from opportunity functions to composite indices, the starting point is that economic growth by itself is not sufficient from an inclusive growth perspective. An undercurrent that is generally visible within this set of research studies and particularly applicable to developing countries and Türkiye is that rigid structures like unemployment (youth unemployment), inequality of income, and regional imbalances function quite as obstacles on the way to inclusive growth. More generally, and more particularly from the perspective of this literature review, it is recognized that fiscal policies and social spending can contribute to inclusive growth, although this remains tentative and particularly reversibly problematic during scenarios of external turbulence and shocks to the economy. In sum, given these are attributes conventionally associated with "higher living standards", a key implication of this model is that achieving sustainable inclusive growth depends not just on GDP expansion, but rather on the quality of growth-specifically, its ability to generate productive employment, enhance human capital through health and education, and ensure equitable participation.

Despite these extensive findings, significant gaps remain in the literature regarding measurement consistency and comparative methodology. Relative to the existing studies discussed above, the contribution of this work is fourfold: First, while the dominant stream of research largely relies on a single index to measure inclusiveness (e.g., Anand et al., 2013; Ali & Son, 2007), this creates a dependency on specific theoretical assumptions. This research compares four different methodological approaches (Anand, McKinley, Hakimian, and UNCTAD) in order to show how changing the index will change the rankings of countries. There is already literature on Türkiye using composite index methodologies such as those developed by Karakoyun and Yorulmaz (2024), based on the McKinley and Hakimian approaches. However, this study offers an extension of this work by providing a side-by-side comparison of structural methods of growth measurement (McKinley and Hakimian) with outcome based (Anand) and sustainability driven (UNCTAD) methods of growth measurement to expose broader trade-offs. Also, unlike most studies that look only at Türkiye's own internal performance or limited comparisons, by comparing Türkiye's performance against a wide variety of global economies, (i.e. France, UK, Israel, Italy and Sweden), this proposal will give a more complete picture of its relative strengths and weaknesses with respect to other Mediterranean and European countries. Fourth, most of the previous studies examining inclusive growth do not consider the post-COVID structural shifts within their time frame of study (2002-2023); both the 2009 Global Financial Crisis and the COVID-19 pandemic were critical shifts in the global environment which shaped the context during that time frame. Finally, this study moves beyond standard index calculations by conducting a methodological critique. Through a decomposition of these indices, a deeper discussion of the drivers of inclusiveness can be conducted (separating out growth- and equity-driven progress), leading to a more transparent toolkit for establishing the prioritization of policies than comparable studies using standard composite index methodologies.

4. Data Compilation and Scope of Analysis

In this study, a framework for comparative analysis was applied based on four different methodologies reported in the literature on measuring inclusive growth. Thus, four different indices were calculated for the compared countries: France, the United Kingdom, Israel, Italy, Sweden, and Türkiye.

These countries were selected based on two main criteria. The chosen countries provide a range of economic structures and welfare regimes, ensuring a comprehensive robustness check of the indices. Sweden is chosen to exemplify the Nordic welfare state, characterized by a high degree of social inclusion. France and Italy represent the Continental European economies, while the United Kingdom illustrates a more liberal market-oriented economy. Israel is included due to its highly diverse and dynamic economy, which contrasts with the more mature economies of Europe. Finally, Türkiye is included as a representative of developing economies, creating a necessary contrast to the established systems of the G7 and the Nordic model.

The second reason is connected with the issue of data availability. The four different estimation approaches which are Anand, McKinley, Hakimian, and UNCTAD required countries with well-

developed statistical systems and accessible data. The primary data for the indicators in the indices was sourced from international databases such as the World Bank's WDI, OECD, and relevant national statistical offices.[3]

The analysis covers the period from 2002 to 2023. The temporal scope was determined by a Türkiye-centered approach, which necessitated a balanced panel where the common sample was defined by the joint availability of data for all variables. Crucially, the study adhered strictly to the fundamental indicators defined in the primary sources; proxy indicators were minimized to preserve the integrity of the original methodologies. While the Anand index extends to 2023, discrepancies in the update schedules of sub-indicators essential for composite indices necessitated concluding the UNCTAD series in 2022, and the McKinley and Hakimian series in 2020. These years represent the latest verified data points for the full set of variables across the reference country and comparator economies, and the analysis was restricted accordingly to ensure methodological consistency.

5. Results

5.1. Anand Method

According to Figure 3, the variables of the Anand method, that is, GDP per capita and the income share of each quintile, show that in France, the United Kingdom, Israel, Italy, Sweden, and Türkiye, inclusive growth is largely the result of the fine balance between economic performance and inequality variables. It should be noted that data availability for the United Kingdom and Israel is limited to the period ending in 2021. In France, the change in the share of the top 20% moved within the range of 40-42%, while inclusive growth increased significantly in periods of high GDP growth and low inequality, that is, between 2010 and 2016, and between 2011 and 2017, respectively. It is noteworthy that Sweden is characterized by the lowest levels of inequality, at 35-38%, and therefore the most stable and high rates of inclusive growth. In the post-2019 period, the increase in inequality, along with the economic shock of the COVID-19 pandemic and the subsequent global inflationary pressure, led to the volatility of inclusive growth in the above countries. The increase in income inequality (falling values of ω) with positive GDP growth, suggests that the equity component of growth is deteriorating, leading to the decrease in inclusive growth in absolute terms.

In the case of developing economies, particularly Türkiye, a divergent trend is observed. As depicted in Figure 3, Türkiye exhibited a higher inclusive growth index compared to other countries during the 2003-2009 and 2010-2016 periods. However, this high performance was largely driven by the strong "growth" component (rapid GDP expansion) of the Anand method, rather than improvements in equity. Although index scores were high due to economic performance, structural rigidities in income distribution persisted. Specifically, it is noteworthy that the income share of the richest 20% rose above 48% in Türkiye in the 2022-2023 period (and hovered around 47-48% in Israel until 2021). Finally, Italy produced chronically limited inclusive growth due to low growth performance combined with moderate inequality (40-42%), seeing only partial improvements in years with strong GDP increases (2007, 2016, 2019, 2021).

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[3] Detailed sources are provided in Appendix 1-3.

Figure 3. Anand Method Inclusive Growth Index (2003-2023)
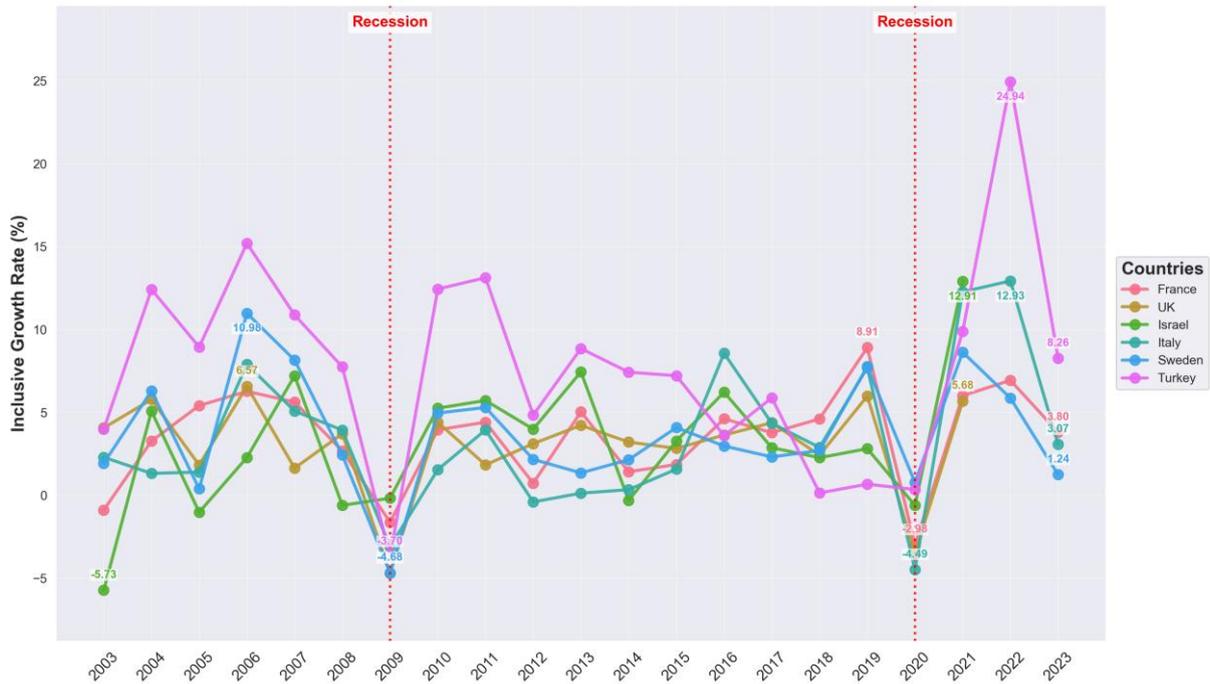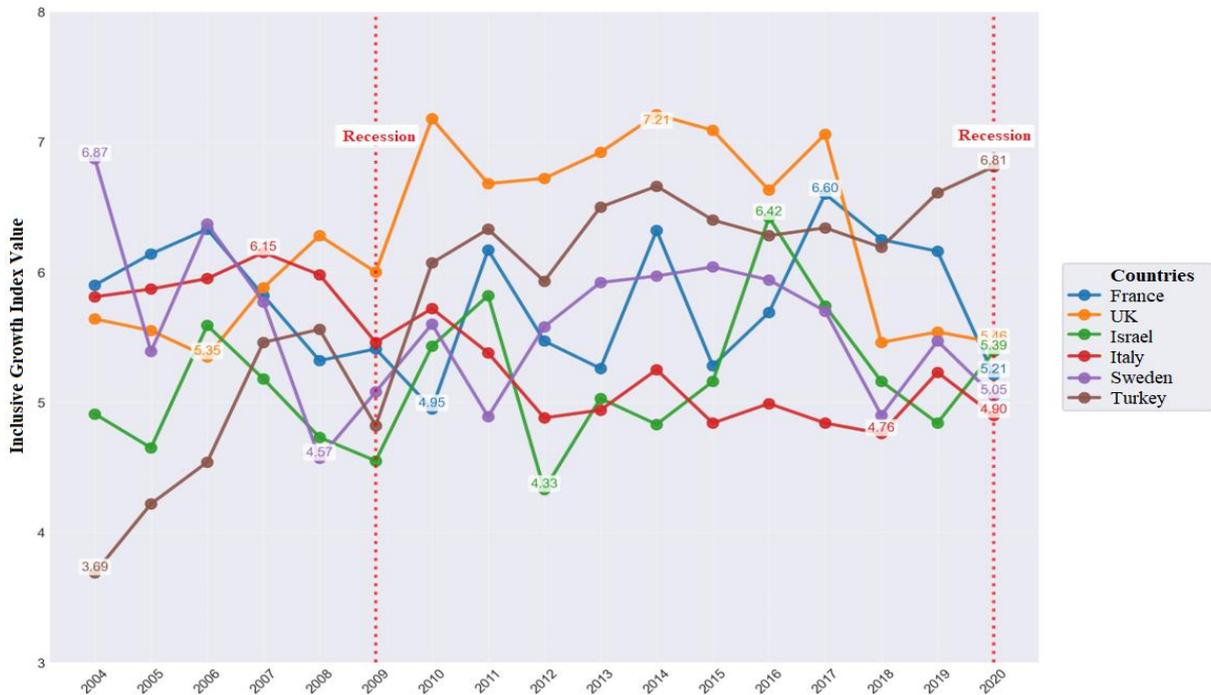

Source: Prepared by the author.

The general picture clearly shows that inclusive growth depends not only on economic growth but also on equity in income distribution. Although more egalitarian economies like Sweden and France showed steady inclusive growth and resilience to shocks, countries with high inequality levels, like Israel and Türkiye, showed an unstable pattern. In these countries, inclusive growth was not hampered but rather fueled by overall economic growth, masking the absence of structural changes in income distribution.

5.2. McKinley Method

According to Figure 4, the McKinley index emphasizes the development of capacity within each country in relation to its own baseline. Türkiye experienced the most significant structural transformation, increasing its inclusive growth index from 3.69 in 2004 to 6.81 in 2020. This upward trend was driven by substantial improvements in infrastructure, particularly in the areas of electricity, water, and sanitation, as well as access to basic healthcare. However, rising income inequality and the fact that social protection expenditures as a share of GDP remained low relative to its internal potential served as factors that constrained its own index performance. Similarly, Israel raised its internal index from 4.91 to 5.39. This progress was achieved through a reduction in income inequality (with the Gini coefficient decreasing from 41.5 to 37.8), improved health outcomes, and an increase in social expenditure relative to its own historical average.

On the other hand, the declines observed in Italy (from 5.81 to 4.90) and Sweden (from 6.87 to 5.05) reflect the negative impacts of structural shocks and the saturation effect relative to their own high starting standards. Sweden's lower internal score in this period is largely a result of increased income inequality and relative cuts to social expenditure compared to its own previous peaks. Furthermore, the methodology's emphasis on quantitative expansion in growth and employment often yields lower scores for mature economies like Sweden, where the marginal room for improvement in established infrastructure is limited. France and the United Kingdom exhibited the most stable internal trajectories, albeit with a slight decline. While growth in their service sectors and advancements in digital infrastructure provided positive internal momentum, these gains were partially offset by industrial contraction and the shocks of the COVID-19 pandemic within their respective systems. Ultimately, the McKinley index suggests that while countries like Türkiye and Israel experienced rapid internal "catch-up" progress in infrastructure and health, more mature systems like France and the United Kingdom focused on maintaining a balanced internal equilibrium amidst external pressures.

Figure 4. McKinley Method Inclusive Growth Index (2004-2020)

Source: Prepared by the author

Note: Index score averages for the 2004-2020 period are as follows: France (5.7805), United Kingdom (6.2738), Israel (5.1631), Italy (5.3498), Sweden (5.5950) and Türkiye (5.7887)

In summary, the McKinley index demonstrates that Türkiye and Israel achieved the most significant internal capacity-building during the period, successfully translating domestic infrastructure and health investments into higher inclusive growth scores relative to their own baselines. Conversely, mature economies like Sweden and Italy experienced a decline in their internal index values, reflecting a combination of the "saturation effect" in established sectors and a rising sensitivity to domestic income inequality and social expenditure shifts. While France and the United Kingdom maintained the most balanced internal equilibrium across the time series, the overall results suggest that maintaining inclusive growth is a dynamic challenge; even for high-performing nations, structural rigidities in labor markets and shifting social protection priorities remain critical domestic hurdles.

5.3. Hakimian Method

As illustrated in Figure 5, the Hakimian index highlights significant internal developmental shifts, particularly for countries undergoing rapid structural changes within the 2002–2020 period. Türkiye exhibited the most dramatic internal growth momentum, surging from a baseline of 2.48 in 2002 to a peak of 7.23 in 2013. This steep increase reflects a rapid alignment between Türkiye's domestic performance and the index's emphasis on GDP growth and employment expansion. Although its score adjusted to 6.64 by 2020, this remains a high level of internal transformation compared to its starting point. However, the rise in income inequality and carbon emissions relative to its own historical averages suggests internal sustainability challenges for this specific growth path. Israel also demonstrated notable internal progress, reaching an index score of 6.06 in 2016. This was primarily driven by a significant domestic shift toward renewable energy, which increased from 0.07% to 6.20% within its own energy mix. Despite these gains, high income inequality and a decline in youth employment compared to its own past figures acted as internal barriers to a higher inclusive growth score.

In contrast, Sweden demonstrated the highest internal stability among the peer group. By maintaining low income inequality, high social expenditures, and a consistent lead in renewable energy relative to its own historical standards, Sweden achieved a stable and balanced inclusive growth performance. Its trajectory reflects a mature economy that prioritized maintaining high social and environmental

standards over volatile quantitative expansion. The economies of France and the United Kingdom followed a more fluctuating course. Internal weaknesses regarding environmental targets in France and lower relative social protection levels in the United Kingdom pulled their respective scores down from previous peaks, although the United Kingdom maintained strong internal performance in health expenditures and renewable energy. Meanwhile, Italy experienced a sharp decline following the 2009 crisis, with a slow recovery hampered by a serious regression in its youth employment rate which dropped from 25.7% to 16.8%, relative to its 2002 levels.

Figure 5. Hakimian Method Inclusive Growth Index (2002-2020)
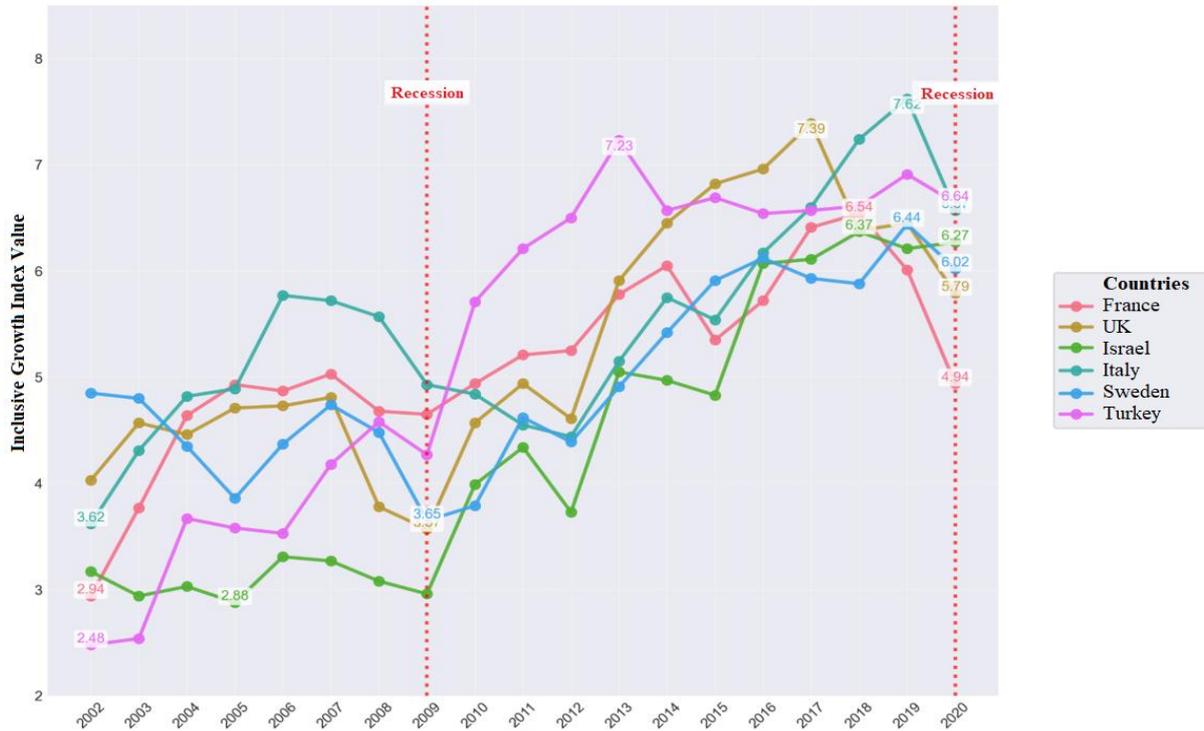
Source: Prepared by the author.

Note: Index score averages for the 2002-2020 period are as follows: France (5.14), United Kingdom (5.31), Israel (4.35), Italy (5.48), Sweden (4.98) and Türkiye (5.32)

In summary, the Hakimian index reveals that while countries like Türkiye and Israel achieved extraordinary internal growth bursts in specific periods, Sweden's trajectory was characterized by the greatest consistency and balance across its social and environmental pillars. In all the nations analyzed, youth unemployment and income inequality are the key domestic challenges to sustaining high inclusive growth scores.

5.4. UNCTAD Method

The test results regarding the statistical prerequisites for applying the PCA method to the UNCTAD inclusive growth index are presented in Appendix 4. The hypotheses for the Bartlett's Test of Sphericity are as follows: the null hypothesis (H_0) assumes that the matrix of population correlations corresponds to a unit matrix, whereas the alternative hypothesis (H_1) suggests that it deviates from this structure. According to the results provided in Appendix 4, H_0 is rejected for all countries since $p < 0.05$. There are statistically significant correlations between the variables. As Jolliffe (2002) emphasizes, a significant Bartlett's test is a key indicator that the correlation matrix is not an identity matrix, thus providing a statistical justification for proceeding with PCA. The high Bartlett Chi-Square value, together with the statistical significance of the p-value, confirms that the correlation structure among the 21 common variables used to create the inclusive growth index is strong.

Following the validation of the dataset, PCA was applied to compute the composite index scores. The detailed results of the index calculation are provided in Appendix 5. As shown in Figure 6, the UNCTAD inclusive growth index reveals distinct internal developmental trajectories for each nation relative to

their 2002 starting points. Because this method utilizes PCA, the resulting scores reflect the most significant statistical variations within each country's own dataset rather than a subjective weighting scheme.

Sweden demonstrated the most consistent and balanced internal progress across economic, social, and environmental variables. Within its own timeline, Sweden successfully coupled GDP per capita growth with a significant reduction in carbon intensity (from 0.135 to 0.061) while maintaining historically low inequality levels. Although its internal index retreated during the 2020 pandemic, its robust social safety nets facilitated a steady recovery through 2022.

France and the United Kingdom followed a similar upward trajectory but exhibited higher internal sensitivity to structural shocks. In France, the 2020 dip was primarily driven by domestic vulnerabilities in youth employment. Similarly, the United Kingdom saw a decline in 2020 as GDP contracted and youth labor markets weakened relative to its own previous performance. For both nations, while healthcare spending remained an internal pillar of strength, meeting environmental targets and integrating youth into the labor market continue to be the primary domestic challenges to sustaining long-term gains.

Israel posted strong internal economic growth, but its index progression was periodically tempered by deepening domestic social inequalities, preventing a smoother upward curve within its own trajectory. Italy stands out with the most stagnant internal trajectory. Despite some domestic improvements in social equality, persistent youth unemployment and low economic momentum constrained its development within a much narrower band relative to its 2002 baseline.

Türkiye exhibited a highly divergent and striking internal performance. Between 2002 and 2016, Türkiye gained significant momentum, reflecting a rapid structural transformation compared to its own initial state. Notably, Türkiye's internal index did not show the sharp decline observed in advanced economies during the 2020 crisis; instead, it surged to its highest domestic levels by 2022. However, this striking increase suggests that the "Economy" component, driven by rapid GDP expansion, overwhelmingly dominated the "Equality" and "Environment" components in the post-pandemic period. While its overall internal score is high, persistent income inequality and low social expenditures relative to its growth indicate that the progress achieved is not yet fully balanced across all dimensions of inclusivity.

Figure 6. UNCTAD Inclusive Growth Index (2002-2022)
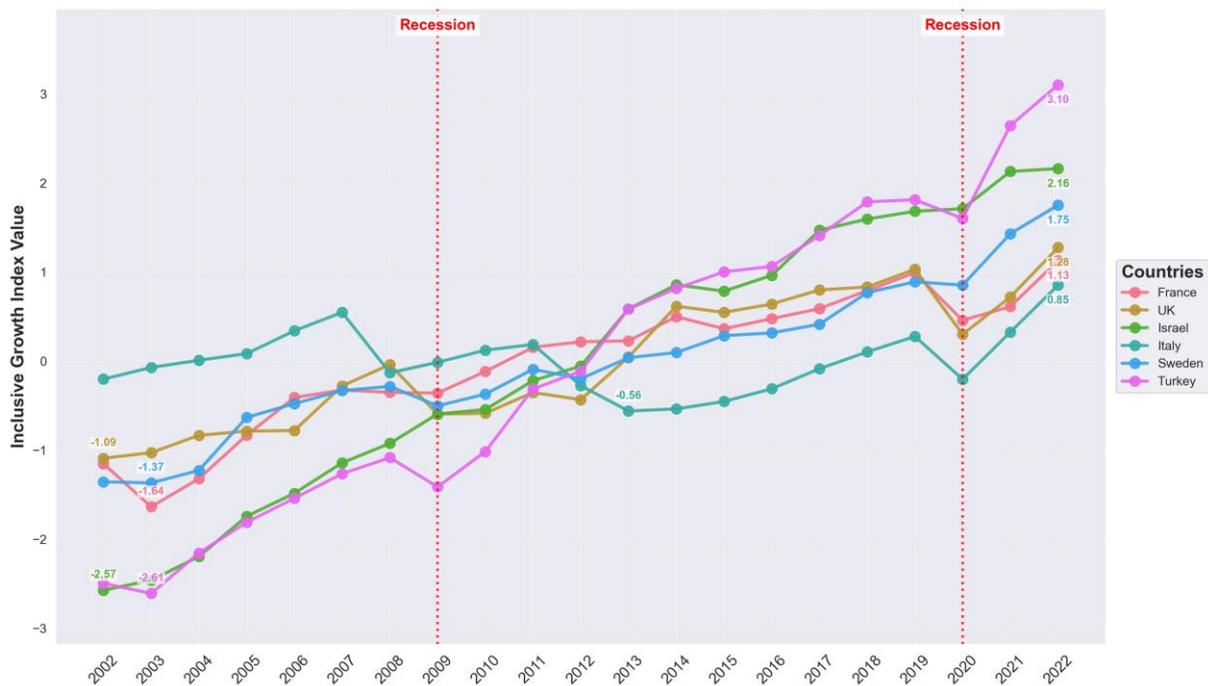
Source: Prepared by the author.

Note: Index score averages for the 2002-2022 period are as follows: France (0.00), United Kingdom (0.00048), Israel (0.0019), Italy (0.00048), Sweden (0.00) and Türkiye (-0.00048) The composite index is calculated using a four-dimensional PCA approach (Economy, Living Conditions, Equality, Environment). All principal components are weighted by their explained variance ratios following the UNCTAD and ECC (2019) methodology to capture total variability without data loss.

In summary, the UNCTAD index reveals that while economic growth is the primary engine driving internal scores upward, the quality of that progress varies. In mature economies like Sweden and France, the index reflects a more balanced internal alignment where social welfare and environmental sustainability accompany economic gains. In contrast, for Türkiye, the sharp rise reflects a significant "catch-up" momentum that remains heavily reliant on economic indicators, highlighting the domestic need for stronger social and environmental counter-balances.

6. Conclusion

The research aims to verify the crucial role of methodology in measuring inclusive growth through empirical studies and to check the overall validity of the theory by applying it to different models of economics. By evaluating the economic performance of different countries like France, the UK, Israel, Italy, Sweden, and Türkiye between the years 2002 and 2023 through different indices like Anand, McKinley, Hakimian, and UNCTAD, the high sensitivity of measuring inclusive growth is verified depending on the theory applied. However, the research indicates that the role of market mechanisms and GDP growth through neoclassical theory is inadequate, as observed by clear differences in the rankings of the countries, proving that economic growth, equity, and sustainability differ from one another.

As per the framework suggested by Anand et al. (2013), a strong growth-trade-off pattern can be observed. It is observed from the obtained results that the social performance for the Swedish economy is high, but underlying concerns regarding income distribution for the Turkish and Israeli economies continue to prevail. For France and the UK, social performance lies in the medium range, while for the case of the Italian economy, social performance lies in the low range due to income stagnation; however, the results are different from the ones discussed by Taşkın (2014) for the Turkish economy, which leads to underlying concerns about the sustainability of inclusiveness in the face of high growth levels. Even though some positive changes were noted, from an extended perspective, it can be noted that equitable income distribution is not necessarily achieved by growth, as is discussed through Inclusive Growth Theory.

However, this changes dramatically when the focus is on productive capacity and infrastructure, which are the central elements of the approaches developed by McKinley (2010) and Hakimian (2016). Based on the McKinley index, the fact that there has been substantial progress in infrastructure and services makes Türkiye exceptional in terms of internal capacity-building achievement compared to its own baseline. This result is in line with the study by Avcı and Tonuş (2020), which emphasizes that the strong growth rates and developments in basic services contributed substantially to the enhancement of inclusive growth in Türkiye in the 2000s. On the other hand, this index places Sweden lower (6.89 to 5.05) in terms of internal improvement rate, which is a direct result of the approach's focus on quantitative growth, contradicting the saturation levels of a mature economy. The Hakimian index provides different rankings because this index includes "Environmental Sustainability" and "Governance" as part of the policy areas taken into account. As of 2020, Türkiye achieved its highest internal score (7.23) in this framework, primarily due to the domestic alignment between economic growth and employment generation during its peak transformation phase. This result is in line with the study by Karakoyun and Yorulmaz (2024), which noted that the positive effect of Türkiye's growth performance contributed to such indicators. In this index, Israel performed well due to environmental factors, while Italy demonstrated the most stagnant performance due to structural youth unemployment. Moreover, France and the United Kingdom demonstrated fluctuating performances.

The UNCTAD model serves as a balancing framework that aligns the economic focus of McKinley and Hakimian with the social and environmental demands of the SDGs. Through its PCA-based structure, the index highlights Sweden's ability to maintain the most balanced internal trajectory, sustaining high

social and environmental standards despite lower quantitative growth. In contrast, for economies like Türkiye and Israel, the conflicting rankings across these four models suggest that "comprehensive" inclusivity requires moving beyond the capacity-building focus to address the distributional and environmental gaps highlighted by the UNCTAD.

There are certain limitations in the current study that should be acknowledged. First, restricting the scope to six nations may limit the generalizability of the findings across diverse economic contexts. Second, in calculating the McKinley, Hakimian and UNCTAD indices, the use of alternative indicators due to data unavailability for certain years may introduce minor discrepancies. Third, the temporal scope of the data, particularly for composite indices ending in 2020 or 2022, may not fully capture the long-term structural shifts following the peak of the COVID-19 pandemic. Lastly, while the indices offer a descriptive mapping of inclusive growth, they do not provide a formal econometric test of the causal drivers behind these trends.

Subsequent research should extend this type of comparative analysis to a larger group of developing countries and employ more advanced econometric techniques, such as panel data analysis, to identify the causal macroeconomic drivers of these divergent index scores. Overall, it is concluded that inclusive growth should be measured less from a "one-size-fits-all" perspective and more within the context of a composite policy framework—one that encompasses productive employment policies with strong redistributive and sustainable strategies.

Ultimately, this study reinforces the core hypothesis of inclusive growth theory: that growth, equity, and sustainability are indispensable, interdependent pillars. The study underscores the theoretical necessity for policymakers, especially in high-growth, high-inequality economies such as Türkiye and Israel, to go beyond market mechanisms. The significant empirical divergence in the rankings by countries supports the necessity for strategic state intervention, above all in the form of industrial policies aimed at promoting productive employment and all-encompassing policies to combat income inequality. Without such a complementary policy environment, growth as suggested by the neoclassical model can neither be sustainable, nor can it be inclusive in character.

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Appendix 1. McKinley Inclusive Growth Index Dataset

Indicator Proposals	Indicators	Database	Weight (%)
Economic Growth & Productive Employment & Access to Economic Infrastructure	Real GDP Growth per capita	WB, OECD	12.5
	Services, Value Added (% of GDP)	WB	4.17
	Industry (including construction), Value Added (% of GDP)	WB	4.17
	Agriculture, Forestry, and Fishing, Value Added (% of GDP)	WB	4.17
	Employment in Industry (% of total employment)	ILO	5
	Employment in Manufacturing (% of total employment)	ILO	5
	Self-Employed (% of total employment)	ILO	5
	Access to Electricity (% of population)	WB	5
	Mobile Cellular Subscriptions (per 100 people)	WB	5
Poverty Measures & Inequality Measures (Vertical and Horizontal)	Proportion of Population Living Below the International Poverty Line	WB	5
	Poverty Gap at $3.00 a Day (2021 PPP) (%)	WB	5
	Gini Coefficient	WB	5
	National Income Share of the Bottom 50%	WID	5
	Gross Enrollment Ratio in Secondary Education (GPI)	UNESCO	2.5
	Physicians (per 1,000 people)	WHO	2.5
Human Capabilities	Under-5 Mortality Rate (per 1,000 live births)	WB	2.5
	Mortality Rate Attributed to Cardiovascular Disease, Cancer, Diabetes, or Chronic Respiratory Disease (Ages 30–70)	WB	2.5
	Total Net Enrollment Rate in Primary Education (both sexes) (%)	UNESCO	1.67
	Net Enrollment in High School (%)	UNESCO	1.67
	Net Enrollment in Middle School (%)	UNESCO	1.67
	People Using at Least Basic Drinking Water Services (% of population)	WB	2.5
	People Using Safely Managed Sanitation Services (% of population)	WB	2.5
Social Protection	Share of Public Social Expenditure in GDP	OECD	10
Total			100

Note: GPI: Gender Parity Index.

Appendix 2. Hakimian Inclusive Growth Index Dataset

Indicator Proposals	Indicators	Database	Weight (%)
Growth	Real GDP Growth per capita	WB	12.5
Labour Force & Employment	Wage and Salaried Workers (% of total employment)	ILO	4.17
	Employment-to-Population Ratio (% of ages 15+)	ILO	4.17
	Employment-to-Population Ratio (% of ages 15-24)	ILO	4.17
Health & Demographic	Life Expectancy at Birth	WB	4.17
	Under-5 Mortality Rate (per 1,000)	WB	4.17
	Public Health Expenditure (% of GDP)	WHO	4.17
Education	Ratio of Female to Male Secondary Enrollment (%)	WB	6.25
	Adjusted Savings: Education Expenditure (% of GDP)	WB	6.25
Gender	Gender Inequality Index (GII)	UNDP	12.5
Environment	Carbon Dioxide (CO_2) Emissions per capita Excluding LULUCF (t CO_2e/capita)	WB	6.25
	Renewable Electricity Output (% of total electricity output)	WB	6.25
Inequality & Poverty	Gini Coefficient	WB	6.25
	Poverty Headcount Ratio at $2.15 a Day (2017 PPP) (% of population)	WB	6.25
Governance	Corruption Perceptions Index (CPI)	Transparency International	12.5
Total			100

Appendix 3. UNCTAD Inclusive Growth Index Dataset

Indicator Proposals	Indicators	Database
Economy	GDP per capita, PPP (constant 2021 international $)	WB
	GDP per person Employed (constant 2021 PPP $)	WB
	Employment-to-Population Ratio, Ages 15+, Total (%)	ILO
	Energy Use per person, kWh/person	Energy Institute
	Exports of Goods and Services (% of GDP)	WB
Living Condition	Fixed Broadband Subscriptions per 100 people (unit)	ITU
	Under-5 Mortality Rate (per 1,000 live births)	WB
	Total Population with Access to Safe Drinking-Water (JMP) (%)	FAO
	School Enrollment, Secondary (% gross)	WB
	Current Health Expenditure per capita, PPP (current international $)	WHO
Equality	Gini Coefficient	WB
	Poverty Headcount Ratio at $8.30 a Day (2021 PPP) (% of population)	WB
	Ratio of Female to Male Employment Rate	ILO
	Employment-to-Population Ratio, Ages 15-24, Total (%)	ILO
	Proportion of Seats Held by Women in National Parliaments (%)	IPU
	Ratio of Female to Male Labor Force Participation Rate (%)	ILO
	Ratio of Female to Male Wage and Salaried Workers in Employment	ILO
	Female Employment in Service Sector (%)	ILO
Environment	Carbon Intensity of GDP (kg CO_2e per 2021 PPP $ of GDP)	EDGAR
	Energy Intensity Level of Primary Energy (MJ/$2021 PPP GDP)	WB
	Water Use Efficiency, US$/m3	FAO

Appendix 4. Bartlett"s Test of Sphericity for the UNCTAD Index

Countries	Indicator Proposals	Bartlett's Test Chi-Square	Bartlett's Test p-value	df
France	**Economy**	139.8312	< 0.0001	10
	Living Condition	98.5391	< 0.0001	6
	Equality	111.9529	< 0.0001	15
	Environment	90.7883	< 0.0001	3
United Kingdom	**Economy**	166.4518	< 0.0001	10
	Living Condition	83.3463	< 0.0001	6
	Equality	133.9804	< 0.0001	15
	Environment	100.2441	< 0.0001	3
Israel	**Economy**	185.8109	< 0.0001	10
	Living Condition	106.9817	< 0.0001	6
	Equality	122.7465	< 0.0001	15
	Environment	98.3636	< 0.0001	3
Italy	**Economy**	165.0814	< 0.0001	10
	Living Condition	126.8801	< 0.0001	6
	Equality	202.4816	< 0.0001	15
	Environment	63.8731	< 0.0001	3
Sweden	**Economy**	122.3807	< 0.0001	10
	Living Condition	108.5957	< 0.0001	6
	Equality	87.1833	< 0.0001	15
	Environment	76.9428	< 0.0001	3
Türkiye	**Economy**	212.1888	< 0.0001	10
	Living Condition	228.2873	< 0.0001	10
	Equality	170.6187	< 0.0001	15
	Environment	88.3256	< 0.0001	3

Appendix 5. Results of the Basic Component Analysis by Country for UNCTAD

Countries	Component	Eigenvalue	Percentage of Variance	Cumulative Percentage
France	1	12.42527	59.16795	59.16795
	2	3.28369	15.63660	74.80455
	3	1.78809	8.51470	83.31925
	4	1.28442	6.11628	89.43552
	5	0.87912	4.18630	93.62182
	6	0.57886	2.75650	96.37832
	7	0.24059	1.14567	97.52399
	8	0.17235	0.82070	98.34468
	9	0.14770	0.70336	99.04804
	10	0.07496	0.35693	99.40497
	11	0.05280	0.25144	99.65641
	12	0.03968	0.18894	99.84535
	13	0.01418	0.06751	99.91286
	14	0.00859	0.04089	99.95375
	15	0.00586	0.02789	99.98164
	16	0.00201	0.00959	99.99123
	17	0.00130	0.00618	99.99740
	18	0.00042	0.00199	99.99939
	19	0.00010	0.00048	99.99987
	20	0.00003	0.00013	100.00000
	21	0.00000	0.00000	100.00000
United Kingdom	1	14.54918	69.28183	69.28183
	2	2.36486	11.26122	80.54305
	3	1.67800	7.99048	88.53353
	4	0.94267	4.48891	93.02244
	5	0.36982	1.76106	94.78350
	6	0.28109	1.33851	96.12201
	7	0.24794	1.18066	97.30268
	8	0.21590	1.02812	98.33079
	9	0.15459	0.73613	99.06693
	10	0.07667	0.36509	99.43202
	11	0.06802	0.32392	99.75594
	12	0.02177	0.10367	99.85961
	13	0.01412	0.06723	99.92684
	14	0.00639	0.03044	99.95728
	15	0.00540	0.02570	99.98298
	16	0.00277	0.01319	99.99618
	17	0.00051	0.00244	99.99862
	18	0.00020	0.00094	99.99957
	19	0.00008	0.00039	99.99995
	20	0.00001	0.00005	100.00000
	21	0.00000	0.00000	100.00000
Israel	1	15.95710	75.98618	75.98618
	2	2.50414	11.92450	87.91067
	3	0.93786	4.46601	92.37668
	4	0.44263	2.10774	94.48442
	5	0.31390	1.49476	95.97918
	6	0.30865	1.46976	97.44894
	7	0.21577	1.02748	98.47642
	8	0.11271	0.53669	99.01311
	9	0.07625	0.36308	99.37619
	10	0.04922	0.23436	99.61055
	11	0.03842	0.18294	99.79349
	12	0.01391	0.06623	99.85971
	13	0.01125	0.05355	99.91327
	14	0.00810	0.03857	99.95183
	15	0.00513	0.02442	99.97625
	16	0.00301	0.01433	99.99058
	17	0.00121	0.00574	99.99632
	18	0.00076	0.00361	99.99993
	19	0.00001	0.00006	99.99999
	20	0.00000	0.00001	100.00000
	21	0.00000	0.00000	100.00000

Italy	1	14.74757	70.22653	70.22653
	2	3.07307	14.63368	84.86021
	3	1.08804	5.18116	90.04138
	4	0.74327	3.53937	93.58075
	5	0.39973	1.90349	95.48424
	6	0.33841	1.61149	97.09573
	7	0.30309	1.44328	98.53901
	8	0.13226	0.62983	99.16885
	9	0.06473	0.30822	99.47707
	10	0.04903	0.23348	99.71055
	11	0.02902	0.13818	99.84872
	12	0.01242	0.05913	99.90785
	13	0.01088	0.05182	99.95968
	14	0.00293	0.01397	99.97364
	15	0.00234	0.01115	99.98479
	16	0.00156	0.00743	99.99222
	17	0.00111	0.00529	99.99751
	18	0.00043	0.00204	99.99956
	19	0.00009	0.00043	99.99999
	20	0.00000	0.00001	100.00000
	21	0.00000	0.00000	100.00000
Sweden	1	13.93962	66.37913	66.37913
	2	2.95049	14.04993	80.42905
	3	1.70684	8.12779	88.55685
	4	0.82469	3.92711	92.48396
	5	0.64382	3.06583	95.54978
	6	0.34011	1.61958	97.16936
	7	0.22384	1.06590	98.23526
	8	0.09718	0.46277	98.69803
	9	0.07306	0.34790	99.04593
	10	0.06184	0.29445	99.34038
	11	0.04137	0.19699	99.53738
	12	0.03399	0.16187	99.69925
	13	0.02657	0.12653	99.82577
	14	0.02289	0.10899	99.93477
	15	0.00637	0.03033	99.96510
	16	0.00372	0.01770	99.98280
	17	0.00268	0.01277	99.99557
	18	0.00092	0.00436	99.99993
	19	0.00001	0.00007	100.00000
	20	0.00000	0.00000	100.00000
	21	0.00000	0.00000	100.00000
Türkiye	1	17.83517	80.88514	80.88514
	2	1.79925	8.15986	89.04500
	3	1.20059	5.44483	94.48983
	4	0.38375	1.74034	96.23017
	5	0.27201	1.23361	97.46378
	6	0.16882	0.76563	98.22941
	7	0.12844	0.58249	98.81190
	8	0.11374	0.51581	99.32771
	9	0.05607	0.25427	99.58197
	10	0.03557	0.16130	99.74328
	11	0.02191	0.09938	99.84266
	12	0.01450	0.06577	99.90843
	13	0.00974	0.04418	99.95261
	14	0.00607	0.02755	99.98015
	15	0.00243	0.01099	99.99115
	16	0.00096	0.00436	99.99551
	17	0.00068	0.00310	99.99861
	18	0.00017	0.00079	99.99940
	19	0.00012	0.00053	99.99993
	20	0.00002	0.00007	100.00000
	21	0.00000	0.00000	100.00000

Does Using Different Indices Change the Results for Inclusive Growth?

Farklı Endeks Kullanımı Kapsayıcı Büyüme Sonuçlarını Değiştirir mi?

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Genişletilmiş Özet

Giriş ve Kuramsal Çerçeve

Geleneksel iktisat literatüründe ekonomik büyüme, uzun yıllar boyunca üretim kapasitesindeki artışlar ve kişi başına düşen gelir üzerinden ölçülmüştür. Neoklasik büyüme teorisi, sermaye birikiminin kalkınmanın ilk aşamalarında temel itici güç olduğunu ve uzun vadede büyümenin gelir eşitsizliğini kendiliğinden azaltacağını öngörmüştür. Özellikle Kuznets (1955)'in Ters-U hipotezi, ekonomik kalkınma belirli bir seviyeye ulaştıktan sonra gelir eşitsizliğinin doğal olarak azalacağını savunarak bu iyimser bakış açısını desteklemiştir. Ancak 1980'lerden itibaren hız kazanan küreselleşme ve teknolojik dönüşüm süreçleri, büyüme rakamlarındaki artışa rağmen gelir dağılımındaki adaletsizliğin derinleşmesine neden olmuştur. Piketty (2014) ve Stiglitz (2012) gibi iktisatçılar, sermaye getirisinin büyüme oranını aştığı durumlarda servetin belirli bir kesimde yoğunlaştığını ve piyasa mekanizmalarının eşitsizliği gidermede yetersiz kaldığını vurgulamışlardır.

Bu eleştiriler, büyümenin sadece niceliksel (kantitatif) bir artış olarak değil, aynı zamanda sosyal adalet, fırsat eşitliği ve çevresel sürdürülebilirlik boyutlarını da kapsayan niteliksel bir süreç olarak ele alınması gerektiğini ortaya koymuştur. Bu bağlamda, "Kapsayıcı Büyüme" kavramı ön plana çıkmıştır. Kapsayıcı büyüme, ekonomik genişlemenin sağladığı refahın toplumun bütün katmanlarına, özellikle de dezavantajlı gruplara hakça paylaştırılmasını ve büyüme sürecine katılımın fırsat eşitliği temelinde sağlanmasını hedeflemektedir. Asya Kalkınma Bankası (ADB), Afrika Kalkınma Bankası (AfDB) ve UNCTAD (Birleşmiş Milletler Ticaret ve Kalkınma Konferansı) gibi uluslararası kuruluşlar da bu kavramı ölçülebilir hale getirmek için çeşitli endeksler ve metodolojiler geliştirmiştir. Ancak literatürde kapsayıcı büyümenin tanımı ve ölçümü konusunda tam bir uzlaşı bulunmamaktadır. Kimi yaklaşımlar yoksulluğun azaltılmasına (yoksul yanlısı büyüme) odaklanırken, diğerleri istihdam yaratma, beşeri sermaye gelişimi veya çevresel sürdürülebilirlik gibi boyutları öne çıkarmaktadır.

Veri Seti ve Metodoloji

Bu çalışmanın temel amacı, kapsayıcı büyüme ölçümünde kullanılan farklı metodolojik yaklaşımların ülke performans sıralamaları üzerindeki etkisini ampirik olarak ortaya koymaktır. Bu kapsamda, farklı sosyo-ekonomik yapılara ve refah rejimlerine sahip altı ülke (Fransa, Birleşik Krallık, İsrail, İtalya, İsveç ve Türkiye) incelenmiştir. Analiz dönemi, 2009 Küresel Finans Krizi ve COVID-19 pandemisi gibi önemli küresel şokları kapsayacak şekilde 2002-2023 yılları arasını (veri uygunluğuna göre değişiklik

göstermektedir) kapsamaktadır.

Çalışmanın ampirik analiz kısmında, kapsayıcılık olgusunu farklı perspektiflerden ele alan dört temel endeks hesaplanmıştır. İlk olarak, Anand (2013) yöntemi, sosyal hareketlilik eğrilerine dayanarak gelir dağılımı adaleti ile kişi başına düşen gelir artışını tek bir dinamik ölçütte birleştirmekte; böylece büyümenin hem hızını hem de eşitlik boyutunu eş anlı olarak dikkate almaktadır. Çok boyutlu bir yaklaşım sunan McKinley (2010) yöntemi ise ADB için geliştirilmiş olup, ekonomik büyüme, yoksulluk/eşitsizlik, insan yetenekleri (eğitim ve sağlık) ve sosyal koruma olmak üzere dört ana boyutu kapsayan bileşik bir endeks yapısına sahiptir. AfDB tarafından benimsenen ve McKinley yöntemine benzer bir bileşik endeks yapısı sunan Hakimian (2016) yöntemi ise analiz çerçevesini genişleterek çevresel sürdürülebilirlik, yönetişim ve cinsiyet eşitliği gibi daha güncel politika alanlarına ağırlık vermektedir. Son olarak, UNCTAD (2022) yöntemi, sabit ağırlıklandırma yerine veriye dayalı istatistiksel bir teknik olan Temel Bileşenler Analizi (PCA) kullanmaktadır. Bu yöntem, Sürdürülebilir Kalkınma Amaçları (SDG) ile uyumlu olacak şekilde ekonomi, yaşam koşulları, eşitlik ve çevre olmak üzere dört sütun altında toplanan göstergelerle daha nesnel bir ağırlıklandırma sunmaktadır.

Verilerin analizinde, göstergelerin farklı ölçeklerini standartlaştırmak için min-max normalizasyon yöntemi kullanılmıştır. Bileşik endekslerde (McKinley ve Hakimian), ilgili literatürden alınan sabit ağırlıklar kullanılırken; UNCTAD endeksinde değişkenler arasındaki korelasyon yapısını dikkate alan PCA yöntemi ile ağırlıklar istatistiksel olarak türetilmiştir.

Bulgular

Çalışmanın ampirik bulguları, kullanılan metodolojinin ve gösterge seçiminin ülke performansları üzerinde belirleyici bir rol oynadığını net bir şekilde göstermektedir. Dört farklı yöntemle elde edilen sonuçlar karşılaştırıldığında şu temel bulgulara ulaşılmıştır:

İlk olarak, Anand yöntemi; kişi başına düşen GSYİH ve %20'lik gelir dilimlerinin payları üzerine kurgulandığı için, İsveç gibi gelir dağılımının dengeli olduğu ülkelerde büyümenin kalitesini ve sürdürülebilirliğini ön plana çıkarmıştır. İsveç, alt ve orta gelir gruplarının milli gelirden aldığı payın yüksek olması sayesinde bu endekste istikrarlı ve şoklara karşı dirençli bir performans sergilemiştir. Buna karşılık, Türkiye ve İsrail gibi en yüksek %20'lik grubun gelir payının baskın olduğu (gelir dağılımı makasının açık olduğu) ülkeler, zayıf bir performans göstermemiş, aksine yüksek büyüme dönemlerinde endeks skorlarını en üst seviyelere taşımıştır; ancak bu performans oldukça oynak (volatile) bir seyir izlemiştir. Türkiye özelinde, özellikle 2003-2009 ve 2010-2016 dönemlerinde gözlemlenen endeks artışlarının, eşitsizliğin azalmasından (eşitlik etkisi) ziyade kişi başına düşen GSYİH'deki hızlı artıştan (büyüme etkisi) kaynaklandığı tespit edilmiştir. Dolayısıyla, elde edilen yüksek oranlar gelirin tabana yayılmasından ziyade ekonominin hacimsel olarak büyümesinin bir sonucudur.

İkinci olarak, McKinley endeksi verileri incelendiğinde, Türkiye'nin 2004-2020 döneminde kendi baz çizgisine kıyasla en belirgin içsel kapasite gelişimini kaydeden ülke olduğu görülmektedir. Türkiye, endeks değerini 3,69'dan 6,81'e taşıyarak kendi tarihsel süreci içindeki en önemli yapısal dönüşümü gerçekleştirmiştir. Bu içsel ivmelenmede, ülke sınırı içindeki altyapı yatırımları (elektrik, su, sanitasyon) ve temel sağlık hizmetlerine erişimde sağlanan iyileşmeler temel itici güçler olmuştur. Ancak kendi potansiyeline oranla düşük kalan sosyal koruma harcamaları ve artan gelir eşitsizliği, Türkiye'nin içsel performansını baskılayan unsurlar olarak öne çıkmaktadır. İsveç'in bu endeksteki düşük içsel skoru (6,87'den 5,05'e gerileme) bir başarısızlık değil; metodolojinin niceliksel genişlemeye verdiği ağırlığın, ülkenin ekonomisinin sahip olduğu "doygunluk etkisi" ve marjinal iyileşme alanının darlığı ile çatışmasıdır.

Üçüncü olarak, Hakimian endeksi, Türkiye'yi 2002-2020 yılları arasında kendi tarihsel çizgisi içinde en keskin büyüme ivmesine sahip ülke olarak yansıtmaktadır. Türkiye, özellikle GSYİH artışı ve istihdam genişlemesine odaklanan bu endekste, 2013 yılında 7,23 ile kendi içsel zirvesine ulaşmış ve hızlı bir dönüşüm sergilemiştir. Benzer şekilde İsrail, kendi içindeki yenilenebilir enerji payını %0,07'den %6,20'ye çıkararak bu endekste görünür bir içsel ilerleme kaydetmiştir. Bununla birlikte Hakimian endeksi, Türkiye ve İsrail gibi ülkelerde büyüme hızıyla maskelenen gelir adaletsizliği ve karbon emisyonu artışı gibi yapısal sürdürülebilirlik sorunlarını tamamen gizleyememektedir.

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Son olarak UNCTAD yöntemi, İsveç'in ekonomik, sosyal ve çevresel göstergeler arasındaki en dengeli içsel gelişimini ortaya koyan modeldir. İsveç, kendi zaman serisi içerisinde kişi başına gelir artışını, karbon yoğunluğunu %50'den fazla azaltarak (0,135'ten 0,061'e) ve düşük eşitsizlik seviyelerini koruyarak taçlandırmıştır. Buna karşılık Türkiye'nin UNCTAD endeksindeki performansı, metodolojinin PCA tabanlı yapısı nedeniyle diğer modellerden ayrışmaktadır. Türkiye 2022 yılında kendi içsel zirvesine (3,10) ulaşmış olsa da bu yükselişin ardındaki temel dinamik, "Eşitlik" ve "Sürdürülebilirlik" bileşenlerini geride bırakan baskın "Ekonomi" odaklı hızlı büyümedir. Özellikle genç işsizliği ve düşük sosyal harcamalar, Türkiye'nin kapsayıcılık skorunun tüm boyutlarda dengelenmesini engellemektedir.

Sonuç ve Tartışma

Bu çalışma, kapsayıcı büyüme kavramının ölçülmesinde "tek bir mutlak doğrunun" olmadığını, aksine seçilen metodolojinin sonuçları doğrudan şekillendirdiğini ortaya koymuştur. Literatürde genellikle tek bir endeks üzerinden yapılan analizlerin aksine, bu çalışma karşılaştırmalı bir yaklaşım sunarak ölçüm yanlılığını gözler önüne sermiştir.

Elde edilen bulgular, özellikle Türkiye gibi yüksek büyüme potansiyeline sahip ancak yüksek eşitsizlik riski taşıyan ülkelerin değerlendirilmesinde dikkatli olunması gerektiğini göstermektedir. Türkiye; Anand ve McKinley gibi büyüme ve altyapı odaklı modellerde kendi içsel rekorlarını kırarken, UNCTAD gibi çevresel ve sosyal dengeleri önceleyen modellerde bu başarının tüm boyutlara yayılamadığı görülmektedir. Bu durum, büyümenin hızlı ancak yapısal olarak yeterince dengeli ve sürdürülebilir olmadığını doğrulamaktadır. Türkiye ve İsrail için gelir dağılımındaki eşitsizlikler ve yapısal işsizlik, kapsayıcı büyümenin önündeki en temel engellerdir. Benzer şekilde, İsrail yüksek teknolojiye dayalı güçlü bir büyüme sergilemesine rağmen, derinleşen sosyal eşitsizlikler nedeniyle kapsayıcılık boyutunda zorlanmaktadır. Avrupa ülkeleri (Fransa, İngiltere, İtalya) ise daha dengeli ancak kırılgan bir profil çizmektedir; özellikle İtalya'nın kronik düşük büyüme ve genç işsizliği sorunu, tüm endekslerde performansını sınırlamaktadır.

Sonuç olarak, politika yapıcıların kapsayıcı büyümeyi hedeflerken sadece GSYİH artışına odaklanmaları yeterli değildir. Bulgular, büyümenin kalitesinin, istihdam yaratma kapasitesinin ve adil bölüşüm mekanizmalarının en az büyüme hızı kadar önemli olduğunu kanıtlamaktadır. Gelecek çalışmalar için daha geniş bir ülke setiyle yapılacak ekonometrik analizler, bu endeks puanlarındaki sapmaların makroekonomik nedenlerini daha derinlemesine açıklayabilir. Nihayetinde, ülkelerin yapısal ihtiyaçlarına uygun, şeffaf ve çok boyutlu izleme mekanizmalarının geliştirilmesi, sürdürülebilir bir kapsayıcı büyüme stratejisi için elzemdir.