

EFE'2024

6th INTERNATIONAL CONGRESS ON
**ECONOMICS,
FINANCE &
ENERGY**

ECONOMIC RESILIENCE FOR
SUSTAINABLE AND INCLUSIVE
GROWTH IN THE MULTI-CRISIS ERA

KONGRE PROGRAMI
CONGRESS PROGRAM

24-26 EKİM 2024 / 24-26 OCTOBER 2024

Fatih Sultan Mehmet Vakıf University,
Gülhane Campus - Hagia Sophia Campus
Istanbul, Türkiye



**FATİH
SULTAN
MEHMET**
VAKIF ÜNİVERSİTESİ



**AHMET YESEVİ
ÜNİVERSİTESİ**



**EKONOMİ FİNANS VE
ENERJİ DERNEĞİ**



EFE'2024

KONGRE PROGRAMI / CONGRESS PROGRAM

24-26 EKİM 2024 / 24-26 OCTOBER 2024

24 EKİM 2024 / 24 OCTOBER 2024
Kayıt: Saat 08:30-10:15 / Registration: 08:30-10:15

AÇILIŞ KONUŞMALARI / OPENING SPEECHES

 Gülhane Campus

Language: Turkish

- 09.30 - 10.00
(GMT+3)
- Professor Nevzat ŞİMŞEK**
Congress Chair, "Rector of Fatih Sultan Mehmet Vakif University"
- Professor Muhittin ŞİMŞEK**
"President of the Board of Trustees of Khoja Akhmet Yassawi International Kazakh-Turkish University"
- Mevlüt UYSAL**
"President of the Board of Trustees of Fatih Sultan Mehmet Vakif University"

DAVETLİ KONUŞMACI / INVITED SPEAKER

Language: Turkish

- 10.00 - 10.30
- Professor Muhsin KAR**
"Central Bank of the Republic of Türkiye, Türkiye"

DAVETLİ KONUŞMACI / INVITED SPEAKER

Language: English

- 10.30 - 11.00
- Associate Professor İsmail GÖLGEÇİ**
"Aarhus University, Denmark"

GENEL OTURUM I / GENERAL SESSION I

 Gülhane Campus

Session Keyword: Risk, Growth Language: English Moderator: Lokman GÜNDÜZ

- 11.30 - 13.00
(GMT+3)
- The Inclusivity of Long-run Economic Growth in Türkiye**
Reza BEHJATI YALGHOUZAGHAJ, Suna MUGAN ERTUGRAL, Metin AKTOPRAK
- The Green Revolution and Türkiye's Green Development Initiative**
Bilal BAĞIŞ
- The Effect of Earthquake Risk on Housing Prices in Istanbul**
Oğuzhan ÇEPNİ, Lokman GÜNDÜZ, İsmail GENÇ, Muhammed Hasan YILMAZ

EŞ ZAMANLI OTURUMLAR / SYNCHRONOUS SESSIONS

24 EKİM 2024 / 24 OCTOBER 2024

FİNANS VE KRİZ

📍 Session Hall-Molla Hüsrev / Hagia Sophia Campus

Anahtar Kelimeler: Güvenlik, Kriz, Spekülasyon **Dil:** Türkçe **Moderatör:** Naci GENÇ

14.00 - 15.30
(GMT+3)

Kanada Arktik'te Gıda Güvensizliğine Karşı Arctic Food Bank Uygulamaları
Mustafa SAFA

Mikro Şebekelerin Enerji Güvenliğine Katkısı
Naci GENÇ

**Sağ Kuyruklu ADF ve Makine Öğrenmesi Yönetemlerine Dayalı Olarak
Finansal Baloncukların Tespiti ve Tahminlenmesi**
Merve MERT SARITAŞ, Mert URAL

**Türkiye'de Konut Fiyatlarında Spekülatif Fiyat Baloncuklarının Sağ Kuyruklu
ADF Yöntemiyle Analizi**
Mert URAL, Erhan DEMİRELİ, Üzeyir AYDIN

**Çoklu Krizler Döneminde Büyümenin Sağlanmasında Yenilenebilir Enerji ve
Seçilmiş Ülkelerde ve Türkiye'de Yenilenebilir Enerjiye Yönelik Vergi
Teşviklerinin Karşılaştırılması**
Faiq IDRİSOV, Hayal Ayça ŞİMŞEK

**Savunma Harcamaları ile Jeopolitik Risk ve Politik İstikrarsızlık Endeksi
İlişkisi: MIST Ülkeleri**
Elif EFE, Üzeyir AYDIN

FINANCE AND CRISIS

📍 Session Hall-Ali Kuşçu / Hagia Sophia Campus

Session Keyword: Economic Crisis, Economic Policy **Language:** English
Moderator: Zhengizkhan ZHANALTAY

14.00 - 15.30
(GMT+3)

**Analysis of the Financial Structure of the Enterprises in the Electricity Sector
in Türkiye's First Top 500 Industrial Enterprises List During the Economic Crisis
and Covid-19 Periods: 1998-2023**
Emine Şule AYDENİZ

**Understanding Gamification: A Study on Donor Engagement with Mediating
Factors in Donation-Based Crowdfunding Campaigns**
Amna ABDULLAH, Ali Osman KUŞAKCI

The Role of Cryptocurrency in Mitigating Fiat Currency Vulnerabilities
Zhengizkhan ZHANALTAY, Alisher FAYZULLAEV, Farid GULUZADA

Anahtar Kelimeler: Karbon Emisyonu, Gelişme **Dil:** Türkçe **Moderatör:** Ahmet Salih İKİZ

16.00 - 17.30
(GMT+3)

Bankacılık Faaliyetlerinin Ülke CO2-Karbon Emisyonuna Etkisi: Türkiye ve Azerbaycan Örneği

Akif Ziya BAYRAK, Onur KAYRAN

Üniversitelerin Bölgesel Ekonomik Etkisi: Muğla Üniversitesi Örneği

Ahmet Salih İKİZ

AB 27 Ülkelerinde İhracatın Karbon Emisyonu Üzerine Etkisi

Zeliha Semra KILINÇ, Erdem ATEŞ, Selim ŞANLISOY

Session Keyword: Renewable Energy, The Green Revolution **Language:** English
Moderator: Bilal BAĞIŞ

16.00 - 17.30
(GMT+3)

Impact of Climate Zones on Rural Population Dynamics in Kazakhstan:

Analyzing Demographic Shifts in Varying Climatic Conditions

Kanat MAKHANOV, Ikram SAIDI, Behnam ATA

Progress Towards Universal Health Coverage as a Sustainable Development Goal (Sdg 3.8) in the Transformed Health System of Türkiye

İsrafil BOYACI

Nickel-Powered Sustainability: Revolutionizing the Energy Economy Through Lithium Batteries OECD Countries?

Sıdıka BAŞÇI, Kayla SHEVADENA

ONLINE OTURUMLAR / ONLINE SESSIONS

24 EKİM 2024 / 24 OCTOBER 2024

ENERGY AND ECONOMICS

📺 Online Session I

Session Keyword: Green Investments, Growth, Energy Sector **Language:** English

Moderator: Talat ALİZADA

14.00 - 15.30
(GMT+3)

The Significance and Difficulties Associated with Green Investments in the Middle East and Turkic World at the Global and Regional Levels

Mustafa SAKAL, Melih KABAYEL

Impact of Economic Growth and Renewable Energy on Environmental Sustainability in Türkiye: Load Capacity Factor Analysis

Gülşen KOZ, Sinan ERDOĞAN

Socioeconomic Factors Determining Energy Choices of Households in Türkiye

Merve Çelik KEÇİLİ, Başak Sezgin KIROĞLU, Ethem ESEN

Renewable Energy in Economic Growth: A Literature Review

Talat ALİZADA

ECONOMICS AND TURKIC WORLD

📺 Online Session II

Session Keyword: Development, Turkic States **Language:** English

Moderator: Gulnar NADİROVA

16.00 - 17.30
(GMT+3)

The Place and importance of Liquidity in the Financial System

Amin RASHİDOV, Muslum JABBARZADE

Development of the Knowledge Economy and Affecting Factors

Rauf RZAYEV

The Role of the Organization of Turkic States in Turkic Integration

Zumrud MALİKOVA

Investigation of the Effect of Dutch Disease on Kazakhstan's Production Multipliers

İlkay GÜLER (Türkçe)

Achieving Academic Excellence: Challenges for Kazakhstani Education

Gulnar NADİROVA, Nurali KAİRANBAYEV, Renata Yerkinovna KUDAİBERGENOVA

"Middle Corridor"s Role in Economic Integration of Turkic World

Vusala Jafarova

Anahtar Kelimeler: Orta Koridor, Ulaşım, Ticaret, Enerji **Dil:** Türkçe
Moderatör: Prof. Dr. Nevzat ŞİMŞEK

09.30 - 11.00
(GMT+3)

Ticari Koridorlar Perspektifinde Türkiye'nin Dış Ticareti
Hakkı KARATAŞ

Sürdürülebilir Kalkınma Hedefleri Bağlamında Bölgesel Kuruluşların Rolü:
EİT Örneği
Hüsnü TEKİN

Ticari Koridorlar ve Orta Koridor'un Artan Önemi
Hakkı BARUTÇU

Ticaret ve Enerji Denklemlerinin Kurumsal Boyutu
Güzhan GÜLAY

Anahtar Kelimeler: Zengezur, Ulaşım, Ekonomi **Dil:** Türkçe **Moderatör:** Elşan BAĞIRZADE

11.30 - 13.00
(GMT+3)

Asya ve Avrupa Bağlantısallığındaki Zengezur Koridorunun Karşılaştırılması
ve Entegrasyonu
Kenan ASLANLI

Zengezur Koridorunun Türkiye ve Orta Asya Bağlantısallığındaki Yeri
Yaşar SARI

Zengezur Koridorunun Enerji Hatları Açısından Önemi
Mikail YUSUPOV

Zengezur Koridorunun Azerbaycan-Nahçıvan-Türkiye ve Türk Cumhuriyetleri
Bağlantısında Lojistik Sektörü Açısından Önemi
Kerem İMRAK

EŞ ZAMANLI OTURUMLAR / SYNCHRONOUS SESSIONS

25 EKİM 2024 / 25 OCTOBER 2024

EKONOMİ

📍 Session Hall-Molla Hüsrev / Hagia Sophia Campus

Anahtar Kelimeler: İhracat, AB **Dil:** Türkçe **Moderatör:** İsmail AKTAR

14.00 - 15.30
(GMT+3)

Türkiye'nin İhracatında Petrol Fiyatlarının Etkisi

İsmail AKTAR, Cemal ELİTAŞ

Ekonomik Oy Verme Modeli: Türkiye İçin Geçerliliği

Ahmet Salih İKİZ

Avrupa Birliği ve Orta Asya Ülkeleri İş Birliği: Mevcut Durum ve Geleceği

Zhuldyz KANAPIYANOVA, Nona NİKABADZE

ECONOMICS

📍 Session Hall-Ali Kuşçu / Hagia Sophia Campus

Session Keyword: Development, Tax **Language:** English

Moderator: Zhengizkhan ZHANALTAY

14.00 - 15.30
(GMT+3)

**Efficiency Measurement in Data Envelopment Analysis with Shared Input:
A Compromise Solution Approach**

Chiang KAO

Functions of Income Tax in the Country's Economy

Orxan MƏMMƏDOV SAMİR OĞLU

Enhancing Global Trade: The Case for Kazakhstan's Adoption of the CISG

Zhengizkhan ZHANALTAY, Bekzada ABİLKASSYMOV

The Effects of Electric Vehicles on the Turkish Economy

Özlem TAŞSEVEN, Sadullah ÇELİK

TURKIC WORLD

📍 Session Hall-Molla Hüsrev / Hagia Sophia Campus

Session Keyword: Integration Theories, Turkic World, China **Language:** English

Moderator: Suat BEYLUR

16.00 - 17.30
(GMT+3)

Turkic World in the Light of Integration Theories

Seyit Ali AVCU

**The Strategic Position and Importance of Kazakhstan on the Shores of the
Caspian Sea in the Context of Energy Wars and Competition Sources**

Burcu AL

**The Role of Remittances in Shaping Economic Stability and Labor Markets
in Tajikistan and Kyrgyzstan: A Post-Sanctions Analysis**

Suat BEYLUR

Session Keyword: Public Administration, Leadership **Language:** English

Moderator: Vasila MOHSUMOVA

16.00 - 17.30
(GMT+3)

Public Administration Example for Developing Countries-Western Approach

Vasila MOHSUMOVA

Psychological Empowerment and Organizational Identification Expands Employee Openness to Change and Wellness: The Role of Charismatic Executive Leadership Communication

Hafiz Ghufuran Ali KHAN

Academic Debates and Political Factionalism: On the Infertility of Development Studies in Iran

Mohammad RADMARD, Mohsen Abbaszadeh MARZBALI

ONLINE OTURUMLAR / ONLINE SESSIONS

25 EKİM 2024 / 25 OCTOBER 2024

Пандемиядан кейінгі даму көрсеткіштер

 Online Session III

Кілт сөздер: Пандемия, Даму көрсеткіштері, Өсу динамикасы **Тіл:** Казакша және орысша

Moderator: Альбина МУРАТБЕКОВА

09.30 - 11.00
(GMT+3)

Анализ образовательной дипломатии Китая в Центральной Азии

Альбина МУРАТБЕКОВА, Асель КУРМАНТАЕВА, Алия Тынысовна ОНГАРБАЕВА

Анализ много-векторной политики Казахстана как одного из ключевых механизмов поддержания экономической и политической стабильности в Евразийском регионе

Ануар САТМУРЗИН, Адлет ОМАШЕВ, Темирлан АШИМОВ

Влияние цифровизации на финансовый сектор в Центральной Азии

Закир ХИТАХУНОВ, Азимжан ХИТАХУНОВ, Рамзат АБДИКАРОВ

Ковидтен кейінгі білім беру: Пандемия Қазақстандағы оқытуды қалай өзгертті

Еркінбек ТҮРҒЫНОВ, Асемай САРСЕНБАЕВА, Гүлмира КАРИМОВА

Кілт сөздер: Интеграция, Экономикалық тұрақтылық, Ынтымақтастық **Тіл:** Қазақша және орысша

Moderator: Азимжан ХИТАХУНОВ

11.30 - 13.00
(GMT+3)

Анализ бюджетного регулирования Казахстана в условиях пандемии и посткризисного восстановления

Gulmira AZRETBERGENOVA

Орталық Азия елдерінің әлемдік дағдарысқа қарсы ортақ интеграциялық және тұрақтылық саясаты

Макпал Касымхановна АНЛАМАСОВА

Мультикризистер дәуірінде тұрақты және инклюзивті өсу үшін экономикалық тұрақтылық

Нуржан ТУРУЗОВ

Железная дорога Китай-Кыргызстан-Узбекистан: причины и последствия

Азимжан ХИТАХУНОВ

ОРТА КОРІДОР ОТУРУМУ

Online Session V

Session Keyword: Transport, Economy, Energy **Language:** English

Moderator: Firat PURTAŞ

14.00 - 15.30
(GMT+3)

From Landlock Country to Transit Country: Azerbaijan's Middle Corridor Strategy

Cavid VELİYEV

Uzbekistan's Role in Shaping the Future of Connectivity Between Europe and Asia

Farrukh KHAKİMOV

Middle Corridor: The Driving Force Behind Rapidly Growing Trade Between Central Asia and Europe

Alper ÖZEL

The Middle Corridor and Economic Integration: A Macro-Regional Approach (Similarities and Differences of the EU Example, and Lessons to be Learned)

Vakur SÜMER

Session Keyword: Green Investments, Growth, Energy Sector **Language:** English
Moderator: Ömer AYDIN

14.00 - 15.30
(GMT+3)

The Economic Impacts of Environmental Diplomacy Initiatives between Central Asian Countries and China

Sharifa GİRİTLİOĞLU

Generative AI in the Energy Sector: Challenges, Risks, Opportunities, Sustainability

Ömer AYDIN

A Comparative Study of Energy Sector's Variability of Countries in the Organization of Turkic States

İbrahim NİFTİYEV, Elshan BAGİRZADEH

The Effect of Organisational Culture on Organisational Alienation

Aynur MAMMADOVA, Serdar ASLAN

Digital Transformation and the Potential for Creating Smart Economic Interdependence among Emerging Economies

Ana YOUSEFIAN

Session Keyword: Environment, Energy, Law **Language:** English
Moderator: Araz ASLANLI

16.00 - 17.30
(GMT+3)

The Trans-Caspian Energy Cooperation and the Turkic World

Araz ASLANLI

Caspian Energy Diplomacy: Balancing Regional Influence and Global Interests

Lidiya PARKHOMCHİK

The Caspian Sea in a Changing Climate: Impacts, Adaptation, and Future Strategies for Sustainable Development

Khristopher WHITE

The Legal Status of the Caspian Sea under International Law

Memmed İSMAYİLOV



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**EKONOMİ FİNANS VE
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FOTİSAH ÜNİVERSİTESİ
1990



6th INTERNATIONAL CONGRESS ON
ECONOMICS, FINANCE AND ENERGY
“Economic Resilience for Sustainable and Inclusive Growth in the
Multi-crisis Era”

24-26 October 2024 in İstanbul, Türkiye

THE INCLUSIVITY OF LONG-RUN ECONOMIC GROWTH IN TURKIYE

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Conference Paper

Abstract

This study investigates whether economic growth in Türkiye has been inclusive or exclusive since the establishment of the Republic in 1923. And if it has been inclusive or exclusive during this period, the study delves into the specific periods that contributed most to the inclusivity or exclusivity of economic growth. To achieve this objective, a novel method defined in the paper has been employed to measure the dimension of inclusivity or exclusivity in different specific periods. According to the findings, overall, economic growth during the Republic's Years has been inclusive; however, it only began to be notably inclusive after 1980. Since then, economic growth has significantly favored lower- and middle-income groups, compared to higher income groups, indicating that it has been inclusive since 1980.

Keywords: *Economic Growth, Inclusive Growth, Republic's Years, Türkiye*

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1. INTRODUCTION

Despite that a constant increase in national income per capita of a country is generally considered as one of the most important pillars of progress and prosperity of all (Bergh, 2009), it is not a sufficient tool on its own to achieve this goal. If national per capita income growth primarily benefits a minority income group, leaving the majority of the population without the perception of prosperity, then rather than enhancing social welfare, it merely results in an increase in total income (See, Murphy, 2016). In this case, economic growth leads not to an increase in social welfare but generally to the disruption of social cohesion resulting from high levels of inequality, thereby giving rise to social unrests (Parvin, 1973). Therefore, it is necessary to ensure that the continuous increase in per capita national income flows to all societal income groups (the case of inclusive growth) through appropriate indirect policy interventions (Anderson et al., 2015).

In this context, this study presents a novel methodology for examining how continuous economic growth in a country affects the real income levels of different income groups (See, Yalghouzaghaj & Muğan Etruğal, 2024). This methodology, which also represents a new approach to the inclusive growth literature, reveals how the gains from economic growth are distributed among various income groups, thereby uncovering the extent to which the increase in per capita national income is inclusive or exclusive. This is established by simply assuming that when economic growth decreases the level of inequality, it is considered inclusive. The superiority of this approach lies in its simplicity and ease of understanding for scholars and policymakers, making it a new attempt to resolve the uncertainty surrounding the definitions and measurement methods of inclusive growth in the literature (See, Ali & Son, 2007; Ali & Zhuang, 2007; Anand et al., 2013; Grosse et al., 2008; Hay et al., 2022; Ianchovichina & Lundstrom, 2009; Kakwani & Pernia, 2000; Klasen, 2010; Rauniyar & Kanbur, 2010; Ravallion & Chen, 2003). Simply put, this method argues that when a continuous increase in national income per capita leads to a reduction in total income inequality in a specific country during a specific period, the economic growth in that country during that period is inclusive, and vice versa. Thereafter, the study sheds light on the main drivers of inclusive economic growth in the analyzed country.

Within this methodological framework, the study investigates the long-term distributional impacts of economic growth in Türkiye from 1923 to 2022. It identifies which income groups have benefitted most significantly, and which have experienced limited gains from the overall increase in national income per capita during this period. By employing the novel methodology introduced, the study further evaluates the degree of inclusivity or exclusivity that characterized economic growth throughout this extensive timeframe. Subsequently, the analysis divides this long period into two distinct phases –1923 to 1980 and 1980 to 2022– to clarify the specific era during which Türkiye’s economy experienced the most robust inclusive growth. Finally, the study explores the primary drivers of inclusive growth in Türkiye during the period when economic growth predominantly favored lower-income groups, thereby promoting greater inclusivity.

According to the findings of the study, in Türkiye, overall economic growth has favored the income levels of low- and middle-income groups more than higher-income groups, indicating that the total increase in national income per capita during the Republic years (1923-2022) in Türkiye has been inclusive. However, the inclusive nature of economic growth primarily emerged after 1980, the period when the country lifted most restrictions on international goods and capital. Specifically, from 1923, the year the Republic was established, until 1980, despite relatively high growth in per capita national income and across all income groups, the impact of economic growth on total inequality remained neutral. In other words, it did not lead to a reduction in the high levels of inequality, which were a defining characteristic of Türkiye at that time,



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indicating a lack of inclusivity in the economic growth. In contrast, the post-1980 period has seen a phase of significant inclusive growth, which occurred in parallel with a slightly higher average annual increase in GDP per capita. This period of growth has played a key role in reducing income inequality.

Building upon these findings, the study analyzes the primary factors contributing to inclusive growth in Türkiye since 1980. The results indicate that integration into the global market, along with export-oriented globalization and the emergence of new industrial hubs in Anatolian Cities, has significantly enhanced the inclusivity of economic growth in Türkiye during this period.

2. METHODOLOGY AND DATA

This paper uses annual data for Türkiye over 99 years, covering the period 1923-2022. In the paper, three different sets of data are used, and they are derived from two different sources: The first two sets, data for national income per capita and population are taken from the 2024 version of the Maddison Project Database (Bolt & van Zanden, 2024). National income per capita in this source of data is in constant 2011 US dollar (USD) prices and adjusted for Purchasing Power Parity (PPP).

The third set of data, related to income inequality, is derived from the World Inequality Database (2024). The data in this section, which illustrates how pre-tax aggregate national income is distributed among different income groups, accounts only for the income of adult individuals. In this paper, it is assumed that the population under the age of 15 does not earn any income, meaning aggregate national income is allocated solely among individuals over the age of 15.¹ Additionally, the aggregate national income considered here is the market income (i.e., income before direct taxes is subtracted), referred to as pre-tax income. The preference for pre-tax income over after-tax income in this paper lies in its superior ability to explain inequality within countries. According to two recent important studies, pre-tax national income accounts for more than two-thirds of the within-country income inequality differences observed across nations (Blanchet et al., 2022; Bozio et al., 2024).

As for methodology, in this study, which employs a comparative method, initially the total population is divided into four different income groups as following:

- Super-rich: the richest 1% of each country,
- Rich: the top 10% rich group excluding super-rich,
- Middle class: the 40% group in the middle of the income distribution,
- Low-income group: the bottom 50% (half of the population of the country).

Then, the average income of each group is calculated by year for all years starting from 1923 until 2022. Next, the average income of four different income groups and the average per capita income of the Türkiye are indexed to the income levels of the year 1923, as 100. Thereby, the magnitude of average income increases for different income groups and average income of the country over the long-run are obtained. Equation (1) is the mathematical expression of this process²:

$$E_t = \frac{X_t}{X_{0L}} \cdot 100 \quad (1)$$

¹ This assumption is an acceptable approach for developed countries where child labor is fairly rare. However, for the sake of facility, we assume that it is also valid for Türkiye.

² All the equations featured in this study were taken from Yalghouzaghaj & Muğan Etruğral (2024).



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In equation (1), E_t represents the index value of the last year (2022 in this study) for each income group and Türkiye, X_t stands for the average income of each group and the country for the last year, and finally X_{0t} represents the average income of each group and Türkiye at the beginning year, the year 1923 for this study. Based on this equation, by dividing the final average income level of each income group and the country by the beginning average income level of each income group and the country, and then multiplying those obtained values by 100, the magnitude of total income increases for each income group and Türkiye are revealed.

Once the final index value of average income of Türkiye and each group in the long-run is calculated, a comparison is made between the final index value of the country's average income and the final index value of different income groups. Thereafter, if the findings show that the income level of an income group has increased more than the country's average income during the analyzed period, then this group has benefited more from the total increase in national income per capita (compared to other income groups). Based on this explanation, throughout the study it is concluded that, if the total increase over the period in the incomes of lower-income groups (the middle class and the low-income group) in each country is higher than the total increase in the average income of the country, then, income inequality has decreased over the period (this situation is called inclusive growth). On the contrary, if the total income increase of upper-income groups (the super-rich and the rich) over the period is higher than the total increase in the average income of the country, it is concluded that income inequality has increased (called exclusive growth).

This method provides important information about whether economic growth in a country over a certain period has been inclusive or exclusive (whether total income inequality has increased or decreased). However, it does not reflect the dimensions of inclusiveness or exclusiveness. In order to find a solution for this issue, a new "inclusivity coefficient" is defined in the study, which allows a comparison between the average annual rate of increase in the incomes of upper-income groups and the average annual rate of increase in the incomes of lower-income groups through the period. This coefficient is mathematically obtained by dividing the average rate of annual income increase of upper-income groups by the average rate of annual increase in the incomes of lower-income groups over the period, and is calculated through the following Equation (2):

$$I = \frac{\frac{\mu_s + \mu_r}{2}}{\frac{\mu_m + \mu_l}{2}} \quad (2)$$

In equation (2), while μ_s , μ_r , μ_m and μ_l , respectively indicate the average annual increase in income of super-rich, rich, middle class and low-income group, I , stands for the inclusivity coefficient. With rewriting this equation, Equation (3) is obtained:

$$I = \frac{\mu_s + \mu_r}{\mu_m + \mu_l} \quad (3)$$

In equation (3), I , which represents the inclusivity coefficient, takes a value between 0 and infinity. When $I = 1$, the total increase in national income per capita throughout the period is distributed equally among all income groups. If $I > 1$, upper-income groups benefit more from the total economic growth during the period, thus growth is exclusive (income inequality increases). Lastly, in case of $I < 1$, lower-income groups gain more from the total increase in national income per capita –compared to upper-income groups– throughout the period, thereby economic growth is inclusive (income inequality decreases). Thus, as the value of I



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approaches 0, economic growth turns to be more inclusive, and as it rises above the value of 1, it becomes more exclusive. If the value of I is equal to 1, it means that economic growth has had no effect on total income inequality throughout the period and each group's income has increased equally.

In summary, following a comparative method, this study analyzes the inclusivity and exclusivity of economic growth in Türkiye over the long run. In this context, when per capita national income increases, a greater increase in the income levels of lower-income groups –compared to both the per capita national income and upper-income groups– indicates a decrease in total inequality, resulting in inclusive economic growth. Conversely, if the increase in per capita national income disproportionately benefits upper-income groups relative to lower-income groups and the country's average income, total income inequality rises, indicating exclusive growth. The extent of inclusivity or exclusivity is also assessed using a newly defined inclusivity coefficient.

3. THE INCLUSIVITY OF LONG-RUN ECONOMIC GROWTH IN REPUBLIC’S YEARS

As shown in Table 1, Türkiye's national income per capita saw an average annual increase of 3.4% over the period 1923-2022, which translates to a 27.39-fold increase overall. However, the distributional outcomes of this substantial growth were uneven across income groups. During this period, lower income groups (the Low-income Group and the Middle-class) experienced stronger growth in average income than upper income groups (the Rich and the Super-rich). While the relatively higher total growth in average income for both the Low-income Group and the Middle-Class was nearly the same, respectively, 33.51 and 32.33 times, the Rich saw an increase of 28.42 times, slightly above the total increase in national income per capita. The only group that lagged behind in terms of income growth was the richest group, the Super-rich, with only 18.52 times increase over the period. These outcomes clearly reflect inclusivity of economic growth for Türkiye over the analyzed period, Republic’s years.

Regarding the degree of inclusivity, the table presents a calculated coefficient value of 0.90, indicating a relatively modest level of inclusiveness over the long-run. This value suggests that while economic growth was somewhat shared in favor of lower income groups, leading to a decrease in total income inequality, the extent to which it benefited the lower income groups was limited, pointing to only a slight degree of inclusive growth.

Table 1: Total and Annual Growth Rate of Different Income Groups 1923-2022

Extent of Increase	PC	Top 1%	Top 9%	M 40%	L 50%
Total Increase	27.39	18.52	28.42	32.33	33.51
Annual Increase %	3.40%	2.99%	3.44%	3.57%	3.61%
Inclusivity Coefficient					0.90

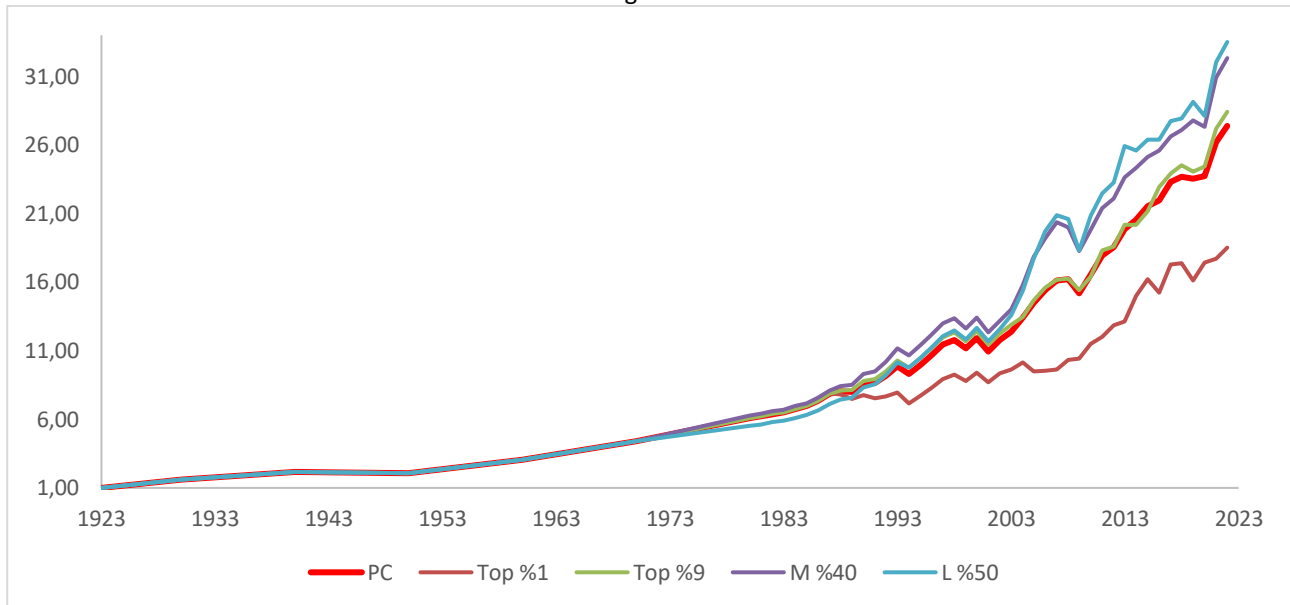
The first part represents the total and annual average increase in income per capita of Türkiye and incomes of different income groups in Türkiye over the Republic’s Years (1923-2022). The second part show the degree of inclusivity, employing Inclusivity Coefficient.

The degree of inclusivity over the entire period, however, was not uniform. Specifically, from 1923 to approximately 1980, the effect of overall economic growth on income inequality in Türkiye remained nearly neutral. It was only during the 1980s –identified as the beginning of the Second Wave of Globalization³–

³ The era spanning from 1870 to the onset of World War I is often recognized as the first "golden age" of globalization

(Pamuk, 2012), that the country experienced a phase of relatively higher economic growth coupled with greater inclusivity of economic growth. This trend is clearly illustrated in Figure 1 below.

Figure 1



The trajectory of continuous growth in per capita income and the average income of various income groups in Turkey: As clearly indicated, this figure reveals a notable shift in the pattern of overall income inequality only after the 1980s. Namely that, the average income of lower-income groups began to outperform that of higher-income groups only in the post-1980s.

Figure 1 paves the way for examining the Republic's years in two distinct sub-periods to better measure and understand the degree of inclusivity of economic growth in Turkey: separately from 1923 to 1980 and from 1980 to 2022. By doing this, it not only allows us to better capture the patterns of inequality in different periods, but it also provides valuable information about the impact of globalization on Turkey's overall economic growth performance during its integration into global markets and the distributional outcomes of this economic performance in this period. Therefore, the next section will depict these two different periods and provide a comparative analysis between them.

4. INCLUSIVITY OF GROWTH PRIOR TO AND DURING THE ERA OF GLOBALIZATION

Table 2 presents the annual average increase in GDP per capita and for different income groups in Turkey during two distinct periods: 1923-1980 and 1980-2020. According to this table, although Turkey experienced robust GDP per capita growth during the early years of the Republic up until 1980, this growth slightly exacerbated total income inequality. Specifically, while the income of the low-income group saw a relatively smaller increase, the income growth of other income groups closely paralleled the rise in GDP per capita. As reflected in the Inclusivity Coefficient of 1.02, the economic growth during this period lacked inclusivity. This trend is further illustrated in Figure 2, below.

(Zinkina et al., 2019).



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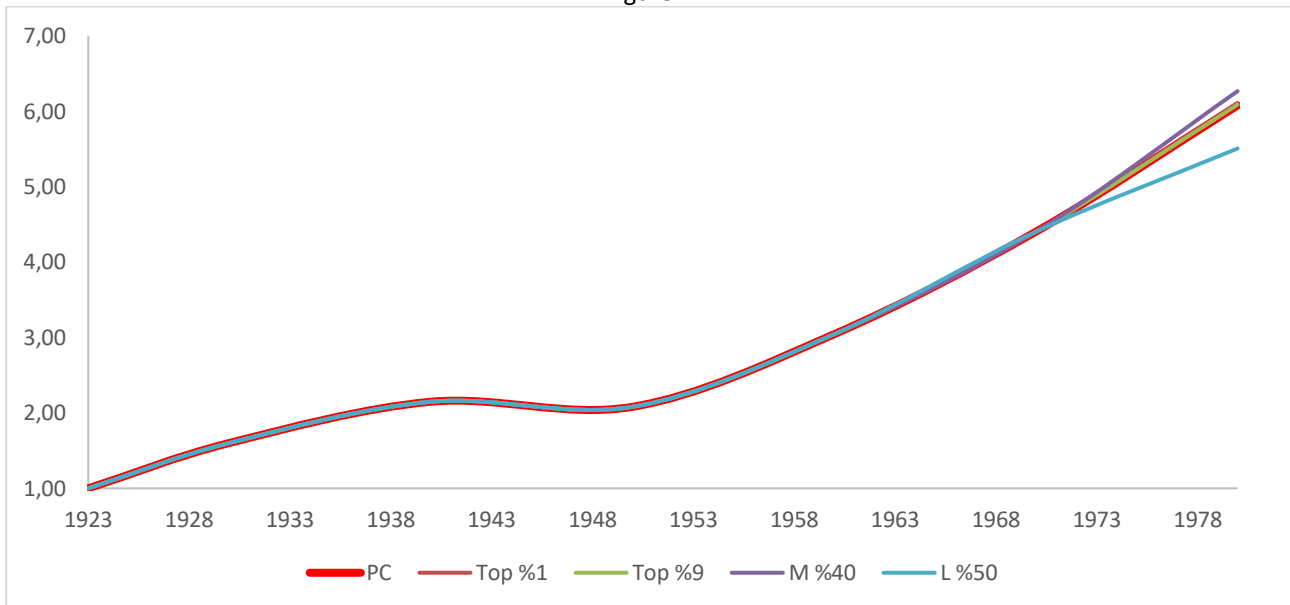
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Table 2: Growth Performance of Turkiye and Different Income Groups in Two Distinct Period

Period	Ann. G. PC	Ann. G. Top 1%	Ann. G. Top 9%	Ann. G. M 40%	Ann. G. L 50%	I
1923-1980	3.22%	3.23%	3.22%	3.27%	3.04%	1.02
1980-2022	3.65%	2.68%	3.74%	3.98%	4.39%	0.77

The abbreviations used in the table are as follows: Ann. G. PC refers to the Annual Average Growth Rate of GDP per capita, Ann. G. Top 1% represents the Annual Average Growth Rate of the super-rich, Ann. G. Top 9% refers to the Annual Average Growth Rate of the rich, Ann. G. M 40% indicates the Annual Average Growth Rate of the middle class, Ann. G. L 50% refers to the Annual Average Growth Rate of the low-income group, and I stands for the Inclusivity Coefficient. The table illustrates the economic growth performance for different income groups across two distinct periods: 1923-1980 and 1980-2022. While the first period exhibited strong economic growth, it not only failed to reduce income inequality but also slightly exacerbated it. In contrast, the second period saw a significant shift, characterized by both higher economic growth and a more inclusive economic growth. The Inclusivity Coefficient of 0.77 for the second period further supports this shift towards more inclusive growth.

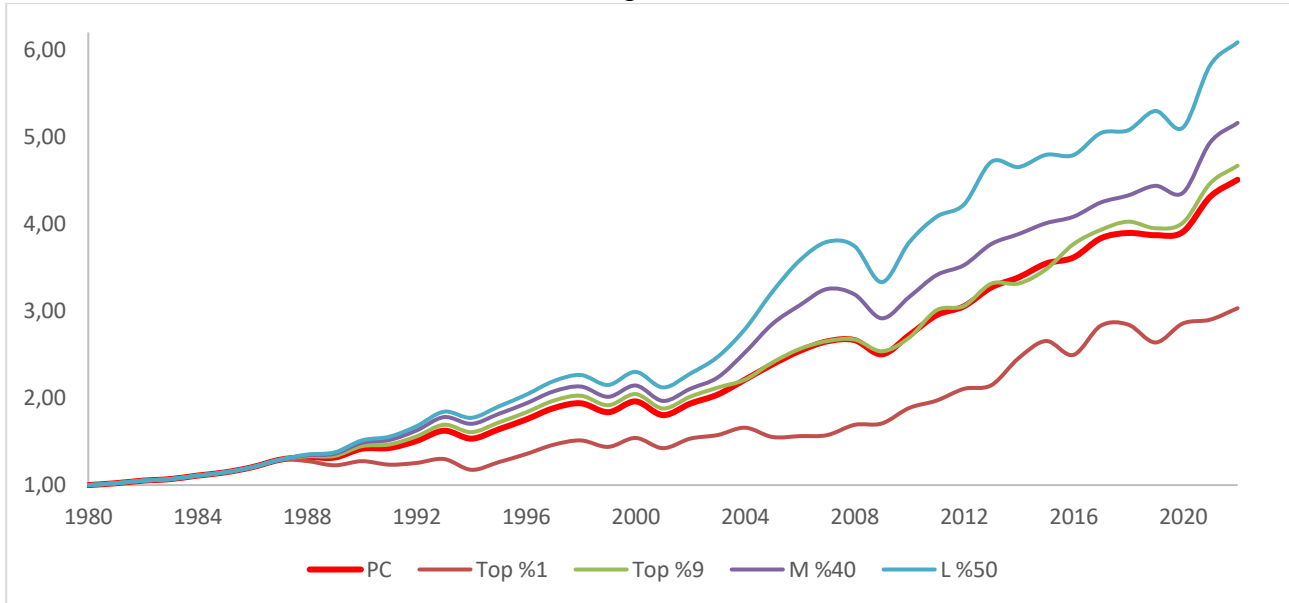
Figure 2



This figure depicts the steady rise in per capita income alongside the average income of different income groups in Turkiye from 1923 until 1980. It reveals that, despite high economic growth during this time, income inequality experienced a slight increase.

In contrast, the second period presents a markedly different scenario. The annual average per capita income growth significantly surpassed that of the previous period, with income distribution favoring the low-income groups and the middle class. This indicates that, during the era of globalization, Turkiye not only experienced accelerated economic growth but also achieved a more inclusive growth pattern. As shown in Table 2, the average annual income increase for the low-income group was 4.39%, notably higher than the GDP per capita increase of 3.65% for the same period. This group was followed by the middle class and the rich, both of which also saw income growth exceeding the GDP per capita. The only exception was the super-rich group, whose annual income growth, at 2.68%, lagged behind GDP per capita growth. This trend suggests that globalization had two significant advantages for Turkiye: First, the country’s economic growth reached unprecedented levels, and second, the gains from this growth were distributed in favor of lower-income groups. This shift reflects an improvement in social welfare driven by inclusive growth, as clearly demonstrated in Figure 3.

Figure 3



The figure illustrates the continuous increase in per capita income alongside the average income of different income groups in Turkey from 1980 to 2022. It reveals that, this period has had both a higher economic growth in term of GDP per capita and more inclusive growth.

Figure 3 clearly demonstrates that, particularly from the late 1980s onward, the low-income group and the middle class began to outperform higher-income groups in terms of income growth. This trend became more pronounced after the 2000s and remained consistent through 2022. This pattern supports the arguments regarding the positive effects of globalization for developing countries (Mills, 2008; Rodrik, 2007; Tabash et al., 2024) and specifically for Turkey (Pamuk, 2021, p. 281). However, the impact of the recent surge in inflation is not reflected in the figure, as it only started becoming more noticeable after 2022.

5. DRIVERS OF INCLUSIVE GROWTH IN TURKIYE AFTER 1980

It is both rational and theoretically consistent to argue that factors such as economic liberalization and structural reforms, public investments in education and health, labor market reforms, minimum wage increases, and advancements in technology and digitalization may have contributed to inclusive growth in Turkey since 1980. However, empirical evidence regarding the impact of these factors remains inconclusive. For example, the frequently debated role of economic liberalization and structural reforms has been found to have a negative effect on income distribution (Oyvatt, 2011). Additionally, data on public investments in education and health reflect inconsistencies in the level of public expenditures in these sectors (World Bank, 2024). Furthermore, the impact of technological advancements on income inequality has yielded inconclusive results (See, Cetin et al., 2021; Gravina & Lanzafame, 2021).

Thus, in this paper it is argued that among the various factors contributing to inclusive growth during the era of globalization in Turkey, integration into the global economy, export-oriented industrialization, and the emergence of new industrial centers in Anatolian Cities appear to be the most significant (Pamuk, 2021, pp. 265–282). The shift towards export-oriented industrialization, which emphasizes producing goods for export as a primary growth strategy, began in the 1970s and accelerated in 1980 after Turkey opened its economy to global markets, reducing trade barriers and encouraging foreign direct investment (FDI). As a result,



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Turkiye moved away from its previous model of import substitution industrialization and embraced a more outward-looking growth model. This strategy helped Turkiye expand its industrial base, with key sectors such as textiles, electronics, and automotive manufacturing driving export growth. The 1996 Customs Union agreement with the European Union further deepened Turkiye’s integration into global trade networks by enhancing market access, fostering competition, and improving the quality and diversity of Turkish exports (Larch et al., 2021).

A significant outcome of these developments has been the diversification of Turkiye’s export base. While the economy had previously relied heavily on agricultural exports, the shift towards industrialization enabled Turkiye to become a leading exporter of industrial goods, including textiles, electronics, machinery, and automobiles. This diversification reduced Turkiye’s vulnerability to global agricultural price fluctuations and allowed it to compete in higher-value global markets. Increased participation in global value chains also enabled Turkish firms to adopt advanced technologies and improve productivity, further strengthening their position in international trade.

The rise of Anatolian Cities as new semi-industrial hubs has been a key feature of this transformation. Cities such as Gaziantep, Kayseri, Konya, and Denizli, often referred to as "Anatolian Tigers," have experienced rapid industrialization, largely driven by small- and medium-sized enterprises (SMEs) that have embraced export-oriented strategies. These cities have contributed to Turkiye's industrial growth by expanding production in sectors such as textiles, machinery, and food processing. The emergence of these new industrial centers has not only diversified Turkiye’s industrial landscape but has also contributed to regional economic development, reducing the concentration of industrial activity in traditional urban centers like Istanbul, Bursa, and Izmir.

The integration of these Anatolian cities into global markets has had profound social and economic effects. The industrialization of these regions has generated employment, raised income levels, and contributed to the development of local infrastructure. Many of these cities have also benefited from the inflow of FDI, which has supported the modernization of production facilities and the adoption of new technologies. This rise in regional industrialization has helped narrow the economic gap between more developed urban centers in western Turkiye and previously underdeveloped regions in the interior.

6. CONCLUSION

This study examines the nature of economic growth in Turkiye from the establishment of the Republic in 1923 to 2022, focusing on whether this growth has been inclusive or exclusive over this timeframe. To achieve this, the study employs a novel methodology that assesses the inclusivity or exclusivity of economic growth based on the premise that growth is considered inclusive when it contributes to a reduction in overall income inequality. Additionally, the analysis divides this long period into two distinct phases—1923-1980 and 1980-2022—to illuminate the specific medium-period that had the most significant impact on the inclusivity of economic growth.

The findings suggest that, overall, economic growth in Turkiye during the years of the Republic has been inclusive; however, it has shown significant inclusivity primarily since 1980. From 1923 to 1980, the pattern of economic growth was not characterized by inclusivity. In contrast, after 1980, economic growth increasingly favored lower- and middle-income groups compared to higher-income groups, indicating a notable transition toward a more inclusive economic landscape.



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