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## Rethinking the Inequality-Growth Nexus: Short-Term Gains and Long-Term Challenges

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# **Rethinking the Inequality-Growth Nexus: Short-Term Gains and Long-Term Challenges**

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# **Rethinking the Inequality-Growth Nexus: Short-Term Gains and Long-Term Challenges**

## **ABSTRACT**

This study reexamines the relationship between economic growth and inequality, challenging the conventional view that regards inequality solely as an impediment to development. While recognizing the essential role of economic growth in development plans, our analysis extends beyond this traditional focus, acknowledging that development encompasses more than just growth. We explore how inequality interplays with pressing global challenges like climate change and pandemics, areas that have garnered significant scholarly and political attention recently. Contrary to the prevalent belief, often reinforced by income redistribution policies, that inequality invariably hinders economic progress, our findings suggest a more nuanced reality. In the short term, an increase in inequality appears to boost growth in economies reliant on physical capital, whereas its impact on growth in human capital-intensive economies remains ambiguous. Over the long term, however, sustained inequality negatively affects both affluent and less affluent countries through the human capital channel, with a more pronounced impact on the latter. Our research indicates that short-term increases in inequality (within a five-year span) do not adversely affect economic growth, calling into question the necessity of stringent taxation measures. Nevertheless, persistent high inequality over longer periods (exceeding ten years) is linked to social instability. Hence, we advocate for the aggressive implementation of socially inclusive measures, such as enhanced education, healthcare, and fertility control, particularly in developing countries, to address these long-term challenges.

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# **1. Rising inequality as a threat to development**

## **1.1. Economic transition and social stability**

The increasing levels of globalization and technological advancements have been leveraged by many countries to foster economic growth. However, these growth strategies have also contributed to social polarization, more specifically, a rise in income inequality. The impact of globalization varies across its different forms, with trade globalization, particularly during the period from 1965 to 1990, demonstrating considerable success in emerging Asian economies, often referred to as the 'East Asia Miracle' (Stiglitz, 1996). Contrary to common perceptions, trade globalization is not typically seen as a major contributor to income inequality and, in some instances, may even act as a stabilizing force (Beaton et al., 2017; Jaumotte et al., 2013). In contrast, Foreign Direct Investment (FDI)-led growth, especially in transitional economies, has been identified as a key factor influencing income distribution (Carkovic & Levine, 2005; World Bank, 2006). FDI inflows, particularly into high-skill sectors, tend to increase skill premiums and widen wage disparities (Cragg & Epelbaum, 1996).

Moreover, technology, while a crucial driver of economic growth, poses challenges to social stability. Technological advancements, especially labor-saving and skills-biased technologies, have led to a reduction in the demand for labor and have exacerbated employment challenges (Acemoglu & Restrepo, 2019; Autor et al., 2003). This trend has also contributed to 'job polarization,' where middle-skilled jobs are increasingly becoming obsolete (OECD, 2019).

The surge in globalization, particularly in the era of Industry 4.0, has ushered in a period of significant economic opportunities alongside formidable challenges for maintaining social stability. These developments present policymakers with the complex task of striking a balance between the economic and social dimensions of development policies. The debate over the societal benefits of trade liberalization continues, while the adverse effects of financial globalization on social stability have been increasingly recognized by economists (Asteriou et al., 2014; Furceri & Ostry, 2019; Jaumotte et al., 2013). In addition, technological advancements, while pivotal in driving economic growth, have been identified as contributing to widening social inequality (Korinek et al., 2021). This issue is particularly pronounced in the context of globalization, where technological advancements are integral to the formation and operation of global value chains (Cerra, 2021; Hummels et al., 2001; Rodrik, 2018).

## **1.2. Tackling inequality: is redistribution sufficient?**

In response to escalating inequality, policymakers often turn to redistribution policies as a means to reallocate income from the wealthy to the less affluent, primarily through government spending on public services like healthcare and education. These policies typically garner support from lower-income groups while facing resistance from wealthier segments of society, leaving the decision in the hands of middle-income individuals. In democratic nations, median voters often favor such redistribution, particularly when there is a significant gap between median and mean income, indicative of a highly skewed income distribution (Alesina & Rodrik, 1994; Barro, 2000; Perotti, 1993). Redistribution efforts can successfully reduce inequality and elevate the overall level of human capital (Saint-Paul & Verdier, 1993), but they also come with potential drawbacks. Notably, they may lead to a reduction in economic growth by dampening investment incentives (Alesina & Rodrik, 1994; Barro, 2000; Perotti, 1993). It is important to recognize that income taxes, a common tool in redistribution, do not directly impede economic activities. Instead, their impact lies in diminishing the upper class's motivation to accumulate wealth, which can indirectly affect a country's economic growth. Consequently, heavy taxation emerges as a policy instrument with dual implications, serving both as a remedy for inequality and a potential inhibitor of economic expansion.

The debate over the side effects of income taxation on economic growth was notably advanced by Mirrlees (1971), who contended that inequality, contrary to conventional wisdom, can be beneficial for growth as it fosters incentives for innovation and social mobility. Consequently, tax policies, if excessively stringent, might dampen this growth-driving motivation. Rebelo (1991) further illustrated that high tax rates can diminish the returns on private investments, reducing savings incentives, slowing capital accumulation, and ultimately impeding economic growth. In a more contemporary context, Okun (2015) introduced the 'leaky bucket theory,' suggesting that income redistribution mechanisms are imperfect, with money intended for the poor being partially lost in the process. This perspective is supported by empirical findings indicating that while reducing inequality has positive impacts, these are somewhat counterbalanced by the negative effects of taxation on economic incentives (Berg et al., 2018; Gründler & Scheuermeyer, 2018).

However, it is argued that the economic efficiency lost due to taxation can be offset by gains in social welfare (Lee & Roemer, 1998; Saint-Paul & Verdier, 1993). Intriguingly, Paul and Verdier (1996) found that income redistribution can positively influence economic growth in the early stages of a country's development by fostering the expansion of the middle class. As

such, redistribution not only avoids negative impacts on growth in less affluent nations but also delivers tangible human development benefits for the poorer segments of society (Gründler & Scheuermeyer, 2018).

## **2. Inequality is not always bad for growth**

### **2.1. Good sides of inequality: physical capital mechanism**

Early economic theories, including those by Fisher (1930), Kaldor (1955), Keynes (1937), and Pasinetti (1962), posited that the 'Marginal Propensity to Save' (MPS) is influenced by wealth levels, suggesting that higher-income individuals tend to save more. This relationship, when characterized as a concave function, implies that significant income disparities can boost an economy's overall savings rate. Since savings are a component of Gross Domestic Product (GDP), this increase in savings can, in turn, stimulate economic growth, a concept supported by Bourguignon (1981). Stiglitz (1969) argued that this positive effect of inequality on growth is contingent on the savings-income relationship being non-linear. Essentially, societies with greater income inequality may experience enhanced growth due to higher aggregate savings compared to more egalitarian societies. This correlation between income levels and MPS has been reaffirmed by later empirical research (Dynan et al., 2004; Gandelman, 2017; Parker et al., 2013). Additionally, the affluent often realize higher returns on their investments due to the lower risk profiles of their assets, further contributing to their increased savings rate (Fagereng et al., 2020).

In addition to the role of savings, imperfections in the credit market significantly influence the physical capital mechanism. This concept, developed by Galor and Zeira (1993), is based on two key assumptions: firstly, that borrowing restrictions limit the access of poorer individuals to credit for critical life investments, and secondly, that fixed costs, being integral to investment, require substantial initial outlays that are often unaffordable for the poor, particularly in the context of human capital investment.

Regarding the first assumption, borrowing constraints impede the ability of lower-income individuals to make breakthrough investments, thereby indirectly affecting economic growth negatively (Foellmi & Oechslin, 2010, 2020). The second assumption ties fixed costs to innovation activities within businesses, such as the acquisition of machinery or technological investments. Credit limitations can thus pose challenges to broader economic activities (Banerjee & Newman, 1993). Empirical evidence supporting this theory is provided by Beck et al. (2007),

who demonstrate that increased financial development, while beneficial to the poor, does not necessarily promote overall economic growth.

Galor and Moav (2004) provide a comprehensive perspective by considering both savings and domestic credits and how they influence growth at various stages of development. They suggest that in the early phases of economic transition, from stagnation to sustainable growth, the emphasis should be on physical capital investment to spur rapid growth. In contrast, at more advanced stages, the focus shifts towards investing in human capital, such as education, to maintain sustained growth. Therefore, inequality can be advantageous for the growth of developing countries by promoting the accumulation of savings among the wealthy. However, in affluent countries, inequality may impede growth by adversely affecting the development of human capital.

## **2.2. Bad sides of inequality: human capital mechanism**

The human capital channel provides another critical perspective in understanding the inequality-growth nexus, complementing the physical capital mechanism. Galor et al. (2009), examining inequality in terms of landownership, found that it can obstruct economic development by adversely affecting human capital investments, such as public education. Similarly, Wigton-Jones (2020), using Instrumental Variable estimators on data from Brazil, observed a direct correlation between reduced investment in human capital (like public welfare and child education spending) and increased landownership inequality, which negatively impacts the Human Development Index. Furthermore, a comprehensive industry-level study by Erman and te Kaat (2019) delineates the divergent impacts of inequality on growth between physical capital-intensive industries, where the effects are positive, and human capital-intensive sectors, where they are negative. This analysis was based on a large cross-industry, cross-time, and cross-country panel study.

The influence of the human capital channel on economic growth is intricately linked to two key factors: parental fertility and children's education, which exhibit a strong negative correlation (Ahituv, 2001; Moav, 2004). This relationship is characterized by a pattern where low-income families often have more children with limited educational opportunities, whereas wealthier families typically have fewer children who receive substantial educational investments (de la Croix & Doepke, 2003). In low-income countries, the disparity in income resulting from this dynamic is even more pronounced, indicating that the impact of these factors is contingent on a country's level of development (Kremer & Chen, 2002). This is particularly evident in

developing countries, where the negative effects of inequality on growth, mediated through fertility, are found to be more significant (Berg et al., 2018). Moreover, Castelló-Climent (2010) presents robust evidence that income inequality, when channeled through human capital, adversely affects growth in developing nations. Interestingly, this detrimental effect appears to be negligible in high-income countries.

Research focusing on education access has also explored income inequality through the lens of inequality of opportunity. Marrero and Rodríguez (2013) distinguished two forms of inequality impacting growth differently: inequality of effort, which has positive effects, and inequality of opportunity, which has negative impacts. However, Ferreira et al. (2018), in their verification of this hypothesis, did not find substantial evidence that inequality of opportunity adversely affects growth. Taking a related approach, Aiyar and Ebeke (2020) examined the interplay between inequality of opportunity (interpreted as social mobility in their study) and income inequality. Their research, both theoretical and empirical, identified a moderating effect of social mobility on the relationship between inequality and growth. Specifically, they observed a stronger negative correlation between inequality and growth in contexts with lower levels of social mobility.

### **2.3. Effects of inequality: do institutions matter?**

The adverse effects of income inequality are often linked to socio-political instability, a widely recognized explanation among researchers. High levels of income inequality can lead to social issues such as unrest, crime, and protests, resulting in political and social instability. This turbulent environment can diminish economic productivity and deter investments, thereby hampering growth (Barro, 2000; Benhabib & Rustichini, 1996; Fajnzylber et al., 2002; Venieris & Gupta, 1986). To mitigate these risks, policymakers frequently resort to redistribution policies that reallocate resources from the wealthy to the poor. Such measures aim to reduce instability and foster long-term economic growth (Barro, 2000; Benhabib & Rustichini, 1996; Venieris & Gupta, 1986). Key factors that are often considered in this context include the occurrence of violent political unrest (Alesina & Perotti, 1996; Perotti, 1996), government instability (Aisen & Veiga, 2013; Alesina et al., 1996), and the quality of property rights (Jong-A-Pin, 2009; Keefer & Knack, 2002).

The underlying cause of socio-political instability due to inequality is often attributed to weak institutional frameworks (Chong & Gradstein, 2007; Hoff & Stiglitz, 2004; Sonin, 2003). In societies marked by high inequality, political decisions tend to disproportionately favor the



wealthy (Glaeser et al., 2003), exacerbating the wealth gap. Such skewed public policies can lead to inefficient utilization of national resources, which not only perpetuates inequality but can also obstruct long-term economic growth (Hoff & Stiglitz, 2004; Sonin, 2003). Rodrik (1999) noted that external socioeconomic shocks are likely to be intensified in societies with pronounced social divisions and weak institutional structures.

Recognized as crucial drivers of long-term growth and development (Acemoglu et al., 2005; Smith, 1776; Weil, 2014), economic institutions primarily encompass elements like property rights and market regulations (Acemoglu et al., 2002). However, the governance of these institutions is complex due to the endogeneity among their constituent factors, presenting a significant challenge to policy formulation and implementation (Eicher & Leukert, 2009).

### **3. Misinterpretation: research challenges**

#### **3.1. Heterogeneity: within- and between-country**

A key challenge in empirical studies of income inequality is the heterogeneity observed within countries, especially when using a single metric like the Gini index. This issue arises from differing impacts of inequality at various income distribution levels, which can result in inconsistent findings (Voitchovsky, 2005). For instance, while some studies indicate an inverse relationship between growth and inequality at the lower end of income distribution, the upper end often shows a positive or neutral correlation (Cingano, 2014; Voitchovsky, 2005). Litschig and Lombardi (2019) found a contrasting pattern in their municipal-level study in Brazil, where volatility at the lower end positively correlated with economic growth, but no clear relationship was observed at the higher end. This discrepancy can be attributed to differences in analytical models, particularly their use of both Gini indices and percentile ratios (Litschig & Lombardi, 2019). Interestingly, a well-known study in the US corroborates Voitchovsky's findings, suggesting that inequality negatively affects the growth of poorer segments but not the wealthier ones (van der Weide & Milanovic, 2018). Such varied results highlight the need for nuanced approaches in analyzing the complex relationship between income inequality and economic growth.

The impact of inequality on growth is not only heterogeneous within countries but also varies significantly across countries at different stages of development. Galor and Moav's 'Unified Growth Theory' (2004) posits that inequality positively influences economic growth in the early stages of a country's development. However, this impact reverses as economies mature.

They explain that while physical capital accumulation is crucial for growth in nascent economies, in more advanced economies, the focus shifts towards human capital accumulation. Empirical support for this theory is provided by Brueckner and Lederman (2018), who found a positive correlation between inequality and growth in poorer nations, but a negative one in wealthier countries. This shift can be attributed to the human capital channel, which hinges on a country's initial income level.

Numerous studies have highlighted the disparities in the impact of inequality on economic growth between developing and developed countries, though some research has not found substantial evidence for these distinctions (Forbes, 2000; Herzer & Vollmer, 2012). Contrary to the findings of Galor and Moav (2004) and Brueckner and Lederman (2018), several empirical studies indicate a negative effect of inequality on growth in developing and middle-income countries, with positive or ambiguous impacts observed in highly developed economies (Barro, 2000; Castelló-Climent, 2010; Chambers & Krause, 2010; Gründler & Scheuermeyer, 2018). These patterns are often attributed to the influence of social welfare systems and flaws in the capital market, particularly in less affluent nations. In my analysis, a comprehensive understanding of this complexity requires more than just spatial differentiation; it necessitates consideration of country-specific factors and temporal variations, as will be discussed in the following sections.

### **3.2. Unobserved effects: spatial and temporal**

Forbes (2000) was among the first to highlight the significance of country-specific effects in cross-country empirical studies on inequality and growth. Time-invariant unobservable characteristics such as institutions, market regulations, geographical features, and culture can influence this relationship, potentially leading to biases in estimation models. To address these biases, two main panel data methodologies are commonly employed: Fixed-Effects Models (FEM) and First-differences Generalized Method of Moments (FD-GMM). Notable studies that have tackled the estimation challenge of country-specific effects include works by Li and Zou (1998), Forbes (2000), Barro (2000), Panizza (2002), and the use of nonparametric methods by Banerjee and Duflo (2003).

Herzer and Vollmer (2012) delved into the modelling challenges for this research topic, with a particular focus on heterogeneity and endogeneity. Heterogeneity stems from varying country-specific factors, while endogeneity may arise from the potential two-way causal

relationship between inequality and growth. A key technique for addressing these issues is the Instrumental Variable estimator, particularly its advanced form, the System Generalized Method of Moments (S-GMM) (Breunig & Majeed, 2020; Gründler & Scheuermeyer, 2018). It is also important to perform thorough tests for the validity of instruments in such estimations, as emphasized by Bazzi & Clemens (2013) and Kraay (2015).

While country-specific effects are pivotal in cross-sectional studies, time-varying effects are crucial in time-series analyses. Partridge (2005) differentiated these effects by arguing that cross-country studies typically capture long-run impacts, whereas cross-time studies focus on short-run effects. In his examination of inequality and growth across U.S. states, he observed a positive long-run relationship between the two, but found no definitive short-run correlation. Halter et al. (2014) provided a comprehensive explanation of these time-varying effects, suggesting that the short-term positive impact of inequality on growth is driven by market incentives promoting physical capital accumulation. Over the long term, however, this relationship turns negative, influenced by inherent national characteristics like political institutions, labor market regulations, and education systems. They proposed that short-run effects are most apparent within a 5-year period, while long-term effects become predominant after 10 years. Supporting this, studies focusing on short-run effects have generally reported a positive correlation between inequality and growth (Castells-Quintana & Royuela, 2014; Voitchovsky, 2005), whereas research on long-term impacts has indicated a negative association (Alesina & Rodrik, 1994; Easterly, 2007).

## **4. Effects of inequality on growth**

### **4.1. Inequality and growth: the old story**

The interplay between social inequality and economic growth has been a subject of interest since the classical era of economics in the late 18th century. Central to many development theories is the concept of economic growth, yet these theories often intertwine with discussions on income distribution and its influence on development. Adam Smith (1776), renowned as both a Scottish philosopher and a pioneering economist, argued in 'The Wealth of Nations' that wealth disparity could lead to social instability. He emphasized the government's role in protecting the property rights of the affluent from potential expropriation by the impoverished. Karl Marx (1867), a preeminent philosopher of the 19th century, critically analyzed the transition from capitalism to socialism, highlighting inequality as a key driver of social revolution. He contended

that capitalism exacerbated the wealth gap between the bourgeoisie and the proletariat, fostering social conflicts and potentially sparking working-class revolutions. David Ricardo, another influential British political economist, underscored in his work that ‘the principal problem in political economy is the distribution of wealth,’ signaling his focus on the nuances of wealth distribution.

In the evolution of economic thought on inequality and growth, two seminal theories stand out: the Kuznets curve and Kaldor's theory of distribution. Simon Kuznets (1955) proposed an inverted U-shaped curve to depict the relationship between inequality and growth. According to his theory, early stages of economic development typically see a rise in inequality, but as an economy matures and reaches a certain level of development, reducing inequality becomes crucial for further growth. On the other hand, Nicholas Kaldor (1955) put forward a viewpoint emphasizing the detrimental effects of income distribution on economic growth.

This era also marked the beginning of systematic data collection for studying inequality and growth. A notable example from this period is Charles Booth's work, ‘Life and Labour of the People in London’ (1891), where he documented wealth distribution in London using detailed street-by-street maps. In the United States, Carroll Wright emerged as a pioneer in collecting statistical data on the labor market towards the end of the 19th century, leading to significant publications in labor economics that focused on wages and employment (Leiby, 1960)

The modern perspective on the interplay between inequality and economic growth gained prominence towards the end of the 20th century, with a renewed focus on how inequality impacts growth. A leading figure in this area is Oded Galor, an Israeli-American economist renowned for his contributions to the field. Along with his colleagues, Galor published influential studies that profoundly shaped current understanding. In their seminal work, Galor and Zeira (1993) highlighted the significance of wealth distribution in economic activities, emphasizing the role of credit market imperfections in the short term and the indivisibility of human capital investment in the long term.

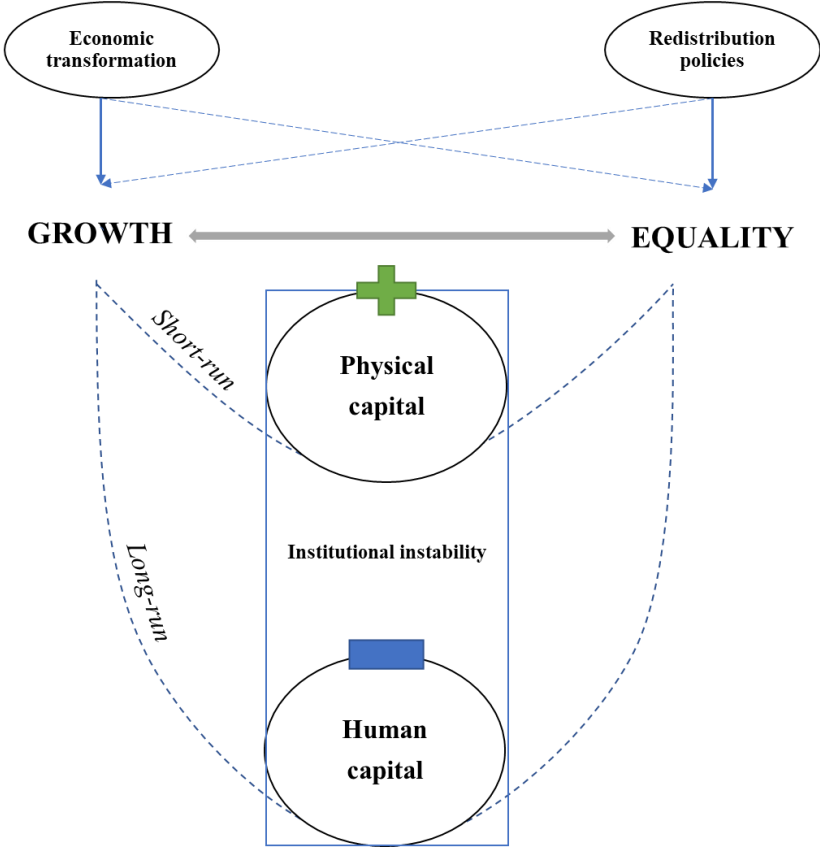
Further advancing these ideas, Galor and Moav (2004) introduced the ‘Unified Growth Theory,’ positing that the effects of inequality on economic growth vary across different stages of development. They argued that in early development stages, inequality fosters growth by facilitating physical capital accumulation. However, as economies evolve, this positive influence diminishes because human capital increasingly drives economic development, overshadowing the role of physical capital. Expanding this theory, Galor et al. (2009) centered their analysis on

human capital development, particularly examining how land inequality can undermine public education, impede economic transitions, and exacerbate income inequality.

Several pivotal studies have deepened our understanding of the inequality-growth nexus. Alesina and Rodrik (1994) and Persson and Tabellini (1994) conducted thorough analyses of how distributional policies influence this relationship, agreeing that higher income inequality, particularly in contexts with significant distributional conflicts, tends to correlate with lower economic growth. Perotti (1996), in his research on growth, inequality, and democracy, found that more egalitarian societies are likely to experience enhanced economic development due to lower fertility rates and greater investment in education. Conversely, highly unequal societies tend to face socio-political instability, which discourages investment and, in turn, impedes growth. However, Perotti noted the absence of significant evidence for the moderating effect of political economy mechanisms in this relationship.

François Bourguignon (2003) adopted a unique perspective on the growth-inequality link, particularly in relation to poverty alleviation. He introduced the concept of ‘the Poverty-Growth-Inequality Triangle,’ outlining the interdependent nature of economic growth, social equality, and poverty reduction in development policies (Duong & Flaherty, 2022). In recent years, Thomas Piketty (2014), a renowned French economist, made a significant contribution with his book ‘Capital in the Twenty-First Century,’ exploring how capitalism influences wealth distribution and exacerbates inequality. Piketty posited that inequality intensifies when the return rate on capital exceeds the rate of economic growth, a phenomenon explained by two wealth formation mechanisms: ownership or inheritance, and work or labor.

## 4.2. Inequality and growth: the new story

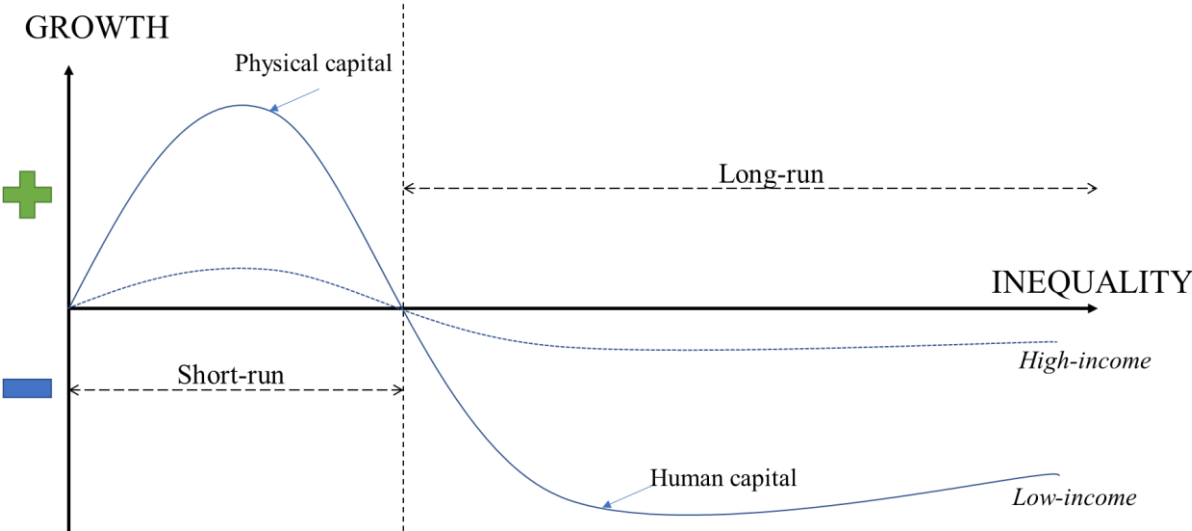


**Figure 1. Transmissive channels of the inequality-growth relationship**  
 Source: The Authors

In analyzing the complex interplay between inequality and growth, I have synthesized key insights in Figure 1. Firstly, the relationship between inequality and growth is not unidirectional but mutually causal, a concept illustrated by Bourguignon (2003) in his 'Poverty-Growth-Inequality Triangle' and recognized by Herzer and Vollmer (2012) as a source of endogeneity in model estimations. Secondly, when examining the drivers of this relationship, I distinguish between internal factors (physical capital, human capital, institutional stability) and external factors (economic transformation, redistribution policies). Galor and Moav (2004) highlighted the pivotal roles of physical and human capital, which alternately drive growth at different stages of development and are intricately linked to inequality levels. Halter et al. (2014) demonstrated that inequality's short-term positive impact, stemming from physical capital accumulation, shifts to a long-term negative effect by impeding human capital investment. Additionally, research indicates that the influence of these capital forms is mediated by a country's institutional framework, affecting resource allocation and the extent of their impact (Acemoglu, 2010; Hall et al., 2010).

Thirdly, I examine external influences, specifically economic transformation (globalization and technology) and redistribution policies (taxation and public expenditure), which act as external shocks to the inequality-growth dynamic. While economic transformation generally promotes growth, redistribution policies are designed to mitigate social inequality. However, these strategies can have unintended consequences; for instance, skill-biased technologies from economic transformation may drive growth but also exacerbate social disparities (Korinek et al., 2021), and taxation intended to reduce inequality can also discourage investment, thereby dampening growth (Mirrlees, 1971; Okun, 2015; Rebelo, 1991).

To provide a comprehensive view of both country- and time-specific effects on growth volatility in relation to inequality, Figure 2 illustrates these dynamics. As posited by Galor and Moav (2004), physical capital serves as the primary catalyst for growth in the initial stages of development, whereas human capital becomes more influential in later, more advanced stages. This distinction also suggests that physical capital predominantly drives growth in developing countries, while human capital is more critical for growth in affluent nations. Expanding on this, Halter et al. (2014) categorize the influence of physical capital as a short-term driver and human capital as a long-term one. The shift from short-term to long-term effects typically occurs through market mechanisms, including political institutions, market regulations, and educational systems. It has been demonstrated that factors such as limited access to capital, credit market imperfections, or insufficient public spending can impede human capital investment over the long term, ultimately exerting a negative impact on economic growth (Galor et al., 2009; Wigton-Jones, 2020).



**Figure 2. Short-run and long-run effects**

Source: The Authors

Integrating the developmental theories of Galor and Moav (2004) with the insights of Halter et al. (2014), I deduce that in the short term, inequality significantly spurs growth in physical capital-intensive economies, which are typically developing countries. However, the effects in human capital-intensive economies, predominantly found in developed countries, can be mixed. Over the long term, both affluent and less affluent nations are likely to suffer negative impacts of inequality through the human capital channel, with developing countries experiencing a more pronounced effect. This is partly because (1) the level of inequality is initially higher in poorer nations (Ravallion, 2014) and tends to worsen more significantly (as indicated by the short-run effects in Figure 2), and (2) greater short-term physical capital inequality can lead to increased long-term human capital inequality (Chambers & Krause, 2010). Consequently, the influence of inequality on growth is generally more marked in developing countries. In these economies, the positive aspects of inequality stem largely from physical capital-intensive growth, whereas the negative impacts are moderated by factors associated with human capital, crucial for long-term growth, such as education and institutional strength (Barro, 2000; Castelló-Climent, 2010; Chambers & Krause, 2010; Gründler & Scheuermeyer, 2018).

## **5. Conclusion**

This study endeavors to provide both academic and general audiences with a comprehensive understanding of the complex relationship between inequality and economic growth. While this topic has been a subject of interest for centuries, the recent surge in global inequality has reignited its relevance for scholars and policymakers alike. Contrary to the common perception that inequality invariably impedes growth, our analysis reveals that in the short term, inequality can significantly boost growth in physical capital-intensive economies, although its effects are less clear in human capital-intensive ones. Over the long term, however, both developed and developing countries are likely to experience detrimental impacts of inequality through the human capital channel, with more acute effects in the latter. Our findings suggest that a moderate increase in inequality over a short period (up to five years) may not adversely affect economic growth, questioning the necessity of stringent taxation policies. Nevertheless, sustained high inequality over a decade or more can lead to social instability. Therefore, we advocate for the aggressive implementation of inclusive policies, such as improvements in education, healthcare, and fertility control, particularly in developing nations, to mitigate these long-term adverse effects.



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