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Income inequality and economic growth in Asian countries

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Abstract

This study examines income inequality across 53 Asian countries from 1990 to 2021, focusing on the application of the Kuznets' curve theory. This hypothesis states an inverted U-shaped relationship exists between economic growth and inequality, suggesting an initial increase followed by a decline in income disparity as GDP per capita growth. We analyzed data accruing the share of income of the Top 1% income holders of each country, by regions and for the continent as a whole. We employed a fixed-effects panel model with GDP per capita, squared GDP per capita and cubed GDP per capita as explanatory variables. Our results include mixed evidence of the completion of the curve: Asia overall supports the Kuznets' curve however the regional analysis reveal differences. While East and South Asia present with significant U-shaped relationship patterns, Central Asia shows an inverted N-shaped relationship. Referencing to West and Southeast Asia, they demonstrate similar U-shaped trends however not statistically significant. This research contributes by offering region-specific insights into inequality dynamics relating to economic growth to provide policymakers with tools to target interventions for inclusive development across Asian countries.

Keywords: income inequality; economic growth; Kuznets' curve hypothesis; economic uncertainty; Asia

JEL Classification: C50; D31; E64; O53.

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1. Introduction

The 16th BRICS summit that recently took place in Russia in October 2024 highlighted the aim of the alliance to challenge the economic and political monopoly of the West. The group BRICS—which stands for Brazil, Russia, India, China and South Africa—started in 2006, and the first BRIC summit was in 2009, with South Africa joining a year later. In 2023, BRICS extended invitations to include Egypt, Ethiopia, Iran, Saudi Arabia and the United Arab Emirates after these countries applied for membership. Saudi Arabia has yet to formally join, but the others have. This 16th summit showcased Asia's growing influence in the global scene. Russia, India and China alone represent more than 20% of the world population according to the *World Population Prospects* (United Nations, 2024). India will be the 6th fastest-growing economy worldwide in 2024, and China is expected to grow at a 4.8% rate (International Money Fund, 2024).

In this scenario of growing strength, one of the main challenges facing the continent is to achieve sustainable growth. One of the key variables for this purpose is income distribution (Davtyan, 2017; Stiglitz, 2015), therefore one of the challenges facing the continent is to continue growing without inequality skyrocketing. Income inequality has shown a sustained increase in the United States and Europe since the 80s (Piketty and Saez, 2014), in other regions of the world (Makhlouf, 2022) and, also, in China (Ravallion and Chen, 2022). Numerous theories have emerged to explain the factors contributing to this increase, one of the most prominent being the Kuznets' curve. Kuznets (1955) hypothesized that during the process of economic growth, income inequality initially increases, reaches a peak, and then declines. The main aim of this study is to analyse the evolution of income inequality in Asian countries, making especial emphasis in those that are part of the BRICS, and to examine the impact of economic growth on income inequality, assessing whether Kuznets' theory applies to Asian countries.

A review of the existing literature presents mixed evidence concerning the existence of the Kuznets' curve (Claveria and Sorić, 2024). While some regions and periods confirm the presence of this curve, other studies suggest no significant relationship. However, to date, there is no study that tests the Kuznets curve hypothesis for Asian countries. The recent availability of historical series on the distribution of income before taxes and government transfers (except pensions and unemployment insurance among adults), freely accessible from the World Income Database (WID.world), allowed us to

use data from the top 1% income holders across 53 Asian countries from 1990 to 2021, both individually and collectively. As a robustness check we replicated the analysis for each of the five Asian regions: Central, East, South, South-East, and West Asia.

The Gini index is the most widely used measure of inequality in the literature. Even though this index provides a comprehensive snapshot of income distribution within a population, allowing for comparisons across different regions and time periods, it has faced criticism for its limitations, such as the failure to capture certain aspects of inequality and the fact that it is easy to misinterpret (Clementi et al, 2019). For these reasons, percentile shares have become increasingly popular for analysing distributional inequality, quantifying the proportions of total income that go to different groups (Jann, 2016). Therefore, in this study we opted to explore alternative inequality indicators, as suggested, *inter alia* by Atkinson et al. (2011), Davtyan (2017) and Stiglitz (2012, 2015). These include metrics such as the share of pre-tax total income accruing to the top percentile income holders, which we used in this research in order to offer a broader perspective on income distribution patterns. Clementi et al. (2019) argued that relying solely on the Gini Index may overlook crucial information.

The structure of the study is as follows: Section 2 briefly reviews the literature and provides an overview of the Kuznets' curve theory. Section 3 describes and graphically presents the data. Section 4 discusses the methodology and results. Finally, Section 5 concludes.

2. Literature review

Inequality in the distribution of income has implications in economic growth, and society's growing awareness of its potential long-term negative effects is reflected in the large number of studies carried out (e.g., Alesina and Rodrik, 1994; Alvaredo et al, 2017; Castells-Quintana and Royuela, 2017; Claveria and Sorić, 2024; Davtyan 2016, 2023; Gründler and Scheuermeyer, 2018; Easterly, 2007; Herzer and Vollmer, 2012; Forbes, 2000; Munielo-Gallo and Roca-Sagalés, 2013; Perotti, 1996). Since Kuznets' (1955) seminal work there has been renewed interest in the nexus between inequality and growth. The author postulated that during the initial phase of economic growth in a primarily agrarian economy that its transitioning towards an industrial economy, income inequality increased. The inverted-U shape of the curve shows an initial increase in income inequality that reaches a turning point and afterwards reverses its course. Moreover, as

noted by Ravallion (2014), at the time it was believed that rising inequality was normal in growing poor countries. The emphasis was on reducing poverty through growth rather than addressing inequality.

However, since the early 2000s, there's been a shift in the way thinking. High inequality is now seen as a threat to development rather than just a consequence of progress. If we look at the evolution of inequality in different countries, there is usually a clear upward long-run trend. Given the heterogeneity between Asian countries, in this section we provide an overview and summarise some of the findings obtained in some of the main Asian countries that have been specifically analysed. We put the focus on the three Asian countries belonging to the BRICS—China, India and Russia, which are in turn those that have the greatest economic weight and those that accumulate a large part of the population on the continent.

According to the *World Population Prospects* (United Nations, 2024), since 1990 inequality between countries has decreased due to the rapid growth of developing economies. However, income inequality within countries has increased significantly. This trend is prevalent in more than two thirds of the world's economies, with middle-income countries such as India and China being the most affected. In particular, the top 1% income holders in 46 of the 57 countries studied by the United Nations have seen their share of income increase in the past two decades. As it has been shown in the literature, the implications of such levels of inequality go beyond economics, impacting social cohesion, political stability, education, health, and overall well-being (Castells-Quintana et al., 2019, 2024; Claveria, 2024, 2025; Suárez and López, 2023). Globalisation is often blamed for this rise in income inequality. While it is true that those in higher income percentiles—the top 10% and 1%—benefit disproportionately, globalisation is not the sole culprit.

While Asia has experienced significant economic growth over the past few decades, income inequality has also risen. From 1996 to 2008, income inequality in the region grew by 42%. Intra-country inequality dominates, accounting for more than 70% of the total regional inequality (Chancel et al, 2022). Several factors have contributed to this increase in income inequality, such as rising skill premiums, the dominance of capital over labour, and the disparity between urban/coastal areas and rural/inland regions (Zhuang, 2023). Wage growth for those with higher education has outpaced that for those with less education, especially in countries like India and the Philippines (Chua et al., 2015; Khurana et al., 2023). To compound this, in most countries wage rates have not

kept pace with productivity growth, benefiting business owners and shareholders disproportionately. As a result, significant wage disparities have been created in many economies of the region.

However, Asia presents diverse economic, social, and political dynamics, making it difficult to analyse as a whole. Countries such as India and China are among the most unequal in the world. In the case of China, while achieving an exceptionally high rate of economic growth, remarkable progress in poverty reduction, and experiencing a significant increase in per capita income, it is still one of the countries that recorded a significant deterioration in income inequality and it is transitioning from a relatively egalitarian society to one of the most unequal nations globally (Cevik and Correa-Caro, 2020). China had very low inequality levels in the late 1970s, but it is now approaching those of the United States, where the bottom 50 percent income share in between 1978 and 2015, decreased from 20% to 12% of total income, while the top 1 percent income share rose from 11% to 20% (Chancel et al., 2022). In contrast, and in spite of a similar qualitative trend, the bottom 50 share remains higher than the top 1 share (Alvaredo et al., 2017). Similarly, Cevik and Correa-Caro (2020) found that the income shares of the top one and ten percent of households in China increased from 2.8% in 1980 to 4.9% in 2009. These ratios are relatively low compared to that in many other countries, but the total income share of the lowest half of households in China is still significantly higher. Post-2005, investments in health, education and infrastructure in rural areas, helped to keep inequality in check (Chancel et al, 2022). Consequently, although fiscal redistribution initially mitigated income inequality in China, its effectiveness has diminished over time. Furthermore, regressive tax policies and insufficient progressivity have contributed to the widening income gap (Cevik and Correa-Caro, 2020).

When one looks at the differences in income inequality between urban and rural areas in China, some considerable discrepancies in their evolution stand out. Ravallion and Chen (2022) provided additional insights about the inequality across population sub-groups, hinting at the possibility of urbanisation contributing to decreasing inequality within urban areas, which may partially offset overall inequality trends. The authors noted that rural areas exhibited higher levels of inequality compared to urban areas. Despite this initial disparity, the study found evidence of signs of convergence in inequality levels between rural and urban sectors over time, and suggested that China's urbanisation process may have contributed to reducing inequality within urban areas, possibly due to the inclusion of rural migrants, who tend to have lower levels of inequality.

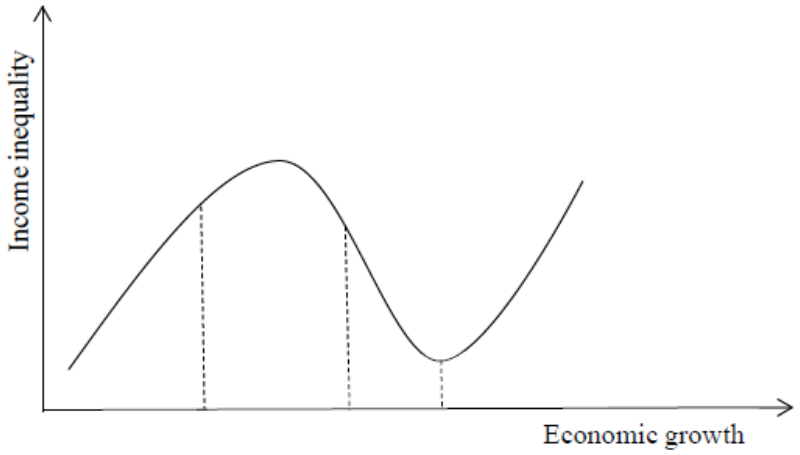
Mercado et al. (2024) also found evidence of a reduction in the urban-rural income gap in the Philippines, Thailand, and Vietnam. In spite of the high levels of income inequality, especially in the Philippines and Thailand, the authors encountered a moderation in income inequality for these three economies, which could be in part attributed to rising income opportunities generated by structural transformation and government policies promoting social inclusion. Other authors have examined income inequality in these three countries (Benjamin et al., 2017; Le et al., 2022; McDoom et al. 2019; Paweenawat and McNown, 2014), although the evidence presented falls short of providing a full picture of the sources and drivers underlying recent trends.

When it comes to India, it stands out as a poor and very unequal country, with an affluent elite. In the mid-1980s a series of deregulation and liberalisation policies led to one of the most extreme growths in income and wealth inequality observed in the world (Chancel et al, 2022). While the top 10 percent has mainly benefited from the economic reforms, the evolution of the bottom 50 share has been rather slow. With regards to Russia, in the beginning of the 20th century, income inequality was very low compared to other Asian countries. In contrast, the evolution observed after the implosion of the Soviet Union in 1991 and the subsequent "shock therapy" with a mixture of abrupt privatisations and deregulation made the Russian Gini index drastically increase until reaching 60% (Chancel et al, 2022). Therefore, going from a centralised economy to a market economy rocketed the Russian inequality income rising. In the Annex, we have included several figures that document the evolution of some income inequality metrics in China, India and Russia since 1980.

There is a certain consensus that income inequality affects numerous aspects of society, and its potential long-term negative effects have prompted extensive research (Barro, 2000; Castells-Quintana and Royuela, 2017; Claveria, 2025; Ravallion, 2014). See De Dominicis et al. (2008), Ferreira et al. (2022) and Neves and Silva (2013) for thorough and comprehensive surveys on the effects of inequality on economic growth. While Kuznets' theory has been supported by studies on developed economies (Özdemir, 2019), its applicability to developing economies, particularly in Asia, remains debated (Dawson, 1997; Ravallion and Chen, 2022; Woo, 2020). Therefore, this study aims to add to this ongoing debate by testing the Kuznets' curve hypothesis in all Asian countries. Voitchovsky (2005) found that the shape of the income distribution conditioned the relationship. In general, the author encountered that growth tends to be weakened by inequality at the bottom end of the distribution, but enhanced at the top end.

The availability of time series of the different percentiles of the income distribution, has allowed us to build a data panel with which to evaluate the impact of extreme inequality—i.e., the proportion of income concentrated in the first percentile—on economic growth. By fitting a polynomial function, the present study, which is eminently exploratory in nature, presents some preliminary empirical evidence on the existence of an *N*-shaped relationship between extreme inequality and income in Asia, both at the aggregate level and by region (see Figure 1). In the next section we present the data and show the evolution of income inequality between 1980 and 2021 in 53 Asian countries.

Figure 1. *N*-shaped Kuznets's curve



Source: compiled by the authors.

3. Data

The main objective of this study is to assess the relationship between extreme income inequality and economic growth in Asian countries. With this aim we have constructed a panel data spanning 51 countries from 1991 to 2021, which includes a measure of inequality in primary or market income—i.e., before taxes and government transfers, except pensions and unemployment insurance among adults—, which consists on the % of income accruing to the top percentile income holders. See Davtyan (2017) and Alvaredo et al. (2017) for a justification of putting the emphasis on top income holders. Income per capita is measured as Gross Domestic Product (GDP) per capita at constant 2015 US dollars and expressed in thousands, obtained from the *World Development*

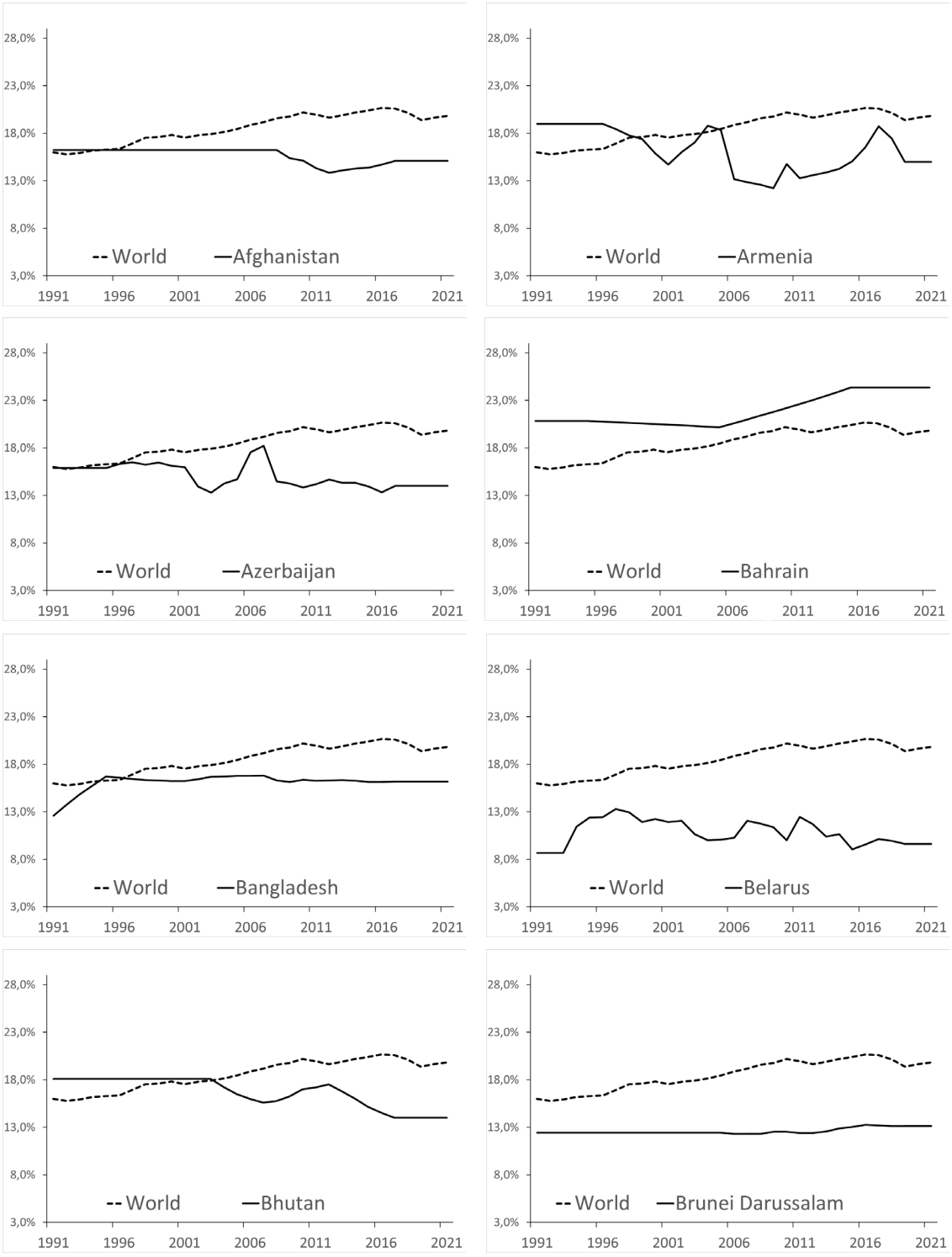
Indicators web of the World Bank. On the one hand, since Belarus and Ukraine were part of the Union of Soviet Socialist Republics (USSR) up until 1991, they have been included in the analysis as Asian countries. On the other hand, given that there were not available macro data for North Korea and Taiwan in the World Bank web, they have been included in the descriptive analysis of income inequality but not included in the panel analysis. Table 1 presents the mean and standard deviation of income inequality for each country during the sample period, while Figure 2 shows the income distribution trends for each country relative to the world average.

Table 1. Summary statistics – Share of income accruing to the top percentile income holders before taxes and transfers by country (1980–2021)

Country	Income inequality		Country	Income inequality	
	mean	SD		mean	SD
Afghanistan	15.6%	0.8%	Maldives	25.3%	9.6%
Armenia	16.2%	2.3%	Mongolia	16.0%	0.8%
Azerbaijan	15.0%	1.2%	Myanmar	24.7%	3.6%
Bahrain	21.9%	1.6%	Nepal	15.4%	1.4%
Bangladesh	16.1%	0.9%	North Korea	14.0%	1.3%
Belarus	10.8%	1.3%	Oman	19.1%	0.0%
Bhutan	16.7%	1.5%	Pakistan	17.0%	0.8%
Brunei D.	12.6%	0.3%	Palestine	18.4%	0.9%
Cambodia	23.9%	4.0%	Philippines	19.0%	2.3%
China	12.3%	2.6%	Qatar	21.6%	0.6%
Georgia	20.0%	2.1%	Russia	13.7%	8.0%
Hong Kong	17.9%	2.2%	Saudi Arabia	20.2%	0.1%
India	14.5%	3.2%	Singapore	10.7%	0.4%
Indonesia	17.3%	4.0%	Sri Lanka	19.5%	1.6%
Iran	18.3%	1.5%	Syria	21.2%	0.6%
Iraq	22.0%	1.5%	Taiwan	15.7%	3.3%
Israel	17.8%	1.0%	Tajikistan	13.7%	1.4%
Japan	22.0%	1.5%	Thailand	21.4%	2.0%
Jordan	18.5%	2.0%	Timor-Leste	16.1%	1.1%
Kazakhstan	13.9%	1.7%	Turkey	20.4%	1.8%
Korea	8.1%	0.3%	Turkmenistan	18.9%	0.4%
Kuwait	19.6%	0.5%	Ukraine	10.6%	2.0%
Kyrgyzstan	14.2%	2.2%	UA Emirates	17.5%	1.4%
Lao PDR	18.5%	0.7%	Uzbekistan	16.9%	0.4%
Lebanon	19.9%	0.6%	Viet Nam	16.6%	0.8%
Macao	12.4%	2.5%	Yemen	24.5%	2.2%
Malaysia	17.5%	1.8%	World	18.5%	1.6%

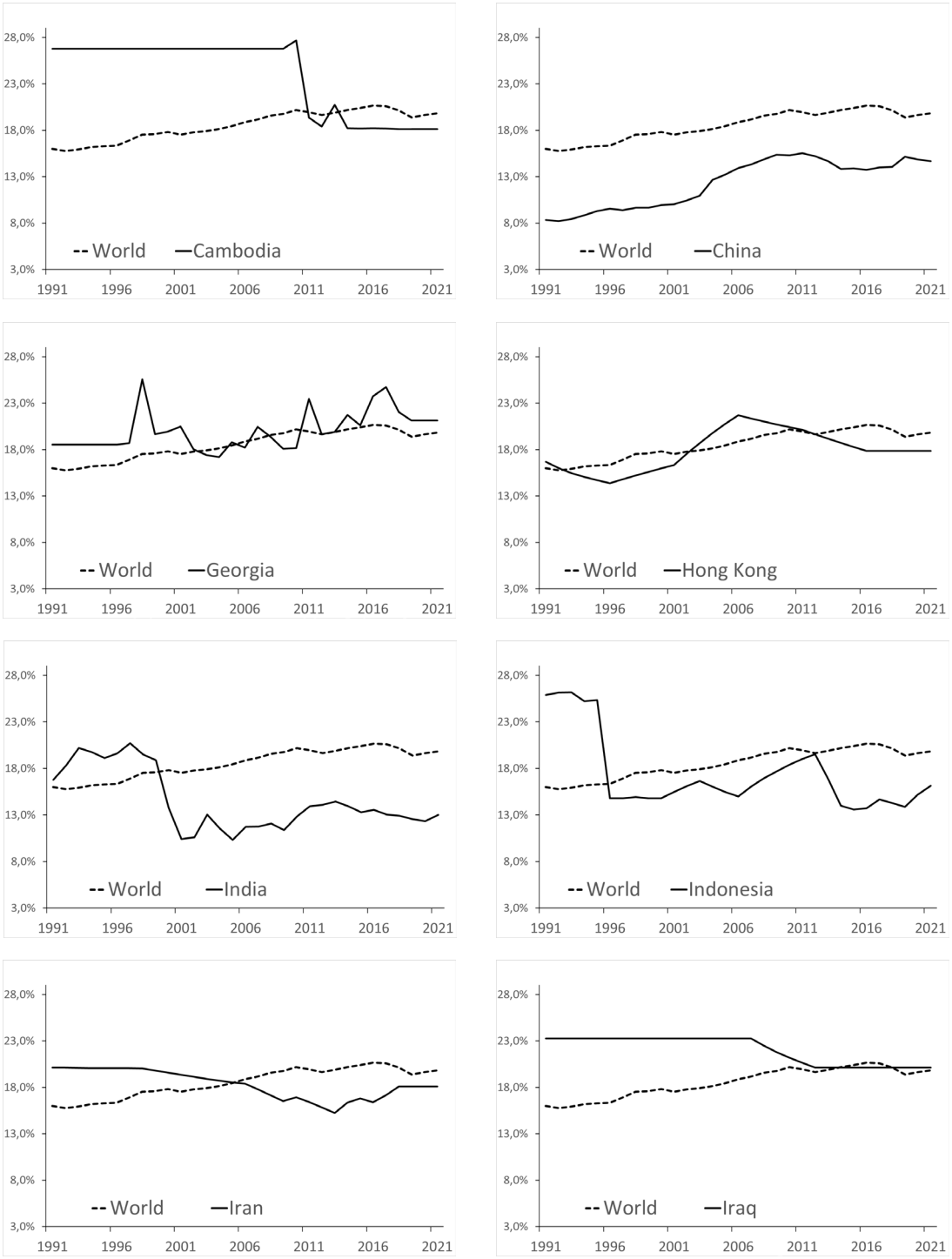
Notes: SD denotes standard deviation. Brunei D. stands for Brunei Darussalam, and UA Emirates for United Arab Emirates.

Figure 2a. Evolution of the share of income accruing to the top 1% income holders by country and for the world (1991–2021)



Notes: The black line represents the evolution the share of income accruing to the top 1% income holders per country, and the black dotted line represents the evolution of the share of income accruing to the top 1% income holders worldwide.

Figure 2b. Evolution of the share of income accruing to the top 1% income holders by country and for the world (1991–2021)

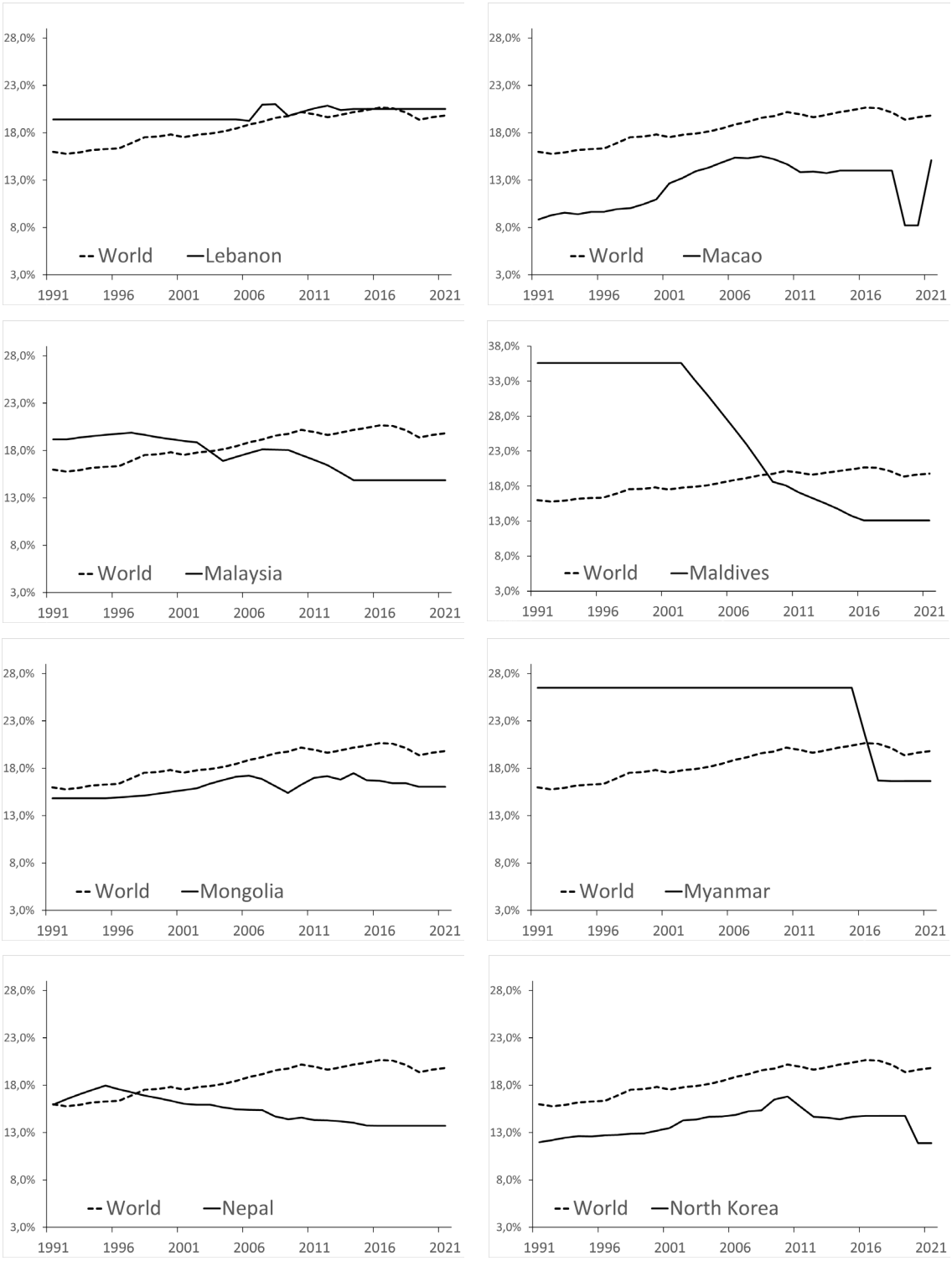


Notes: The black line represents the evolution the share of income accruing to the top 1% income holders per country, and the black dotted line represents the evolution of the share of income accruing to the top 1% income holders worldwide.

Figure 2c. Evolution of the share of income accruing to the top 1% income holders by country and for the world (1991–2021)

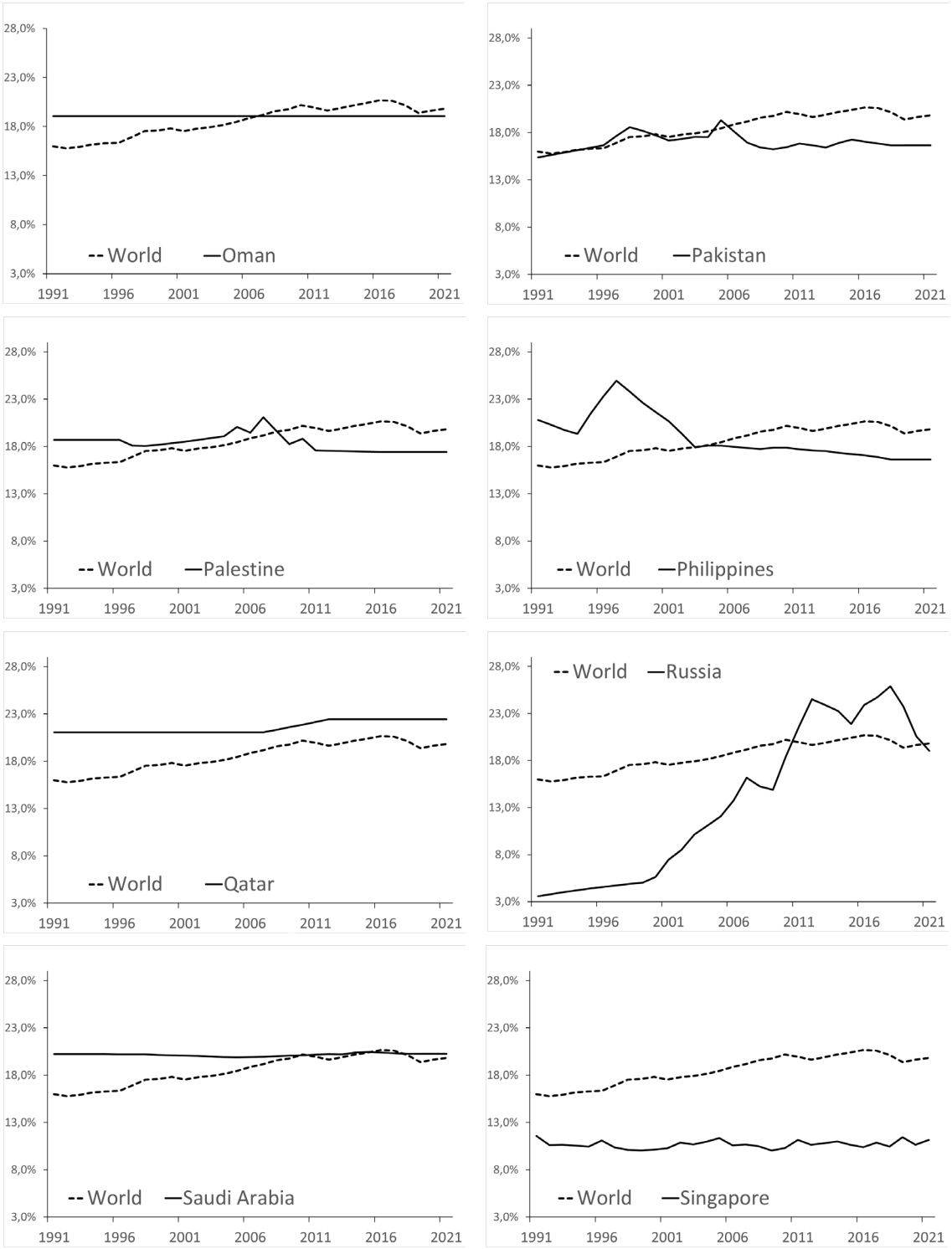
Notes: The black line represents the evolution the share of income accruing to the top 1% income holders per country, and the black dotted line represents the evolution of the share of income accruing to the top 1% income holders worldwide.

Figure 2d. Evolution of the share of income accruing to the top 1% income holders by country and for the world (1991–2021)



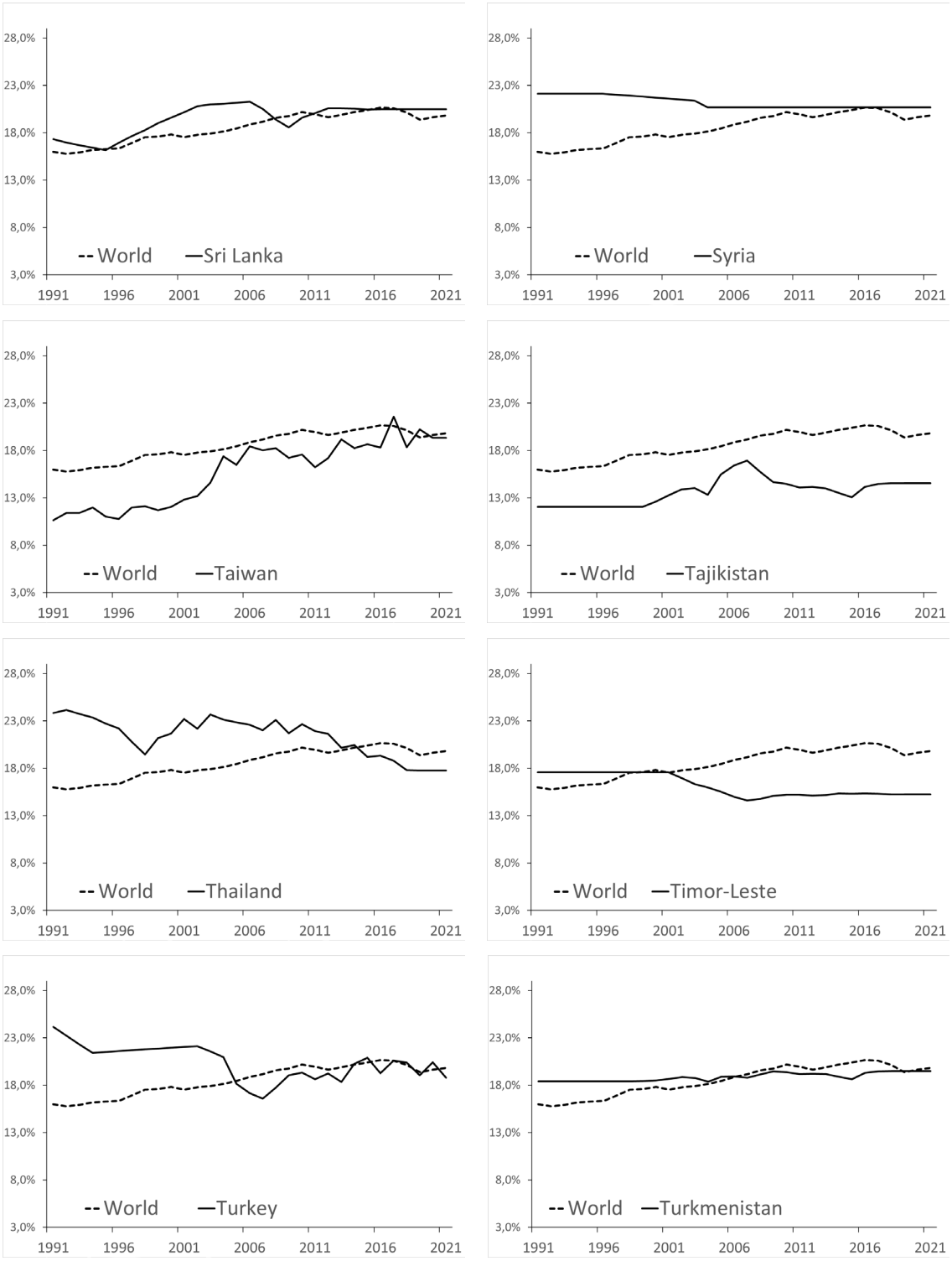
Notes: The black line represents the evolution the share of income accruing to the top 1% income holders per country, and the black dotted line represents the evolution of the share of income accruing to the top 1% income holders worldwide.

Figure 2e. Evolution of the share of income accruing to the top 1% income holders by country and for the world (1991–2021)



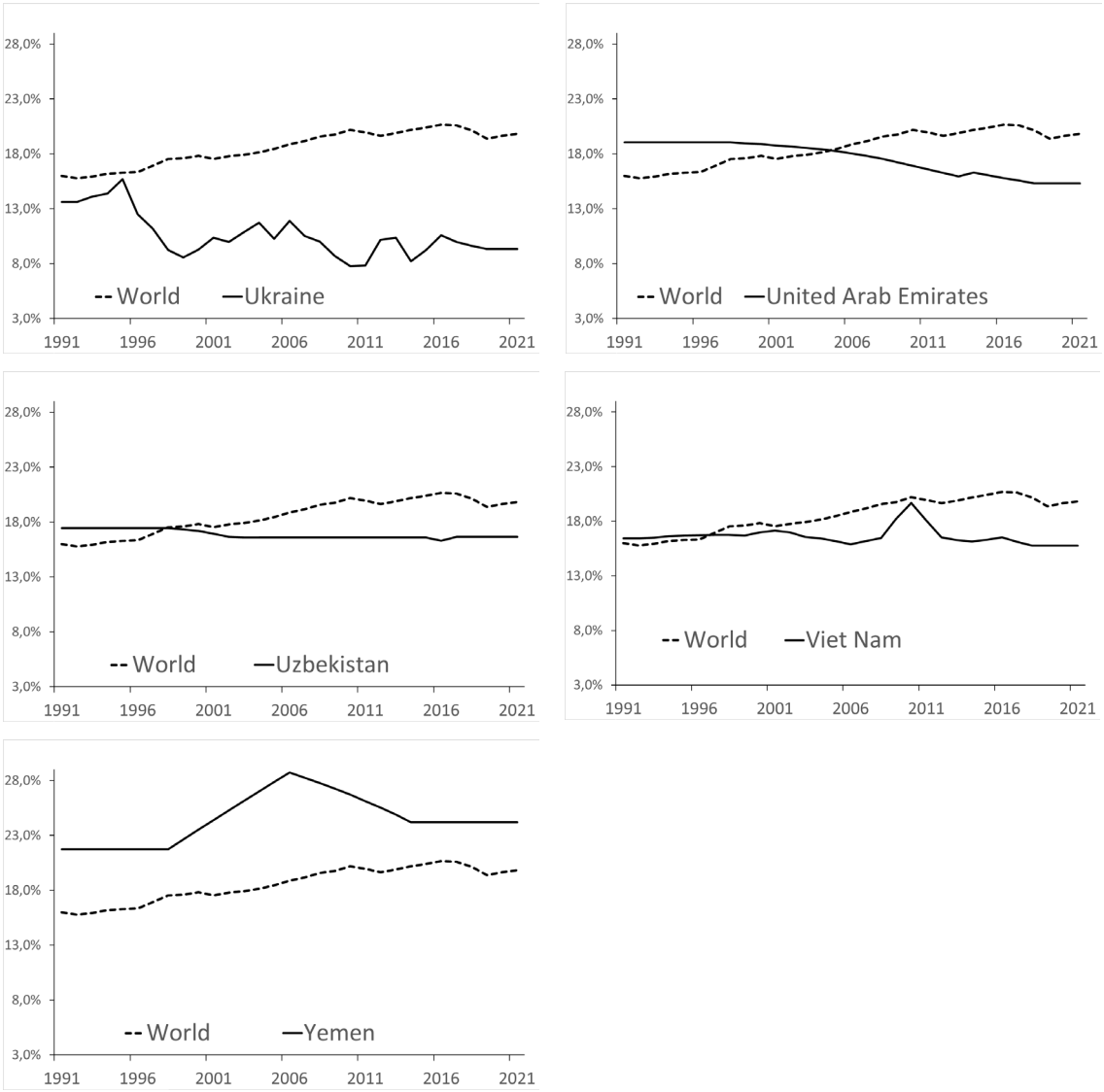
Notes: The black line represents the evolution the share of income accruing to the top 1% income holders per country, and the black dotted line represents the evolution of the share of income accruing to the top 1% income holders worldwide.

Figure 2f. Evolution of the share of income accruing to the top 1% income holders by country and for the world (1991–2021)



Notes: The black line represents the evolution the share of income accruing to the top 1% income holders per country, and the black dotted line represents the evolution of the share of income accruing to the top 1% income holders worldwide.

Figure 2g. Evolution of the share of income accruing to the top 1% income holders by country and for the world (1991–2021)



Notes: The black line represents the evolution the share of income accruing to the top 1% income holders per country, and the black dotted line represents the evolution of the share of income accruing to the top 1% income holders worldwide.

A joint observation of the graphs contained in Figure 2 together with the descriptive collected in Table 1, reveals notable differences both between countries and at a regional level. The countries where the first percentile of income holders shows the highest average shares over the last three decades are the Maldives, with 25.3%, Myanmar with 24.7% and Yemen with 24.5%. It should be noted, however, that both in the Maldives and in Myanmar, specifically since 2014, a downward trend in income concentration is observed, in contrast to Yemen, where the trend is increasing.

On the contrary, the countries with the lowest inequality are South Korea, with an average proportion of 8.1%, and Singapore with 10.7%. Both economies show a stable evolution of the share of income held by the top percentile income holders since the 1990s. Other countries, such as China and Russia, show a constant growth in this proportion throughout the sample period. At the regional level, the Gulf countries in the region of the Middle East tend to show very high average shares that have remained very stable over the last three decades. Another region with very high shares is Southeast Asia, where in countries such as Cambodia or Thailand, the income share accruing to the top percentile income holders shows average values above 20 percent, although unlike the Gulf countries the trend is clearly downward.

4. Empirical analysis

The paper aims to examine the relationship between economic growth and the income share accruing to the top 1 percent of the distribution through a fixed-effects panel model. With regards to the empirical approach, the relationship between extreme income inequality (the share of income accruing to the top 1 income holders) and economic growth is examined using a fixed-effects panel model. In order to test the potential existence of an *N*-shaped relationship we use a polynomial function. Therefore, the model can be specified as follows:

$$y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 X_{it}^2 + +\beta_3 X_{it}^3 + \gamma Z_{i,t-1} + \alpha_i + \delta_t + \varepsilon_{it} \quad (1)$$

Where y_{it} is the dependent variable (income inequality) for country *i* in year *t*, for *i*=1,…,*N* and *t*=1991,…,2021. The main explanatory variable is income per capita (*X*), which is also included squared and cubed with the aim of testing the existence of an *N*-shaped relationship between inequality and economic growth. Unobserved time-invariant country-specific characteristics are collected in α_i, which is a set of *N*-1 dummy variables multiplied by their respective regression coefficients to account for country fixed effects. We also added *T*-1 dummy variables to account for time fixed effects, noted in Equation (1) as δ_t. Vector $Z_{i,t-1}$ includes the tree explanatory variables lagged one period. Given the exploratory nature of the present study, we want to note that we have not included any control variables. The models were estimated using heteroskedasticity- and autocorrelation-consistent (HAC) standard errors. Results are presented in Table 2.

Table 2. Regression results—Effect of income per capita on income inequality in Asia by region

	Asia	Central Asia	Middle Asia	South Asia	South-East Asia	West Asia
$income_t$	1.086**	-5.874***	2.212**	14.752**	1.461	1.194
	(0.485)	(1.927)	(0.949)	(6.012)	(2.093)	(1.172)
$income_t^2$	-0.015*	1.599***	-0.031**	-2.415**	-0.033	-0.025
	(0.008)	(0.343)	(0.015)	(1.063)	(0.045)	(0.025)
$income_t^3$	0.001	-0.083***	0.001*	0.103*	0.001	0.001
	(0.001)	(0.018)	(0.001)	(0.056)	(0.001)	(0.001)
$income_{t-1}$	-0.747**	1.567	-1.820***	-13.619**	1.738	-0.632
	(0.301)	(2.940)	(0.677)	(5.691)	(1.573)	(0.569)
$income_{t-1}^2$	0.01**	-1.007**	0.026**	2.646***	0.036	0.015
	(0.005)	(0.444)	(0.010)	(0.857)	(0.035)	(0.013)
$income_{t-1}^3$	-0.001*	0.056***	-0.001**	-0.155***	-0.001	-0.001
	(0.001)	(0.021)	(0.001)	(0.041)	(0.001)	(0.001)
constant	13.575***	24.328***	7.648	13.820**	17.316***	13.317**
	(0.021)	(6.213)	(2.731)	(5.422)	(4.794)	(5.104)
LSDV R-squared	0.731	0.815	0.937	0.830	0.837	0.731
Cross-sectional units	51	5	6	9	11	20
Observations	1487	150	180	255	319	583

Notes: Robust (HAC) standard errors between brackets. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$. The endogenous variable to measure inequality is the pre-tax share of total income accruing to the top percentile income holders.

By using a polynomial function, the study assesses the potential existence of an *N*-shaped relationship between income inequality and economic growth. The obtained results aim to provide some insight into the relationship between income inequality and economic growth across different Asian regions. Given the preliminary nature of the analysis, it is worth noting that additional factors influencing income inequality, such as investment or innovation have not been considered given th the scarcity of pre-2000 data for certain developing economies.

The results in Table 2 show the coefficients obtained both for Asia as a whole and for each of the continent's regions. At the aggregate level, the sequence of signs taken by the coefficients for the variable per capita income—in the first degree, as well as quadratically and cubically—suggest the existence of an *N*-shaped relationship between economic growth and income inequality. At the regional level, very similar results are obtained in all regions except Central Asia; however, the coefficients are not significant in Southeast and West Asia. It is worth highlighting the results obtained in Central Asia, where the estimated coefficients are significant but take exactly the opposite signs of those obtained for the rest of the continent. Consequently, in Central Asia the observed relationship takes the form of a *V* with a third phase that shows an inverse relationship between income and inequality after the second turning point.

Overall, these preliminary results suggest the existence of an *N*-shaped relationship between economic growth and income inequality in Middle and South Asia, and of an inverted *U*-shaped relationship in the continent. The observed pattern for Central Asia is the opposite of that obtained in the rest of the regions. Given the lack of inclusion of control variables, it is risky to state the reasons behind this marked difference between the different Asian regions and Central Asia. However, a probable explanation could be found in the fact that the five Central Asian countries—Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan—are made up of economies that were part of the former Soviet Union until the 1990s. The former USSR was characterised by a high level of income equity, which was completely eclipsed after the opening to the market economy. This fact could explain the enormous differences found in the evolution of the relationship between economic growth and inequality between the Central Asian countries and the rest of the Asian economies.

The divergence observed between the results obtained for different regions of Asia, in some way reflects the previous evidence obtained at the regional level for some existing studies for specific countries such as Thailand (e.g., Maneejuk et al., 2021), where the

authors found that the Kuznets hypothesis did not hold at the country level, but it did for the North and Northeast regions of the country.

These regional differences in the effect of redistribution on income somehow connect with recent research by Baek et al. (2024), who found that regional factors have heterogeneous effects on income inequality fluctuations across countries, and that they account more significantly for the future variance of income inequality than for global factors. Analogously, Özdemir (2019) obtained opposite results for high-income and middle-income countries when analysing the nexus between financial development and income inequality. Finally, it is worth mentioning the important role played by urbanisation in Asia. The seminal study by Kanbur and Zhuang (2013) highlighted the importance of addressing this aspect in order to control the growing income inequality in many Asian economies.

5. Conclusion

This work aims to provide new empirical evidence regarding the evolution of income inequality in Asian countries and the its relationship with economic growth on the different regions of the continent. Given the growing concentration of income observed among the highest percentiles, the importance of using inequality measures that allow this phenomenon to be captured has been demonstrated. For this reason, in the present analysis a panel is constructed with the information available for the 53 Asian countries over the period comprised between 1990 and 2021 regarding the share of income accruing to the top percentile income holders of each country.

The graphical and descriptive analysis of the data reveals enormous differences both in the degree of income inequality and in its evolution, both between regions and among the different economies of each region. The countries where the first percentile of income holders shows the highest average shares over the last three decades are the Maldives, Myanmar and Yemen. On the contrary, the countries with the lowest inequality are South Korea and Singapore. Other countries, such as China and Russia, show a constant growth in this proportion throughout the sample period.

At the regional level, the Gulf countries in the region of the Middle East tend to show very high average shares that have remained very stable over the last three decades. Another region with very high shares is Southeast Asia, where in countries such as

Cambodia or Thailand, the income share accruing to the top percentile income holders shows average values above 20 percent, although unlike the Gulf countries the trend is clearly downward.

The analysis focuses on the empirical testing of the Kuznets curve hypothesis, which states an inverted *U*-shaped relationship exists between economic growth and inequality, suggesting an initial increase followed by a decline in income disparity as the economy grows. Within this framework, a polynomial function is specified and a fixed effects panel model is estimated to control for the heterogeneity existing between the different countries of the continent. This heterogeneity is reflected in the mixed evidence obtained for the different regions. Overall, the obtained results suggest the existence of an *N*-shaped relationship between economic growth and income inequality in Middle and South Asia, and of an inverted *U*-shaped relationship in the continent. The observed pattern for Central Asia is the opposite of that obtained in the rest of the regions.

All five Central Asian countries—Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan—were part of the former Soviet Union, which was characterised by very low levels of income inequality that suddenly experimented an enormous growth after opening to the market economy. This particular evolution may help explain to a certain extent the enormous differences found in the evolution of the relationship between economic growth and inequality between the Central Asian countries and the rest of the Asian economies.

Finally, we want to point out that the obtained results might have been influenced by biases derived both from the measurement of inequality. In this regard, the quality of inequality data released by some governments has seriously deteriorated over the past years, making it particularly difficult to assess recent inequality changes. Additionally, it is worth noting that other factors affecting income inequality have not been considered. The use of alternative modelling strategies has been left for further research, as well as the extension of the analysis to other regions of the world as new information becomes available.

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