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Income Inequality in South Korea, 1933–2022: Evidence from Distributional National Accounts

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Abstract

We combine household survey micro data, tax data, and national accounts to construct annual pretax income inequality series for South Korea, which is coherent with macro aggregates. We provide the distribution of pretax national income over the time period from 1933 to 2022, with detailed breakdown by income composition in the years from 1996 to 2022. Our new series demonstrates that Korean top income shares decreased substantially from the 1930s up until the mid-1960s, following various wars, independence and land reform policies. Income inequalities then stabilized against the backdrop of rapid economic growth in the 1970s and 1980s, and decreased even further from the late 1980s onwards until the onset of the Asian Financial Crisis in 1997, which contradicts the "Kuznets Curve". In the aftermath of the crisis, income inequality worsened due to the rise of tax-exempted capital income concentration at the top. Compared to other East Asian countries, South Korea exhibits relatively lower levels of income inequality in terms of higher bottom 50% income shares, mostly due to a more equal distribution of national income growth at the stages of economic take-off in the 1980s, even though income concentration at the very top has strikingly worsened over the last two decades, with its top 1% income shares in 2022 returning back to the peak only observed during the colonial era.

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1 Introduction

The narrative of South Korea's rapid transformation from one of the world's poorest countries in the 1960s to a global economic powerhouse has long captivated scholars and policymakers alike. Between 1960 and 1988, Korea's¹ GDP per capita expanded at an average annual rate of 6.2% (Lucas, 1993), a performance that has been widely characterized as the "Miracle on the Han River." This phase of accelerated industrialization and export-led growth was underpinned by state-led development strategies, heavy investment in education and infrastructure, and close coordination between the government and chaebols (Amsden, 1989; Cumings, 1999; L. Kim, 1997; Rodrik, 1995). The economic momentum persisted into the 1990s, showing remarkable resilience even in the aftermath of the 1997 Asian Financial Crisis. As illustrated in Figure 1, Korea's average national income per adult grew at an average annual rate of 3.1% from 1933 to 2022—a testament to the country's long-term economic dynamism.

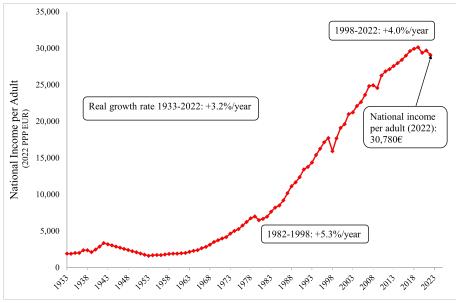


Figure 1: Per adult national income trend in Korea, 1933-2022

Notes: National income divided by adult population from N. Kim et al. (2012) and Bank of Korea (2024). We linearly interpolate the missing years, i.e., 1943-1952. Korea got independent in 1945 and had a civil war in 1950-1953 and we do not have any data point for these years.

¹If not specified otherwise, the terms "Korea" and "South Korea" both refer to the Republic of Korea in this paper.

However, this impressive macroeconomic performance masks significant disparities in the distribution of income and opportunities. More than six decades after the onset of rapid development, critical questions continue to surface regarding the inclusiveness and sustainability of Korea's growth model. By 2022, about 33% of the workforce is made up by non-regular workers – including part-time, contract, dispatched – who earn 36% less on average than regular workers and have limited access to social protections (OECD, 2022). The economic marginalization of the elderly population is also striking: as of recent estimates, 40.4% of elderly Koreans live in poverty, the highest rate among OECD countries.² These patterns raise important concerns about the limits of Korea's growth model. Thus, although South Korea's developmental trajectory is frequently held up as a model of successful modernization, it remains imperative to interrogate whom this success has truly benefited—and at what cost.

A number of studies have examined inequality in Korea (Renaud, 1976; Rao, 1978; Koo, 1984; Fields & Yoo, 2000), but most have relied on household surveys. While useful for studying broad distributional patterns, surveys are well known to understate incomes at the very top of the distribution and to suffer from limited comparability over long horizons or across countries (Piketty et al., 2018). A more systematic attempt was made by N.-N. Kim and Kim (2015), who constructed a long-run inequality series based on tax tabulations in the tradition of Piketty and Saez (2003). Yet this series is restricted to fiscal income, covers only selected periods, and omits both the bottom 90% and the very top because of data coverage gaps—particularly during the 1980s and 1990s.³

This paper overcomes these limitations by constructing the first comprehensive, harmonized series of income inequality in Korea spanning 1933–2022. We adopt the Distributional National Accounts (DINA) methodology (Alvaredo et al., 2020; Piketty et al., 2018) to combine household surveys, income tax tabulations, and national accounts. This allows us to measure the entire distribution of pre-tax national income—not just a seg-

²Poverty here is defined as having an income below 50% of the national median among individuals aged 66 or older. See OECD (2023).

³Specifically, total income inequality estimates are available only for 1976–1985 and 1995–2016. See Appendix A for details.

ment of it—in a way that is consistent across time and directly comparable with other DINA country studies. In doing so, we provide the first unified view of long-run Korean inequality that fully incorporates labor income, capital income, and tax-exempt components, while reconciling micro-level evidence with macroeconomic aggregates.

The DINA series reveals several important findings. First, we document a long-run Ucurve in inequality. Top income shares declined steadily between the 1930s and the 1970s, before rising again from the 1980s onward. This pattern stands in contrast to the classic Kuznets hypothesis of an inverted U-shaped relationship between economic development and inequality (Kuznets, 1955). In Korea, inequality fell during high-growth decades and increased as growth slowed, consistent with findings in other countries by Piketty (2014). Second, rising inequality since the early 2000s has been driven primarily by a sharp increase in capital income concentration among the top 1%, particularly through the accumulation of undistributed corporate profits (Figure 9). In contrast, labor income inequality has remained relatively stable among top earners. Finally, Korea's inequality trajectory points to a gradual convergence with regional peers. While the country exhibited lower income inequality than China⁴ and Taiwan throughout the 1980s and 1990s, its top income shares have approached those of its neighbors since the mid-2000s. The earlier period of lower inequality in Korea can be traced to redistributive policies including the repeal of nominal wage growth caps, the introduction of pension programs, and heightened capital income taxation—that were largely absent in Taiwan and China.

This paper contributes to the literature on income inequality in South Korea and East Asia along several dimensions.

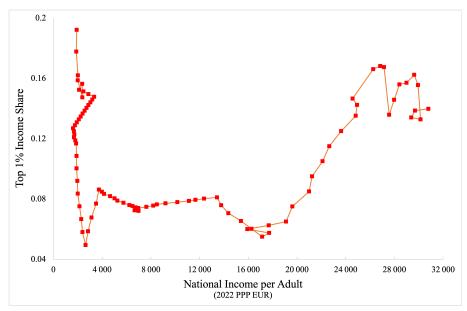
First, our study builds on a rich body of empirical research documenting inequality trends in South Korea, particularly prior to the Asian Financial Crisis. Earlier studies focused largely on verifying the existence of a Kuznets-type relationship between economic development and inequality in the 1960s and 1970s (Rao, 1978; Renaud, 1976), while others explored the role of state policy (Koo, 1984), globalization (Mah, 2003; Sato & Fukushige,

⁴"China" refers here to Mainland China (中国大陆), excluding Hong Kong, Macau, and other territories, following the definition in Piketty et al. (2019).

2009), or labor market structures and social class stratification (Fields & Yoo, 2000; Koo & Hong, 1980). More recent contributions have examined the short-term labor market and distributional impacts of the 1997 crisis (Cheong, 2001; Kang, 2006; Park, 2000; Shin & Kong, 2014; Yoo, 2004), but few provide a long-run perspective.

Our paper extends this literature by constructing a comprehensive inequality series spanning 1933 to 2022. This allows us to link major structural and historical events—including colonialism, war, industrialization, democratization, and financial crises—to long-run inequality dynamics. In doing so, we provide empirical evidence that challenges the classic Kuznets hypothesis: in Korea, inequality declined during periods of rapid growth and rose again as growth slowed down (Figure 2).

Figure 2: The association between top 1% income shares and per adult national income, 1933-2022



Notes: National income divided by adult population (2022 PPP EUR). The x-axis is ordered chronologically by year rather than by income level. As national income per adult does not always increase monotonically with time, the trajectory of the series may appear somewhat convoluted in certain periods. We linearly interpolate the missing years, i.e., 1943-1952. Korea got independent in 1945 and had a civil war in 1950-1953 so we do not have any data point for these years. Top 1% national income shares come from our own estimates. Income concept is pretax national income.

Second, we offer new empirical insights into the drivers of inequality in Korea since the 1980s. We highlight the effects of institutional and policy changes, such as the repeal of

wage growth caps, the introduction of social insurance programs, labor market deregulation, and shifts in capital taxation. Importantly, we document the rising concentration of tax-exempt capital income—particularly undistributed corporate profits—and the growing prevalence of non-regular employment as key mechanisms behind recent increases in inequality.

Third, our work builds directly on and extends the top income share series developed by N.-N. Kim and Kim (2015) and N.-N. Kim (2018), who used tax tabulations to track the top 1% income shares in Korea from 1933 to 2016. We contribute to this effort in three ways: (1) we incorporate newly available tabulations from the 1950s to 1970s to fill key historical gaps; (2) we construct full distributional estimates for the entire population—not just the top tail—including middle- and lower-income groups; and (3) we adopt the Distributional National Accounts (DINA) methodology (Alvaredo et al., 2020; Piketty et al., 2018) to integrate tax data, household surveys, and national accounts, allowing for more comprehensive and internally consistent inequality estimates. Importantly, we construct a series that is comparable both across time and countries, something that has not been done systematically before.

Finally, we contribute to the growing DINA literature, which now includes applications for the United States (Piketty et al., 2018), France (Garbinti et al., 2018), Germany (Bach et al., 2023), the Netherlands (Bruil et al., 2022), China (Piketty et al., 2019), Taiwan (Chu et al., 2023), and others.⁵ We place Korea on the DINA map and provide one of the first systematic comparisons of inequality dynamics within East Asia using harmonized DINA-based series. To our knowledge, this is the first study to trace the divergent inequality trajectories of Korea, China, and Taiwan using consistent methodological standards.

The remainder of this paper is organized as follows. Section 2 describes the data sources and methodology used to construct the Korean DINA series. In Section 3, we present long-run trends in income inequality from 1933 to 2022, and benchmark Korea's experience against those of other East Asian economies. We then analyze inequality through

⁵For additional examples, see studies on Malaysia (Khalid & Yang, 2021), the Middle East (Alvaredo et al., 2019), Russia (Novokmet et al., 2018), and Europe as a whole (Blanchet, Chancel, & Gethin, 2022).

decompositions by income source. Section 4 concludes and discusses potential directions for future research.

2 Data and Methodology

This section outlines the construction of the Korean Distributional National Accounts (DINA) series from 1933 to 2022, focusing on data sources, income concepts, unit of observation, and methodology. The full Korea DINA series spans from 1933 to 2022. Within this long-run framework, we construct survey-based DINA estimates starting in 1982, for benchmark years 1982, 1991, 1996, 2000, and annually from 2006 to 2022. These years mark the availability of distributional household survey data and form the basis of the standard DINA methodology (Alvaredo et al., 2020).

For earlier years (1933–1981), we rely on historical income tax tabulations to estimate top income shares and impute broader distributional national accounts statistics. Specifically, tax tabulation data are available for 1933–1942, 1958, 1966, and 1970, as well as annually from 1978 onward. While these historical estimates are not based on micro-level survey data and thus involve more assumptions, we apply careful adjustments to align them with DINA conventions.⁶

2.1 Survey Data

Given the lack of access to individual-level tax micro data in Korea, household surveys are the primary source for distributional estimates.

The core dataset is the Household Income and Expenditure Survey (HIES), conducted annually since 1963. For our purposes, we use HIES in tabulated form for 1982 and in micro-data form from 2006 to 2015. The 1982 tabulations include 7,200 households representative of the national population. HIES provides detailed information on income,

⁶Albeit the assumptions associated with these earlier estimates, they provide the first century-long perspective on income inequality in Korea and align closely with the country's broader economic and institutional history.

expenditures, taxes, and demographic characteristics.

To complement certain types of missing households, we supplement HIES with the Farm Household Economic Survey (FaHES) and Fishery Household Economic Survey (FiHES),⁷ For benchmark years 1991, 1996, and 2000, we use the Household Expenditure Survey (HES), which includes these household types otherwise missing from HIES.

For the years 2016 to 2022, we rely on the Survey of Household Finances and Living Conditions (SHFLC), which links survey responses with administrative tax data. With samples of approximately 20,000 households annually and income from the administrative tax files, SHFLC enables more refined imputation of tax-exempt capital income (e.g., corporate retained earnings).

2.2 Tax Data

We use income tax tabulations spanning 1933 to 2022. Korea has operated under a dual income tax system, comprising global income taxation and withholding taxation. This system was partially implemented in 1967 to maximize the tax revenue by levying more extra tax on high-income individuals - high income earners were forced to report all of their other income sources and paid taxes based on the total amount. The current global income taxation system for the entire population was formally established in 1975.

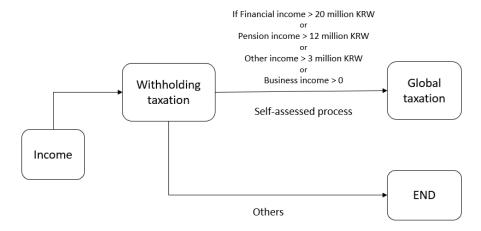
The global income tax applies to individuals who have met the eligibility criteria (e.g., financial income exceeds a set threshold - 20 million KRW in recent years),⁸ and covers wages, business income, pensions, interests, and dividend income. Withholding taxation

⁷As explained in Appendix A, HIES did not cover all types of households, so we combine other supplementary household surveys from Statistics Korea. These two supplementary household surveys are the Farm Household Economic Survey (FaHES) and the Fishery Household Economic Survey (FiHES), respectively.

⁸In 1996, National Tax Service started to use financial income as one of eligibility criteria for global income taxation. Before 1996, it was taxed withheld with a flat tax rate. A detailed description on the taxation history of financial income in South Korea is available in Section 3.1.3. There are also other criteria to be included in the global income tax system (which were already present prior to 1996, unlike the financial income threshold criterion), including positive business income, pension income greater than 12 million KRW, other income larger than 3 million KRW etc. Please see Figure 3 for detail.

applies at the source for certain income types (e.g., interest), usually at a flat rate.⁹

Figure 3: The dual taxation system in Korea: global taxation and withholding taxation



Notes: Every income except for business income is taxed through withholding taxation first. For business income, given the nature of business income, it is hard to withhold the tax whenever it occurs. After withholding taxation, people who have business income, financial income (more than 20 million KRW), pension income (more than 12 million KRW), and other income (more than 3 million KRW; excluding the necessary cost) ought to report their global income.

Global income tax tabulations are available annually from 1975. Withholding tax tabulations are available annually from 1978 onward, although some gaps remain (e.g., 1986–1994). In missing years such as 1991, we rely exclusively on global tax data. Since these data disproportionately capture high-income individuals, they are especially valuable for correcting undercoverage at the top of the distribution.

We follow Moriguchi and Saez (2008) in merging the two tax tabulations and apply non-parametric generalized Pareto interpolation techniques to model the upper tail of the income distribution. To construct the long-run historical component of our series, we also use archived tax tabulations for the colonial and early postwar periods (1933–1942, 1958, 1966, 1970).¹⁰ In this way, we are able to construct the long-run pre-tax individual fiscal income series for South Korea,¹¹ which is comparable to that of Japan constructed

⁹Global income is usually taxed through self-assessed procedures, so all taxpayers who are obliged to undergo global taxation need to report their incomes themselves.

¹⁰These tax tabulations already represent the complete tax data distribution in Korea, hence there is no need for merging different types of tax tabulation data.

¹¹This individual-level fiscal income series should be distinguished from the corrected survey fiscal in-

2.3 Income Concepts

The income concept of the Korea DINA series is grounded in the definitions provided by the System of National Accounts (SNA), which ensures international consistency in the measurement of income and wealth (Garbinti et al., 2018). In line with the 2008 SNA, we use pre-tax net national income¹³, defined as the total value of gross domestic product after subtracting capital depreciation and adding net income received from abroad.

In addition, pretax national income is also defined as the sum of all pretax incomes that go to every adult in the economy who owns production factors, i.e., labor and capital, before any operation of the tax and transfer system except for pension and other social insurance programs (Alvaredo et al., 2020).¹⁴ Hence, we subtract pension and other social insurance contributions from an individual's total incomes, and add back pension and other social insurance benefits, e.g., unemployment insurance benefits, to his or her incomes accordingly.¹⁵ Overall, we aim to distribute the entire macro aggregate of pre-tax national income to each income percentile along the entire distribution.

come series (pre-tax equal-split fiscal income series) detailed below in Step 2 of Section 2.5, which is at the equal-split household member level.

¹²See Section 3.2.1 for further analyses and details on the comparison between Korea and Japan for the long-run pretax individual fiscal income series.

¹³Hereafter referred to as "pre-tax national income"

¹⁴The DINA series takes into account the operation of pensions because this allows us to construct a long-run income inequality series that is less sensitive to changes in the population pyramid in one country. Please see Alvaredo et al. (2020) for detail.

¹⁵There is another income concept in the System of National Accounts called **pretax factor income**. The difference between pretax factor income and pretax national income lies in whether you consider the operation of pension and social insurance. Given that the age structure in Korea has changed rapidly over the last 20 to 30 years, it is more reasonable to use pretax national income instead of pretax factor income. This is because retirees generally have lower factor incomes since their main income sources are pension incomes, and excluding such pension incomes would bias the long-run inequality series in one country and in particular relative inequalities in international comparisons for this mechanical reason. Therefore, we choose pretax national income as the main income concept in the Korea DINA series.

2.4 Unit of Observation

In terms of the unit of observation employed in the DINA series, the standard unit is the equal-split adult couple, which entails obtaining income information for both individuals in a couple and dividing the couples' income totals equally between each partner (referred to as the "narrow equal-split unit"). In the Korean context, it is also important to note that the equal-split unit entails the equal distribution of household income among every adult member in the household (referred to as the "broad equal-split unit"). This approach is especially suited to the Korean context, where couple-based tax micro data is unavailable, or when it is difficult to identify couples within a given household in survey datasets, as is the case for long-run inequality series in China (Piketty et al., 2019). It is imperative to consider this distinction while drawing comparisons between the Korean series and the U.S. or France DINA series (Alvaredo et al., 2020). In the U.S. and France, their equal-split units involve dividing couples' income equally between each partner.

2.5 Methodology

In this subsection, we describe step by step how we construct the Korea DINA income series from 1996 to 2022.²⁰ Generally, we start with the HIES micro data (HES micro data in 1996; SHFLC micro data in 2016-2022) and combine it with the FaHES and Fi-HES data to account for the missing types of households (hereinafter "the combined raw survey"). Then, we interpolate the distribution of fiscal income from tax tabulation data, using generalized Pareto interpolation techniques (Blanchet, Fournier, & Piketty, 2022).

¹⁶For the years of 1982 and 1991, we only possess tabulation data based on the household unit, limiting our ability to construct the DINA equal-split adult unit for these two years. Please refer to Appendix A for an in-depth exploration of data issues.

¹⁷The Korea tax system is individual-reporting based.

¹⁸In fact, the gap between broad equal-split and narrow equal-split is negligible for the top income groups. Please see Figure E.2 for details.

¹⁹In reality, it is logical to evenly distribute household (or couple) income among each adult in the household (or among couples). Even in instances where one does not have personal income, if their partner is employed, they ultimately share and spend their partner's income. For a more detailed discussion, please refer to Piketty et al. (2018).

²⁰For the early decades prior to the 1980s, as well as for the other years such as 1982, 1991, and 2000, we use a different approach to construct the Korea DINA series due to data limitations. Please see Appendix A and D for detailed discussions.

Afterwards, we correct the top income shares in the combined raw survey using the tax tabulations (hereinafter 'the corrected survey'), with the non-parametric re-weighting and replacement approach (Blanchet, Flores, & Morgan, 2022). Lastly, we use national accounts data to fill in the gap between our aggregate fiscal (corrected survey) income and aggregate national income, which means distributing tax-exempted capital income, such as imputed rent or corporate retained earnings to each income percentile. This process is to reconcile the inconsistencies between our fiscal income totals and the pretax national income aggregates.

Step 1: Estimating Raw Survey-Based Distributions. We begin by computing pre-tax income shares from the raw household survey micro data. Household income is distributed across individuals using the broad equal-split approach, consistent with the DINA convention.²¹ Using this method allows the series to remain robust to demographic shifts, including the rise of one-person households in Korea over recent decades.

Step 2: Correcting Top Income Shares Using Tax Tabulations. We correct for the underrepresentation of top-income individuals in survey data by integrating tax tabulations into the upper tail of the distribution. This step follows the non-parametric reweighting and replacement method proposed by Blanchet, Flores, and Morgan (2022).²² Basically, this correction is a non-parametric approach to adjust weights in the survey dataset, assuming the continuity of the income density distribution. An endogenously determined "merging point" between tax and survey data is identified, above which survey data are combined with tax data. Specifically, the survey observations are reweighted and replaced with tax data, while preserving the rank order in the original survey micro data.²³

²¹Survey data contain income information for each household member, but income is redistributed equally among all adults in the household. This reflects empirical findings on partial income pooling and consumption smoothing within households; see Chiappori and Meghir (2015).

²²Additionally, in our paper, we correct the income composition of top income earners in the survey, using information on income source composition from tax tabulation data. Yet, we only observe the composition of income for each income bracket in the tabulation data. To replace the composition of income in a more fine-grained way, within each tax bracket, we linearly interpolate the ratio of financial income (the same for business income and wage income) to total income rather than applying the same ratio to everyone in a given income bracket. In 2016-2022, since SHFLC is already corrected with tax records, this task is unnecessary.

²³Additionally, in the survey data, if some income percentiles are under-represented (i.e., top income distribution above the merging point), then other income percentiles could be over-represented (i.e., income

In a nutshell, we correct top income shares above the merging point by fiscal data while we systematically correct income shares below the merging point as well. After this customary survey correction, we obtain corrected survey income series, which is equivalent to the pre-tax equal-split fiscal income series.

Step 3: Reconciling with National Accounts. The final step adjusts aggregate survey-based income to match national income aggregates by redistributing tax-exempted capital income,²⁴ e.g., imputed rents²⁵ and corporate retained earnings.²⁶. Within income tax data, the private shares of undistributed corporate profits are not included. South Korea is not alone in this case (Khalid & Yang, 2021). Therefore, to construct the complete DINA series, it is very important to take these profits into account. Without considering this aspect, we can significantly underestimate the actual level of inequality in an economy, given that retained corporate earnings can be regarded as a deferred dividend income, which is highly concentrated at the top of the income distribution. To proceed with this correction, we take net primary income of corporations per adult from national account data and redistribute the private component of it following the distribution of financial income in the survey data, owing to the absence of detailed auxiliary data which could help to better proxy the distribution of corporate retained earnings (Alvaredo et al., 2020).²⁷ At the last stage of this step, we re-scale each income concept in the survey data to match with the pretax national income totals in the national accounts.

distribution lower than the merging point), which needs to be corrected as well, since the sum of weights in survey data should be equal to the sum of population in the national accounts.

²⁴While doing this step, we assume that tax evasion and tax avoidance do not vary by income shares (Khalid & Yang, 2021). However, tax evasion is usually positively correlated with income and wealth (Alstadsæter et al., 2022). Hence, our results should be interpreted as the lower bound of true income inequality.

²⁵All household survey data in Korea have imputed rent information, as such we used the distribution of imputed rents from survey data directly.

²⁶Here, retained earnings or undistributed corporate profits are in the private sector including Korean companies located outside Korea. Please see Alvaredo et al. (2020) for detail.

²⁷For the recent DINA estimates, we proceed more rigorously thanks to better available data. The private part of retained earnings is redistributed based on the distribution of tax data-corrected dividend income in the household survey. The share accruing to the pension funds is, however, redistributed based on pension contribution and receipts distribution in the household survey.

3 Results

3.1 Long-Run Trends in Income Inequality in Korea (1933-2022)

3.1.1 Colonial Era, Korean War and Inequality Compression: 1930s-1950s

We begin by documenting the long-run evolution of income inequality in South Korea over the past century. To this end, we construct a historical series of top income shares from 1933 to 2022, following the methodology of Garbinti et al. (2018). Figure 4 presents the evolution of the top 10% and top 1% income shares. We observe a substantial decline in the top 10% income share, from approximately 50% of total income in 1933 to below 30% in the 1960s. As we can see in Figure 5, this decline is consistent with broader international trends during this period (Chancel & Piketty, 2021).

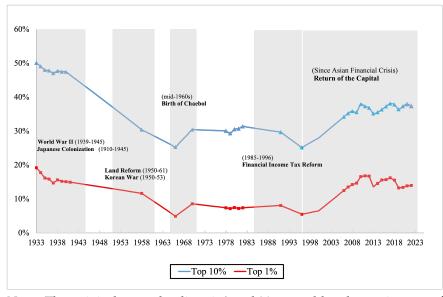


Figure 4: Top pretax national income shares in Korea, 1933-2022

Notes: The unit is the equal-split unit (aged 20-year-old and over; income of household is split equally into all adults in household). Income here means pretax national income. Percentiles are based on the total adult population. We linearly interpolated income shares for missing years. Before 1945, the series covers all Korean and Japanese residents on the Korean peninsula. After 1945, it only covers Koreans who live in South Korea.

In the Korean context, we attribute this reduction in top income shares to a sequence of

²⁸Appendix D provides a detailed description of data sources and construction methods for this historical series.

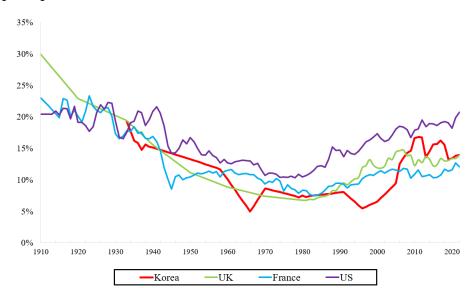


Figure 5: Top 1% pretax national income shares: Korea versus other countries (1910-2022)

Notes: The unit is the equal-split unit (aged 20-year-old and over; income of household is split equally into all adults in household). Income here means pretax national income. Percentiles are based on the total adult population. We linearly interpolated income shares for missing years. Before 1945, the series covers all Korean and Japanese residents on the Korean peninsula. After 1945, it only covers Koreans who live in South Korea. Korea series starts in 1933.

major political and economic shocks, including World War II, the Korean War, the country's independence from Japan, and subsequent land reforms. Upon independence, significant assets held by Japanese residents—who constituted a disproportionately wealthy segment of the population during the colonial era—were expropriated or abandoned, as they were prohibited from repatriating their wealth. Much of this wealth was later redistributed through public auctions at below-market prices (N. Kim & Kim, 2013). The Korean War (1950–1953) further eroded top income shares through the large-scale destruction of capital assets, such as real estate, industrial facilities, and equipment, consistent with the mechanism highlighted in Piketty and Saez (2014).

In addition, the land reform policies implemented between 1950 and 1961 played a decisive role in reducing income concentration by redistributing land from large landowners ("jiju") to tenants. This effectively dismantled the traditional landowning elite and substantially reduced rental income at the top of the distribution (Jeon & Kim, 2000). Prior to the reform, rental income from landownership constituted a major source of income

for top earners (N.-N. Kim & Kim, 2015), further underscoring the significance of land reform in shaping Korea's postwar income distribution.

3.1.2 Economic Takeoff With Stable Inequality: 1960s–1970s

Beginning in the mid-1960s, top income shares in South Korea began to rise again. This reversal is closely associated with the emergence and consolidation of large business-owning families and corporate conglomerates known as Chaebol. These institutional developments contributed to widening disparities between labor and capital income, thereby facilitating renewed concentration of income at the top of the distribution (Hong, 2015).

In the 1970s, despite rapid economic growth, income inequality in Korea remained relatively stable—deviating from the pattern suggested by the classic "Kuznets Curve" hypothesis (Kuznets, 1955). Contrary to Kuznets' prediction that inequality tends to rise in the early stages of development and fall thereafter, the Korean experience suggests a more complex relationship between growth and inequality. As illustrated in Figure 2, over the entire past century, income inequality in Korea remained stable during the high-growth decades and only began to rise as economic growth decelerated.

3.1.3 Democratization and Shifting Income Shares: 1980s–1990s

Following the rise in top income shares during the Chaebol-driven industrial expansion of the 1960s and the stabilization of inequality through the 1970s, Korea's income distribution entered a new phase in the 1980s and 1990s. This period was marked by democratization, labor market reforms, and significant changes in the taxation of capital income. These developments led to a rare pattern: rising real incomes for the bottom half of the population and a temporary decline in top income shares (Figure 6).

The increase in bottom 50% income shares during the 1980s can be attributed to several progressive policy changes. Among them, the most consequential was the repeal of wage suppression policies. Until 1981, the government capped nominal wage growth at

Avg. middle 40% (2022): 50% 34,020 EUR 40% 35% Avg. top 10% (2022) 115,163 EUR 30% 25% 20% Average national income per adult (2022): 30,780 EUR Avg. bottom 50% (2022) 15% 11,385 EUR 10% 1982 1986 1990 1994 1998 2002 2006 2010 2014 2018 2022

Figure 6: Pretax national income shares in South Korea, 1982-2022

Notes: The unit is the equal-split unit (aged 20-year-old and over; income of household is split equally into all adults in household). Income here means pretax national income (2022 PPP EUR). Percentiles are based on the total adult population. We linearly interpolated income shares for missing years.

──Middle 40%

─Top 10%

-Bottom 50%

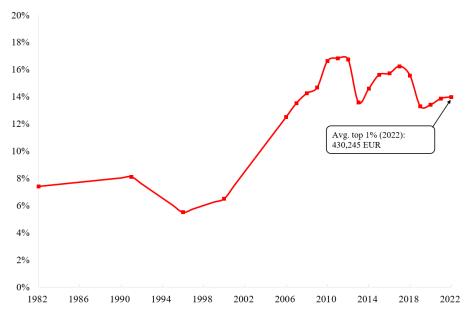


Figure 7: Top 1% pretax national income shares in South Korea, 1982-2022

Notes: The unit is the equal-split unit (aged 20-year-old and over; income of household is split equally into all adults in household). Income here means pretax national income (before all taxes and transfers, except for pensions and unemployment insurance). We linearly interpolated income shares for missing years.

80% of the sum of inflation and productivity growth to ensure export competitiveness and price stability (Itskhoki & Moll, 2019; K. Kim & Leipziger, 1993; D.-I. Kim & Topel, 1995). Removing this restriction allowed wages, particularly for low- and middle-income workers, to grow more rapidly. In addition, the introduction of the National Pension Scheme in 1988 extended income support to retirees—who are overrepresented in the bottom 50%—further boosting lower-end income shares (OECD, 2019).

These gains coincided with a decline in top income shares in the early 1990s, largely driven by a unique tax structure targeting financial income. Until 1996, Korea employed a flat withholding tax system on all financial income. In the 1980s, such flat rates were kept low due to the anonymity in financial transactions—individuals were not required to use verified identification until 1993. This anonymity prevented tax authorities from linking income to individuals and necessitated low, uniform tax rates. Throughout the 1980s, financial income was taxed at just 15–20%. A second, higher flat rate was introduced in 1989 (40%) for unverified financial assets, and this rate was increased to 60% in 1991, primarily affecting top income earners (KIPF, 2012).

These steep effective tax rates on capital income, introduced in the aftermath of democratization, contributed to a significant decline in top income shares in the early 1990s. However, in 1996, financial income taxation was integrated into the global income tax system. Under the new regime, most financial income (below KRW 40 million) was taxed at a flat 15%, while higher-income individuals (above the top 0.1%) faced progressive rates with a top marginal rate of only 40%. This tax reform coincided with a renewed rise in top income shares—marking a turning point that would be intensified after the Asian Financial Crisis.

3.1.4 Rising Income Inequality since the Asian Financial Crisis (1997–2022): The Capital Income Surge

The 1997 Asian Financial Crisis marked a structural turning point in South Korea's income distribution. While the immediate shock led to economic contraction and rising unemployment, the long-term effects were shaped by deeper institutional transforma-

tions—most notably in labor market regulation and corporate financial behavior. These changes contributed to a sustained increase in income inequality, driven above all by the growing concentration of capital income at the top of the distribution.

A key development in this period was the deregulation of the labor market. In 1996, the Korean labor law was amended to give employers greater flexibility in hiring and dismissals. This laid the groundwork for a sharp rise in non-regular employment after the crisis. According to Cho (2004), the share of wage workers on contracts of one year or less rose from 20.9% in 1997 to 29.6% in 1999. By 2013, nearly 49% of Korea's workforce held non-regular positions—one of the highest shares among advanced economies (Schauer, 2018).²⁹

This shift in labor market structure had long-lasting distributional consequences. The bottom 50% income share declined steadily after the crisis and has yet to recover to its precrisis level. As shown in Figure 8, the real income growth incidence curve for 1982–2022 highlights the dramatic contrast across periods. Between 1982 and 1996, the bottom 50% experienced the highest average real income growth—nearly 8% annually—outpacing the top 1%, which grew at around 4%. These gains were largely supported by wage liberalization and the expansion of social transfers, including the introduction of the national pension system in 1988.

After 1997, however, this trend reversed decisively. Between 1997 and 2022, the bottom 50% saw real income growth rates fall to below 2% annually, with negative growth observed for the bottom 10%. In contrast, the income of individuals above the 99^{th} percentile grew at no less than 4% per year. These patterns underscore a pronounced bifurcation in income trajectories across the distribution.

While labor market dualization played a critical role in weakening income growth for the lower half, the dominant driver of rising inequality over the past two decades has been the growing concentration of capital income. As shown in Figure 9, the sharp rise

²⁹Non-regular employment in Korea includes part-time and fixed-term contracts, which are typically associated with lower wages and reduced social protections. In 2016, temporary and part-time workers earned just 66% and 62%, respectively, of the hourly wages of regular employees.

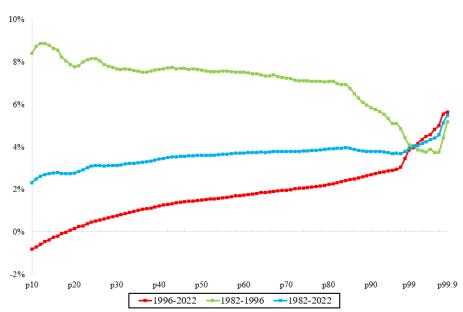


Figure 8: Annual real income growth in South Korea, 1982-2022

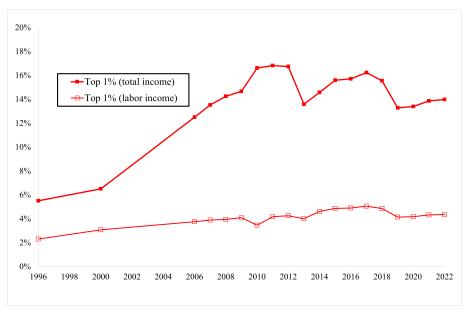
Notes: The unit is the equal-split unit (aged 20-year-old and over; income of household is split equally into all adults in household). Income means pretax national income (before all taxes and transfers, except for pensions and unemployment insurance).

in top income shares has been fueled primarily by capital returns. Among the top 1%, labor income rose only modestly—from 2.5% to 4% of national income between 1996 and 2022—while total income surged from 5.5% to 14%. This implies that capital income accounted for nearly all of the increase in top income shares.

A novel finding from our DINA series is the increasingly important role of *tax-exempted* capital income in driving this concentration. The gap between DINA-based and fiscal income-based top shares—depicted in Figure 10—represents income not captured in the tax data, particularly undistributed corporate profits. This gap shrank temporarily during the crisis, as firms drew down retained earnings, but widened substantially in the early 2000s. As shown in Figure 11, the share of undistributed profits in national income has increased markedly since the early 2000s.

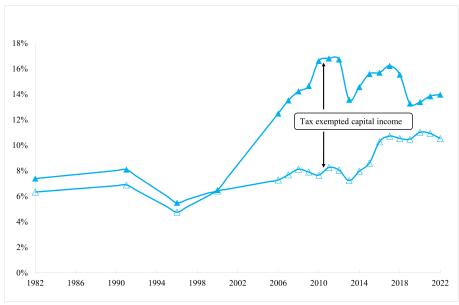
This evolution reflects a broader shift in corporate strategy. Following the crisis, Korean firms adopted a more risk-averse stance toward investment. The opportunity cost of capital rose sharply: the average interest rate on corporate borrowing increased from 10.98%

Figure 9: Top 1% pretax national income shares: total income versus labor income, 1996-2022



Notes: The unit is the equal-split unit (aged 20-year-old and over; income of household is split equally into all adults in household). Labor income includes wage, pension, unemployment insurance, and 70% of mixed income. We linearly interpolated income shares for missing years.

Figure 10: Top 1% income shares: national income versus fiscal income shares, 1982-2022



Notes: The unit is the equal-split unit (aged 20-year-old and over; income of household is split equally into all adults in household). Fiscal income series is based on the corrected survey using tax data. National income refers to pretax national income, which includes tax-exempted labor and capital income. We linearly interpolated income shares for missing years.



Figure 11: Retained earnings (% of net national income) in Korea, 1982-2022

Notes: The real retained earning comes from the private part of net primary income of corporation in National Accounts. It is expressed in billion 2015 KRW and the percentage of national income. Source: Bank of Korea.

in 1996 to 15.2% in 1998, while the return on capital in manufacturing dropped from 9.6% in 1994 to –5.74% in 1998 (Y. Kim & Park, 2006). As a result, the share of investment financed internally jumped from 32.5% in 1996 to 74.3% in 2004. Firms increasingly chose to retain earnings rather than distribute dividends or reinvest—leading to a persistent buildup of untaxed capital income at the top of the distribution (Y. Kim & Park, 2006; P.-K. Kim, 2007; Yoon et al., 2016).

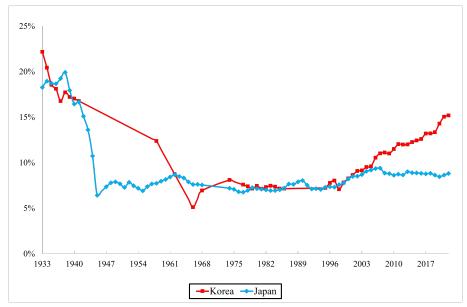
In sum, the post-crisis rise in income inequality in Korea has been driven by two reinforcing dynamics: the weakening of income growth for the bottom 50% due to labor market deregulation, and the acceleration of capital income concentration at the very top, much of which is exempt from taxation. This marks a decisive shift in the structure of inequality, away from labor-based disparities toward capital-driven polarization.

3.2 International Comparisons: Korea and East Asia

In this section, we compare long-run income inequality trends in Korea with those in other major East Asian economies, specifically China, Taiwan and Japan. This comparative framework is motivated by the structural and historical parallels among these economies, as well as their divergent institutional developments and policy choices in recent decades.

3.2.1 Korea and Japan: Top Fiscal Income Shares

Figure 12: Top 1% pretax individual fiscal income shares in Korea versus Japan, 1933-2022



Notes: The data covers the time period between 1933 and 2022. The Japanese series is taken from Moriguchi and Saez (2008) and Iguchi et al. (2025). Both series are without capital gains and are estimated at the individual tax unit level.

In Figure 12, we compare the long-run evolution of top 1% pretax fiscal income shares in Korea and Japan.³⁰ In the 1930s, both countries exhibited very high levels of income concentration, with the top 1% claiming close to one-fifth of total fiscal income. Japan then experienced a sharp and lasting decline in top income shares in the immediate postwar period, stabilizing at relatively low levels of around 6–10% throughout the latter half of the twentieth century. Korea, in contrast, followed a more uneven path: inequality

³⁰This choice is motivated by several considerations. First, a long-run Distributional National Accounts (DINA) series is not yet available for Japan. Second, Korea and Japan share important institutional similarities in their tax systems: in both countries, taxation is levied at the individual level; wage incomes are generally subject to withholding at source; and substantial business and financial incomes are declared through self-reporting. As such, the same methodology to merge the withholding and self-assessed income tax systems is applied in each country (Moriguchi & Saez, 2008). All of the above makes the fiscal income share series in the two countries very much comparable.

declined more gradually from the colonial period to the 1960s, before converging to levels very similar to Japan's by the 1970s. For the better part of the late twentieth and early twenty-first centuries, the two countries displayed remarkably close levels of top income concentration, with top 1% shares hovering near 8–10%. It is only from the mid-2000s onwards that their paths diverged significantly: while Japan maintained stable levels of top income concentration, Korea experienced a marked and sustained rise in the top 1% share, surpassing 15% by the early 2020s. This recent surge in fiscal income concentration is consistent with the increase in top pretax national income shares documented in our DINA estimates.³¹

3.2.2 Korea versus China and Taiwan: Top National Income Shares

Now we turn our attention to the comparison of pretax national income series constructed under the DINA framework for Korea, China, and Taiwan (Alvaredo et al., 2020).³²

In the early 1980s, the top 1% pretax national income share was very similar in Korea and China—around 6–7%—while Taiwan already exhibited substantially higher concentration, with the top 1% holding about 10–12% of national income.

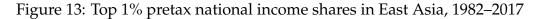
During the 1990s, inequality trajectories in East Asia began to diverge. In Korea, top income shares declined over much of the decade, while in both China and Taiwan they continued to rise. By the late 1990s, Korea had clearly fallen below China and Taiwan, and since then has consistently displayed lower top 10% and top 1% national income shares than the other two economies (Figures 13 and 16).³³

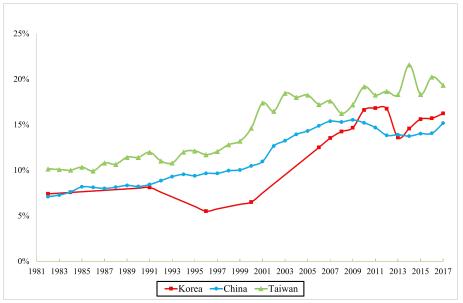
Since the turn of the twenty-first century, however, Korea's inequality trajectory has shifted again. Both its top 1% and top 10% national income shares have risen significantly. Al-

³¹However, it should be noted that our DINA estimates are at the broad household equal-split level, instead of the true individual level, which is the case for tax filing and constructing tax tabulations in both Korea and Japan. This also explains why the Korean pretax individual fiscal income series in Figure 12 exhibit higher overall inequalities than the Korean pretax equal-split fiscal income series in Figure 14, because the equal-split series abstracts away from intrahousehold income inequalities.

³²Japan is excluded from this comparison, as long-run DINA estimates are not yet available.

³³For comparability, we rely on harmonized estimates based on tax microdata and national accounts, including those of Chu et al. (2023) for Taiwan.





Notes: The data cover the period between 1982 and 2017, as the Taiwanese pretax national income series ends in 2017. The equal-split unit is a broad equal-split (aged 20 and over; household income split equally among all adults). Taiwan's series is from World Inequality Database and a revised version of Chu et al. (2023) based on tax microdata, using a narrow equal-split unit (aged 20 and over; couples' income split equally between spouses). China's series is from World Inequality Database. We linearly interpolated income shares for missing years.

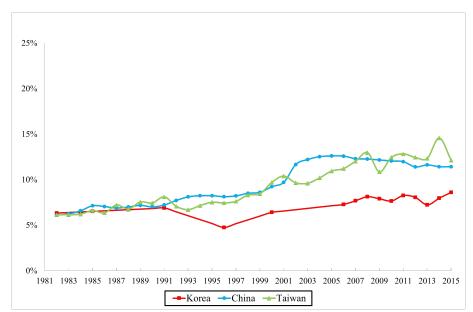


Figure 14: Top 1% pretax equal-split fiscal income shares in East Asia, 1982–2015

Notes: The data cover the period between 1982 and 2015, as the Chinese fiscal income series ends in 2015. The Chinese series is taken from Piketty et al. (2019); the Taiwanese series from Chu et al. (2023). Income shares are linearly interpolated for missing years.

though the top 10% share remains below the levels observed in China and Taiwan (Figure 16), the top 1% share has climbed to nearly the same level as in China—and in the most recent years has even slightly surpassed it (Figure 13). This raises the question of what accounts for the recent upsurge in top income concentration in Korea.

To shed light on this issue, Figure 14 compares top 1% pretax equal-split fiscal income shares across the three economies. These series correspond to survey-based income distributions adjusted with income tax tabulations at the top of the distribution, in line with DINA procedures.³⁴ In the 1980s, fiscal income shares were quite similar across Korea, China, and Taiwan. During the 1990s, however, fiscal income shares in Korea fell, while those in China and Taiwan continued to rise. This pattern mirrors the decline in Korea's national income inequality relative to its neighbors during the same period.

After 2000, Korea's fiscal income shares show only a modest increase compared to the sharp and sustained rise in China and Taiwan. Thus, while the fiscal income series help

³⁴Namely, this is the "corrected-survey" series, after step 2 is performed as detailed in Section 2.5.

explain both the parallel trends of the 1980s and the divergence of the 1990s, they cannot account for the renewed surge in Korea's top national income shares in the 2000s and 2010s. Instead, it points to the growing importance of tax-exempted capital income—specifically, the private component of retained corporate earnings—which we analyze as follows.

Figure 15 reports the share of retained earnings in net national income for Korea, China, and Taiwan since the early 1980s.

In the early part of the period, retained earnings accounted for around 10–12% of national income in Korea, somewhat higher than in Taiwan (5–7%) and far above China, where retained earnings were negligible. During the 1990s, Korea's retained earnings fluctuated between 8–12% of national income, remaining above Taiwan, which nevertheless exhibited a steady upward trend.

Figure 15: Retained earnings (% of net national income) in East Asia, 1982-2017

Notes: Retained earnings are measured as the private component of undistributed corporate profits, expressed as a share of net national income. Data are harmonized across countries following the Distributional National Accounts guidelines.

From the early 2000s onward, however, a striking divergence emerges. Retained earnings in Korea rose sharply, stabilizing around 14–16% of national income and peaking close

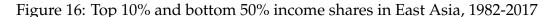
to 18% in some years. This placed Korea consistently above other East Asian economies in terms of the scale of untaxed corporate income retained in the private sector. Taiwan also experienced a notable increase during this period, with retained earnings reaching nearly 17–18% of national income by the mid-2010s, converging with Korea. By contrast, China's retained earnings, despite rising steadily from the late 1990s onward, plateaued at only about 6% of national income.

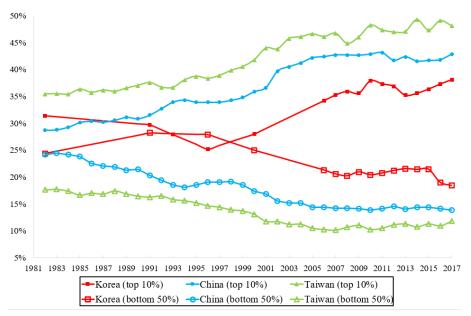
This evidence suggests that Korea's recent surge in top pretax national income shares cannot be explained by fiscal income inequality alone. Rather, it reflects the large and rising share of tax-exempted capital income—particularly private retained earnings—that has driven the renewed concentration at the top. Whereas in China rising inequality is primarily visible in the fiscal income distribution, in Korea the distinctive role of retained earnings makes the pretax national income series substantially more unequal than what fiscal income alone would suggest.

3.2.3 Korea versus China and Taiwan: Bottom National Income Shares

The preceding analysis showed that Korea's top income shares are generally lower than those of China and Taiwan, despite the recent surge in inequality at the very top. For the economy as a whole, however, another reason why Korea remains less unequal today lies on the opposite side of the distribution: bottom income shares are comparatively higher. We therefore turn to the evolution of the bottom 50% income share.

Figure 16 shows that in the 1980s and early 1990s, Korea's bottom 50% income share rose, while it declined in China and Taiwan. Although Korea's bottom 50% shares fell after the crisis, it has remained consistently higher than in the other two economies. This is reflected in real income levels as well: despite Korea's national income per adult being 25% lower than Taiwan's in 2017, bottom 50% average income was higher in Korea (Figure 17). This reversal is rooted in stronger growth for the bottom half in Korea, especially during the 1980s and 1990s. In contrast, China saw little bottom 50% income growth until the 2000s.





Notes: The data cover the period between 1982 and 2017, as the Taiwanese pretax national income series ends in 2017. The equal-split unit is a broad equal-split (aged 20-year-old and over; income of household is split equally into all adults in household). Taiwan series is from World Inequality Database and a revised one of Chu et al. (2023) based on the tax micro data. It uses a narrow equal-split unit (aged 20-year-old and over; income of couple is split equally into each spouse). China's series is from World Inequality Database. We linearly interpolated income shares for missing years.

To better understand these dynamics, Figure 18 presents growth incidence curves for Korea, Taiwan, and China. Korea's distributional growth profile closely resembles that of France, where income growth has been relatively even across most of the population—a pattern Piketty et al. (2018) describes as the "French type." By contrast, China and Taiwan show more skewed "U.S.-type" growth patterns, with faster gains at the top. While Taiwan's overall growth is more evenly distributed than China's, its inequality still exceeds that of Korea. In Korea, income growth for the bottom 99% has been remarkably equitable, but the top 1% has captured a growing share of the gains in recent decades.

12,000 €

10,000 €

8,000 €

4,000 €

2,000 €

1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016

Korea — China — Taiwan

Figure 17: Bottom 50% real average income (2022 PPP €) in East Asia, 1982-2017

Notes: The equal-split unit is a broad equal-split (aged 20-year-old and over; income of household is split equally into all adults in household). Taiwan series is revised one of Chu et al. (2023) and uses a narrow equal-split unit (aged 20-year-old and over; income of couple is split equally into each spouse). China's series is from World Inequality Database (Piketty et al., 2019). We linearly interpolated income shares for missing years.

If we divide the overall time span into two periods, the contrast becomes more distinct. Figure 19 shows the incidence curves in 1982-1996 and 1996-2017. As we have already discussed, bottom 50% benefited most from the economic growth in Korea in the 1980s and early 1990s, which was not the case in other neighboring countries. Policy choices play a crucial role in explaining these differences. In the 1980s and early 1990s, Korea adopted redistributive policies that directly impacted income shares, including the repeal

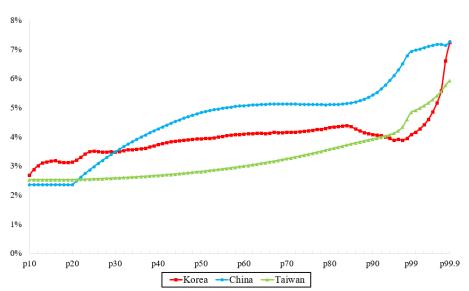


Figure 18: Annual real income growth in East Asia, 1982-2017

Notes: The annual real pretax national income growth by percentiles. The equal-split unit (aged 20-year-old and over; income of household is split equally into all adults in household). Taiwan and China's series are from World Inequality Database (Chu et al., 2023; Piketty et al., 2019).

of wage growth restrictions, the introduction of public pensions and unemployment insurance, and the implementation of progressive capital income taxation. In contrast, such policies were largely absent in China and Taiwan. This divergence is rooted in political institutions: Korea's bottom-up democratization created stronger pressure to respond to public demands, whereas Taiwan's and China's transitions were more elite-driven.

In summary, while Korea currently exhibits lower inequality than Taiwan and China, this is largely a legacy of the redistribution achieved during the 1980s and 1990s. The rise in tax-exempt capital income in Korea since the late 1990s has accelerated top income concentration, reducing the comparative advantage it once held. These findings highlight how institutional differences—especially in taxation, labor policy, and democratization—have shaped the evolution of inequality in East Asia.

4 Conclusion

This paper presents a comprehensive analysis of the full distribution of pretax national income in Korea from 1933 to 2022, offering new insights into the long-term dynamics of

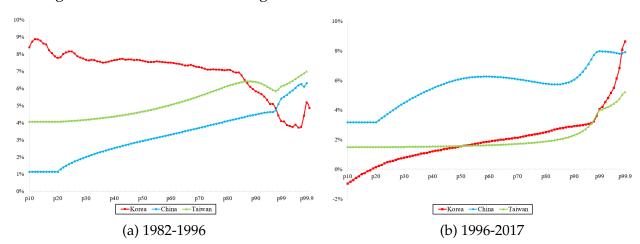


Figure 19: Annual real income growth in East Asia, 1982-1996 versus 1996-2017

Notes: The annual real pretax national income growth by percentiles. The equal-split unit (aged 20-year-old and over; income of household is split equally into all adults in household). Taiwan and China's series are from World Inequality Database (Chu et al., 2023; Piketty et al., 2019).

income inequality. We document a decline in top income shares from the 1930s through the 1960s, a period of relative stability during the high-growth decades of the 1970s and 1980s, a further decline following the democratization movement in the late 1980s, and a sharp resurgence of capital-driven income concentration after the 1997 Asian Financial Crisis. Our analysis extends beyond the aggregate adult population to include income composition, enriching the understanding of distributional patterns. Despite these contributions, our long-run DINA series remains incomplete due to data limitations, and future refinements will rely on the availability of more robust and detailed sources.

By providing a consistent and comparative perspective across East Asian economies, this study lays the groundwork for further research on inequality in the region. To our knowledge, it is the first to undertake a cross-national, long-run analysis of national income inequality in East Asia. We show that despite similar growth-oriented development strategies, Korea and Taiwan experienced markedly different inequality trajectories. While our findings offer clues to the institutional and structural factors shaping this divergence, we emphasize that the analysis is preliminary. A more comprehensive understanding will require in-depth investigation of policy instruments and the political economy of inequality, potentially uncovering additional mechanisms behind these contrasting patterns.

Finally, this paper focuses on three East Asian economies and excludes others—such as Japan—due to the current lack of comparable DINA data. As series for additional economies become available, future research will be able to construct a more complete and nuanced picture of inequality dynamics in East Asia, helping to explain the region's diverse trajectories over the past four decades.

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Tables

Table 1: Income thresholds and income shares in South Korea, 2022

Number of adults	Income threshold (KRW)	Average income (KRW)	Income share
43,436,732	0	39.5 million	100.0%
21,718,366	0	13.3 million	17.9%
8,687,346	27.2 million	43.7 million	43.7%
4,343,673	76 million	147.8 million	38.4%
434,367	201.5 million	552.1 million	14.7%
43,437	740 million	2.6 billion	7.3%
	43,436,732 21,718,366 8,687,346 4,343,673 434,367	adultsthreshold (KRW)43,436,732021,718,36608,687,34627.2 million4,343,67376 million434,367201.5 million	adults threshold (KRW) Average income (KRW) 43,436,732 0 39.5 million 21,718,366 0 13.3 million 8,687,346 27.2 million 43.7 million 4,343,673 76 million 147.8 million 434,367 201.5 million 552.1 million

Notes: The unit is the equal-split unit (aged 20-year-old and over; income of household is split equally into all adults in household). Income here means pretax national income (before all taxes and transfers, except for pensions and unemployment insurance). Percentiles are based on the total adult population. In 2022, 1,357 KRW is exchanged for 1 EUR.

Table 2: Real income growth and inequality in South Korea, 1982-2020

Income group	Average annual growth rate	Total cumulated growth	Share of total cumulated growth
Full population	4.2%	385%	100%
Bottom 50%	3.2%	235%	14.9%
Middle 40%	4.2%	385%	44.2%
Top 10%	4.7%	478%	39.0%
Incl. Top10-1%	4.2%	375%	23.3%
Incl. Top 1%	6.0%	812%	15.7%
Incl. Top 0.1%	8.2%	1,890%	7.9%

Notes: The unit is the equal-split unit (aged 20-year-old and over; income of household is split equally into all adults in household). Income here means pretax national income (before all taxes and transfers, except for pensions and unemployment insurance). Income here means national income. Percentiles are based on the total adult population.

Appendices

A Data Limitation

A.1 Household Survey Micro Data

Overall Survey Data Limitations

The Household Income and Expenditure Survey (HIES) has been conducted annually by Statistics Korea since 1963. However, individual-level micro data are only available from 1990 onward. For earlier years, the only available source is tabulated data. In particular, we rely on tabulations from 1982—the earliest year with publicly available distributional information.

It is also important to note that the HIES historically excluded certain household types. Prior to 2019, farm and fishery households were omitted entirely, as HIES originated as an urban household survey. These segments were instead covered by two separate surveys: the Farm Household Economic Survey (FaHES) and the Fishery Household Economic Survey (FiHES), which were designed to be compatible with HIES and can be merged accordingly for coverage of the full population.³⁵ Nevertheless, FaHES and FiHES suffer from their own limitations—specifically, the absence of distributional tabulations prior to 2003 and the lack of micro data before that year.

A summary of the available survey sources (which we harnessed for all the different benchmark years) is presented in Table A.3.

Year 1982: HIES Tabulated Data

Micro-level data are unavailable for 1982; however, tabulated income data by decile are provided by Statistics Korea for this year, making 1982 the earliest observation point for

³⁵Throughout the construction process, we encountered several data-related limitations regarding survey coverage, which are documented below.

household income distribution. These tabulations do not include detailed source-level income breakdowns or individual characteristics, rendering labor versus capital income decomposition infeasible. As such, our analysis of capital and labor income shares begins in 1991.

The 1982 HIES tabulation data also suffer from substantial coverage limitations. The following household groups were excluded from the sample:

- Farm and fishery households (26.6% of the total population),
- One-person households (4.9%),
- Households whose head was a non-wage earner, such as self-employed individuals or business owners (32%).

To construct a nationally representative income distribution for 1982, we impute the distributions of these excluded household types using a generalized Pareto interpolation method (Blanchet, Fournier, & Piketty, 2022; Piketty et al., 2019). Specifically, we estimate the overall income distribution from the 1982 tabulated HIES data and merge this with distributions for missing household types, derived from later years: 1991 for one-person and non-wage-earner households, and 1996 for farm and fishery households. We assume that the relative shape of the income distribution for excluded household types evolved similarly to that of the included types.

Given the absence of micro data and the limitations of the tabulations, conventional survey corrections using fiscal data cannot be applied directly (Blanchet, Flores, & Morgan, 2022). Instead, we follow a procedure similar to that used in the construction of the China DINA series: we replace the upper tail of the survey-based distribution with that of the fiscal data. For 1982, Korean tax data cover the top 9% of the population—substantially broader than in the Chinese case, where fiscal data cover only the top 0.5%. This top-tail substitution method provides a feasible and empirically grounded approach for aligning survey-based distributions with administrative tax data.³⁶

³⁶In 1982, 1991, and 2000, household surveys are constructed on an equal-split (per adult equivalent)

To adjust fiscal income to match the pretax national income concept, we reallocate taxexempt income proportionally across the distribution. In the absence of detailed data for 1982, we proxy this distribution using property income shares from the 1996 survey. Although imperfect, this assumption is supported by the relatively small magnitude of tax-exempt income in 1982 and represents the most robust option given data constraints.

Table A.3: Summary of Household Survey Data by Year

Year	Survey Data	Type of Data
1982	Hh Income and Expenditure Survey (HIES)	Tabulations
1991	Hh Expenditure Survey (HES)	Tabulations
1996	Hh Expenditure Survey (HES)	Micro data
2000	Hh Expenditure Survey (HES)	Tabulations
2006–2015 (annual)	Hh Income and Expenditure Survey (HIES)	Micro data
2016–2022 (annual)	Survey of Hh Finances and Living Conditions (SHFLC)	Micro data

Years 1991 and 2000: HES Tabulated Data

While the 1991 Household Expenditure Survey (HES) offers full coverage of household types, micro data are unavailable for that year. Consequently, we apply the same methodology used for 1982: estimating the overall income distribution via generalized Pareto interpolation and correcting the top tail using fiscal data. Notably, by 1991, Korea's public pension system—introduced in 1988—is reflected in the survey tabulations, allowing for a more comprehensive measure of household income.

For the year 2000, although micro data exist, they lack reliable survey weights. Given this limitation, we again rely on tabulated data and replicate the correction and redistribution procedures used for 1991.

Year 1996: HES Micro Data

The 1996 HES represents the first year for which we have access to complete micro-level data with reliable coverage and weights. This allows for a more detailed decomposition

basis, whereas tax data are available only on an individual basis. As discussed in Piketty et al. (2019), this may lead to a modest overestimation of inequality. In future work, we aim to produce estimates in both equal-split and individual units for these years.

of income sources and household characteristics, and it serves as a key benchmark for imputing missing distributions in earlier years, including the property income allocation for 1982.

A.2 Tax tabulation data

Tax tabulation data for recent years are publicly available through the Korean National Tax Service (NTS) website. However, historical data are not accessible online and must be manually collected from physical archives maintained by the NTS. For the earlier periods, we rely on the tabulated income tax statistics compiled by Renaud (1976) and N.-N. Kim (2018). The fiscal tabulations used in our analysis span the years 1933–1940, 1958, 1966, 1970, 1978–1982, 1991, 1996, 2000, and 2006–2020.

A critical issue in constructing comprehensive fiscal income distributions involves combining data from two separate components of the income tax system: global income taxation and withholding taxation. As some income earners are often included in both sources (e.g., with high enough financial income to be included in the global income tax system and simultaneously as wage recipients in the withholding tax system), these overlapping individuals must be removed to avoid double counting.

Two adjustments are required before this removal of overlapping taxpayers can be executed. First, the definition of wages in the two sources must be harmonized. The global income tax data report only **taxable wages**—gross wages net of deductions. To align this with gross wage figures from the withholding tax data, we estimate the ratio between taxable and gross wages based on available information in the withholding statistics. This enables us to approximate gross wage income in the global income tabulations.

Second, we must reconcile the different income bracket structures between the two datasets. This requires splitting the broader brackets in one dataset according to the threshold values of the other. To implement this, we use Pareto interpolation, following the methodology in N.-N. Kim and Kim (2015). Once the brackets are harmonized and the overlapping population is accounted for, the datasets can be merged to construct a unified fiscal in-

come distribution by source and income bracket. For additional methodological details, see Moriguchi and Saez (2008), N.-N. Kim and Kim (2015), and N.-N. Kim (2018).

It is worth noting that certain types of income—such as daily labor earnings, some pension income, and other minor income categories—are not captured in the tax data. These omissions are primarily concentrated in the middle and lower parts of the distribution and do not affect the estimation of top income shares. Given that the fiscal tabulations are used primarily to correct the upper tail of the survey-based distribution, the absence of these income sources is not expected to bias our results materially.

Finally, prior to 2004, income tax statistics in Korea were reported on a **taxable income** basis rather than on total income, as tax exemptions and deductions were excluded. To convert these historical series to a total income basis, we assume that the ratio of total income to taxable income by bracket in a given year is similar to that in adjacent years. While this ratio may vary somewhat due to reforms such as the expansion of deductions, the potential bias introduced is likely small, especially in the upper income brackets where the gap between taxable and total income is narrower. This approximation is consistent with standard practices in the DINA methodology.

B Other Methodological Issues

Despite applying customary survey correction techniques using fiscal data, several sources of bias remain in the construction of distributional national accounts. As emphasized in Blanchet, Flores, and Morgan (2022), these correction methods have inherent limitations that must be acknowledged in empirical applications.

One key limitation concerns the lower end of the income distribution. Because tax data typically do not cover low-income individuals—who often fall below the filing threshold—fiscal data offer limited value in correcting survey-based undercoverage in the bottom of the distribution.³⁷ As a result, if survey micro data suffer from non-representativeness

³⁷Middle-income groups are generally assumed to be reasonably well-represented in household surveys.

or misreporting among low-income households, this distortion cannot be resolved using tax data alone.

Moreover, the customary survey correction aligns the aggregate income from survey micro data to match fiscal totals by income source. This approach assumes that the structure of survey underreporting is uniform across the income distribution. However, if a particular income source—such as capital or financial income—is disproportionately underreported in the survey, then this method cannot fully recover the true distribution of that income. Consequently, inequality in that income category may be underestimated even after correction.

Another source of bias arises from the presence of tax-exempt income and unreported income due to tax avoidance or evasion. These forms of income are not captured in the fiscal data and are often underreported—or entirely absent—in survey responses. Because the true distribution of these missing incomes is unknown, their allocation must rely on assumptions rather than direct observation. Unfortunately, this problem is not unique to Korea. Similar limitations affect other DINA efforts as well (Khalid & Yang, 2021), underscoring the need for improved data collection and methodological innovations to more accurately account for these hidden income components.

C Survey Data Correction Results

C.1 Top Income Share Corrections in Equal-Split Units

In this subsection, we evaluate how each stage of survey correction affects the estimated top 1% income share when expressed in equal-split units. We begin with the raw survey data and sequentially apply corrections following the DINA methodology, including top-tail replacement using fiscal tabulations ("corrected survey" series) and adjustments to match national accounts totals via reallocation of tax-exempt capital income (DINA series).

Figure C.1 illustrates the evolution of the top 1% income shares from 1982 to 2022 across

three versions: (i) the raw survey series, (ii) the corrected survey series, and (iii) the final DINA estimates. The equal-split unit is defined as total household income equally divided among all adults aged 20 and over.

Figure C.1: Correction- raw survey versus corrected survey versus DINA, 1982-2022

Notes: The series is based on the equal-split unit (aged 20-year-old and over; income of household is split equally into all adults in household). In 2016-2022, we use SHFLC that corrects the misreporting with tax records. At the final correction stage, the retained earnings is redistributed. We linearly interpolated income shares for missing years.

The figure highlights the substantial underestimation of top income shares in raw survey data. The corrected survey series recovers part of this gap, but only after the final DINA adjustment—especially the redistribution of retained earnings—do the estimates reflect the expected level of concentration. Missing years are linearly interpolated.

D Historical Income Inequality Series in Korea: 1933–2020

D.1 Data Sources and Methods for the Historical Series (1933–1981)

To extend our DINA series back to the early 20th century, we draw on historical fiscal tabulation data from Renaud (1976) and N.-N. Kim (2018). These sources allow us to

construct a long-run inequality series beginning in 1933.³⁸

The purpose of constructing this historical DINA series is to provide a long-run perspective on income inequality trends in Korea. The estimates presented here are preliminary and involve several simplifying assumptions. Our methodology follows a two-step procedure. First, we compute the ratio of national income shares to fiscal income shares by income group and year from the post-1982 DINA series. Then, we project this ratio backward to earlier periods by applying a time-varying adjustment to the historical fiscal tabulations.

Following the approach of Garbinti et al. (2018), we assume that the divergence between fiscal income and pretax national income inequality has increased over time. In the early 20th century, Korea's tax system was relatively rudimentary, with limited incentives or opportunities for tax planning and avoidance. Accordingly, we posit that the amount of tax-exempt income and retained earnings was negligible during this period. Under this assumption, we set the ratio of fiscal to national income inequality to 1 in 1933, implying that observed fiscal inequality is a reasonable proxy for pretax national income inequality in that year. We then allow this ratio to grow linearly over time, reaching the empirically estimated value in 1982.³⁹

As Figures 11 and C.1 suggest, the discrepancy between fiscal and national income inequality tends to widen as retained earnings and untaxed capital income become more prominent. In Section 3.1.4, we show that tax-exempt capital income at the top of the

³⁸The fiscal series for the years 1933–1942, 1958, 1966, 1970, and 1978–1981 are reported in individual tax units. Since our DINA estimates are constructed on an equal-split basis (i.e., income divided equally among adults in a household), we must convert the historical individual-unit data accordingly. Ideally, this conversion would rely on household composition data, but such information is not available in historical tax tabulations. As a second-best approach, we assume that the ratio of fiscal income in equal-split units to individual units has remained stable prior to 1982. We compute this ratio using 1982 survey micro data, where both tax-unit and household-level information are available. The gap between the two units largely reflects intra-household income sharing and bargaining dynamics. Implicitly, we assume that these gender and household norms did not undergo substantial shifts prior to 1982—a reasonable approximation in the Korean context. We acknowledge that this approach is imperfect and subject to revision as better data become available.

³⁹A ratio of 1 implies that income inequality in fiscal and national income concepts is identical. The gradual increase reflects the growing relevance of tax-exempt income, retained earnings, and other forms of income not captured in fiscal records.

distribution has grown significantly in recent decades. However, such components were likely minimal during the colonial and early postwar periods.

In sum, while our historical DINA estimates provide a useful first approximation of longrun trends, they remain provisional and depend heavily on assumptions about the evolution of the tax system, data coverage, and institutional context. We view this series as a starting point, to be refined with future research and more detailed historical data.

E Annual DINA Series with Alternative Approaches

As discussed in Appendix A, the household survey data between 1982 and 2005 are subject to several limitations, particularly in terms of population coverage and income composition. To address these issues, we construct an alternative annual DINA series for this sub-period using imputation and adjustment techniques.

First, we address the undercoverage of specific household types—such as farm, fishery, and one-person households—that are missing or underrepresented in the earlier waves of the Household Income and Expenditure Survey (HIES). We assume that the income of these omitted households grew at the same average rate as that of the baseline households observed consistently between 1982 and 2006. Using information from the 2006 HIES micro data, we impute income values for the missing household types in prior years, adjusting their survey weights to align with population counts from the census.⁴⁰

Second, we refine the internal income composition across the distribution. Specifically, we reallocate income by source at each percentile using benchmark information from the 2016 Survey of Household Finances and Living Conditions (SHFLC), which incorporates tax record corrections and provides more reliable income decomposition. This reallocation is applied retrospectively to the years 1982 to 2015 to ensure consistency in income source-level estimates across time.

⁴⁰This imputation prevents us from catching the evolution of missing households' income distribution in 1982-2005, because they are assumed to follow the evolution of observable households. This is the reason why we decide to use this series as our alternative, even though it provides annual estimates in 1982-2005.

Figure E.3 presents the resulting top income shares under this alternative approach. While subject to imputation-based assumptions, this annual series enhances the continuity and comparability of the DINA estimates for the earlier period.

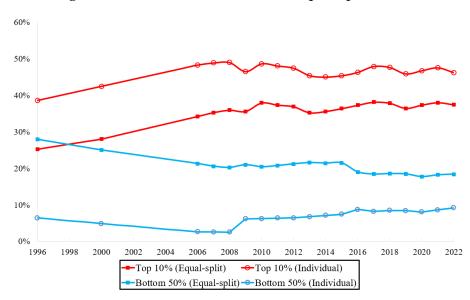
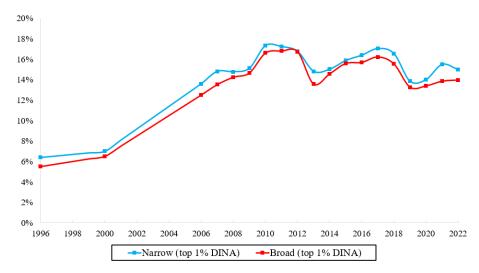


Figure E.1: Individual unit versus equal split unit

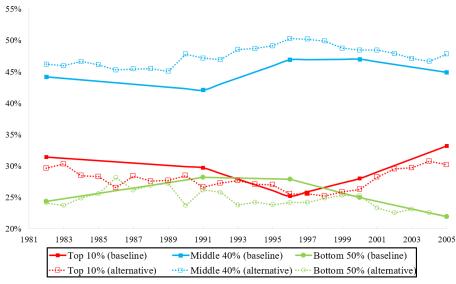
Notes: The equal split here means income of household is split equally into all adults in household. Compared to individual unit, equal split unit assumes that there is no within household inequality. The huge gap between individual unit and equal split unit represents the big in-house inequality, which indirectly suggests a severe gender inequality in Korea. We linearly interpolated income shares for missing years.

Figure E.2: Broad equal-split unit versus narrow equal-split unit



Notes: Broad equal-split means income of household is split equally into all adults in household. Conversely, narrow equal-split means income of couple is split equally into each spouse. At the top distribution, it should be negligible because all adult household members are very likely to earn high income. We linearly interpolated income shares for missing years.

Figure E.3: DINA annual series - alternative approach



Notes: The baseline estimates (solid line) are based on Figure 6. For the alternative approach estimates (dash line), we assume that several households missing in our survey that grew their income as much as the average income growth for the baseline households from 1982 to 2006.