# Wealth Inequality in China: Evidence from the 2017 and 2019 CHFS

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## 1 Introduction

China's economic trajectory over the past five decades, initiated by the reform and opening-up policy launched in 1978, involved a transition from a centrally planned to a more market-oriented economy. This period yielded high average GDP growth rates averaged over 9% per year along with considerable improvements in poverty reduction, health, and education (World Bank 2024). This growth, however, manifested unevenly across time, geography, and economic sectors. Coastal provinces, for instance, often experienced higher growth rates, benefiting from earlier integration with global markets, while inland and rural areas developed more slowly, contributing to regional disparities (Liao and Wei 2016). Sectorally, growth was initially propelled by fixed-capital investment and export-oriented manufacturing, a model that later showed signs of creating imbalances (World Bank 2024). China's annual GDP growth rate moderated from 10.6% in 2010 to 5.2% by 2023, reflecting a slowdown from the high rates experienced earlier in the decade (World Bank 2025).

Parallel to this economic expansion, China experienced a significant rise in wealth and income inequality. Piketty, Li, and Zucman (2019) reveals a marked shift in wealth distribution between 1978 and 2015, high-lighting that the wealth share controlled by the top 10% increased substantially, from approximately 40% to nearly 70%, while the share held by the bottom 50% diminished significantly. This trend of rising inequality is further corroborated by the Gini coefficient for household wealth per capita, which increased notably from 0.5 in 2002 to 0.63 in 2013, according to an official national survey (Knight, Li, and Wan 2022). Such levels of inequality are notably high by international standards (Tan, Zeng, and Zhu 2017). Furthermore, China's inequality dynamics are closely intertwined with urban-rural and coastal-inland divisions; urban and coastal regions consistently exhibit higher average income and wealth levels compared to their rural and inland counterparts (Piketty, Li, and Zucman 2019; Zhang 2021). Despite some narrowing since its peak in 2009, the urban-rural income ratio remained high in the late 2010s, and significant regional income disparities persist (Zhang 2021), findings consistent across multiple data sources (Xie and Zhou 2014).

This study contributes to the understanding of China's wealth inequality by employing recent microdata from the 2017 and 2019 China Household Finance Survey (CHFS). The analysis focuses specifically on assessing whether wealth inequality trends during this later period substantiate claims of ongoing inequality reduction observed in earlier research focused primarily on income (Kanbur, Wang, and Zhang 2021; Zhang 2021). The paper utilizes factor decomposition methods to pinpoint the contributions of various asset types to overall wealth inequality. A further level of analysis involves applying this factor decomposition separately to distinct population subgroups defined by urban-rural residence and coastal-inland location, allowing for an examination of potential heterogeneity in the drivers of inequality across these dimensions. Additionally, group decomposition techniques are used to quantify the portion of total wealth inequality attributable to

the average wealth differences between these urban-rural and coastal-inland groups. This combination of recent data and multiple decomposition strategies aims to offer a detailed perspective on the patterns and structural underpinnings of wealth inequality in contemporary China.

## 2 Literature Review

This section reviews notable findings from existing literature on the evolution of China's income and wealth inequality following the market-oriented reforms initiated in 1978.

China's economic trajectory since 1978 has been characterized by high rates of growth alongside a considerable increase in economic disparities. Utilizing diverse data including tax records, surveys, and wealth rankings, Piketty, Li, and Zucman (2019) meticulously document this transformation. Their analysis reveals a substantial redistribution of national income between 1978 and 2015: the top 10% saw their income share rise from 27% to 41%, while the bottom 50%'s share conversely fell from 27% to 15%. Wealth concentration followed a similar, potentially more pronounced, pattern. The wealth share of the top 10% increased from approximately 40% to nearly 70%, diminishing the bottom 50%'s share from over 15% to around 5%. Concurrently, the urban-rural income gap widened, with the average per capita income ratio increasing from less than 2:1 to about 3.5:1. This shift led Piketty, Li, and Zucman (2019) to observe that China moved from equality levels comparable to Nordic countries towards those observed in the U.S. during this period. Complementing this, Xie and Zhou (2014) established, using multiple surveys from the mid-2000s onwards, that China's Gini coefficient had reached levels between 0.53 and 0.55, exceeding official figures and the US benchmark at the time.

Focusing on the period between 2002 and 2013, Knight, Li, and Wan (2022) provide further evidence on the escalation of household wealth inequality using the Chinese Household Income Project (CHIP) data, reporting an increase in the Gini coefficient for wealth per capita from 0.50 to 0.62. A significant contributor to this increase was housing wealth, which expanded from 53% to 73% of total household assets. Housing also became increasingly central to wealth inequality, with its contribution rising from 64% to 79% of the overall inequality. The authors attribute the intensification of wealth inequality during these years to factors such as differential saving rates favoring the wealthy and uneven house price inflation that particularly benefited homeowners in major urban centers.

These trends in income and wealth inequality are deeply intertwined with persistent structural divides within China. Significant rural-urban and regional disparities remain central to understanding China's inequality landscape (Zhang 2021; Xie and Zhou 2014). The urban-rural income ratio, despite some decline after peaking around 3.3 in 2009, remained elevated at approximately 2.7 in 2019 (Zhang 2021). This gap is reinforced by the *hukou* (household registration) system, which limits rural migrants' access to urban services and opportunities, even as migration increased substantially from 1990 to 2019. Regional inequality also persists, with coastal areas generally outpacing inland regions (Liao and Wei 2016). While overall income inequality showed signs of stabilization or decline after reaching a peak around 2008-2010 (Kanbur, Wang, and Zhang 2021; Zhang 2021), attributed partly to narrowing structural gaps driven by demographic shifts and tightening rural labor markets, geographical disparities endure.

The transition towards a market economy itself introduced multiple drivers of inequality (Benjamin et al. 2008; Zhang 2021). In rural China, the rise was associated with unequal access to non-agricultural income sources, particularly family businesses, alongside periods of slow growth or falling prices in the agricultural sector (Benjamin et al. 2008; Ravallion and Chen 2009). In urban areas, contributing factors included the

phasing out of subsidies and entitlements, increasing wage dispersion driven by market forces and enterprise reforms, higher returns to education (especially tertiary degrees), and unemployment resulting from State-Owned Enterprise (SOE) restructuring (Benjamin et al. 2008). Uneven regional development was further amplified by policies favoring coastal regions, as well as the differential impacts of globalization and marketization (Liao and Wei 2016). It is worth noting, however, that considerable inequality also exists within specific localities, suggesting that factors beyond broad regional or urban-rural classifications are also influential (Benjamin et al. 2008).

## 3 Data

The empirical analysis in this paper utilizes microdata from the 2017 and 2019 waves of the China Household Finance Survey (CHFS). The CHFS, conducted biennially by the Survey and Research Center for China Household Finance at Southwestern University of Finance and Economics (SWUFE) since 2011, is designed to collect household financial information representative at both national and provincial levels (Gan, Yin, and Tan 2014). The survey employs a stratified, three-stage Probability Proportional to Size (PPS) random sampling methodology. This approach involves selecting counties, followed by village or neighborhood committees, and then households, incorporating oversampling of high-wealth households to better capture asset distribution.

Data are gathered through face-to-face interviews using Computer-Assisted Personal Interviewing (CAPI), collecting information at both household and individual levels (Gan, Yin, and Tan 2014). As with most survey data, CHFS figures are subject to potential limitations. Asset and income data rely on self-reporting, which can be affected by reporting error or bias. Respondent privacy is protected through methods including the top-coding of certain high-value income and asset variables; this may result in an underestimation of the upper tails of the respective distributions and potentially impact inequality metrics. It is also worth noting that potential adjustments in variable definitions between the 2017 and 2019 waves, such as the separate classification of garage assets in 2019 which was not present in 2017, may require consideration for longitudinal comparisons.

The CHFS provides sample weights, calculated based on the multi-stage sampling design and adjusted using population benchmarks, to facilitate representative analysis. The dataset has been utilized in numerous academic studies exploring various facets of the Chinese economy and household behavior. Prior research using CHFS data has examined topics such as income and wealth distribution (Tan, Zeng, and Zhu 2017), rural household finance (Gan, Yin, and Tan 2014), household responses to health shocks and insurance availability (Liu, Hao, and Lu 2022) and many others.

The 2017 CHFS wave surveyed approximately 38,994 households, while the 2019 wave included 34,643 households across 343 county-level units in 29 provinces (CHFS 2017, 2019). For the present analysis, observations identified as low quality in the 2017 data, along with those lacking essential variables for this study, were omitted; however, the final analytical sample retains the substantial majority of the original observations.

## 4 Analysis

#### 4.1 Summary Statistics

This section provides an overview of household income and wealth in China from 2011 to 2019, demonstrating that the 2017 and 2019 waves of the CHFS align with earlier studies in confirming a declining trend in China's inequality since 2010.

Table 1: Mean, Median, and Gini Coefficient for Income and Wealth in China, 2011, 2017, and 2019

Statistic	Income 2010	Income 2017	Income 2019	Wealth 2010	Wealth 2017	Wealth 2019
Mean	69,053	89,634	91,106	790,030	839,008	1,052,108
Median	$32,\!555$	54,108	$55,\!276$	226,697	$322,\!515$	443,487
Gini	0.664	0.605	0.614	0.761	0.701	0.667
Observation	ns 8,438	38,994	33,387	8,438	38,994	33,387

All figures are reported in RMB at constant 2017 prices.

Sources: Tan, Zeng, and Zhu (2017)'s calculation based on the 2010 CHFS data and authors' calculation based on the 2017 and 2019 CHFS data.

Compared to 2010 data, the Gini coefficient for income decreased from 0.664 in 2011 to 0.605 in 2017 and remained stable in 2019. Similarly, the Gini coefficient for wealth declined from 0.761 in 2011 to 0.701 in 2017, and continued to decrease to 0.667 in 2019. These results indicate a consistent reduction in China's income and wealth inequality since 2010, aligning with findings from Kanbur, Wang, and Zhang (2021) and Zhang (2021), which also report that China's inequality peaked around 2010 before starting to decline.

Notably, while the growth rate of mean and median income from 2010 to 2017 substantially outpaced that of wealth, this pattern reversed between 2017 and 2019, when the growth in mean and median wealth considerably surpassed that of income. This later-period divergence may reflect factors such as significant asset price appreciation relative to income growth.

#### 4.2 Factor decomposition of wealth inequality

This section employs the decomposition method developed by Lerman and Yitzhaki (1985) to identify the specific contributions of different asset types to overall wealth inequality in China. According to this method, the overall wealth Gini coefficient can be decomposed into the contributions from each asset component as follows:

$$G = \sum_{k=1}^{K} S_k G_k R_k$$

where G is the total wealth Gini coefficient,  $S_k$  represents the share of total wealth held in asset type k,  $G_k$  is the Gini coefficient for the distribution of asset k, and  $R_k$  is the "Gini correlation" between asset k and the rank order of total wealth. This decomposition clarifies not only how much each asset type contributes to total inequality based on its relative size and internal inequality, but also how strongly each asset correlates with the overall wealth ranking.

Table 2: Summary Statistics of Wealth, 2017 and 2019

Asset/Debt			Median	Median	Prop_zero	Prop_zero
Type	$Mean\ 2017$	Mean 2019	2017	2019	2017	2019
House Asset	623,074	768,461	230,530	290,748	10%	10%
Land Asset	32,912	62,349	0	0	56%	59%
Financial	103,355	161,199	17,170	39,251	2%	3%
Equity						
Vehicle Asset	30,391	38,185	1,500	2,423	24%	22%
Commercial	92,854	69,169	0	0	58%	66%
Asset						
Other Asset	21,034	28,787	10,000	11,436	7%	1%
House Debt	-36,095	-49,494	0	0	82%	82%
Vehicle Debt	-1,962	-1,987	0	0	95%	96%
Commercial	-18,980	-16,176	0	0	87%	90%
Debt						
Other Debt	-3,162	-9,060	0	0	96%	87%

All figures are reported in RMB at constant 2017 prices.

Source: Author's calculation based on the 2017 and 2019 CHFS data.

Table 2 summarizes household wealth allocation in China for 2017 and 2019. Housing assets continue to dominate household wealth portfolios, consistently demonstrating much higher mean and median values compared to other asset types. Although housing significantly contributes to overall wealth inequality, homeownership remains widespread, with only about 10% of households reporting no housing assets. Moreover, housing-related debt remains minimal relative to housing values, with approximately 82% of households reporting no such debts, suggesting broad equity-based homeownership patterns.

Financial equity notably increased from 2017 to 2019, with mean values rising substantially from 103,355 RMB to 161,199 RMB and median values more than doubling from 17,170 RMB to 39,251 RMB. Correspondingly, financial assets increased their share in total household wealth from around 12% in 2017 to approximately 15% in 2019. Land asset ownership, reported by about 44% of households in 2017 and 41% in 2019, closely aligns with China's rural population proportion of approximately 42% in 2017 and 40% in 2019 (World Bank, n.d.). However, later results in this paper show that the gini coefficient for land in the rural area was 89.7% in the rural area in 2019, which is significantly higher than the gini coefficient for wealth and for housing in rural areas. This shows that dispite a wide distribution of land ownership, the distribution of land is highly unequal in modern China.

Observed changes in land, commercial, and other assets should be interpreted cautiously, as it appears that some assets are redefined or newly added to the variables, which might partly reflect definitional adjustments rather than purely economic dynamics.

Table 3: Factor Decomposition of Wealth Gini Coefficient, 2017

2017 Wealth	Gini Correlation	Gini Coefficient	Share	Contribution
House Asset	0.9543	0.7166	74.26%	72.48%
Land Asset	0.4722	0.9204	3.92%	2.43%
Financial Equity	0.8022	0.7964	12.32%	11.23%
Commercial Asset	0.8164	0.9547	11.07%	12.31%
Vehicle Asset	0.6576	0.8860	3.62%	3.01%
Other Asset	0.7060	0.6799	2.51%	1.72%
House Debt	-0.5201	-0.9339	-4.30%	-2.98%
Vehicle Debt	-0.3267	-0.9792	-0.23%	-0.11%
Commercial Debt	-0.1270	-0.9775	-2.26%	-0.40%
Other Debt	0.2694	-0.9888	-0.38%	0.14%

Source: Author's calculation based on the 2017 CHFS data.

Table 4: Factor Decomposition of Wealth Gini Coefficient, 2019

2019 Wealth	Gini Correlation	Gini Coefficient	Share	Contribution
House Asset	0.9499	0.6966	73.04%	72.28%
Land Asset	0.7155	0.9700	5.93%	6.15%
Financial Equity	0.7895	0.7484	15.32%	13.54%
Commercial Asset	0.7681	0.9545	6.57%	7.21%
Vehicle Asset	0.6547	0.8129	3.63%	2.89%
Other Asset	0.7524	0.6844	2.74%	2.11%
House Debt	-0.5377	-0.9310	-4.70%	-3.52%
Vehicle Debt	-0.2686	-0.9793	-0.19%	-0.07%
Commercial Debt	-0.5090	-0.9830	-1.54%	-1.15%
Other Debt	0.4002	-0.9659	-0.86%	0.50%

Source: Author's calculation based on the 2019 CHFS data.

Table 3 and Table 4 show the factor decomposition results for 2017 and 2019, respectively. Both years confirm housing assets' persistent and dominant role in driving China's wealth inequality, contributing over 72% to the overall inequality (72.7% in 2017, 72.3% in 2019). This aligns with earlier studies: Knight, Li, and Wan (2022) reported that housing equity's contribution rose significantly from 64% in 2002 to 79% in 2013, while Tan, Zeng, and Zhu (2017) documented housing's share at approximately 67% of household wealth in 2011. Financial equity emerged as another important factor, increasing its contribution from approximately 11.5% in 2017 to about 13.5% in 2019. In contrast, contributions from commercial assets declined notably, potentially due to definitional changes in the survey.

Overall, the structure of household wealth inequality in China remained relatively stable between 2017 and 2019. Housing assets continued to play a dominant role, with financial assets becoming increasingly significant, suggesting evolving household investment behaviors. To explore heterogeneity in these patterns, the following sections decompose wealth inequality within specific demographic subgroups.

### 4.3 Factor decomposition partitioned by rural and urban residence

Since changes in the factor decomposition from 2017 to 2019 for rural and urban households closely mirror those observed for the entire population, only the 2019 decomposition results for rural and urban groups are presented here.

Table 5: Factor Decomposition of Wealth Gini Coefficient, 2019 (Urban)

2019 Urban	Gini Correlation	Gini Coefficient	Share	Contribution
House Asset	0.9479	0.6397	74.82%	73.59%
Land Asset	0.8253	0.9915	4.33%	5.75%
Financial Equity	0.7386	0.6935	15.72%	13.06%
Commercial Asset	0.7435	0.9539	6.11%	7.03%
Vehicle Asset	0.6005	0.7884	3.44%	2.64%
Other Asset	0.7233	0.6774	2.58%	2.05%
House Debt	-0.4619	-0.9140	-4.85%	-3.32%
Vehicle Debt	-0.1888	-0.9759	-0.17%	-0.05%
Commercial Debt	-0.5968	-0.9882	-1.33%	-1.27%
Other Debt	0.4069	-0.9710	-0.72%	0.46%

Source: Author's calculation based on the 2019 CHFS data.

Table 6: Factor Decomposition of Wealth Gini Coefficient, 2019 (Rural)

2019 Rural	Gini Correlation	Gini Coefficient	Share	Contribution
House Asset	0.8915	0.6684	60.55%	54.41%
Land Asset	0.7955	0.8967	17.13%	18.43%
Financial Equity	0.7450	0.7834	12.55%	11.05%
Commercial Asset	0.8171	0.9377	9.82%	11.35%
Vehicle Asset	0.6836	0.8306	4.94%	4.23%
Other Asset	0.7125	0.6230	3.82%	2.55%
House Debt	-0.3880	-0.9474	-3.70%	-2.05%
Vehicle Debt	-0.2972	-0.9850	-0.30%	-0.13%
Commercial Debt	-0.2666	-0.9597	-2.99%	-1.15%
Other Debt	0.4609	-0.9516	-1.88%	1.24%

Source: Author's calculation based on the 2019 CHFS data.

The comparative factor decompositions for 2019 underscore several salient distinctions between the determinants of wealth inequality in urban and rural China. In both settings residential property remains the predominant source of inequality; nevertheless, its influence is markedly stronger in cities, where housing contributes roughly three-quarters of the overall Gini coefficient, compared with just over one-half in the countryside. This pronounced urban effect reflects the exceptionally high and spatially differentiated prices of metropolitan real estate as well as the tendency for affluent urban households to own multiple dwellings.

By contrast, assets that are either absent from, or less significant in, urban portfolios assume a more prominent role in rural areas. Most notably, agricultural and homestead land accounts for almost one-fifth of

rural inequality but for only about six per cent of the urban total. The unequal distribution of land holdings, combined with large inter-village variation in implicit land values, therefore constitutes a key driver of rural wealth dispersion. Commercial (business) assets exhibit a similar pattern: they explain roughly eleven per cent of rural inequality but just seven per cent in cities, mirroring the heterogeneity of small-scale entrepreneurial activities in village and township economies. Conversely, financial equity is slightly more important in urban areas (around thirteen per cent) than in rural areas (about eleven per cent), consistent with better access of urban households to formal financial markets.

Finally, debt liabilities play a modest equalising role in both residence types, as indicated by their negative contributions to the Gini. The mitigating effect is somewhat larger in urban China: mortgage debt alone reduces the urban coefficient by roughly 3.3 percentage points, relative to 2.1 percentage points in rural areas. Taken together, these findings imply that policy initiatives aimed at curbing wealth inequality ought to be tailored to local contexts. In cities, measures that temper speculative housing demand and widen access to diversified financial products are likely to prove most effective, whereas in rural regions reforms that strengthen land-tenure security, facilitate land transactions, and support productive agricultural and non-farm enterprises are likely to yield greater distributive gains.

When benchmarked against the national decompositions for 2017 and 2019 (see Table 3 and Table 4), the urban–rural patterns largely reiterate the centrality of housing, land, and financial equity for Chinese wealth inequality. What the residence-specific results add, however, is a clearer sense of *relative* importance: housing is even more dominant in cities than the country-wide average, whereas land and business assets loom larger in rural portfolios than the aggregate figures would suggest. At the same time, the contribution of financial assets in both residence types remains close to the national share, confirming that the rise of household financial investment is a broad-based rather than location-specific phenomenon.

## 4.4 Factor decomposition partitioned by east and non-east regions

It is worth noting that from 2017 to 2019, housing's contribution to the Gini coefficient rose by 2.4 percentage points among households in the East region, whereas it decreased by 2.9 percentage points among Non-East households, despite housing's overall contribution remaining nearly identical across both years. This finding is significant, indicating that housing-related wealth inequality increased in East China but decreased in Non-East regions during this period. Aside from housing, contributions from other asset and debt categories showed similar trends for East and Non-East households. Therefore, only the decomposition results for 2019 are presented here.

Table 7: Factor Decomposition	n of Wealth G	Gini Coefficient,	2019 (	East)
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2019 East Region	Gini Correlation	Gini Coefficient	Share	Contribution
House Asset	0.9584	0.6738	78.43%	80.32%
Land Asset	0.3468	0.9491	2.62%	1.37%
Financial Equity	0.7689	0.7203	14.11%	12.39%
Commercial Asset	0.7221	0.9546	5.66%	6.19%
Vehicle Asset	0.5968	0.7838	2.94%	2.18%
Other Asset	0.7523	0.7102	2.42%	2.05%
House Debt	-0.5342	-0.9328	-4.46%	-3.53%
Vehicle Debt	-0.2418	-0.9801	-0.12%	-0.05%
Commercial Debt	-0.6252	-0.9880	-1.15%	-1.13%

Table 7: Factor Decomposition of Wealth Gini Coefficient, 2019 (East)

2019 East Region	Gini Correlation	Gini Coefficient	Share	Contribution
Other Debt	0.1988	-0.9702	-0.49%	0.15%

Source: Author's calculation based on the 2019 CHFS data.

Table 8: Factor Decomposition of Wealth Gini Coefficient, 2019 (Non-East)

2019 Non-East	Gini Correlation	Gini Coefficient	Share	Contribution
House Asset	0.9187	0.6370	64.64%	58.34%
Land Asset	0.8279	0.9770	11.08%	13.82%
Financial Equity	0.7807	0.7553	17.22%	15.66%
Commercial Asset	0.7962	0.9519	8.00%	9.35%
Vehicle Asset	0.6886	0.8312	4.71%	4.16%
Other Asset	0.7295	0.6449	3.23%	2.35%
House Debt	-0.4788	-0.9209	-5.08%	-3.45%
Vehicle Debt	-0.2961	-0.9787	-0.29%	-0.13%
Commercial Debt	-0.3962	-0.9776	-2.14%	-1.28%
Other Debt	0.5128	-0.9629	-1.44%	1.10%

Source: Author's calculation based on the 2019 CHFS data.

Relative to the country-wide decompositions for 2017 and 2019, the regional results confirm the pervasive importance of housing, land and financial assets in shaping wealth inequality across China, yet they also reveal distinct regional configurations. In the coastal East, housing's influence is particularly pronounced; its contribution climbs to over 80 per cent (80.3%) of total inequality—roughly eight percentage points above the national average—underscoring the outsized role of metropolitan real-estate markets and its strong alignment with overall wealth rank (Gini correlation 0.96). By contrast, in the Non-East provinces housing accounts for a lower share at 58.3 per cent. Here, land and commercial (business) assets play a much larger role, together explaining nearly one-quarter of inequality (23.2%, combining 13.8% from land and 9.4% from commercial), substantially higher than their combined share of about 7.6% in the East. This reflects not only portfolio differences but also stronger correlations between these assets and wealth rank in the Non-East (Gini correlations of 0.83 for land and 0.80 for commercial, vs. 0.35 and 0.72 respectively in the East).

Financial equity is a sizeable driver in both regions, though its contribution and correlation with wealth rank are marginally greater in the interior (15.7% contribution, 0.78 correlation) than along the coast (12.4% contribution, 0.77 correlation), perhaps reflecting the recent expansion of retail investment beyond major coastal cities. Debt components, particularly mortgage liabilities, serve to dampen inequality in both regions through their negative contributions to the overall Gini coefficient. These contrasts underscore that policies aimed at moderating wealth disparities need to account for regional heterogeneity—potentially addressing speculative housing dynamics in the East while simultaneously fostering land-market reforms and business development in the interior—within a common framework of wider financial inclusion.

## 4.5 Group decomposition of wealth inequality by rural and urban

To analyze the sources of wealth inequality, this paper employs the classic Gini decomposition identity initially developed by Bhattacharya and Mahalanobis (1967)(Bhattacharya and Mahalanobis 1967). The overall Gini coefficient is decomposed as follows:

$$G = G_B + \sum_k a_k G_k + R$$

where  $G_B$  is the between-group Gini, which captures inequality arising solely from differences in group means;  $G_k$  is the within-group component, a weighted sum of the inequality within each group, with weights  $a_k$  representing the products of each group's population share and wealth share; and R is the overlap (residual) component, which captures inequality due to the intersection of group wealth distributions. Lambert and Aronson (1993) provide a geometric interpretation of this overlap term, demonstrating that R corresponds to the Lorenz curve area generated by reranking when subgroup wealth distributions overlap. A positive R thus indicates significant intersections among wealth distributions of different groups(Lambert and Aronson 1993).

Table 9: Summary statistics of urban and rural income and wealth, 2017 & 2019

Group	Population Share	Wealth Share	Mean Wealth	Median Income	Gini
2017 Urban	62.35%	85.21%	1,146,510	513,324	0.6573
2017 Rural	37.65%	14.79%	$329{,}715$	147,468	0.6945
2019 Urban	65.00%	87.52%	1,416,595	711,233	0.6165
2019 Rural	35.00%	12.48%	375,190	174,042	0.6629

Source: Author's calculation based on the 2017 and 2019 CHFS data.

The summary statistics highlight significant and persistent disparities between urban and rural China. Urban households consistently exhibit higher mean incomes and wealth compared to rural households. Urban mean wealth was 3.48 times greater than rural mean wealth in 2017 and widened slightly to 3.78 times in 2019. Additionally, the Gini coefficient for wealth is consistently higher in rural areas (0.6945 in 2017, 0.6629 in 2019) compared to urban areas (0.6573 in 2017, 0.6165 in 2019), though Gini coefficients for both groups declined modestly between the two years.

Table 10: Decomposition of wealth Gini coefficient by urban-rural division, 2017 & 2019 (%)

Year	Total Gini	Within-group	Between-group	Residual
2017	100.00	55.35	32.61	12.04
2019	100.00	56.79	33.68	9.53

All figures are reported in RMB at constant 2017 prices.

Source: Author's calculation based on the 2017 and 2019 CHFS data.

The decomposition results indicate that about 55–57% (55.4% in 2017, 56.8% in 2019) of total wealth inequality is attributable to within-group disparities among urban and rural households. The between-

group component, reflecting the urban-rural wealth divide, contributes approximately 33–34% (32.6% in 2017, 33.7% in 2019). The overlap component, representing inequality due to intersecting distributions of urban and rural wealth, accounts for around 9–12% (12.0% in 2017, 9.5% in 2019) of total inequality. The consistency of these shares between 2017 and 2019 underscores the continued significance of the urban-rural divide in shaping China's wealth inequality.

Table 11: Summary Statistics by Region, 2017 and 2019

Region	Population Share	Wealth Share	Mean Wealth	Median Wealth	Gini
2017 East	37.54%	62.26%	1,391,421	556,993	0.6747
2017 Middle	26.59%	17.46%	550,976	272,235	0.6648
2017 West	26.28%	15.56%	496,937	252,341	0.6569
2017 Northeast	9.60%	4.72%	412,387	212,512	0.6513
2019 East	39.87%	60.90%	1,607,178	736,696	0.6305
2019 Middle	26.51%	16.55%	656,796	360,948	0.5997
2019 West	24.00%	17.68%	774,876	332,947	0.6947
2019 Northeast	9.62%	4.87%	532,761	282,108	0.6369

All figures are reported in RMB at constant 2017 prices.

Source: Author's calculation based on the 2017 and 2019 CHFS data.

The above summary statistics shows that the mean and median wealth in the East is significantly higher than in the other regions in both 2017 and 2019. Notably, the mean wealth of West-area households surpassed that of the Middle region in 2019, although its median wealth remained lower. Concurrently, the West's Gini coefficient rose to become the highest among all regions in 2019 (0.6947).

Table 12: Decomposition of Wealth Gini Coefficient by Region, 2017 and 2019 (%)

Year	Total Gini	Within-group	Between-group	Residual
2017	100.00	31.16	36.88	31.96
2019	100.00	31.69	33.77	34.54

Source: Author's calculation based on the 2017 and 2019 CHFS data.

The group decomposition shows that, similar to the urban-rural decomposition, the between-group component contributes over 30% to overall wealth inequality in both 2017 and 2019 (36.9% and 33.8% respectively). The between-group contribution saw a slight decrease from 2017 to 2019, with a similar increase in the residual component (from 32.0% to 34.5%). This might signal some modest convergence in household wealth between regions.

#### 4.6 Conclusion

This paper analyzed wealth inequality in China using the 2017 and 2019 CHFS data, finding a modest decline in the overall Gini coefficient (0.701 to 0.667), consistent with literature suggesting a post-2010 peak (Kanbur, Wang, and Zhang 2021; Zhang 2021). Factor decomposition confirmed housing assets as the

primary driver (contributing over 72%), aligning with previous studies (Knight, Li, and Wan 2022; Tan, Zeng, and Zhu 2017), while financial equity's contribution grew (from approximately 11% to 14%). Partitioned analysis highlighted housing's stronger impact in urban areas (around 75% vs. approximately 52% rural) and especially the East region (over 80% vs. approximately 58% Non-East), with divergent trends emerging between 2017-2019 (increasing contribution in the East, decreasing elsewhere). Group decomposition further revealed that while within-group inequality dominates (accounting for approximately 55-60%), substantial inequality stems from persistent urban-rural (around 33%) and regional (over 30%) divides.

These dynamics likely reflect intertwined factors: rapid urbanization, uneven real estate appreciation and speculation impacting housing's role; financial market development driving the rise of financial assets, potentially favoring wealthier urban households; and deep-rooted structural issues like historical policies, the Hukou system, and differential access to opportunities maintaining the significant urban-rural and regional gaps, despite potential slow convergence hinted by recent trends and policies (Kanbur, Wang, and Zhang 2021). Consequently, addressing China's high wealth inequality requires a nuanced approach beyond national measures, necessitating context-specific policies such as targeted housing market regulation in the East, support for land and business development in rural and Non-East areas, and broader efforts towards financial inclusion across the country.

### References

Benjamin, D, L Brandt, J Giles, and S Wang. 2008. "Income Inequality During China's Economic Transition." China's Great Economic Transformation, 729-75.

Bhattacharya, Nath, and Bimalendu Mahalanobis. 1967. "Regional Disparities in Household Consumption in India." *Journal of the American Statistical Association*, 62(317), 143-161.

CHFS. 2017. "2017 CHFS Data User Manual."

——. 2019. "2019 CHFS Data User Manual."

Gan, Li, Zhichao Yin, and Jijun Tan. 2014. "Report on the Development of Household Finance in Rural China (2014)." Report on the Development of Household Finance in Rural China.

Kanbur, Ravi, Yue Wang, and Xiaobo Zhang. 2021. "The Great Chinese Inequality Turnaround." The Great Chinese Inequality Turnaround. Journal of Comparative Economics, 49(2), 467-482.

Knight, John, Shi Li, and Haiyuan Wan. 2022. "Why Has China's Inequality of Household Wealth Risen Rapidly in the Twenty-first Century?" Review of Income and Wealth 68.1.

Lambert, Peter, and Richard Aronson. 1993. "Inequality Decomposition Analysis and the Gini Coefficient Revisited." *The Economic Journal*, 103(420), 1221-1227.

Lerman, Robert, and Shlomo Yitzhaki. 1985. "Income Inequality Effects by Income Source: A New Approach and Applications to the United States." The Review of Economics and Statistics, 151-156.

Liao, Haifeng, and Dennis Wei. 2016. "Sixty Years of Regional Inequality in China: Trends, Scales and Mechanisms." *Technical Report*.

Liu, Yaxuan, Yu Hao, and Zhi-Nan Lu. 2022. "Health Shock, Medical Insurance and Financial Asset Allocation: Evidence from CHFS in China." *Health Economics Review*, 12(1), 52.

Piketty, Thomas, Yang Li, and Gabriel Zucman. 2019. "Capital Accumulation, Private Property, and Rising Inequality in China." American Economic Review, 109(7), 2469-2496.

Ravallion, M, and S Chen. 2009. "China's (Uneven) Progress Against Poverty." In Governing Rapid Growth in China (Pp. 65-111). Routledge.

Tan, Jijun, Ting Zeng, and Sheghao Zhu. 2017. "Earnings, Income, and Wealth Distributions in China:

Facts from the 2011 China Household Finance Survey." Wokring Paper.

- $World\ Bank.\ 2024.\ "The\ World\ Bank\ in\ China."\ https://www.worldbank.org/en/country/china/overview.$
- $-----. \ 2025. \ "GDP \ Growth (annual \%)." \ https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG.$
- ——. n.d. "Rural Population (% of Total Population) China. Retrieved April 23, 2025, from Https://Data.worldbank.org/Indicator/SP.RUR.TOTL.ZS?locations=CN."
- Xie, Y, and X Zhou. 2014. "Income Inequality in Today's China." Proceedings of the National Academy of Sciences, 111(19), 6928-6933.
- Zhang, Junsen. 2021. "A Survey on Income Inequality in China." Journal of Economic Literature, 59(4), 1191-1239.