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日本における中間層の推計:1994-2009 年

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【要旨】

本研究は、1994年から2009年にかけての日本における中間層の推移とその特徴について検討したものである。各年における中位所得の75%から200%の水準を中間層とした場合、日本の中間層は65%程度の水準で推移していた(1994年は67.29%、2009年は65.21%)。しかしながら、中間層の所得域を1994年の水準に固定した場合、2009年の中間層の割合は59.47%まで低下した。また、その中間層の割合が低下すると同時に、上層の割合も低下する一方、下層や貧困層の割合が上昇していた。したがって、中間層の割合が安定的であった理由は、日本の所得分布全体が低下したことによると考えられるだろう。次に、中間層の特徴として、生産年齢人口(18-64歳)における中間層の割合が、高齢人口(65歳以上)における中間層の割合より高く、今後の高齢人口割合の上昇に伴い、全体での中間層の割合が低下することも考えられる。また、人口の高齢化は、再分配政策の結果にも影響を与えている。年金等の社会保障の効果により社会的移転が総所得に占める割合は上昇している。それに加えて、日本における平均的な世帯所得が低下しているのも関わらず、所得課税(所得税+社会保険料)の負担割合は一定の水準を維持している。これは、社会保険料率が上昇していることによると考えられる。

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The middle class in Japan, 1994–2009: Trends and characteristics

Abstract

In this study, we estimate the population shares of the Japanese middle class during 1994–2009 and discuss its characteristics. The middle class hovered around 65% (from 67.29% in 1994 to 65.21% in 2009) of the population, having 75–200% of each year's median income. However, if we fix the income ranges of the middle class to the 1994 level, the middle class declined considerably to 59.47% in 2009, the upper class also declined, and the lower class and the poor increased. Thus, the stability of the middle class seems due to the overall decline in Japan's income distribution.

In addition, the population share of the middle class among the working population (18–64 years) is larger than that among the elderly population (≥ 65 years). Therefore, the middle class is in danger of shrinking further as the population continues ageing.

Meanwhile, population ageing also affects redistributive policies: the share of social transfers of gross income is increasing and the redistributive effect of social security is growing. Additionally, despite declining income levels, there were no major changes in the share of income tax (including social insurance premiums) on gross income. This is, in fact, assumed to be due to factors such as increased social insurance rates.

1. Introduction

Japan has a society in which many citizens have a middle-class consciousness. According to public opinion surveys conducted by the Cabinet Office, the share of citizens who felt like they belong to the middle class ranged from 80% to 90% during the 1960s and 2010s, indicating no major change in the sense of belonging.¹

However, many studies show empirically that income inequality in Japan increased since the mid-1990s due to population ageing and changes in the labour market (Kohara and Ohtake, 2014; Lise *et al.*, 2014). Therefore, the middle class may be shrinking as a result.

Thus, this study examines the trends in the Japanese middle class from the mid-1990s to the 2000s. In previous research on Japan, Shirahase (2011) and Shinozaki (2015) use the Comprehensive Survey of Living Conditions (CSLC) to show that the middle class shrunk in the period from the 1980s to the 2000s. Furthermore, Oshio and Tanaka (2017) use the National Survey on Family Income and Expenditure (NSFIE) to estimate the size of the middle class during the period 1994–2009 and similarly show that the middle class shrunk. Although these studies revealed trends in the Japanese

¹ In the Cabinet Office (2017) surveys, the respondents were asked whether they identified with one of five social classes: upper class, upper-middle class, mid-middle class, lower-middle class, and lower class. We regard the share of the total of the upper-middle, mid-middle and lower-middle classes as the middle class.

middle class, there is insufficient examination of the characteristics of the middle class and the factors leading to the decline in the middle class.

Therefore, in this study, we analyze the characteristics of the Japanese middle class by household type and the income components of each income group, and discuss the impact of population ageing and the depressed labour market on the changes in the middle class from the mid-1990s to the 2000s.

This paper proceeds as follows. In Section 2, we define the middle class and the classification of income sources. Furthermore, we explain the characteristics of the NSFIE, which we use as a source of data for this study. In Section 3, we discuss the changes in the Japanese middle class since the mid-1990s. In doing so, we also review differences in the trends pertaining to the middle class in terms of annual income ranges for each year and in 1994, which is the starting point of the analysis. In Section 4, we examine the population shares of the income groups by individual age, labour status, and household type, and discuss the characteristics of the income groups and the effects of redistribution policies, population structure, and labour market changes on income groups. In Section 5, we summarize the discussion.

2. Data and Estimation Method

2.1 Data

In this study, we used NSFIE microdata (1994–2009) for the estimations. The government of Japan uses two sources of data (NSFIE and CSLC) when reporting income distribution indices such as the Gini coefficient and poverty rate.² The NSFIE is a survey of approximately 50,000–60,000 households on household income, consumption expenditure, assets, liabilities, and so on, conducted every five years. On the other hand, the CSLC focuses on the nation's overall living conditions such as health, need for long-term care, and income, among others. The CSLC is a large-scale survey of approximately 40,000 households conducted every three years, with a brief survey of approximately 9,000 households conducted annually within the large-scale survey years.

However, the income distribution in the NSFIE differs from that in the CSLC (Sano *et al.*, 2015; Shikata, 2015). There are two possible reasons for this difference between the two surveys.

First, the NSFIE requires that households who participate in the survey maintain an account book for two to three months. Therefore, the survey has potential non-response bias since some households find it difficult to keep records. Specifically, non-response is more prevalent among low-income households due to the burden of maintaining a household account book. On the other hand, because homemakers have spare time, they are less likely to refuse to keep an account book. Therefore, middle- and high-income households with homemakers are likely to account for a high percentage of respondents.

² The CSLC data are available from the OECD income distribution database.

Second, the two surveys also differ in survey design and aggregation methods. The statistical population of the CSLC consists of the population of prefectures at the time of survey, while the NSFIE consists of the population recorded in the Population Census 4 years prior to each survey.³ Therefore, the NSFIE reflects the population structure from 4 years prior rather than the survey year.

However, the NSFIE uses weighting⁴ at the aggregation stage to match the distribution of households in the same year's Labor Force Survey. On the other hand, because the CSLC does not use such weighting, it is possible that the distribution of households is biased due to non-response. In fact, the share of household heads over the age 75 is higher in the CSLC compared to the Population Census or NSFIE.⁵

We perform our estimations using the micro data of the NSFIE weighted using the method in the 2009 survey. Specifically, we weight the share of single-person households by region (6 categories), gender, and age (3 categories: >35 years; 35–59 years; ≥ 60 years) to bring them in line with the Labor Force Survey. Similarly, we also weight the shares of two-or-more-person households by region (9 categories) and household size (4 categories).

2.2 Framework of Household Income

The Yearly Income and Savings Questionnaire of the NSFIE contains 10 income types. In this study, we categorized them into four types, labour income, capital income, private transfers, and social transfers and subtract income tax and social insurance premiums to calculate disposable income. Furthermore, we estimated the income tax and social insurance premiums using the authors' micro-simulation model.⁶ We adjusted all income components of each household by the square root of the household size.

| | |
|---------------------------|--|
| <i>Capital Income:</i> | <i>Income from houses and land rents; Company and private pension benefits</i> |
| <i>Labour income:</i> | <i>Income from employment; Income from agriculture, forestry, and fishery; Income from other business; Income through piecework</i> |
| <i>Private transfers:</i> | <i>Current transfers received from other private households net of current transfers paid by households to other households.⁷</i> |
| <i>Social transfers:</i> | <i>Annuities or pensions and other social security benefits⁸</i> |

³ Another difference is that the CSLC includes single-person households consisting of students, while the NSFIE does not.

⁴ However, weighting was not used until 1994, even in the aggregation of NSFIE. Furthermore, in 1999 and 2004, weighting was used only in relation to single-person households. Since 2009, the survey uses weighting for both single-person households and two-or-more-person households.

⁵ For example, as the relative poverty rate of the Japanese population over the age of 75 is particularly high compared to the other age groups, it is possible that the estimates will yield a high estimate of the poverty rate for the total population.

⁶ For the micro-simulation model, please refer to Tanaka and Shikata (2012).

⁷ Received transfers are obtained from the yearly income questionnaire, whereas paid transfers are obtained from the household monthly account book questionnaire. Then, paid transfers are multiplied by 12.

⁸ The Yearly Income and Savings Questionnaire of the NSFIE is believed to include social security benefits besides pensions under "Other income."

| | |
|---------------------------|--|
| <i>Personal taxes:</i> | <i>Income tax; Social insurance premiums</i> |
| <i>Disposable income:</i> | <i>Labor income + Capital income + Private transfers + Social transfers</i> <i>– Personal taxes</i> |

2.3 Definition of the middle class

There are two approaches to measuring the size of the middle class: income share and population share. The income share of the middle class is the share of the all household incomes held by the middle class. In this definition, the middle class often includes households in the income class of the second to the fourth quantiles (20–80%; Levy, 1987; Atkinson and Brandolini, 2013; OECD, 2015).

On the other hand, the population share analysis measures the middle class as a proportion of the total population. This measure uses either the absolute approach or the relative approach to set the income range of the middle class (Ravallion, 2016).

Research on developing economies generally uses the absolute approach. For example, Banerjee and Duflo (2008) consider the middle-class income to be in the daily range of 2–10 dollars adjusted for purchasing power parity (PPP), while Ravallion (2010) consider middle-class income to be in the daily range of 2–13 dollars adjusted for PPP.⁹

By contrast, research on developed economies uses the relative approach. For example, Birdsall (2000) and Pressman (2007) define the middle class as the population in the range of 75–125% of the median income, and Kochhar (2017) defines the middle class as the population in the range of 75–200% of the median income. Atkinson and Brandolini (2013) set multiple income ranges for the middle class (75–125%, 75–167%, 75–200%, and 75–200% of median income). The lower limit (75% of median income) is higher than the standard EU relative poverty line (60% of median income). On the other hand, the upper limits vary, and the setting influences the size of the middle class considerably.

In this study, we estimate the size of the middle class by population share. We set the middle-class income range using the relative approach. We regard those who earn $\geq 200\%$ of the equalized median disposable income as the upper class, those who earn $\geq 75\%$ and $< 200\%$ as the middle class, those who earn $\geq 50\%$ and $< 75\%$ as the lower class, and those who earn $< 50\%$ as poor. Furthermore, we divided the middle class into three income subgroups: upper middle class ($\geq 150\%$ and $> 200\%$), mid-middle class ($\geq 100\%$ and $> 150\%$), and lower middle class ($\geq 75\%$ and $> 100\%$).

However, we need to account for temporal changes when using the relative approach because each income range should be set for each year. As we discuss later in the paper, since there has been a

⁹ In Appendix 3, we use the absolute poverty line to estimate the income groups. The World Bank's reports follow this standard (Ferreira *et al.*, 2013). Daily income was deflated with CPI and adjusted for PPP. Four criteria, below \$2 a day, below \$10 a day, below \$20 a day, and below \$50 a day were used. The values were deflated with each year's consumer price indices and adjusted for the PPP of 2011. With regard to population with daily incomes below \$2 a day, which is regarded as extreme poverty, the share of the Japanese population who fall into this category ranges from 0.05% to 0.2%, which is very small. Furthermore, with regard to daily incomes below \$10, the proportion ranges from 0.3% to 0.7%, which is also very small. Even in the case of daily incomes below \$20, it ranges from 1% to 2%. That is, if measured based on the absolute poverty line, the poverty rate in Japan is quite low.

significant decline in medium incomes from the mid-1990s to the 2000s, the income ranges for each group also shifted downward. Therefore, in Section 3, we also use the income ranges fixed at 1994 levels, which is the first sample year for this study.

3. Middle class in Japan: 1994–2009

Table 1 shows the changes in the population share of the upper class, middle class, lower class, and poor from 1994 to 2009. We used the relative approach to set each year's income ranges; however, using this approach, we cannot exclude the impact of the decline in median income. Equalized median disposable income declined from 3.021 million yen in 1994 to 2.978 million yen in 1999, then to 2.853 million yen in 2004, and to 2.679 million yen in 2009. Considering the Japanese middle class in this period, an analysis based on the income ranges fixed to the 1994 level is also valuable. Therefore, Table 1 also provides the income group sizes based on each year's income ranges and on that on 1994.¹⁰

First, when we set each year's income ranges (left panel), the Japanese middle class accounts for 65.21% of the total population in 2009. Furthermore, if we look at changes in the income groups from 1994 to 2009, the share of the upper class increased from 6.45% to 7.51%, while that of the middle class decreased from 67.29% to 65.21%. In addition, the share of the lower class remained nearly unchanged (18.08–18.14%), whereas the share of the poor increased from 8.18% to 9.14%. That is, when setting each year's income ranges separately, we find that a slight bipolarization of income occurred from the mid-1990s to the 2000s, but the share of the middle class remained largely stable.

On the other hand, when we measure the income ranges fixed to the 1994 levels (right panel), the share of the upper class decreased from 6.45% to 4.55% and that of the middle class decreased from 67.29% to 59.47%, while the share of the lower class increased from 18.08% to 23.27% and that of the poor grew from 8.18% to 12.7%. That is, unlike the estimations based on each year's income ranges, fixing the income ranges to the 1994 levels, indicates that the upper and middle classes shares decreased and the lower class and the poor shares increased. Therefore, the middle class may have shrunk due to declining income rather than due to bipolarization. Additionally, the stability of the middle class seems to be caused by the overall decline in Japan's income distribution.

Considering all of the results above, based on the downward trend in the median income from the mid-1990s to the 2000s, a “shrinking middle class” is more appropriate than a “more or less stable middle class” is as an assessment of the population share of the Japanese middle class.

== Table 1 ==

¹⁰ Income is deflated using the 1994 consumer price index.

4. Characteristics of the middle class in Japan

4.1 Population Shares of Income Groups

From the mid-1990s through the early 2000s, Japan experienced major changes in the structure of the population and the labour market. The share of population aged 65 and over increased considerably (from 14.6% in 1995 to 23.0% in 2010). Meanwhile, the unemployment rate rose (from 2.9% in 1994 to 5.1% in 2009), the average wage decreased, and non-regular employment became widespread. These socio-economic changes may have led to the shrinking middle class.

Table 2 shows the population shares of the income groups by age.¹¹ The shares of the middle and upper classes in the 18–29 age group is larger than that in the ≤ 17 age group because many youth who work still live with their parents, who often have high earnings.¹² Furthermore, after becoming independent from their parents and starting to form families, the share of the upper class decreases and the share of the middle and lower classes increases at 30–44 years of age. At the same time, the share of the poor in the 30–44 age group is smaller than in the 18–29 age group, which is due to wage increase relative to their earnings in their 20s. At the age of 45–64 years, as wages increase further, the size of the upper class becomes larger than other age groups, while the shares of the middle and lower classes decreases. Meanwhile, as the elderly, whose income declines once they reach retirement age, also belong in this age group (60–64), the share of the poor in the 45–64 age group increases. Furthermore, toward the age of 65 and over, both the upper and middle classes decrease, while the lower class and the poor increases.

In examining the trends in the income groups from 1994 to 2009, the upper, lower, and poor classes expanded a little, while the middle class under 65 years shrank.¹³ Meanwhile, there has been an upward trend in the share of the middle class in the age group of 65 and over, and the share of the poor was in a downward trend. We assume that the increase in the share of the elderly in the middle class was due to improved pension benefit levels and that the elderly, who used to be included in the lower class, became middle class due to the downward shift in the income range of the middle class. We will discuss this point further in Section 4.2.

== Table 2 ==

¹¹ In this analysis, we set the income groups based on each year's income ranges.

¹² Many Japanese companies use the seniority-based wage system, in which wages are set based on the employees' tenure. Generally, new employees in their 20s earn lower wages, while employees in their 50s, who are approaching retirement age, receive the highest wages. Therefore, it is reasonable for unmarried people in their 20s with low incomes to live with their parents, who are in their 50s and approaching retirement age.

¹³ However, from 1994 to 2009, the shares of those under age 17 and under age 30–44 in the lower class decreased (while their shares in the poor population increased).

Appendix 1 shows share of the age groups by income group. The share of elderly over the age 65 in the middle class increased considerably since the mid-1990s (from 11.9% in 1994 to 22.5% in 2009). Nevertheless, people under 65 still represent the main age group of the middle class. Therefore, it is possible that the middle class will shrink further as population ageing continues.

Table 3 shows the share of each income group by employment status of the household head. Here, the household head is the highest-earning member in the household. We classified employment status into employee, self-employed, unemployed, and inactive.

Employee has the highest ratio (71.56%) of the middle class in 2009. There is a slightly higher upper class share of the self-employed compared to employee. The share of the middle class, however, is smaller in self-employed (52.98%) than in employee. On the other hand, the share of the middle class was 53.25% among inactive household heads, many of whom are elderly.

Regarding the changes from 1994 to 2009, the shares of the upper class in employee and self-employed grew, while the middle class in these groups shrunk. Furthermore, the poor in unemployed group did not decline and the poor in inactive decreased, although the shares of the poor is high in both unemployed and inactive. This may be because the share of the middle-class in inactive elderly expanded due to improvements in pension benefit levels.

== Table 3 ==

Table 4 shows the share of each income group by household type. We classified household types into single adults, single parents, couples without children, couples with children, and others.¹⁴ Furthermore, we classified single parents and couples with children into subgroups depending on whether they have children under 18 years of age.

In 2009, the share of the middle class were high in several types of households consisting of many working people: 70.04% in couples with children under the age of 18; 68.69% in couples without children; and 65.41% in couples with children not under 18 years of age. On the other hand, the ratio of the middle class is relatively low, and the ratio of poor is relatively high among single adults. Particularly, the poverty rate among single parents with children under the age of 18 was extremely high, and their share of the middle class was below 40%.

Regarding the changes from 1994 to 2009, the share of the middle class in couple-only households increased. This is probably due to improved pension benefit levels for elderly couples, and due to the increase of two-earner households for working aged couples. On the other hand, the share of the middle-class among single parents with children under the age of 18 dropped and the share of the lower class and the poor in this group is trending upward.

¹⁴ Although couples without children refers to couples who do not live with their children, this category includes couples living with either spouse's child. Furthermore, single parents include those living separately due to a job transfer away from their home, for example.

== Table 4 ==

4.2 Income Components by Income Group

Next, we examine the impact of income changes and the policy effects of tax benefit systems on the middle class.

Tables 5 to 9 show the shares of the income components of total income. We take the sum of labour income, capital income, and private and social transfers as total income (100%). We calculate disposable income by subtracting personal tax from total income. As personal tax is the share of the total amount of tax and social insurance premiums paid of the total income, it is, so to speak, the average tax rate. Furthermore, we equalize each income component by dividing by the square root of the household size.

As we can see from each group's income structure, labour income accounts for the largest share in any income group (share of labour income by income group in 2009: 78.45% in the upper class, 78.69% in the middle class, 64.91% in the lower class, and 64.03% in the poor). The upper class is clearly ahead in terms of capital income compared to the other income groups (share of capital income of total income by income group in 2009: 13.16% in the upper class, 5.40% in the middle class, 5.31% in the lower class, and 6.21% in the case of the poor). Furthermore, notably, the share of capital income in the total income of the poor is greater than that of the middle or lower classes, but this is likely because the poor contains many elderly persons. Personal transfers include money sent as an allowance. The upper class receives large private transfers, while the poor shows net negative private transfers due to remittances.¹⁵ In line with the redistribution, the lower income groups have the highest share of social transfers (share of social transfers by income group in 2009: 6.54% in the upper class, 16.18% in the middle class, 30.47% in the lower class, and 36.37% in the poor). On the other hand, the upper income groups are subject to higher average tax rates (share of income tax paid by the upper and middle classes in 2009: 24.12% for the upper class and 17.67% for the middle class). However, the average tax rate of the poor is about the same as that of the lower class (share of income tax paid by the lower class and the poor in 2009: 13.88% for the lower class and 13.82% for the poor). This is because the social insurance premiums included in the income tax are not only progressive, but are also somewhat regressive since they impose a flat rate burden in Japan.

Regarding the changes in the average equalized disposable income from 1994 to 2009, it decreased from 7.940 million yen to 7.080 million yen in the upper class, and shifted downward from 3.580 million yen to 3.190 million yen in the middle class as well. It decreased from 1.930 million yen

¹⁵ This is because the disposable income of some households reporting extremely large remittances decreased to the extent that they become classified as poor, and vice versa.

to 1.710 million yen in the lower class, and among the poor it declined from 1.100 million yen to 0.960 million yen. Thus, disposable income declined by more than 10% across all the income groups.

Regarding the changes in the share of labour and capital income from 1994 to 2009, labour income declined, while capital income increased across all income groups. This is likely due to population ageing and the decline in wages. Furthermore, the share of labour income declined particularly in the lower class (from 81.88% in 1994 to 64.91% in 2009). This is probably because the share of the poor elderly decreased and the share of the lower-class elderly expanded due to higher national pensions and the downward shift in income ranges, or because the working population's wage levels declined.

Furthermore, we examine the impacts of the income tax and social transfers. The share of social transfers rose due to population ageing in each income group besides the upper class. Moreover, despite growing social transfers, disposable income decreased since labour and capital income decreased considerably. Nevertheless, the share of income tax (average tax rate) remains flat or in a slightly upward trend in each income group. This is mainly due to increased social insurance premiums and the introduction of long-term care premiums in 2000.¹⁶

We can also see this trend in Table 9, which shows the structure of the income components of the population as a whole. Even with regard to the total population, we can see the decline in labour income, increase in capital income, decline in personal transfers, and increase in social transfers and income tax burden. Furthermore, the net private transfers are negative because single students, who are the main recipients of allowance, are not surveyed in the NSFIE.

== Table 5 ==

== Table 6 ==

== Table 7 ==

== Table 8 ==

== Table 9 ==

5. Conclusion

This study examines the trends and characteristics of the Japanese middle class from the mid-1990s to the 2000s. The following is a summary of our main findings.

First, the share of the middle class in 2009 was 65.21%, as we set the middle-class income range

¹⁶ The relationship between the main content of the recent income tax reform and income tax burden is as follows. The income tax rate structure (the sum of income tax and inhabitant tax) in 1994, which is the year of the survey, consisted of 8 tax rates (5, 15, 20, 30, 35, 45, 55, and 65%). From 1999 to 2004, it leveled off to 7 tax rates (5, 15, 20, 30, 33, 43, and 50%). In 2009, there were 7 tax rates as well (10, 15, 20, 30, 33, 43, and 50%). Such levelling off is thought to have lowered the average tax rate. However, the fixed-rate temporary tax cuts introduced in 1994, 1999, and 2004 as a countercyclical measure was abolished in 2007, which may have lowered the average tax rate in 2009.

based on the relative approach (75–200% of the median income). Furthermore, in terms of the time series changes from 1994 to 2009, the share of the middle class remained more or less stable (2.1% decrease). However, if we fix the income ranges of the middle class to the 1994 level, the middle class declined considerably (to 59.47% in 2009), the upper class shrank, and the lower class and the poor increased. Thus, the stability of the middle class seems to be due to the overall decline in Japan's income distribution.

Second, we summarize the characteristics of the Japanese middle class by age, employment status, and household type. The share of the middle class among the working population (18–64 years) is larger than that among the elderly (65 years and over) population. Therefore, the middle class may shrink further as the population ages in future. According to the analysis by employment type, 71.56% of the employed, 52.98% of the self-employed, 34.81% of the unemployed, and 53.25% of the inactive persons belonged to the middle class in 2009. Furthermore, in terms of the changes in income group over time, the share of inactive elderly among the middle class grew due to higher national pension benefits and the downward shift in the income range, but major changes did not occur among those with other employment statuses. According to the analysis by household type, the shares of the middle class are relatively high among couples with children and couples without children. On the other hand, among single parents with children under the age of 17, not only is the share of the middle class small but the share of poor households is also very high. Amid the recession since the mid-1990s, poverty among single-parent households became widespread.

Third, according to the analysis of income structure, labour income accounts for the largest share of income in any income group, and capital income is relatively high among the upper class. Furthermore, the share of labour income decreased, while the share of capital income increased due to population ageing and the economic recession.

Fourth, according to the analysis of the redistribution policies, the share of social transfers of total income increased in the income groups below the middle class, while disposable income is in a downward trend across all income groups. The redistributive effect of social security is growing due to population ageing. As for the share of personal tax, including social insurance premiums, on aggregate income, there was little change, despite the lower total income, probably because the increased social insurance rates and the introduction of long-term care premiums cancelled out the reduction in the income tax rate.

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Table.1 Share of Income Group (%)

| | Each years | | | | Fixed at 1994 | | | | |
|------------|------------|--------|--------|--------|---------------|--------|--------|--------|--------|
| | 1994 | 1999 | 2004 | 2009 | 1994 | 1999 | 2004 | 2009 | |
| Upper | 6.45 | 7.04 | 7.05 | 7.51 | Upper | 6.45 | 6.67 | 5.58 | 4.55 |
| Middle | 67.29 | 65.90 | 65.58 | 65.21 | Middle | 67.29 | 65.29 | 63.18 | 59.47 |
| Up middle | 12.38 | 12.72 | 12.32 | 12.09 | Up middle | 12.38 | 12.36 | 10.68 | 9.28 |
| mid middle | 31.17 | 30.24 | 30.63 | 30.40 | mid middle | 31.17 | 29.83 | 28.76 | 26.24 |
| low middle | 23.74 | 22.95 | 22.62 | 22.72 | low middle | 23.74 | 23.10 | 23.74 | 23.95 |
| Lower | 18.08 | 18.54 | 18.51 | 18.14 | Lower | 18.08 | 19.12 | 20.94 | 23.27 |
| Poor | 8.18 | 8.51 | 8.86 | 9.14 | Poor | 8.18 | 8.92 | 10.30 | 12.70 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | Total | 100.00 | 100.00 | 100.00 | 100.00 |

Table.2 Share of Income Group by Individual Age (%)

| | | -17 | 18 - 29 | 30-44 | 45-64 | 65- | total |
|------|--------------|---------|---------|---------|---------|---------|----------|
| 1994 | Upper class | 2.32 | 7.96 | 3.84 | 11.36 | 5.93 | 6.45 |
| | Middle class | 67.89 | 69.17 | 71.48 | 67.31 | 57.77 | 67.29 |
| | Lower class | 22.33 | 15.93 | 18.57 | 13.57 | 21.53 | 18.08 |
| | Poor | 7.46 | 6.95 | 6.10 | 7.76 | 14.76 | 8.18 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (Share) | (22.60) | (12.25) | (16.16) | (26.02) | (24.98) | (100.00) |
| 1999 | Upper class | 2.66 | 7.86 | 4.10 | 12.43 | 6.20 | 7.04 |
| | Middle class | 65.39 | 65.78 | 69.49 | 66.70 | 60.90 | 65.90 |
| | Lower class | 23.11 | 17.89 | 19.58 | 13.28 | 21.14 | 18.54 |
| | Poor | 8.84 | 8.47 | 6.83 | 7.59 | 11.77 | 8.51 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (Share) | (20.81) | (13.42) | (16.36) | (25.56) | (23.03) | (100.00) |
| 2004 | Upper class | 2.72 | 7.73 | 4.96 | 11.53 | 6.23 | 7.04 |
| | Middle class | 66.08 | 66.13 | 69.29 | 65.36 | 61.43 | 65.58 |
| | Lower class | 22.37 | 17.57 | 18.62 | 14.71 | 20.91 | 18.51 |
| | Poor | 8.83 | 8.57 | 7.13 | 8.41 | 11.43 | 8.86 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (Share) | (18.47) | (11.32) | (16.38) | (27.66) | (26.23) | (100.00) |
| 2009 | Upper class | 3.71 | 8.96 | 5.91 | 11.91 | 5.85 | 7.51 |
| | Middle class | 66.76 | 65.05 | 68.81 | 64.49 | 61.81 | 65.21 |
| | Lower class | 20.90 | 17.17 | 18.07 | 14.12 | 21.37 | 18.14 |
| | Poor | 8.62 | 8.82 | 7.20 | 9.48 | 10.97 | 9.14 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (Share) | (18.07) | (9.57) | (16.01) | (29.47) | (27.91) | (100.00) |

Table.3 Share of Income Group by Labour Status of Household Head (%)

| | Employee | Self-employed | Unemployed | Inactive | total | |
|------|--------------|---------------|------------|----------|---------|----------|
| 1994 | Upper class | 6.83 | 7.37 | 3.23 | 2.07 | 6.45 |
| | Middle class | 73.04 | 54.91 | 39.99 | 44.56 | 67.29 |
| | Lower class | 15.93 | 21.44 | 19.07 | 29.17 | 18.08 |
| | Poor | 4.19 | 16.28 | 37.71 | 24.20 | 8.18 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (Share) | (74.13) | (15.88) | (0.54) | (9.45) | (100.00) |
| 1999 | Upper class | 7.68 | 8.90 | 3.66 | 1.59 | 7.04 |
| | Middle class | 71.15 | 55.26 | 41.90 | 49.57 | 65.90 |
| | Lower class | 16.06 | 20.77 | 23.85 | 29.88 | 18.54 |
| | Poor | 5.11 | 15.07 | 30.59 | 18.95 | 8.51 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (Share) | (72.40) | (13.96) | (1.06) | (12.59) | (100.00) |
| 2004 | Upper class | 7.74 | 10.62 | 1.53 | 1.74 | 7.04 |
| | Middle class | 71.16 | 54.82 | 37.00 | 53.12 | 65.58 |
| | Lower class | 15.63 | 20.77 | 25.93 | 27.92 | 18.51 |
| | Poor | 5.47 | 13.78 | 35.54 | 17.21 | 8.86 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (Share) | (68.56) | (13.44) | (0.85) | (17.15) | (100.00) |
| 2009 | Upper class | 8.69 | 10.98 | 1.99 | 1.66 | 7.51 |
| | Middle class | 71.56 | 52.98 | 34.81 | 53.25 | 65.21 |
| | Lower class | 14.65 | 20.41 | 25.32 | 28.33 | 18.14 |
| | Poor | 5.10 | 15.63 | 37.88 | 16.77 | 9.14 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (Share) | (67.17) | (12.01) | (1.66) | (19.17) | (100.00) |

Table.4 Share of Income Group by Household Types (%)

| | | Single parent | | | Couple without children | Couple with children | | Other | Total |
|------|---------|-----------------|------------------------------|---------------------------------|-------------------------------|------------------------------|---------------------------------|---------|----------|
| | | Single adult | with children aged 18– | without children aged 18– | | with children aged 18– | without children aged 18– | | |
| 1994 | Upper | 6.32 | 4.16 | 6.59 | 9.40 | 2.01 | 15.31 | 6.09 | 6.45 |
| | Middle | 54.62 | 45.98 | 58.78 | 64.73 | 69.54 | 70.46 | 71.42 | 67.29 |
| | Lower | 19.51 | 21.91 | 17.24 | 18.08 | 22.59 | 8.92 | 15.53 | 18.08 |
| | Poor | 19.55 | 27.95 | 17.39 | 7.80 | 5.86 | 5.31 | 6.96 | 8.18 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (Share) | (8.76) | (1.62) | (2.42) | (17.00) | (35.56) | (13.49) | (21.14) | (100.00) |
| 1999 | Upper | 7.16 | 3.71 | 6.78 | 9.85 | 2.39 | 13.98 | 7.47 | 7.04 |
| | Middle | 52.46 | 44.59 | 57.80 | 66.86 | 66.14 | 69.84 | 71.67 | 65.90 |
| | Lower | 21.28 | 18.66 | 17.37 | 16.77 | 24.11 | 11.36 | 14.54 | 18.54 |
| | Poor | 19.10 | 33.03 | 18.05 | 6.52 | 7.36 | 4.81 | 6.31 | 8.51 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (Share) | (9.55) | (1.72) | (2.87) | (19.32) | (33.83) | (14.55) | (18.15) | (100.00) |
| 2004 | Upper | 7.04 | 5.21 | 7.99 | 9.84 | 2.30 | 12.14 | 7.78 | 7.04 |
| | Middle | 56.13 | 40.73 | 53.43 | 66.38 | 68.36 | 67.05 | 69.32 | 65.58 |
| | Lower | 19.83 | 18.39 | 19.11 | 17.00 | 22.60 | 14.34 | 15.46 | 18.51 |
| | Poor | 17.01 | 35.67 | 19.46 | 6.77 | 6.75 | 6.47 | 7.44 | 8.86 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (Share) | (10.61) | (1.84) | (3.29) | (21.77) | (31.54) | (15.26) | (15.69) | (100.00) |
| 2009 | Upper | 7.95 | 7.55 | 7.96 | 9.11 | 3.73 | 12.27 | 7.84 | 7.51 |
| | Middle | 51.27 | 37.57 | 53.33 | 68.69 | 70.04 | 65.41 | 67.85 | 65.21 |
| | Lower | 21.67 | 20.50 | 19.91 | 15.72 | 20.41 | 15.65 | 15.51 | 18.14 |
| | Poor | 19.11 | 34.39 | 18.80 | 6.47 | 5.82 | 6.67 | 8.80 | 9.14 |
| | Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |
| | (Share) | (11.90) | (2.11) | (3.75) | (22.71) | (31.75) | (15.13) | (12.65) | (100.00) |

Table.5 Income Components among Upper Class Income Group (%)

| | Labour income | Capital income | Private transfers | Social transfers | Personal taxes | Disposable income | Average of DPI (yen) |
|------|------------------|-------------------|----------------------|---------------------|-------------------|----------------------|-------------------------|
| 1994 | 83.60 | 8.92 | 0.04 | 7.44 | 24.05 | 75.95 | (7941491) |
| 1999 | 83.29 | 9.42 | 0.32 | 6.97 | 22.12 | 77.88 | (7755489) |
| 2004 | 79.96 | 12.59 | 0.92 | 6.53 | 22.85 | 77.15 | (7618066) |
| 2009 | 78.45 | 13.16 | 1.85 | 6.54 | 24.12 | 75.88 | (7079281) |

Average of Disposable income is deflated by 2009 Consumer Price Index

Table.6 Income Components among Middle Class Income Group (%)

| | Labour income | Capital income | Private transfers | Social transfers | Personal taxes | Disposable income | Average of DPI (yen) |
|------|------------------|-------------------|----------------------|---------------------|-------------------|----------------------|-------------------------|
| 1994 | 89.15 | 2.39 | -1.09 | 9.55 | 15.49 | 84.51 | (3582009) |
| 1999 | 85.74 | 3.22 | -1.09 | 12.13 | 15.45 | 84.55 | (3553504) |
| 2004 | 81.63 | 4.39 | -0.55 | 14.53 | 16.03 | 83.97 | (3401167) |
| 2009 | 78.69 | 5.40 | -0.27 | 16.18 | 17.67 | 82.33 | (3191181) |

Average of Disposable income is deflated by 2009 Consumer Price Index

Table.7 Income Components among Lower Class Income Group (%)

| | Labour income | Capital income | Private transfers | Social transfers | Personal taxes | Disposable income | Average of DPI (yen) |
|------|------------------|-------------------|----------------------|---------------------|-------------------|----------------------|-------------------------|
| 1994 | 81.88 | 1.42 | -1.63 | 18.34 | 12.09 | 87.91 | (1930348) |
| 1999 | 77.02 | 2.42 | -1.69 | 22.24 | 12.06 | 87.94 | (1892001) |
| 2004 | 71.07 | 3.73 | -1.34 | 26.54 | 13.01 | 86.99 | (1825928) |
| 2009 | 64.91 | 5.31 | -0.69 | 30.47 | 13.88 | 86.12 | (1706706) |

Average of Disposable income is deflated by 2009 Consumer Price Index

Table.8 Income Components among Poor Income Group (%)

| | Labour income | Capital income | Private transfers | Social transfers | Personal taxes | Disposable income | Average of DPI (yen) |
|------|------------------|-------------------|----------------------|---------------------|-------------------|----------------------|-------------------------|
| 1994 | 75.09 | 2.82 | -7.03 | 29.12 | 12.21 | 87.79 | (1102111) |
| 1999 | 69.19 | 2.96 | -1.43 | 29.28 | 11.07 | 88.93 | (1097297) |
| 2004 | 73.08 | 5.05 | -9.34 | 31.22 | 14.29 | 85.71 | (1024503) |
| 2009 | 64.03 | 6.21 | -6.62 | 36.37 | 13.82 | 86.18 | (955076) |

Average of Disposable income is deflated by 2009 Consumer Price Index

Table.9 Income Components among Population (%)

| | Labour income | Capital income | Private transfers | Social transfers | Personal taxes | Disposable income | Average of DPI (yen) |
|------|------------------|-------------------|----------------------|---------------------|-------------------|----------------------|-------------------------|
| 1994 | 87.14 | 3.40 | -1.11 | 10.56 | 16.50 | 83.50 | (3361538) |
| 1999 | 84.00 | 4.23 | -0.91 | 12.68 | 16.17 | 83.83 | (3332413) |
| 2004 | 80.03 | 5.82 | -0.60 | 14.75 | 16.91 | 83.09 | (3196079) |
| 2009 | 76.90 | 6.89 | -0.08 | 16.30 | 18.42 | 81.58 | (3009330) |

Average of Disposable income is deflated by 2009 Consumer Price Index

Appendix.1 Share of Individual Age by income class

| | | -17 | 18 - 29 | 30-44 | 45-64 | 65- | total |
|--------------|------|-------|---------|-------|-------|-------|--------|
| Upper class | 1994 | 8.14 | 17.83 | 12.90 | 48.39 | 12.75 | 100.00 |
| | 1999 | 7.85 | 15.05 | 11.87 | 50.58 | 14.65 | 100.00 |
| | 2004 | 7.13 | 12.83 | 14.34 | 47.73 | 17.98 | 100.00 |
| | 2009 | 8.93 | 11.85 | 16.01 | 45.07 | 18.14 | 100.00 |
| Middle class | 1994 | 22.80 | 14.84 | 23.01 | 27.46 | 11.89 | 100.00 |
| | 1999 | 20.65 | 13.46 | 21.50 | 29.01 | 15.39 | 100.00 |
| | 2004 | 18.61 | 11.79 | 21.50 | 29.05 | 19.05 | 100.00 |
| | 2009 | 18.50 | 9.91 | 21.45 | 28.10 | 22.05 | 100.00 |
| Lower class | 1994 | 27.91 | 12.72 | 22.26 | 20.61 | 16.49 | 100.00 |
| | 1999 | 25.94 | 13.01 | 21.53 | 20.53 | 18.99 | 100.00 |
| | 2004 | 22.32 | 11.10 | 20.47 | 23.16 | 22.96 | 100.00 |
| | 2009 | 20.83 | 9.40 | 20.25 | 22.12 | 27.40 | 100.00 |
| Poor | 1994 | 20.59 | 12.25 | 16.16 | 26.02 | 24.98 | 100.00 |
| | 1999 | 21.63 | 13.42 | 16.36 | 25.56 | 23.03 | 100.00 |
| | 2004 | 18.41 | 11.32 | 16.38 | 27.66 | 26.23 | 100.00 |
| | 2009 | 17.04 | 9.57 | 16.01 | 29.47 | 27.91 | 100.00 |
| Total | 1994 | 22.60 | 14.44 | 21.66 | 27.45 | 13.85 | 100.00 |
| | 1999 | 20.81 | 13.49 | 20.39 | 28.66 | 16.65 | 100.00 |
| | 2004 | 18.47 | 11.69 | 20.35 | 29.15 | 20.33 | 100.00 |
| | 2009 | 18.07 | 9.93 | 20.32 | 28.42 | 23.26 | 100.00 |

Appendix.2 Share of Labour Status of Household Head by Income Class

| | | Employee | Self-employed | Unemployed | Inactive | Total |
|--------------|------|----------|---------------|------------|----------|--------|
| Upper class | 1994 | 78.54 | 18.15 | 0.27 | 3.04 | 100.00 |
| | 1999 | 78.98 | 17.63 | 0.55 | 2.84 | 100.00 |
| | 2004 | 75.31 | 20.26 | 0.18 | 4.24 | 100.00 |
| | 2009 | 77.76 | 17.57 | 0.44 | 4.23 | 100.00 |
| Middle class | 1994 | 80.47 | 12.96 | 0.32 | 6.26 | 100.00 |
| | 1999 | 78.15 | 11.70 | 0.67 | 9.47 | 100.00 |
| | 2004 | 74.40 | 11.23 | 0.48 | 13.89 | 100.00 |
| | 2009 | 73.71 | 9.76 | 0.88 | 15.65 | 100.00 |
| Lower class | 1994 | 65.35 | 18.83 | 0.56 | 15.26 | 100.00 |
| | 1999 | 62.72 | 15.63 | 1.36 | 20.29 | 100.00 |
| | 2004 | 57.87 | 15.08 | 1.19 | 25.87 | 100.00 |
| | 2009 | 54.24 | 13.51 | 2.31 | 29.94 | 100.00 |
| Poor | 1994 | 37.99 | 31.58 | 2.47 | 27.96 | 100.00 |
| | 1999 | 43.44 | 24.72 | 3.79 | 28.04 | 100.00 |
| | 2004 | 42.37 | 20.91 | 3.40 | 33.32 | 100.00 |
| | 2009 | 37.47 | 20.52 | 6.86 | 35.15 | 100.00 |
| Total | 1994 | 74.13 | 15.88 | 0.54 | 9.45 | 100.00 |
| | 1999 | 72.40 | 13.96 | 1.06 | 12.59 | 100.00 |
| | 2004 | 68.56 | 13.44 | 0.85 | 17.15 | 100.00 |
| | 2009 | 67.17 | 12.01 | 1.66 | 19.17 | 100.00 |

Appendix.3 Poverty rate: Percentage Below Each Poverty Line (%)

| Per day income in 2011 US\$ PPP | 1994 | 1999 | 2004 | 2009 |
|------------------------------------|--------|--------|--------|--------|
| 2 | 0.086 | 0.063 | 0.129 | 0.191 |
| 10 | 0.378 | 0.300 | 0.611 | 0.640 |
| 20 | 1.230 | 1.162 | 1.863 | 2.260 |
| 50 | 15.507 | 15.688 | 20.939 | 25.099 |