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TYPES OF INCOME AND INEQUALITY IN CHINA AT THE END OF THE 1980s

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Using a nationwide household income survey, different types of income in the People's Republic of China at the end of the 1980s is analysed. The results show that various income types play quite different roles in rural and urban areas. Subsistence income makes up about half of the total income in rural China. Money income makes up about two-thirds of total income in urban China and is the major contributor to inequality in the entire country. In kind income, of which highly subsidized housing is the single most important category, is highly concentrated in urban areas and contributes greatly to inequality.

1. INTRODUCTION

The People's Republic of China is presently undergoing great changes in economic organization and is at the same time also experiencing very rapid economic growth. Since China is a developing country with a vast population, location greatly affects the composition and level of household income throughout the country. Locational differences are of two sorts: The rural–urban dimension and the east–central–west dimension.

Economic organization, systems of public revenue and expenditures, systems of housing allocation and provision of social services all differ between urban and rural locations. Generally living-standards are much higher in urban areas than in rural areas. In urban China a large proportion of the labour force is employed as wage earners. They are remunerated with money income but also with income in kind. The second category includes highly subsidized housing, subsidized travel, access to low priced social services, and access to social security benefits. In rural areas many people are peasants whose livelihood consists of subsistence farming. To a certain degree Chinese peasants also obtain income from selling their products. People in rural locations have to provide their own housing, while social services and benefits from the social insurance system are very limited.

Differences in living standards between the eastern, central and western regions of China have old roots as the east traditionally has been the most

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developed part. In addition, economic policy as institutionalized by the Seventh Five Year Plan (1986–90) prioritizes development in the coastal region. This was the first area to be opened to foreign investments and here economic reform has taken place most intensively. Recent economic growth has been markedly faster in the coastal belt with the western belt at the other extreme. Between these regions the central belt takes an intermediate position when reform and economic growth is considered.

In this paper we will analyse the role of different types of income for Chinese households at the end of the 1980s using a large country-wide survey. While it is possible to form many different categories of income we have chosen to work with those which distinguish between the kinds of resources they command: subsistence income, in kind income, money income. In addition we will look at private and public transfers and taxes. Such research questions as: "How large are the different income types?" will be addressed. While addressing those questions we will pay particular attention to locational differences. A second set of questions concerns the relation between types of income on the one hand and inequality on the other. How large a proportion of total inequality is due to a particular income type? What happens to inequality if income of a particular type changes, keeping its profile unchanged?

The paper is organized as follows: In the next section we will give a brief overview of the Chinese scene at the end of the 1980s. Our research questions and methodology are the subjects of Section 3. In Section 4 the data are described. Results on the size and importance of income types in China are reported in Section 5. Section 6 contains the analyses of the relation between income types and equivalent total income. Finally our conclusions are summarized in Section 7.

2. China at the End of the 1980s

Economic transformation in China meant gradual changes from a planned system to a system that increased the role of market-allocation. Reform started in rural areas during the end of the 1970s with the redistribution of land among rural households and the dismantling of the commune system. Property rights to land became complicated. For example it is still not possible for a peasant to sell the land he/she cultivates. Land has been distributed relatively evenly to peasants belonging to a particular village and the size of land was based on the number of household members. As a part of the reform policy prices on agricultural products were gradually increased.

Industrial reform which was initiated in 1984 meant more freedom for firms to make decisions on resource allocation and the right to retain a larger proportion of the profit at enterprise level was initiated in 1984. The percentage of workers' compensation controlled directly by the government became smaller and smaller as the enterprises were given more and more autonomy in the determination of wages and bonuses. The policy also meant reduced restrictions on self-employment and the number of persons engaged in such activities increased rapidly during the 1980s (SSB, 1989).

The Chinese government's earlier regional policy of balanced growth has been replaced by one of prioritizing development in the coastal areas. The central

government has gradually reduced transfers from Coastal to Central and Western regions (Knight and Li (1995)). Parallel to this the Coastal region has been given preferred treatment in retaining increased proportions of fiscal revenues and expenditures. An open-door policy was introduced during the same time, and as a result the number of foreign firms and joint-venture firms quickly grew, particularly in the Coastal region.[1] Workers in the foreign and joint-venture firms were allowed to earn higher wages than workers in the state-owned firms. In rural China, the development of rural industry has been playing an increasingly more important role in rising household income and the living standard of rural people (Khan, 1993). Rural industry developed first in the coastal areas and has had a considerably higher growth rate than in the central and west areas. As a consequence differences in household income among the rural parts of the regions have become significant.[2]

The gap in living standards between urban and rural locations has developed irregularly during the 1980s. In the first half of the 1980s the gap appeared to be decreasing, but in the second half the gap soared to the highest level ever recorded (Zhao, 1993). Some aspects of policy have aggravated the urban–rural gap, while other aspects have decreased it. Housing policy belongs to the first category. Housing in urban China has been subsidized by the government except for a small proportion of private homes. The subsidies increased significantly in the 1980s as expenditures on housing construction increased. Meanwhile, the rents of state-owned houses were still kept at a very low level, equal to about two percent of household income. In contrast, there is no public housing provided by the state in rural China and rural people must build and finance their own houses by themselves.

The cooperative health insurance system built up during the Cultural Revolution in rural areas of China has collapsed as a consequence of the dismantling of the commune system.[3] The peasants have to pay a school fee and education expenditures vary geographically depending inversely on the income level of the local unit. The urban household pays only a limited amount of school fees for their children's study in primary and secondary schools.

Urban and rural households are also treated differently in the social security system and in the tax system. In urban China, a retired worker receives pensions which are equal to 70–100 percent of the compensation before retirement. The general age of retirement is 55 for females and 60 for males. Most people in rural areas cannot look forward to an old-age pension. Urban workers have public medical care and enjoy sick leave and maternity leave with pay, while this is not the case for rural people.

Over 90 percent of Chinese government revenue comes from urban areas (Li J., 1991). Most revenue comes from enterprises, while taxes levied on individuals are of minor importance. Although personal taxes have been increasing

[1]See Kuen (1992). For a Chinese discussion on regional policy see Wang & Bai (1991).

[2]Recently Kai-Yuen Tsui (1993) has reported estimates based on county data for per capita gross value of industrial and agricultural outputs (as well as for infant mortality rates and illiteracy and semi-illiteracy rates) for the different belts. Those figures refer to 1982, a time in the early stages of the reform process.

[3]According to the World Bank (1992) the rate of rural population covered by the insurance decreased from 85 percent in 1975 to 20 percent in 1990.

since 1984, only less than one percent of urban employees have income above the personal exemption. In urban areas tax payers are also found among the self-employed. In rural areas households have to pay agricultural taxes to the central government and various fees to the local governments, which have increased since the mid 1980s.

The gap in living standards, between urban and rural areas has however been lessened by decreased restriction on geographical mobility. The act of migration leads to increased income for households with a migrant, but is not without problems for the migrant. Rural migrants are only permitted to find a job which urban people are not likely to take. Wages are usually relatively low and rural migrants usually cannot receive as many benefits as the urban workers from their work unit or from the government. Rural migrants are thus forming a low-income class in urban locations (Li, M., 1991).

3. Questions and Methods of Analysing Them

Which role does various types of income play for Chinese households? We will form categories which distinguish between the kind of resources the income in question commands. Given the level of economic development and the form of organization we will work with four main types.[4] The advantage of working with a small number of income types is that patterns of results are relatively easy to digest. The disadvantage is that one might do some injustice to a particular component by lumping it together with others into a broader category. *Subsistence income* indicates the value of products produced by the household for its own consumption. This category includes self-consumption of self-produced goods as well as imputed value of private housing. *Money income* can be used for buying products at the market and can be obtained in various ways: as compensation to employees in the form of wages and salaries (including subsidies given in money), net cash income from family enterprises and property income. *In kind income* gives command over resources which are not produced by the household. This category includes imputed value of housing subsidies, consumer goods obtained from the work unit and relief on a temporary basis provided in-kind. Subsistence income and in kind income are measured by observing quantities and multiplying them with estimates of market prices.

In addition to these three major types of income there is the category of transfers (net of taxes) standing for payments without reciprocity. *Transfers (net of taxes)* has three components: *public transfers* (pension benefits, social relief funds directed towards the poor, and welfare funds made available due to special circumstances), *private transfers* (gifts, family support and other private transfers

[4]Using the same data Khan *et al.* (1992) analysed how a much larger number of income-components affects inequality in household income per household measured by the Gini-coefficient. Other categories used to study income formation in rural China are "farm income" and "non-farm income." Time series for peasant households show an increase in the proportion of non-farm income from 7 percent in 1978 to 25 percent in 1985 (Zhu, 1991, p. 79). Those two categories were also used by the same author in her study of 90 households living in three counties in the province of Henan 1985–86.

given in money or in-kind) and *taxes* (having a negative sign).[5] Taxes are most often paid in money and the category including fees to local communities. The sum of subsistence income, money income, in kind income and transfers (net of taxes) make up total income.[6]

The importance of a particular income type can be evaluated as a proportion of total income but also by the fraction of all households that mainly depend on this type. Those two perspectives will give rather different views on the importance of an income type in the case of it being differently distributed over the households than total income. In the analyses we classify a household as *mainly depending* on an income type if that type makes up at least 50 percent of total income. Households for which a particular income type make up at least 90 percent of total income is said to be *greatly depending* on this income type.

What is the relation between the different types of income on the one hand and inequality on the other in a measure of economic well-being? We make bivariate analyses for the whole of China, but also for rural and urban parts separately. In the analyses individuals are arranged into deciles after equivalent total income.[7] We draw Lorenz-curves for equivalent total income ($L_x(p)$, $0 \leqslant p \leqslant 1$), and Concentration-curves ($L_k(p)$, $0 \leqslant p \leqslant 1$), for the various income types. By combining Concentration-curves and Lorenz-curves much information can be given in one diagram as the former can be compared not only to the diagonal, but also with the Lorenz-curve.

Consider a positive income type (in the case of taxes the reverse holds). If its Concentration-curve is entirely below the Lorenz-curve this income type is de-equalizing and conversely if it is entirely located above the Lorenz-curve it is equalizing in relative or absolute sense. The latter in case the Concentration-curve is located above the diagonal. In the case of the Concentration-curve crossing the Lorenz-curve it is not possible to make a general statement on its effect on equality.

We supplement the graphs by comparisons of Gini-coefficients defined as:

$$G_x = 1 - 2\int_0^1 L(p)\,dp,$$

and Concentration-coefficients defined as:

$$C_k = 1 - 2\int_0^1 L_k(p)\,dp.$$

[5]In the data it is not possible to distinguish between private transfers given in kind from those given in cash.

[6]It can be noted that in the first steps of the analysis we are measuring transfers net of taxes which is not the best possible alternative in the case of studying a welfare state. However, in China transfers are not subject to income tax and taxes are on an average of very small size. Therefore the outcome of the choice of measuring transfers gross or net of income taxes will only marginally affect the picture reported.

[7]When computing equivalent income for a household we form the ratio between its total income and its equivalent number. In the equivalence scale the first adult is assigned a value of 1.0 and additional adults a value of 0.8. A child up to five years of age is assigned the value of 0.3, a child 6–11 the value 0.4, a child 12 to 15 the value 0.5. A person 16–18 is assigned a value of 0.6 but in the case of working the need of such a person is set equal to an additional adult. Each person in a specific household is assigned this number and we use individuals as the unit of analysis.

Both coefficients have a maximum of 1.0, but while the Gini-coefficient is bounded to zero, the Concentration-coefficient can assume negative values ranging to -1. The difference between the Concentration-coefficient and the Gini-coefficient ($\Pi^k = C_k - G_x$, Kakwani, 1977) indicates departure from proportionality. It should be noted that this is only one of several possible alternatives to summarize departure from proportionality into one index because the difference between the Lorenz-curve and the Concentration-curve along the income scale can be weighted differently (Pfähler, 1987).

Each type of income contribute to the Gini-coefficient of equivalent total income by the product of its Concentration-coefficient and its average share of equivalent income. In case an income type (k) changes, while the Concentration-coefficient remains unchanged, the effect on total inequality is given by the following elasticity[8]

$$\eta_k = \frac{1}{G}\left[\frac{\mu_k}{\mu}(C_k - G_x)\right],$$

where μ_k/μ is the relation between the mean value of income-type k and total income.

4. DATA[9]

We use the household income survey conducted in spring 1989 for the reference period of 1988. Due to the large difference between rural and urban areas different sample procedures and somewhat different instruments were used for the two parts. Both samples were derived from large samples drawn by the State Statistical Bureau (SSB). Once a member of such a sample, a household is visited monthly by an enumerator for a period of five years after which the household is dropped from the sample. From each household one common answer is obtained.

The rural sample of SSB was obtained from a formally undocumented multi-stage procedure using the levels of provinces, counties, villages and finally households. From this national sample 10,515 households were selected.[10] The rural sample covers all provinces of the People's Republic of China with the exception of Tibet and the Xinjiang autonomic regions.[11]

The method of SSB to select urban households is undocumented. Most probably, people living in urban areas who have a rural "hukou" (that is, are registered in an urban location) are not in the sample. Difficulties in data collection motivated a strategy of concentrating the fieldwork for the urban sample to certain provinces. Respondents were chosen from the SSB sample in order to give information on conditions in various regions of China and of cities and towns of

[8]See for example Poder (1993).

[9]For other results from this rich data source see Khan *et al.*, (1992) and Griffin and Zhao (eds.) (1993). Our analyses differ from those mainly by how types of income are defined; that we analyse regional differences, that we present Concentration-curves for each type of income and, that we work with equivalent income as the target variable.

[10]For further details see Eichen and Zhang (1993).

[11]The share of the population in the non-covered areas is less than two percent of China's total population.

various sizes. In total the sample consists of 9,001 households. Since urban households are fewer than rural households in China such households are given smaller weights when working with a sample for China as a whole.

In the urban area the definition of a household was based on a "hukou," which is common for several persons. A household can consist of persons of more than two generations. Rural households have no formal "hukou," therefore the household definition is based on local registers of people sharing living arrangements. When a household consists of adults of the opposite sex, most likely a male is considered head of a household.

Income questions refer to the period of one normal month in the urban areas. For those receiving rather infrequent incomes, however, yearly income was asked for, which is also the case for most income questions in the rural sample. All income variables are expressed as yearly income. In the rural questionnaire a battery of questions aiming to measure subsistence production was included and in the urban questionnaire a battery of questions on income in-kind was included.

For owner-occupied housing (mainly in rural areas) rents were imputed on the purchasing value using the rate of 8 percent. Housing subsidies (mainly in urban areas) were assigned from data on the size in square meters and location of the apartment. The procedure used information on current construction costs which most likely leads to an over-estimation of the value of housing subsidies and thus of in kind income. Values of other in kind benefits were obtained from estimates of the respondents. In rural areas values of self-subsistence products were obtained from the respondents' evaluations which in turn most often were based on market prices.

5. Types of Income Among Chinese Households

The importance of the four types of income are summarized in Table 1 together with information on total household income. The average total income in rural areas is only 68 percent of that for urban areas. However, differences in living standards are even greater because average household size is larger in rural areas than in urban ones.

Let us first look at the role of subsistence income. Here, it is clearly seen that China is a developing country as one-quarter of the total income in China as a

TABLE 1

Mean and Proportion of Income Sources of Households

	China as a Whole		Rural China		Urban China	
	Mean yuan	(%)	Mean yuan	(%)	Mean yuan	(%)
Household income	4,643.43	100	3,804.6	100	6,508.00	100
of which:						
Money income	2,649.97	57.07	1,816.22	47.74	4,246.62	65.26
Subsistence income	1,147.56	24.71	1,932.59	50.81	253.68	3.90
In-kind income	639.80	13.78	3.35	0.09	1,625.51	24.98
Transfer income (net of taxes)	206.11	4.44	51.90	1.36	381.69	5.86

TABLE 2

FREQUENCY OF HOUSEHOLD GROUPS: CHINA AS A WHOLE, RURAL AND URBAN SAMPLE

	China as a Whole (%)	Rural China (%)	Urban China (%)
Household group with:			
MY > 90%	1.79	1.82	2.22
90% ≥ MY > 50%	51.48	38.13	80.71
SY > 90%	5.45	9.01	0.04
90% ≥ SY > 50%	27.03	49.91	0.80
KY > 90%	0.01	0.00	0.03
90% ≥ KY > 50%	1.50	0.00	3.20
TY > 90%	0.12	0.21	0.03
90% ≥ TY > 50%	2.06	0.70	3.60
Rest	10.56	0.22	9.37

Note: MY = Money income; SY = Subsistence income; KY = Income in-kind; TY = Transfer income (net of taxes); Mean is mean value of income type.

whole is made up of subsistence income. Indeed, the social importance of the self-subsistence sector is larger still as not less than one-third of all Chinese households mainly depend on subsistence income. (See Table 2.)

Looking at rural China separately shows that subsistence income makes up almost exactly half of total income. As many as 59 percent of rural Chinese households mainly depend on subsistence income. While a large reliance on subsistence income is typical in rural areas, it is often the case that rural households mix subsistence income with money income. This can be inferred from the fact that less than 10 percent of rural households greatly depend on subsistence income.[12]

According to Table 1 more than half of total income in China is money income. Slightly more than half of all Chinese households depend mainly on money income. Money income plays a considerably larger role in urban China than in rural China as almost two-thirds of total income in urban China is money income. In urban China more than four of five households mainly depend on money income while this is the case for only two out of five in rural areas. Although money income is usually of great importance in urban areas, urban households typically mix money income with other income types. This can be inferred from Table 2 which shows that less than 2 percent of Chinese households greatly depended on money income.

In urban China money income is often complemented with in kind income as such income makes up one-quarter of total income there. However, it is infrequently a dominant type of income. According to our estimate this is the case for only 3 percent of urban households, and in the rural data set there could actually not be found a single observation for which in kind income dominates.

Transfers (net of taxes) make up 4 percent of total income for households in China as a whole and the proportion of households which mainly depend on

[12]That is subsistence income made up at least 90 percent of total income.

TABLE 3

MONEY AND SUBSISTENCE INCOME OF HOUSEHOLDS IN VARIOUS ECONOMIC REGIONS

Region	Rural China			Urban China		
	Coast	Central	West	Coast	Central	West
1. Mean value of type of income (yuan)						
Household income	4,965	3,276	3,140	6,977	4,328	5,530
Money income	2,608	1,563	1,162	4,381	2,876	3,568
Subsistence income	2,258	1,691	1,922	357	171	218
In-kind income	8	1	1	1,766	946	1,461
Transfer income	91	21	55	473	336	283
2. Percent of households with:						
MY > 90%	1.9	2.3	1.0	2.2	1.4	1.6
90% ≥ MY > 50%	47.5	38.2	22.7	68.5	60.0	69.2
SY > 90%	6.5	8.8	13.0	0.7	2.3	1.0
90% ≥ SY > 50%	41.5	50.1	61.9	1.1	0.8	1.0
Rest	2.6	0.6	1.4	27.5	35.5	27.2

transfer income is even somewhat lower. Transfers (net of taxes) are concentrated to urban China where its average is seven times higher than in rural China.

Next we will discuss the importance of types of income in various regions (belts).[13] As shown in Table 3 there are notable differences between rural areas in different regions. In such areas average total income is considerably higher in the Coastal region compared to the other two regions. Measured as averages money income dominates subsistence income in the Coastal region, but the reverse holds true in the Western region. While half of the rural households in the Coastal region mainly depend on money income, about 40 percent depend on money income in the Central region and only one out of four households depend on money income in the Western region. Proportions of households which mainly depend on subsistence income varies inversely from 75 percent in the Western region, over 59 percent in the Central region, to 48 percent in the Coastal region.

6. THE RELATION BETWEEN INCOME TYPES AND EQUIVALENT INCOME

The Lorenz-curves and Concentration-curves for the income types subsistence income, money income, in kind income and net-transfers are shown in Figure 1 for China as a whole, in Figure 2 for rural China and in Figure 3 for urban China.[14] Estimates of Gini-coefficients, Concentration-coefficients and elasticities with regard to income types are reported in Table 4. The comments following are arranged by types of income. When making predictions of future developments it seems reasonable to assume that subsistence income as well as in kind income

[13]By the official Chinese classification, the Coastal region includes Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, Hainan and Guangxi. The Central region includes Shanxi, Inner Mongolia, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei and Hunan. The Western region includes Sichuan, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang.

[14]The negative value for Transfers (net of taxes) in the first deciles are due to larger sums paid as taxes than received as transfers.

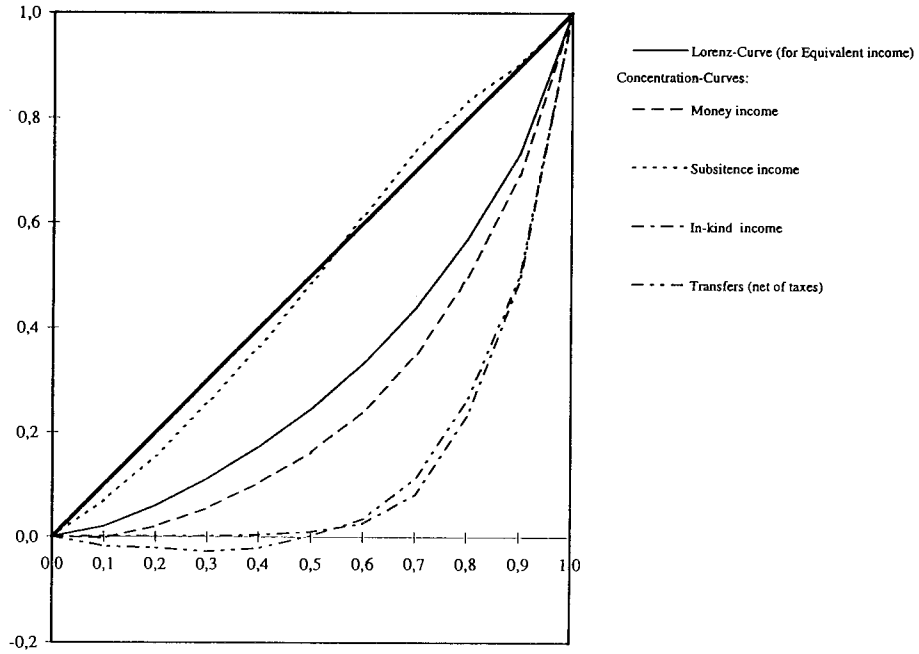

Figure 1. Lorenz-curve and Concentration-curves for major types of income: China as a Whole

is likely to decrease (at least in a relative sense) and that money income and perhaps also transfer income is likely to increase in importance.

The Concentration-curve for *subsistence income* in China as a whole is close to the diagonal. Actually it crosses the diagonal from below slightly above the fifth decile. This means that subsistence income has a very small effect on inequality in total China. The Concentration-coefficient is very small (and positive) and the elasticity of subsistence income on inequality is negative. This means that a possible decrease of subsistence income (keeping the structure of the income type constant) will increase inequality in the whole of China.

To a certain extent the negative elasticity of subsistence income on inequality in China as a whole is due to the gap in living standard between its rural and urban parts. Also, within rural China subsistence income has a negative elasticity on inequality, although the numerical value is smaller than for China as a whole. As seen in Figure 2 the Concentration-curve is entirely located under the diagonal, but it lies above the Lorenz-curve. Although this type of income makes up half of total income slightly more than one-fourth of total inequality in rural China is due to subsistence income. However, the role of subsistence income in urban China is quite different as it is small on average and de-equalizing. This should be seen in light of the fact that subsistence income in urban areas is to a large extent imputed rents on owner-occupied housing. In urban areas it is the more affluent households that possess owner-occupied houses.

Next we turn to *money income*. For China as a whole the Concentration-curve is located under the Lorenz-curve and the income type contributes 72 percent

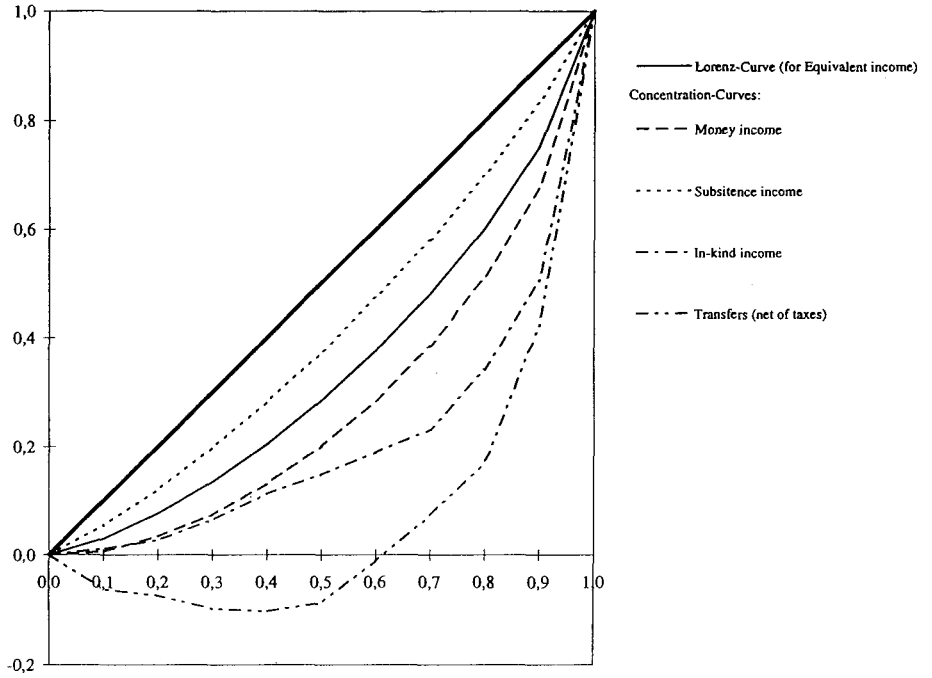

Figure 2. Lorenz-curve and Concentration-curves for major types of income: Rural China

to total inequality. Thus the elasticity of money income on inequality is positive. The magnitudes of the Concentration-coefficient and the elasticity with respect to inequality are similar for rural China as for China as a whole. However, in urban China the situation is quite different. There the Concentration-curve for money income is actually, in one interval, located over the Lorenz-curve and the elasticity with respect to inequality is negative. Likely increases in money income (keeping the profile constant) will thus increase inequality in China as a whole and in rural China but decrease inequality within urban China.

For China as a whole *in kind income* has a very de-equalizing structure, with a Concentration-coefficient of 0.74 and a positive elasticity with respect to inequality. One-fifth of total inequality in China as a whole can be attributed to in kind income. Much of this is due to in kind income being of larger importance in urban areas. However, looking at rural as well as urban areas separately shows in kind income to be still de-equalizing. This means that a possible (at least in a relative sense) decrease of in kind income in China (in case the profile is unchanged) will decrease inequality in China as a whole, as well as in its rural and urban parts.

Finally we turn to transfers (net of taxes). For China as a whole the Concentration-curve crosses from below the curve for in kind income. Thus for low values of equivalent income net-transfers is the most unequal type of income. However, measured by the numerical value of the Concentration-coefficient, transfers (net

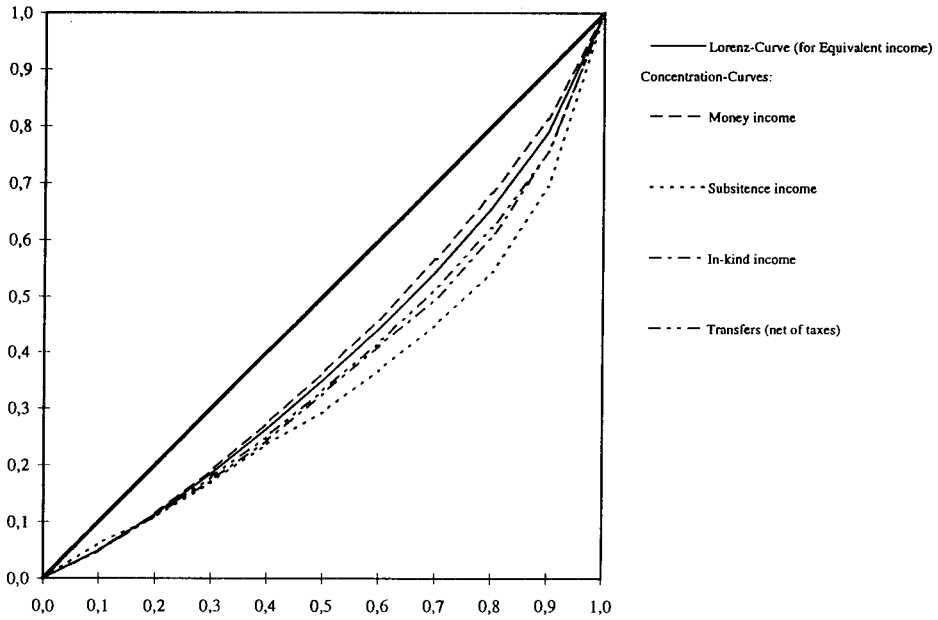

Figure 3. Lorenz-curve and Concentration-curves for major types of income: Urban China

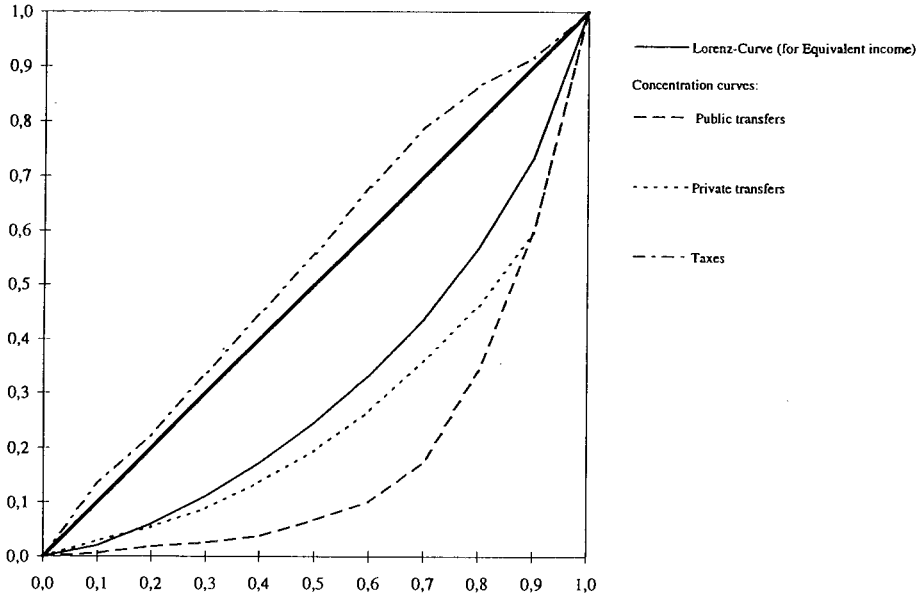

Figure 4. Lorenz-curve and Concentration-curves for transfers and taxes: China as a Whole

of taxes) are slightly less unequal than in kind income. Transfers (net of taxes) contribute to total inequality in China as a whole by 6 percent.

The de-equalizing effect of transfers (net of taxes) on inequality in China as a whole is due to urban areas being more favoured as well as to the very unequal

TABLE 4A

INEQUALITY AND ITS DECOMPOSITION: CHINA AS A WHOLE

Income Type	Share (%)	C_i or G	Contribution (%)	Elasticity
Money income	54.10	0.4874	74.74	0.1664
Subsistence income	32.16	0.0177	1.53	−0.2063
In-kind income	9.80	0.7505	19.75	0.0994
Transfer income	3.94	0.7554	7.98	0.0405
Total income	100	0.3727	100	0.00

TABLE 4B

INEQUALITY AND ITS DECOMPOSITION: RURAL CHINA

Income Type	Share (%)	C_i or G	Contribution (%)	Elasticity
Money income	48.01	0.4510	67.73	0.197
Subsistence income	50.63	0.1806	28.58	−0.220
In-kind income	0.08	0.5891	0.16	0.001
Transfer income	1.27	0.8865	3.53	0.023
Total income	100	0.3198	100	0.00

TABLE 4C

INEQUALITY AND ITS DECOMPOSITION: URBAN CHINA

Income Type	Share (%)	C_i or G	Contribution (%)	Elasticity
Money income	63.95	0.2030	57.10	−0.0684
Subsistence income	3.75	0.3223	5.32	0.0157
In-kind income	24.35	0.2618	28.05	0.0369
Transfer income	7.95	0.2723	9.53	0.0158
Total income	100	0.2273	100	0.00

profile in rural areas. In rural areas transfers (net of taxes) have the highest Concentration-coefficient of all income types. Increased transfers (net of taxes), keeping the profile constant, will thus increase inequality in China as a whole as well as in its rural and urban parts separately.

However, transfers (net of income taxes) are made up of separate components and we will take a closer look at them and their effects on inequality. The Concentration-curves for taxes, public transfers and private transfers are shown for China as a whole in Figure 4. In Table 5 Concentration-coefficients and Gini-coefficients are shown for China as a whole as well as for rural China and urban China separately. We will comment on the results for each type of income starting with transfers.

Private transfers and public transfers are on average of almost the same size in China as a whole. However, there are profound differences between the two when it comes to the role they play in rural and urban areas separately. Private transfers make up about the same part of average income in both areas and are de-equalizing. On the other hand public transfers make up 5 percent of total income in urban areas but only 0.5 percent in rural areas. This is the reason why public transfers are de-equalizing in China as a whole. Within rural as well as

TABLE 5

THE IMPORTANCE OF PUBLIC TRANSFERS, PRIVATE TRANSFERS AND TAXES FOR INEQUALITY IN CHINA AS A WHOLE, RURAL CHINA AND URBAN CHINA

Income Component	Share (%)	C_i or G	Contribution (%)	Elasticity
China as a Whole				
Public transfers	2.42	0.6372	4.14	0.017
Private transfers	2.76	0.4791	3.54	0.008
Taxes	1.24	−0.0921	−0.31	−0.015
Total income	100	0.3727	100	0.000
Rural China				
Public transfers	0.47	0.2517	0.36	−0.001
Private transfers	2.71	0.4220	3.45	0.007
Taxes	1.95	0.0499	0.29	−0.017
Total income	100	0.3315	100	0.000
Urban China				
Public transfers	5.45	0.1354	3.34	−0.021
Private transfers	2.92	0.3887	5.14	0.022
Taxes	0.19	0.2546	0.22	0.0003
Total income	100	0.2209	100	0.000

urban China public transfers are somewhat more equally distributed than equivalent income. Increasing public transfers, keeping the structure constant, will thus decrease inequality within rural China as well as in urban China but increase inequality for China as a whole.

For China as a whole the Concentration-curve of taxes is slightly above the diagonal, meaning that the absolute value of taxes are rather independent of equivalent income. Taxes thus increase inequality, but as the income type is quite small, the Chinese tax-system contributes very little to Chinese inequality. According to Table 5 the contribution is less than half of one percent.

Taxes take a much larger share of total income in rural China than in urban China. Changes in taxes (keeping the profile constant) give quite different effects on inequality in the two areas. In rural areas taxes aggravate inequality, in urban areas taxes reduce inequality. Those results are in line with a description of the tax-system which says that money income over a high personal exemption are subject to a proportional income tax, rural taxes are rather weakly related to income, and in urban areas some self-employed with a low equivalent income pay taxes.

7. CONCLUSIONS

Using a nationwide household income survey we have analysed different types of income in the People's Republic of China at the end of the 1980s and their effects on inequality using Concentration-curves and Concentration-coefficients. Types of income were defined mainly by the kind of resources they command. Inequality was measured as equivalent income for persons.

The results show that Chinese households typically mix incomes of various types. In rural areas the main types are subsistence income and money income while in urban areas the types are money income and income in kind. The

contribution to inequality as well as effects of marginal changes on inequality of a type of income were found to differ between China as a whole, rural China and urban China.

Subsistence income made up about one-fourth of total income in China as a whole. However, the mean value is actually about 50 percent in rural China and for a majority of rural households subsistence income makes up more than 50 percent of total income. The role played by subsistence income differs between different belts of rural China in such a way that the importance is most felt in the Western part. Subsistence income plays a relatively small role for rural households in the coastal belt where also the income level is the highest. Subsistence income contributes very little to inequality in China as a whole. A probable decrease in subsistence income (in case its profile is unchanged) will increase inequality in China as a whole and also in rural China.

About 60 percent of total income in the entire country is money income. Most urban households mainly depend on money income. Money income is the major contributor to inequality in China as a whole. The results indicate that a probable increase in money income (in the case of its profile remaining unchanged) will increase inequality within the entire country and in rural China. However, the effect on inequality in urban China is the opposite.

In kind income, of which highly subsidized housing is the single most important category is concentrated in urban areas where it makes up about one-fourth of total income. In kind income is highly de-equalizing for China as a whole, and also for the rural and urban parts. Therefore a probable decrease of in kind income (in case the structure is unchanged) will decrease inequality in China as a whole, as well as in its rural and urban parts.

Public and private transfers are on average the same size in China. While the role of private transfers is similar in rural and urban areas public transfers are concentrated to urban areas which is a major reason why they contribute to inequality. While marginal increases (keeping the profile constant) of private transfers increases inequality in rural as well as urban areas such changes of public transfers decrease inequality within the two areas.

Taxes play a very small role for Chinese households and thus for inequality. Briefly one can describe the tax system by saying that in rural areas there is not much of a relationship between total income and taxes, while in urban areas incomes which exceed a rather high personal exemption are taxed proportionally. Increasing taxes, keeping the profile constant, increases inequality in rural areas, but has mainly the opposite effect in urban areas.

References

Eichen, M. and M. Zhang, The 1988 Household Sample Survey, in Griffin, K. and R. Zhao, (eds.) *The Distribution of Income in China*, Macmillan, London, 1993.

Griffin, K. and R. Zhao (eds.), *The Distribution of Income in China*, Macmillan, London, 1993.

Kai Yuen Tsui, Decomposition of China's Regional Inequalities, *Journal of Comparative Economics*, 17, 600–627, 1993.

Kakwani, N., Measurements of Tax Progressivity: An International Comparison, *Economic Journal*, 87, 71–80, 1977.

Khan, A., Determinants of Household Income in Rural China, in Griffin, K. and R. Zhao (eds.), *The Distribution of Income in China*, Macmillan, London, 1993.

Khan, A., K. Griffin, C. Riskin, and R. Zhao, Household Income and its Distribution in China, *China Quarterly*, 132, 1029–1061, 1992.
Knight, J. and S. Li, Fiscal Decentralization, Redistribution and Reform in China, *Applied Economics Discussion Paper Series 168*, University of Oxford, 1995.
Kuen, Y. Y., Foreign Investment and Economic Change in China, *China Quarterly*, 131, 637–690, 1992.
Li, J., *Taxation in People's Republic of China*, Praeger, New York, 1991.
Li, M., *The Floating Population in Urban China* (In Chinese), Beijing, 1991.
Podder, N., The Disaggregation of the Gini Coefficient by Factor Components and its Applications to Australia, *Review of Income and Wealth*, 39, 51–61, March 1993.
Pfähler, W., Redistributive Effects of Tax Progressivity: Evaluating a General Class of Aggregate Measures, *Public Finance*, 37, 1–31, 1987.
State Statistical Bureau (SSB), *Chinese Statistical Yearbook 1989*, Beijing, 1989.
Wang, X. and N. Bai, *The Poverty of Plenty*, Macmillan, Houndsmills, Basingstoke, Hampshire, 1991.
World Bank, *China, Strategies for Reducing Poverty in the 1990s*, World Bank, Washington, D.C., 1992.
Zhao, R., Three Features of the Distribution of Income During the Transition to Reform, in Griffin, K. and R. Zhao (eds.), *The Distribution of Income in China*, Macmillan, London, 1993.
Zhu, L., *Rural Reform and Peasant Income in China*, Macmillan, Houndsmills, Basingstoke, Hampshire, 1991.