Comment

Income Differentials in Rural China

Everyone interested in the distribution of income in rural China will be grateful to E. B. Vermeer for his recent article.[1] He has assembled for us a great deal of useful data from the 1930s to the present and spiced his commentary with trenchant criticism and shrewd observation. There are a few points I should like to raise, however, lest the unwary reader should interpret the vigour with which statements are made as evidence for their reliability.

I

Vermeer is correct when he says that " data published . . . since 1979 for the first time make it possible to describe and analyse the influence of institutional change and economic development."[2] Until very recently descriptive statistics on the distribution of income in rural China were scarce and even now the available data do not permit an accurate description of the distribution of income for China as a whole. Prior to 1979 statements about the degree of inequality in the Chinese countryside had to rest on fragmentary evidence reinforced by careful analysis based on a judicious selection of assumptions.

In my opinion the best study in the 1970s was undertaken by Azizur Rahman Khan.[3] This study was prepared in 1975 and 1976 and was published in 1977. The purpose of Khan's research was to show that China was the great exception to the generalizations that were emerging from our research on the rest of Asia.[4] In most countries of Asia the degree of inequality in the rural areas was high, income distribution was becoming worse and in many instances the poorest groups were becoming further impoverished. None of these things seemed to be happening in China. Indeed Khan concluded that, " In comparison to its own past and to the contemporary developing countries in Asia the degree of income inequality in rural China is remarkably low."[5] At the same time " it must be conceded that a fairly high degree of inequality still exists in rural China."[6]

Nothing that has been published since by reputable scholars refutes these judgments and one wonders why Vermeer attempts to dismiss the work of his predecessors as " wishful constructions of a very high degree

1. E. B. Vermeer, " Income differentials in rural China," *The China Quarterly* (March 1982).
2. *Ibid.* p. 1.
3. Azizur Rahman Khan, " The distribution of income in rural China," in ILO, *Poverty and Landlessness in Rural Asia* (Geneva, 1977).
4. Perhaps at this point I should declare an interest. The research programme on rural poverty at the ILO was conceived by me and when the programme was completed Khan and I edited the papers for publication.
5. Azizur Rahman Khan, *op. cit.* p. 274.
6. *Ibid.* p. 276.

of income equality in rural China, such as made for example by Azizur Khan."[7] No doubt each writer likes to distinguish his contribution from that of others, but the cause of understanding is not advanced by exaggeration.

Khan's intention was to reach a conclusion that was generally correct, not to produce a specific figure that would measure accurately the degree of inequality. Yet his numerical analysis did yield a statistic that was indicative of the range of incomes in rural areas. Khan concluded that " the *per capita* income (excluding collective consumption) of the top quintile is only about 3·6 times higher than that of the bottom quintile."[8] Presumably it is this that Vermeer regards as a " wishful construction of a very high degree of income equality." Vermeer himself, however, combines a few reasonable assumptions with official Chinese data to conclude that " the richest quarter would receive 47 per cent of the total distributed collective income, as against only 12·2 per cent for the poorest quarter of farmers."[9] This implies that the *per capita* income of the top quartile would be about 3·9 times higher than that of the bottom quartile, a ratio not so different from Khan's.

II

Khan conjectured that " there are strong reasons to believe that within the commune system the distribution of income from private plots is less unequal than the distribution of collective income."[10] Vermeer asserts, in contrast, that " Azizur Khan's opinion that the income from private undertakings would be a corrective factor on inequalities is not correct."[11] Vermeer, however, presents almost no data and even less analysis to support his assertion.

Fortunately considerable information does exist which sheds some light on this important topic. On the whole the available evidence is more consistent with Khan's inspired guess than with Vermeer's undocumented assertion. The reasons adduced by Khan for the equalizing role of the private sector and its household economy appear not to be entirely correct, however. Research by myself and colleagues suggests that the relative importance of the private sector varies over the life cycle, being greatest in those households with a large number of infants or elderly persons.[12] The private plot is usually less important than other private sector activities, notably, pig-raising, poultry and handicrafts; the collective sector appears not to be competitive with the household economy for labour but instead appears to be complementary to it. This, at least, seems to have been the case in 1978 to 1980; it is possible, of course, that the recent changes in policy as regards the private sector have altered the validity of these conclusions.

7. E. B. Vermeer, *op. cit.* p. 11.
8. Azizur Rahman Khan, *op. cit.* pp. 274–75.
9. E. B. Vermeer, *op. cit.* p. 13.
10. Azizur Rahman Khan, *op. cit.* p. 272.
11. E. B. Vermeer, *op. cit.* p. 17.
12. See Keith Griffin and Ashwani Saith, " The pattern of income inequality in rural China," *Oxford Economic Papers* (March 1982), p. 173.

A study of 27 households at the level of the production team of Tang Tang Commune in Guangdong shows that " other income " (which possibly includes private sector income) is positively related to the dependency ratio and inversely related to the number of workpoints earned in the collective economy. This " other income " clearly helps to reduce inequality among households.[13]

A second study of 23 households of a production team in Shujing Commune, Shanghai Municipality indicates clearly that collective income per head is higher the lower is the dependency ratio, i.e. the size of household divided by the number of wage earners. (See Table 1.) Households in which three-quarters or more of the members are wage earners (and hence have a dependency ratio of 1·33 or less) enjoy a higher than average *per capita* collective income whereas households in which only half the members are wage earners (and hence have a

Table 1: **23 Households from a Production Team of Shujing Commune, Shanghai Municipality, 1980**

Household Number	*Collective Income per head (yuan)*	*Dependency Ratio*	*Private Income as percentage of Collective Income*
20	745·7	1·00	17·0
22	662·5	1·00	0·0
23	468	1·33	19·2
3	465	1·20	22·9
6	460	1·50	0·0
7	452·2	1·25	19·7
11	421	1·33	24·0
16	412·6	1·50	20·2
13	403	1·50	19·3
10	378·8	1·25	22·1
2	376·7	1·00	12·1
8	372	1·33	30·2
17	351	2·00	35·8
1	341	1·33	20·5
14	323	1·67	38·3
18	322	2·00	15·5
4	319	2·00	11·6
19	313	1·67	22·1
12	311	1·50	8·2
5	310	2·00	8·1
21	300	1·50	13·9
15	275	2·00	33·9
9	272	2·00	17·5

Source:
Elisabeth J. Croll, *The Chinese Household and Its Economy: Urban and Rural Survey Data*, Queen Elizabeth House, Contemporary China Centre, Resource Paper, Oxford, 1982, Tables 20 and 49.

13. Keith Griffin and Ashwani Saith, *Growth and Equality in Rural China* (published for the ILO by Maruzen, 1981), pp. 47–51.

dependency ratio of 2·0) fall below the median collective income. This is not very surprising. More noteworthy is the finding that households with a high dependency ratio tend to obtain a higher proportion of their income from the private sector. Compare, for example, the six households with a dependency ratio of 2·0 with the six households with a dependency ratio of 1·25 or less. In the former, private sector income is 20·4 per cent as large as collective income while for the latter it is noticeably lower at 15·6 per cent. Finally, there is just a hint in the data from Shujing Commune of an inverse relationship between collective income *per capita* and the ratio of private to collective income. Correlation analysis, however, showed that while the regression coefficient was negative it was not statistically significant. Hence the equalizing effects of the private sector, if any, would appear to be rather weak, but there certainly is no support from this sample for the contrary view that the presence of a private sector tends to accentuate inequality arising from differences in dependency ratios.

Let us turn now to a third study in another commune in a different region of the country, the Suzhou Municipality. This, too, is a prosperous region thanks to the presence of an important city, but the degree of prosperity in the rural areas is not as great as in the Shanghai Municipality. A fairly large survey was conducted in Zhang Qing Commune, Suzhou Municipality and the results of this survey shed more light on the role of the private sector in the Chinese countryside.[14] Eleven of the 163 teams in the commune were sampled, as well as 96 households

Table 2: **Collective and Private Income in Zhang Qing Commune, Suzhou Municipality, 1980**

Team	*Mean Collective Income per capita (yuan)*	*Mean Private Income per capita (yuan)*	*Private Income as a percentage of Collective Income*
1	337·4	55·1	16·3
2	283·5	53·2	18·8
3	255·1	26·2	10·3
4	248·1	35·4	14·3
5	223·5	28·4	12·7
6	221·9	45·3	20·4
7	216·0	16·5	7·6
8	207·2	35·8	17·3
9	205·3	61·7	30·1
10	166·6	53·6	32·2
11	148·1	25·6	17·3

Source:
Alison Ansell, Roger W. Hay and Keith Griffin, " Private Production and Income Distribution in a Chinese Commune," *Food Policy* (February 1982).

14. Alison Ansell, Roger Hay and Keith Griffin, " Private production and income distribution in a Chinese commune," *Food Policy* (February 19‹ ?), p. 11.

from the sampled teams. It was possible to obtain from the survey information on collective income and on private income from crop and livestock production (but not private income from handicrafts, etc.) (See Table 2.)

Analysis at the team level indicates that when private income is added to collective income, inequality diminishes. For instance, the Gini coefficient of collective income is 0·12, whereas the coefficient of collective plus private income is 0·11. Similarly, the coefficient of variation declines from 0·22 to 0·20 when private income is combined with collective income. These are not dramatic changes, perhaps, but they point in the expected direction.

Further support is provided by an analysis at the household level of the 92 households from which reliable data were obtained. (Three households were excluded because of allegedly negative private income and one because the information was incomplete.) The test consisted of a regression equation in which private income as a percentage of collective income (PY/CY) was regressed on collective income per head (CY/N). The regression coefficient turned out to be negative, as anticipated, indicating that the lower the level of collective income per head the greater the relative importance of the private sector.[15]

Finally, there are hints in the scattered regional data that the private sector may help to reduce inequalities not just at the local level but interregionally as well.[16] This is a highly speculative proposition at the moment, but there is enough evidence to suggest that the topic merits further investigation. It would be a pity if Vermeer's strongly expressed opinions were to dissuade other scholars from following a possibly fruitful line of research.

III

Vermeer ends his article with a reference to " growing differentials " in rural areas.[17] It is not difficult to think of several reasons why inequality in the distribution of income might have increased in recent years or why it might be expected to increase in future. Vermeer, however, makes no attempt to develop a coherent argument on this subject, nor does he present the data to substantiate his claim of growing differentials. The latter is not surprising since the required data simply do not exist.

Research by Ashwani Saith and myself at three communes – Wu Gong and Qie Ma in Hebei and Evergreen in the Beijing Municipality – has shown that there is a clear tendency for the distribution of income within

15. The equation is the following:

$$PY/CY = 35{\cdot}85 - 0{\cdot}07^{*}\,(CY/N);\quad R^2 = 0{\cdot}14$$
$$N = 92$$

* = significant at 1% level

16. Keith Griffin, " Economic organization and performance in rural China," in preparation.

17. E. B. Vermeer, *op. cit.* p. 33.

a commune to improve over time.[18] Moreover, we have tried to show with the aid of a simulation model that this tendency toward reduced inequality is endogenous, that is, that it arises because of the structure of the commune system.[19] In addition, there are of course numerous policy interventions which by design or by accident reduce inequality further.[20] Our conclusion is that a combination of endogenous forces and well-designed policies has ensured that inequality at the local level does not rise significantly and more often than not it falls.

These conclusions were obtained before the introduction of new policies in rural areas in 1981 and 1982. It is possible that these new policies will alter fundamentally the way the rural economy functions and lead to widening differentials of income, but this is a topic for future research. The evidence up to the beginning of the current decade suggests that incomes at the local level gradually were becoming more equal.

This leaves us with the question of regional inequality. The data Vermeer has collected for us are extremely valuable[21] although they do not enable us to discuss past trends or future prospects. After reviewing a number of policies that are likely to affect the interregional distribution of income we conclude that "on balance, it is likely that regional inequalities will increase somewhat, especially in the short run when supply elasticities are low, but it is unlikely, say, by the beginning of the next decade regional differentials will be noticeably different from what they are today."[22] Time will tell whether Vermeer's pessimism or our qualified optimism is more nearly correct.

KEITH GRIFFIN

Reply by E. B. Vermeer

Keith Griffin's comments fall into three parts: (a) A defence of recent studies of rural income distribution prepared by A. R. Khan and himself or still to be published; (b) criticism of some of my comments in *The China Quarterly,* March 1982; and (c) a presentation of 1980 income data of 27 households in a Guangdong team, of 23 households in a Shanghai team, and of 11 teams in a commune near Suzhou, with conclusions.

To start with the last item, I fail to see why by 1982 we should confine our research to, or draw any wider conclusions from, such small and unrepresentative samples. Average *per capita* collective income in these three samples is very high indeed. Suppose one of the criteria used in the selection of these particular teams was a high degree of socialist consciousness and collective economic success, and suppose an

18. Keith Griffin and Ashwani Saith, *Growth and Equality in Rural China, loc. cit.* pp. 29–36.
19. *Ibid.* Chaps 4–6.
20. See *ibid.* Chap. 7 for a discussion of some of these policies.
21. E. B. Vermeer, *op. cit.* Table 5, p. 20.
22. Keith Griffin and Ashwani Saith, *Growth and Equality in Rural China, loc. cit.* p. 144.

important yardstick for these would be a subordination of private interests to collective pursuits. Then what would be the significance of these biased data for our study of the relationship between collective and private income in China?

My objection to the " wishful construction of a high degree of income equality " made by Khan was spelled out in a footnote. I did not object to any *outcome*, but to the way it was reached. There is such a difference in scope of basic data (and a time difference of some 15 years) that a comparison with the 1979 data presented by the Ministry of Agriculture is pointless. Khan and Griffin in their conclusions often fail to distinguish between income inequality within a collective unit and within China as a whole.

Griffin misreads me, therefore, on the question of whether distribution of private income corrects differentials in collective income. I wrote that " Khan's arguments may be valid *within* a village unit, but are certainly outweighed by other elements when applied to China as a whole " (p. 17). I mentioned a few such elements and might add some more, such as different economic possibilities arising from proximity to large cities or to transportation routes, linkages with local industries, all of which help to boost both collective and private local economies. Information on this important topic is, in my view, scarce, and one should define what one is talking about: net collective income versus which categories of gross or net private income, absolute or relative differentials, within a collective unit (team, brigade or commune) or between larger areas, in what period, etc. The percentage of income generated by the private sector may well be and have been larger in poor areas than in rich areas, and smaller in absolute terms at the same time. Apart from economic organization (such as the present *dabaogan* system) natural resources such as timber or medicinal herbs might favour the inhabitants of poor mountain areas in Yunnan over poor plain areas in Hebei. So there is no obvious relation between poverty and high private income. Other factors may be at work in the model villages studied by Griffin: rich communes often have collectively organized activities which are private elsewhere, send their children to school instead of letting them contribute to private household income, and may be less motivated to supplement their income by extra individual work (which might bring political trouble as well). For a valid picture for the whole of China, however, we should be concerned about not only the richest 5 per cent or poorest 20 per cent of the rural population. The national, provincial and district data for recent years supplied by the SSB and Ministry of Agriculture (such as can be found in Chinese economic journals, or in the World Bank document *China: Socialist Economic Development*) do point to growing differentials in income. Griffin's vehement denials of " undocumented assertions," " not surprising since the required data simply do not exist " indicate that I have upset firm convictions – which is what science and scholarship are all about.

Griffin and Saith, in *Growth and Equality in Rural China*, ILO 1981, p. 142, offer the hypothesis that " private sector economic activities at the household level tend to widen regional differentials.'' In the present Comment, Griffin sees '' hints in the scattered regional data that the private sector may help to reduce inequalities not just at the local level but interregionally as well.'' I am afraid he will have to choose.