Summaries of Selected Articles

R. M. Stern, "International Compensations for Fluctuations in Commodity Trade", *Quarterly Journal of Economics,* May 1963.

This paper is a critique of the United Nations report, *International Compensation for Fluctuations in Commodity Trade* (New York: 1961), dealing with the phenomenon of instability in export proceeds of primary-producing countries. Fluctuations in the export proceeds of primary producing countries are mainly caused by short-run changes in demand resulting from variations in the level of economic activity in the industrial countries; and reductions in the export earnings of the primary-producing countries force their imports to be cut down, particularly when gold and foreign-exchange reserves are inadequate and the drawings from the International Monetary Fund insufficient. This makes the implementation of many economic and social development-programmes more difficult and the continuity of development unsustainable.

The U.N. report, covering the period from 1953 to 1959, presents data to demonstrate this problem. The shortfalls in export earnings are shown to be very great during times of recession in advanced industrial countries, partly due to the decline in the terms of trade (1950 = 100) of underdeveloped areas. Moreover, a positive relationship is shown between importing power of exports and fixed investment. The report emphasizes that shortfalls in the export proceeds of primary-producing countries result in suspending economic plans, interrupt and discourage private investment and make the steady development of the country more difficult. Instability in commodity trade is underlined as an impediment to the economic development of the low-income countries and recommendations are made for the establishment of a Development Insurance Fund for providing compensatory finance to remove this impediment.

The author's critique of the report begins with the selection of the base year. Shortfalls in export proceeds were much influenced by the Korean-War period; and consequently, they appear to be very large for 1953 and 1954; it would have been more reasonable to begin with 1955. Similarly, with a change in the base year from 1950 to 1953, the worsened terms of trade for underdeveloped countries seem less striking. The positive relationship between the importing power of exports and fixed investment is not very convincing, because of its weak conceptual basis and the method of measurement. The report endorses economic planning, but in many cases, balance-of-payments difficulties may arise due to planning inflexibilities and errors. The report favours international income-

redistribution through the Development Insurance Fund; however, it does not adequately explain the basis for compensation. Regarding the view that instability of external trade is an important impediment to economic development, it is pointed out that underdevelopment has its roots in the domestic socio-cultural, economic and political relationships. Further, it is not certain that international compensation for shortfalls in export proceeds will contribute directly to economic development. The report has given little attention to the problem of effective use of such compensation.

Gold and foreign-exchange reserves, under the pegged exchange-rate system, are the first line of defence against shortfalls in the export earnings. During 1953-59, the ratio of reserves to imports in primary-producing countries fell by 20 to 25 per cent, but the desirability of holding substantial reserves is not great since the competing investment-alternative is given higher social priority. The second line of defence is the drawings from the International Monetary Fund, but due to drawing rights based on Fund quotas, the Fund cannot be relied upon as an adequate instrument to satisfy fully the needs of the primary-producing countries.

The major issue involved is whether compensatory finance should be especially earmarked for the purpose of stabilization of development. Regarding stabilization, it can be said that during 1953-59, primary producers were not affected equally and in many cases balance-of-payments difficulties were induced by internal events of a temporary or structural nature. Therefore, the justification for compensation to deal with any one particular source of balance-of-payments disturbances, such as fluctuations in export proceeds, is questionable. On the other hand, if insufficiency of resources for development is at issue, the assistance should be rendered in forms other than compensatory finance.

There are some practical difficulties in the measurement of shortfalls and compensation in real terms, and also in finding the basis for contributions by advanced countries to the Development Insurance Fund. The report aims at promoting steadier development by compensatory finance, but no strict conditions are laid down on its use. This would not encourage the necessary adjustments in response to structural problems and there is a danger of misallocation of international resources.

It is better to achieve relative stability by sound domestic monetary and fiscal policies reinforced with international reserves available from the International Monetary Fund. As compared with the International Commodity Agreements, compensatory finance has many advantages, like the avoidance of distortion in particular commodity-market relationships, *etc.* But this scheme of

income transfers is insufficient to achieve effective stabilization or economic development. To the extent that economic development of low-income countries is of international concern, it should be dealt with by long-run capital transfers and commercial policies, and not with short-run compensatory measures as the report suggests.

(SYED MUSHTAQ HUSSAIN)

F. and S. Andic, "A Survey of Ghana's Tax System and Finance", *Public Finance*, No. 1/1963.

This paper studies different aspects of the tax system in Ghana, and assesses its contribution to the finance of economic development. All the taxes are classified by type of tax and grouped as central and local government taxes. Central government taxes consist of taxes on income, capital, production and expenditure. Income taxes are further divided, as income tax, mineral oil tax and mineral duty. There is also a compulsory saving scheme to supplement the income-tax revenues.

Income tax is levied according to a uniform tax-schedule. Mineral duty is assessed on sales by a sliding-scale system whereas the mineral oil tax is based on chargeable profits. (Chargeable profits are calculated after deducting the current and capital expenses.) Capital taxes are in fact property taxes, and their yields are determined by the value of the objects taxed. Taxes on production and expenditure include import and export duties, excise and local duties, purchase tax, betting and casino taxes, stamp duties, *etc*. Local government taxes are rates, licences and market dues. Local taxes are levied according to basic rate assessments and property rate-schedules. These rates vary from council to council.

There are several outstanding features of the revenue system:

i) 96 per cent of the tax revenue flows to the central government.

ii) There is heavy reliance on production and expenditure taxes and little on income and property taxes.

iii) Major sources of tax revenue are the import and export duties. The share of the export duties is declining, whereas the share of import duties is increasing.

iv) Tax yield has not increased as rapidly as aggregate output. During 1955-60 gross domestic product rose by 40 per cent but total tax revenue increased by 27 per cent. The share of taxes in government revenue fell from 80 per cent to 65 per cent during the same period.

Although the basic data relating to some aspects of the economy are lacking, an attempt is made to estimate the burden of taxes. It is found that the burden of taxes in Ghana is not excessively high relative to other African countries. Taxation of income is least developed and both the average tax rate and extent of income covered is the lowest of the African countries studied.

It is estimated that central-government expenditure has gone up by more than six times during 1950/51 to 1960/61 but the gross domestic product has increased only by 2.5 times. Tax revenue did not rise as rapidly as expenditures, and budget deficits have increased. These deficits have been met by the depletion of exchange reserves and an increase in the internal and external loans. Under the present circumstances the ability of tax system to meet the increasing requirements of economic development is doubtful. It is suggested that the tax system may not be able to collect enough revenue to meet the previous targets of tax yields. There are two major reasons for this argument: *i*) There is great dependence on foreign trade but the share of exports is declining. There is a corresponding reduction in export duties that is aggravated by the fact that Ghana's exports are subject to wide price variations. *ii*) Income-elastic component of income tax (individual income tax) is a minor portion of total tax yields, whereas the major component (company taxation) is a proportional tax.

It is concluded that tax revenue has not kept pace with the growth of aggregate output and the latter has not increased at the same rate as public expenditure. The other sources of public finance (foreign-currency reserves, profits of State enterprises, and internal and external loans) are also discussed. But these are secondary sources of public finance and cannot perform a very significant role unless a corresponding increase in domestic revenue is forthcoming.

(MUSHTAQ AHMED MEHR)

B.D. Kanetkar, "The Core of Price Policy for the Sale of Canal Waters", *Artha Vijnana*, June 1963.

The analysis of price policy for the sale of canal waters is divided into three parts. In the first part, past government policy-statements and practices are reviewed in order to nullify the prevailing view that there has been little or i policy behind framing the irrigation rates. The first government policy-statemei was the report of the House of Common's Select Committee in 1879, which recommended that irrigation projects should yield an annual income equal to the annual interest cost. This commercial principle of service at cost was reiterated in subsequent policy statements (such as those of 1904 and 1922), and was used

in deciding *i*) whether to build a particular project, and *ii*) what water rates to charge on existing facilities. The manner in which this commercial principle was employed varied among regions due to differences in crops, rainfall, *etc.*, and it was sometimes modified to encourage the use of canal waters. But there is sufficient evidence in both government pronouncements and practice to negate the criticism that rate making was not based on any underlying policy.

In the second part, the current and widely prescribed price formula is compared with the actual government policy. This formula is based on *i*) full utilization of capacity, *ii*) full cost recovery and *iii*) equitable distribution between various classes of crops. A close examination and comparison of the two policies reveals that, contrary to the prevailing view, they are quite similar. The main difference is the formula's emphasis on full utilization of capacity. However, studies have shown that price policy has not been effective in encouraging the use of canal waters, so that this difference is not a meaningful one.

In the final part, it is argued that both governmental practices and the current prescriptive principle incorrectly emphasize full-cost pricing. The chief inadequacy of this financial criterion has been its failure to consider fully the net social return from an investment. It does not take account of those benefits and costs which are not included in financial revenue and cost calculations. For example, the increase in net farm income resulting from a project may well exceed the revenue which can be realized from irrigation charges. The proper criterion is the benefit-cost ratio, which does include all relevant and measurable social benefits and costs. If the benefit-cost ratio of a project exceeds one, it should be undertaken, even if the financial return is inadequate. In such a case, the social benefits are sufficient that the full cost of the project can (and should) be covered by a combination of rate revenue and taxes on the income created. Since few of the older projects were undertaken after benefit-cost analysis, detailed benefit-cost studies should be made as a basis for determining rates. If the ratio is less than unity, it would be idle to insist on full-cost pricing.

(A. D. BHATTI)

J. W. Mellor, "The Use and Productivity of Farm Family Labour in Early Stages of Agricultural Development", *Journal of Farm Economics*, August 1963.

Available evidence regarding the utilization and productivity of agricultural labour in densely populated low-income countries suggests a positive marginal product from an additional *flow* of labour applied to agricultural production. Other studies in labour utilization, however, indicate a substantial *stock* of

unused labour even at peak periods. These studies also suggest a lower marginal-productivity of labour on farms with little land per worker.

This phenomenon of existence of substantial stock of unutilized labour with positive marginal productivity of labour can be consistently incorporated in a conceptual framework which may be called a 'limited-aspiration model'. The basic assumptions of the limited-aspiration model are *i*) marginal utility of additional income diminishes sharply above subsistence level, and *ii*) labour productivity commonly ranges around subsistence level.

It follows from the limited-aspiration model that families with smaller land-holdings will be forced to utilize labour resources to the extent necessary to reach the average subsistence level. In contrast, families with a substantial amount of land per worker may reach a culturally acceptable standard of living at a point where the marginal product of labour exceeds the current wage rate. This provides scope for hired permanent labour-force even though family labour is idle. Such differences in marginal productivity of labour are preserved by institutional rigidities through prevention of free transfer of resources from less productive to more productive operation.

The basic factors underlying the limited-aspiration model are *i*) the slope of the iso-utility curves depicting the transformation ratio of leisure into consumption goods and services, and *ii*) the slope of the production-possibility curve describing the rate at which labour can be transformed into consumer goods and services. The slopes of these two functions determine the extent to which leisure is transformed into goods and services. Technological and cultural factors tend to inhibit the transformation of leisure into income once the subsistence level is reached. Given an initial low-level equilibrium, increased production may be possible by a radical change in technology or by changing the slope of the utility surface.

Important policy recommendations follow from the analysis of limited-aspiration model. Redistribution of land and a progressive land-tax may force a higher level of output for the families with a large-size holding in order to maintain a given level of living. Raising the low propensity to transform labou into income may be possible with increased availabilities of attractive consumer goods over a wide range of prices. The greatest importance can be attached to changing the production surface through the technological advance. Rapid technological change may push the farmer into actually increasing labour input while greatly increasing production.

The particular assumptions of the model about the nature of the utility surface and production condition are consistent with a decline in agricultural production with a substantial withdrawal of labour from agriculture.

(ABDUL GHAZUR)

I. S. Friedman, "The International Monetary System", *I.M.F. Staff Papers,* July 1963.

Two of the important aspects of international monetary system are the features of the payments system and its element of flexibility. The features consist of convertibility, both external and internal (the former refers to convertibility by nonresidents whereas the latter refers to that by residents); the exchange rate at which currencies are bought and sold; the markets in which the transactions take place and the use of reserves. Flexibility, on the other hand, consists, of the possibilities and nature of changes within the payments system.

With the exception of Soviet-bloc countries and a few others, most countries allow their currencies, when acquired by nonresidents, to be converted into other currencies. As a result discrimination has become much less important in international trade. However, internal convertibility does not exist for many currencies although the list of purposes for which foreign exchange is freely made available to residents have now been greatly extended. Restrictions in the form of bilateral trade-agreements, import quotas, and control over capital transactions still exist. But the significance of inconvertibility that still remains is much less than in 1950's both because it now effects only slightly the international exchange of goods and services and because it does not interfere with the convertibility of earnings or other foreign-exchange receipts by nonresidents.

The much-needed flexibility has been provided into the system by permitting the members to convert their currencies for spot transaction at a rate deviated from the official exchange rates by one per cent. This is called the margin. A combination of margins on either side of par values can result in a spread of two per cent between the highest and the lowest limits between any two member currencies. From July 1959, the Fund permits the spread to be as high as four per cent whenever such rates result from the maintenance of margins of no more than one per cent from parity. The possibility of fluctuation within the spread has a number of important effects: *First,* it has created conditions not too unlike a free market. The difference being that under the present system the central banks have the power to intervene and take measures to maintain a certain rate. *Second,* it has facilitated the rebuilding of free exchange-markets in the

1950's after many years of disuse. Besides the margins, the par values can also be changed within certain limits when circumstances call for such a change.

An element of flexibility of still greater importance lies in the fact that there are no fixed limits to the movement of forward exchange rate. It has become an important measure of the financial position of a country insofar as it acts as an indicator of expectations with respect to exchange rates.

The exchange market operates through the commercial banks. They provide more or less uniform spot rates through exchange arbitrage, and also provide facilities for trade credits and short-term capital movements.

The role of reserves is to enable a country to intervene in the foreign-exchange market and avoid unwanted fluctuations in the exchange rate. The need for such reserves is not directly related in an important sense to the volume of trade. It depends on the character and magnitude of the disturbances which cause disequilibrium in the balance of payments.

Thus, the present international payments system is a deliberate choice among the means of conducting international financial relations. It is not rigid and makes provision for both adapting to enduring changes and meeting sudden and grave financial crises.

(A. N. M. AZIZUR RAHMAN)

B. L. Bentick, "Estimating Trade Creation and Trade Diversion", *Economic Journal,* June 1963.

A free-trade area, involving complete elimination of intra-tariffs on trade amongst members and the imposition of varying degrees of tariff on imports from nonmembers, has trade-creating as well as trade-diverting effects. Insofar as the free-trade area leads to a simple switch-over from low-cost imports from nonmembers to high-cost imports from the members, it has trade-diverting effects. If, however, due to the economies of scale, *etc.*, production costs of the members are lowered and profitable trading relations established between the members, trade creation takes place. This article suggests a method for measuring the relative magnitude of trade diversion and trade creation.

Assuming that tariffs imposed by the potential members of a free-trade area (referred to as countries A and B) against the nonmembers (referred to as country C) accurately reflect their costs of production with reference to an outside source of imports, they can be used to measure: *i*) the relative magnitude of trade creation and trade diversion; *ii*) the likely value of trade creation in relation to

both the current value of trade between the countries and their total foreign trade; and *iii*) the likely effect of the formation of a free-trade area on the balance of trade between the countries.

On the basis of this assumption, trade will be created in every commodity in which A's and B's protective tariffs are significantly different. A would have a comparative-cost advantage and would export to B all those commodities on which her protective tariffs were less than that of B, and vice versa for B's exports to A. On the other hand, trade diversion will take place, if the margin of preference enjoyed by A in B (that is, B's protective tariff) exceeds A's tariff against imports from C. It may, therefore, be possible to sample out those commodities in which trade will be created and those in which trade will be diverted.

By this method it is also possible to estimate the value of trade creation and trade diversion in selected commodities. Assuming that the price elasticity of demand for each commodity is zero, the primary estimate of trade creation will be the share of the market held by the less efficient industry in each case. Similarly, the primary estimate of trade diversion will be the total value of C's exports to the country with the less efficient industry. The method also facilitates the estimation of the effect of a free-trade area on the balance of trade of A and B, if it is assumed that the two populations are equal.

Such a method, however, will not work if the tariff of one country does not accurately reflect its cost of production or if the populations differ substantially in size. Under these circumstances, it will not be possible to predict correctly the commodities subject to trade creation and trade diversion; the absolute value of trade creation and trade diversion will be distorted; and the effect of a free-trade area on the balance of trade will be indeterminate. The method has been illustrated by studying the hypothetical case of free trade between Australia and New Zealand.

(S. N. H. NAQVI)

J. C. H. Fei and G. Ranis, "Innovation, Capital Accumulation, And Economic Development", *American Economic Review*, June 1963.

The paper concentrates on the role of the industrial sector in the development process in a dualistic economy characterized by surplus labour in agriculture, high rates of population growth, a small but growing industrial sector and an acute shortage of capital. The authors contend that the rate of labour absorption in the industrial sector should be higher than the rate of population growth for successful economic development. Capital accumulation and technological

change are considered to be the main factors leading to growth of industrial employment-opportunities and output. The role of industrial capital-accumulation and technological change during development process is examined abstractly as well as with reference to the actual experience of Japan (1888-1930) and India (1949-60)

They assume that demand for labour in the industrial sector depends upon the level of real wages and on the marginal physical productivity of labour (MPP_L), and that there is no significant upward pressures on industrial real-wages as long as there is surplus labour in agriculture. In such case, a rapid rate of industrial investment will lead to a rapid increase of the MPP_L, and, at the constant real-wage level, a rapid rate of labour absorption. MPP_L can also be raised by innovation; the higher the intensity of innovation and the more labour-using the innovation, the more will MPP_L be raised. Thus, innovation can also lead to a higher rate of labour absorption.

Capital accumulation is not likely to change the capital-labour ratio because, under the assumptions of constant returns to scale, the MPP_L can be brought into equality with the constant real wage only when the input ratio is unchanged. Since the capital-labour ratio is not affected by capital accumulation, it is determined by innovation in the course of expansion of factor inputs in the industrial sector. Therefore, capital shallowing will occur unless innovations are very labour-saving.

In the face of an unfavourable factor endowment and increasing population pressures over time, the underdeveloped dualistic economy is concerned with the reallocation of maximum labour from the agricultural to the industrial sector. If the economy's centre of gravity is to be gradually shifted from agriculture to industry, the rate of labour absorption by the industrial sector must be higher than the rate of population growth. This central issue is stated as critical minimum effort criterion (CMEC). Applying this criterion to Japan, it was found that, during her phase of unlimited supply of labour, Japan had a rate of absorption of agricultural labour by industrial sector higher than the rate of growth of population. In the early years, labour absorption in industry was about 80 per cent due to innovations. Over time, however, there is a definite tendency for the relative contribution of innovations and capital accumulation to slowly reverse themselves. As regards India, the rate of population increase substantially exceeded the rate of labour absorption by the industrial sector in all but one of the years under study. From the beginning Indian innovational activity was of the very labour-saving variety, contributing negatively to total labour absorption by industrial sector. By applying CMEC to both the countries, the authors conclude that the emphasis on large-scale capital-intensive industry as against

smaller-scale labour-intensive production functions does not result in optimum resource-allocation through time, and may, in fact, slow down economic progress.

As regards short-run policy, an underdeveloped country with shortage of capital and a surplus of labour should have no conflict between maximization of employment and maximization of output. Capital accumulation and innovations in such countries can determine not only labour absorption or industrial employment but also the rate of expansion of industrial output. Innovation of higher intensity and with labour-using bias will contribute both to greater employment and to greater output.

In the long run, as the dualistic economy continually meets the CMEC, its domestic savings capacity is likely to increase leading to a higher rate of capital formation. Over time, innovation is likely to decline both with respect to its intensity and with respect to the degree of its labour-using bias because of limitations on adaptation. If the economy is able to meet continuously the CMEC, its disguised unemployed labour force will sooner or later be exhausted, leading to a turning point in the supply curve of labour in the industrial sector. With a gradual increase in real wage and anticipations of further such increases, innovations will become increasingly labour-saving. Thus, in the course of successful development effort, a capital-shallowing phase in the industrial sector will gradually give way to capital deepening.

The turning point is of great economic significance. First, transfer of labour from agriculture to industry becomes costly and the augmentation of the economy's savings fund can no longer be accomplished by utilization of disguised unemployed in agriculture. Second, agricultural sector becomes commercialized as labour becomes scarce and is competitively bid for by the agricultural as well as the industrial sector. Third, the general level of real wages rises and there is a general rise in the standard of living placing heavy demand on industrial goods, which, in turn, stimulates industrial employment and output. Finally, a rise in the real wage is likely to decrease the rate of population growth as a result of higher levels of income and increasing urbanization.

(MOHAMMAD IRSHAD KHAN)

Ryoji Ito, "Education as a Basic Factor in Japan's Economic Growth", *Developing Economies*, January-June 1963.

Japan has experienced phenomenal rates of economic progress in the Twentieth Century. Among the many political, social and spiritual factors res-

Educational investment in the sense of public educational spending has kept pace with the growth in national income of the country but has been a fluctuating proportion of national income falling during war and depression periods. However, in comparison with some 32 countries, Japan shows more than 5 per cent of per capita national income spent on education (the highest category) though it is only in the $ 200-499 per capita income-group.

As assessment of the economic returns of educational investment is made with the help of the foregoing information. Expansion of industrial productivity is not possible without the right kinds of people to produce and operate highly complex and efficient equipment. The quality of man, however, can be improved only with education; thus spending for educational expansion may be regarded as an investment for enhancing production, and accumulated educational investments as educational capital. Economic return on educational capital has been measured by professor Schultz by obtaining the ratio between the differences in income among graduates of different school levels, and the differences in educational spending by school levels. He estimates a rate of return of around 33 per cent for the U.S. For Japan, using Schultz's method, the tentative conclusion is reached that about 25 per cent of the increase in national income during 1930-1955 was due to an increase in educational capital. The relative returns of elementary, secondary and higher education stand at 30, 20, and 10 per cent respectively. The whole problem needs to be examined more closely by more accurate methods.

(NIGHAT SARFARAZ)

N. Islam, "An Analysis of Inflation in Pakistan", *Economia Internazionale*, February 1963.

The paper seeks to analyse the problem of inflation in Pakistan in the context of the pattern and nature of its development programme. The analysis covers the amount and composition of nondevelopment and development expenditures, the means of financing such expenditures and the gestation period involved.

Consider the nondevelopment expenditure first. Even if an increase in nondevelopment expenditure is matched by an increase in aggregate private voluntary savings or a rise in taxation, the relative prices of the mass-consumption articles would rise as the demand which will be created for them is unlikely to be matched by the goods released through curtailment of consumption. Deficit financing brings a worse result as it is not matched at all by a curtailment of consumption that would release goods to meet the new demand. Similarly,

development expenditure also has an inflationary bias as it creates output only after a certain time lag so that the expenditure incurred raises the relative prices of the goods desired by the new income recipients. This rise, however, would subside after the gestation period, depending on the composition of the goods produced. Thus, the duration and intensity of the inflationary pressure would depend on the the nature of the project on which expenditure is incurred; and for this reason, phasing over time of the development projects of varying maturity is a prime necessity. The concern is not only to match changes in output to changes in money income, but the composition of the former must also change appropriately over time to prevent pressure on relative prices.

Inflation in Pakistan can be explained from this viewpoint. While a large generation of money income has taken place, the output of some important mass-consumption articles has remained stagnant. Output of food crops has remained stagnant so that the new demand generated has put pressure on food prices. The ratio of the money supply to national output has also gone up very rapidly in excess of the need for increasing monetization within the economy. Although the above factors largely explain inflation in Pakistan, autonomous changes in wages and import prices have also contributed to this phenomenon.

This inflationary trend is also likely to continue in the future. Although nondevelopment expenditure has been restrained, some deficit financing has already taken place in the first year of the Second Plan and considerable expansion in bank credit is envisaged. The distribution of the development expenditure is also inflationary as a large part will only create money income without creating consumable output in the short run. Extensive use of fiscal and monetary controls is envisaged and in addition a great reliance will be placed on foreign foodgrain aid, which is in recognition of the fact that the impact of the development programme will tend to inflate food prices.

(HASAN IMAM)

S. H. Deshpande, "Labour Pooling in Cooperative Joint Farms", *Indian Journal of Agricultural Economics*, April-June 1963.

This paper studies the nature and implications of labour pooling, carried out by joint-farming societies consisting of a given number of members. The subject is studied from three points of view:

(*i*) the incentive to form such societies;

(*ii*) the incentive to work once they are formed; and

(*iii*) the extent to which such an arrangement leads to the optimum utilization of the resources of its members.

The incentive to cooperate has been found to be particularly weak when cooperation between very large land-owners and the landless peasants is involved. For the wealthier individuals, the possibility that the pooling resources will, in the long run, enlarge the size of the total divisible income is not a sufficiently strong temptation to overcome the disutility of certain immediate losses through redistribution of existing income. The incentive to work in cooperative society once it has been formed is discussed under three assumptions:

i) All work on the form is homogeneous (in the special sense that skills required for different kinds of jobs, though perhaps dissimilar, have the same economic value) and the labour force is also homogeneous (in the sense that each labourer is equally competent in all types of jobs). If under this assumption of homogeneity, two farms at any time has less than full employment to offer its members, the division of the available work, and hence the remuneration, becomes a problem. Technical characteristics of some jobs may not permit the available work to be distributed equally among all the members, but this will produce adverse effects on worker's incentives and morale.

ii) All work is hetrogeneous (various jobs require different types of skills and capacities with different economic value) but work force is homogeneous. Under this condition, each kind of job must be equally divided among all workers; but such equal division is not acceptable to workers as the remuneration for each job would not be the same.

iii) All work and work force are hetrogeneous (the farm has, among its members, groups of men specialized in specific kinds of jobs). Under this assumption, each particular labourer must be employed according to his skill and capacities. Moreover, there must be full employment in each occupation, otherwise an unemployed person may be given inferior work with a remuneration below that of workers with the same skills. Again, sharing of available work among all capable persons may not be technically feasible. Even if possible, each man's time and hence remuneration is reduced, because the average level of remuneration in case of too many candidates may fall below the level of the next lower bracket of workers.

The possibility for a joint farm operating a free labour-market with fluctuating prices as a means of equilibrating supply and demand of various labour categories within the farm is ruled out. Since it is unlikely that the resulting wage structure would be the same as that prevailing outside the farm.

The success of a joint-farming society depends on providing full or overfull employment to each labourer. To this end, it is necessary that the farm provide employment to its internal labour force before hiring outside workers.

Thus, the maximization of income of the joint farm is subject to the constraint of working with the given skill-distribution of its labour. Only in the case where the given skill-mix exactly matches skill requirements would joint farming result in an efficient use of labour resources.

(MISS HASHMI NAQVI)

T. O. Wilkinson, "Agriculturism in Japanese Urban Structure", *Rural Sociology*, September 1963.

The paper discusses the effect of Japanese city incorporation policies upon official report of urban population based on the first national census of 1920 to 1955.

It is noticed that during the three-and-a-half decades under consideration, the number of incorporated cities (81) increased six times (491) due to industrialization. Strikingly enough, however, the percentage of urban labour-force in nonextractive pursuits decreased from 92.4 in 1920 to 76.6 in 1955. This happened because significant number of agrarian population-agglomerations in rural-urban regions were brought into the urban fold during the post-War period as a consequence of the Japanese incorporation-policies. Illustratively, the agricultural districts of Nerima and Itabashi became part of the urban incorporations of Tokyo in 1932.

As for the growth of agricultural cities during the 35-year period, there was not a single city in 1920 containing 25 per cent of the male labour-force in extractive industry, a criterian used by the author for characterizing a city as agricultural. Such cities, however, increased from two in 1930 to 67 in 1950, and further shot up to 306 in 1955.

The 67 agricultural cities of 1950 comprised *i*) 45 farming communities, *ii*) 14 fishing communities, and *iii*) 8 older communities with previous nonagricultural emphasis. In terms of demographic economic traits, like sex ratio, rate of growth and employment structure, these communities reveal a typical rural pattern.

The first two categories of cities, *viz.*, farming and fishing, display a few interesting characteristics. They are new cities of relatively small size. The labour force in fishing communities is male dominated and that of agricultural communities female dominated. The rate of population growth has remained low since their incorporation. Some of these cities appear to be diminishing in size. Eleven of the 45 farming cities and one of the 14 fishing centres have

lost population during 1950-55. Notwithstanding the notable absence of heavy industry, they do not lack in urban-oriented activities.

The third category, *i.e.*, the agricultural cities with previous nonagricultural emphasis, was the largest and oldest of the agricultural centres of 1950. They showed the lowest mean percentage commitment of male labour-force in extractive pursuits (26.1 per cent) and the highest average annual rate of increase from 1950 to 1955 (1.1 per cent). Their movement into agricultural cities in 1950 was due partly to boundary changes of previously incorporated cities which resulted in the inclusion of large segments of nonindustrially employed population, and partly to the failure of major industrial activity, most frequently the textiles.

The outstanding increase in the number of agricultural cities of 1955 from 67 in 1950 to 307 in 1955 is the result of the incorporation of new cities. The main demographic characteristic is their relatively small size, slow growth and low employed sex ratio. The inclusion of nonurban population-agglomerations in the urban fold not only gave rise to the expansion of boundaries but also diluted the urban orientation of labour force in this category of cities.

The author wants that an increasing agrarian component in the administratively defined urban population should not be taken to indicate a reversal of Japan's urban industrialization process. The fact is that the arbitrary indices of definition of urban area distort the real picture. This difficulty can be resolved greatly, should we work from Japanese equivalents of census tracts or enumeration districts and thereby draw new boundaries taking account of only that population which is "functionally urban". But the problem is how far is such a revision in census reports likely. Because of such a recommendation, the author is afraid of being tipped "immodest" by the census official. He, however, reminds that the unique interpretation of agrarian and industrial activities presents problem for census classification unknown in the West. The issue, therefore, contains more real than mere dramatic value and needs to be appreciated.

(S. A. A. B. RIZVI)

E. Ginzberg, "Manpower Policy for Underdeveloped Countries", *Population Review*, January 1963.

The manpower resources of a country occupy an important place in its economic development. Manpower policy in underdeveloped countries is related to the kinds of investments, direct and indirect, that should be made in people

in order to insure the skills necessary for economic development. Further, it needs a humanitarian approach as it is concerned with the welfare of people.

The success of manpower policy depends to a greater extent upon the structure of society, the extent to which leadership possesses effective power to initiate or alter the policy, and the competence to plan effectively.

There is a close relationship between manpower policy and education. How much of a country's gross national income be spent upon education, how much investment be made on formal education, what should be the order of priorities among alternative educational objectives, how to meet growing demand for teachers, are some of the problems that require immediate solution. An incentive and reward system must be introduced in underdeveloped countries to encourage education. In-service training facilities are a "must" for industrial development. It is usually better and less expensive to increase skills on the job than to train from the scratch.

There are other problems as well facing the underdeveloped countries arising out of scarcity of time, money and planning skills: a large number of people to support with low productivity, acute shortage of consumer and capital goods and thin industrial base, lack of specialised institutions and dearth of trained personnel, *etc.*

The way out seems to be in the spread of education to create an awakening among the masses, rise in productivity of farm products to raise the standard of living of villagers, planning within local-needs framework to achieve better results, and in creation of effective leadership capable of introducing changes for the better.

(MUHAMMAD AMIR SIDDIQI)

S. Thaper, "Family Planning in India", *Population Studies*, July 1963.

The movement of family planning in India started in the first quarter of the 20th century. Some of the social reformers in India advocated family planning because of its usefulness in fostering the welfare of society. Significant attempts to popularize it were made by Gandhi and some social and political organizations. There appeared two popular thoughts during this period: one believed in abstinance and the other in contraceptive methods. However, till then, the movement did not enjoy government support.

Private and public efforts to set up family-planning clinics were interrupted by the outbreak of War. But whatever clinics were set up did not benefit the

population at large. State governments, *e.g.*, Mysore (first in the world to have established such a clinic in 1930), Madras, Uttar Pradesh, Madhya Pradesh set up family-planning clinics. In 1943, the government appointed a committee to consider the population problem in relation to community health and welfare. This committee recommended official support of birth control.

In formulating the national policy on population control, the Planning Commission of India emphasized the need for *i*) estimation of population growth, *ii*) devising and popularizing family-planning methods, and *iii*) dissemination of expert advice. The 'rhythm method' was experimented during the first-plan period, but it proved a failure; hence more emphasis was put on family planning in the Second Plan through the creation of a Central Family Planning Board. During this period, programme was introduced effectively in urban areas, although the rural population where the need was still stronger remained neglected: in 1960 there were 327 and 756 family-planning clinics in urban and rural areas respectively against the target fixed at 300 and 1200 respectively.

The Third Plan envisages setting up 2100 urban and 6100 rural family-planning centres. This would help a great deal in compensating the inadequate achievements in rural areas during the Second Plan.

The education of the people in family planning is being carried out by community-project organizations. They provide assistance of ten male workers, two female workers, one female supervisor, one doctor, one social education organiser, one health visitor, one sanitary inspector and four nurse-midwives in each block with a population of 70,000. The government is also encouraging *Panchayats* to actively popularize family planning in their jurisdiction. Production of contraceptive, which were in short supply during the first- and second-plan periods, would be boosted during the third-plan period. Keeping in view the unpopularity of contraceptives with illiterate masses, sterilization has also been considered; inducements like free-operation facilities, leave, honorarium and allowances have been introduced by some state governments.

(DANIAL M. FAROOQ)