

# **Institutional Credit and Balanced Growth: A Case Study of Pakistan**

Habib A. Zuberi\*

Over the past three decades a vast literature has emerged on balanced economic growth. A number of less developed countries (LDCs) have adopted a balanced growth approach to economic development. The Government of Pakistan, through its Five Year Plans, has professed trying to attain economic development by following a balanced growth of the industrial and agricultural sectors. Zuberi (1982) suggests that the allocation of credit in the agricultural sector in Pakistan has been consistent with the balanced growth approach. This paper shows that Pakistan has sought to achieve balanced growth by apportioning credit, advanced through government sponsored corporations, in accordance with the changes in current price ratios and food output.

The objective of the present study is to examine the role of financial institutions since they have provided credit to both the industrial and agricultural sectors of the economy. In particular, the study aims at determining to what degree financial institutions have contributed to a pattern of balanced growth between the industrial and agricultural sectors. Further, this study investigates whether economic development in Pakistan has really followed a balanced growth path.

The concept of balanced growth is not new to economists. Nurkse (1960) has pointed out that it was well understood by the classical economists. Although this idea was set aside toward the end of the nineteenth century when economists were largely con-

\* Department of Economics, Central Michigan University.

cerned with static equilibrium analysis, it was revived after World War II. Rosenstein-Rodan (1943) was among the earliest to advocate balanced growth to development. He identified the small size of the domestic market as a bottleneck for economic development. He argued that investment in any one particular industry will not break the vicious circle of poverty and underdevelopment but simultaneous establishment of a number of complementary industries can. His analysis assumed an adequate transport and communication system, a minimum investment in social overhead cost, and an abundant supply of labor in the form of "disguised employment." His analysis was limited to light manufacturing industries. Another limitation of his analysis was the absence of the agricultural sector.

Arthur Lewis (1954) and later Ranis and Fei (1961) presented a two-sector, modern manufacturing and traditional agricultural, model for economic development. The major arguments developed in these studies are that in a labor surplus economy where the marginal product of labor is zero or even negative in the agricultural sector, labor can be shifted to the manufacturing sector without impairing agricultural output. The incentive for labor to leave the traditional sector comes from the wage differential that exists between the manufacturing and the agricultural sectors. This wage differential is assumed to continue to exist until such time as the marginal physical product (MPP) of labor in the agricultural sector equals the MPP in the manufacturing sector. This state will coincide with the beginning of a fully commercialized agricultural sector and an end of the redundant labor force.

The advocates of balanced growth with surplus labor emphasize not only the complementary nature of the economy, where the products of each of the two sectors find marketing outlets in the other sector, but also the absorption by the industrial sector of surplus labor from the agricultural sector. This basic interdependence during the take-off process is characterized as "balanced growth." Ranis and Fei (1961) further pointed out that balanced economic growth is subject to the constraint that investment funds are so allocated between the two sectors that investment incentives in the two sectors do not change significantly. The input criterion is such that labor freed from the agricultural sector will be demanded by the industrial sector at constant in-

dustrial real wage. If the terms of trade deteriorate for the industrial sector, it would cause an increase of real wage in this sector and encourage investment in the agricultural sector concomitantly. This would tend to disrupt balanced economic growth and thus slow down the process of economic development.

The assumptions of surplus labor and/or zero marginal product of labor in the agricultural sector, for purposes of the present study, are not necessary for the maintenance of balanced growth. However, as Myint (1966) points out, the resource allocation between the agricultural and industrial sectors is a relevant consideration for future economic growth. In his judgment, it is the rate of expansion of the agricultural sector that would determine the rate of development for the economy as a whole. This is because, as Johnston and Mellor (1961) have pointed out, (1) agriculture is the largest sector in the economy of a LDC and (2) agriculture has a tendency to diminishing returns, and thus it may turn out to be the major bottleneck for development. Therefore, despite imports of capital goods, the expansion of the industrial sector itself may be subject to the expansion of the agricultural sector. A balanced growth of the two sectors is thus necessary for economic development. Even Hirschman (1978) and Dobb (1963) agree that agricultural development must accompany investment in strategic manufacturing industries.

Many LDCs, through their Five Year Plans, have committed themselves to balanced economic development. It is the objective of this study to show that the government of a developing country, which invariably plays an important role in the allocation of financial resources either by controlling the foreign exchange resources or through the disbursement of credit via government operated or sponsored corporations, can maintain the economy on a balanced growth path. Balanced growth, for purposes of this study, simply means that resources are allocated between the industrial and agricultural sectors, such that the terms of trade between the two sectors do not change significantly. Constant terms of trade are therefore sufficient condition for maintaining balanced growth. Terms of trade are altered when the ratio of prices between manufactured products and food products change significantly. Balanced growth is, therefore, an approach to development that permits an economy to maintain investment in-

centives in both the industrial and agricultural sectors by maintaining the stability of price ratios between the manufactured goods and food products, where prices of food products serve as a proxy variable for agricultural products.

The hypothesis is that the government of a developing country by its ability to control institutional credit, is in a position to maintain balanced growth by apportioning total investment funds, through specialized credit agencies, in such a manner as to maintain investment incentives in both the industrial and agricultural sectors.

This paper is organized in the following manner: the institutional credit and the various credit agencies in the agricultural sector are discussed in Section I; the various sources of institutional credit in the industrial sector are discussed in Section II; statistical analysis of the data is presented in Section III; and a brief summary and conclusions are presented in Section IV.

## Section I

### *Agricultural Credit*

There are four institutions through which credit is made available to farmers. (1) *Taccavi or Government Loans*. These loans are designed to make it possible for farmers to seek long-term loans for improvement of land and short-term loans to overcome temporary distress. The fluctuations in the amount of these loans (see Table I in Appendix) reflect the distress or relative improvement in agricultural output or in the condition of the farmers (2) *Cooperative Credit*. Although the cooperative movement started in 1904, and its significance has been emphasized by the government, the movement has remained stagnant (Government of Pakistan, 1959, p. 567). A significant amount of funds are provided to the cooperative by the State Bank of Pakistan (SBP) in accordance with its recent policies of supervising rural credit needs. The cooperatives advance short-term and medium-term loans. (3) *Agricultural Development Bank of Pakistan (ADBP)*. The ADBP was established in 1961, as a result of the merger of the Agricultural Development Finance Corporation (started in 1951), and the Agricultural Bank of Pakistan

**Table 1**  
**INSTITUTIONAL CREDIT IN THE AGRICULTURAL SECTOR**  
 (Rs in millions)

Year	ADBP	TACCAVI	Cooperatives		Commercial	Total
			Individuals	Societies	Banks	
1959-60	24.80	17.90	42.11	2.77	—	87.58
1960-61	30.90	14.80	55.38	2.70	—	103.78
1961-62	42.90	12.20	88.70	4.21	—	147.81
1962-63	40.70	9.80	79.33	3.50	—	133.33
1963-64	46.70	12.00	62.49	7.85	—	129.04
1964-65	40.50	30.50	50.60	5.94	—	127.54
1965-66	68.60	12.70	43.79	7.93	—	133.02
1966-67	100.20	11.20	75.75	7.70	—	194.85
1967-68	106.20	13.00	50.24	92.28	—	261.72
1968-69	82.20	12.00	40.91	6.47	—	141.78
1969-70	91.30	0.60	47.38	6.07	—	155.35
1970-71	92.70	10.20	44.58	10.90	—	158.38
1971-72	80.00	8.90	32.50	6.57	—	127.98
1972-73	168.80	10.80	34.74	7.28	85.20	306.82
1973-74	415.20	67.50	95.70	48.45	286.40	913.25
1974-75	395.60	12.20	68.24	13.30	420.00	909.34
1975-76	532.20	25.70	79.54	12.30	605.00	1,254.75
1976-77	638.80	13.30	88.17	7.28	970.10	1,717.65
1977-78	430.53	9.10	110.00	28.04	1,290.92	1,868.59

Source: *Pakistan Economic Survey, 1978-79*, (Statistical Section), p. 32.

(established in 1957). The ADBP advances short-term (not to exceed 18 months), medium-term (between 18 months and 5 years), and long-term (over five years) loans. (4) *Commercial Banks*. Whereas, these banks have traditionally played a limited role in providing credit to the farmers, since 1973, when the SBP assumed risk of up to 50 percent of the *bona fide* loss that the banks may incur from advancing agricultural loans, there has been a significant increase in the credit provided by commercial banks. Commercial banks now provide the majority share of the total in-

stitutional credit in the agricultural sector.<sup>1</sup>

## Section II

### *Industrial Credit*

Pakistan, which came into existence as a result of the partition of India in 1947, was a country lacking even essential industries. The areas which constituted Pakistan served as a hinterland for the industry that was located in India. As early as 1947, it was realized that if the country were to provide employment outside the agricultural sector and develop a viable economy, an industrial sector must be developed. Investments in the industrial sector are often risky and require long gestation periods. The commercial banks which traditionally provided credit to the industrial sector usually shy away from advancing risky or long-term speculative loans. Therefore, the participation of the government in this sector becomes indispensable.

The government of Pakistan, partly by encouraging private enterprise and partly by direct investment, has actively participated in the industrialization of the country. However, despite the government's participation, the emphasis until 1972 remained on the development of the private sector. This situation changed when, in accordance with Economic Reforms Order and Development of Industries (Federal Control) Act, 1972, several existing industries were nationalized (Government Sponsored Corporation, 1973-74, p. 71). Since 1978 many industries nationalized under this Act have been turned over to the private sector and the emphasis is once again being placed upon the private sector for the development of the economy with government's participation.

Government participation is based on the assumption that balanced economic growth requires simultaneous development of the agricultural as well as the industrial sector. The private sector

1 It is not the purpose of this study to analyze and evaluate the operations of various credit agencies, but to limit the analysis of institutional credit insofar as it affected balanced growth. All descriptive information about credit institutions, unless otherwise specified, comes from the *Government Sponsored Corporations* (1973-74, 1974-75), *Pakistan Economic Surveys* (1976-77, 1977-78, 1978-79) and *Financial Institutions: National and International* (1964).

needs government support in the form of tax credits, easy access to credit, equity participation or even the initiation of new investment projects.

The institutions included in this study are based on the criterion that they either directly or indirectly (i.e., funding or guarantees from the SBP) receive credit from the government, or participate directly in the industrial development of the country. Judged on this criterion, the loans provided by commercial banks are excluded as part of total institutional credit in the industrial sector. Similarly such institutions as Investment Corporation of Pakistan (established in 1966), which encourages equity investment and helps in the development of capital market or National Investment Trust (established in 1962) to achieve a broad-based corporate ownership are not included in the present study. These institutions do contribute to the development of the industrial sector but their primary activities do not include advancing loans or direct establishment of industrial units. There are three major government sponsored institutions that have directly contributed to the industrial development of Pakistan. (1) The Pakistan Industrial Finance Corporation was set up in 1949. It served, primarily, as an intermediary between the banking system and the industrial borrower (Government of Pakistan, 1959, p. 109). In 1961, it was converted into *Industrial Development Bank of Pakistan* (IDBP). Its loan policies are flexible to accommodate entrepreneurs with small amounts of capital. The bank accepts pledges, mortgages, or hypothecation of any property if it feels satisfied that loans will be used for industrial purposes, (Economic Advisor to the Government of Pakistan, 1964, p. 51). (2) *Pakistan Industrial Development Corporation* (PIDC) was established in 1950, as a semi-autonomous government agency to promote industrialization in the areas where private initiative was lacking. It was in response to the diffidence of private enterprise and lack of private investment funds that PIDC was established. In recent years PIDC has been actively engaged in the development of mineral resources in Pakistan. The PIDC is not a financial institution and hence it does not provide loans. (3) The *Pakistan Industrial Credit and Investment Corporation* (PICIC) was established in 1957, to advance financial and technical assistance to private industry in the country. The PICIC provides long-term and medium-term loans (generally seven to twelve years maturity) in foreign and local currencies. In addition, the corporation

engages in direct equity participation.

Total institutional credit in the manufacturing sector has increased almost six times during the period covered in this study. This is consistent with the policy of developing an industrial sec-

**Table 2**  
**INSTITUTIONAL CREDIT IN THE MANUFACTURING SECTOR**  
 (in millions of Rs)

Year	IDBP <sup>a</sup>	PICIC <sup>b</sup>	PIDC <sup>c</sup>	Total
1959-60	18.59	59.10	148.16	225.75
1960-61	80.80	101.00	175.20	356.20
1961-62	177.00	115.40	92.39	384.77
1962-63	141.00	123.20	519.59	783.79
1963-64	569.00	204.60	519.59	1,293.09
1964-65	131.00	192.00	520.49	843.49
1965-66	129.00	250.20	533.18	912.38
1966-67	188.00	257.40	533.18	978.58
1967-68	139.00	383.21	543.58	1,065.79
1968-69	52.912	393.62	152.50	599.67
1969-70	66.294	390.05	112.70	569.04
1970-71	71.453	53.61	60.60	185.66
1971-72	90.119	83.62	140.10	313.84
1972-73	48.490	118.73	128.70	295.92
1973-74	61.917	273.74	92.50	580.16
1974-75	140.494	336.31	410.00	1,064.80
1975-76	252.421	440.69	287.13	725.34
1976-77	85.046	516.06	624.74	1,638.75
1977-78	100.00	614.28	144.20	1,255.58

*Sources:*

<sup>a</sup>IDBP. With the exception of figures for 1977-78, which come from *Pakistan Economic Survey (PES)*, 1978-79, p. 107, all other figures were provided by the Industrial Development Bank of Pakistan, Head Office, Karachi, Pakistan.

<sup>b</sup>Data for the PICIC for the years 1959-60 to 1976-77, are taken from the *Pakistan Industrial Credit and Investment Corporation, Ltd., Annual Reports*, and the figures for 1977-78, are taken from *PES*, 1977-78, p. 89.

<sup>c</sup>Figures for PIDC from 1959-60 to 1969-70, are taken from the *Annual Report: West Pakistan Industrial Development Corporation*, Karachi; WPIDC, Printing Press, 1970. Figures from 1970-71 to 1975-76 are taken from *Government Sponsored Corporation (GC)*, 1974-75, p. 87, and the figures for 1975-76, to 1977-78, are taken from Government of Pakistan, Planning Commission, *Annual Development Programme of the Federal Government*, 1977-78, June 1977, pp. 50-51.



tor, with government's participation, to provide employment opportunities outside the agricultural sector. The government was committed to not only increasing employment opportunities outside the agricultural sector, but also maintaining balanced growth between the agricultural and industrial sectors. It attempted to accomplish these two goals by (1) trying to prevent a deterioration of the terms of trade between the two sectors and (2) increasing the amount of credit available to the industrial sector, to enable it to expand. An analysis of Table 2 (in Appendix) shows that investment in the industrial sector has been increasing over the years, except for 1964-65, 1968-69, 1970-71, 1975-76, and 1977-78. A possible explanation of the exceptions may be that in these years, except for 1968-69, the rate of increase in food prices was faster than the rate of increase in the prices of manufacturing goods. This resulted in credit being released from the industrial sector to the agricultural sector, in order to stabilize prices in that sector. The sharp credit decline in the first three years of the decade of the 1970's is largely attributable to political instability and economic uncertainties. Beginning 1973-74, institutional credit in both sectors has been steadily increasing.

### Section III

In this section, the relationship between institutional credit and price ratios and output of food products were examined. The index of food prices ( $P_f$ ) is used as a proxy variable for the index of all agricultural products, primarily because any  $\Delta P_f$  would have a profound effect on the standard of living of the people in Pakistan. Roughly 70 percent of the family budget in a developing country such as India or Pakistan is spent on food (Uppal, 1977, p. 12). One of the considerations in maintaining balanced growth is to prevent a sharp increase in  $P_f$  which would deteriorate the terms of trade between the manufacturing and the agricultural sector. Private investment funds, *ceteris paribus*, will flow in the direction which is more profitable. The high prices of food may become a major bottleneck for the growth of the manufacturing sector itself. It is, therefore, argued that given the sharp increase in prices due to poor harvest (as a result of drought floods, etc.), the government would increase its allocation of credit to the

agricultural sector in order to maintain balanced economic development.

It should be noted here that neither the price of food nor the price of other products depends entirely upon domestic output. Unless regulated by the government, the  $\Delta P$  depends upon the demand for and the supply of the products in the market. In the event domestic output falls short of the anticipated demand, this gap can be bridged by increased imports, thereby preventing any sharp increase in prices. The LDCs will have to finance these imports from their scarce foreign exchange resources or from grants and loans they may be able to receive from other countries. A country cannot always count on foreign assistance, because such assistance is a function of the good will of the donor country and good will is often in short supply.

The data dealing with the industrial sector in Pakistan covers only large-scale manufacturing. No published data are available that include the index of total industrial output (including medium and small-scale industries) in Pakistan. However, the loans advanced by the financial institutions in the industrial sector include the medium and small-scale industries as well. The lack of availability of these data places limitations on the present study. The percentage change in the index of large-scale manufacturing output may tend to be somewhat higher because of the small base from which most of these countries, particularly Pakistan, started. Further, price indices for manufacturers include all types of industrial products and are not limited to the output from large-scale manufactures only. This discrepancy should not negate the results. However, readers are cautioned to take note of this discrepancy.

The price indices are presented in Table 3 (in Appendix) and the quantum indices of food and large-scale manufacturing is presented in Table 4 (in Appendix).

The Pearson product moment coefficient of correlation between  $P_f$  and  $P_m$  is .9972, which is not significantly different from 1.0. The mean of the price ratio was 1.072 with a range of .946 to 1.244 and a standard deviation of .088. These results indicate that over the period, the terms of trade between the two sectors

did not deteriorate.<sup>2</sup> Hence, balanced growth was maintained. The obtained .7443 coefficient of correlation between credit ratios

Table 3  
INDEX OF WHOLESALE PRICES  
(1959-60 = 100)

Year	Food ( $P_f$ )	Manufacturing ( $P_m$ )	$P_f/P_m$
1959-60	100.00	100.00	1.00
1960-61	106.30	99.23	1.07
1961-62	104.73	101.03	1.04
1962-63	99.89	105.54	.95
1963-64	104.56	107.05	.98
1964-65	113.10	107.19	1.10
1965-66	108.24	112.70	.96
1966-67	126.89	117.02	1.10
1967-68	113.26	121.86	1.10
1968-69	134.04	129.75	1.03
1969-70	134.10	134.27	.99
1970-71	143.08	139.87	1.02
1971-72	150.67	143.64	1.05
1972-73	174.08	163.93	1.10
1973-74	236.28	210.44	1.12
1974-75	304.11	244.55	1.24
1975-76	323.61	270.37	1.19
1976-77	360.17	304.74	1.18
1977-78	389.28	316.35	1.23

Source: *Pakistan Economic Survey*, 1976-77, p. 107, and *Pakistan Economic Survey*, 1978-79, (Statistical Section, p. 9.) (Figures from 1973-77 to 1977-78 were computed with 1969-70 as the base year. These figures have been adjusted to the base year 1959-60, by utilizing the splicing techniques.)

<sup>2</sup> During the last four years in this study the terms of trade somewhat deteriorated for the manufacturing sector. The price ratios for the products of the two sectors, though more than two standard deviations from a value of one, were within two standard deviations from the mean. An unusual behavior occurred in the allocation of credit to the agricultural sector in 1974-75. The index of  $P_f$  rose by more than 28 percent in 1974-75. Over 1973-74, however, funds allocated to this sector declined, while the funds allocated to the manufacturing sector almost doubled. This may be due to the nationalization of a segment of industry which required larger amounts of government funds. In the following year, industrial credit was reduced and the agricultural credit raised. Following this correction there was a relative improvement in the terms of trade in the two sectors in 1976-77.

and the price ratios is significant at  $\alpha = .01$  level.

Once it was established that Pakistan has followed a balanced growth approach to development, the next question was to determine the role of institutional credit in maintaining this process. In other words, what are the factors that influence the apportionment of credit in the agricultural and industrial sector is a function of the price ratios in the two sectors and the output of food.

Table 4

INDEX OF FOOD CROPS AND MANUFACTURING OUTPUT  
(1959-60 = 100)

Year	Food Crops	Large-scale Manufacturing*
1959-60	100	100.0
1960-61	98	118.7
1961-62	105	138.8
1962-63	108	159.5
1963-64	108	181.3
1964-65	120	201.7
1965-66	107	223.5
1966-67	114	238.4
1967-68	150	256.6
1968-69	160	283.6
1969-70	177	323.1
1970-71	164	343.1
1971-72	170	341.5
1972-73	181	372.9
1973-74	190	395.5
1974-75	183	389.9
1975-76	207	387.1
1976-77	212	378.4
1977-78	208	416.2

Source: *Pakistan Economic Survey, 1968-79*, (Statistical Section) p.17 and *Pakistan Economic Survey 1978-79*, (Statistical Section), p.21 and p.45.

\* (The data for large-scale manufacturing from 1964-65 to 1969-70 and 1969-70 to 1978-79 were computed with different base years. By applying the splicing techniques, these data were adjusted to the base year 1959-60 = 100).

$$(1) \frac{C_{At+1}}{C_{Mt+1}} = f\left(\frac{P_{ft}}{P_{mt}}, Q_{ft}\right)$$

where:  $C_{At+1}$  = Credit allocated in the agricultural sector in (t + 1) th period

$C_{Mt+1}$  = Credit allocated in the manufacturing sector in (t + 1) th period

$P_{ft}$  = Price index of food in current time period

$P_{mt}$  = Price index of industrial products in current time period

$Q_{ft}$  = Quantum index of food product in current time period

A linear form of the above model may be written as:

$$C_{t+1} = \alpha_0 + \alpha_1 P_t + \alpha_2 Q_{ft} + U_t$$

where:

$$(2) \frac{C_{t+1}}{C_{Mt+1}} = \frac{C_{At+1}}{C_{Mt+1}} \text{ and } P_t = \frac{P_{ft}}{P_{mt}}$$

Here it is assumed that the random disturbances  $U_t$  ( $t = 1, 2, \dots, n$ ) are normally and independently distributed with a mean zero and common variance  $\sigma^2$ , ( $\alpha_0, \alpha_1, \alpha_2$ ) are the parameters of interest.

The variables included in this model are based on the rationale that a significant  $\Delta P_t$  would alter the terms of trade between the two sectors. In order to maintain balanced growth (i.e., price ratios) the government takes appropriate measures by changing credit ratio in the next period. The inclusion of  $Q_{ft}$  in the model stems from the assumption that a decline in food production, *ceteris paribus*, would raise the  $P_{ft}$ . This would adversely affect economic growth. Private capital might move out of the manufacturing sector and thus cause economic stagnation. In order to prevent the flight of private capital out of the manufacturing sector the government would allocate a larger proportion of institutional credit to the agricultural sector. The quantum index of manufactures is not included in the model for two reasons: (1) it is the stated goal of the government to seek an expansion of the manufacturing sector in order to find alternative employment opportunities for the domestic labor force outside the agricultural

sector; and (2) since the country started from such a negligible industrial base that even a slight improvement in the industrial capacity would result in a large percentage increase in output.<sup>3</sup>

*A priori* the above stated model was used to estimate the parameters. However, a search process resulted in a slightly better fitting version of the same model which has  $Q_{ft-1}$  instead of  $Q_{ft}$ . The following results were obtained.

$$C_{t+1} = -4.5837 + 3.639P_t + .799Q_{ft-1}$$

The obtained  $R^2$  is .7582 and the obtained coefficients of  $P_t$  and  $Q_{ft-1}$  are 3.1639 and .799, respectively. These estimated coefficients are statistically significant and show that  $P_t$  has a greater impact on  $C_{t+1}$ , than  $Q_{ft-1}$ , which is more than 3:1 ratio. These results show that whereas a one unit increase in the  $P_t$  would lead to more than a three unit increase in  $C_{t+1}$ , a one unit increase in  $Q_{ft-1}$  would lead to less than a one unit increase in  $C_{t+1}$ .<sup>4</sup>

#### Section IV

This study was based on the assumption that a LDC can achieve economic growth by maintaining investment incentives in the agricultural and manufacturing sectors. The statistical results presented in Section III, show that Pakistan was able to maintain balanced growth during the time period covered in this study. A statistically significant relationship was found between the price ratios and the credit ratios in the following year in the two sectors. The inclusion of output with one year lag improved the variance that can be accounted for in the allocation of credit; but this relationship was not as strong as the relationship about price ratios was, as is evident from the coefficients of the two variables.

3 There is evidence to suggest that Pakistan has shifted resources out of the agricultural sector to the industrial sector (Lewis, 1969). This is, however, consistent with the stated objectives of the government and does not necessarily negate a policy of balanced growth.

4 When  $Q_{ft-1}$  was dropped from the model, the obtained  $R^2$  declined to 64.14, a drop of over 10 percentage points in the predictability of  $C_{t+1}$ . The model was also tested with one and two year lagged price ratios as well as without lag in food output. The obtained coefficients were not significant.

The raw data on prices, output and credit, as shown in various tables indicate that the disbursement of credit followed a balanced growth path, except for the last four years when the terms of trade for the manufacturing sector somewhat deteriorated. The index of  $P_f$  increased by more than 28 percent following a decline in food production, and the failure of government to allocate more funds to this sector in 1974-75, resulted in the economy going off the balanced growth path. The government reduced the credit allocated to the manufacturing sector and increased it in the agricultural sector to prevent further deterioration in the terms of trade. It is worth noting that in subsequent years, the production even in the manufacturing sector, until 1976-77, remained below the level of 1973-74. Although no definite conclusion can be made from this observation, the data support the hypothesis that if the agricultural sector stagnates, it may become a major bottleneck for the industrial growth as well. The decline in the industrial output may not be entirely due to reduction in the institutional credit, it may in part be due to the relative inactivity in the private sector caused by the fear of nationalization of their investments in future on the part of the business community.

For the period 1959 to 1978, the credit allocated through institutional sources to the agricultural and manufacturing sectors was significantly influenced by changes in the price ratios in the two sectors. The relationship becomes even stronger if the last four years are excluded.

This study does not suggest that because Pakistan has followed a balanced growth approach, the country has therefore achieved rapid economic development. However, it is interesting to note that the years when price ratios in the two sectors were close to one, were also the years when the rate of increase in gross domestic product in Pakistan was relatively faster, and the stagnant economy of the last four years coincided with a deterioration in the terms of trade for the manufacturing sector. Though the country followed a balanced growth approach it was not able to achieve significant economic development. Therefore, with some qualifications, it is concluded that balanced growth approach is not a sufficient condition for economic development. When evaluating Pakistan's economy, it must be borne in mind that the country fought two wars with India during this period, had serious internal strife which resulted in the emergence of

Bangladesh as an independent nation in 1971; and again political unrest occurred between 1975-77. One can argue that perhaps Pakistan's economy would have been worse off had a balanced growth approach not been followed. The period of economic stagnation coincided with the deterioration of the terms of trade in one sector at the expense of the other.

The limited number of observations and the turbulent political and economic climate of Pakistan during this period are major constraints against which the findings in this study should be evaluated. Thus, results of this study regarding the merits of balanced growth approach to economic development are inconclusive and further research is warranted.

### References

- Arthur, J. R., and Mohammed, A. F., *Trade, Finance and Development in Pakistan*, Stanford, California: Stanford University Press, 1966.
- Bottomley, Anthony, "A Neo-Classical Theory of Economic Development," *Indian Economic Journal*, Vol. 22, No. 1, July-September 1974.
- Cameron, Rondo, (ed.) *Banking and Economic Development: Some Lessons of History*, New York: Oxford University Press, 1972.
- Campbell, Keith O., *The Role of Banks in a Rapidly Developing Economy*, Melbourne, Australia: C.I. Victoria, Brown, Prior Anderson Pty. Ltd., 1965.
- Dobb, Maurice, *Economic Growth and Underdeveloped Countries*, New York: International Publishers, 1963.
- Dovring, Foke, "Underemployment, Slow Motion, and X-Efficiency," *Economic Development and Cultural Change*, Vol. 27, No. 3, April 1979.
- Economic Advisor to the Government of Pakistan, *Financial Institutions: National and International*, Rawalpindi, Pakistan, 1964.
- Falcon, Walter P. and Gotsch, C. H., "Lessons in Agricultural Development — Pakistan," in *Development Policy — Theory and Practice*, edited by Gustav Papanek, Cambridge, Mass: Harvard University Press, 1968.
- Government of Pakistan, *Credit Enquiry Commission Report*, Karachi: Government of Pakistan Press, 1959.
- Government of Pakistan, *Agriculture Enquiry Committee Report of Working Group of Agricultural Credit, Cooperatives and Integrated Rural Development Programme*, Islamabad, Pakistan, April 1975. (Publisher not stated)



- Government of Pakistan, Finance Division, *Government Sponsored Corporations, 1973-74*, Islamabad, Pakistan, Publisher and dates of publications are not stated.
- Government of Pakistan, Finance Division, *Government Sponsored Corporation, 1974-75*. (Date, place and publisher not stated).
- Government of Pakistan, *Pakistan Economic Survey, 1976-77*, Islamabad: Printed by the Manager Printing Corporation of Pakistan Press. (Date of publication is not stated)
- Government of Pakistan, *Pakistan Economic Survey, 1977-78*. Islamabad: Printed by the Manager Printing Corporation of Pakistan Press. (Date of publication not stated)
- Government of Pakistan, *Pakistan Economic Survey, 1978-79*, Islamabad: Printed by the Manager Printing Corporation of Pakistan Press. (Date of publication is not stated)
- Hagen, Everett E., *The Economics of Development*, Homewood, Illinois: Richard D. Irwin, Inc., 1980.
- Hirschman, Albert O., *The Strategy of Economic Development*, New York: W. W. Norton and Co., 1978.
- Islam, Nurul, "Development of the Labor Surplus Economy: Review Article," *Pakistan Development Review*, Vol. g, 1965.
- Johnston, Bruce F. and Mellor, John W., "The Role of Agriculture in Economic Development," *American Economic Review*, No. 51, June-December 1961.
- Jorgenson, D. W., "The Development of a Dual Economy," *Economic Journal*, Vol. LXXXI, June 1961.
- Kahn, Mohammed Irshad, "The Development of Institutional Agricultural Credit in Pakistan," *Pakistan Development Review*, Vol. IX, Summer 1969.
- Lewis, W. A., "Economic Development with Unlimited Supplies of Labor," *The Manchester School*, Vol. 22, May 1954.
- Lewis, S. R. Jr., *Economic Policy and Industrial Growth in Pakistan*, London: George Allen and Unwin Ltd., 1969.
- Myint, Hla, *The Economics of Developing Countries*, New York: Frederick A. Praeger, 1966.
- Nurkse, Ragnar, *The Problem of Capital Formation*, Oxford: Basil Blackwell, 1969.
- Planning Commission, Government of Pakistan, *Outline of the Fourth Five-Year Plan (1970-75)*, (Place and publisher not listed) February 1970.
- Ranis, Gustav and Fei, John C. H., "A theory of Economic Development," *The American Economic Review*, Vol. LI, September 1961.
- Rosenstein, Rodan P. N., "Problems of Industrialization of Eastern and Southern Europe," *The Economic Journal*, June 1943.
- State Bank of Pakistan, *Report on Preparation of Estimates of*

- Agricultural Credit Requirements*, Karachi: State Bank of Pakistan Printing Press, 1974.
- Truong, Tham Van., "Development of a Economy With or Without Turning Point," *Growth and Change*, Vol. 7, No. 2, April 1976.
- Uppal, Jogindar S., *Economic De-*
- velopment in South Asia*, New York: St. Martin's Press, Inc., 1977.
- Zuberi, Habib A., "Balanced Growth and Institutional Credit in the Agricultural Sector: A Case Study of Pakistan," *Atlantic Economic Journal*, Vol. X, No. 4, December 1982.