

CHAPTER - IV

CONTROLLED FUND & INVESTMENT ACTIVITIES OF THE LICICI

Investment is an important component of the uses of the Controlled Fund of the LICICI. In this chapter we shall attempt to elucidate the investment policy of the Corporation, its objects and achievements. Our main focus will be on the patterns of investments it has been following so far in respect of industry-wise, sector-wise, zone-wise and state-wise distribution of the Controlled Fund. While probing into the patterns of investments our endeavour will be to evaluate the underlying factors that influence the distribution patterns of the Fund and to see whether they are conducive to national plan objectives and compatible with the investment policy of its own. We also attempt to observe whether it follows a symmetric process of allocation of the Fund to reduce the regional disparity vis-a-vis serves the sectoral priority. Probing all these, we would comment on the activities of the LICICI as to how 'the obligation to policy-holders' is being taken care of.

4.1 Legal provisions of the investments of the LICICI

Life insurance contracts are usually long-term in nature. The LICICI earns money from millions of policy-holders in the form of premiums over a long period. In turn, it assures financial

aid to the beneficiary on death of the insured or to the insured himself on survivance of the term of endowment. In this way, it has been creating liabilities. The sustenance of an institution depends mostly on creation of assets to the extent not less than its liabilities. It should, therefore, require to invest its Fund considering the inflation rate and erosion of real value of money and thereby to earn maximum possible return subject to security of the Fund.

However, the LIC has been following an investment policy stipulated mostly by the provisions of Section 27A of the Indian Insurance Act 1938. Prior to nationalisation of life insurance business in India, Sections 27 and 27A of the Act laid down the investment framework of the private insurance companies. Section 27 specified that every life insurer was required to invest and all time keep invested 25 per cent of its adjusted liabilities in Government securities, and also a further sum equal to not less than 25 per cent in Government securities or other approved securities. Of the balance, not more than 15 per cent could be held in "other investments", while the remaining 35 per cent had to be invested in "approved investments" as defined under Section 27A of the Insurance Act 1938. It also imposed certain limits and restrictions, of which the most important one was specified under Section 27A(5). It forbade an insurer from investing in shares or debentures of any private limited company (Bhattacharya, 1954).

The Life Insurance Corporation of India has been established by a Statute of the Parliament, namely, the Life Insurance Corporation Act 1956. The Act came into force on July 1, 1956 and the Corporation came into effect from September 1, 1956 through an official gazette notification under Section 3(1) of the Act, (GOI, Gazette of India, 1956). The main provisions of the Act dealing with the investment policy of the LIC are : (i) Section 6(2)(b) which confers upon LIC the power to invest its funds subject to Central Government rules and regulations for the protection or realisation of any investment; (ii) Section 19(2) which provides for the setting up of an Investment Committee to advise the LIC on matters relating to investment; and (iii) Section 43(2) which provides for an application of a number of sections including Section 27A of the Indian Insurance Act 1938 to the LIC, subject to such conditions and modifications as may be specified in notification issued from time to time for the purpose (Bhattacharya, 1970).

The investment policy of the LIC was announced by the Central Government notification dated August 23, 1958 which made Section 27A of the Insurance Act 1938 applicable to the LIC, subject to amendment of certain aspects (Bhattacharya, 1970). Two such important modifications under Section 27A were : (i) Previously a private insurer could not hold more than 10 per cent of the subscribed share capital and debentures of any company (other than banking and insurance company). It was modified so as to

allow the LIC to hold upto 30 per cent of the equity share capital of a company with a further provision for exceeding the limit with prior approval of the Central Government; and (ii) the second one was as regards to Section 27A(5). Previously, insurance companies were forbidden to invest in private limited companies. The amended Section 27A(7) permits the LIC to invest in private limited companies with the prior approval of the Central Government (Chowdhury and Kulkarni, 1991). Thus, the LIC of India has been allowed to invest its "Controlled Fund" under provisions of Section 27A of the LIC Act 1956. There are two other aspects of the LIC's investment policy 1958 which might be stated as : First, LIC should not indulge in speculation and thus take advantage of fluctuation in market prices. Secondly, LIC has not been precluded from observance of Section 6(1) of the LIC Act 1956, which enjoins on it a duty of carrying a business to the best advantage of the community (Choudhury and Kulkarni, 1991).

Before going to deal with Section 4.2, let us construe the meaning and importance of the Controlled Fund. Under Section 27A of the Insurance Act 1938, the "Controlled Fund" refers to all funds of the Corporation appertaining to its life insurance business, capital redemption insurance business and annuity certain business. But it does not include any fund or portion thereof, as the case may be, which is regulated by the laws of any country outside India or the laws in respect of which the Controller of Insurance is satisfied that it would not be in the interest of

the Corporation to apply the provisions of this Section (Bhattacharya, 1970). For accounting purposes, "Controlled Fund" is then constituted of all assets pertaining to life insurance business and capital redemption insurance business (including annuity certain business). It represents the investible fund of the LIC and is being influenced directly or indirectly by the growth and expansion of business of the Corporation. Life insurance contracts being of long term nature, funds available with the LIC may be used for long term investments.

4.2 Limitations and restrictions

Let us reiterate once again that the investment of funds by a life insurer is usually subject to two limitations : (i) legal and (ii) self-imposed.

(i) Legal limitations: These limitations are more in favour of investments in gilt-edged securities, such as, government bonds, debentures, mortgages etc. and less in favour of private shares, bonds, lands, buildings etc. Such limitations are imposed against dissipation of funds through inter-locking them among insurance companies and other financial and non-financial institutions.

(ii) Self-imposed limitations: These limitations, as such, reflect the investment policy of the insurer which is influenced by the tradition and outlook of management, the comparative availability of funds for investments, the current investment needs of the national economy etc.

Investments in life insurance are not affected very much by the booms and busts in the capital market, or the vagaries of the socio-political and economic environment (Yogokshema, June 1993). But the investments of the LICs are more influenced by the socio-economic need of the country and less by the booms and busts in the capital market, thanks to its investment policy statute. Hence, according to Clayton and Osborn (Clayton & Osborn, 1965), "It is very essential that a life assurance company should follow a dynamic and skilful investment policy in order to reduce the net-cost of insurance to the policy-holders". However, besides these limitations Baily prescribed the following principles (Baily, 1862).

- (1) Security of capital: This should be the first and foremost obligation to the insurer for the fiduciary nature of the insurer-insured relationship.
- (2) Profitability of investment: Despite there exists a negative correlation between security and profitability of funds, they should be so invested as to ensure highest possible return from such investments.
- (3) Liquidity of investment: It is necessary for making unprecedented payments like surrender-value, loans, claims etc. of more values than was expected in a particular year.
- (4) Diversification of Investment: The funds should be invested in different sectors (e.g. public sector, private sector, etc.)

of the economy so that risk of capital can be minimised. Diversification of investment may be made in three dimensions:

- (a) Class-wise diversification (e.g. Govt. securities, industrial securities, debentures, etc.);
- (b) Character-wise diversification (e.g. Primary, secondary and tertiary industries); and
- (c) Geographical location-wise diversification (e.g. territorial location of the industries).

(5) Feed-back Investment: As far as possible, capital should be invested in such a way that it would feed back insurance business in turn (Gupta, 1966).

The first two principles are of opposite nature. It is said that high risk begets high return. As a trustee of the funds the insurer should crucially decide and plan for its investment in between profit-maximisation and risk-minimisation. The 3rd and 4th principles signify that certain portion of the funds can be so invested that it can be readily converted and can be easily available in times of need. The 5th principle suggests that the life insurer should make investment in hospital, health centres, housing societies, improvement trusts and schools so that the benefits can be readily felt by the people. This will help spreading the gospel of insurance among the common people.

Baily suggested the above principles in 1862. But still now they apply. However, we should interpret them in the light of present-day conditions.

The security of capital and profitability of investments both are essential for a sound investment policy and both of them can be taken care of by another principle — diversification of investments. If investments are diversified according to class, character and geographical location, then loss suffered in one place will be compensated by the gain made elsewhere. In case of LIC the question of security has a strong bearing. Because, one of the objects of nationalisation of the LIC was 'to provide cent percent security to the policy-holders'. Through diversification of investments the object of security can be safe-guarded, unless there is any colossal depression like the Great Depression of 1929 or a devastating natural catastrophe such as flood, famine, earthquake or a great war etc., security of funds will sustain. The life insurance companies should also consider the socio-economic needs of the country while investing their funds. Because they will receive feed back from the society in return.

Prior to the coming into force of the Indian Insurance Act 1938, the trend of investment was towards the private sector and in favour of industrial securities, loans and mortgages and away from the Government securities and other approved securities. As a result, return from investment was high but security of fund was not guaranteed. But the provisions of the Act 1938 rectified the trend towards ensuring the security of funds. As on December 31, 1955, the percentage distribution of investments

was as : (Gupta, 1966) 59.0 per cent in Government and other approved securities; 16.1 per cent in industrial securities, 8.2 per cent in loans, 4.7 per cent in land and buildings, 4.1 per cent in mortgages and 13.9 per cent in deposits, cash, agents' balances and other miscellaneous items.

(1) Under the provisions of Section 27A of the LIC Act 1956, the Corporation shall invest and keep invested at least 25 per cent of its Controlled Fund in Government securities and a further sum equal to not less than 25 per cent of the Controlled Fund in Government Securities or approved securities. The rest of the Fund except to the extent of 15 per cent is to be invested in the following approved securities (Bhattacharya, 1970);

- (a) debentures or other securities for money issued with the permission of the State Government by any municipality in a state;
- (b) debentures secured by a first charge on any immovable property, plant or equipment of any company which has paid interest in full for the five years immediately preceeding or for at least five out of six or seven years immediately preceeding on such or similar debentures issued by it;
- (c) debentures secured by a first charge on any immovable property, plant or equipment of any company where either the book-value or the market value whichever is less, of such property, plant or equipment is more than three times the value of such debentures;

- (d) cumulative preference shares of any Company which has paid dividends on its equity Share for five years immediately preceeding or at least five out of the six or seven years immediately preceeding, provided such preference shares have priority in payment over all the equity shares of the company in winding up;
- (e) Cumulative preference shares of any company on which dividends have been paid for the five years immediately preceeding or for at least five out of six or seven years immediately preceeding and which have priority in payment over all the equity shares of the company in winding up;
- (f) Shares of any Company which have been guaranteed by another company, such other company having paid dividends on its equity shares for the five years immediately preceeding or for at least five out of six or seven years immediately preceeding; Provided that the total amount of shares of all companies under guarantee by the guaranteeing company is not in excess of fifty per cent of the paid-up amount of preference and equity shares of the guaranteeing company;
- (g) Shares of any Company on which dividends of not less than four per cent including bonus have been paid for the five years immediately preceeding or at least five out of the seven years immediately preceeding;
- (h) immovable property situated in India or in any other country where the Corporation is carrying on insurance business;

Provided that the property is free of all encumbrances;

- (i) First mortgages on immovable property situated in India or in any other Country where the Corporation is carrying on insurance business;

Provided that the property mortgaged is not lease-hold property with an outstanding term of less than thirty years and the amount of mortgage money does not exceed fifty per cent of the value of the property;

- (j) loans to any authority or any Co-operative Society registered under the Co-operative Societies Act, 1912 (2 of 1912), or under any other law, for the time being, in force operating a housing or building scheme in India in any case where the payment of principal and interest is guaranteed by the Central or a State Government;

- (k) first mortgages on immovable property situated in India under any housing or building scheme of a public limited company or a Co-operative Society, registered under the Co-operative Societies Act, 1912 (2 of 1912) or under any other law for the time being in force:

Provided that the amount of mortgage money does not exceed three-fourths of the value of the property;

- (l) loans on first mortgages of immovable property under any housing or building scheme of the Corporation for the benefits of policy-holders;

Provided that the amount of the loan does not exceed three-fourths of the value of the property;

- (m) loans on life interests, or on policies of life insurance within surrender values issued by the Corporation or by an Insurer, the assets and liabilities of whose controlled business have been transferred to and vested in the Corporation or loans to employees of the Corporation for the purpose of purchasing or constructing houses or for the purpose of purchasing motor-cycles, motor cars or any other conveyance in accordance with any scheme approved by the Corporation;
- (n) life interests;
- (o) deposits with Banks included for the time being, in the Second Schedule to the Reserve Bank of India Act 1934 (2 of 1934); or with Co-operative Societies registered under the Co-operative Societies Act, 1912 (2 of 1912), or under any other law for the time being in force, the primary object of which is to finance other Co-operative Societies similarly registered;
- (p) debentures of, or shares in, Co-operative Societies registered under the Co-operative Societies Act 1912 (2 of 1912), or under any other law for the time being in force;
- (q) such other investments as the Central Government may, by notification in the Official Gazette, declare to be approved investments for the purpose of this section.

- (2) Notwithstanding anything contained in Sub-Section (1), the Life Insurance Corporation of India may invest or keep invested any part of its Controlled Fund otherwise than in an approved investment, if after such investment the total amount of all such investment do not exceed fifteen per cent of the amount of its controlled fund;

Provided that the investment is made after securing the unanimous recommendation of the Investment Committee or if no such recommendation can be obtained on a resolution of the Corporation passed by a majority of at least three-fourths of the members present at the meeting.

- (3) The Corporation shall not, out of the Controlled fund, invest or keep invested in the equity shares of any one company more than thirty per cent of the subscribed equity share capital of the Company except with the prior permission of the Central Government;

Provided that nothing in this Sub-Section shall apply to any investment made by the Corporation in the equity shares of its subsidiary Companies.

- (4) Where an investment is in partly paid-up shares, the uncalled liability on such shares shall be added to the amount invested for the purpose of computing the percentage referred to in the Sub-Section (3).

- (5) Where new Shares are issued to the existing share-holders by a company, the existing shares of which are covered by Clause (d) or Clause (g) or Clause (f) of Sub-Section (1) and of which the Corporation is already a share-holder, the Corporation may subscribe to such new shares;

Provided that the proportion of new shares subscribed by it does not exceed the proportion which the paid-up amount on the share held by it immediately before such subscription bears to the total paid-up capital of the Company at the time of subscription.

- (6) If, on application made by the Corporation, the Central Government is satisfied that special grounds exist warranting such exemption, the Central Government may for such period, to extend and in relation to such particular investments and subject to such condition as may be specified by it in this behalf, exempt the Corporation, from all or any of the provisions of Sub-Sections (3) & (5).
- (7) The Corporation shall not, out of the controlled fund, invest and keep invested any sum in the shares or debentures of any private limited Company except with the prior permission of the Central Government.
- (8) The Central Government may, in the interests of the Corporation or its policy-holders, require the Corporation not to invest its funds in any investment specified by it, or where it has

any existing investment to realise them within a time to be specified.

- (9) Without prejudice to the powers given to the Central Government by Sub-Section (8), nothing contained in this Section shall be deemed to require the Corporation to realise any investment made in conformity with the provisions of Sub-Section (1) which after the making thereof ceased to be an approved investment within the meaning of this Sub-Section.
- (10) Nothing contained in this section shall be deemed to affect in any way the manner in which any moneys relating to the provident fund of any employee or any security taken from any employee or other moneys of a like nature are required to be held by or under any Central Act, or Act of a State Legislature.

4.3 Investment Policy and Policy Changes

Let us attempt to draw a brief outline of the post-nationalisation investment policy of the LIC and the changes it has so far undergone. On the verge of nationalisation of LIC while explaining the reasons for nationalisation C.D. Deshmukh, the then Union Finance Minister said "We have come to the conclusion that nationalisation of life insurance is essential for the implementation of our plans and, therefore, required in the public interest" (GOI, Broadcast, 1956). It meant that the plan priorities would be the basis for the investment priorities of

the LIC. It is well known that agriculture is a priority sector in our planning. Hence, in every plan, larger investments in absolute sums have been made in agriculture, mainly through the Co-operative sector (Singh, 1974). The LIC too invests accordingly to this sector at a rate of 6-7% of its total investible funds as will be revealed from Table 4.3. Balanced economic development of all the regions is an avowed aim of our plans. But neither our planning nor the LIC gives special attention, in real sense, to the backward regions. But the major objectives of the LIC's investment policy is to ensure cent percent security of the Fund and to earn maximum possible return. So, LIC of India needs to frame its investment policy within the legal, economic and social constraints and it should be modified from time to time in the context of prevailing economic climate of the country. Now let us see the LIC's attempts towards modification of its investment policy.

In 1970 the Government appointed an informal group under the Chairmanship of S. Jagannathan. It recommended (and it was accepted) changes in Section 27A of the LIC Act 1956 in following major terms (Choudhury and Kulkarni, 1991).

(a) Before 1970, compliance with statutory fixed percentages for investments in Government and other approved securities was required to be accomplished in relation to cumulative figures of the Controlled Fund as on March 31, every year. Whereas after

amendment, the prescribed percentages relate to annual accretions to the Controlled Fund.

(b) Previously, not less than 25% of the Controlled Fund was required to be invested in Government Securities. Whereas after amendment, not less than 25% of the annual accretions to the Controlled Fund has to be invested in Central Government Securities.

(c) Prior to the changes, it was open to the LIC I to include Government guaranteed loans in the 25% of Government and approved securities. Whereas after amendment, not less than 50% has to be invested in Government and Government-guaranteed marketable securities only.

(d) A further 25% was required to be invested in the "socially-oriented" sector. That is, a sector with socially purposive schemes.

After a decade, the Era Sezhiyan Committee in 1980 observed that the "Informal Group's recommendations and Government decision thereon are not consistent with the primary obligation of the LIC I of ensuring an attractive return to the policy-holders" (Choudhury and Kulkarni, 1991). But, welfare and profitability are two conflicting motives for an investment strategy in a mixed economy like that of India. Unfortunately, the investment strategy of the LIC I has not undergone changes to this score in the 1980s either. However, the Committee indicated that "if life insurance

has to compete with other savings media, the return on investment of LIC funds has to be higher than that available on the other savings media". Since the LIC invests its funds mostly on long-term basis, for reasons obvious, it is expected as well as viable for the Corporation to earn higher rate of yield from its investments. Thus, we have discussed the objectives, principles and policy changes of the investment portfolio of the LIC. Now, we shall examine the problems of the LIC's investments in terms of industry-wise, sector-wise, zone-wise and State-wise patterns of allocation of the Controlled Fund and assess their impacts on socio-economic advancement.

4.4 Assets Building and Controlled Fund of the LIC.

A financial institution while dealing with business accrues net liabilities and creates assets almost simultaneously. The LIC being a non-banking financial institution does follow the dictum too. We have already discussed about its net liabilities constituting the Life Insurance Fund in Section 3.10 of Chapter III. Now let us explain the assets for investments of the LIC forming the Controlled Fund (Cf). We have already elucidated the components and meaning of the Fund in Section 4.1. The significance of the Fund lies in valuation of assets and liabilities in order to ascertain surplus or deficit of the LIC. If all assets equal to all liabilities, the Corporation neither earns surplus nor incurs deficit. If all the assets exceed all the liabilities, the

Corporation will earn surplus and vice versa. If the Corporation earns surplus it will declare reversionary¹ bonus under with-profit plans. To repeat that 95% of the surplus will go to the policy-holders in the form of bonus and 5% to the Central Government in the form of dividend on Government share. So, assets making is a significant area of operation of a financial organisation as it is an indicator of sustainability of the organisation.

Let us take attempt to evaluate the growth pattern of the Controlled Fund of the LIC. Table 4.1 may give us some idea about the Fund over the years under study. In 1971, the volume of the Fund was Rs. 1957.85 crore, after a decade it rose to Rs. 7757.34 crore and in 1990 it attained the height of Rs. 24418.75 crore. Thus, the Corporation experienced an increasing trend in the Fund over the period concerned. But it did not follow any definite trend in regard to growth rate of the Fund as observed from the table. In 1972 the growth rate was 12.7%, in 1982, only 04.0% and in 1990, 19.5%. There might have been some changes in accounting procedure in the year 1982 or the payment of arrear bonus to Classes III & IV employees on the strength of the Supreme Court's interim order after abrogation of Article 31 Clause (2) of the

-
1. Reversionary bonus - On valuation of assets and liabilities of the Corporation if surplus is ascertained then bonus on participating policies are declared. Reversionary bonus is one which is added to the policy amount and paid when it is due.

TABLE - 4.1

CONTROLLED FUND OF THE L. I. C. I.

Year	Controlled Fund (Rs. in Crore)	Growth Rate (%)
1970-71	1957.85	-
1971-72	2205.67	12.7
1972-73	2518.57	14.2
1973-74	2886.19	14.6
1974-75	3237.46	12.2
1975-76	3582.80	10.7
1976-77	4076.56	13.8
1977-78	4622.34	13.4
1978-79	5272.25	14.1
1979-80	5997.06	13.7
1980-81	7757.34	29.4
1981-82	8067.93	04.0
1982-83	9102.10	12.8
1983-84	10256.34	12.7
1984-85	11643.97	13.5
1985-86	13120.53	12.7
1986-87	14973.52	14.1
1987-88	17318.11	15.7
1988-89	20428.31	18.0
1989-90	24418.75	19.5
Average	8671.70	--
S.d.	6306.04	--
C.v	69.87	--

Source: Report & Accounts of the L. I. C. I. -1970-71 to 1989-90.

Constitution of India (LICI, 1981) might be one of the reasons for such low rate of growth in the Controlled Fund in 1982. However, to comprehend the trend of the Fund more clearly we fit two trend equations — linear and log-linear and estimate the trend. The equations are :

$$\begin{aligned} \text{Controlled Fund (Lin.) : } \hat{C}_f &= -1837.4 + 1086.3t \\ &\quad (-1.7422)^{**} \quad (11.744)^* \\ R^2 &= 0.89027 \quad \dots (4.1) \end{aligned}$$

$$\begin{aligned} \text{Controlled Fund (log-Lin.) : } \ln \hat{C}_f &= 7.1085 + 0.8458 \ln t \\ &\quad (38.570)^* \quad (10.164)^* \\ R^2 &= 0.85869 \quad \dots (4.2) \end{aligned}$$

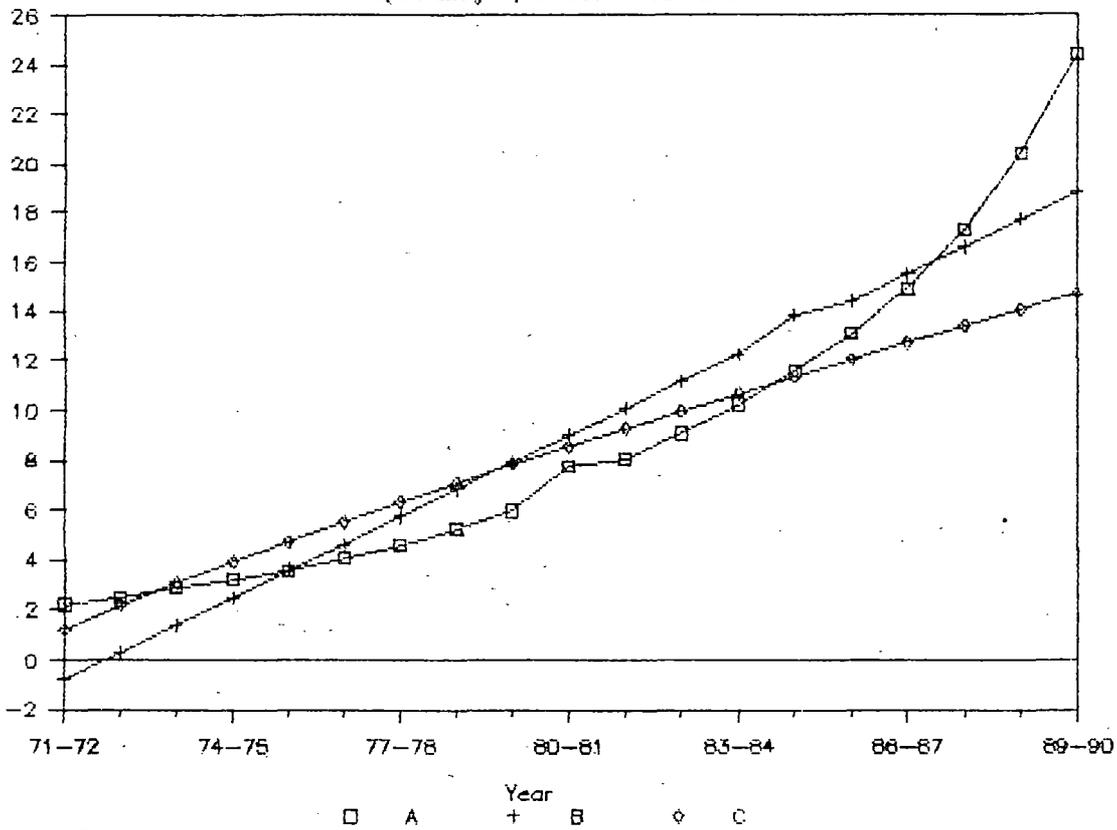
∟ Figures in the parentheses are 't' values with D.F. = 17;

*Significant at 1%; and ** Significant at 5% ∟.

The fitted linear and log-linear trend values along with the observed values over the period 1971-1990 are shown in Fig. 4.1. From the estimated equations and from the figure a strong positive trend of the ' C_f ' can be observed. This implies that so far as LICI's assets building is concerned it is quite in a safe position. Also, if we draw a comparison between Tables 3.6 and 4.1, we would find that the Controlled Fund is always greater than the Life Insurance Fund. That is, $C_{ft} > L_{ft}$. This implies that total assets has been always greater than total net liabilities. So, the position of the LICI has been secured over the period.

Fig. Fig. 4.1

Trend(lin. &loglin.) of Controlled Fund



- A - Controlled Fund
- B - Controlled Fund (linear)
- C - Controlled Fund (loglinear)

4.5 Industry-wise Pattern of Investments

Diversification of investments is a considered aim of the LIC. The Corporation diversifies its investment portfolio in different ways. Industry-wise pattern of investments is one of them. In our study we shall attempt to appraise the decadal changes and their effects over the two decades of 1970s and 1980s. Table 4.2 highlights the diversified pattern of investments of the LIC over the major industries. It appears from the table that no planned diversification of the Fund over the industries has been followed by the LIC. As a result, no definite pattern in general, can be observed. However, we can somehow try to find the following patterns from the table. A consistently rising trend is observed in case of Dyes, Chemical & Pharmaceuticals and Electricity (the decadal changes being 4.5% & 12.82% in 1971, 8.75% & 14.65% in 1981 and 16.17% & 18.74% in 1990) respectively of the two industries; a consistently falling trend in case of Aluminium, Cement, Jute, Sugar-Breweries and Mineral-Vegetable Oils industries; a falling and rising pattern in case of Iron & Steel, and Textiles industries and a rising and falling pattern in case of Engineering, Investment Trust, Papers-Boards-Rubber products, and Railways-Shipping-Transport industries. This may be due to the effect of the LIC's security-wise and sector-wise allocations of the Fund. Since it is statutory that the LIC should have to invest 50% of its Fund in Government or Government approved securities and 35% in "other approved" securities and a

TABLE - 4.2Industry-wise Pattern of Investments of the LIC

Industries	1971		1981		1990	
	(Rs. in crore)	(% to total)	(Rs. in crore)	(% to total)	(Rs. in crore)	(% to total)
1. Aluminium	9.42	4.28	10.31	3.13	44.04	2.05
2. Cement	11.04	5.01	10.85	3.30	53.37	2.49
3. Dyes, Chemicals & Pharmaceuticals	9.13	4.15	28.81	8.75	347.11	16.17
4. Engineering	42.10	19.12	82.82	25.17	420.14	19.57
5. Electricity	28.24	12.82	48.22	14.65	402.32	18.74
6. Iron & Steel	17.35	7.88	15.68	4.76	112.25	5.23
7. Investment Trust	2.97	1.35	10.45	3.18	54.66	2.55
8. Jute, Sugar & Breweries	12.91	5.86	11.89	3.61	33.24	1.55
9. Mineral & Vegetable Oils	8.39	3.81	6.14	1.87	33.82	1.58
10. Papers & Boards & Rubber product	13.57	6.16	26.49	8.05	63.34	2.95
11. Railways, Shipping & Transport	1.60	0.73	3.64	1.11	5.68	0.26
12. Textiles	29.20	13.26	43.57	13.24	360.24	16.78
13. Miscellaneous	<u>34.32</u>	15.58	<u>30.23</u>	9.19	<u>217.03</u>	10.11
	220.24		329.10		2147.24	

Source: Compiled from LIC's Report and Accounts for the year ended 31st March 1971, 1981 & 1990.

5. Electricity = Electricity + Electrical Goods
8. Jute, Sugar & Breweries = Jute + Sugar & Breweries
9. Mineral & Vegetable Oils = Mineral Oil + Vegetable oils
10. Paper & Boards and Rubber Products = Paper & Boards + Rubber Products
11. Railways, Shipping & Transport = Railways + Shipping & Transport
12. Textiles = Cotton Textiles + Textiles (other than cotton)
13. Miscellaneous = (Miscellaneous + Banks + Coal + Food, Drink & Tobacco + Insurance + Matches + Mining + Plantation).

further specification is that it should invest and usually invests around 80% of the Fund in the Public Sector (Roy, 1987). It is criticised that "in no country the Funds of the insurance business are so controlled in public sector investments as in India" (Commerce, 1965, p. 970). Therefore, LIC's investment in the public sector industries is substantially high while in the other sector industries it is very low. Another, probable reason may be the nationalisation of the big important industries after independence of the country. Above all, though the LIC fails in proper diversification of the Fund over industries, its fund is duly secured by its sector-wise and security-wise patterns of investments.

4.6 Sector-wise Pattern of Investment

Now, let us deal with the sector-wise pattern of investments of the LIC. Table 4.3 illustrates the said pattern. It may be discerned from the table that the coefficient of variation over the years is the lowest in the Co-operative sector (C.V. being 53.90). But the corresponding coefficients are nearly the same in Public and Private Sectors (C.V's being 75.22 and 75.39). Apparently, the volumes of investments have been increasing over time in respect of all the sectors excepting in the cooperative sector. Where it has been falling upto the year 1976. Besides, the percentage growth rate visualises an increasing tendency in case of public sector only. But in case of Cooperative and Private sectors no definite trend can be followed over the period under consideration. The increasing trend in public sector investments implies the

TABLE - 4.3

Sector-wise Pattern of Investments of the LIC

Year	P. sector	Coop. Sector	Joint Sector	Pvt. sector	Total
1971	1198.9252	159.3252	4.6582	239.498	1602.4066
1972	1374.5775	198.9918	4.4216	279.0628	1857.0537
1973	1565.1887	235.6433	3.0462	291.3456	2095.2238
1974	1792.0813	268.9585	2.1611	308.4823	2371.6832
1975	2049.9076	327.127	1.6081	339.454	2718.0967
1976	2327.98	359.75	14.36	364.54	3052.27
1977	2652.85	409.99		402.43	3465.27
1978	3033.92	467.59		511.6	4013.11
1979	341185	527.79		648	4587.64
1980	3915.49	602.11		770.07	5287.67
1981	4707.85	665.52		647.14	6020.51
1982	5410.72	752.94		730.7	6894.36
1983	6189.66	825.19		820.16	7835.01
1984	7020.81	905.3		931.47	8857.58
1985	7919.54	972.87		1061.79	9954.2
1986	9063.76	1036.83		1189.32	11289.91
1987	10259.31	1058.63		1494.93	12812.87
1988	11837.27	1161.68		1713.25	14712.2
1989	14032.34	1240.12		2070.24	17342.7
1990	16368.38	1335.86		2799.5	20503.74
Mean	5806.620515	675.61079	5.0425333333	880.649135	73636752
S.D	4368.1013958	364.18162119	4.3095203243	663.97147318	5372.813368
C.V.	75.226224695	53.904056386	85.463397848	75.395687884	72.963747345

negative correlation between security of the Controlled Fund and rate of return for obvious reasons. Although the rate of interest earned from the public sector is really very low ranging from 4% to 6%, but the rate of interest earned by LIC on its mean Life Insurance Fund is not so low in comparison with that in the developed countries of the world. In 1971 the said rate was 6.25% (5.73% net), it increased to 8.21% (7.69% net) in 1981 and in 1990 it became 11.13%. But, since the average rate of inflation is high in India (recently it is around 10%) (RBI Bulletin, 1993) it reduces the real value of the return substantially. However, LIC may defend the criticism of low return if it needs not compromise with the national and economic goals set for it. Here, it may be suggested that it should undergo amendment in Section 27A of the LIC Act 1956 so that its investments may be less constrained by the legal provisions. In order to have a better picture of the sector-wise distribution pattern of investments of the LIC, over the period of our study, we fit the following trend equations — linear and log-linear to estimate the trend of sector-wise investments. The fitted equations are:

$$\text{Public sector (Lin)} : \hat{I}_t = -1679.0 + 712.91 t$$

$$(-2.3218)^{**} \quad (11.810)^*$$

$$R^2 = 0.88569$$

... (4.3)

$$\text{Public Sector (Log-Lin.) : } \ln \hat{I}_t = 6.4207 + 0.9212 \ln t$$

$$(32.512)^* \quad (10.551)^*$$

$$R^2 = 0.86081 \quad \dots (4.4)$$

$$\text{Cooperative Sector (Lin.): } \hat{I}_t = 16.175 + 62.803 t$$

$$(0.8582) \quad (39.917)^*$$

$$R^2 = 0.98882 \quad \dots (4.5)$$

$$\text{Co-operative Sector (Log-Lin.): } \ln \hat{I}_t = 4.6857 + 0.7802 \ln t$$

$$(47.612)^* \quad (17.919)^*$$

$$R^2 = 0.94691 \quad \dots (4.6)$$

$$\text{Joint-Sector (Lin.): } \hat{I}_t = 1.1242 + 1.1195 t$$

$$(0.2553) \quad (0.9901)$$

$$R^2 = 0.19683 \quad \dots (4.7)$$

$$\text{Joint Sector (Log-Lin.): } \ln \hat{I}_t = 1.3241 + 0.05851 \ln t$$

$$(1.8281)^{**} \quad (0.027404)$$

$$R^2 = 0.00019 \quad \dots (4.8)$$

$$\text{Private Sector (Lin.): } \hat{I}_t = -199.65 + 102.89 t$$

$$(-1.3675)^{***} \quad (84421)^*$$

$$R^2 = 0.79837 \quad \dots (4.9)$$

$$\text{Private Sector (Log-Lin.): } \ln \hat{I}_t = 4.8549 + 0.7911 \ln t$$

$$(22.910)^* \quad (8.4368)^*$$

$$R^2 = 0.79817 \quad \dots (4.10)$$

[Figures in the parentheses are 't' values with D.F. = 18;

*Significant at 1%; ** Significant at 5%; and *** Significant at 10%]

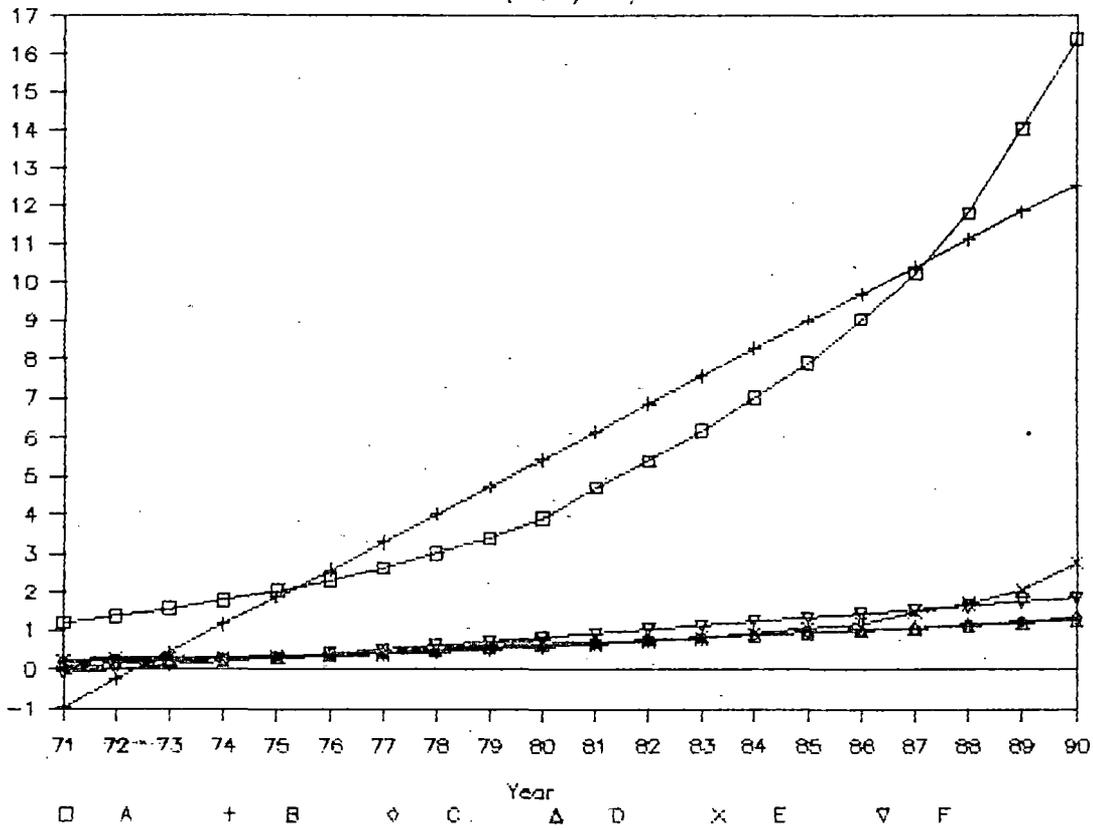
The fitted linear and log-linear trend values along with observed values are shown in Fig. 4.2 and 4.3 respectively. From the estimated equations as well as from the figures steady positive trends can be found in respect of public sector and Co-operative sectors. But a positive trend with a small decline in 1980 & 1981 is observed in respect of private sector. These trends signify that LICI's distribution of Controlled Fund in respect of sector-wise investments has not moved in the sector where return from investments is the highest. So it may be suggested that LICI should go for further amendment in Section 27A of the LIC Act, 1956 and reallocate its Controlled Fund more in favour of Private and Co-operative Sectors.

4.7 Zone-wise Pattern of Investments:

Now let us see how Zone-wise distribution of investments of the LICI has been performed. In Table 4.4 it can be seen from the coefficients of variation over the years that the smallest variation is observed in the year 1983 and highest in 1971 (the C.V.'s being 20.40 and 37.15 respectively). It appears from the column of C.V. that the zone-wise distribution of investments of the LICI over the years had been declining consistently upto the year 1983 with an exception to the year 1982 and again it had been rising consistently upto 1990 with an exception to the year 1986. These signify that in case of allocation of Controlled Fund among the five zones, the year to year variation was reducing upto

Fig. 4.2

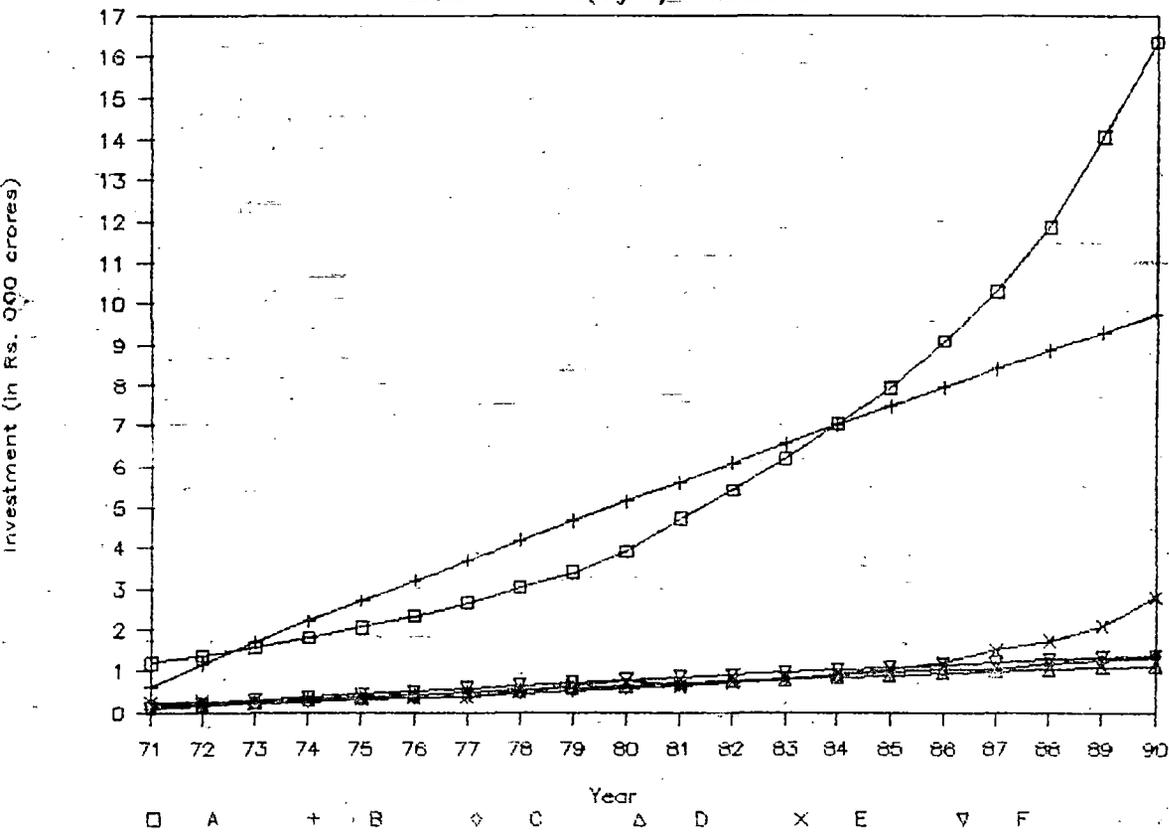
Sectorwise Trend(linear) of Investment



- A - Public
- B - Public (linear)
- C - Cooperative
- D - Cooperative (linear)
- E - Private
- F - Private (linear)

Fig. 4.3

Sectorwise Trend (loglin.) of Investment



A - Public

B - Public (loglinear)

C - Cooperative

D - Cooperative (loglinear)

E - Private

F - Private (loglinear)

TABLE - 4.4
Zone-wise Pattern of Investments

Year	Central	Southern	Eastern	Western	Northern	Average	S.D.	C.V
1971	11980.85	29194.92	26137.35	16350.46	12386.96	19210.11	7136.92	37.15
1972	13880.81	33347.83	29110.84	34768.64	14576.68	25136.96	9101.65	36.21
1973	16175.26	37536.98	32054.77	38451.09	17138.95	28271.41	9736.93	34.44
1974	19742.59	43359.83	36761.40	42360.10	20206.07	32486.00	10461.44	32.20
1975	23866.27	49986.03	40634.00	47556.12	23050.04	37018.49	11492.34	31.04
1976	27521.70	55027.65	45849.92	52158.21	26724.93	41456.48	12076.45	29.13
1977	31996.30	60930.28	50602.50	58102.02	30929.29	46512.08	12747.34	27.41
1978	36845.93	67352.36	56251.87	64513.01	35631.48	52118.93	13474.81	25.85
1979	42077.54	74871.68	61815.80	70195.31	40861.37	57964.34	14108.09	24.34
1980	50893.71	83432.76	67489.71	79523.54	46956.56	65660.26	14692.97	22.38
1981	57611.51	91167.29	75180.98	90507.02	55131.17	73919.59	15447.82	20.90
1982	65767.35	103255.76	83116.86	103623.80	62074.25	83567.60	17713.75	21.20
1983	70534.79	109355.18	88637.83	112066.91	69001.93	89919.33	18347.79	20.40

Contd..

TABLE -4.4 (Contd..)

Year	Central	Southern	Eastern	Western	Northern	Average	S.D.	C.V
1984	73610.66	117038.01	93948.53	119081.41	73535.22	95442.77	19919.61	20.87
1985	77594.26	127023.89	101440.37	128067.78	79015.58	102625.38	22036.27	21.47
1986	83345.93	143751.69	107529.29	137905.96	93747.01	113255.98	23656.30	21.06
1987	89622.95	156217.42	118305.06	158226.47	101913.49	124857.08	27956.28	22.39
1988	95859.58	177001.35	127490.13	173718.28	112670.46	137347.96	32627.08	23.76
1989	107727.21	214488.35	140263.72	205867.32	132409.93	160151.31	42322.23	26.43
1990	129389.53	255173.80	158152.32	259109.15	147901.33	189985.23	55605.21	29.27
Average	56312.24	101475.65	77038.66	99607.88	59793.14	78845.51	51868.26	65.78
S.D.	33362.29	60799.35	38142.39	61606.51	39680.84			
C.V.	59.25	59.92	49.51	61.85	66.36			

Source: LIC's Report and Accounts, 1980-71 to 1989-90.

1983 and again it took rising turn from 1984 onwards with the break-even point at 1983. Similarly, from the coefficients of variation over the zones it may be discerned that it was substantially low in case of the Eastern Zone (C.V. = 49.51) signifying a more even distribution of Fund over the period of study. The said variation among the other 4-zones appears to be more or less the same excepting a bit high in case of Northern Zone (C.V. = 66.36). So, it may be supposed that three of the five zones viz. Central, Southern and Western zones have been following a similar pattern of distribution while the Eastern and Northern Zones are following distinct patterns. However, to estimate the temporal distribution of investments over the zones, let us fit the following trend equations:

$$\begin{aligned} \text{Central Zone (Lin.): } \hat{I}_t &= -3499.3 + 5696.3t \\ &\quad (-1.2231) \quad (23.851)^* \\ R^2 &= 0.96932 \quad \dots (4.11) \end{aligned}$$

$$\begin{aligned} \text{Central Zone (Log-Lin.): } \ln \hat{I}_t &= 8.8986 + 0.8613 \ln t \\ &\quad (74.977)^* \quad (16.402)^* \\ R^2 &= 0.93729 \quad \dots (4.12) \end{aligned}$$

$$\begin{aligned} \text{Southern Zone (Lin.): } \hat{I}_t &= -3580.8 + 10005 t \\ &\quad (-0.3812) \quad (12.760) \\ R^2 &= 0.90046 \quad \dots (4.13) \end{aligned}$$

$$\begin{aligned} \text{Southern Zone (Log-Lin.): } \ln \hat{I}_t &= 9.8155 + 0.7227 \ln t \\ &\quad (70.586)^* \quad (11.743)^* \\ R^2 &= 0.88454 \quad \dots (4.14) \end{aligned}$$

$$\begin{aligned} \text{Eastern Zone (Lin.): } \hat{I}_t &= 8649.8 + 6513.2 t \\ &\quad (2.6538)^* \quad (23.938)^* \\ R^2 &= 0.96954 \quad \dots (4.15) \end{aligned}$$

$$\begin{aligned} \text{Eastern Zone (Log-Lin.): } \ln \hat{I}_t &= 9.7634 + 0.6403 \ln t \\ &\quad (90.236)^* \quad (13.375)^* \\ R^2 &= 0.90859 \quad \dots (4.16) \end{aligned}$$

$$\begin{aligned} \text{Western Zone (Lin.): } \hat{I}_t &= -7044.4 + 10157 t \\ &\quad (-07531) \quad (13.009)^* \\ R^2 &= 0.90386 \quad \dots (4.17) \end{aligned}$$

$$\begin{aligned} \text{Western Zone (Log-Lin.): } \ln \hat{I}_t &= 9.5777 + 0.8159 \ln t \\ &\quad (80.283)^* \quad (15.458)^* \\ R^2 &= 0.92994 \quad \dots (4.18) \end{aligned}$$

$$\begin{aligned} \text{Northern Zone (Lin.): } \hat{I}_t &= -10141 + 6660.4 t \\ &\quad (-2.0754)^{**} \quad (16.328)^* \\ R^2 &= 0.93676 \quad \dots (4.19) \end{aligned}$$

$$\begin{aligned} \text{Northern Zone (Log-Lin.): } \ln \hat{I}_t &= 8.8679 + 0.8891 \ln t \\ &\quad (58.866)^* \quad (13.339)^* \\ R^2 &= 0.90812 \quad \dots (4.20) \end{aligned}$$

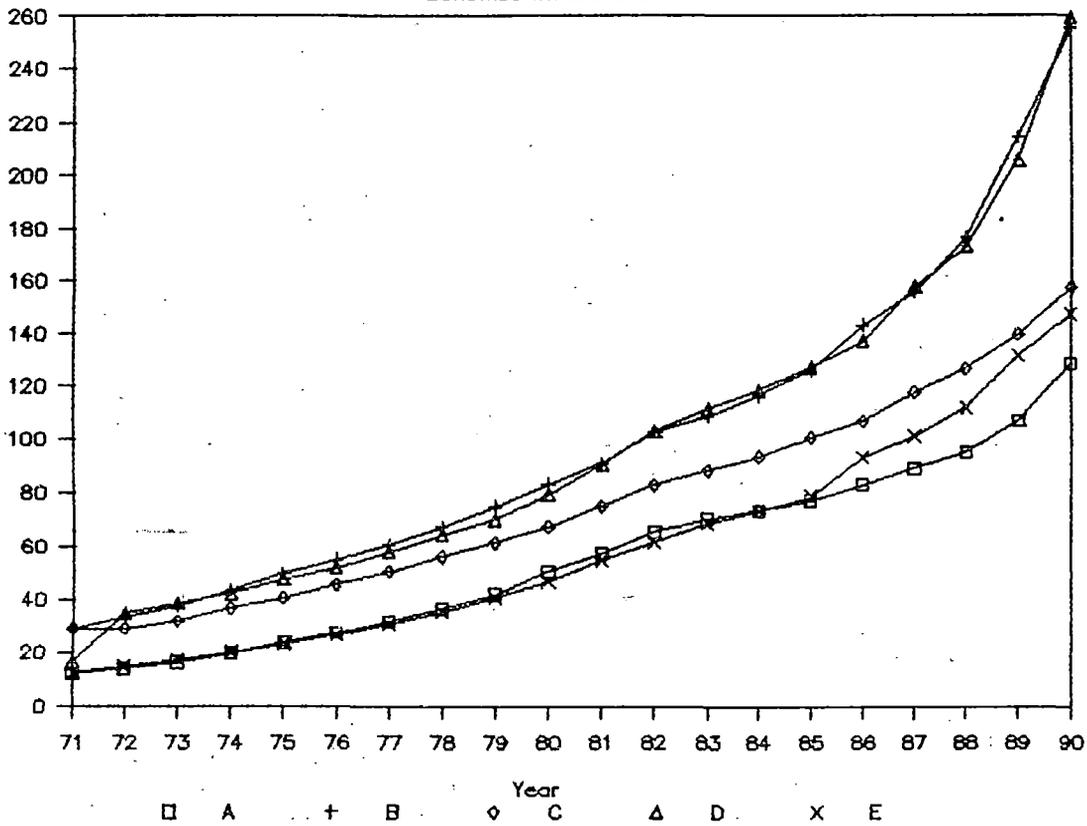
[Figures in the parentheses are 't' values with D.F. = 18;

*Significant at 1%; and ** significant at 5%]

The observed values as well as the fitted trend values over time are shown in Figs. 4.4, 4.5 and 4.6 respectively. From the estimated equations vis-a-vis from the figures a strong positive

Fig. 4.4

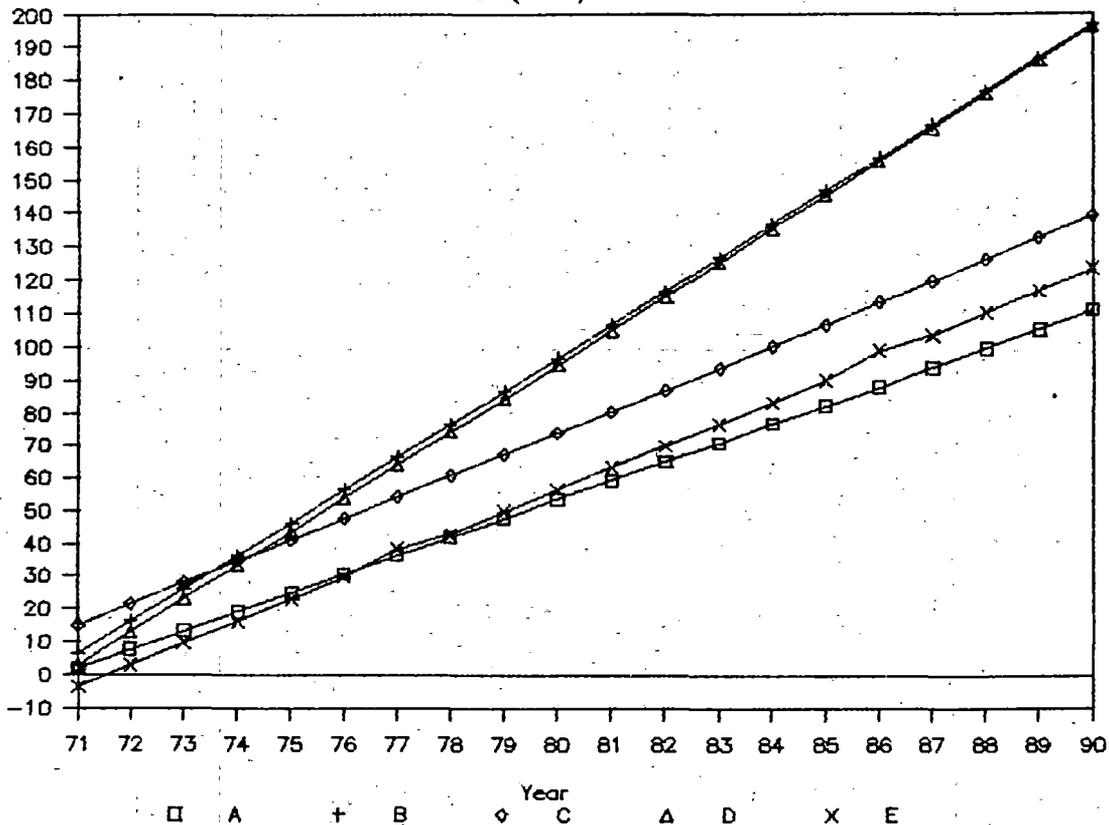
Zonewise Investment



- A - Central
- B - Southern
- C - Eastern
- D - Western
- E - Northern

Fig. 4.5

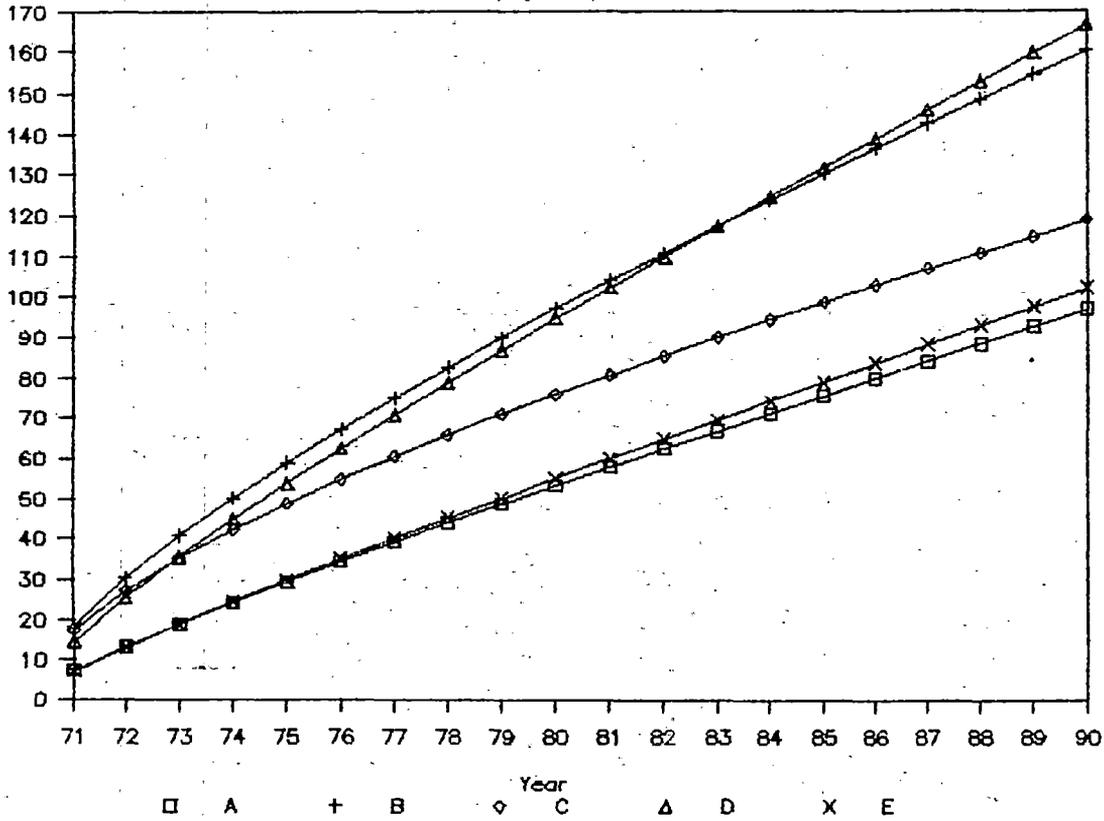
Zonewise Trend(linear) of Investment



- A - Central
- B - Southern
- C - Eastern
- D - Western
- E - Northern

Fig. 4.6

Zonewise Trend(loglinear) of Investment



- A - Central
- B - Southern
- C - Eastern
- D - Western
- E - Northern

trend can be observed in respect of each zone. This implies that so far utilisation of funds over different zones is concerned LICICI deserves a definite success over the two decades taken under study.

4.8 State-wise Pattern of Investments

In a further stratification of LIC data we may deal with the State-wise Distribution of Investments. Table 4.5 visualises the State-wise distribution of investments over the period 1970-71 to 1989-90. It can be noticed that the coefficients of variation over the years in different zones are widely different. It is the lowest in case of Assam (C.V. = 36.02) and the highest in case of Madhya Pradesh (C.V. = 66.04). In-between the two polar States we may group the States as : Orissa and West Bengal falling in the range of C.V. being 40-50; Bihar, Rajasthan, Punjab, Uttar Pradesh, Tamil Nadu and Karnataka falling in the range of C.V. being above 50-60 and Maharashtra, Gujrat, Kerala, Haryana and Andhra Pradesh appertaining to the range of C.V. being above 60. So, it may be said that equi-distribution of investments over the years had not been followed by the LICICI. Again, from the coefficients of variation over the States in respect of the period under study it can be seen that the Smallest Variation had been experienced in the year 1979 (C.V. being 46.37) and the widest variation in the year 1971 (C.V. being 62.02). Besides, a declining trend of variation can be observed over the years from 1971 to 1979 and a rising trend thereafter, upto the

Table - 4.5

State-wise Pattern of Investments of the LIC

YEAR	A. P.	ASSAM	BIHAR	GUJRAT	HARIYANA	KARNATAK	KERALA	M. P.	MAHARASTRA	ORISSA	PUNJAB	RAJASTHAN	TAMIL NADU	U. P.	W. B.	AVERAGE	S. D.	C. V.
1971	7588.54	2646.90	6768.71	10584.63	2348.52	6081.57	4340.99	4207.99	20558.45	5132.62	3774.61	5111.98	11174.57	7772.86	11589.12	7312.14	4534.71	62.02
1972	8227.23	3110.76	7687.17	12350.03	3116.10	6578.83	5370.47	5021.12	22315.41	5642.11	4482.80	5604.86	13161.76	8859.69	12670.80	8279.94	4907.54	59.27
1973	9746.38	3373.38	8783.48	13956.32	3884.82	7196.99	6409.79	5322.04	24392.92	6190.97	5064.57	6570.34	14172.77	10853.22	13602.66	9301.38	5308.60	57.07
1974	10990.94	3912.87	10422.42	15693.99	4759.67	8350.73	7548.63	6014.12	26565.76	6982.61	5529.37	8016.05	16453.50	13728.47	15149.30	10674.56	5804.61	54.38
1975	11972.30	4244.57	11426.98	18726.71	5541.52	10341.33	8815.10	7113.87	28730.56	8034.99	6237.85	9093.11	18841.12	16752.40	16358.91	12148.75	6374.66	52.47
1976	12934.44	4608.37	13230.11	21016.77	6448.96	11441.04	9965.75	8239.55	31044.09	9139.49	6938.92	10901.79	20669.25	19282.15	17595.94	13563.77	6871.34	50.66
1977	14155.89	4815.66	14905.58	24109.64	7648.59	12624.80	11220.55	9781.78	33896.53	9971.64	7564.01	12454.21	22911.88	22214.52	19381.67	15177.13	7598.86	50.07
1978	15926.52	5183.32	16272.18	26449.85	9190.62	14062.97	12456.09	11153.43	37939.73	11078.95	8304.10	14396.29	24889.62	25692.50	21683.19	16978.62	8448.74	49.76
1979	18415.45	5771.93	18283.74	28975.31	10646.06	15216.05	13938.97	12528.55	40900.46	11948.97	9811.13	16139.96	27259.05	29548.99	23167.19	18836.79	9111.77	48.37
1980	20103.76	6112.03	18963.54	33144.06	11712.47	17518.43	15589.65	14261.12	46067.44	13640.05	11479.61	18782.06	30175.76	36632.59	25770.86	21330.23	10567.07	49.54
1981	22649.98	7357.05	20441.17	37394.25	13608.35	19394.41	17572.14	15911.62	52750.47	14227.13	14114.93	21433.51	31503.60	41699.89	29799.06	23990.50	11934.37	49.75
1982	25769.72	7785.23	21883.04	42349.44	14970.61	22240.08	19563.41	18437.35	60913.70	15958.70	15713.88	24035.63	35637.18	47330.00	33626.15	27080.94	13828.53	51.06
1983	26283.51	8000.25	23956.88	44727.71	16745.39	23842.51	21545.52	19322.91	66885.80	16430.85	17472.67	26497.35	37619.23	51211.88	35535.30	29071.85	15033.08	51.71
1984	27916.98	8146.50	26804.55	47392.22	18324.48	24661.95	23434.24	21932.71	71088.00	16596.75	18623.83	27660.73	40951.39	51677.95	37128.38	30822.71	15707.55	50.96
1985	29017.78	8660.01	28728.84	49033.43	19658.64	26743.64	26464.33	24005.69	78343.62	17255.55	19663.13	29075.91	44756.17	53588.57	40762.38	33050.51	17017.38	51.49
1986	31625.69	9126.24	28656.91	53165.83	22751.69	32350.38	29347.19	27050.04	84010.40	19105.08	21135.67	30931.29	50391.42	56295.94	43526.44	35964.68	18103.15	50.34
1987	33417.05	9466.18	31337.46	63346.64	23367.06	33421.49	32212.22	28637.57	94172.54	21262.13	21408.03	34937.68	57107.12	60985.38	48182.07	39550.69	20911.62	52.87
1988	38416.85	9557.60	35113.47	70168.59	25638.09	39162.41	35127.35	30963.69	102782.23	22966.30	24225.21	33793.43	64210.20	64895.89	50712.65	43182.26	22896.22	53.02
1989	58911.30	9477.44	39142.15	86121.23	28409.53	43056.14	40403.49	35756.09	118392.45	25634.89	26871.59	37624.79	72032.88	71977.12	54815.45	49908.44	26961.99	54.02
1990	67521.46	9371.48	47389.29	99471.35	31454.78	48994.86	46318.99	49247.61	157642.26	29874.28	28445.29	43856.59	92216.45	80341.92	58515.38	59377.60	35328.61	59.50
AVERAGE	24579.59	6536.39	21509.88	39908.90	14011.30	21164.08	19382.24	17745.44	59969.63	14353.70	13843.06	20845.88	36306.85	38567.10	30478.65	25280.18	21230.46	83.98
S. D.	15616.74	2354.37	10844.81	24269.03	8723.15	12432.05	11924.10	11718.62	36043.81	6775.72	7769.39	11530.97	21166.60	21905.87	14650.08			
M. V.	63.54	36.02	50.42	60.81	62.26	58.74	61.52	66.04	60.10	47.21	56.12	55.32	58.30	56.80	48.07			

year 1983. A further rising trend of variation in respect of the States may be explored starting from 1987 to 1990. Thus, it can be identified that the years 1984, 1985 and 1986 bear distinguished character (the C.V.'s being 50.96, 51.49 and 50.34 respectively). Also, from the 'average' column of the Table 4.5 it may be gauged that the average distribution of investible funds of the LIC over the States had been increasing consistently. So, disparity in distribution of LIC's Controlled Fund persists both over the years and States. In this respect the LIC has suffered a limitation on the distribution of its investible funds in accordance with the national planning goal of minimising inter-State disparity and inter-regional economic imbalance. The probable reasons for such disparities might be the heterogeneous State characters, the incongruity in geographical location of the States, natural endowments, degree of scope for investment and lack of efforts from the part of the LIC.

To find out the possible factors affecting the inter-State Variation in investments undertaken by the LIC, we have attempted, as in the Section 3.11, to estimate two cross section regression equations — One in linear form and the other in log-linear form. The dependent Variable (Y) here stands for investments of the LIC. We add an additional explanatory Variable X_5 , the net area under irrigation. We incorporate the variable X_5 on the ground that LIC provides substantial investment finance to agricultural sector and it reflects the level of agricultural activities.

Choice of all the explanatory Variables X_1 , X_2 , X_3 & X_5 and the year considered have been dictated by the considerations as stated in section 3.11. The estimated equations are shown below:

$$\begin{aligned} \hat{Y} = & -49580.0 + 23.494X_1 + 99057.0X_2 \\ & (-1.7140)^{***} \quad (1.3652)^{**} \quad (0.8719) \\ & + 520.85X_3 + 9.8893X_5 \\ & (1.5666)^{***} \quad (3.4787)^* \quad \dots (4.21) \end{aligned}$$

$$R^2 = 0.6214; \quad 't' \text{ with d.f.} = 10$$

$$F = 4.1038^{**} \quad \text{with d.f.} = 4 \text{ \& } 10$$

$$D.W. = 2.3476$$

$$\begin{aligned} \ln \hat{y} = & -2.2564 + 0.6263 \ln X_1 + \\ & (-0.8322) \quad (1.6877)^{***} \\ & 0.1297 \ln X_2 + 0.4815 \ln X_3 + \\ & (0.7296) \quad (1.1944) \\ & 0.8720 \ln X_5 \\ & (4.9274)^* \quad \dots (4.22) \end{aligned}$$

$$R^2 = 0.7812; \quad 't' \text{ with d.f.} = 10$$

$$F = 8.9237^* \quad \text{with d.f.} = 4 \text{ \& } 10$$

$$D.W. = 2.1723$$

[Figures in the parentheses are 't' values with d.f. = 10;

*Significant at 1%; ** Significant at 5%; ***Significant at 10%].

Here, again, in both the cases R^2 's are high and F-Statistic's are significant at 5% and 1% levels and imply goodness of fit. Signs of the parameters are as expected, all having positive impact on allocation of investible funds over the States. While in linear equation 4.21, parameters X_1 , X_3 & X_5 are significant at reasonable levels, in the log-linear equation 4.22, parameters X_1 & X_5 are only significant. Thus, the inter-state variation in per capita SDP, literacy rate, and net area under irrigation explain mostly the inter-State variation in the LIC's investments. The States having larger endowments of these characteristics have been benefitted more by the LIC's investments.

In this connection it seems that the flow of investible funds of the LIC has been more pronounced towards the already better-off States than to the lagging States. This implies some failure on the part of the LIC to reduce inter-State imbalances with respect to allocation of institutional investible funds.

4.9 Assessment of the Investment Activities of the LIC

"The fundamental function of the Life Insurance business is to furnish protection against the financial demands occasioned by disability, old age and death" (Magee, 1958). But to provide adequate financial security against the future contingencies, the LIC should enhance its funds. Moreover, as a nationalised organisation it should cater the needs of the economy. Both these can only be done through investment of funds. Hence, investment has

become an indispensable function of the Corporation. Accordingly, it formulated an investment policy of its own which is being regulated by the provisions of law of the land under Sections 27 and 27A of the Indian Insurance Act 1938. When there is a policy, there should be an objective. Naturally, the LIC too adopted some objectives which may be classified as:

(i) Towards the policy-holders : It should ensure maximum possible return from investments subject to security of the capital.

(ii) Towards the economy : It should keep its funds invested in such a way that the interest of the national economy can be best served and

(iii) Towards the Community : Since it procures business from the household sector it has the obligation to nurture the welfare aspect of the community or society.

We have so far examined the investment policy of the LIC and its legal bindings as well as the policy changes thereto on the one hand and on the other probed into the investment activities serving the avowed aim at achieving the broad objectives mentioned above. Our observation is that the LIC has bagged more failures and less successes. The failures are in respect of ensuring highest possible yield from investments which is constrained by its security-wise and sector-wise patterns of investment; in respect of catering the plan priorities which is not revealed from its industry-wise pattern of investment; and in respect of reducing regional imbalances as prescribed by our national economic policy.

which is not percolated from our study with the zone-wise and State-wise patterns of investment. The successes are in relation to ensuring security of funds, enhancing assets building and serving socio-economic needs of the society. All these have been revealed from our study of the investment patterns, the Controlled Fund and its distribution of funds in the socially purposive sectors such as loans for water supply, sewerage, sanitation, rural electrification and other rural projects under IRDP and loans for housing purposes etc.

So, our suggestion is that Section 27A of the LIC Act should be so amended that the LIC can reformulate its investment policy considering the advancement of technologies, changes in consumer profile, market competitions and above all, the market changes towards globalisation. But the LIC should not lose sight of the needs of the economy and plan priorities. Because, rapid economic development of the country is a matter in which the LIC should be interested as it is conducive to the growth of its business. As a whole, the LIC should be given right to allocate its resources more liberally keeping pace with recent market trend and for coping with the ensuing market competitions.