The Effects of Tax Holiday on Investment Decisions: An Empirical Analysis

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To promote rapid industrialization, developing countries have employed a variety of fiscal incentives to attract resources into the manufacturing sector. Perhaps the one incentive most frequently used has been that of protective tariffs. However, many developing countries, including Pakistan, have encouraged the creation of new manufacturing units through tax exemption, often referred to as tax holiday. Although the basic idea is the same in each country, all or part of a firm's corporate income is exempted from taxes for a specified period of time—each tax exemption scheme is tailored to meet a particular country's resources and development objective.

During the period from 1959 to 1972 a tax holiday scheme was used in Pakistan to accomplish two basic objectives: (i) to increase the overall level of investment in the industrial sector, and (ii) to encourage industry to locate in the less developed regions of the country. The principal objective of this study is to determine whether the tax holiday scheme has been successful in achieving its objetives. For the first objective it is necessary to find out whether the exemption scheme actually stimulated new investments that would not have otherwise taken place or whether firms that would have been established without the tax incentive received a windfall. Increasing the level of investment by creating high cost and economically inefficient industries, offers no real advantage to a developing country. The effectiveness of any tax exemption scheme must, in part, be judged on the basis of the basic economic merit of the industries stimulated by the exemption scheme. For the second objective, the success of the scheme can be measured by the extent of the diversion of industry to less developed regions as a result of tax exemption.

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A system of taxation can be considered both a source of revenue and an effective, flexible and reasonably predictable budgetary instrument for the acceleration of the process of economic development. Its importance has been stressed by Hall and Jorgenson who remark [6, p. 391] that "tax devices to stimulate investment have certainly been the greatest fad in economic policy in the past ten years. In a period when the trends in the use of policy instruments were in the direction of more general, less selective devices,... tax exemptions were embraced with enthusiasm, all over the non-communist world." Pakistan was no exception to the general pattern of the developing countries.

A tax holiday scheme was introduced in Pakistan in April, 1959.[1] It took the form of complete exemption from income tax of profits made by industrial firms. Industries set up during the last year of the First Plan (1955-1960) and during the Second Plan (1960-1965) were granted a tax holiday for eight, six, four and two years depending not on the nature of industry but on the degree of the economic development of the area in which it was located. A relatively longer period of tax holiday was allowed in areas which were less developed. During the Third Plan (1965-1970), the period of the tax-holiday was reduced by two years for each region. At the beginning of the Fourth Plan (1970-1975), the tax holiday was abolished for the relatively developed areas in West Pakistan and the period of tax holiday was reduced from four to three years in the semi-developed areas. The underdeveloped areas, however, continued to have a tax holiday of six years. Before the scheme was suspended in 1971 and abolished in 1972 with effect from the previous year, there was a total of 561 firms in different industries getting the concession. Many of these firms availed of tax holiday by establishing an identifiable new unit (32.5% of the representative sample). The other firms were established during the tax holiday period.

It is obvious that tax exemption works through the basic technique of increasing the level of profits. When no tax has to be paid from income derived from assets, the rate of return on those assets increases. The importance of exemption is outlined by Billsborrow and Porter [3] who compute the present value of an investment of a firm with and without tax exemption to see whether or not the tax holiday increased profits to such an extent that further investment was induced.[2]

The Effect on Industrial Investment

The effectiveness of a tax holiday scheme can be determined by using a model requiring four variables, namely, shareholder equity, net profits, the rate of interest, and the rate of tax. If investment is assumed to be a function of profits, one only needs to determine those firms that would have been established with and without the tax holiday. In order to do so, a cross-sectional analysis is required to find for firms:

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[1]See Appendix 'A' for details on the history of the tax holiday scheme.

[2]It is implied in the discussion that corporate taxes are not shifted and are borne by the producer. Tax exemption, therefore, increases the producer's rate of return without affecting prices.

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As the case being dealt with is one where the tax exemption is given for only a part of the time horizon, the net present worth formula is modified accordingly. The present value of a rupee of such investment (with "a" years of initial tax exemption), written Va, is:

$$(3)\quad Va = -1 + P\int_{o}^{a} e^{-rt}\,dt + P(1-i)\int_{a}^{b} e^{-rt}\,dt$$

where Va = net present worth with tax exemption

$\int_{o}^{a}$ = period with~~out~~ tax exemption

$\int_{a}^{b}$ = period not with tax exemption, and

i = rate of tax

With the integration of the above, the net worth formula gives the following derivation:

$$(4)\quad Va = \frac{1}{r}\left[(p-r) - Pie^{-ra} - P(1-i)e^{-rb} \right]$$

The present value without and with the exemption is then found to be:

$$(5)\quad V_o = \frac{1}{r}\left[-r + p(1-i)(1-e^{-rb}) \right]$$

and

$$(6)\quad V_b = \frac{1}{r}\left[-r + p(1-e^{-rb}) \right]$$

where V_o = present value without exemption, and

V_b = present value with exemption.

It is then necessary to find the conditions in which the present value of an investment is negative without the exemption but positive with it, i.e.,

$$(7)\quad V_o < O < V_b$$

These are:

$$(8)\quad \underset{\text{After-tax Profit Rate}}{P(1-i)} < \underset{\text{"Critical Quantity"}}{\frac{r}{1-e^{-rb}}} < \underset{\text{Before-tax Profit Rate}}{P}$$

These two conditions require that the after-tax profit be less than a specified amount, which Billsborrow and Porter call the 'critical quantity', and the before-tax profit rate be greater than it. The rate of tax is taken to be 0.40 for public firms, and 0.50 for private firms and the discount rate is taken to be 0.10 [9]. Since there is interest only with that part of the investment returns attributing to the tax holiday and, also for the sake of convenience, the investor horizons were assumed to be equal to the periods of the tax holiday that were granted to the various firms under study, even though it is recognised that the investor horizons are invariably longer than the periods of the tax holiday. The "critical quantity" called CQ (a function of both r and b) can be plotted for various rates of interest and investor horizons respectively (Fig. 1).

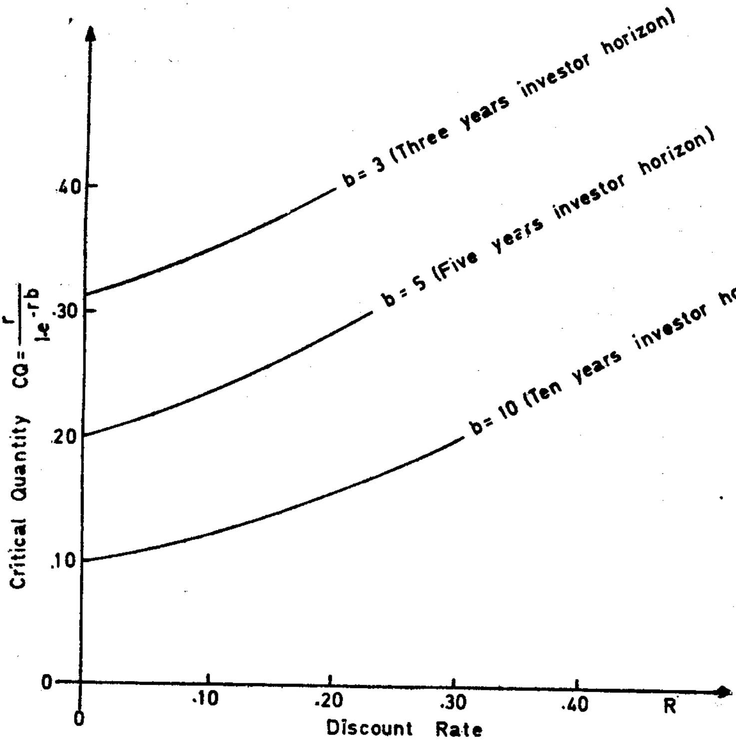

FIG. 1
CRITICAL QUANTITY TO STIMULATE INVESTMENT AT DIFFERENT RATES OF INTEREST AND INVESTORS HORIZONS

A representative sample of 40 firms was chosen (see Appendix C) to test the model. The industries covered were textiles, engineering, sugar, chemicals, vegetable oil, leather, fish, cold storage, beverage, pharmaceuticals, tobacco, and wheat flour. Six of the sample firms were located in the two-year tax holiday area; twenty-five in the four-year tax holiday area; six in the six-year tax holiday area and three in the eight year tax holiday area. In this sample an attempt was made to divide in one of the three categories those firms that would have invested only because the tax holiday made the investment profitable, those that did not rely on the tax holiday for profits, and those that made losses even with the tax holiday. The information required to enable the above comparison was, for each firm, the rate of profit, the discount rate and a time horizon. The before-tax profit rate was assumed to be measured by the ratio $\frac{\text{Untaxed Profits}}{\text{Share holder's equity}}$ whereas the after-tax profit rate was measured by the ratio $\frac{\text{Taxed profits}}{\text{Share holder's equity}}$.

An average of one to eight observations of $\frac{P}{E}$ and $\frac{P-T}{E}$ was taken to measure the before-tax and after-tax profit rates respectively. These were then compared to the amount referred to in the model as the "critical quantity".

However, this model has certain limitations. Perhaps the most important one is that in a retrospective analysis such as is the case with this study, profit rates are measured *ex-post* though in reality the investors based their decisions to invest on different *ex ante* considerations. The following is an ***ex ante*** and ***ex post*** investment decision-making chart:

		Ex Ante (without Tax Holiday)	*Ex Post* (with Tax Holiday)
Case 1	:	+	+
Case 2	:	—	+
Case 3	:	—	—

The model assumes that the investor has a clear picture of the future profitability of his investment provided by the ***ex post*** column before he actually invests. The investor will only invest in Cases 1 and 2. However, it is obvious that investments of the Case 3 type are also made which has the absurd implication that the investor knowingly invests in an unprofitable investment. The investor cannot have a firm ***ex ante*** evidence of the future profitability of his investment.[5]

There are two other limitations that are of lesser importance. One is that the model assumes that businessmen are motivated to invest only by profits. Although profits are an important factor, in many cases it is not the only one or necessarily the overriding one. The second is that the ***ex post*** profit rates are taken on each firm's own accounts which may be understated.

The results yielded by the model for each industry appear in Appendix 'B'. Out of the data from the representative sample of 40 firms, only 20 per-

[5]Because of this, it is not possible to state at the ***ex ante*** time period whether the future investment would be of case 1, case 2 or 3 types. Therefore in this study there is a reliance on the ***ex post*** data for the ***ex ante*** investment decision.

cent of the firms have invested due to the tax holiday based on their *ex post* profitability. The results show that the remaining firms, according to their before and after-tax profit rates, would either not have invested even with the tax-holiday or would have invested anyhow whether they had the tax holiday or not.

It is interesting to look at the largest and most important industry that was granted the concession, namely, the textile industry (Table 1).

Table 1

for a given value of r & b this critical value should be constant

r = 0.10

b = 8, 6, 4,

S. No.	$\frac{P-TP}{E}$		$\frac{r}{1-e^{-rb}}$		$\frac{P}{E}$	
1.	13.4	<	22.1	<	30.2	✓
2.	98.5	>	22.2	<	157.8	NEH.HRP
3.	19.7	<	55.2	<	29.6	✓
4.	4.6	<	30.3	>	15.2	LF.NP
5.	179.1	>	18.2	<	257.7	NEH. HRP
6.	14.4	<	30.3	>	21.9	LF.NP
7.	90.0	>	30.3	<	126.0	NEH. HRP
8.	34.7	>	30.3	<	48.6	NEH. HRP
9.	62.7	>	30.0	<	154.0	NEH. HRP
10.	7.7	<	22.2	>	10.8	LF. NP
11.	20.3	<	30.3	<	30.4	✓
12.	6.1	<	105.1	>	10.3	LF.NP
13.	55.7	>	30.0	<	77.0	NEH. HRP
14.	44.5	>	18.2	<	71.2	NEH. HRP
15.	10.0	<	30.0	<	33.0	✓
16.	20.1	<	30.0	<	39.2	✓
17.	Firm makes loss with or without tax holiday.					
18.	Firm makes loss with or without tax holiday.					

Based on their *ex post* profitability, only 22.2 percent of the firms were stimulated to invest because of the tax holiday as against 38.9 percent each for firms whose investment would have occurred even without tax holiday and the firms for which even the tax holiday would not have stimulated investment. Firms represented by serial numbers 2, 5, 7, 9 and 13 in Table 1 were already making such high profit that they can hardly be justified in getting the benefits of the tax holiday scheme. On the other hand, the firms making continuous low profits or losses, such as those at serial numbers 4, 10, 12, 17 and 18 in Table 1 would not consider it worthwhile to invest even if given the tax holiday. Similar results were obtained for all the other industry groups tested. Except for about one-fifth of the cases, there was a minimal effect of the tax holiday on industrial investment.

The Effect on Industrial Location

An interview schedule was designed (see Appendix 'D') to test on the representative sample in Appendix 'C' the effectiveness of the tax holiday scheme on industrial location. There were basically two aspects which were expected to be studied:

(*a*) The role the tax holiday played in determining the selection of an *industry*, and
(*b*) The role the tax holiday played in determining the choosing of the *place* to set up the industrial unit.

The interviewees were not told at the commencement of the interview the reason why they were being interviewed.

As can be seen in Appendix 'E' it was mainly high expected profits, previous experience and the availability of infrastructure that prompted the industrialists in the sample to select their industries. The tax holiday played a minor role in these aspects.

There was a consistency of results between the effects of the tax holiday on choosing the industry and choosing the place. Those industrialists who did not mention the tax holiday as motivating them to invest in a particular industry also did not consider it as having induced them to invest in a certain place.

As can be seen in Appendix 'F' there were basically two economic and two non-economic reasons influencing the location of an industry to which the tax holiday played only a supplementary role. The most important of these was the importance the investors placed on the availability of infrastructural facilities. The infrastructure requirements determined the investments in about half of the cases studied. There was reluctance to set up industrial units in interior areas that had few basic amenities.

On the production front, there was little or no availability of raw materials in interior areas. Some industries such as cotton ginning, sugar and cement mills have, however, of necessity to be located near their raw materials. Even in industries where the availability of raw materials at hand was not necessary transportation costs, including the payment of octroi, were too high. Some of the industrialists interviewed were content to have a lesser period of the tax holiday and to remain in Karachi because of the port facilities. Also, in interior areas electricity and power break-downs leading to halts in production are chronic. Added to these are problems due to the lack of availability of filtered water for industry, and potable water even becomes a problem in some cases. Investors also hesitated to be in interior areas for fear of being stranded due to lack of communication. Some of the areas had very few telephones which were not operative for a great part of the time.

On the other hand, the industrialists considered that the element of risk was minimised in an already established industrial area with an infrastructural base. They are ready to invest in towns like Karachi and Lahore where the government provides power, water, sewerage, road and rail connections and other facilities. Moreover, also available in urban centres because of external economies are repair and service firms along with the stock exchange, commodity exchanges, banking, advertising and insurance facilities.

The other important economic reason affecting the location of industry as seen in Appendix 'F' is that of labour considerations. Investors are reluctant to invest in interior areas, despite the tax concession, because of the following reasons:

(1) Faster labour turnover in rural areas due to labour drop-outs in the harvest seasons;
(2) Higher training cost involved in the training of rural untrained labour;
(3) Payment of higher salaries to induce skilled workers to work in rural areas;
(4) Additional expenses on labour in rural areas with respect to staff accommodation; and
(5) Inferior quality of labour in rural areas since mainly rejected urban labour are found there. As a result there is less industrial peace due to an undisciplined labour in these areas.

The lower relative importance of the tax holiday scheme when compared to the infrastructural and labour considerations is observed by the fact that the tax holiday had succeeded in inducing investment in only 20 percent of the cases studied. Industrial units that were actually set up in interior areas, it was seen, were set up by the local inhabitants whose primary motive to invest was to develop their areas rather than consider the profitability criterion. Eighty percent of the investments would have occurred where they did even without the tax holiday. (See Appendixes 'G' and 'H'.)

There are certain non-economic factors which, though not as important as the economic factors, also lead to the failure of the tax holiday to encourage industrial dispersion. One is that since most investors were refugees from India, they prefer to set up industries in cosmopolitan, urban centres like Karachi. There they find a variety of languages and expressions of particular cultural characteristics. The refugee industrialists feel they would be socially acceptable there. And since there are members of various communities present a social phenomenon like marriage can occur in the community amongst the same sects.

There is also the administrative aspect of delegation of authority to be reckoned with. The industrialists like to be at hand to supervise the running of their industries. This cannot be done as easily with investments in interior areas where the industrialists have to rely on recruited staff who are invariably not trusted. The desired competence of family members to run a unit in rural areas is also wanting.

Largely as a result of the above investment-retarding factors, no more than 20 percent of the enterpreneurs sought investment in the interior areas. Any future policy that aims at industrialising the disadvantaged areas must take all these factors into account.

The Cost of Tax Holiday to the Exchequer

It is important in this study to assess the cost of the tax holiday to the exchequer if a proper evaluation is to be made concerning the merits of the tax holiday weighed against the loss in revenue that it involved.

Profits earned by the tax holiday companies during the tenure of their tax exemption are not known as no regular assessments were made by the tax authorities for tax purposes. The only information available is the paid-up capital of various tax holiday companies. Assuming different proportions of equity capital and borrowed capital, and using different rates of net profit on total fixed capital, three sets of estimates have been prepared. Table 2 gives the yearly figures of the estimated loss of revenue under different assumptions.

Table 2

Estimated Loss of Revenue in West Pakistan due to Tax Holiday

(Crores of Rupees)

Year	Estimate A	Estimate B	Estimate C
1959—60	0.58[a]	0.77[b]	0.87[c]
1960—61	1.29	1.72	1.94
1961—62	3.08	4.09	4.62
1962—63	5.61	7.46	8.42
1963—64	6.88	9.15	10.32
1964—65	14.20	18.89	21.30
1965—66	14.33	19.06	21.50
1966—67	12.31	16.37	18.46
1967—68	11.36	15.11	17.04
1968—69	5.96	7.93	8.94
1969—70	6.68	8.88	10.02
1970—71	4.18	5.56	6.27
TOTAL	86.46	114.99	129.30

[a]Assumes a ratio of 40:60 between equity and borrowed capital and net profit of 10 percent on total fixed capital.

[b]Assumes a ratio of 30:70 between equity and borrowed capital and net rate of profit of 10 percent on total fixed capital.

[c]Assumes a ratio of 40:60 between equity and borrowed capital and net profit of 15 percent on total fixed capital.

The revenue loss, it will be observed, kept on mounting till 1965-66 but then began to taper off. The total revenue loss, on the basis of the aforementioned assumptions comes to between Rs. 80.46 crore and Rs. 130 crore. It must be mentioned, however, that these estimates do not include the loss of revenue due to evasion of tax by the non-exempt units which could attribute their profits to the expansion units which were entitled to a tax holiday. It has been argued in some quarters that the 'genuine' loss of revenue would be less than the above figures because, it is suggested, the loss attributed to those industries which would simply not be there without the tax-holiday incentive can be regarded only as fictitious. The real loss, it is pointed out, would be only that which was attributable to those industries which would have developed even without the incentive of the tax holiday. However, this 'genuine' loss is probably similar to the figures mentioned above since the incentive role of the tax holiday on industrial growth has been seen to be only minimal.

Conclusion

The results of this study, being based on a representative sample of 40 firms out of a total of 561 receiving the tax exemption, may have certain imperfections. The firms may have given distorted profit statements or exaggerated some of the effects of the tax exemption in their replies to the interview schedule. Nevertheless, the observations that stand out even after taking account of the imperfections in the data are that the effect of the tax holiday in stimulating overall investment and influencing the location of industry in interior areas was minimal.

For the tax holiday to have an appreciable effect on industrial dispersion, it has to be incorporated within the farmework of a regional development plan. There are many elements that enter into the investor's decisions to invest. Therefore, emphasis ought not be given to fiscal devices in isolation but a host of other important economic and non-economic factors have also to be considered. Some of these are roads, rail, power, water, drainage, banking, social, political and administrative considerations. There is little point in granting a tax holiday in areas without such amenities. The tax holiday should, therefore, go hand in hand with a regional development plan that provides for such amenities.

Appendix 'A'

History of the Tax Holiday Scheme [10]

Essentials for enjoying Tax Holiday

(*a*) The industry was to be primarily based on Pakistani raw materials.

(*b*) It was managed and controlled by a limited company with a paid-up and subscribed capital of not less than Rs. 200,000.

(*c*) It reinvested at least 60% of its profits in the same enterprise during the period of the tax holiday. At the end of the period of the tax holiday, depreciation on the fixed assets of the enterprise was still allowed on the basis of the original cost spread over the remaining life at the rates applicable to similar concerns except that the initial depreciation allowance was not admissible.

Broadening of the Tax Holiday Scheme in 1960

In 1960 this scheme was broadened as compared with the previous year.

(*a*) First, it was stipulated above that the holiday applied to new industrial companies incorporated in Pakistan which used wholly or mainly local raw materials and did not distribute more than 40% of their profits for the first years of the operation. It was now decided to extend the scope of this concession. The period of the tax holiday was increased from two to four years generally and to six years in such of the particularly underdeveloped areas of West Pakistan as were specifically notified from time to time.

Next, the condition that the industry seeking the tax holiday must use wholly or mainly raw materials produced in Pakistan could now be relaxed by the Central Government in certain cases.

Also, under the previous law, companies both foreign and domestic, receiving dividends from Pakistani companies enjoying the benefit of the tax holiday had to pay income tax and super tax amounting in all to 45 percent. It was now decided to confine this liability to the dividend tax only, i.e., from 45 to 15 percent. The incidence of the dividend tax would be reduced futher in the case of companies resident in most of the countries with which Pakistan had agreement for avoidance of double taxation.

(*b*) Second, companies enjoying the tax holiday would have to put 60 percent of its profits earned during each year of the period of the tax holiday in a special fund to be utilized only for its expansion and development. In exceptional cases, a part of this fund might be utilized for investment in other industries but this would require the specific permission of the central government.

(*c*) Third, in order to encourage the development and expansion of existing industrial units, it was decided to extend to them the benefit of the tax holiday if the development or expansion consisted of an identifiable unit or an identifiable new process. Rules were framed to determine the proportionate profits in such cases which would qualify for the benefit of the tax holiday.

(*d*) Finally, the tax holiday would be available to those industries which were established between April 1959 and 30th June, 1965 when the Second Five Year Plan ended.

Division of Pakistan into Areas of Tax Holiday

For the purpose of the tax holiday, as indicated above, it was decided in 1961 to divide the country into three types of areas according to their stage of industrial development. The tax holiday would now be available to industries for 4, 6 and 8 years depending upon the areas within which they were located, viz.,

1. *Areas Eligible for* 8 *Year-Tax Holiday*
All areas of West Pakistan lying to the West of the line represented by the river Jhelum to the point of its confluence with the Chenab, the river Chenab from this point to the point of its confluence with the Panjnad, and the Panjnad to the point of its confluence with the Indus, and the river Indus thereafter but exlcuding the ***Tehsils*** of Peshawar, Nowshera, Mardan and also excluding Karachi.

2. *Areas Eligible for* 6-*Year Tax Holiday*
The whole of West Pakistan excluding the areas eligible for the tax holiday for eight and four years.

3. *Areas Eligible for* 4-*Year Tax Holiday*
The *Tehsils* of Nowshera, Mardan, Rawalpindi, Jhelum, Sialkot, Gujranwala, Lahore, Lyallpur and Multan and the ***Talukas*** of Sukkur, Hyderabad and Karachi.

Provisions in the 1961 budget speech were also made for the accounting procedure for expansions made to existing industrial undertakings and for the utilization of the 60 percent special reserve.

Accounting Procedure for Tax Holiday Industries

Concerning the accounting procedure, it was decided that an existing undertaking desiring to get the benefit of the tax holiday in respect of its expansion or extension may, instead of keeping separate accounts, form a subsidiary company for the purpose of operating the new unit or new industrial processes. In such cases any parent company would be exempt from inter-corporate taxation.

The 60 Percent Provision for Tax Holiday Industries

In the provision for the 60 percent special reserve,

(*a*) the 60 percent reserve could be utilized for the issue of bonus shares and in that case the tax could be removed; and (*b*) where a company could not utilise the special reserve for its own industrial expansion, it could invest it freely in any industry listed in the Industrial Investment Schedule issued by the Ministry of Industries without obtaining prior government approval.

It was further stipulated in 1963 that while the provisions for tax holiday applied automatically only to industries that were based mainly on local raw materials, this condition was to be freely relaxed for industries of basic importance to the economy such as steel, heavy chemical and engineering industries, and the manufacture of capital equipment and spare parts.

Tax Holiday in the Second Five Year Plan Period

As the Second Five Year Plan period drew to a close, in 1964 another look was taken at the tax holiday scheme. It was previously decided that the period of the tax holiday was to end on 30th June, 1965. Now it was thought that as it took time to plan and implement industrial schemes, the concessions were proposed to be continued during the Third Plan till 30th June, 1970 but with certain modifications.

First, from July 1, 1965, the tax holiday would be reduced by two years and the holiday would be admissible for two, four and six years in West Pakistan.

Second, previously, except by special permission, only those industries enjoyed the benefits of the tax holiday which were based wholly or mainly on indigenous materials. It was now proposed that, in addition, where special technical know-how was required or where the return was likely to be low compared to the risk involved or where an appreciable export potential existed or where an industry contributed to agricultural development, the tax holiday would be admissible *irrespective* of the source of the raw materials.

List of Industries (apart from those based on Indigenous Raw Materials)

The following is the list of the industries, apart from those based on indigenous raw materials, that qualified for the tax holiday.

(*i*) Drugs and Pharmaceuticals (basic manufacture)
(*ii*) Fertilizers
(*iii*) Insecticides and pesticides (basic manufacture)
(*iv*) Petro-Chemicals
(*v*) Wires and Cables
(*vi*) Agricultural machinery
(*vii*) Boilers and compressors
(*viii*) Tractors
(*ix*) Machine tools and manufacture of other capital equipment
(*x*) Manufacture of trucks, cars, scooters and auto rickshaws and bicycles
(*xi*) Ship-building and repair
(*xii*) Diesel engines and I. C. engines
(*xiii*) Textile machinery including manufacture of looms and spindles
(*xiv*) Selected mineral production (coal, chromite)
(*xv*) Refractories
(*xvi*) Manufacture of radio components

(*xvii*) Ceramic and Sanitary ware
(*xviii*) Livestock feed
(*xix*) Gas and Electric appliances, gas and electric meters and water meters
(*xx*) Canning and preservation of food
(*xxi*) Canning and processing of fish
(*xxii*) Components of above
(*xxiii*) Footwear and leather goods
(*xxiv*) Tanning and cutting of leather
(*xxv*) Surgical instruments
(*xxvi*) Sports goods
(*xxvii*) Cutlery
(*xxviii*) Carpets
(*xxix*) Other units which export at least 30 percent of their production
(*xxx*) Poultry and dairy farming
(*xxxi*) Any other industry notified later

Bonus Shares of Tax Holiday Companies

In 1965 it was also decided that bonus shares issued by the tax-holiday companies would be taxed like dividends but the small share-holders were not likely to be affected because the exemption limit of dividend income was being raised.

Change from 60 percent to 40 percent Reserve for Reinvestment

To increase the effectiveness of the tax holiday scheme as an incentive in 1966 it was decided that the tax holiday companies would have to set apart only 40 percent of their profits and distribute the remaining 60 percent or pay a dividend of 10 percent, whichever was less. The amount left over, if any, after such distribution would be carried forward to the next year for similar distribution as dividends.

Exemptions to Compulsory Distribution of 60 percent Tax-Free Profits

This condition of compulsory distribution of 60 percent of tax-free profits by a tax-holiday company was waived in 1968 in the case of a private limited company whose capital and free reserves did not exceed Rs. 300,000. In addition, those tax holiday companies which could not declare a dividend of even five percent by distributing the entire 60 percent of their exempt income had been allowed to pass over a dividend. The undistributed income would, however, have to be carried to the following year for distribution.

Tax Holiday Scheme in Third Five Year Plan Period

As the end of the Third Five Year Plan approached, in 1969 a new look was taken at the tax holiday scheme. It was decided to continue the concept of the tax holiday for industrial undertakings in the Fourth Plan Period but with certain modifications. The developed areas of West Pakistan like Karachi, Lahore, Gujranwala etc., which were eligible for a 2-year tax holiday lost the concession. They had a developed industrial base, an adequate infrastructure and other facilities which would attract industries to these areas even without any fiscal incentives.

The semi-developed areas of West Pakistan which then enjoyed the tax holiday for four years and Islamabad would now be eligible for the tax holiday for a period of three years. The underdeveloped areas of West Pakistan would continue to be eligible for a tax holiday of six years. The developed, semi-developed and underdeveloped areas of West Pakistan then enjoyed a tax holiday for two, four and six years respectively. The edge in each case for a lesser stage of development was two years. The revised tax holiday periods for these areas would be zero, three and six years respectively. The advantage in favour of the less developed areas had, therefore, been increased from two years to three years to encourage the dispersal of industry to such areas.

Profit Distribution Decreases from 60 percent to 50 percent

It was also decided in 1970 that there would be exemption of income tax on investment in the shares of approved new companies.

Moreover, in order to make more funds available to the tax holiday companies out of their profits for the purpose of servicing their debts, expansion etc., it was decided to reduce the portion of profits required to be distributed as dividend from 60 percent to 50 percent.

Suspension and Abolition of Tax Holiday Scheme

Finally, however, in 1971 the tax holiday scheme was suspended. Tax realised for that year from companies eligible for the tax holiday would, nevertheless, be allowed as credit against tax liability for the period following the expiry of the tax holiday. And in 1972 the tax holiday was abolished completely with retrospective effect from the assessment year 1971-72.

Appendix 'B'

Results of Testing of Mathematical Model on Data Gathered from Firms' Balance Sheets

(Tax Holiday Period from 1959 to 1972)

	Would not have invested even with Tax Holiday	Whould have invested even without Tax Holiday	Invested because of Tax Holiday	Total
Number of Firms	16	16	8	40
Percentage of Sample Total	40%	40%	20%	100%

Appendix 'C'

1. **Textile**

(A) 2-*Year Tax Holiday Firms*

(1) Mir Textile Mill Ltd., Karachi.
(2) Mohammad Farooq Textile Mill Ltd., Karachi.
(3) Wahid Spinning Industry Ltd., Karachi.

(B) 4-*Year Tax Holiday Firms*

(4) Lahore Taxtile and General Mills Ltd., Kalashah Kaku.
(5) The Burewala Textile Mills Ltd., Multan.
(6) Kohinoor Rayon Mills Ltd., Lahore.
(7) Sind Fine Textile Mills Ltd., Shikarpur.
(8) Awami Textile Mills., Kotri.
(9) Textile Corporation of Pakistan, Hyderabad.
(10) Noon Textile Mills Ltd., Bhalwal (Sargodha Distt).
(11) Fazal Textile Mills Ltd., Karachi.
(12) Shafiq Textile Mills Ltd., Karachi.

(C) 6-*Year Tax Holiday Firms*

(13) Afsar Textile Mills Ltd., Muridke.
(14) Quetta Textile Mills, Kotri.
(15) Ravi Rayon, Kalashah Kaku.

(D) 8-*Year Tax Holiday Firms*

(16) Tribal Textile Mills Ltd., D.I. Khan.
(17) Amin Fabric Ltd., Kotri.
(18) Textile Accessories Mfg. Ltd., Kotri.

2. **Engineering**

(A) 4-*Year Tax Holiday Firms*

(19) Anwar Industries Ltd., Gujranwala.
(20) BECO Industries Ltd., Lahore.
(21) Hyesons Steel Mills Ltd., Karachi.

(B) 6-*Year Tax Holiday Firms*

(22) Pioneer Steel Mills Ltd., Muridke.

3. **Sugar**

(A) 4-*Year Tax Holiday Firms*

(23) Hyesons Sugar Mills Ltd., Khanpur.

(B) 6-*Year Tax Holiday Firms*

(24) Shahtaj Sugar Mills Ltd., Mandi Bahauddin, District Gujrat.

4. **Chemical**

(A) 4-*Year Tax Holiday Firms*

(25) Chemical Coating Industry Ltd., Karachi.
(26) Fatehally Chemicals Ltd., Karachi.

5. **Dying and Bleaching**

(A) 4-*Year Tax Holiday Firms*

(27) Indus Dying Mfg. Co. Ltd., Hyderabad.
(28) Jupiter Dying and Bleaching Mills, Hyderabad.
(29) Premier Dying and Bleaching Ltd., Lyallpur.

6. **Vegetable Oil**

(A) 4-*Year Tax Holiday Firms*

(30) Vegetable Oil Extraction Plant, Hyderabad.
(31) Bengal Vegetable Ltd., Karachi.
(32) Fazal Vegetable Ghee, Islamabad.

7. **Leather**

(A) 6-*Year Tax Holiday Firms*

(33) National Tanneries of Pakistan Ltd., Muridke.

8. **Fish**

(A) 4-*Year Tax Holiday Firms*

(34) Pakistan Fisheries Ltd., Karachi.

9. **Cold Storage**

(A) 4-*Year Tax Holiday Firms*

(35) Atlas Cold Storage Ltd., Lyallpur.

10. **Beverages**

(A) 2-*Year Tax Holiday Firms*

(36) International Beverages Ltd., Islamabad.

11. **Pharmaceutical**

(A) 4-*Year Tax Holiday Firms*

(37) Merck, Sharp and Dome Ltd., Karachi.

12. **Tobacco**

(A) 4-*Year Tax Holiday Firms*

(38) Souvenir Tobacco Ltd., Karachi.

13. **Packaging**

(A) 2-*Year Tax Holiday Firms*

(39) United Packaging Ltd., Muridke.

14. **Flour Milling**

(A) 2-*Year Tax Holiday Firms*

(40) National Flour Mills Ltd., Islamabad.

Appendix 'D'

Interview Schedule

1. Date
2. Place of Interview
3. The name of the industrial unit
4. The year in which the unit was established
5. Have you other industrial units established elsewhere?
6. If so, what?
   (*a*)
   (*b*)
   (*c*)
7. Why did you select this particular industry?
   (*a*) Previous experience
   (*b*) Availability of technical know-how
   (*c*) Availability of marketing facilities
   (*d*) High expected profits
   (*e*) Availability of loan funds
   (*f*) Tax Holiday
   (*g*) Availability of raw materials
   (*h*) Availability of skilled workers
   (*i*) Other reasons

8. Why did you choose this particular place for establishing your industrial unit?

   (*a*) Availability of loan
   (*b*) Availability of raw materials
   (*c*) Availability of marketing facilities
   (*d*) Availability of trained labour
   (*e*) Industrial peace
   (*f*) Availability of electricity
   (*g*) Availability of water
   (*h*) Tax Holiday
   (*i*) Availability of loan funds
   (*i*) Other reasons

9. If there were no Tax Holiday would you have established your industrial unit at this place?
   Yes
   No

10. If there were no Tax Holiday where would you have established the industrial unit?

11. The rated installed capacity

12. Number of shifts worked per day

13. Percentage utilization of capacity on the basis of the shifts worked per day

14. Quantity of the goods produced

(*a*)
(*b*)
(*c*)
(*d*)

In preparing the sample of firms proposed to be interviewed, three aspects were considered, viz.

(1) The period of the tax holiday, that is, whether the firm enjoyed the tax holiday for two, four, six or eight years. Different firms in the same industry enjoying different periods of the tax holiday were grouped together to facilitate a comparison of results after the interviews were held.

(2) Whether the firms in the sample were representative of investment. Forty tax holiday firms belonging to 14 industries were selected for the sample out of a total of 561 firms belonging to 30 industries. This sample was representative of 70.41 percent of the total number of tax holiday firms and as such was representative of investment. It was found that the textile, engineering, vegetable oil, ice and cold storage, sugar, chemical, tobacco, cement, beverages, pharmaceutical, freezing and processing of fish, leather and printing industries comprised the 70.41 percent of the firms that were granted the tax holiday. The firms in the sample were in direct proportion to their numbers in each industry. Thus, for example, the textile industry which had the largest number of firms enjoying the tax holiday would be represented by more firms in the sample than any other industry and so on.

(3) An emphasis on location was also considered and firms in the sample areas are to be found in representative areas of the 'Developed', 'Semi-developed' and 'Under-developed' parts of Pakistan.

Appendix 'E'

A

Table of sample showing Reasons for the Selection of a Particular Industry during Tax Holiday Years 1959-1972.

S. No.	Reason	Respondent Firms	
		No.	No. as% of Total Sample
1.	High expected profits	15	37.5
2.	Previous experience	14	35.0
3.	Availability of technical know-how	9	22.5
4.	Tax holiday	8	20.0
5.	Availability raw materials	7	17.5
6.	Few competitors	6	15.0
7.	Availability of marketing facilities	5	12.5
8.	To satisfy national requirements	4	10.0
9.	Representing foreign firms	3	7.5
10.	Industry well established	3	7.5
11.	Business purchased	3	7.5
12.	Availability of labour	3	7.5
13.	Export earning potential	2	5.0
14.	Availability of transport	1	2.5

B

Breakdown of Above Firms in Categories based on Number of Reasons Given

S. No.	Category of Firms	Respondent Sample Firms	
		No.	No. as % of Total Sample
1.	Firms giving One reason	19	47.5
2.	Firms giving Two reasons	10	25.0
3.	Firms giving Three reasons	6	15.0
4.	Firms giving Four reasons	2	5.0
5.	Firms giving Five reasons	0	0 .0
6.	Firms giving Six reasons	3	7.5
	Total	40	100.0

Appendix 'F'

A

Table of Sample Showing Reasons for the Choosing of a Particular Place during Tax Holiday Years 1969-1972.

S. No.	Reason	Respondent Firms	
		No.	No. as % of Total Sample
1.	To develop area to which one belonged	10	25.0
2.	Availability of raw materials	9	22.5
3.	Availability of market facilities	9	22.5
4.	Availability of water	8	20.0
5.	Availability of tax holiday	8	20.0
6.	Availability of labour	7	17.5
7.	Availability of transport	6	15.0
8.	Close to or in urban centre	5	12.5
9.	Availability of technical knowledge	5	12.5
10.	Availability of electricity	5	12.5
11.	Industrial peace	4	10.0
12.	Availability of power	4	10.0
13.	Conducive climatic conditions	2	5.0
14.	Availability of cheap land	1	2.5

B

Breakdown of Above Firms in Categories based on Number of Reasons Given

S. No.	Category of Firms	Respondent Sample Firms	
		No.	No. as % of Total Sample
1.	Firms giving One reason	16	40.0
2.	Firms giving Two reasons	16	40.0
3.	Firms giving Three reasons	3	7.5
4.	Firms giving Four reasons	2	5.0
5.	Firms giving Five reasons	1	2.5
6.	Firms giving Six reasons	1	2.5
7.	Firms giving Seven reasons	1	2.5
	Total	40	100.0

Appendix 'G'

Table of Sample Showing Whether Investment would have occurred at all without Tax Holiday during Tax Holiday Years 1959-1972.

S. No.	Category of Firms	Respondent Sample Firms	
		No.	No. as % of Total Sample
1.	Investment without tax holiday	32	80
2.	Investment only with tax holiday	8	20
	Total	40	100.0

Appendix 'H'

Table of Sample Showing Whether Establishment of Industrial Unit in Sample in Existing Place would have occurred without Tax Holiday during Tax Holiday Years 1959-1972.

S. No.	Category of Firms	Respondent Sample Firms	
		No.	No. as % of Total Sample
1.	Would have occurred in same place	32	80
2.	Would not have occurred in same place	8	20
	Total	40	100

References

1. Ahmad, Rafiq. "Incentive Taxation for Economic and Social Development." *Pakistan Economic and Social Review.* Summer 1973.
2. Aziz, Sartaj. *Industrial Location Policy in Pakistan.* Karachi: National Publishing House Ltd. 1969.
3. Billsborrow, Richard E. and Richard C. Porter. *The Effects of Tax Exemption on Investment by Industrial Firms in Colombia.* Ann Arbor (Michigan): Cred Reprints Publication. 1972.
4. Bird, R. M. *Public Finance and Economic Development.* Cambridge (Mass.): Harvard University Press. 1970.
5. Coen, Robert M. "Effects of Tax Policy on Investment." *American Economic Review.* LVIII. 1968.
6. Hall, R.E. and D.W. Jorgenson. "Tax Policy and Investment Behaviour." *The American Economic Review.* Vol. VII. 1967.
7. Ikram, Khalid. "Social Versus Private Profitability in Pakistan's Exports of Manufactures." *The Pakistan Development Review.* Vol. XII, No. 2. Summer 1973.
8. Lent, G. H. "Tax Incentives for Investment in Developing Countries." *IMF Staff Papers.* July 1967.
9. Little, Ian H. D. and James A. Mirrlees. *Social Cost Benefit Analysis.* Paris: OECD 1968.
10. Pakistan. Ministry of Finance. *Fiscal Policy in Pakistan: A Historical Perspective.* Vols. I and II. Islamabad. May 1972.
11. Pakistan. Planning Commission. *The Second Five Year Plan* (1960-65). Karachi. June 1960.
12. Pakistan. Planning Commission. *The Third Five Year Plan* (1965-70). Karachi. June 1965.
13. Papanek, Gustav F. "The Location of Industry." *The Pakistan Development Review.*" Vol. X, No. 3. Autumn 1970.
14. Prest, A.R. "Taxes, Subsidies and Investment Incentives." In A. T. Peacock (ed.). *Government Finance Economic Development.* Paris: OECD. 1965.