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Concentration in the Israeli Economy,
1964-1986**

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McGill University

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1964-1986**

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ABSTRACT

This essay examines the Israeli market structure from the perspective of ownership. We distinguish between the several corporate holding-groups that dominate the 'Big Economy' and the multitude of smaller, largely independent, business entities of the 'Small Economy'. Although the two "sectors" operate under the same macroeconomic conditions, the analysis reveals marked differences in their business performance. These differences were reflected in an upward trend of aggregate concentration through the 1964-1986 period. Until the early 1970s the upward trend was moderate and was largely due to the different expansion paces of the two "sectors". Since then, however, the trend intensified as the 'Small Economy' stagnated while profits in the 'Big Economy' continued to grow.

RESUME

Cet article examine la structure du marché israélien du point de vue de la propriété. Il fait la distinction entre les quelques groupes incorporés qui dominent la "grande économie" et la multitude d'unités d'affaires, pour la plupart indépendantes, de la "petite économie". Quoique les deux "secteurs" fonctionnent dans les mêmes conditions macroéconomiques, notre analyse révèle des différences marquées dans leur performance respective. Ces différences se reflètent dans une tendance vers la concentration globale durant la période 1964-86. Jusqu'au début des années 1970, cette tendance était modérée. Elle était avant tout la conséquence des rythmes différents d'expansion dans les deux "secteurs". Mais depuis, la tendance s'est intensifiée, la "petite économie" restant stagnante, alors que les profits de la "grande économie" se développent continuellement.

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INTRODUCTION

This essay examines the Israeli market structure from the perspective of ownership. The main focus is on the 'Big Economy' in general and on the corporate holding groups in particular. Part One provides an overview of the largest holding groups, outlines their history and discusses their modus operandi. It further considers the essential difference between the standard 'production' approach to structure and the 'ownership' perspective examined in this paper, arguing that the latter is a crucial element in understanding Israeli economic history. In Part Two we describe the data set and evaluate its appropriateness for our purpose. Part Three provides some empirical results and assesses their significance. Three related issues are explored here: (i) similarities and differences in the evolution of the largest holding groups, (ii) the performances of the 'Big Economy' in contrast with the 'Small Economy', and (iii) the development of several aggregate concentration measures.

1. THE 'BIG ECONOMY' AND THE LARGEST HOLDING GROUPS

1.1 Overview

The largest form of business organization in Israel is the Conglomerate Holding Group, a highly diversified concern involved in most spheres of business activity. The 6 largest holding groups are Bank Leumi, Bank Hapoalim, Israel Discount Bankholding (IDBH), Koor Industries, the Israeli Government Group and Clal (Israel), the final one being a joint venture controlled by the first 5 groups. These groups increased in their significance mainly after 1967. All of them, however, were established prior to Independence in 1948 or had their roots in that period. Let us consider each one in turn. (There are additional holding groups and large firms operating in Israel. These, however, are not considered here because they are much smaller than the largest 6 groups and because data regarding these groups are inadequate.¹)

Bank Leumi. The bank was originally established by the Jewish Agency in 1902 as Anglo-Palestine Co., for the purpose of land purchase in Palestine. In the Second World War, it changed direction and entered into international finance and business with industries supplying the British Army. With Independence in 1948, it became the monetary agent of the new Israeli Government. In 1950 it was renamed as Bank Leumi and gradually turned into a normal commercial bank. While it is formally controlled by the Jewish Agency, in practice it is a "managerial corporation", having a board of directors that nominates itself. In terms of assets, Bank Leumi is one of Israel's two largest banks (together with Bank Hapoalim). It is concentrated mainly in financially related activities but also has direct investment in industry and services.

Bank Hapoalim. This was established in 1921 by Hevrat HaOvdim (which is the business arm of the Histadrut, the latter being Israel's largest--and by now only--trade union). Its initial purpose was to finance activities of organizations within Hevrat Haovdim but it rapidly ventured into the private

¹ These include corporations such as Solel Boneh, Teus, TAKAM (of the United Kibbutz Movement), Teva, Dubek, Elite, Delta, Dan Hotels and Shiff Hotels. Large foreign corporations are also involved in Israel. The most important are the Eisenberg Group, the Rothschild Group, Control Data Corporation (CDC), General Telephone and Equipment (GTE), Motorola, Hewlett Packard and TRW.

sector, into business with government enterprises and into the international market. Presently, it is involved in finance, manufacturing and services through both its direct and indirect ownership in hundreds of firms.

Israel Discount Bankholding (IDBH). The group was originally founded as a bank in 1936. By the early 1950s it grew to become Israel's largest privately-owned bank. Currently, the Discount Bank itself is only one part of the IDBH holding group. This conglomerate expanded via joint ventures and acquisitions into diverse areas such as real estate, shipping, oil refining and supply, provision of automotive parts, insurance, food, retail, agriculture, medical equipment and arms production and trade.

Koor Industries. Koor was established in 1944 as a division of Solel Boneh (the country's largest construction corporation under the control of Hevrat HaOvdim). In 1958, Solel Boneh was reorganized and Koor Industries became an independent industrial corporation. After several difficult years, Koor began to expand rapidly, particularly into metal products, chemical products and electronics. Currently, it is Israel's largest industrial concern with direct control over hundreds of firms.

The Israeli Government. The government in Israel is involved in many sectors of the market through direct investment in firms and its share in total industrial sales currently amounts to approximately 25%. It has a significant minority or majority interest in hundreds of companies, the most important of which are Israel Aircraft Industries (the country's largest industrial producer with 20,000 employees), Oil Refineries, Israel Chemicals (the largest mineral/chemical concern) and Israel Military Industries (the Israeli Defence Force weapon-production branch).

Clal (Israel). The company was founded in 1962 by the Israeli Government together with Bank Leumi, IDBH, Bank Hapoalim, and several other local investors. The initial aim was to attract capital of South American Jewish investors by giving Clal (Israel) preferential government treatment. The company expanded rapidly through large acquisitions financed by the government on extremely favorable

terms². While the aim of luring foreign capital has failed, the company's investments in production, services and finance became increasingly important for the local partners. By the early 1970s, the government "lost" its control over Clal (Israel) to the largest three partners, Bank Hapoalim, IDBH and Bank Leumi. Currently, this joint venture, or "Gravity Centre", is Israel's largest investment group with interests in over 150 firms.

1.2 The Question of Modus Operandi

Of the above 6 groups, only IDBH is under formal private control. Bank Hapoalim and Koor Industries are "workers" institutions, formally under the control of the Histadrut, itself a super-structure which incorporates a trade union and the business firms that the union controls. Bank Leumi is a "national" institution, formally controlled by the Jewish Agency. The Jewish Agency used to be the unofficial government until Independence in 1948 and it continues to act as a "Zionist" organization. Finally, the Israeli Government group is a conglomerate of "crown" corporations. Since these latter groups are not under formal 'private' control their modus operandi deserves some closer attention.

In what follows, we argue that (i) Bank Hapoalim, Koor Industries and Bank Leumi effectively operate as 'private' business organizations, seeking expansion of profits and accumulation of assets, and (ii) that the Israeli Government Group follows a more complex path: it often acts to facilitate the operations of the other groups rather than compete with them, while on other occasions it operates as a 'private' business organization for all intents and purposes.

1.2.1 The "National" and "Worker" Organizations

The perception of a separation between "national", "worker" and "private" economic organizations is inadequate for the present Israeli context. It reflects the image of the pre-independence period,

² This included privatization of government enterprises sold to Clal (Israel) at symbolic prices and subsidized government finance for other acquisitions.

but this image of political and ideological demarcation was not a very close approximation of the underlying reality, even at that early period. In the British Mandate era of pre-independence, there was almost a complete symbiosis between political, economic and social organizations. Ben Gurion, for instance, sat on the board of Zim, a shipping line owned by Hevrat HaOvdim. He was an executive of Hevrat HaOvdim's management that in turn reported to the "Executive Committee of the Histadrut". He was also the Histadrut's General Secretary and the Secretary of Ahdut Ha'avodah (the "parent" political party of today's Labour Party). Ben Gurion also sat on the board of the Jewish Agency, the operational arm of the "Zionist Federation". Later, during the 1930s, Ben Gurion became the chairman of Jewish Agency which was, as already noted, the quasi-government on the way towards a Jewish autonomy in Palestine.

In the 1920s and 1930s, the word "Histadrut" meant everything associated with the "Workers' Sector". However, from the very beginning, the Histadrut constituted a superstructure for conflicting interests. On the one hand it acted as a trade union demanding exclusivity in the labour market while, on the other hand, it was (and still is) the biggest employer. The Histadrut fought against the discrimination of Arab workers, while it established a military arm, "Hahagana", that fought the Arabs. It supported the cooperatives (especially in agriculture) and workers' participation in profits, while it established industries that competed with the cooperatives and subsequently eliminated them. It organized strikes against low wages (in private factories) while its business organizations, like Koor, were unofficial (and later, official) members of the Industrialist Association that established anti-strike funds.

Thus, the Histadrut was, already in the 1930s, a rather "loose" organization. It brought under one roof several large firms (united under Hevrat HaOvdim), a labour union which was rather hostile to those firms, and also the cooperative sector and the kibbutzim with their various ideological tendencies.³

³ The adhesive elements that united the members of the Histadrut were mainly its "enemies": (i) competing confederations like "Blue-White" of Jabotinsky, (ii) private employers, in particular citriculturists who were considered "capitalists" and "exploiters", (iii) the Arabs, and (iv)

However, some firms in Hevrat HaOvdim demonstrated performance that gave them autonomy as early as the 1930s. Solel Boneh and Bank Hapoalim started to accumulate retained earnings in the Second World War. Tnuva and Hamashbir grew up into large near-monopolies in the food and consumer-good areas, respectively. Koor Industries was separated from Solel Boneh in 1958. After 1967, Koor Industries established itself as the largest industrial conglomerate in Israel, employing about 20% of the industrial labour force in its hundreds of firms. Salaries of its management are often as much as 20 times higher than those of the workers in their factories. This perhaps explains why for the past couple of decades, many experts on the subject have viewed the Histadrut as a political-economic giant with an organizational power that oppresses workers rather than representing their interests despite the trade union element.⁴ Also, there is very little dispute over the modus operandi of Hevrat HaOvdim as a business concern. The following citations are from Haim Barkai (1982), who uses Koor Industries as his representative example.

"The most important characteristic of the producing factories ... relevant to our subject, is the fact that all workers are employees.... In other words, even though the ownership of the factory they work in is in the hands of the Histadrut's members, i.e., as members of the Histadrut they are theoretically among the owners of the factory they work in--the reality is actually different. Since this "ownership" is far from being tangible, the daily reality of workers in these factories is of employer-employee relations which are based (ultimately) on the wage nexus. Thus, employment policy in Koor Industries is dictated by the rules applicable to private firms having the declared aim of profit" (p. 85, translated from the Hebrew original).

Koor Industries is similar to a privately owned firm in its quest for profits. Regarding the allocation of profits, however, Koor Industries accumulates for its own expansion, rather than dispersing most profits as dividends to owners:

the British. In addition, the Histadrut provided the housing and cultural needs of its members and a list of public services ranging from education to health.

⁴ That is why Aharoni (1976), who was the first to study the holding groups, only examined Hevrat HaOvdim as a business organization and did not even discuss the trade union of the Histadrut. That is also why most of the industrial workers in Israel are not associated with the Labour Party and the Histadrut, but rather vote for the right-wing Likud political bloc. The Likud demanded in its election platform plan to dismantle the Histadrut, or at least to separate Hevrat HaOvdim from the trade union. A comprehensive summary of this subject is found in Shapira (1975) who describes in detail the reasons for establishing the Histadrut, the formal and latent motives, and the evolution of the organization.

"The orientation towards growth, embedded in the conception and practice of Koor, consequently implies that distribution of profits in the forms of dividends to Hevrat HaOvdim and the Histadrut, was never high on the priority list of Koor's management. Using most profits for investment is actually the common rule for any one factory and for the Koor group as a whole. The immediate goal of factories in the Histadrut sector as well as in the private sector, is the accumulation of economic power, and a minimal dependence on external factors" (*ibid.*, p. 90, translated from the Hebrew original).

And finally,

"While distribution of profits is of a minute importance, obtaining profits, i.e., net positive return on investment, is undoubtedly of a very high priority. Even in the absence of other reasons, a positive rate of return of an individual factory, and of Koor as a group, is essential for a reliable standing in the financial system. This reliability is a conditio sine qua non for capital mobilization in the medium and long term bond market, as well as in the commercial and banking credit markets.... Finally, internal financing of investment--i.e., allocation of profits for growth--is impossible unless the activity of Koor is profitable" (*ibid.*, pp. 91 - 92, translated from the Hebrew original).

The evolution of the Jewish Agency shares many similarities with that of the Histadrut. The Jewish Agency was established for political and philanthropic purposes but such purposes were slowly weakened as its economic organizations, like Bank Leumi and Rasko, managed to accumulate profits and gained autonomy from its control.

"With the outgrowth of the economic firms under the complete or partial ownership of the Jewish Agency, and with the need to supervise them--the "Office for Firms and Investment" was established in 1952.... In practice, the "Office" has very little control over the firms.... According to one of the top officials in the Jewish Agency, a considerable number of the firms owned by the Jewish Agency constitute private empires of the group's managers" (Aharoni, 1976, p. 150, translated from the Hebrew original).

The situation closely resembles the relations between the "Executive Committee of the Histadrut" and Bank Hapoalim. The bank acted for many years as it separately wished. For instance, the bank took over the pension funds of the Histadrut who were compelled to invest in it. Further, Bank Hapoalim also forbade the Histadrut's comptroller from any access to its domain. The bank's chairman, Jacob Levinson (the son of the Histadrut's treasurer), had an ultimate autonomy over the activity of the bank and the usage of its resources. Similarly in Bank Leumi:

"While in the initial years of operation the bank's policy was dominated by its attachment to the Zionist cause, in subsequent years its policy was clearly dictated by strictly commercial considerations. The wide scope of the bank's activity and the vigorous personality of its managers give it great autonomy. Another factor for this autonomy is the fact that the directors of the bank are nominated for life and can not be dismissed" (Aharoni, 1976, p. 162, translated from the Hebrew original).

Formally, the largest shareholder of Bank Leumi is The Jewish National Fund. This firm was established by Herzl in the turn of the century for the purpose of land purchase and development in Palestine. Recently, a court rejected legal claims against The Jewish National Fund for not issuing controlling shares in Bank Leumi. The "public" holds most of the bank's shares but these shares yield only dividends. Effective control remains in the hands of the board of directors that nominates itself for life.

The recent "Bejsky Commission" (Bejsky *et al.*, 1986) unveiled Bank Leumi's straw subsidiaries and part of its complicated financial activities in Israel and abroad. Similar evidence was presented for Bank Hapoalim. The picture that emerges is one in which the banks had little to do with the Zionist cause or with labour unions, but rather they mainly were concerned with profit making.⁵

1.2.2 The Government Corporations

Until the early 1970s, the Israeli government was a leading entrepreneur in construction, electronics, transportation equipment, insurance, shipping, oil refining and more. This was primarily due to the government's virtual control over the cheap capital inflow and its allocation. Later, the civilian capital inflow and its finance became more expensive and the domestic debt (held mainly by the large holding groups) became more difficult to circulate (the present domestic debt exceeds \$35 billion and its finance consumes up to 1/3 of the annual budget). Strained by limited resources, the government partially withdrew from business activities in areas such as banking, insurance, consumer goods, electrical and electronic equipment and transportation (Aharoni, 1976, pp. 120-126). It became increasingly confined to arms production, raw material business, electrical utilities, and water supply. Between 1968 and 1972, 50 government enterprises were sold (Aharoni, 1976, p. 42) and since

⁵ The commission concluded that the chairmen of Bank Leumi and Bank Hapoalim (as well as other key figures in other organizations) had to resign within 30 days. It took a Royal Commission to move chairmen E. Yafet (Bank Leumi) and G. Gazit (Bank Hapoalim) from their positions, something that even the superstructure organizations above them (the Jewish Agency and the Histadrut) could not do. Notably, even the conclusions of the "Bejsky Commission" were not legally enforceable and both Yafet and Gazit stepped down with "courtesy" after the ensuing controversy.

then 13 more were privatized. Many of the government "withdrawals", however, could not be explained by way of financial difficulties. The government acquired or invested in many of these firms when they were in difficulties. Later, when they turned profitable, the government "abandoned" their control in favour of the holding groups and other large firms.⁶ However, there are also contrary examples to this common phenomenon.⁷

It appears that the modus operandi of the Israeli Government group is more complex than that of the other groups. The government often seems to assist the expansion of the large holding groups. For instance, Israeli Aircraft Industries, the country's largest industrial firm (primarily armament oriented) continuously reports substantial losses, while its hundreds of subcontractors--most of which under the control of the largest holding groups--prosper. On other occasions the Israeli Government group acts vigorously as a "private" enterprise. A case in point is the behaviour of Israel Chemicals, which is aggressively managed and provides a conspicuous example as the most profitable industrial company in Israel. Moreover, while the modus operandi of individual government enterprises is often different, the modus operandi of the Israeli Government group as a whole cannot be characterized in abstraction from the wider role the Israeli government assumes in the economy. Finally, it is hard to empirically assess the performance of the Israeli Government group in comparison with the other groups, for existing data regarding government enterprises are inadequate.

1.3 The "Ownership Perspective" of Structure

So far we have introduced the 6 largest holding groups and claimed that--with the possible exception of the government--all effectively operate as 'private' businesses, seeking profit and asset expansion. More importantly for our purpose, is the significance of these groups regarding the question of structure. The common approach to industrial organization and market structure divides the economy along the product lines of the Standard Industrial Classification (SIC). However, the

⁶ Illustrative examples are Rasko, Elbit, Tadiran, Orlite, Zim Lines, several banks and Paz.

⁷ For instance, the cases of Ashot Askelon and Beit Shemesh Engines.

position of the large corporate holding groups as leading business concerns in Israel, and their significant weight throughout the economy, suggest the use of an alternative approach to economic structure. We propose to divide the economy differently--not along product lines but along ownership lines. In the common 'production approach', the grouping criteria of different firms proceeds according to their principal production activity and its association with one of the many industrial branches. For the 'ownership perspective' proposed here, Israeli firms are grouped into 2 categories: the largest holding groups dominating the 'Big Economy' and the multitude of smaller firms and unincorporated businesses that operate largely independently from each other and compose the 'Small Economy'.⁸ In the Israeli case these 'production' and 'ownership' perspectives are quite different as we now illustrate.

Galmor [1984], for example, examined competition patterns in Israeli industry using SIC categories⁹. According to him, in 1972/3, the 3 leading establishments in each minor branch accounted, as a weighted average, for 49% of all industrial output. The comparable international figures cited by Galmor were 24% for France, 20% for Italy, 34% for Belgium (using 4 leading establishments in each minor branch), and 40% for the U.S.A. (using 4 leading establishment in each sub-branch). Looking beyond the average figures, Galmor associated each sub-branch with one of three different "Concentration Groups". A sub-branch belonged to the "competitive" group if its leading establishments accounted for less than 40% of its total output, to the "gray area" if they accounted for 41-60% of total output, and to the "non-competitive group" if the leading establishments produced over 61% of the sub-branch output. The result are provided in Table 1.1 below.

⁸ Clearly, the division into these 2 groups is not the only possible 'ownership' grouping; We can further differentiate between subgroups within each of these 2 groups, or proceed with a different division altogether. However, this particular division appears, in our opinion, to reflect the dominant institutional structure of the Israeli economy.

⁹ Galmor utilized 1972/3 data published by Israel's Central Bureau of Statistic and unpublished data from the Ministry of Trade and Industry for selected years between 1968 and 1978.

Table 1.1

% of Total Industrial Output Produced by Sub-Branches in Group

"Concentration Group"	Israel	U.S.A.
"Competitive" (0-40%)	7.6 %	56.2 %
"Gray Area" (41-60%)	50.2 %	25.4 %
"Non-Competitive" (61-100%)	42.2 %	18.3 %

(Concentration figures refer to 3 leading establishments in Israel and to 4 leading establishments in U.S.A.)

Source: Galmor (1984) p. 11.

While the "competitive" sector according to these calculations accounted for 56% of industrial output in the U.S.A, it accounted for only 8% in Israel. On the other side of the scale, the "non-competitive" sector produced only 18% of industrial output in the U.S.A. but 42% in Israel.

Further, Galmor defines the "Depth of Concentration" as the percentage of total industrial output produced by "monopolies" and "oligopolies" (a "monopoly" occurring when one firm accounts for 50% or more of sub-branch total output, and an "oligopoly" when 3 firms accounting for 60% or more). Similarly, the "Breadth of Concentration" is defined as the percentage of sub-branches dominated by "monopolies" and "oligopolies". An international comparison based on these definitions is given in Table 1.2.

Table 1.2

Depth and Breadth of Concentration

Type	U.S.A	France	Israel
"Depth of Concentration"	18.3 %	34.2 %	42 %
"Breadth of Concentration"	18.6 %	34.1 %	60 %

Source: Galmor (1984), pp. 13-14.

This standard examination of the different production branches indicates that Israel's industrial structure is highly concentrated by international standards. The problem is that such a sectoral view probably conceals more than it reveals. This becomes clearer when we now consider the Israeli structure from an 'ownership' perspective. By 1984, when Galmor published his report examining individual industrial branches according to SIC breakdown, the 6 largest holding groups have long dominated the entire Israeli industry. In that year, according to Dun & Bradstreet Israel (1984), 48 firms out of Israel's 100 largest industrial enterprises were owned/controlled by Koor Industries (23 firms), the Israeli Government (9 firms), IDBH (8 firms), and Clal (Israel) (8 firms). These groups controlled 28 of the first 50 and 14 of the first 20 largest industrial firms. In the financial realm, Bank Leumi, Bank Hapoalim and IDBH, together with the Israeli Government, accounted for approximately 90% banking activity (assets, employment and branches) and a considerable share of the insurance, security brokerage and real estate business.¹⁰

To put the relative weight of these groups in an international perspective, let us aggregate the net profits of Israel's 5 biggest (non-government) corporate groups--Bank Hapoalim, Koor Industries, Bank Leumi, IDBH, and Clal (Israel)--and refer to these aggregate net profits as "Israel's 5".¹¹ Now, let us aggregate the net profits of the 650 largest corporations in the U.S.A.: the 500 largest industrial firms, the 50 biggest commercial banks, the 50 biggest utilities, and the 50 largest retailers.¹² We obtain aggregate profits which will be termed "U.S.A's 650".¹³

¹⁰ The Bank of Israel, Annual Report of the Banks' Comptroller, (1981-1984).

¹¹ The Israeli Government group is omitted for reasons discussed in section 1.2.2. Minor adjustments were made in aggregation of the remaining corporate data due to fiscal/calendar differences. For further details, see page Part Three, footnote 10.

¹² Industrial and retailing corporations are ranked by sales, while commercial banks and utilities are ranked by total assets.

¹³ Both "U.S.A's 650" and "Israel's 5" are in current figures (US\$ and NIS).

TABLE 1.3

An Index for the Relative Size of the Big Economy:
Israel Versus U.S.A

	<u>U.S.A.'s 650</u> U.S.A.'s GNP	<u>Israel's 5</u> Israel's GNP
1964	3.6 %	0.36 %
1982	3.0 %	2.84 %

Source for Israel's 5: Firms' financial reports.

Source for U.S.A's 650: Fortune, "Fortune Directory" (July 1965 and August 1965), "The 500" (May 2, 1983), "Service 500" (June 1983).

Table 1.3 compares "U.S.A's 650" and "Israel's 5" with the relevant nominal GNP figures in both countries. If our sample size is appropriate in each case, the results give some indication of the relative importance of a "representative giant firm" in each market (the percentage figures divided by the number of corporate entities). Relatively to their local markets in 1964, an Israeli "representative giant" was already 13 times larger than its U.S.A counterpart. By 1982, 5 groups in Israel appropriated roughly the same percentage of GNP as did the 650 largest firms in the U.S.A. In that year, an Israeli "representative giant" was relatively 123 times larger than its U.S.A counterpart. However, this comparison of concentration still underestimates Israeli concentration for the Israeli holding groups are far more diverse in their activities than large corporations in the U.S.A. While many large U.S. corporations are confined to one or few areas of activity, the above Israeli groups embrace the entire market spectrum.

Dun & Bradstreet Israel (1984) provides a breakdown by industrial branch which we now use to illustrate that diversity. Selected data regarding holding-group domination of these branches are reported in Table 1.4. These data do not provide market shares of leading establishments or firms in each branch. They do indicate, however, that in terms of ownership/control, each major branch operates as an "oligopoly" among the same holding groups. The roads of Bank Leumi, Bank Hapoalim,

Table 1.4
Holding Groups Involvement in Selected Branches (1984)

Industrial Branch	Leading Firms in Branch and the Holding Groups that Own/Control Them
Aerospace and Shipyards	1st, 2nd (Israeli Government)
Textile and Fashion	2nd, 3rd, 7th (Clal, Leumi, Hapoalim, IDBH)
Building Products	1st, 3rd, 5th, 7th (Koor Industries, Clal)
Energy and Infrastructure	1st, 2nd, 3rd, 5th, 6th (Israeli Government, Leumi, Hapoalim, IDBH)
Chemical and Minerals	1st, 2nd, 3rd, 4th, 5th, 9th (Israeli Government, Koor Industries)
Food Beverages and Tobacco	5th, 6th, 9th, 10th (Koor Industries, Clal)
Wood and Paper Products	1st (IDBH)
Electrical Products and Electronics	1st, 2nd, 3rd, 4th, 5th, 6th, 8th (Koor Industries, IDBH, Clal)
Metal Products	1st, 2nd, 3rd, 4th, 5th, 7th, 8th, 10th (Koor Industries, IDBH, Clal)
Leasing	1st, 2nd, 4th (Bank Leumi, IDBH, Clal)
Commercial Banking	1st, 2nd, 3rd, 6th, 7th, 8th, 9th (Leumi, Hapoalim, IDBH)
Investment Banking	1st, 2nd, 3rd, 4th, 5th (Israeli Government, Leumi, Hapoalim, IDBH)
Mortgage Banking	2nd, 3rd, 4th, 10th (Leumi, Hapoalim, IDBH)
Insurance	1st, 2nd, 3rd, 9th (Leumi, Hapoalim, IDBH, Clal)

Source: Dan & Bradstreet Israel. 1984. Dun's 100: Israel's Largest Industrial Enterprises, pp. 100-123.

(IDBH), Koor Industries, the Israeli Government group and Clal (Israel) repeatedly converge in almost each branch.

Beyond this simple picture of concentration, we must note more complex ownership/control ties among the holding groups¹⁴, reciprocal buying and selling arrangements, financing relations among the banks, the government and the industrial groups, property rights enjoyed exclusively by the largest groups and, finally, explicit collusion¹⁵. Of utmost importance in this regard are the family ties and informal relations among the people who own and control the largest holding groups.¹⁶ These types of interaction most likely enhance concentration, but the qualitative nature of such concentration is rarely reflected in any indexes based solely on financial data.

The importance of the 'ownership approach' to the Israeli case extends also beyond the area of industrial structure and into the question of broad "macroeconomic" developments of the Israeli economy.

"The holding groups and large firms decrease in number, increase in concentration and mutual ties and become more interdependent with the government. Ministers and civil servants have a substantial informal influence on these groups which are the ones who often enjoy tax and credit concessions. These groups also influence, or at least try to influence, government policy. While they depend considerably on the government, the government is also dependent on them to achieve its economic goals. The holding-group system enjoyed most of the capital resources allocated by the government. In fact, as these lines are written (May, 1975) it appears that government offices lost a considerable part of their power. The large groups have substantial influence on the economic policy and on the allocation of the country's resources. The government is often dependent on them in its policies" (Aharoni, 1976, pp. 116-118, trans. from the Hebrew original).

¹⁴ These were documented in Aharoni (1976), but since then, with the Gilded Age of the stock market, mutual ownership interaction has increased much further. As indicated by Bejsky *et al.* (1986), the demarcation lines among the various groups became increasingly blurred (pp. 22, 35, 38, 40, 73-4, 82, 102, 159 and more).

¹⁵ For instance, in June, 1984 the four largest banks were sued for collusion in setting the interest rate on liquid deposits (Magistrate Court, Jerusalem, T.P. No. 2136/84, June 3, 1984).

¹⁶ For a historical and institutional discussion in this regard, see Frenkel and Bichler (1984) and Kotler (1984). The theoretical analysis of informal interrelations is very difficult, particularly since quantitative categories in this area are often open to different interpretations. This, in turn, further complicates the question of effective corporate ownership/control (cf. Zeitlin, 1974).

However, despite their significance, Israeli holding groups have been largely ignored in the economic literature. Even simple questions remained unanswered. In this paper we purport to briefly examine the following issues:

- (i) How do the holding groups perform? Are their performances similar? In terms of performance, can we consider the various holding groups as part of one 'unified' group or are there several sub-groups?
- (ii) Do the holding groups perform differently from the rest of the business sector?
- (iii) What is the share accounted for by the large holding groups in industry or economy aggregates such as sales, value added, employees and profits? What has been the historical evolution of these aggregate 'concentration' indexes?

Before we can effectively examine these questions we need to evaluate the data available for this purpose. This we do in the following part of the essay.

2. THE DATA SET

This part is divided in two sections. First, we consider the corporate financial data and responses to the Industry and Craft Survey. In the other section, we outline the data difficulties at the macroeconomic level. These considerations are important for data reliability is often questionable and care must be taken in interpretation of empirical results.

2.1 The Corporate and Industry Data

2.1.1 The Corporate Data

There are four possible sources of financial data regarding the large corporate holding groups: corporate financial reports to shareholders, corporate reports to the Income Tax Commission, the Income Tax Commission assessments, and the adjusted figures used in constructing the National Income Accounts estimates. Furthermore, these reports can be denominated in Israeli nominal terms, in "real" terms or expressed in foreign currency. Each of these combinations provides different numbers for similar categories. Which figure is the "appropriate" one depends on the purpose for which the numbers are used. In our case the choice was simple: the Income Tax Commission data (corporate reports to the Commission and the Commission's own assessments) are unavailable, and the CBoS does not publish corporate income figures so no data base is available there either. Hence our examination must be confined to figures extracted from firms' financial reports to shareholders. The question now is how closely do the financial reports to shareholders reflect corporate performance. According to Aharon Dovrat, the chairman of Clal (Israel), neither this nor the other forms of reports provide a valid picture of the corporation.¹ This particular view, of course, does not resolve the question and

¹ "The accounting method in Israel has gone bankrupt [...] In the Clal group, four financial reports are prepared: nominal, in U.S. dollar, adjusted to inflation, and a financial report for tax purposes. Neither of these is capable of reflecting the group's condition" (HaAretz, April 13, 1984, trans.)

does not indicate an alternative mean of evaluating corporate performance. Corporate financial reports are the only available data source as far as corporate income and capital are concerned, and they are the ones used in the preparation of the national income accounts (see the guidelines in United Nations, A System of National Accounts, 1968, pp. 81-82). Since, as will be noted in section 2.2 below, the Israeli national income distribution has not been mapped for years subsequent to 1954, these problems did seem to constitute a major concern for Israeli economists. For us the evaluation of financial reports is a prerequisite to further assessment. The issue is, of course, complex and we do not attempt to resolve it, but rather to highlight the main difficulties that arise in the Israeli circumstance. These fall under three main headings: (i) consolidation principles and the "boundaries" of the corporation, (ii) the effect of inflation on the financial figures, and (iii) reliability of reports.

(i) Consolidation principles. Large corporations in Israel conventionally consolidate their accounts only with "subsidiaries" in which they hold over 50% of the voting shares. The reports of other "affiliated" companies are not consolidated with the parent's accounts, but are reflected in them on an equity basis. The rationale behind this consolidation convention is fully accepted by the U.N. in its recommendations for identifying the transactors of the Income and Outlay and Capital Accounts:

"For most purposes, the transactors wanted are those who independently direct and manage the receipt and disposition of income, the accumulation of property, and borrowing and lending. This leads to statistical units consisting of families of incorporated or quasi--corporate enterprises which as a result of ties of ownership, are controlled and managed by the same interests. Using the family of entities will also avoid showing formal transactions and links between the entities, which are not meaningful economically. The families may be defined as consisting of the entities, the majority, that is 50 per cent or more, of the equity (shares or other forms of capital participation) of each of which is owned by the same interest" (United Nations, A System of National Accounts, 1968, p. 81).

The above approach is based on two principles. (a) "Meaningful" economic transactions are only those made at arm's length between "independent" transactors. In the background of this approach, we detect the axioms of a competitive market structure, in which transactions are made at "market prices" (equilibrium prices perhaps) determined by market forces. When the will of one or more of the

transactors becomes a major market force in itself, the price is no longer a "market price" and the transaction is not economically meaningful (*ibid.*, pp. 72, 94, and many other places, where it is suggested that such transactions be revaluated at the "appropriate" [?] market price). (b) The power to distort arm's length, economically-meaningful transactions between related companies is exercised only in the context of one holding 50% or more of the voting rights in the other.

There are serious problems with this common consolidation convention and the rationale behind it. Using a 50% ownership as a control threshold for big Israeli holding groups imposes a strong downward bias to the consolidated figures. If these reports are assumed to reflect the effective control of the parent over resources, a substantially lower threshold, 15% or 20% say, is more appropriate. Much of the hierarchical corporate structure in Israel's big economy exists with voting rights significantly lower than 50%. Further, not all groups publish consolidated reports. Only in 1970, for example, when IDBH was established as its formal holding corporation, did the Discount group start to publish consolidated reports. The Israeli Government does not properly consolidate its reports² and Hevrat HaOvdim, as a formal parent entity for Bank Hapoalim, Koor Industries and numerous other enterprises, does not publish any financial reports!

But even a lower voting threshold and a proper holding-group consolidation are insufficient to establish the groups of "independent units" which are engaged in "meaningful economic transactions" at market prices. How mutually independent are Bank Hapoalim, Bank Leumi, IDBH, Koor Industries and Clal (Israel)? How independent are they from the Government? If their mutual interdependence acts as a criterion, not many transactions in Israel are "economically meaningful" by the United Nations' standard. Alternatively, every transaction is meaningful. The question is whether it properly reflects a movement of resources, income or assets, rather than an accounting exercise lacking any such dimension.

² The "Government Corporations Authority" that formally controls the operation of government enterprises, publishes collected figures. These, however, are based on simple aggregation and do not follow the accounting principles of consolidation. Furthermore--as indicated several times by the State Comptroller--the financial reports of large government enterprises are often simply falsified in order to conceal continuous losses.

(ii) The effect of inflation on the financial figures. For our purpose, non-arm's length transactions do not constitute the principal obstacle. The problem lies elsewhere, specifically with the money unit in which transactions are recorded. Accounting conventions rely heavily on the assumption of stable relations between money and other commodities; in other words, on stable prices. Inflation, and especially rapid inflation, impose a serious difficulty. The first "distortions" appear in the quotation of asset values. The conservative bias of accounting conventions holds asset values down at their purchase price until these assets are "realized". This causes "total assets" figures to underestimate the "realizable value" of the underlying properties. With annual inflation at three-digit figures, fixed assets and financial portfolios recorded at historical cost or book value, represent only a very small fraction of their "market value" (which in Israel might have very little to do with a competitive equilibrium). The order of this gap has been maintained even after the stock market collapse in 1983. This problem is much reduced, however, with respect to the "total assets" of the banks since these are mainly composed of deposits and obligations, which are largely indexed to the CPI or the US\$.

Another important bias appears in the net profit figure. Many claims have been voiced on the extent to which those profits are "paper profits" rather than actual ones. The basis for such claims runs as follows. Annual profits are calculated as a difference between current revenues from selling products and historical costs incurred in the production of those products. With stable prices or even low inflation, the money unit of measure can be considered as having approximately the same "purchasing power" throughout the year. This approximation, however, is no longer valid under rapid inflation. Here the difference between current revenues and the related historical costs is influenced more by the depreciation in the value of money during the year than by the "real" gains of producers. In order to properly reflect annual profits, all revenues and cost incurred through the year must first be "adjusted" for inter-year price changes and denominated in "constant" prices--for instance, in terms of the price level prevailing in a particular month in that year. Since the annual cost-income structure of modern multi-product firms is complex, each item has to be adjusted

separately using proper accounting conventions. Only then can the "adjusted" annual profits be calculated. Note that these "adjusted" profits are still "nominal" annual figures since they are denominated in prices prevailing in that particular year. In order to be able to compare "real" profits between two different years we need to deflate the two "adjusted" nominal profits by the corresponding levels of an appropriate annual price index.

This process is considered important: it is claimed that the resulting "adjusted" figures, once deflated by the CPI, often reveal "real" losses, while the unadjusted nominal numbers (deflated by the CPI too) would indicate "real" profits. As we demonstrate in Part Three below, this does not appear to be the case with respect to the largest holding groups. Both methods of "real" profit measurements--the unadjusted nominal profit figures deflated by the CPI and the "adjusted" figures deflated by the CPI--have similar signs and move in the same direction. However, there are different considerations that are potentially of a greater significance for our purpose: capital gains and index linkages on principals which have not (yet) been "realized" are considered as changes in equity rather than components of profits, and thus are not reflected in the income statements. These items grow substantially with inflation, and so too does the underestimation of pretax profit they entail. Further, financial reports to shareholders quote nominal tax obligations. When these obligations are not fully indexed to the (rapid) inflation they can be reduced to insignificant amounts by the time they are actually paid. As a result, reported net profit can often greatly underestimate the actual net profit, a bias which increases with inflation.

(iii) Reliability of reports. It is often argued that some corporations and the accounting firms representing them manipulate and falsify their financial reports (numerous examples are provided in Shmueli, 1970). Many of these cases suggest, however, that for a particular firm the deviation of the reported figures from the corresponding "objective" facts often follows a general pattern throughout the years. It might be that report "adaptation" conforms with certain methods "traditionally" pursued by the accounting firm. If this "stable adaptation" hypothesis is valid, the pattern of report manipulation or falsification is reinforced the longer is the contract between the corporation and

its particular accounting firm. The opposite can be said when a corporation frequently alters its accounting firm and with it changes the pattern of its report manipulation. Since their establishment, none of the large holding groups we surveyed replaced its accounting firm. Thus, if the general argument presented in this paragraph is correct, much of the possible falsification could be "trended" if reports were inspected for a sufficiently long period of time.

To summarize: the principles of consolidation underestimate the scope of resources controlled by Israel's large holding groups; for non-bank corporations, "total assets" values are seriously underestimated by the reported figures; "net profits" are most probably underestimated; report reliability is questionable but the bias is likely proportional to the overall order of the figures. These general statements appear to be a plausible starting point for using the corporate data derived from shareholders reports.

2.1.2 The Industry and Craft Survey Data

An alternative source of data with which to examine corporate performance is the Industry and Crafts Survey, conducted annually by the CBoS. There are several differences between these data and the corporate data based on shareholders reports. These differences involve (i) the surveyed population, (ii) data sources, and (iii) the categories for which data are available. Despite these differences, the Survey's data are still very useful in examining aggregate concentration and in confirming results obtained on the basis of shareholders' reports.

(i) The surveyed population. While the holding groups' financial reports reflect, at least in principle, their entire range of activity, the Industry and Crafts Survey is limited to units whose main activity is in the 'mining' or 'manufacturing' branches only (as defined by the SIC). Further, while the corporate data are defined along ownership lines, the Survey's data refers to "establishments" which are identified by production criteria.³ This means that a group like Koor Industries

³ "The investigation unit is defined as an economic unit (like a mine, a factory or a workshop)... An establishment in this sense is generally located on one site and is engaged in one economic activity" (CBoS, Industry and Crafts Survey, 1983, p. XII).

does not appear here as one entity but rather as hundreds of apparently independent factories operating in various 'branches'. The data are not attached to identified units but are aggregated by sector, type of ownership (private, government and Histadrut), size, etc.⁴

(ii) Data sources. While the corporate data is derived from financial reports to shareholders, the Survey data are based on the assessments made by the Income Tax Commission with some adjustments by the CBoS.

(iii) Data categories. The CBoS started to provide Income Statement data only in its 1979/80 survey. These were nominal figures. In the 1983/4 survey, it started to "adjust" the numbers for inflation and discontinued reporting of the nominal figures. But most importantly, these Income Statement data are provided for major SIC branches only and are not broken down by establishment size.

The Survey also provides an alternative set of data reported almost regularly since 1964. This set does not provide Income Statement data but it still contains other valuable information. It includes the categories of employed persons, wages and related labour expenses, consumption of materials, value added, gross output, and revenues. These categories are broken down by SIC branch, establishment size and by establishment size within each branch.

2.2 Macroeconomic Data

As claimed in Part One, the frame of reference for an empirical study of the large Israeli holding groups should be the national economy. There are, however, serious data difficulties also at the macroeconomic level. These arise because (i) Israel has no complete National Income Accounts, and (ii) the Expenditures Accounts are seriously biased by the 'Black Economy', on the size of which there is no reliable information. We outline each of these points in turn.

Israel has detailed National Expenditure Accounts estimating consumption, investment, government

⁴ The CBoS has a database with the information of individual establishments. These data are not publicly available.

spending, exports and imports from 1950. There are also several unofficial estimates for the pre-Independence period and the early years of the State. But unlike the Expenditure accounts, Israel has no official National Income Accounts. The overall distribution of wages, profits, rent and interest was estimated only once, for the period of 1950-4 (Creamer, 1957).⁵ The Bank of Israel and the Ministry of Finance prepare their own occasional estimates but these are never published, partly because their reliability is questioned even by those who prepare them.⁶

Most of the income statistics that do exist are estimated indirectly from the Expenditure Accounts. The difficulty here is that estimates of the GNP and its components are biased due to the existence of a very substantial 'Black Economy'.⁷ There is no unanimity regarding the size of this 'Black Economy' and its evolution over time, as can be seen from Table 2.1.

There are no available estimates of this size for the 1980s but it is highly likely that it has grown further relatively to the official GNP.⁸ Since existing income-distribution data are derived indirectly from the GNE accounts, they, like the official accounts, are also biased to an unknown degree.

⁵ Several other studies of income distribution were subsequently conducted by Zandberg (1956), Hanoch (1960) and Ben-Shahar (1961). Official government reports on income distribution were prepared by The Commission for Inquiry into the Distribution of National Income (1970) and the Zukerman Commission (1975). However, these studies and reports used different definition, covered different and limited time periods, and were of various degrees of depth. Most importantly, these studies commonly excluded income earned by institutional units, namely corporate income.

⁶ Nadel (1975) cites a Bank of Israel economist in this regard: "Currently (1975) there are no reliable estimates of national income distribution between employees, entrepreneurs and firms. A serious, reliable and detailed estimate does not exist at all, not for any single year (pp. 222-223, trans. from Hebrew original).

⁷ This refers to production of and income from illegal or unreported business activity which is excluded from the official GNP estimates.

⁸ The 'liberalization' of the economy by the Likud after 1977, the prosperity of the stock market and the effective deregulation of foreign currency flows probably contributed significantly in this direction.

Table 2.1

The 'Black Economy' as a % of the GNP: Selected Estimates
(1955-1977)

Year	(1) Ben-Shahar <u>et al.</u>	(2) Mishory and Tal	(3) Unger and Zilberferb	(4) Nadel
1955			0.7	
1960			1.4	
1965			5.1	
1970	4.2	5.6	9.3	
1971	6.7	7.3	8.6	
1972	7.8	4.2	7.8	
1974		4.3	9.3	18
1975			10.6	
1977			15.0	

Source: (1) Ben Shahar et al. (1975) pp. 3.6, 3.10
 (2) (3) Unger and Zilberferb (1983) pp. 8, 10.
 (4) Nadel (1975) p. 38.

As noted, there are no systematic estimates of overall income distribution in general, or aggregate corporate income in particular. In this work below, we make use of 2 aggregate income series estimated by Israel's Central Bureau of Statistics (CBoS) and published by the Bank of Israel. These are aggregate "factor income" and aggregate "capital income" of the business sector. The first is equal to the NNP of the business sector.⁹ The second is calculated by subtracting compensation of employees from aggregate "factor income" of the business sector. These are pretax figures. Net income must also be estimated indirectly. We can do this by subtracting the actual tax payments by corporations and unincorporated businesses from the corresponding income figures.

⁹ Including the imputed subsidy component in government loans for domestic production.

3. AN EMPIRICAL EXAMINATION OF AGGREGATE CONCENTRATION: 1964-1986

In this part we first assess the performances of Israel's largest holding groups, then we compare these to the rest of the business sector and, finally, we evaluate the groups' relative weight in various aggregates throughout the 1964-1986 period. In order to arrive at a consistent and continuous data set for the holding groups, we had to substitute depth for breadth and limit the variables being analyzed.

It is common to evaluate corporate performance on the basis of 4 main indexes: "total assets", "sales", "pretax profit" and "net profit". Our analysis is limited to the pretax and net profit performance. This choice was influenced by the three main considerations: (i) the "total asset" figures of the shareholders' reports are stated in historical cost and cannot be revaluated without painstaking research, particularly for the "industrial" groups; furthermore, we have no comparable figures for other corporations or for the economy as a whole, figures against which the holding groups' performances can be assessed, (ii) "sales" figures are not available on a consistent and uninterrupted basis, and (iii) "profits" are often regarded as the 'ultimate' goal of business activity and are perhaps a more sensitive "barometer" to corporate success or failure than "assets" or "sales".

The examination here refers to the 5 largest holding groups, excluding the Israeli Government.¹ These 5 groups provide 6 annual reports: Bank Hapoalim, Bank Leumi, Koor Industries and Clal (Israel) produce 4 comprehensive reports. IDBH started to publish consolidated reports only in 1970, so we use here the reports of its 2 principal branches: Israel Discount Bank and Discount Investment Corporation (DIC). With the exception of Bank Hapoalim all figures are for consolidated operations. (Bank Hapoalim started to consolidate its accounts only in 1972, so we use the unconsolidated figures

¹ The Israeli Government group is excluded altogether for lack of appropriate and reliable data, as well as the unresolved question of its modus operandi (see section 1.2.2).

which are available since 1964.²⁾ Such limitations affect the absolute figures but probably have very little impact on the temporal behaviour of the profit variables.

3.1 The Performances of the Large Holding Groups

The issue to be explored here is whether or not the different holding groups (defined according to the available data) are similar in their performances. This is a crucial question. If the holding groups' ex-post performances are similar, much of the debate regarding their ex-ante modus operandi is redundant. A similar development of their performance will permit us to cluster the holding groups together as one coherent club of business organizations. This will further clear the way for the next stage, where we divide the business sector into two distinct "sectors"--the holding groups and all the other businesses--and compare their performance.

3.1.1 An Initial Look

Since accounting conventions differ between "financial" and "industrial" groups it is convenient to start by examining each category in turn.³ Figures 3.1a and 3.1b plot the unadjusted net profit of each of the 6 corporate entities deflated by CPI.⁴ Because of a disparity in the absolute figures between the different groups, the data are normalized in terms of standard deviations of each time series from its average. In both figures we can distinguish between two periods, 1964-1976 and 1977-1986. The first period presents a relatively steady rise for both "industrial" and "financial groups". The second period is characterized by a robust expansionary trend in net profits of all groups until 1982, followed by marked fluctuations until 1986. We examine each period in turn.

² Note, however, that due to the equity method of accounting, the consolidated and unconsolidated net profits are identical).

³ This does not imply that "financial" groups are not involved in "industrial" activity or that the "financial" groups are independent from the "industrial" ones.

⁴ The choice of the CPI is conventional. In principle, a more "appropriate" deflator might have been the GNE deflator since these groups reinvest in all spheres of activity and their "investment basket" changes through time. In practice, as a result of hyper inflation, the CPI (fixed Paasche-based basket of consumer purchases) and the GNP deflator (fixed Laspeyres-based basket of GNE components) behave almost identically.

FIGURE 3.1a

"Industrial" Holding Groups: Net Profit (1980 Prices)

Standard
Deviations

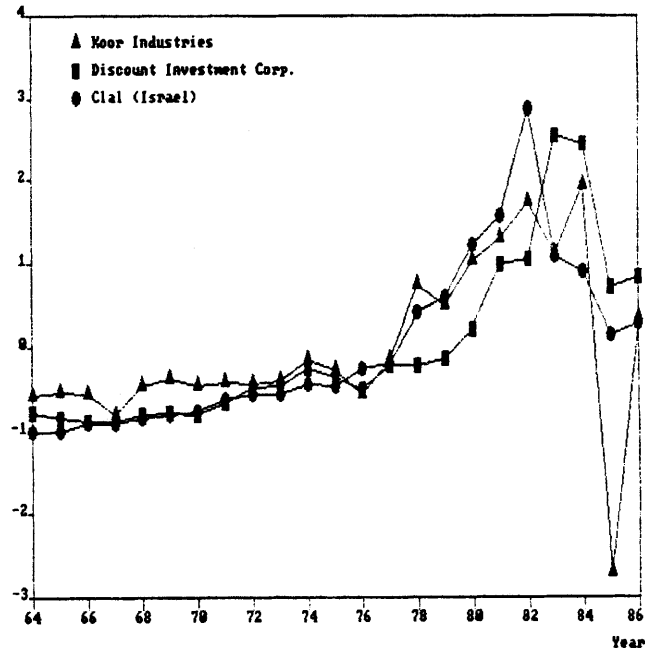


FIGURE 3.1b

"Financial" Holding Groups: Net Profit (1980 Prices)

Standard
Deviations

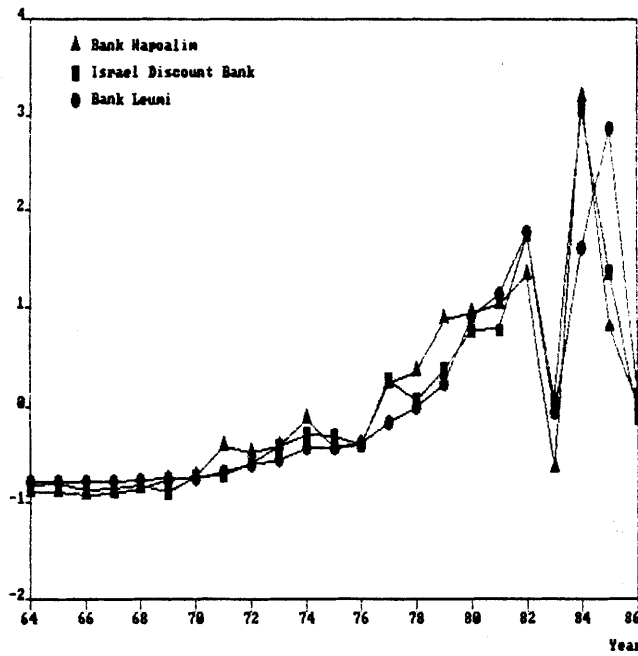


Figure 3.2a and 3.2b refer to the "industrial" groups. In the first period, the upward profit trend is similar for the 3 groups (with Koor Industries fluctuating around the trend more than Clal (Israel) and DIC). Similarity in the upward trend and deviations continues, in fact, until 1982. Subsequently, the profit trend is reversed for all 3 groups and aside from the 1982-1983 interval the deviations of the 3 groups are similar. Figures 3.3a and 3.3b describe the net profits development of the "financial" groups in the two periods. Here, the similarity in performance is even more striking than with the "industrial" groups. Until 1970 the annual profits of all 3 "financial" groups were relatively stable. The expansion trend begun in 1971 and continued until 1982 (notably, until 1977, Israel Discount Bank fluctuated more than the other two but, since then, the profits of all three moved together). As with the "industrial" groups, this trend ended in 1983 when the "financial" groups started to experience strong profit fluctuations. (Excluding the 1984-1985 period, the 3 groups continued to deviate in the same direction.)

It seems that the net profits of Koor Industries, DIC and Clal (Israel), on the one hand, and those of Bank Leumi, Bank Hapoalim and Israel Discount Bank, on the other, behave sufficiently alike that we can cluster them as 2 coherent groups. The next question is how do the "industrial" groups compare with the "financial" ones. Each of these groups is involved in all spheres of activity and all are further tied together in numerous ways. Is this reflected in similar performances of "industrial" and "financial" groups? Figures 3.4a and 3.4b reveal several interesting relations:

- (i) Overall, the net profit performance of "industrial" and "financial" groups are very similar.
- (ii) While it is less surprising to discover similarities until 1977 because growth was relatively moderate, it appears that "synchronization" was maintained until 1983, even when growth was much faster.

FIGURE 3.2a

"Industrial" Holding Groups: Net Profit, 1964-1977 (1980 Prices)

Standard
Deviations

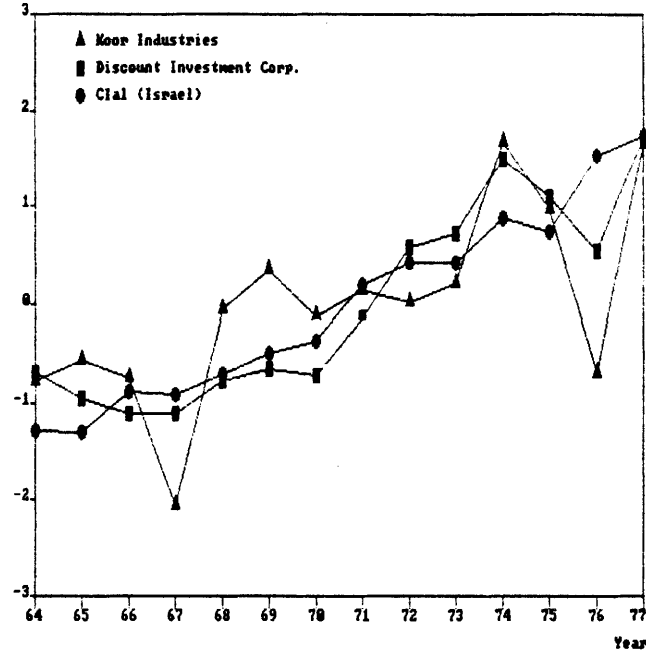


FIGURE 3.2b

"Industrial" Holding Groups: Net Profit 1977-86 (1980 Prices)

Standard
Deviations

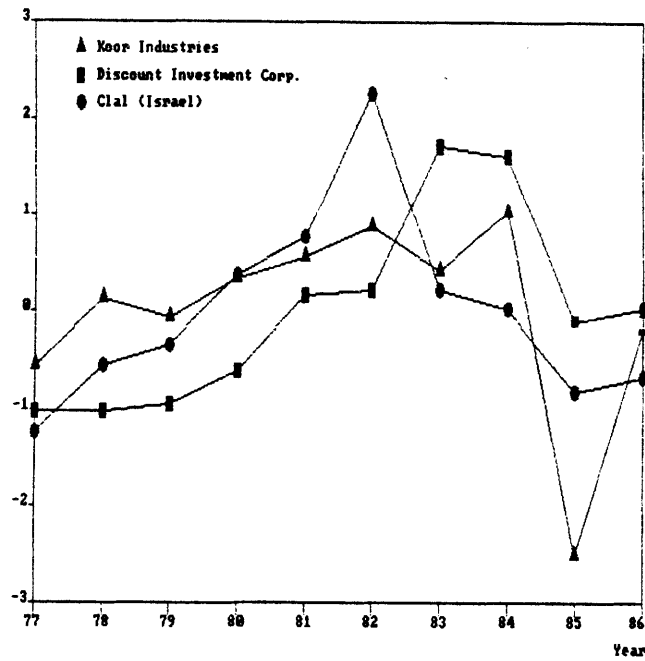


FIGURE 3.3a

"Financial" Holding Groups: Net Profit, 1964-1977 (1980 Prices)

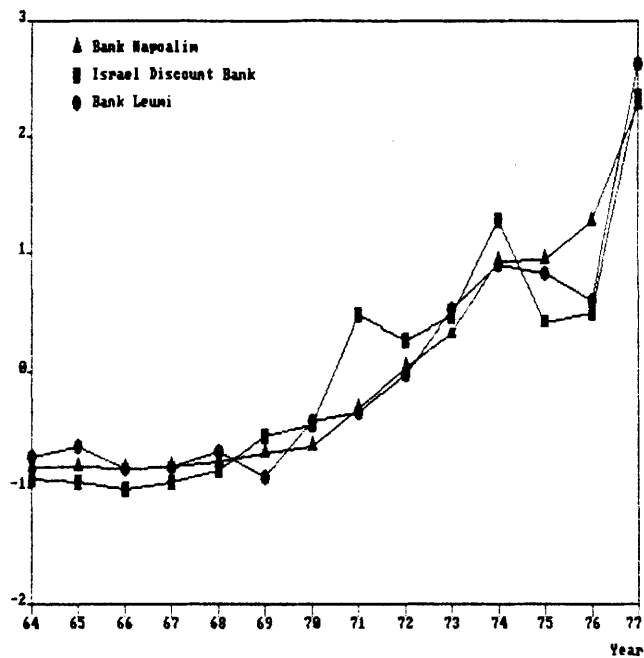
Standard
Deviations

FIGURE 3.3b

"Financial" Holding Groups: Net Profit 1977-86 (1980 Prices)

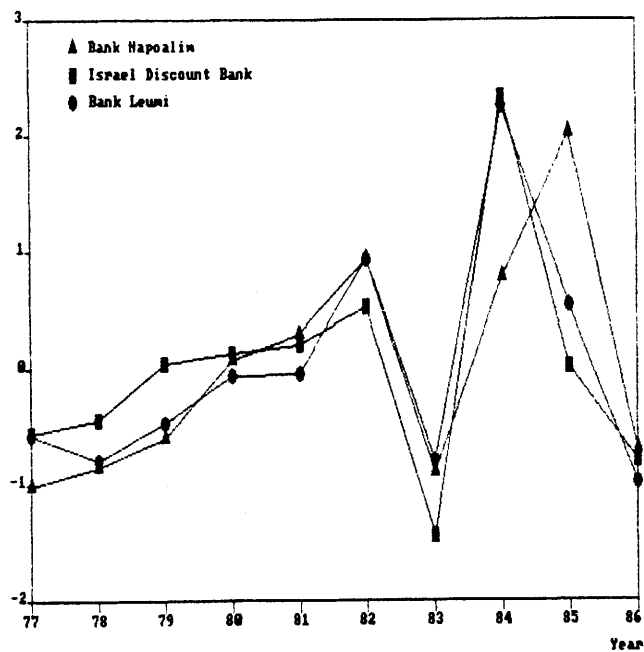
Standard
Deviations

FIGURE 3.4a

"Financial Versus "Industrial" Holding Groups: Aggregate Net Profit (1980 Prices)

Standard
Deviations

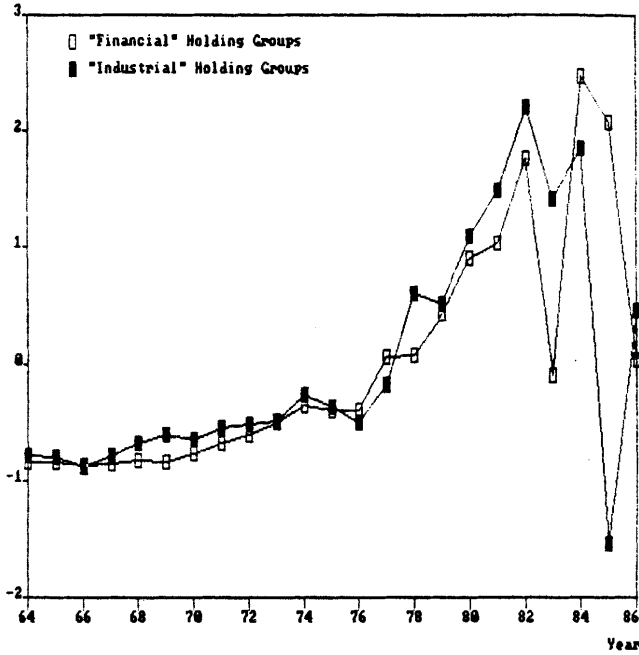
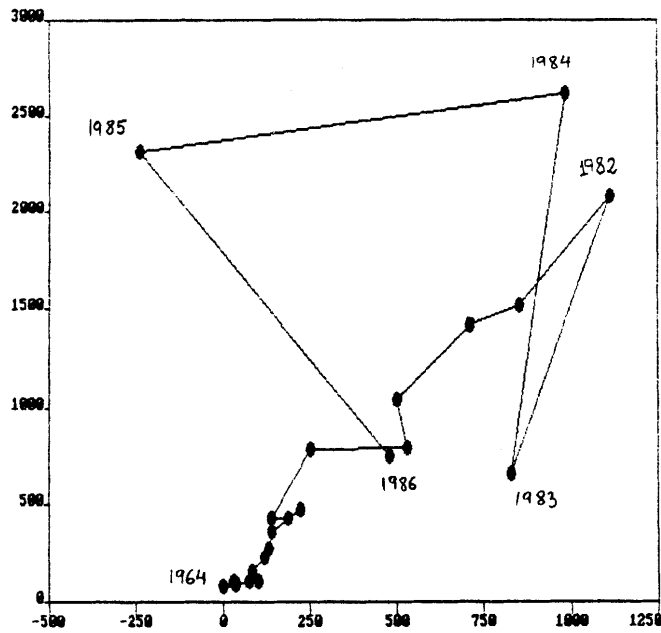


FIGURE 3.4b

"Financial" Versus "Industrial" Holding Groups: Aggregate Net Profit (Thousands 1980 NIS)

"Financial"
Groups



"Industrial"
Groups

(iii) Eventually, this became difficult to sustain.⁵ Following the withdrawal from Lebanon and the recessionary government policy, the interests of the "industrial" and "financial" groups diverged, as the figures make clear.⁶

3.1.2 Alternative Perspectives to the Holding Groups' Performances

So far our analysis of holding groups' profit was based on the unadjusted nominal figures deflated by the CPI. It has been often claimed (see section 2.1.1) that the unadjusted nominal profit figures are incapable of accurately portraying business results under hyper-inflation, and that the profit figures "adjusted" for inter-year inflation indicate a drastically different picture. It is interesting, therefore, to compare "real" profits based on the unadjusted and "adjusted" series. Unfortunately, inflation-adjusted reports have been available only since 1984, so any conclusions based on such a comparison are necessarily limited. The exact method of adjustment is often obscured in the reports but scattered explanations indicate that adjustments are commonly based on a simple deflation of beginning and end-year figures by the respective monthly CPI or by the monthly exchange value of the U.S dollar.⁷

Figures 3.5a and 3.5b compare the adjusted and unadjusted series for the "industrial" and "financial" groups, respectively (all nominal series are deflated by the 1980-based CPI). The data presented in these figures do not indicate a dramatic difference between the temporal behaviour of the 2 net profit series. For both "industrial" and "financial" groups the series move in the same direction. It is evident, however, that the 2 series change at a different rate: between 1984 and 1985, aggregate "real" net industrial profit decreased by 157% according to the "adjusted" figures,

⁵ The difficulties in synchronization among the elites is apparent in Bejsky, et al. (1986), although, of course, this was not the intended message of the Commission.

⁶ This was also reflected in rhetoric. By 1985 the "financiers" demanded higher interest rates and 'balanced budget', while the "industrialists" praised the virtues of lower interest rates and continued investment and growth.

⁷ For instance, see IDBH, Annual Report, 1986, p. 8, and Bank Leumi, Annual Report, 1986. In 1985, Koor Industries moved from the U.S. dollar to the CPI as a deflator, "in order to eliminate 'distortions' in the financial report" (Koor Industries, Annual Report, 1986, p. 8).

FIGURE 3.5a

"Industrial" Holding Groups: "Adjusted" and Unadjusted Net Profits (Thousand 1980 NIS)

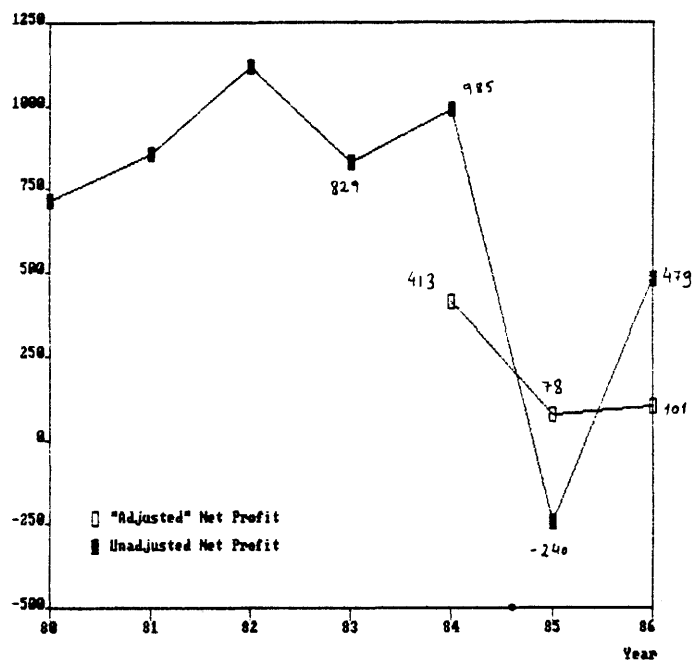
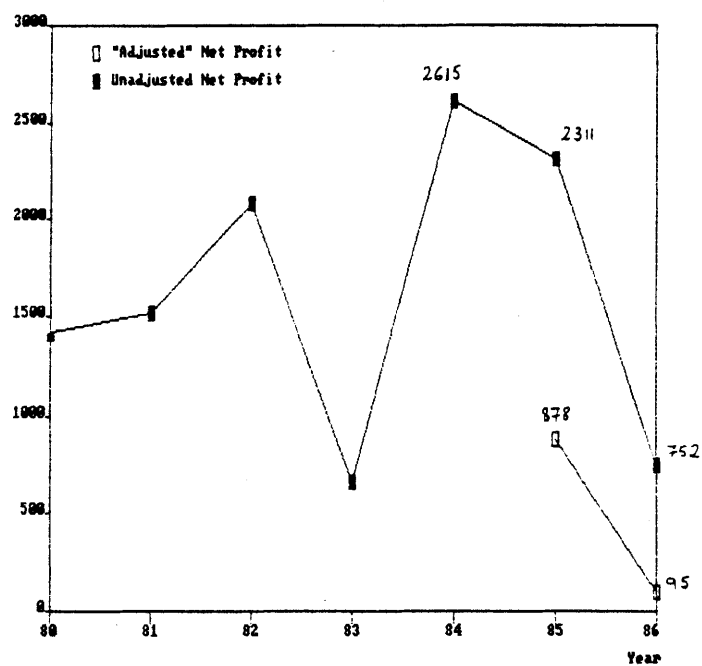


FIGURE 3.5b

"Financial" Holding Groups: "Adjusted" and Unadjusted Net Profits (Thousand 1980 NIS)



but only by 81% according to the unadjusted figures. In the "financial"-groups case, the rates of change were closer: between 1985 and 1986, the aggregate "real" net profits fell by 89% according to the "adjusted" series and by 67% if we follow the unadjusted numbers. Furthermore, there are significant differences in the absolute profit levels indicated by the 2 series. (Note that it was the "adjusted" series which turned an "industrial" loss into profit.) Of course, these observations cannot lead to conclusions regarding the accuracy of unadjusted profits in prior years. However, while the figures move together, the discrepancies in the rates of change and in the absolute profit magnitudes suggest that both series be considered as general indicators rather than accurate numbers.

The evolution of the "industrial" holding groups' pretax profit can be compared with an alternative time series for large business units, based on the CBoS Industry and Craft Survey. As noted in Part Two, pretax profit data are published in the Survey only since 1979/80 and are not broken down by establishment size. Instead, we use here an index labeled "surplus" which--unlike the Survey income statement data--is available for different establishment-size categories. "Surplus" is derived from the Survey data by subtracting from "census domestic product at factor cost" the sum of "wages, salaries and other labour expenses" and "consumption of materials, fuel, electricity, etc.". According to this definition, the "surplus" includes establishments' pretax profit, depreciation, general expenses (advertising, interest, insurance, etc.), subsidies and export benefits. Here, we examine "surplus" data for establishments with 300 or more employees, which is the largest size-category available from the Survey.

Before we can compare these data to the shareholders' report figures, one should note several differences between the two data series, involving (i) the components of "surplus" and pretax profit, (ii) the type of business unit under comparison and (iii) the reporting period.

(i) Differences in the components of "surplus" and pretax profit. The definition of "surplus" is wider than that of pretax profit. It contains, in addition to pretax profit, both depreciation and general expenses. What are the relative magnitudes of these additional components? We can provide only an indirect estimate based on the Survey's income statement data. (These data cover the entire

population of establishments with 5 or more employees rather than the "300 plus" group in which we are interested.) Also, only general expenses are detailed in the Survey, while depreciation figures are unavailable. The industry ratio between pretax profit to general expenses was 0.417 in 1981/2 and 0.399 in 1982/3.⁸ The ratio of pretax profit to general expenses and depreciation is, obviously, even smaller. However, what is important for our purpose here is not so much the relative share of pretax profit in "surplus" but the stability of this share: if the share of pretax profit in "surplus" is stable, the two series will move together. Unfortunately, this cannot be resolved with available data. Although the two figures we have are very close, there is no assurance that this stability was the overall pattern in prior periods, or that this industry stability also holds for the large-establishment groups when considered separately. Nevertheless, we can expect the absolute size of the "surplus" as a whole to fluctuate much more than the relative share of each of its components. This means that changes in overall "surplus" reflect similar changes in pretax profit as well as in the other "surplus" components.

(ii) The business unit under consideration. The shareholders' reports refer to holding groups while the Survey data reports on establishments. What is the correspondence between establishments with over 300 employees and the holding groups? The Survey does not identify the large establishments so no definite answer can be provided here.⁹ We can, however, make the following indirect observations. As already indicated, most of the large establishments in Israel are held by the 6 largest holding groups (including the Israeli Government). Several large establishments are obviously held by big firms other than the 6 largest holding groups but these are peripheral to the core of holding groups. The next question is why should we only examine establishments with over 300 employees and ignore those with, say, 100-299 employees? The reason is that establishments included in the "300 plus" category employ considerably more than 300 workers. The average employment size per establish-

⁸ CBoS, Industry and Craft Survey 1982, pp. 33, 36.

⁹ Note that with research one can identify some of these establishments. There are currently about 160 establishments with over 300 employees, and the Survey's SIC breakdown quotes much smaller numbers in each branch.

ment in this category was 550 employees in 1964/5, 614 in 1969/70, 814 in 1979/80 and 856 in 1983/4. This means that establishments in the "300 plus" category are much larger in the aggregate than establishments in the preceding size category of 100-299 employees. The holding groups also control establishments with less than 300 employees but the bulk of their business is conducted via the larger establishments. All in all, it seems plausible to consider the "300 plus" category of establishments as composing the core of the holding groups' industrial activity. The validity of this supposition is strengthened by the results presented below.

(iii) The reporting period. The shareholders reports, with two minor exceptions, refer to a calendar year ending December 31.¹⁰ The Survey's data are for a fiscal year ending March 31.¹¹ Unfortunately, without additional details (such as quarterly figures) very little can be done to bring these 2 series into the same annual basis without introducing a further unknown bias.

Figure 3.6a compares "surplus" of a 'representative' establishment with 300 or more employees (i.e., average "surplus" per establishment) with aggregate pretax profit of the 3 "industrial" holding groups [Koor Industries, DIC and Clal (Israel)].¹² The temporal behaviour of these two series is remarkably close (both series are normalized in terms of standard deviations from their mean). This (i) strengthens our hypothesis regarding the "identity" between the "300 plus" establishments and the holding groups, and (ii) since the "surplus" data are based on Income Tax Commission assessments, the similarity between the two series indicates that the shareholders' reports are not a mere accounting artifact.

¹⁰ Koor Industries, and DIC reported on a fiscal-year basis until 1967 and 1969 respectively. We converted these data to a calendar-year basis by computing a weighted average assuming that profit flows are evenly distributed through the original reporting periods. Since inflation was low in those years, the possible bias is small.

¹¹ The Survey's raw data contain both fiscal-year and calendar-year based reports. Subsequently, the CBoS converts the calendar-year based reports into a fiscal-year basis. The CBoS method of conversion is also based on an arbitrary weighing formula.

¹² The holding-groups' financial figures are deflated by the average annual CPI between January to December, while the Survey's figures are deflated by the average CPI between April to March. This convention is used throughout the analysis.

FIGURE 3.6a

Pretax Profit of "Industrial" Holding Groups Versus Average "Surplus" of a "Representative" Establishment of the "300 Plus" Category (Thousand 1980 NIS)

Standard Deviations

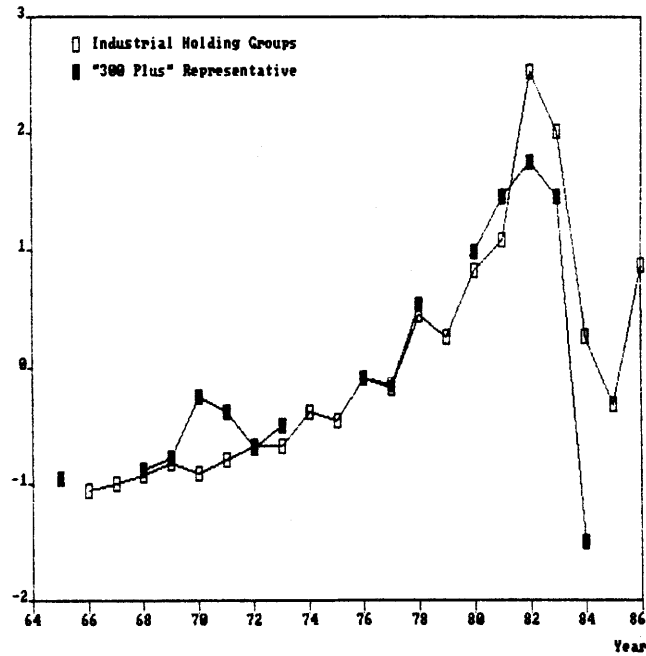
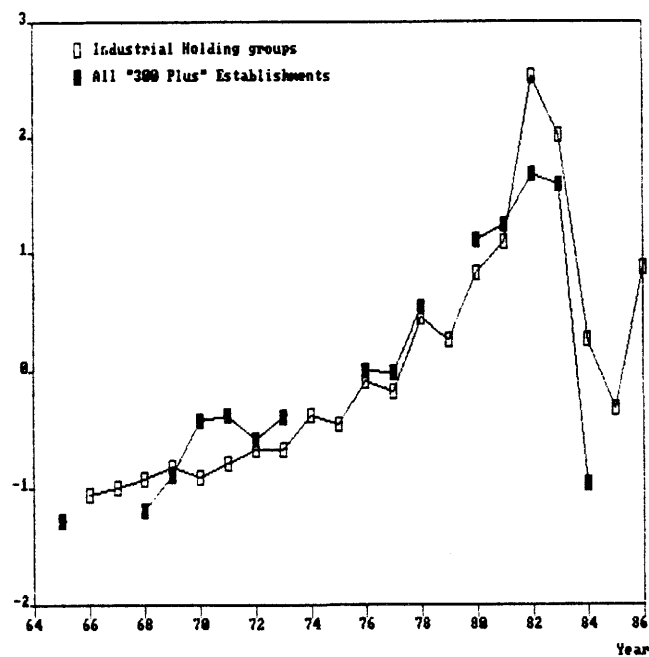


FIGURE 3.6b

Pretax Profit of "Industrial" Holding Groups Versus Aggregate "Surplus" of all "300 Plus" Establishments (Thousand 1980 NIS)

Standard Deviations



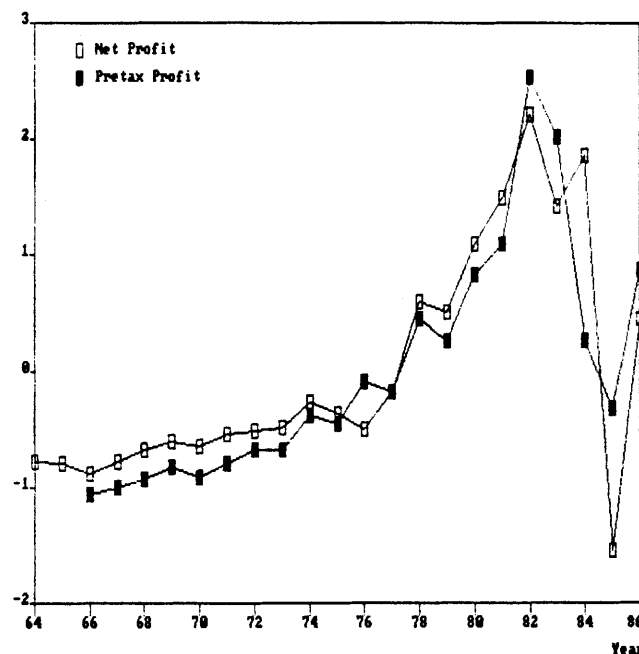
A different comparison is given in Figure 3.6b. Here we compare the holding groups' "industrial" pretax profits not with the average but with the aggregate "surplus" of all establishments with over 300 employees (expressed as standard deviations from mean). The point is that although the number of "300 plus" establishments increased from 72 in 1964/5, to 164 in 1983/4, the holding groups' control over such establishments in fact increased through that period via merger and acquisition. If this is so, the aggregate figures for all "300 plus" establishments should be a closer approximation to the holding groups' performance than figures for a 'representative' establishment of the "300 plus" category. Here, again, we find a close similarity between the two series.

A final question regards the relations between pretax and net profit. The comparison of shareholders' report data with the Survey's data indicated similarities between the pretax figures from both sources. Can we conclude that the shareholders' report provide reliable net profit figures as well? (Note that what matters is not so much the absolute numbers but their temporal behaviour.) We can try to address this question indirectly on the basis of Figure 3.7 which plots the aggregate pretax and net profit of the 3 large "industrial" groups (standard deviations from mean). What does

FIGURE 3.7

"Industrial" Holding Groups: Pretax Versus Net Profit (Thousand 1980 Prices)

Standard
Deviations



the close proximity in the movement of the two series tells us? If the ratio of pretax to net profit is similar for both the shareholders' reports and the Income Tax Commission data, and if the (shareholders' report) pretax figures are indeed reliable (as indicated by the comparison with the Survey's data based on the Income Tax Commission sources), then a close movement of pretax and net figures means that the net figures based on the shareholders' reports are reliable to some extent as well. The net figures of the shareholders' report may still contain an absolute bias but their temporal movement is most probably close to that of the net figures based on the Income Tax Commission assessment.

3.1.3 Conclusions

(i) The profit performance of the 3 holding groups within each category--the "industrial" and "financial"--are remarkably similar. (ii) Moreover, until 1982, these two clusters can be perceived as moving together. From the profit perspective they behaved as one coherent group until their interests diverged from 1983 onward. (iii) The nominal shareholders' reports data are not drastically different from the adjusted figures, at least for 1984-6. The fluctuation in "industrial" holding-groups' profits (based on shareholders' reports) are also confirmed by a comparison with the "surplus" of large establishments (based on the alternative data source of the Industry and Craft Survey).

The next question is whether or not the holding-groups cluster, as a whole, performs differently from the other business entities in the economy. Can we affirm the hypothesis of two different "ownership sectors": the 'Big Economy' dominated by the holding groups on the one hand, and the 'Small Economy' composed of numerous independent firms, on the other? In what way do the performances of these two "sectors" differ? This is dealt with in the following section.

3.2 Business Performances: the 'Big Economy' Versus the 'Small Economy'

The comparison here is divided in 2 parts. First we examine the Industry and Craft Survey data which enable us to compare performances by establishment size. Then we compare the holding groups performances as a whole with indirect estimates for the rest of the business sector.

3.2.1 Industry: Large Versus Small Establishments

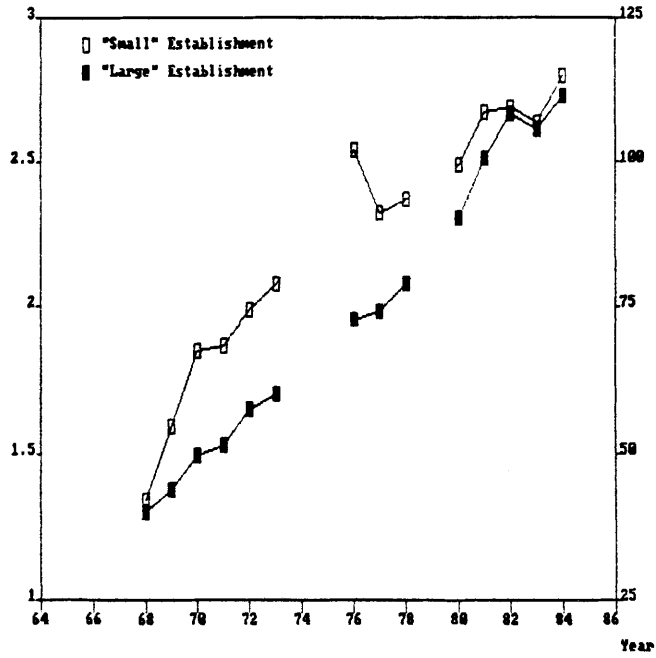
The analytical unit with which we start is the 'representative' establishment. We consider results for 2 types of establishments: an average establishment employing more than 300 employees and an average establishment employing less than 300 employees.¹³ Figures 3.8a and 3.8b compare the average performance of small and large establishments in terms of their revenue and "surplus". With respect to revenue, the average performance in each group appears to be quite similar. Both experienced a trend of "real" growth and their deviations--with the exception of 1976/7--are also in the same direction. However, when we delve further into the "surplus" category, differences begin to appear. While the trend for both groups is still upward, their "surpluses" often deviate in opposite directions. This is even clearer in Figure 3.9a where annual rates of change in "surplus" are plotted: out of 10 observations, 6 are in the opposite directions. Figure 3.9b further illustrates these differences. It is divided into 4 quadrants and a 45° line passing through the zero-growth origin. The North-West and South-East quadrants contain the "opposite-growth" observations (opposite sign) and the North-East and South-West quadrant--the "similar-growth" observations (same sign). The 45° line represents the "equal growth combinations": the farther an observation is from this line, the greater the difference between the rates of change of the two variables. Here we can see that

¹³ As noted before, the size difference between the two categories is substantial. In 1964/5 the average employment figures were 550 for a large 'representative' establishment and 23 for a small one. In 1983/4 the average figures for large establishments reached 856 while for a small establishment the average employment level remained at... 23. Even if one does not accept an average as a proper representation for such a wide establishment grouping (5 to 300 employees), the size difference between the "300 plus" group and the preceding "100-299" group is still substantial enough to justify this dividing line.

FIGURE 3.8a

Average Revenue of a "Representative" Establishment:
 "Small" Versus "Large" Establishments (Thousand 1980 Prices)

"Small"

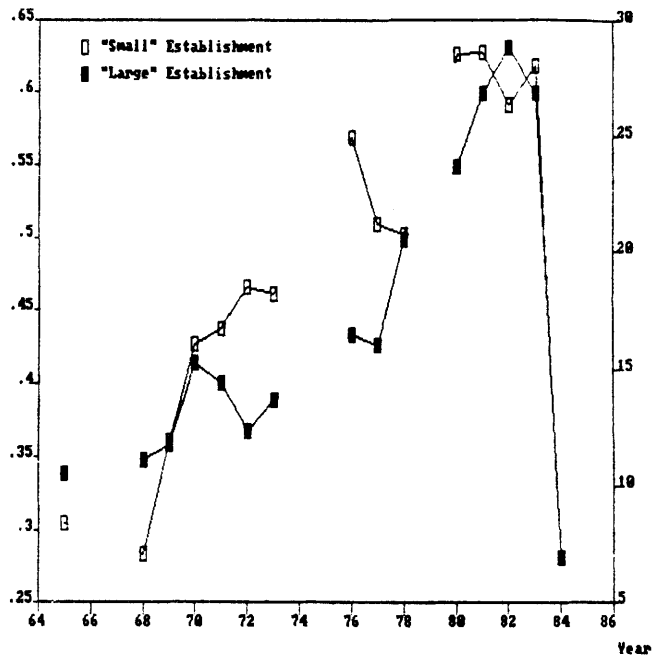


"Large"

FIGURE 3.8b

Average "Surplus" of a "Representative" Establishment:
 "Small" Versus "Large" Establishments (Thousand 1980 Prices)

"Small"



"Large"

FIGURE 3.9a

Annual Rate of Change in "Surplus" of a "Representative" Establishment
 "Small" Versus "Large" Establishments (Thousand 1980 Prices)

(%)

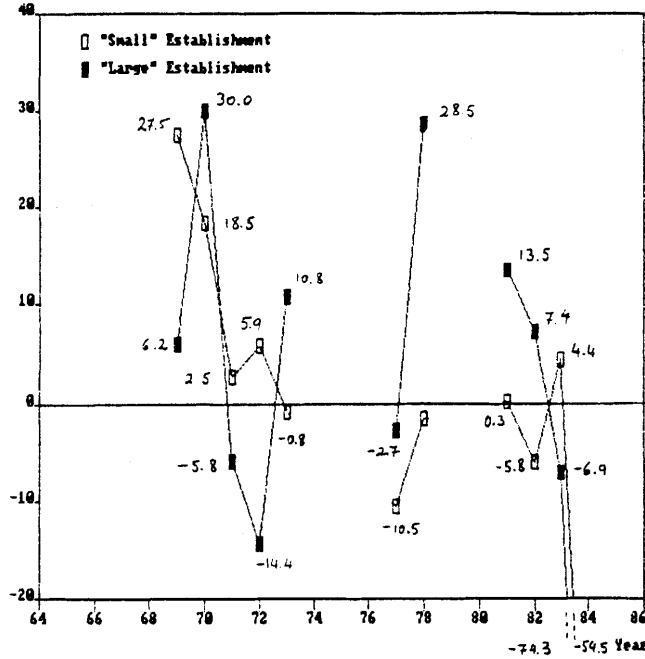
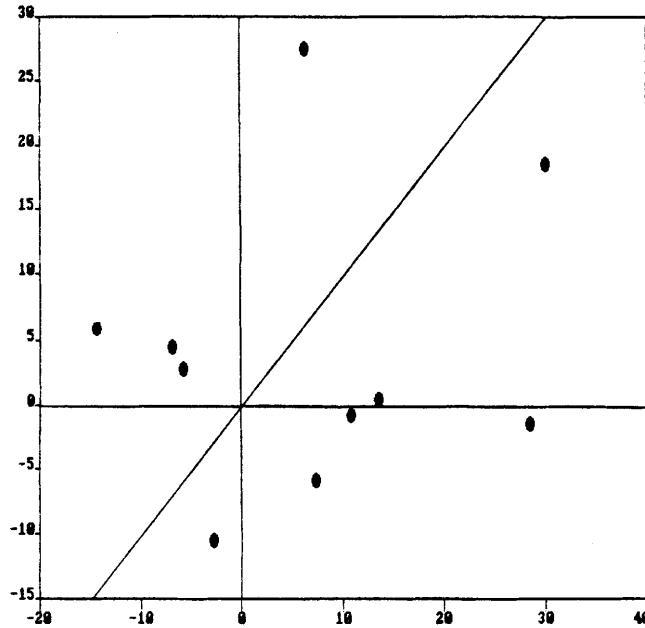


FIGURE 3.9b

Annual Rate of Change in "Surplus" of a "Representative" Establishment
 "Small" Versus "Large" Establishments (Thousand 1980 Prices)

"Small"
 (%)



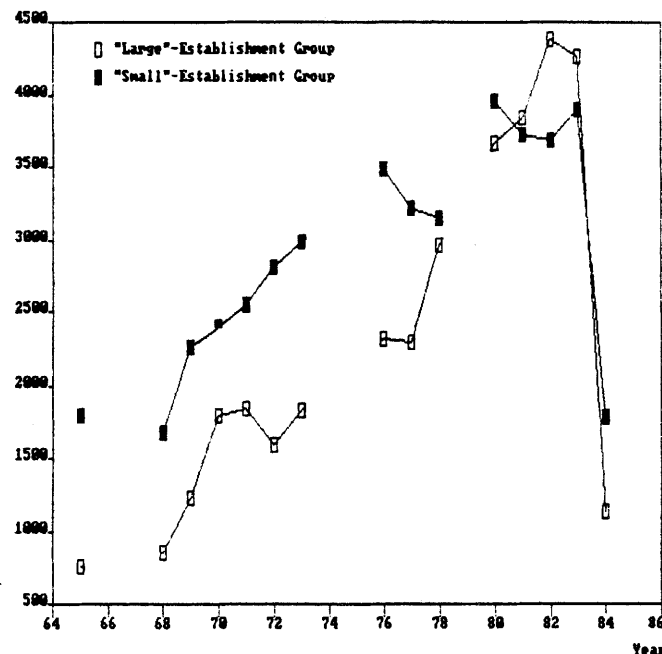
"Large" (%)

even in 1968/9, 1969/70, 1980/1 and 1983/4 when average "surpluses" in both groups moved in the same direction, the differences in growth rates between the two groups were quite substantial.

If we are correct in our hypothesis that the "300 plus" establishments are in essence members of one coherent group (mostly under the control of the large holding groups), then we should contrast the performance of this group as a whole with the aggregate figures for the smaller establishments. The difference between this comparison and the examination of 'representatives' is due to the possibility of one aggregate group "biting" into the other's business, something that need not be reflected in the average establishment figures.¹⁴ With respect to aggregate revenue the two groups exhibit, again, very similar upward trends. The picture with respect to aggregate "surplus" in each class is presented in Figures 3.10a, 3.10b and 3.10c. Like the case for the average figures, both groups experienced a similar upward trend but very different fluctuation patterns (5 opposite-sign observations and most observations are far from the 45° line).

FIGURE 3.10a

Aggregate "Surplus": "Small" Versus "Large" Establishment Groups (Thousand 1980 Prices)



¹⁴ Note that while aggregating the results of the "300 plus" establishments might be justified on the basis of common ownership, aggregation over small establishments results has no such "ownership" basis. Most small establishments are under distinctly separate ownership.

FIGURE 3.10b

Annual Rates of Change in Aggregate "Surplus":
 "Small" Versus "Large" Establishment Groups (Thousand 1980 Prices)

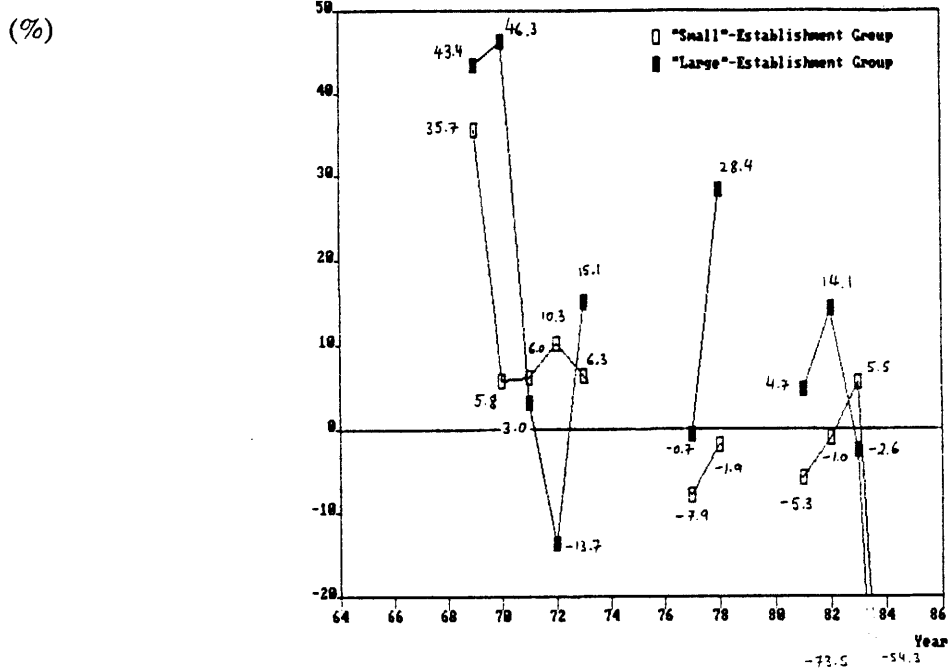
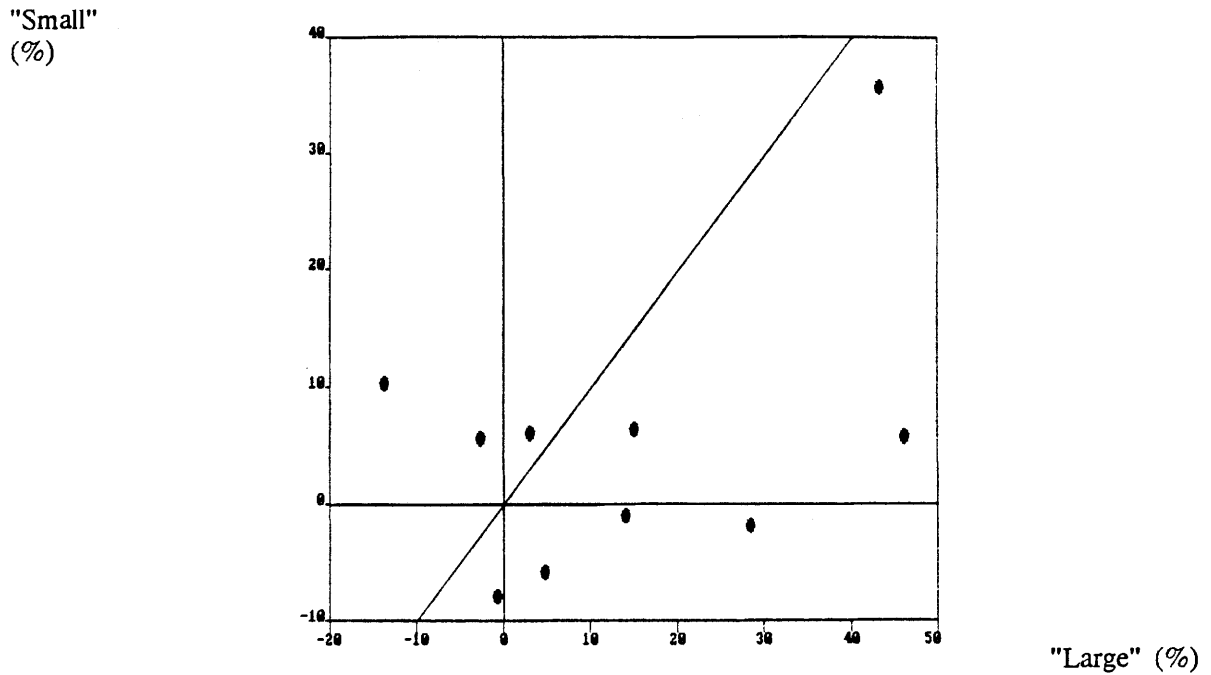


FIGURE 3.10c

Annual Rates of Change in Aggregate "Surplus":
 "Small" Versus "Large" Establishment Groups (Thousand 1980 Prices)



3.2.2 Business Sector: the Largest Holding Groups Versus the "Rest"

So far we have considered industry only. A comparison between the 'Big Economy' and 'Small Economy' of the business sector as a whole is more difficult to conduct. While we have the holding groups' profit data to represent the 'Big Economy', no comparable figures for the 'Small Economy' are available. However, pretax "capital income" of the 'Small Economy' can be indirectly estimated from the National Accounts, by subtracting the pretax profit of the major holding groups from aggregate "capital income" of the business sector as a whole.¹⁵ The 2 pretax profit series are compared in Figures 3.11a and 3.11b. With respect to trend, both the 'Big Economy' and the 'Small Economy' experienced real growth until the mid-1970s. After 1975, the 'Small Economy' started to stagnate while the holding groups leap forward in terms of their profits. Figures 3.12a and 3.12b describe the evolution of growth rates in profit and "capital income" between 1967 and 1986. Out of 18 observations, 7 indicate opposite-sign growth rates for the two series, with the disparity becoming more pronounced after 1975.

3.2.3 Conclusions

The general view emerging in this section is one of substantial differences between the 'Big Economy' and the 'Small Economy'. The Industry and Craft Survey data indicate that while small and large establishments experience similar trends and fluctuations in their sales revenue, their "surplus" results are quite distinct and often deviate in opposite directions. The same disparity emerges when we compare the holding groups pretax profit to the (imputed) "capital income" obtained in the rest of the business sector. The divergence between these profit and "capital income" performances intensified since the mid-1970s.

¹⁵ A better overall category will be "capital income" including (imputed) subsidies on government loans. These data are available, though, only since 1975. The temporal behaviour of this and the "capital income" (excluding imputed subsidies) series are very similar so we use the latter series which span the entire 1964-86 period.

FIGURE 3.11a

Business Sector: Aggregate Pretax Profit of Holding Groups Versus (Imputed) Pretax "Capital Income" of the "Small Economy" (Thousand 1980 Prices)

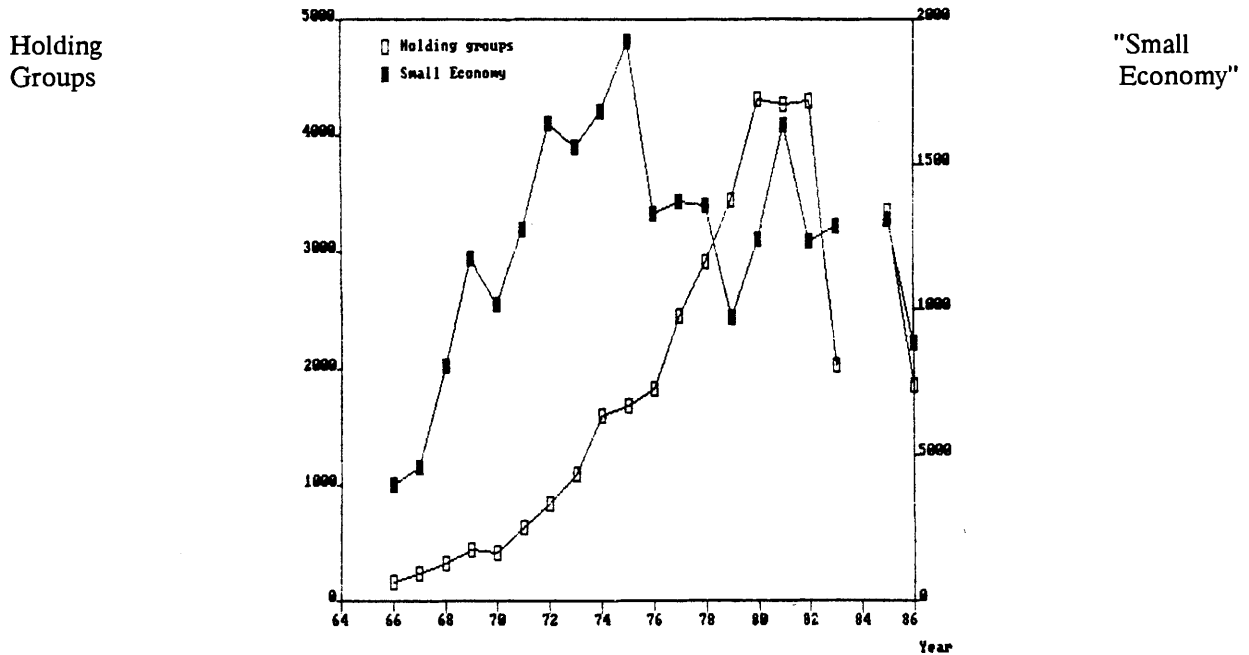


FIGURE 3.11b

Business Sector: Aggregate Pretax Profit of Holding Groups Versus (Imputed) Pretax "Capital Income" of the "Small Economy" (Thousand 1980 Prices)

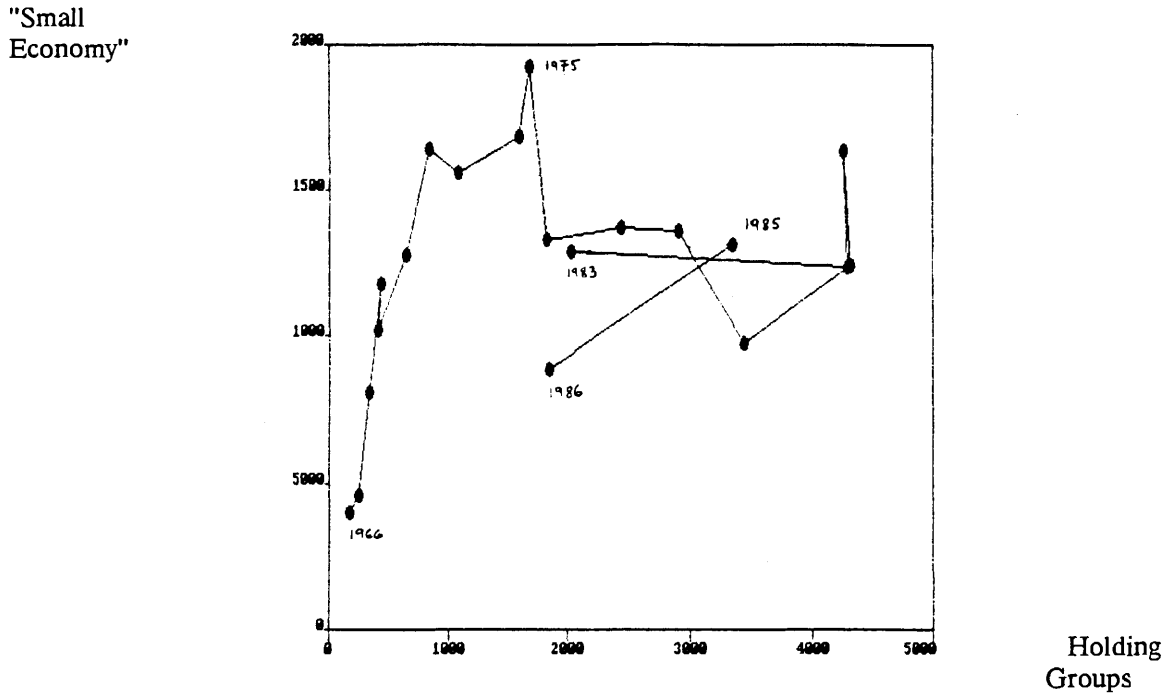


FIGURE 3.12a

Business Sector: Annual Rates of Change of Holding Groups' Pretax Profit and of (Imputed) Pretax "Capital Income" of the "Small Economy" (Thousand 1980 Prices)

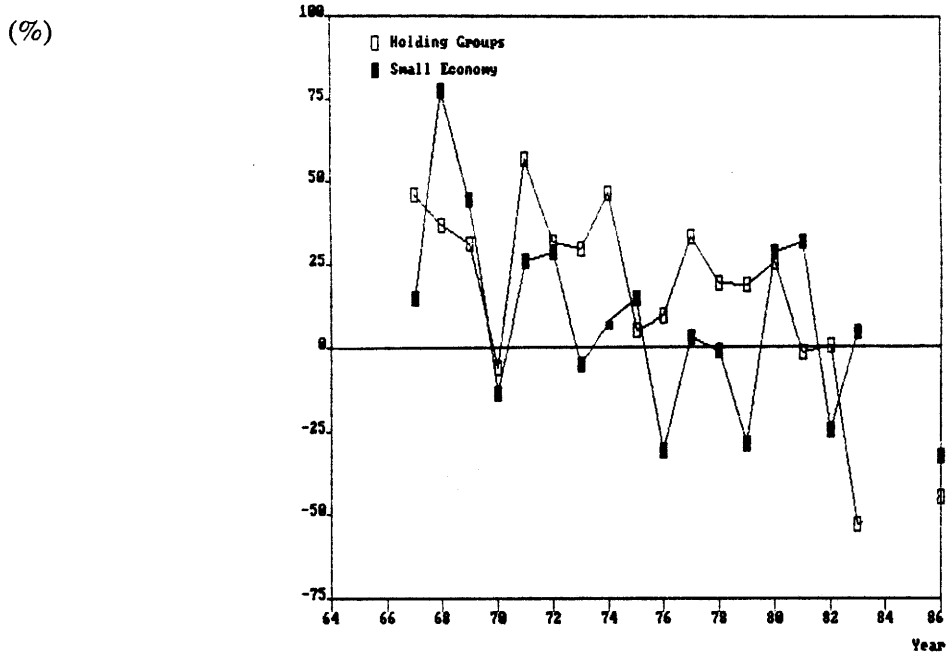
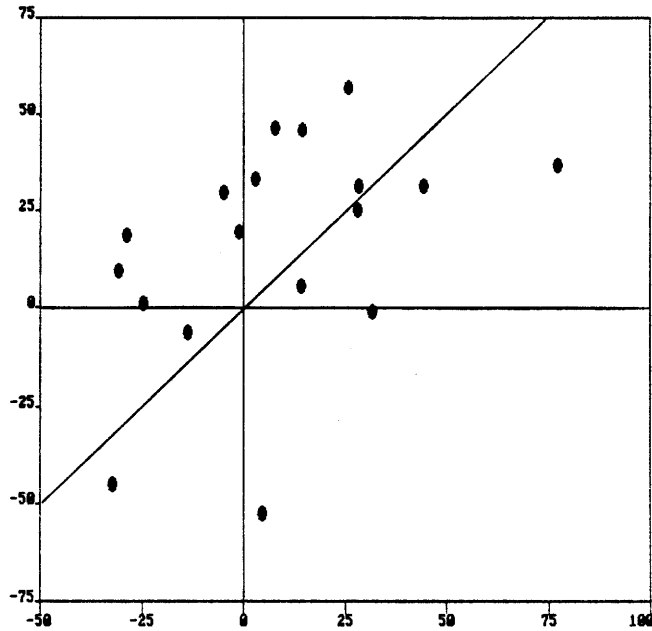


FIGURE 3.12b

Business Sector: Annual Rates of Change of Holding Groups' Pretax Profit Versus (Imputed) Pretax "Capital Income" of the "Small Economy" (Thousand 1980 Prices)

Holding Groups (%)



"Small Economy" (%)

The 6 largest holding groups experienced similar developments and appear to perform as a coherent cluster (at least until the early 1980s). Furthermore, their 'ultimate' business results (profit or "surplus") move in a quite distinctly different manner than the results experienced by other, smaller business units. While the Israeli economy is often characterized by a single 'macro-economic' environment, it is clear that this environment reflects two different and often conflicting developments. This is concealed by the SIC production perspective where we compare different branches, since both the holding groups as well as other businesses operate in the same branches. The ownership perspective, on the other hand, indicates a clear dichotomy in business results between the 'Big Economy' and the 'Small Economy' crossing throughout the economy.

3.3 Aggregate Concentration and Distribution Measures

The final step is to examine trends in 'aggregate' concentration: to determine how the absolute business results of the 'Big' versus the 'Small' economies are reflected in their relative performances in sales, "surplus" and profit, and also how these relative indexes have evolved since the mid-1960s.

3.3.1 Industry Data

It is common to indicate the degree of aggregate concentration by a "share" figure, as for instance by the share of the 50 largest firms in total sales or profits of the industry or the economy. We use a slightly different measure and examine the ratio between the two components of the total--those associated with the 'Big Economy' and the 'Small Economy'. This "ratio" measure is more sensitive to changes in relative shares¹⁶ and it can be more easily decomposed.

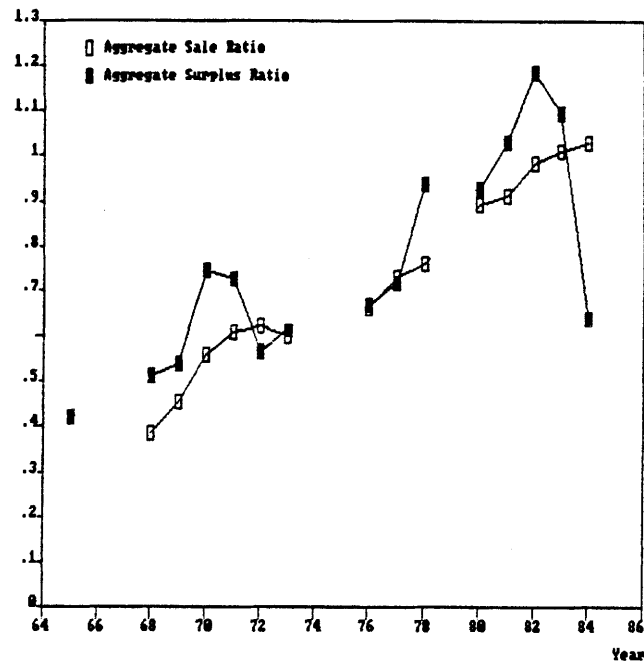
Figure 3.13a describes the evolution of two ratios. The first is the ratio between aggregate

¹⁶ When we measure the "share" of the 'Big Economy' in the total figures, the 'Big Economy' appears twice, in both the numerator and the denominator. The "ratio" figure between the 'Big Economy' and 'Small Economy' has each component appearing only once.

sales made by all "300 plus" establishments and aggregate sales by all other industrial establishments ("aggregate sales ratio"). The second ratio is that between the aggregate "surplus" of each of these establishment groups ("aggregate surplus ratio").

FIGURE 3.13a

Industry: "Aggregate Sales Ratio and "Aggregate Surplus Ratio"
Between Large and Small Establishment Categories



Several developments are evident from this comparison:

- (i) There has been a steady upward trend in both of these 'concentration indexes'. The ratios in sales and "surplus" both rose from about 0.4 in the mid-1960s to over 1 in the early 1980s.
- (ii) An important difference between the large and small groups is that the "aggregate surplus ratio" between the two size groups usually exceeds the "aggregate sales ratio" between them. This indicates that the large establishments are more "profitable", at least to the extent that "surplus" is an index for profit (as noted in section 3.1.2, "surplus" also contains cost items, such as interest

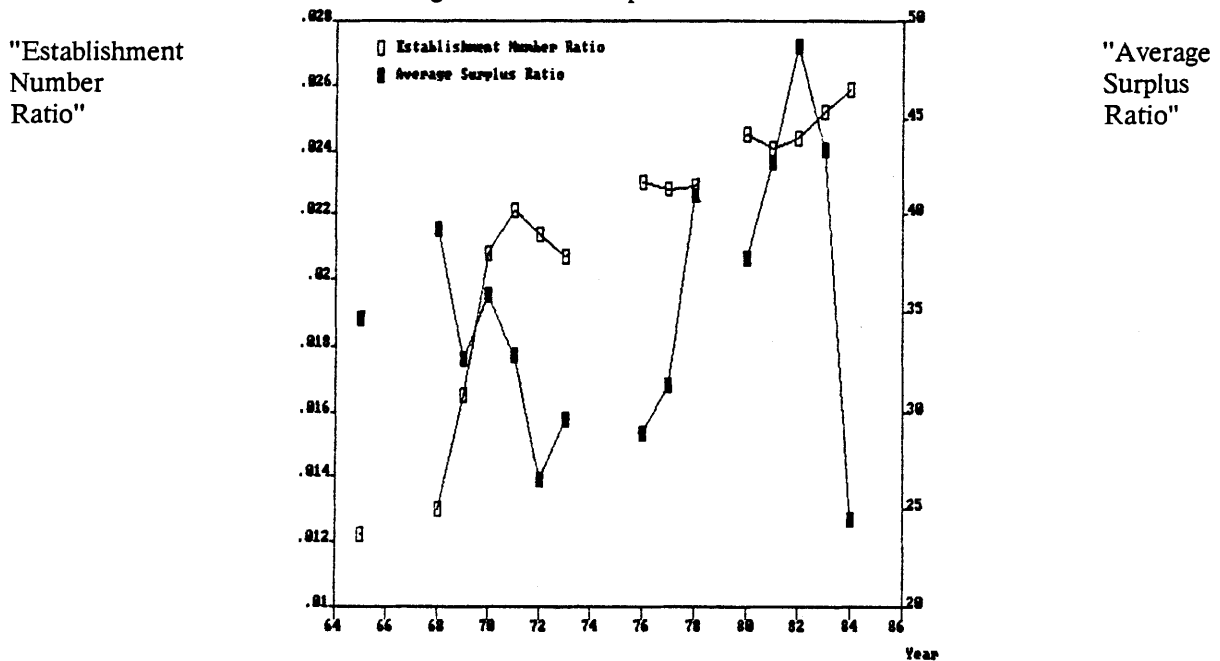
costs, advertisement, depreciation, etc., and the relative distribution of these is unavailable).¹⁷

(iii) While the trend in the "aggregate sales ratio" is rather "smooth", the "aggregate surplus ratio" is fairly volatile. The latter ratio is more important for our purpose (since it refers to the 'end' rather than 'means' of business activity) and we examine its development further below.

The "aggregate surplus ratio"--the ratio between the aggregate "surplus" of the large and small establishments groups--can be written as the product of two other ratios: the ratio between the number of large and small establishments (the "establishment number ratio") and the ratio between the average "surplus" of large and small establishments (the "average surplus ratio"). The evolution of these two ratios given in Figure 3.13b, decomposes the "aggregate surplus ratio" depicted in Figure 3.13a.

FIGURE 3.13b

Industry: The "Establishment Number Ratio" Versus The "Average Surplus Ratio" Between Large and Small "Representative" Establishments



¹⁷ Sales are composed of 3 elements: wage costs, material costs and "surplus". It turns out (from results unreported here) that the "aggregate wage-costs ratio" between large and small establishments is also consistently higher than the sales ratio, while the "aggregate material-cost ratio" is consistently lower than the sales ratio. This means that the shares of both components of "value added" (wage-cost and "surplus") in aggregate sales are higher for the large establishments group than for the small establishments group.

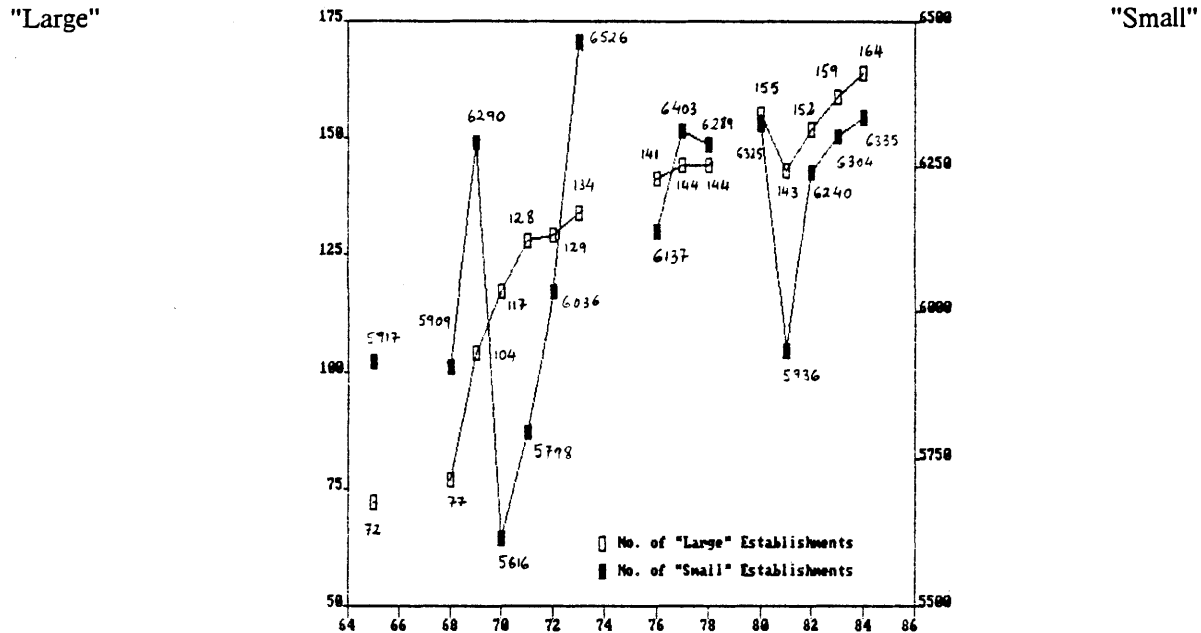
According to the "aggregate surplus ratio", concentration followed an upward trend throughout the period but much of the rise in concentration took place since the mid-1970s, in particular from 1977 onward. This was the result (in a technical sense) of two quite distinct developments: (i) a decline in the "average surplus ratio" until the mid-1970s and then a rapid rise, and (ii) a strong increase in the "establishment number ratio" until the early 1970s, followed by a very slow rise in this ratio since then. We discuss both of these below.

(i) The "average surplus ratio". From the mid-1960s and until the mid-1970s, the average "surplus" performance of large establishments (the performance of a large 'representative' establishment) actually declined relatively to that of small establishments: the "average surplus ratio" between large and small establishments was about 40 in 1968 but less than 30 in the mid-1970s. From a macroeconomic perspective this was largely a prosperous period but the 'ownership perspective' reveals two conflicting developments. In that period, the average "surplus" of small establishments rapidly rose, while the average "surplus" of large establishments actually stagnated (see Figure 3.8b on p. 42). This situation has reversed since the mid-1970 for with persistent macroeconomic stagnation, the average "surplus" performance of large establishments grew much faster than that of small ones. As a result, the "average surplus ratio" between large and small establishments rose from less than 30 in 1975/6 to over 45 in 1981/2. Figure 3.8b).

(ii) The "establishment number ratio". Figure 3.14 plots the number of small establishments (5-299 employees) versus the number of large establishments (300 or more employees). With the exception of 1980/1, the number of large establishments grew throughout the 1964/5-1983/4 period. The number of large establishments started to grow with the economic boom following the 1967 War and the expansion of the market (incorporating a population of over one million new consumers/workers from the West Bank and the Gaza Strip). The most rapid increases took place in the 3 years between 1967/8 and 1970/1 (from 77 to 128 "300 plus" establishments). In the 15 year period since then, as the 'Big Economy' "stabilized", only 36 more establishments were added to the large establishments category.

FIGURE 3.14

Industry: Number of "Large" and "Small" Establishments



The evolution of the 'Small Economy' in terms of establishment numbers is quite different. Unlike the 'Big Economy', there is no apparent growth trend here and the numbers fluctuate throughout the period. In the 1967/8-1970/1 period of prosperity, when the number of large establishments grew by 66%, the number of small establishments actually decreased by 111 (from 5909 to 5798). In 1969/70, when the GNP grew by almost 13% in real terms, 674, or 9.3%, of all small establishments actually disappeared! (The number fell from 6290 to 5616.) The elimination of these establishments cannot be attributed to stagnation for the 1967/8-1970/1 period saw brisk expansion in the average "surplus" of small establishments, both absolutely and relative to large establishments (see Figure 3.8b and 3.13b). These small establishments probably disappeared due to fierce competition or through mergers and acquisitions with the larger establishments.¹⁸ The number of small establishments started to grow

¹⁸ There are no accessibly merger and acquisitions statistics in Israel to validate or refute this hypothesis. There are some data regarding registration and winding-up of companies, based on the Registrar of Companies' information. These indicate a net increase of companies in the 1969/70 period, when 9.3% of all small establishments disappeared. In 1969, the net increase of industrial firms was 531 (606 new industrial firms were registered and 75 were dismantled), while

again in 1970/1 and reached its peak in 1972/3. Since then a mild downward tendency is apparent, with similar fluctuations to those seen in the number of large establishments.

What can these developments in the "aggregate surplus ratio", the "average surplus ratio " and the "establishment number ratio" tell us about concentration from an 'ownership perspective'? These establishment data are only reflections of the activities of firms: the large holding groups, other large firms and the multitude of one-establishment firms of the 'Small Economy'. On these we have very little detailed empirical information, so the following conclusions must be taken as tentative hypotheses for further research rather than definite inferences.

Israeli industry apparently went through two different process of concentration. The first process, until 1977, involved the relative growth of the 'Big Economy', mainly via mergers and acquisition of smaller establishments. This was accompanied by a relative decline in the average "surplus" performances of the expanding "300 plus" establishments. As a result of these two opposing developments, the "aggregate surplus ratio" between the large and small groups remained stable until the mid-1970s. The second process started in the late 1970s. After the establishment-structure of industry, and most probably, the ownership-structure, had been "fixed", the relative expansion of the 'Big Economy' was mainly due to the growth in average establishment "surplus". By the mid-1970s, the large establishments were already bound under the control of the large holding groups and they dominated Israeli industry. This enabled them (i) in a period of persisting stagnation, to appropriate an increasing share of the civilian-industry aggregate "surplus" when smaller firms, who as a group, lost some of their market share, and (ii) to receive an increasing portion of government military orders which, since the mid-1970s, have become the most important and profitable activity of Israeli industry.

in 1970 the net addition was 357 (646 firms registered and 287 dismantled) [see CBoS, Statistical Abstract of Israel (1972) pp. 237-238]. These data pertain to firms rather than establishments, and they do not cover subsidiaries, which is of utmost importance for our purpose here (since if a small firm was bought by one of the large holding groups this would not be recorded as either registration or winding-up of a company). Most importantly, the data of the Registrar of Companies are in a very serious disarray and any conclusions based on them must be made with extra caution.

3.3.2 Holding Groups in the Business Sector

In the previous sector we evaluated the development of concentration in industry alone. The difficulty in interpreting these results from an 'ownership perspective' (in reference to the holding groups) arose mainly because the data pertained to establishments and not firms and, more importantly, because they were limited to industry, while the holding groups embrace the entire economy. In this section we consider the holding groups' weight in the business sector as a whole.

The difficulty here is due to a lack of reliable information regarding performance by the rest of the business sector. As noted in Part Two, business income statistics are not estimated directly but imputed by subtracting wage cost from NNP originated by the business sector.¹⁹ As a result, our imputation of the share of the holding groups in the total figures uses data from two different sources: the holding-group data are based on the 'accounting' definitions of the shareholders reports, while the total 'Business Sector' figures follow the 'economic' definition of the National Accounts. Consequently, the empirical results of this section must be, again, interpreted as general indications only.

Figure 3.15 plots two time series: the pretax profit of the 6 largest holding groups as a share of Israel's GNP, and the pretax profits of these groups as a share in aggregate pretax "factor income" of the business sector (including the subsidy component of government loans for domestic production).²⁰ The two series move together quite closely. Like similar comparisons in the previous section (based on the Industry and Craft Survey), these series indicate that with regard to pretax income, (i) the holding groups gained much of their significance since the mid-1970s (their pretax profit as a share of the GNP was 0.7% in 1970, 2% in 1975 and 4.2% in 1980, while with respect to

¹⁹ The 'Business Sector' figures include the activity of government-owned corporations but excludes direct production by government and non-profit institutions.

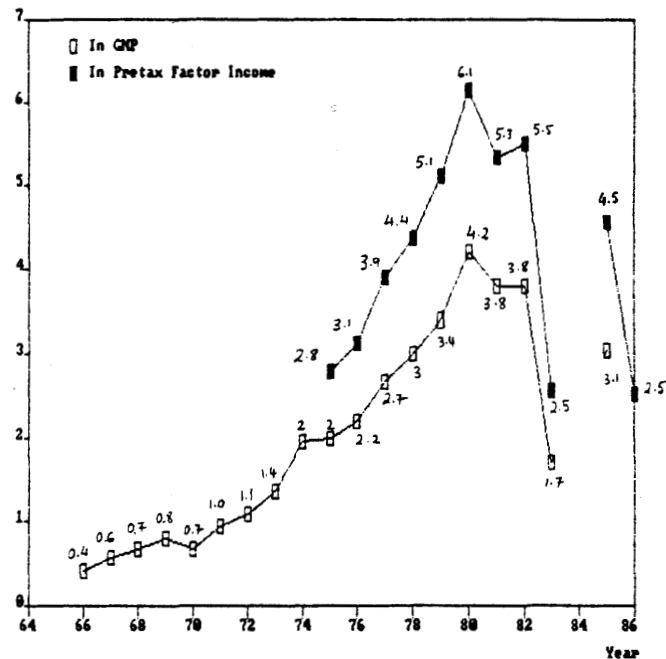
²⁰ By definition, aggregate pretax "factor income" equals NNP. Time series data of NNP by the 'Business Sector' are available since 1960 but a series including the government subsidy component in loans for domestic production exists only since 1975. Because this subsidy is a substantial component of the "capital income" figure and is also included in holding groups' profit calculation, we chose to use the later series.

aggregate "factor income" of the business sector their share was 2.8% in 1975 and 6.1% in 1980), and (ii) since the early 1980s, the weight of the holding groups (in the economy as a whole and the business sector in particular) experienced strong fluctuations (their pretax profits as a share in aggregate "factor income" of the business sector fell to 2.5% in 1983, rose back to 4.5% in 1985 and declined again to 2.5% in 1986).

FIGURE 3.15

Holding Groups' Pretax Profit as
a Share of GNP and as a Share of Pretax "Capital Income" of the Business Sector

(%)

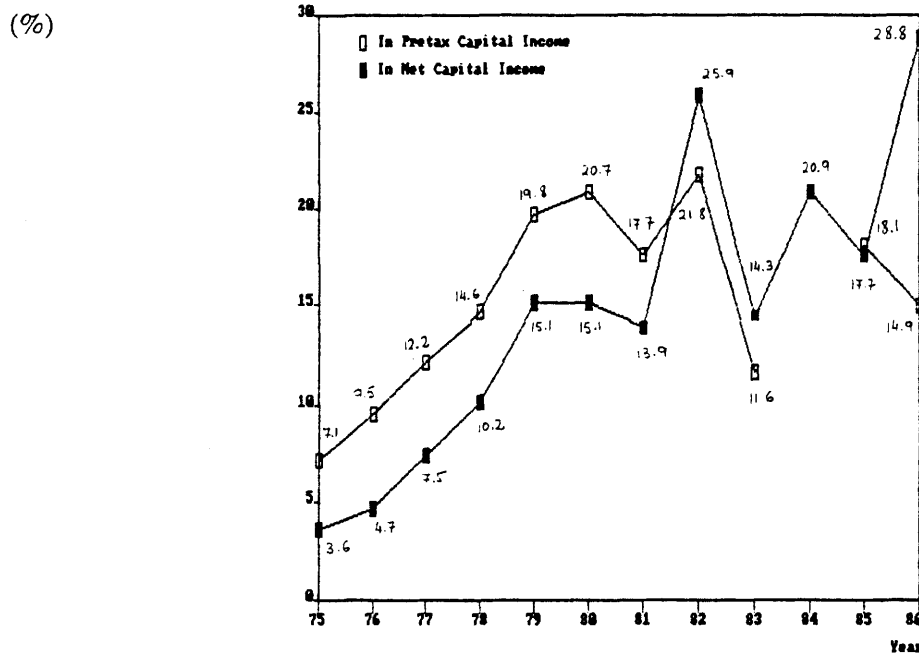


Moving a step further, we examine now the share of the large 6 holding groups not in aggregate "factor income" of the business sector, (which includes both labour and capital income) but in aggregate "capital income" only. Figure 3.16 presents two series: the share of the largest 6 holding groups in aggregate pretax "capital income" and their share in aggregate net "capital income" of the business sector. [Aggregate net "capital income" for the business sector is imputed by subtracting the total annual tax payments made by corporations and unincorporated business from "capital income"

of the business sector (including subsidy component in government loans).²¹]. The picture emerging from Figure 3.16 is different than the one presented by Figure 3.15 in several respects. (i) The share of the large holding-groups' profit in aggregate "capital income" of the business sector (both

FIGURE 3.16

**Holding Groups' Pretax Profit
as a Share of Pretax and Net "Capital Income" of the Business Sector**



pretax and net) is, obviously, much more substantial than their share in aggregate "factor income" as a whole: in the early 1980s, while the holding groups' pretax profit amounted to about 6% of aggregate "factor income", this reached over 20% of aggregate "capital income" of the business sector.

(ii) Between 1975 and 1980, the share of holding groups' profit in the 3 aggregates (that is, in aggregate pretax "factor income", in aggregate pretax "capital income" and in aggregate net "capital income") all experienced an upward trend. However, the holding-groups' share in "capital income" grew

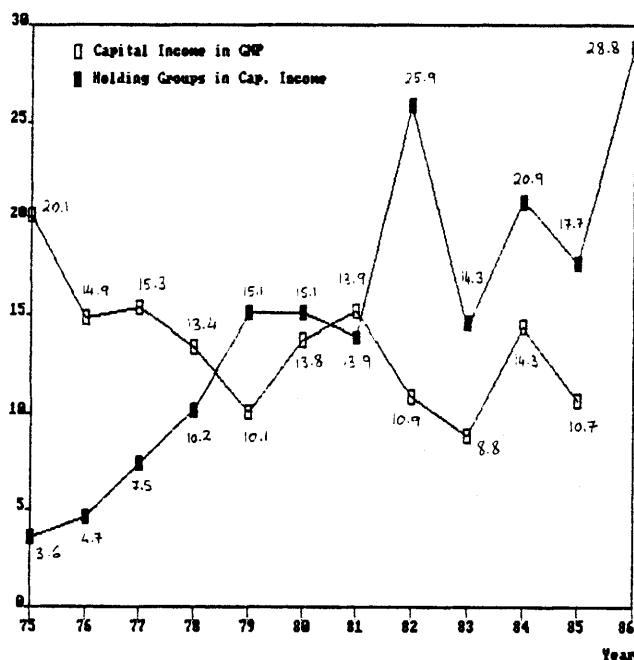
²¹ Tax data for corporations and unincorporated businesses are annual aggregates of monthly data provided to us by the Ministry of Finance. These are actual tax payments which differ from the tax obligation figures used in the financial reports to shareholders.

much more rapidly than their share in aggregate "factor income". In that period, their share in aggregate pretax "capital income" rose 2.9 times (from 7.1% to 20.7%) and their share in aggregate net "capital income" increased by 4.2 times (from 3.6% to 15.1%). On the other hand, their share in aggregate pretax "factor income" rose only by a factor of 2.2 (from 2.8% to 6.1%). (iii) From 1980 to 1986, the development of each of these three ratios has been different. Since 1980 the holding-groups' share in aggregate pretax "factor income" of the business sector started to fluctuate along a downward trend; their share in aggregate pretax "capital income" of the business sector was much more stable but their share in aggregate net "capital income" actually continued in its pre-1980 upward trend, reaching its highest level (28.8%) in 1986. As we 'refine' our concentration measure towards the 'ultimate target' of net profit--that is, as we move from the holding-groups' share in aggregate pretax "factor income" to their share in pretax "capital income" and finally to their share in net "capital income"--the trend of concentration is actually reversed to indicate an uninterrupted increase in concentration of net profit through the entire 1975-1986 period.

FIGURE 3.17

Share of Net "Capital Income" of Business Sector in GNP and
Share of Holding Groups' Net Profit in Net "Capital Income" of Business Sector

(%)



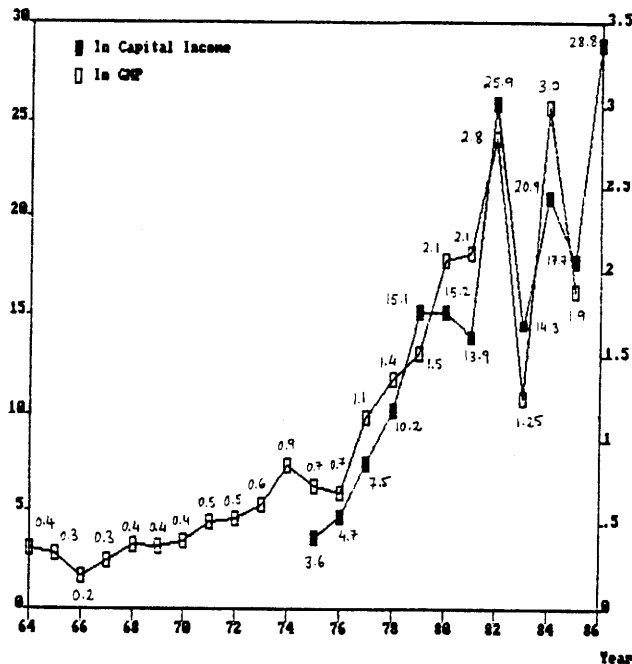
This is a striking result, particularly when we examine Figure 3.17. Here we contrast 2 series: the share of the holding groups in aggregate net "capital income" on the one hand, and the share of this aggregate net "capital income" in the GNP, on the other. We can see that the rise in the 'net profit' concentration index came amid a steady downward trend in the share of aggregate net "capital income" in the GNP (where this net "capital income" includes the net income of both the holding groups as well as all other corporations and unincorporated businesses). While the business sector as a whole appropriated a decreasing share of the GNP in the form of net profit, an increasing part of these net profits went to the holding groups. It could be, of course, that the net profits of both the holding groups and the rest of the business units declined as a share of the GNP only that the latter ratio fell more rapidly. However, as Figure 3.18 indicates, that was not the case for since 1975, the share of holding-groups' net profit in both the aggregate net "capital income" of the business sector and in GNP moved on a very similar upward trend.

FIGURE 3.18

Share of Holding Groups' Net Profit in Net "Capital Income" of the Business Sector and in GNP

In "Capital Income" of Business Sector

In GNP



4. SUMMARY AND CONCLUSIONS

In this essay we argued that the Standard Industrial Classification is a significantly deficient basis for the study of industrial concentration in Israel. Since the same large holding groups commonly own/control the leading firms in each industrial branch, we proposed to divide the economy into two distinct blocs that differ from an ownership perspective: the "Big Economy" represented by the holding groups and the "Small Economy" represented by the multitude of all other, largely independent, business concerns. The issue we sought to address was the significance of this distinction. Several empirical features were examined.

First, we compared the profit performances of 6 different holding groups (Koor Industries, Discount Investment Corporation, Clal (Israel), Bank Leumi, Israel Discount Bank and Bank Hapoalim). The data indicated that in the 1964-1982 period the profit time-series of the 3 "industrial" groups and 3 "financial" groups moved sufficiently close to each other--both in trend and deviations--that they could be considered as members of one coherent cluster of large business concerns. After 1982, differences appeared between the profit performances of the "industrial" and "financial" holding groups. Whether or not this indicates the emergence of a new structure is still early to judge, so the "coherent-cluster" hypothesis was maintained.

Next, we compared profit performances of the 6 holding groups, or the "Big Economy", to those recorded by the rest of the business sector, or the "Small Economy". This indicated that the two blocs, operating in the same macroeconomic context, experienced distinct business results that often deviated in opposite directions. Marked differences in profit performances between large and small industrial establishments further confirmed the dichotomy between the "Big Economy" and the "Small Economy".

Finally, we examined the evolution of several aggregate concentration measures based on the dichotomy between the "Big Economy" and the "Small Economy". The picture emerging was of an upward trend in concentration between 1964-1986. This trend became increasingly pronounced as we 'refined'

the concentration index, moving from indexes based on sales to pretax profit and, finally, to net profit.

The analysis presented in this paper must be interpreted with caution for available data are often inaccurate and their degree of inaccuracy is frequently unknown. Nevertheless, the rationale for separating the holding groups of the "Big Economy" from the "Small Economy" on the basis of ownership/control is strongly supported by marked differences in business results of the two blocs. This general conclusion is unlikely to be undermined by data inaccuracies.

The significance of this conclusion may prove to be far-reaching. As we noted in the first part of the essay, the holding groups assumed a central role in the evolution of Israeli economic history. If the ex-post performances of these groups are indeed different from--and even opposite to--those of the rest of the business sector, the conventional wisdom regarding the Israeli economy, or at least several of its important facets, deserve re-examination.

Certain important issues might require careful scrutiny: How have different economic policies affected the two blocs of the business sector? Military spending, tax policy, subsidization, government allocation of credit from foreign and domestic sources, government debt-financing and the consequent evolution of the domestic national debt--have probably carried different implications for the two business blocs. If this was the case, relevant issues cannot be analyzed in abstraction from the underlying ownership structure. Furthermore, how was the evolution of economic policies related to changes in the ownership structure and changes in concentration? Finally, how has the evolving process of concentration affected macroeconomic and other government policies? How have the interdependencies between the large holding groups and the Israeli government developed? Have Israeli government policies slowly become constrained by an increasingly concentrated ownership structure? These questions are still to be addressed.

POSTSCRIPT

Much of the basic material for this essay was collected and collated by the principal authors (Nitzan and Bichler) when Nitzan visited Israel in the Autumn of 1987. Travel costs for this visit were provided by McGill University. The final report was written in Montreal after Nitzan's return to the Department of Economics, McGill University.

BIBLIOGRAPHY

- Aharoni, Yair (1976) Structure and Performance in the Israeli Economy, The Institute for Business Research, Tel Aviv University, Hebrew (Tel Aviv: "Gomme" Science and Research Books and Tshrikover Publishers Ltd.).
- Bank Hapoalim Ltd. (various years) Annual Report.
- Bank of Israel (various years) Annual Report of the Banks' Comptroller, Hebrew (Jerusalem).
- Bank Leumi Le-Israel Ltd. (various years) Annual Report.
- Barkai, Haim (1964) The Public, Histadrut and Private Sectors in the Israel Economy, Sixth Report, 1961-63, Hebrew (Jerusalem: Falk Project for Economic Research in Israel).
- . (1982) "Workers Management and Participation: Theory and Practice in the Industrial Sector of the Histadrut", Hebrew, The Economic Quarterly, Vol. 29, No. 112, February, pp. 83-92.
- Bejsky, et al. (1986) An Inquiry Commission Into the Regulation of Banking Shares: Final Report, Hebrew (Jerusalem).
- Ben-Shahar, Haim (1961) Income Distribution of Wage and Salary Earners, 1950-1957, Hebrew Mimeograph (Jerusalem: Ministry of Finance).
- Ben-Shahar, Haim, Yoram Ben-Porath, Michael Bruno, Boas Nahir and Shalom Ronel (1975) Proposal For the Reform of Direct Taxes, Report of the Commission on Tax Reform, Ministry of Finance, March 12 (Jerusalem).
- Clal (Israel) Ltd. (various years) Annual Report.
- Creamer, David (1957) The National Income of Israel: 1950-1954 (Jerusalem: Falk Project for Economic Research in Israel and the Central Bureau of Statistics).
- Discount Investment Corporation Ltd. (various years) Annual Report.
- Dun & Bradstreet Israel (1984) Dun's 100: Israel's Leading Enterprises (Tel Aviv).
- Fortune Directory (1965a) "500 Largest U.S. Industrial Corporations", Fortune, Vol. 72, July, pp. 149-168.
- . (1965b) "200 Largest Industrial Outside the U.S. and the 50 Largest U.S. Commercial Banks, Life Insurance, Merchandizing, Transportation, and Utility Companies", Fortune, Vol. 72, August, pp. 169-180.
- Frenkel, Shlomo and Shimshon Bichler (1984) The Rich Families, Israel's Aristocracy of Finance, Hebrew (Tel Aviv: Cadim - Publishing House).
- Galmor, Ze'ev (no date) The Competition Patterns in Israeli Industry: An Analysis of Branch Concentration, The Ministry of Industry and Commerce, Director of Business Combines and Cartels, Special Publication No. 1, Hebrew (Jerusalem).

- Government of Israel's Investment Authority (1979) Business Organization and Financial Reporting in Israel (Jerusalem: The Government Printer).
- Hanoch, Giora (1960) "Income Differentials in Israel", Fifth Report: 1959 and 1960, Hebrew (Jerusalem: Falk Project).
- Israel Discount Bank Ltd. (various years) Annual Report.
- Israel. Central Bureau of Statistics (1982) The National Accounting of Israel, A Collection of Definitions and Explanations from the Publications of the National Accounts Division, Hebrew (Jerusalem).
- . (various years) Statistical Abstract of Israel (Jerusalem).
- . (various years) Industry and Craft Survey, Special Series (Jerusalem).
- Israel, Magistrate Court in Jerusalem (1984) T.P. No. 2136/84, June 3.
- Koor Industries Ltd. (various years) Annual Report.
- Kotler, Yair (1984) Not For Disclosure, Hebrew (Nazareth: Shur).
- Mishor, D. and N. Tal (1978) "Measuring the Concealed Income in the Economy Via National Accounting", Hebrew, The Israeli Tax Quarterly, July.
- Nadel, Baruch (1975) The Nadel Report. All About the Income Tax in Israel, Hebrew, (Tel Aviv: A.L. Special Edition).
- Service 500 (1983) "The Fortune Directory of the Largest U.S. Non-Industrial Corporations", Fortune, Vol. 107, June. pp. 152-175.
- Shapira, Jonathan (1975) The Historical Ahdut Ha'avodah [The Unity of Labour Party], The Power of a Political Organization, Hebrew, (Tel-Aviv: Am Oved).
- Shmueli, A. (1970) What is Hiding Behind the Balance Sheet, Hebrew (Jerusalem and Tel-Aviv: Schocken Publishing House).
- The 500 (1983) "The Fortune Directory of the Largest U.S. Industrial Corporations", Fortune, Vol. 107, May 2, pp. 226-254.
- United Nations, Department of Economic and Social Affairs, Statistical Office of the United Nations (1968) A System of National Accounts, Studies in Methods, Series F, No. 2, Rev. 3 (New York).
- Unger, Meir and Ben-Zion Zilberferb (1983) Estimates of the "Black Economy" in Israel, 1954-77, Hebrew Mimeograph.
- Zandberg, Moshe (1956) Distribution of Income in Israel, 1954, Hebrew Mimeograph (Jerusalem: Institute for Applied Social Research).
- Zeitlin, Maurice (1974) "Corporate Ownership and Control: The Large Corporations and the Capitalist Class", American Journal of Sociology, Vol 79, No. 5, pp, 1073-1119.