

1. GENERAL

Israel allocates a considerable portion of its resources to defence. A relatively high percentage of government expenditure is appropriated for defence and is reflected in a high level of general government consumption relative to other nations. Additional expenditures on defence, some of which are indirect, derive from the cost of compulsory military service and reserve military duty, as well as from costs of emergency stocks of essential commodities, construction of shelters and protected areas, and costs of security guards posted in public places, etc.

This publication presents multi-year sums of defence expenditure according to two definitions:

1. **The narrow definition**, accepted in the calculation of GDP in the National Accounts, is “**Defence Consumption Expenditure**,” a part of general government consumption expenditure. This item is composed of direct defence expenditure, i.e., actual payments by the defence establishment for wages, for purchase of goods and services, and for depreciation and taxes on production.
2. **The broad definition** is “**total defence cost**,” which, in addition to direct defence expenditure, includes imputations of the value of work performed by soldiers in compulsory service; additional payments by employers to supplement wages of employees doing reserve service; expenditure for the storage of emergency stocks, investment in construction of shelters, etc.

The narrow definition, general government defence expenditure, is consistent with the international definitions of Core Accounts in the New International Guide for National Accounts.¹

The broad definition corresponds to the SNA’s recommendation of presenting issues of special interest in Satellite Accounts. Accounts of this kind were set up for education, health, culture, research and development, and environmental protection expenditure. These accounts, which focus on specific subjects that are included in several items in the National Accounts, present a detailed classification that sometimes differs from what is accepted in the Core Accounts. The definition of defence cost was discussed and finalized by a special committee that included representatives of the Bank of Israel, the Ministry of Defence, the Ministry of Finance, and the Central Bureau of Statistics.

The general government defence consumption expenditure tables include consecutive and consistent series for 1950–2006 in current prices (Table 1) and for 1955–2006 at

¹ *System of National Accounts* 1993, Commission of the European Communities—Eurostat, International Monetary Fund, Organization for Economic Co-operation and Development, United Nations, World Bank, Brussels/Luxembourg, New York, Paris, Washington D.C., 1993.

constant prices (Table 2). The annual changes in defence consumption, at constant prices, are presented in Table 3.

Table 4 shows the relationships between general government defence consumption expenditure, general government domestic defence consumption expenditure, and Gross Domestic Product; the resources available to the economy (GDP and imports), and net resources (GDP and import surplus = private and public consumption and gross domestic capital formation).

Table 5 presents an international comparison of defence expenditure as a percent of the GDP, as reported by the nations to the International Monetary Fund (IMF).

Table 6 estimates the total cost of defence in 2000–2005.

2. MAIN FINDINGS

Public defence expenditure increased by 5.5% in 2006, following an increase of 4.3% in 2005. Still, defence expenditure (at constant prices) in recent years was 15% lower than in 1973-1975, when defence consumption reached its peak.

The increase in defence consumption expenditure in the past year was affected mainly by an upturn in defence imports, domestic purchasing and payments for reserve forces. This increase was largely due to the war that broke out in the third quarter of 2006.

General government defence consumption expenditure in 2006 was about 8% of the Gross Domestic Product. The proportion of defence consumption out of the Gross Domestic Product has stabilized at this level in recent years, after a decade of decline in this figure.

The data on the defence expenditure trend over the past fifty years, at constant prices, show that in the first half of that period - 1956–1975 - defence expenditure increased at a swift 15%–16% annual average pace. Aberrant increases occurred in 1956 (Sinai Campaign) - 100%, 1967 (Six-Day War) - 77%, 1970 (War of Attrition) - 39%, and 1973 (Yom Kippur War) - 64%.

In 1976–1995, defence expenditure declined by 2%–3% on annual average.

An upward trend in defence consumption began in 1996 and continued up to 2002.

In 2003-2004, defence consumption declined sharply, by about 6% per year.

In 2005-2006, the trend reversed again and defence consumption expenditure increased by about 5% per year on the average.

More detailed data on the development of defence expenditure by periods are presented in the following table:

Table 1.- Defence Consumption Expenditure in 1956-2006

Percentages

	Average annual quantitative change		Defence consumption as percent of GDP	
	Total	Domestic consumption	Total	Domestic consumption
1956-1966	11.2	..	9.2	6.0
1967-1972	21.1	20.3	19.7	12.4
1973-1975	23.4	13.0	30.9	16.0
1976-1985	-2.7	-0.4	22.1	13.8
1986-1990	-2.8	-0.7	15.1	10.7
1991-1995	-2.4	-1.7	10.9	8.3
1996-2000	2.7	1.4	8.9	7.0
2001-2002	7.7	5.2	9.4	7.2
2003-2004	-6.2	-4.5	8.4	6.6
2005-2006	4.9	2.2	8.0	6.2

Between 1956 and 1966, defence expenditure amounted to about 10% of the GDP on the average. The Sinai Campaign, which broke out in 1956, did not lead to a steep increase in expenditure in the years that followed. However, both the Six-Day War and the Yom Kippur War brought on significant increases in defence expenditure, which amounted to about 21% of the GDP in 1967–1972, and 31% in 1973–1975. Between 1976 and 1985, defence expenditure decreased to 22% of the GDP. Between 1986 and 1990 there was a further significant decrease in defence consumption – to 15% of the GDP, following the implementation of the government’s Economic Stabilization Program. Between 1991 and 1995, defence expenditure continued to decrease, and averaged 11% of the GDP. The subsequent period, between 1996 and 2000, was characterized primarily by rapid economic growth. This made it possible to increase defence expenditure in quantitative terms after years of decline, and in the same time to reduce the percentage of the GDP earmarked for defence. From the end of 2000 until the present, there has been a gradual decline in the share of resources allocated for defence. As mentioned, the defence expenditures reached 8% of the GDP in 2006.

Domestic general government expenditure for defence consumption - total expenditure excluding defence imports (most of which are funded by means of U.S. Government assistance) - increased by 3.3% in 2006 after an increase of 1.1% in 2005.

Domestic defence expenditure as a share of the GDP has leveled off at approximately 7% in recent years, the lowest fraction observed since the mid-1960s.

International comparison of defence expenditure as a percentage of the GDP shows that Israel spends between two to six times more on defence than industrialized countries; among Middle Eastern countries, too, Israel has one of the highest levels of defence expenditure.

The cost of defence to the Israeli economy

The total cost of defence to the economy is 20% higher than defence consumption. This cost reached 9.6% of the GDP in 2005, as against 11.4% in 2002 and 9.9% in 2000.

The estimate of total defence costs covers direct expenditure of the defence establishment for wages and purchases of goods and services (including the component of defence imports, which amounts to 2% of the GDP). It also covers additional components of expenditure, some of which are included in the regular National Accounts under Civilian Expenditure (e.g., expenditure for construction of shelters, maintenance of emergency stocks, expenditure on security in civilian government offices). Most of the added cost - which includes the value of labour of soldiers in compulsory service, employers' additional payments for wages of reservists, and a risk premium for military service - is not imputed in the regular National Accounts. The inclusion of these items would increase the GDP by about 2%. In addition to the effect of those expenditures on the absolute value of the GDP, the inclusion of the additional and imputed defence expenditure would affect the quantitative changes in defence wages, defence consumption, etc.

3. DEFINITIONS AND EXPLANATIONS

This publication presents defence expenditure according to two definitions: ***general government defence consumption expenditure and total cost of defence in Israel.***

- A. *General government defence consumption expenditure*** (Tables 1–4) is directly financed from the budgets of the defence establishment. It is divided into the following components:

1. Compensation of employees:

- Wage payments (including employer's contributions to National Insurance, training funds, etc.) to conscript and career soldiers, civilian employees of the Israel Defence Forces, and other defence establishment employees.
- Payments to reserve soldiers, through the National Insurance Institute.
- Payments in kind to soldiers and other employees, including the cost of food, clothing, and other benefits such as tuition and rent subsidies, discounted tickets to cultural events, meals, etc.

- Imputation of pension expenditure for career soldiers and permanent workers in the defence establishment. This outlay, which is additional to labour costs, stems from the government's commitment to pay pensions to retirees of the defence establishment from the state budget as an alternative to contributions to a pension fund.

2. Purchase of goods and services in Israel - this item includes current expenditure as well as additions to stock and expenditure for the purchase of equipment and buildings for military use from domestic enterprises in various industries (manufacturing, transport, construction, electricity and water, services, etc.). The expenditure on construction work includes work performed by contractors and work carried out independently by the Israel Defence Forces.

3. Defence imports include the value of goods and services acquired abroad by the defence establishment, as well as the value of armaments from U.S. army surplus that are supplied to Israel free of charge. In 1979–1982, defence imports included expenses for the construction of airports in the Negev (Ramon and Ovdah) by American contractors, as recorded in the Balance of Payments accounts.

4. Sales by the Ministry of Defence include income from sale of surplus military equipment in Israel and abroad, services provided to the civilian sector, sales of books, etc.

B. Total cost of defence in Israel (Table 6) includes the following components in addition to public defence consumption:

1. added economic value of compulsory service;
2. added economic value of reserve service;
3. imputation of insurance for personal risk;
4. expenditure for construction of shelters;
5. expenditure for maintenance of emergency stocks;
6. defence expenditure by civilian government ministries.

The nature of these items and the methods used to calculate them are presented in Appendix 1.

The separation of defense expenditure from expenditures for other purposes in the budgets of the Ministry of Defence and the budgets of other government ministries is in accordance with UN guidelines (see Appendix 2):

United Nations, Department of Economic and Social Affairs, *Classification of the Functions of Government*, N.Y., 2000.

The following items were not included in defence consumption and in defence costs:

A. Defence establishment expenditures that are defined in the National Accounts as expenditures for welfare and health:

1. Actual pension payments to defence establishment pensioners, as opposed to pension imputation for defence establishment personnel, which is included in defence expenditure.
2. Benefits for and rehabilitation of disabled persons, bereaved families, welfare grants to soldiers' families, etc.
3. Aid from the Fund for Demobilized Soldiers. This fund was established in 1995 to aid demobilized soldiers in studies, housing, and business formation.
4. Therapy for soldiers in civilian health institutions. This expenditure was deducted from total defence costs (but is still included in defence consumption).

B. Expenditures in which the defence component cannot be separated without special investigation:

1. Aid to defence enterprises (Israel Military Industries, Israel Aircraft Industries, and Rafael). Aid to these enterprises, which manufacture mainly for export, is multi-purposed, including financing for the development of competitive ability, development of new products for civilian use, and financing of pensions and severance pay for discharged employees.
2. Transfers to the Civil Administration in Judea and Samaria and Gaza areas. The Civil Administration performs a variety of civil tasks, including education, health, and welfare activities for local residents.
3. Building of bypass roads for residents of Jewish settlements in Judea and Samaria; these roads are also used by the Arab population.

C. Expenditures that were not estimated due to lack of relevant data:

1. Alternative expenditure for use of lands occupied by the defence establishment, i.e., the added cost stemming from allocation of land for the defence establishment without payment or at reduced cost.
2. Expenditure for security services supplied by private companies and purchase of personal fire arms.

4. SOURCES AND METHODS

4.1 Sources of data

Estimates of domestic defence consumption expenditure were prepared on the basis of periodical and annual financial reports of the Ministry of Defence. Estimates of pension imputation were based on actuarial calculations that take into account retirement age, professional advancement track, and special retirement terms that are available to defence establishment personnel.

The use of additional sources and details on Ministry of Defence expenditure made it possible to improve the estimates since 1964 but disrupted the consistency of the series. To allow correct comparison with estimates for previous years, the data for 1964 before the revisions are also presented. The data for 1974 are also shown twice, due to the reclassification of consumption expenditure components between imports and domestic consumption.

Estimates of defence imports were also prepared on the basis of the Ministry of Defence reports at the value of actual supply of heavy equipment, which has relatively high value, upon its arrival in Israel and on the flow of payments for items with lower value. This treatment (which corresponds to the recording in the balance of payments accounts) differs from the recording in the report of Ministry of Defence budget expenditure and from the report of the Accountant General, in which defence imports are recorded according to the flow of payments.

4.2 Estimates at constant prices

The estimates were calculated separately for each type of expenditure. Quantitative changes in wages were estimated in accordance with the changes in the number of persons serving in the defence establishment and the change in number of days of reserve service. Expenditure at constant prices for purchases of goods and services was obtained by deflating the expenditure at current prices by the weighted price index, using the appropriate price indices selected from the Consumer Price Indices, the Wholesale Price Indices of Industrial Output, and a special index for defence construction prices, which contains the Price Index of Input in Residential Construction and contractual prices of the Ministry of Defence.

4.3 Comparison with Previous Publications

The previous publication on defence expenditures appeared in 2003. In the present publication, the data series were updated up to 2006, based on revised or new data received.

The international comparisons of defence expenditures were based on reports of various countries to the International Monetary Fund, according to new definitions of Government Financial Statistics (GFS 2001). In contrast to the past, those definitions are identical to those of the SNA, which are used for national accounts.