Chapter 8
Welfare Policy Issues

- In 2011, the real poverty line remained almost unchanged, and the poverty rate among households remained unchanged. Among Arabs and ultra-Orthodox Jews—the population groups among which poverty is particularly high—the incidence of poverty increased.
- Inequality in net income declined in 2011, while remaining high compared with other countries.
- In 2011 and 2012, employment and income policy focused on groups whose employment rate and income were low. In addition, a number of policy measures were taken to reduce expenses and increase income among middle class households with working members.
- The employment rate among those aged 55 and over increased significantly in the past decade. Among those nearing retirement age, the rate of workers continuing to work from year to year is similar to that among workers in their early 40s, and the wages of those continuing to work are increasing moderately.
- A number of countries, including Israel, have begun a process of developing well-being indices relating to areas such as environmental quality, and levels of education, health, and community involvement.

1. INTRODUCTION[1]

In 2011, the real poverty line was almost unchanged, and the poverty rate among households remained unchanged.

In 2011, net median equivalized income remained unchanged in real terms.[2] The poverty line, which is equal to half of this income, also remained unchanged. The rate of poor persons among all people increased slightly: The incidence of poverty among people belonging to households where the head of household is older than the official retirement age declined slightly, but that of people from other selected population groups increased (Table 8.1).

These developments in the incidence of poverty in 2011 appeared against the background of the high GDP growth rate, which totaled 4.6 percent. During the second

[1] The data in this section and the next one relate mostly to 2011, since that is the last year for which they are available. Where possible, the analysis also relates to 2012.

[2] The modification of the size of the household to its equivalized size is carried out according to a scale of weights that converts the number of people per household into a number of standard persons. This reflects the fact that the additional household expenses per person decline as the number of people in the household increases.

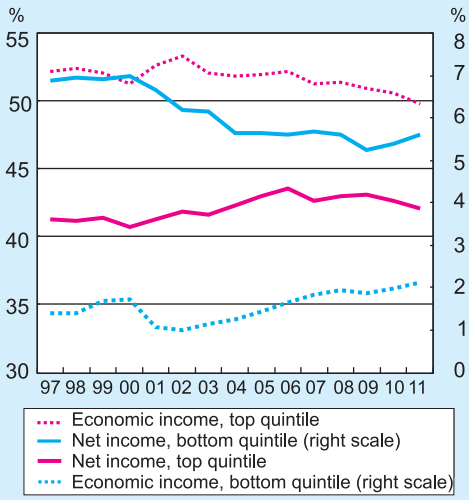
half of 2011, growth in the economy slowed as a result of developments in the global economy, which continued to affect GDP during 2012, resulting in growth of 3.1 percent during that year.[3] Despite this, both the labor force and the employment rate continued to expand at reasonable rates during both periods.[4] When the data for 2012 is published later in 2013, it will be possible to analyze how developments during the year influenced private incomes and their distribution.

Poverty among Arabs and ultra-Orthodox Jews—population groups characterized by low rates of employment, low wages and high birth rates[5]—remained high in 2011, despite the fact that employment rates in these groups continued to increase. Since employment rates grew faster than income in 2011 as well, the rate of poverty among the working population also grew. Alongside these processes, and apparently due to them, the intensity of poverty among the poor declined slightly in 2011, as reflected in the gap between income among the poor and the poverty line. But due to the increase in the share of workers among the poor, the intensity of poverty among all workers increased slightly, as reflected in the poverty gap. (See Table 8.1, which also includes explanations of these terms.)

In 2011, households in the lowest quintile continued to increase their share of total economic income.

In 2011, households in the lowest quintile continued to increase their share of total economic income thanks to the continued growth in their employment rates and income from work. In contrast, households in the top quintile saw their share of income (economic and net) decline (Figure 8.1). Average income from salaried work declined in 2011 among individuals in most groups, including groups whose employment rate and wages are relatively low (Table 8.2). While households in the lowest quintile also increased their share of

Figure 8.1
The Shares of the Top and Bottom Quintiles in Economic Income and Net Income,[a,b] 1997-2011[c]



[a] Grouping in the income quintiles is based on a weights scale used by the OECD.
[b] The net income quintiles were calculated based on net income, and the economic income quintiles were calculated based on economic income. Each quintile includes 20 percent of persons.
SOURCE: Based on Income Surveys by the Central Bureau of Statistics.

[3] For more discussion on macroeconomic developments, see Chapter 2 of the Bank of Israel's 2011 Annual Report, and Chapter 2 of this publication.

[4] For more discussion, see Chapter 5 of this publication.

[5] The overall childbirth rates among Muslim and ultra-Orthodox Jewish women is very high compared to the other population groups (Paltiel, A., et al., (2012), "Long-Range Population Projections for Israel: 2009–2059", Central Bureau of Statistics, Demography and Census Department). An expanded discussion of the incidence of poverty by selected groups appears in the Bank of Israel Annual Reports for 2009 and 2010.

Table 8.1

Indicators of Inequality and Poverty, 2003 to 2011

	2003	2004	2006	2008	2009	2010	2011
A. Inequality indices[a]							
Gini Index	0.366	0.377	0.390	0.382	0.386	0.381	0.376
Ratio of income of the 90th percentile to income of the 10th percentile	5.759	6.541	6.541	6.538	6.738	6.808	6.639
Ratio of median income to average income	0.828	0.825	0.812	0.822	0.822	0.835	0.836
B. Poverty indices							
B.1 Relative poverty index[b]							
Equivalized poverty line[b] (NIS)	1,389	1,421	1,592	1,742	1,815	1,932	2,000
Equivalized poverty line[b] in 2011 prices (NIS)	1,596	1,640	1,828	1,912	1,928	1,999	2,000
Number of poor households (thousands)	366	393	403	419	434	433	441
Incidence of poverty in households (percent)	19.3	20.3	20.0	19.9	20.5	19.9	19.9
Income gap[c] (percent)	30.5	33.3	33.8	34.2	35.5	35.8	34.7
B.2 Contribution of policy (taxes and transfer payments) to the reduction of the incidence of poverty among individuals	31.7	26.8	23.3	24.9	23.2	22.9	23.5
B.3 Incidence of poverty according to a fixed index[b] - individuals (percent)	17.7	18.1	17.1	14.7	16.2	14.7	14.7
C. Selected groups							
C.1 Incidence of poverty according to the relative index among: (percent)							
Individuals	22.4	23.6	24.5	23.7	25.0	24.4	24.8
Children	30.8	33.2	35.8	34.0	36.3	35.4	35.6
Individuals belonging to households whose heads are aged 65/67 and above[d]	24.3	25.7	22.7	23.2	22.5	23.3	21.5
Individuals belonging to households whose heads are aged 55-65/67[d]	15.1	13.1	12.4	13.2	13.0	12.5	13.4
Arabs	50.9	51.6	57.6	53.1	57.4	56.7	58.0
Ultra-Orthodox Jews[e]	48.1	57.4	57.2	60.4	58.5	56.7	58.1
Households with a single wage earner	18.6	20.8	23.4	23.1	24.9	25.7	25.9
Households with two wage earners	2.6	2.8	2.9	3.0	3.7	3.5	4.6
Households with no wage earners	42.0	43.6	41.3	43.4	41.8	40.5	40.0
C.2 Selected characteristics of households with and without workers							
Share of households with one wage earner among poor families	36.9	41.1	44.1	47.2	48.4	51.4	48.6
Share of households with two wage earners among poor families	3.9	4.1	5.9	6.3	7.6	7.4	10.2
Poverty gap among families with wage earners (percent)[f]	3.4	4.1	4.7	4.5	5.2	5.4	5.5
Poverty gap among families with no wage earners (percent)[f]	20.4	23.5	24.5	26.0	26.9	26.6	25.7

[a] The inequality indices were calculated on disposable income per individual (equivalized).

[b] The relative poverty line is calculated as half of the median income per individual (equivalized). The absolute poverty line is calculated in relation to the real poverty line in 1997.

[c] The average gap between poverty line income and the income of poor individuals. This variable measures the intensity of poverty among poor people.

[d] In light of the changes in the retirement age between 2004 and 2009, the data until 2008 refer to women aged 60 and men aged 65. From 2009 onward, the data relate to women aged 62 and men aged 67.

[e] The ultra-Orthodox are identified by the question of whether the last scholastic institution of one of the family members was a post-secondary religious institution (yeshiva). This definition may provide extra weight to people who have learned only Jewish studies and tend less to participate in the labor force.

[f] The average distance between the income of the entire population and the poverty line, where those who are not poor receive a value of 0. This variable measures the intensity of poverty among the entire population.

Source: Based on Income and Expenditure Surveys by the Central Bureau of Statistics.

net income in 2011, their share has remained stable overall since 2004 after having declined greatly in 2003 and 2004 due to the cutback in government benefit payments.

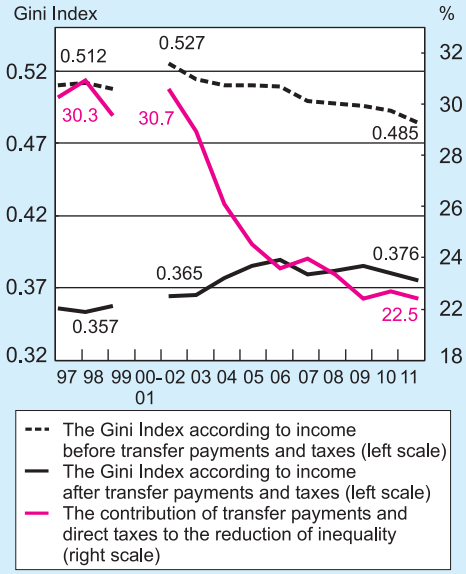
Over time, the gap between the shares of income of the various quintiles, and the stabilization of the progressiveness of tax policy and transfer payments—following the sharp decline between 2003 and 2005 (Figure 8.1)—are very prominent. The decrease in the progressiveness of the policy is also seen in the erosion of the contribution of policy to the reduction of the incidence of poverty among individuals (Table 8.1), due inter alia to the marked decline in child allowance and income support benefits at the beginning of the last decade.

Inequality, as measured by the Gini Index, declined slightly in 2011.

Inequality, as measured by the Gini Index, declined slightly in 2011. The calculation of inequality in gross income is based on income before taxes and transfer payments. This measure of inequality continued to decline in 2011, and has declined by 2 percentage points in a moderate and constant decline since 2006. The reduction in inequality is another result of the continued growth in employment rates and in wages from work in the lowest quintile. Inequality in net income is calculated based on income after taxes and transfer payments, and has been stable since 2006, thought at a higher rate than at the beginning of the last decade and at a high rate when compared internationally[6] (Table 8.1 and Figure 8.2).

This chapter focuses on three welfare issues. The first deals at length with the increase in employment and the growth in income from work, and the contribution of government policy to these factors. The second issue concerns those aged 55 and over, a group that has significantly expanded its employment in recent years due to factors that have increased labor force participation in every age group—primarily the growth in education rates (Box 5.1), and factors that have had particular effect on the older age groups, such as the increase in life expectancy and the change in the Retirement Age Law in 2004. Changes

Figure 8.2
Inequality and the Contribution of Transfer Payments and Direct Taxes to its Reduction,[a] 1997-2011[b]



[a] Transfer payments from individuals and from abroad were not deducted from disposable income, leading to the creation of a difference between this data and the data published by the National Insurance Institute.
[b] In 2000 and 2001, Arabs from eastern Jerusalem were not included in expense and income surveys. These years were deleted from the figure so that the indices would be comparable.
SOURCE: Based on Income Surveys from the Central Bureau of Statistics.

[6] A broader discussion of inequality in Israel over time and compared internationally can be found in the Bank of Israel's 2011 Annual Report, Chapter 8.

Table 8.2
Employment Rate and Average Wage Income, by Population Groups Among Those Aged 25-67[a], Selected Years

	Employment rate[b]						Average wage income (NIS, 2011 prices)					
	1997	2003	2008	2009	2010	2011	1997	2003	2008	2009	2010	2011
						Men						
Total population	75.5	72.9	77.3	74.7	75.7	76.7	10,061	10,355	10,936	10,472	10,374	10,260
Arabs	73.6	65.9	71.6	68.9	69.4	71.2	6,309	6,579	6,521	6,269	6,230	5,998
Ultra-Orthodox Jews[c]	41.5	36.1	39.4	39.1	42.5	44.7	7,532	7,672	8,142	7,042	6,791	7,256
Population excluding Arabs and Ultra-Orthodox Jews	77.6	76.6	81.3	78.6	79.5	80.5	10,782	11,032	11,844	11,364	11,278	11,205
0-10 years of education	64.1	57.4	62.1	59.4	58.5	59.5	6,219	6,183	6,324	5,952	5,826	5,715
11-12 years of education	81.4	76.1	80.4	77.5	78.4	79.9	8,730	8,320	8,361	7,907	7,975	7,935
13-15 years of education	78.9	76.3	79.7	77.6	78.4	78.8	10,539	10,292	10,846	10,779	10,343	10,414
16+ years of education	77.4	78.4	81.0	78.6	80.5	81.2	14,713	15,276	15,912	14,805	14,797	14,313
Aged 25-54	80.0	75.9	79.8	77.5	78.6	79.5	10,248	10,503	10,956	10,571	10,297	10,263
Aged 55-65/67[d]	62.1	61.1	68.5	66.1	66.7	68.4	11,640	12,405	13,437	12,219	12,937	12,276
Employed part time, aged 25-54[e]	4.7	6.3	6.8	7.5	6.9	7.0	5,175	5,455	4,937	4,453	4,466	4,344
Employed part time, aged 55-65/67[d,e]	8.8	9.1	8.7	9.8	10.2	9.2	6,813	6,927	4,537	5,316	5,730	5,436
						Women						
Total population	63.1	61.4	66.6	65.7	66.9	68.0	6,123	6,488	7,016	6,990	6,932	6,871
Arabs	21.3	20.6	24.9	25.5	27.1	27.5	4,610	5,162	4,640	4,783	4,990	4,799
Ultra-Orthodox Jews[c]	49.7	50.7	57.0	59.1	62.1	62.1	4,685	5,567	5,311	5,096	5,302	4,976
Population excluding Arabs and Ultra-Orthodox Jews	72.5	70.0	76.1	75.1	76.3	77.6	6,235	6,592	7,236	7,232	7,147	7,144
0-10 years of education	32.1	25.7	28.9	28.0	29.9	31.5	3,490	3,788	3,656	3,749	3,623	3,732
11-12 years of education	61.8	59.2	62.3	61.0	62.3	63.4	5,100	5,186	5,442	5,160	5,250	5,220
13-15 years of education	75.4	72.8	75.6	74.3	75.3	76.5	5,950	6,339	6,690	6,684	6,598	6,711
16+ years of education	83.8	80.2	83.5	82.4	82.8	83.2	8,558	8,539	9,300	9,210	9,122	8,960
Aged 25-54	61.0	63.3	68.7	68.2	69.3	70.2	6,318	6,700	7,149	7,137	7,136	7,051
Aged 55-65/67[d]	42.2	51.2	56.7	56.5	58.0	59.3	6,515	6,909	8,378	7,875	7,408	7,493
Employed part time, aged 25-54[e]	27.1	27.8	26.9	26.8	25.1	24.4	4,583	4,480	4,661	4,580	4,517	4,436
Employed part time, aged 55-65/67[d,e]	36.5	34.9	29.0	33.2	33.2	30.7	4,212	4,550	4,649	4,594	4,886	4,831

[a] The age group is from 25 until the official retirement age for the given year, unless noted otherwise.
[b] Under the Central Bureau of Statistics' old method of calculation (prior to the switch to a monthly Labor Force Survey in 2012).
[c] The ultra-Orthodox are identified by the question of whether the last scholastic institution of one of the family members was a post-secondary religious institution (yeshiva). This definition may provide extra weight to people who have learned only Jewish studies and tend less to participate in the labor force.
[d] In light of the changes that took place in the retirement age between 2004 and 2009, the data until 2008 relates to women aged 60 and men aged 65. From 2009 onward, the data relate to women aged 62 and men aged 67.
[e] Part-time is defined as a position of less than 35 hours per week in general. The rate of those employed part time is calculated out of the total number of employer persons.
Source: Based on Labor Force Surveys and Income Surveys by the Central Bureau of Statistics.

in employment and wages among employed people nearing retirement age are also discussed.

The third issue concerns measuring well-being. In recent years, various countries and international organizations have begun recognizing that, in addition to economic development indicators such as GDP per capita, it is important to consider indices that will more comprehensively reflect the development of individual well-being and the trickling through of economic growth. Those active in the field propose to add indicators assessing quality of life in a variety of areas, such as demographics, level of social services, social developments, and environmental quality. Toward the end of 2012, the government decided (Decision 5255, dated December 2, 2012) to establish a committee that would recommend indices for well-being, sustainability, and national resilience. The committee was asked to present its recommendations by the end of the first half of 2013. These indices are intended to help the government formulate a picture of the social, economic and environmental situation. The last section of this chapter reviews the more prominent work carried out in this field both in Israel and abroad.

2. EMPLOYMENT AND WAGE POLICY AND ITS EFFECT ON WELFARE

In 2012, the government began implementing the policy measures decided on following the social protest. These measures reduced the expenses of medium- and high-income households.

Government policy in the fields of employment and wages has focused, since 2003, mainly on supporting employment and income of low-income households.[7] However, as a result of the social protest of the summer of 2011, the government decided on a number of policy measures, some of which are universal, to also reduce the expenses of medium and high income households. In 2012, the government began implementing some of these measures. This section reviews the policy tools adopted by the government in 2011 and 2012 and their effects on the well-being of households. We will first review the policy tools that affect employment and income of the entire population and the changes they have recently undergone as a result of the activities of the Trajtenberg Committee. We will then review the changes that have taken place to assist those with low incomes, and their significance.

In 2012, the government decided to increase the number of places in day care centers and began increasing the construction of day care centers in order to meet this target.

The government is implementing a policy that is intended to expand employment rates among those who are currently not working, and to increase the scope of employment among those who are. A significant part of this policy focuses on working parents. This support by the State is provided by the operation or subsidizing of educational and child care frameworks such as day care centers, kindergartens and after-school frameworks. According to research conducted by the Bank of Israel[8], the number of places in day care centers in Israel is insufficient: when compared

[7] Other than reducing direct taxes, a policy which has also been beneficial for those with medium and high incomes.

[8] Shachar, E. (2012), "The Effect of Childcare Cost on the Labor Supply of Mothers with Young Children", Bank of Israel, Discussion Papers Series 2012.12; and Bank of Israel (2012), Annual Report 2011, Chapter 5.

internationally, the total number of places in day care centers is low relative to the number of children of working mothers, not to mention relative to the total number of young children (aged 0—4). In addition, when compared to other OECD countries, the Israeli family spends a high amount on child care for pre-school aged children. In 2012, following the Trajtenberg Committee's recommendations, the government decided to increase the number of places in day care centers by 30,000 in a process that will be spread over five years, and began increasing the construction of day care centers in order to meet this target. The number of day care spaces expanded by 3 percent in 2012 as a result of previous decisions. The growth in the number of day care spaces is expected to reduce the expenses of households that will benefit from the subsidy, and expand employment among women. As a result, social gaps in education are expected to decline, particularly if close attention will be paid to the educational content in the day care centers, which will have a potential to contribute to a decline in poverty and inequality among the children as they grow older.

Beginning with the 2012–2013 school year, the State provides free education in public kindergartens for children aged 3 and 4 (pursuant to Government Decision 4088 of January 8, 2012), as part of the implementation of the Trajtenberg Committee recommendations. Prior to the law's implementation, some 65 percent of children in these ages were learning in public kindergartens, and some of them enjoyed full or partial subsidies of their tuition: those living in neighborhoods and communities from lower socioeconomic clusters[9]—about 56 percent of children—were eligible for free education[10], while the rest were eligible to learn at a supervised price of NIS 800 per month (as of 2010/2011) and that price could be subsidized, based on an income test. The remaining children were in private frameworks or remained at home. In the 2012-2013 school year, the number of children aged 3-4 in public kindergartens increased by some 21,000 (an increase of about 12 percent), far beyond the growth that was expected due to the natural population increase. As the law came into force in August 2012, the budgets directed toward the construction and operation of new kindergartens increased, and they are expected to continue to increase between 2013 and 2015 as the use of the benefit expands over time. (This subject is discussed further in Chapter 6 of this publication.)

Beginning with the 2012–2013 school year, the State provides free education in public kindergartens for children aged 3 and 4—the budgets directed toward the construction and operation of new kindergartens increased, and the number of children in those frameworks grew.

The expansion of the free education law for children aged 3-4 made the service accessible to everyone. While it is not expected to have an effect on the incidence of measurable poverty, since the value of the use of public services and expenditure for such services are not included in the calculation of the incidence of poverty, the benefit will reduce household expenditures and may also increase the labor supply of parents. Families with low incomes benefited from a partial or full subsidy of tuition fees in kindergartens even before the law was expanded, independent of their employment status. The new element of the benefit is that all parents of children at this age can now

[9] The clusters are based on an index that summarizes socioeconomic variables, and classifies geographical units into 10 homogenous clusters, with respect to the index (where 1 is the lowest and 10 the highest).

[10] As of 1999, in the framework of Amendment 16 to the Compulsory Education Law.

benefit from free education, irrespective of their income or employment status. The data, in fact, show that the addition of spaces in kindergartens has taken place mainly in communities from cluster 4 and above: Prior to the implementation of the law, in the 2011-2012 school year, there was almost complete correlation between the number of spaces in the kindergartens and the number of children living in communities in clusters 1-3, while in the 2012-2013 school year, the number of spaces in the public kindergartens increased relative to the number of children aged 3-4. This increase took place mainly in communities from cluster 4 and above, therefore its main effect is on families with children in the middle and higher classes.

Public kindergarten classes continue into the early afternoon, and most parents need, due to their work hours to pay considerable amounts for afternoon care that extends the kindergarten day into the late afternoon. In light of this, the government decision noted above included a decision to create additional school frameworks for children from preschool through third grade that would extend the school day until 4:00 pm. This framework will be implemented gradually through 2016, and its subsidy for families will be conditioned on an income test. The Trajtenberg Committee originally recommended conditioning the subsidy on the mother's work hours as well, but this section was cancelled (Government Decision number 4598 of May 8, 2012). Similar to the school day at public kindergartens, participation in afternoon care programs will be free in communities from the lower socioeconomic clusters. Moreover, even where parents are not entitled to subsidies, they will benefit from the lower costs of the service, since in some places it had been supplied at above-cost prices. This program is intended to encourage mothers to expand the scope of their employment, and to reduce the expenses of working parents with young children in all population groups.

Between 2003 and 2011, the share of working households among the poor increased. This apparently derives from the fact that those increasing their participation in the labor force joined the lowest portion of income distribution. The more the standing of such workers in the labor market stabilizes, the greater their chances of being extricated from poverty.

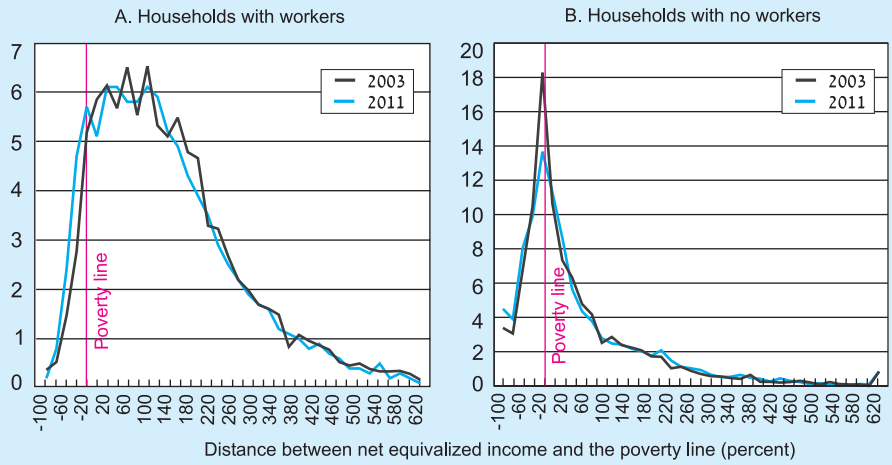
The employment rate in most population groups increased greatly between 2003 and 2011 (Table 8.2), mainly the result of an increase in the participation rate and of the fact that the unemployment rate did not increase. A main contributor to the increase in the participation rate was the increase in the level of education, though active policy in the labor market also contributed (See Box 5.1). The active policy in the labor market is intended to transition households with low incomes from relying on income from the welfare system to relying on income from work, and it has been reinforced since 2003. Alongside the growth in employment, the number of wage earners in households has grown, and the distribution of income among working households has changed: From 2003 to 2011, the share of working households whose income was below the poverty line increased, leading to a concomitant increase in the intensity of poverty among workers, while there was no great change in the distribution of income among households to which most workers belong[11] (Figure 8.3 and Table 8.1). This apparently derives from the fact that those increasing their participation in the labor force joined the lowest portion of income distribution, without income from

[11] We do not know what the employment and income situation was in previous years for the households presented in Figure 8.3 and regarding which there is information in Table 8.3. However, it is likely that the income of most of those newly joining the labor market, who were of working age in earlier periods but who did not participate in the labor force, was in the lowest portion of distribution.

work compensating them for the loss of income from transfer payments—which were cut in 2003. Compared to working households that are not poor, the households of the working poor are characterized by a high number of members, including many children, with very low labor inputs, low levels of education and younger heads of household (Table 8.3). The vast majority of poor working families have just one wage earner, but the share of families where there are two or more wage earners among this population is increasing. At the same time, while the incidence of poverty has declined among non-working households between 2003 and 2011, the intensity of poverty has increased (although it eased somewhat in the last year) (Figure 8.3 and Table 8.1).

A previous analysis showed that, in an international comparison, when an Israeli household has no income from work and exists on allowances and their accompanying benefits, it is more financially motivated to join the labor force than households in other countries.[12] The high incentive to work is derived from the fact that the subsistence grants are low and they gradually erode as income increases, particularly after the policy changes that were implemented from 2003 onwards. Figure 8.4 relates to income as a percentage of the poverty line, and shows the income that households with a wage equal to the minimum wage would hypothetically reach, by family size, employment status (part time/full time) and transfer payments to which they could be entitled. The figure also shows the same picture for households that do not have any income from

Figure 8.3
The Distribution of Households, in Percentages, by the Distance Between Net Equivalized Household Income and the Poverty Line, 2003 and 2011



SOURCE: Based on Income Surveys by the Central Bureau of Statistics

[12] Bank of Israel (2010), Recent Economic Developments 127, January–April 2010.

work.[13] This figure illustrates the connection between the size of the family and the income that it would need in order to be extricated from poverty: as the number of people in the household increases, the income required for the family's needs and to extricate it from poverty also increases. The figure also illustrates the contribution of various income components—chiefly income from work—to achieving this goal, in accordance with updates applied to transfer payments and the minimum wage in 2012. The data presented in the figure show that minimum wage employment does not necessarily extricate from poverty. While household income may greatly increase thanks to the addition of child allowances, earned income tax credits and housing allowance, this income will only extricate some households from poverty.[14] While the income of households with minimum wage workers is around the poverty line, and sometimes above it, the income of households with no wage earners is much lower than the poverty line.

Between 2004 and 2011, the income from work of poor households with two or more wage earners showed particular growth (Table 8.3). The average number of work hours in these households also increased, but at a more moderate rate. The increase in the employment rate has brought with it the entry of new population groups into the labor force. This is one of the reasons why their wages are lower than more experienced workers, and perhaps why the extent of their employment is lower. The amount of increase in income from work over time depends on the amount of employment and wage flexibility compared to experience and skill in the labor market.[15] As the position of these population groups in the labor market stabilizes, their chances of being extricated from poverty will increase.

In 2011 and 2012, the government increased the minimum wage above the increases expected by law, expanded the Earned Income Tax Credit program treatment area, and increased the grant to part of the entitled population.

In 2011 and 2012, the government updated the two main ways of supporting those with low wages, even though these means do not directly support growth in earning capacity: (1) In 2011, the minimum wage was raised twice—in April to NIS 3,890 per month pursuant to the Minimum Wage Law, and in July to NIS 4,100 per month pursuant to a special agreement that the government signed with the Histadrut (the largest employees' union) and representatives of employers, which led to an amendment to the Minimum Wage Law (The Minimum Wage Law (Increasing Minimum Wage Amounts – Temporary Order), 5771-2011). In the latter part of 2012, the process of increasing the monthly minimum wage to NIS 4,300, as dictated by the aforementioned agreement, was completed. The increase in the minimum wage is not

[13] Entitlement to benefits and transfer payments is dependent on meeting the appropriate conditions. Low-wage workers may be entitled to additional benefits, for instance, income support payments. It is possible that households with no wage earners could be entitled to additional benefits and transfer payments. Income support payments relate to households that do not require employment tests and were not entitled to benefits prior to 2002.

[14] Subject to the household being entitled to these additional benefits.

[15] Wage rigidity may be the result of a weakening of the workers' status in the labor market, and of indirect employment ("contractor workers"), the dimensions of which are growing.

expected to make a notable contribution to reducing poverty[16], but raising it in the past has increased the hourly wage for workers in the bottom quintile, mainly women.[17]

(2) In 2011, the Earned Income Tax Credit (formerly the "negative income tax") was expanded to cover the entire country. The credit to those entitled, in respect of 2011, was paid in 2012, and the credit for 2012 (which will be paid in 2013) was increased by 50 percent for employed women with one or more children and for employed single fathers who are the sole source of support for their children. Later, once the data for 2012 and 2013 are obtained, we will be able to see how the expansion of the credit has affected poverty. The Earned Income Tax Credit program efficiently identifies population groups earning low wages and does not reduce incentives to work. It may also positively affect the employment incentives of people within the environment of the entitled people (for instance their children once they become older). And finally, the program focuses on providing higher levels of assistance to workers from population groups that are typified by high poverty rates, due to the level of the credit being dependent on the number of children. The data show that in the first four years of the program's implementation (2007–10), it added about 7 percent to the annual wage of those receiving the credit, and the rate of those receiving the credit out of those eligible grew apace.[18] While we cannot yet estimate how the program's expansion has affected the incidence of poverty, according to the findings of a study carried out in the first year of its operation, when the credit rates were lower, it reduced the incidence of poverty by about 4.5 percent among those entitled to receive the credit. This effect is not particularly high, because the credit is low relative to the households' income.

As stated, the two means discussed above—minimum wage policy and the earned income tax credit—may indirectly increase the earning power of those with low salaries, since they increase the feasibility of their presence in the labor market and, therefore, their persistence in employment. Other policy tools, such as professional training, may increase the workers' skills, thereby also increasing their income over time.

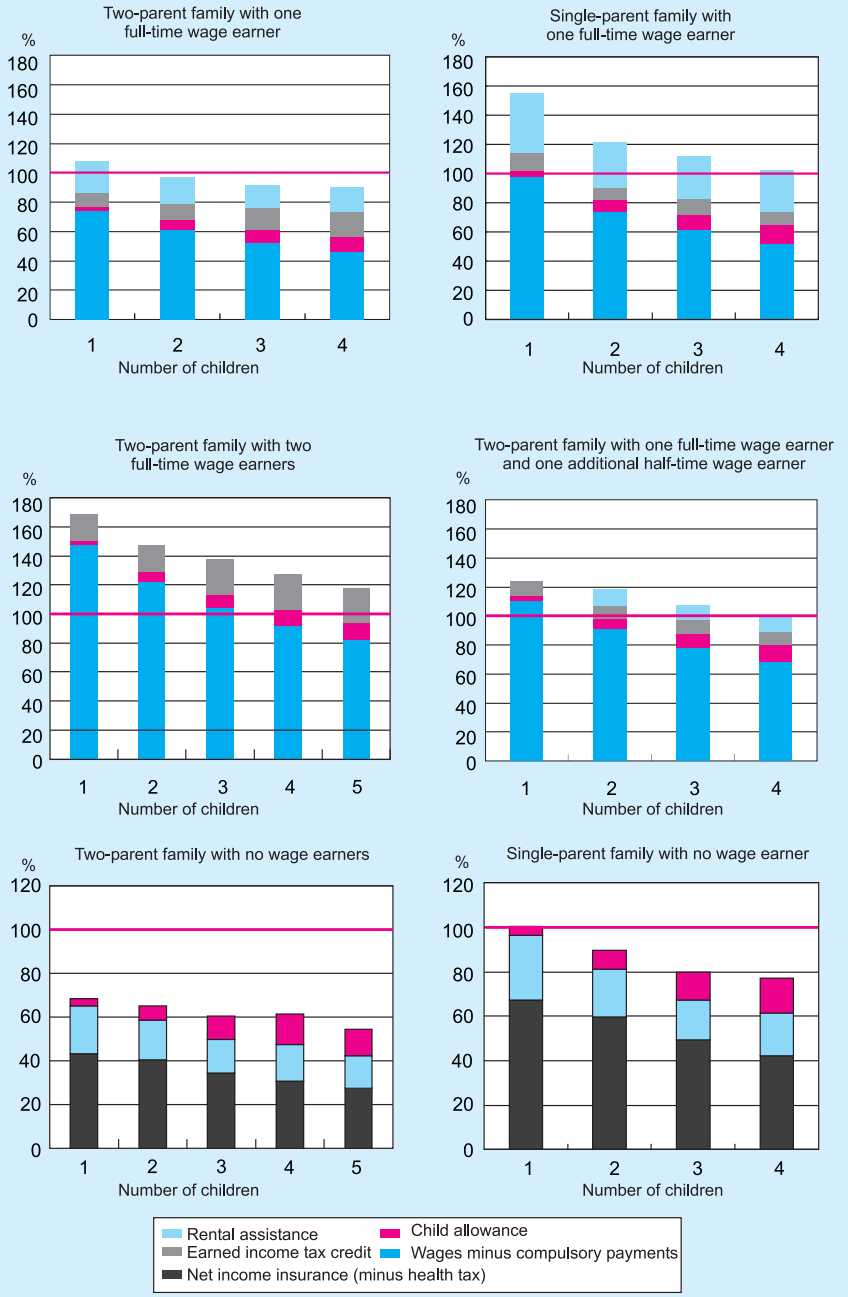
Transfer payments that support the income of households with low wage earners are liable to prevent or limit the expansion of the extent of their employment. Households with very low income are also entitled to benefits and transfer payments, including income support payments, additions to child allowances, and support in financing children's tuition (paid by the National Insurance Institute), housing assistance (paid by the Ministry of Construction and Housing), and discounts in municipal tax

[16] For a discussion of this point, see Bank of Israel (2011), Recent Economic Developments 130, January–April 2011. An evaluation of the actual effect of changing the minimum wage on the incidence of poverty will be possible after data for 2012 are received.

[17] Mazar, Y., and O. Peled-Levy (2012), The Minimum Wage, Wage Distribution and the Gender Wage Gap in Israel, 1990–2009, Bank of Israel Research Department, Discussion Papers Series 2012.01.

[18] In treatment areas, the rate of those receiving the credit from among those eligible increased from 45 percent in 2007 to 53 percent in 2010. The rate of those receiving the credit among those entitled is highest among the ultra-Orthodox population (64 percent of those entitled in the treatment areas and 78 percent in the other areas). A summation of the first four years of implementation can be found in Bank of Israel (2012), Recent Economic Developments 134, May–August 2012.

Figure 8.4
Potential Household Income from Wages[a], Child Allowances, Housing Assistance[b], Earned Income Tax Credits[c], and Income Support Benefits, as percentages of the Poverty Line[d], by Number of Wage Earners Receiving Minimum Wage and Number of Children (2012)



[a] The minimum wage is determined by its level as of October 2012. Compulsory payments (National Insurance Institute, Health Tax and compulsory pension) are deducted from gross salary.
[b] Rental assistance is determined by its level after changes that came into effect in 2012. It is subject to meeting conditions set by the Housing Ministry, including not owning an apartment in the present or in the past.
[c] The level of the earned income tax credit includes the 50 percent addition for a working parent. This addition will be paid in 2013 for work in 2012. Entitlement to the credit is subject to meeting the required conditions.
[d] The poverty line is set by the level of the 2011 poverty line at 2012 prices.
SOURCE: Bank of Israel calculations based on 2012 data.

Table 8.3

Poor and Non-Poor Households, by Number of Wage Earners, Demographic Characteristics, Income and Education

	Poor households			Non-poor households		
	2004	2007	2011	2004	2007	2011
Households with one wage earner[a]						
Their share in the segment	45.3	49.9	51.6	38.0	36.2	33.3
Average number of persons	5.0	5.1	5.1	3.0	2.8	2.6
Average number of persons under age 18	2.6	2.8	2.7	1.0	0.9	0.7
Share of households with children under age 9	68.1	70.9	68.7	32.1	30.5	26.3
Average number of weekly salaried work hours	35.4	37.0	36.7	42.0	42.5	42.4
Average gross household income from work (NIS, 2011 prices)	3,543	4,044	4,009	8,862	9,972	9,929
Average net household income from work (NIS, 2011 prices)	4,645	5,172	5,160	9,824	10,798	11,002
Average age of the head of household	36	36	37	40	40	41
Level of education of head of household (percentage of households):						
High school completion or matriculation certificate[b]	-	40.2	41.9	-	36.8	37.4
Academic degree or other post-secondary diploma[b]	-	23.5	26.0	-	48.3	51.9
Households with two or more wage earners[a]						
Their share in the segment	6.9	7.2	12.3	54.9	58.8	62.4
Average number of persons	5.4	5.5	6.0	4.0	4.0	4.0
Average number of persons under age 18	2.2	2.5	2.7	1.3	1.3	1.3
Share of households with children under age 9	62.2	62.1	60.4	42.4	43.3	42.8
Average number of weekly salaried work hours	59.2	70.1	67.1	89.9	90.1	89.3
Average gross household income from work (NIS, 2011 prices)	4,846	4,922	6,034	18,070	18,900	20,489
Average net household income from work (NIS, 2011 prices)	5,009	5,917	6,677	16,796	18,309	18,394
Average age of the head of household	37	37	39	41	42	42
Level of education of head of household (percentage of households):						
High school completion or matriculation certificate[b]	-	53.0	47.4	-	36.6	36.3
Academic degree or other post-secondary diploma[b]	-	19.0	23.5	-	53.0	54.1

(continued)

Table 8.3 (continued)
Poor and Non-Poor Households, by Number of Wage Earners, Demographic Characteristics, Income and Education

	Poor households			Non-poor households		
	2004	2007	2011	2004	2007	2011
Households with no wage earners[a]						
Their share in the segment	47.8	42.9	36.1	7.1	5.0	4.2
Average number of persons	4.0	3.8	3.8	2.3	2.2	2.1
Average number of persons under age 18	2.6	1.8	1.8	0.6	0.5	0.4
Share of households with children under age 9	52.0	43.9	45.3	17.0	13.5	11.7
Average net household income from work (NIS, 2011 prices)	2,870	2,865	2,910	7,350	8,216	7,826
Average age of the head of household	40	41	42	48	48	49
Level of education of head of household (percentage of households):						
High school completion or matriculation certificate[b]	-	33.6	36.4	-	35.3	35.1
Academic degree or other post-secondary diploma[b]	-	20.2	20.6	-	38.6	45.5

[a] If the head of household is a woman - up to age 62; if a man - up to age 67.
[b] This variable does not exist in the survey for 2004.

Source: Bank of Israel based on Central Bureau of Statistics Income Surveys.

payments and various levies.[19] When a household increases its income from work, the income support payments to which it is entitled are partially reduced, such that it does not disappear at once. The Earned Income Tax Credit program is similarly structured. This gradual nature is intended to reduce the negative incentive implicit in increasing income from work, since such an increase could otherwise lead to the loss of significant financial benefits. (When the benefits are not planned in this manner, they could serve as a "poverty trap" and/or a trap whereby employment prevents households from increasing their income from work due to the concern that they will lose one of the significant additions to their income.)

The government must pay heed to the gradualness of the link between household income and income support, so that such support does not serve as a poverty "trap".

These things are not the case regarding rental assistance provided by the Ministry of Construction and Housing. The level of this assistance is essentially not at all gradual, and it is stopped at once when the household's income crosses the benefit entitlement threshold. The amount of this assistance was updated in May 2012[20], since it is not indexed to actual rents. In light of the increase in rents, this assistance had eroded

[19] An analysis of the transfer payments and benefits for households with low incomes, as well as an analysis of the effects of employment incentives, can be found in Bank of Israel (2010), Recent Economic Developments 127, January-April 2010.

[20] As part of the implementation of the Trajtenberg Committee recommendations, in May 2012, the rental assistance amounts for those awaiting public housing were updated, the interest on Ministry of Construction and Housing-assisted mortgages was reduced, and the level of rental assistance was increased. In addition, the new criteria for rental assistance connect the level of assistance to the number of children more than to the structure of the family (single-parent or two-parent).

drastically in real terms since the beginning of 2008. But the updates greatly increased the level of the benefit, particularly for households with children, and deepened the "poverty trap" inherent therein. For these households, the loss of the benefit may at once detract 11 percent from their total monthly income (compared to 7 percent prior to the update), if that income exceeds the entitlement threshold. Tightening the link between the level of income from work and the amount of rental assistance, and particularly the implementation of a gradual cutback in accordance with the growth in the household's income, will reduce the chances that the rental assistance could serve as a poverty trap for households entitled to the benefit.

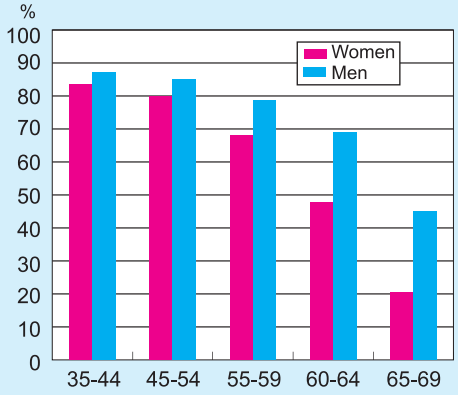
3. EMPLOYMENT AND WAGES PRIOR TO RETIREMENT

Retirement from the labor force at an older age and its effects on the income of individuals and on the fiscal situation have captured an important place in the economic and social policies of governments in Israel and in other OECD countries. Increasing life expectancy requires pension and welfare systems to adjust so that they can provide a proper income for retirees, and it increases the necessity of extending the working life. The aging of the population affects the size of the work force, private consumption expenditure, and the State's revenue from taxes as well as its expenditure on healthcare, welfare and other public services.

The participation rate of people aged 55 and older has increased greatly since the beginning of the 2000s.

Between 2004 and 2009, the legally mandated retirement age was raised gradually, although faster than in other countries, from 65 to 67 for men and from 60 to 62 for women.[21] Following the full implementation of the change in the law, the lively public discourse regarding retirement policy continued in 2011 and 2012: In 2011, the Knesset rejected the implementation of a program to raise women's retirement age to 64. Those opposed to the continued raising of women's retirement age argued, among other things, that it would have two negative effects on women's incomes: (1) since many of them lose their place of work at an older age, they will need to wait, without income, until receiving old age allowances and employment pensions

Figure 8.5
Employment Rates by Age and Gender, Non-Ultra-Orthodox Jews, 2011

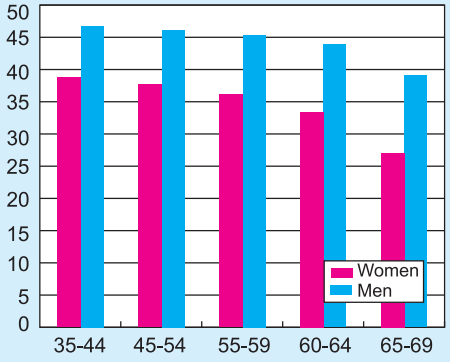


SOURCE: Based on the Central Bureau of Statistics Labor Force Survey.

[21] In an international comparison, Israel is positioned among the minority of OECD countries where women's retirement age is different from that of men. Most of those countries are planning to equalize the retirement age by 2050, but Israel is not among them.

(assuming they have accumulated the latter). (2) The continued rise will force women to continue working at a low salary, since their wages dwindle at old age, which could hurt their well-being. Similar arguments can also be made regarding older men. In contrast, an appeal was filed with the Supreme Court in 2012 regarding the cancellation of the obligation to retire at age 67, after the Labor Court required Bar-Ilan University to compensate a female employee whom the university refused to consider employing after age 67.

Figure 8.6
Average Number of Weekly Work Hours, Employees by Age and Gender, Non-Ultra-Orthodox Jews, 2011



SOURCE: Based on the Central Bureau of Statistics Labor Force Survey.

The employment rate of the general population has increased since the beginning of the 2000s. Among those between age 55 and the official retirement age, the increase was higher than among people in the main employment ages[22] (Table 8.2). But despite the fact that there has been a rapid increase over time in the work force participation and employment rates among older people, these rates have remained low when compared with younger age groups: Among women, the rates decline during the fifth decade of life, and among men, during the sixth decade (Figure 8.5).[23] The average number of work hours is also lower among older people, and it is possible that these characteristics indicate that labor market attachment weakens with age (Figure 8.6). But it is possible that this reflects differences between younger and older workers regarding their qualities and their employment history. It is therefore important to assess it directly compared to the status of the same workers at an older age.

The analysis presented below examines the marginal changes in employment and in wages[24] of those nearing retirement age, and shows that when compared to those in younger age groups, older employees do not tend to stop working at higher rates, and their wages do not fall. These findings help us to understand how retirement policy affects the well-being of employees nearing retirement age. Below is an analysis examining how a change in the Retirement Age Law affects the number of those nearing retirement age who remain at work. This analysis reinforces earlier findings regarding its positive effects.

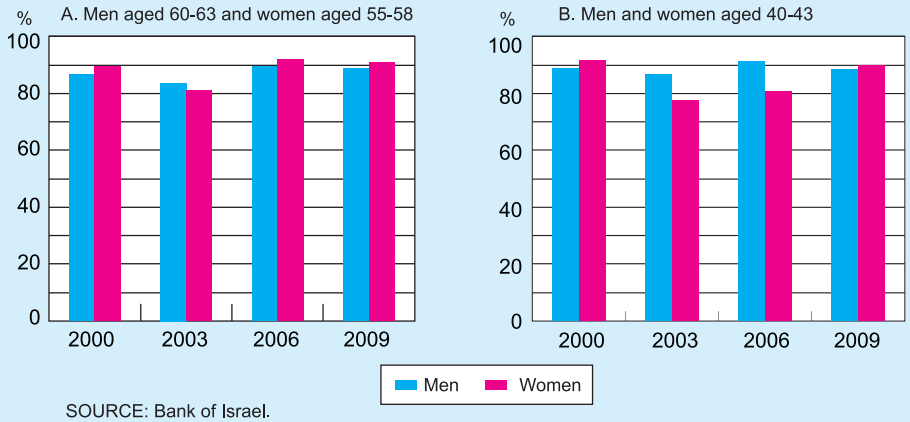
[22] This is true even despite the fact that this age group currently contains older people.
[23] In an international comparison, the employment rates of those aged 55 and over in Israel are high.
[24] In other words, did someone who worked in a given year continue to work in the following year, and did his average wage per month of work decline between the two years.

Employment continuity and wage development prior to retirement

To assess the status of older workers in the labor market, we use a dataset that tracks a sample of employees in the market between 2000 and 2010. This dataset tracks the same individuals over time (panel data), enabling us to assess the marginal changes that have taken place over the period in employment and wages at the individual level, and to compare these changes among different groups of individuals. The data include the number of months of work at different positions, wages per month of work, employment sector, and various deductions from salary. The file also contains demographic data such as date of birth, marital status, spousal employment, date of immigration to Israel, residential community and number of children. The analysis focuses on only the Jewish population, since the participation of Arabs in the work force is relatively low at older ages.[25] Therefore, their representation in older age groups is lower in our file, which does not enable us to base conclusions on it.

Figure 8.7 shows the rate of those continuing to work in the following year among all employees, taken in selected years at different stages of the business cycle and by age and gender groups. These data show that among employees nearing retirement age, the rate of those continuing to work does not fall below the rate among employees in their early 40s. It is possible that the lack of differences in continuity is the result of the fact that in younger age groups, perhaps more employees become self-employed[26], and more employees are relocated abroad. It is also possible that employees in older age groups are "stronger" workers, who remained employed over the years.[27] Among

Figure 8.7
Rate of Those Continuing to Work in the Following Year, out of Employed Persons, Selected Years



SOURCE: Bank of Israel.

[25] Yashiv, E., N. (Kaliner) Katzir (2009), "Arab Israelis: Patterns of Labor Force Participation", Bank of Israel, Research Department, Discussion Papers Series 2009.11.

[26] As noted, the data file contains salaried employees only.

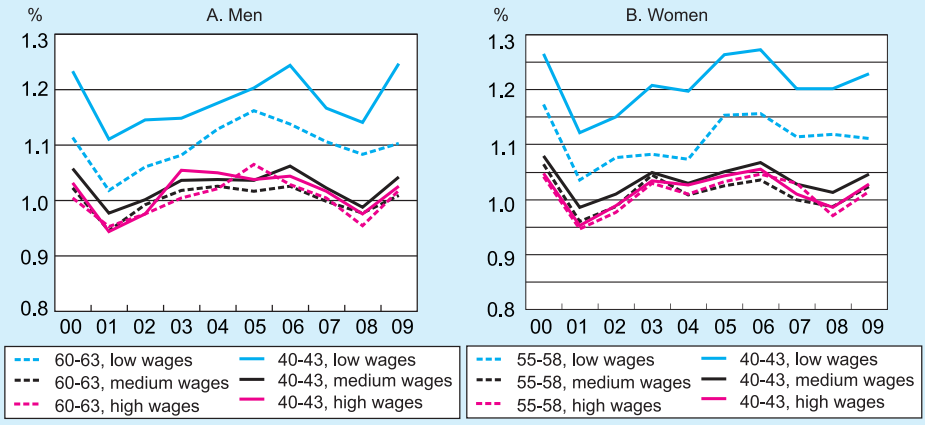
[27] It is possible that the lower participation rate among older people indicates that, from the outset, there is more selectivity among that age group in choosing to work.

women, the lack of differences in the rate of continuity may be the result of the fact that younger women temporarily leave the work force on maternity leave or to care for children.

Employees nearing retirement age are similar to younger employees in terms of continuity of employment and wage development.

Figure 8.8 shows the marginal year-over-year change in the wages of younger and older continuing employees, by salary and gender groups. Among those with intermediate and high salaries who are just a few years prior to retirement age, the marginal change in wages is slightly lower than the change among younger workers in their early 40s, at least 20 years before retirement age. Among those with low salaries, the rates of change in the wages of older workers are lower than among younger workers. At the same time, the rates of change in salary (average per month) are also positive in this group. These findings show that there is no noticeable decline in salary during the work years prior to retirement, and that for most employees the trend of wages for older workers is similar to that of younger workers.

Figure 8.8
The Marginal Change in Wage of Those Continuing to Work, by Gender, Age and Wage Groups, 2000-09



SOURCE: Bank of Israel.

The 2004 change in the Retirement Age Law and its effect on pre-retirement employment

The official retirement age is the age at which a person is eligible to retire from his job and take advantage of his full pension rights. These rights include any employment pension he may have, and the rights to old age allowance subject to meeting income criteria.[28] In January 2004, the government raised the official retirement age. The

[28] The age of entitlement to an old age pension which is not conditioned on income is age 70 for men. For women, it rises gradually from age 65 to 70, in a process that began in 2004, such that for women who were born since May 1950, it will be 70.

rise was spread out over five years, with each installment making the retirement age later by 4 months. The change applied to women born between 1944 and 1947, and to men born between 1939 and 1942. For women born from May 1947 onwards, the retirement age was raised to 62, and for men born from April 1942 onwards, the retirement age was raised to 67. For women, an outline was set out to continue raising the age to 64, but the Knesset has since postponed the decision regarding its implementation.

The Bank of Israel's Annual Report for 2010 contains an analysis of the change in participation rates due to the increase in the retirement age. We found that, following the change in the law, between 2005 and 2009, the participation rate among women aged 60-61 increased by 9.4 percentage points, and that it increased by 17.1 percentage points among men aged 65-66.[29] The groups whose change in behavior we examined were older than the previous official retirement age, and we could therefore expect that prior to the change in the law, they would have been employed at low rates. In our analysis at the time, we relied on data from labor force surveys by the Central Bureau of Statistics, and we examined the effect on the participation rate while controlling for the attributes of those participating in the labor force and of those who were not participating. In the analysis presented below, we again examine the effect of the change made to the Retirement Age Law, but this time, we examine the marginal tendency to retire before reaching the retirement age, while tracking specific workers as part of the panel.

We conducted the examination by comparing the marginal changes in employment and wages of employees who are[30] two to five years younger than the previous retirement age. We compared the group affected at the time of the examination by the change in the law, the treatment group, and the group that was not affected by the change, the control group. The control group included women (men) born between 1945 and 1948 (1940 and 1943), who were 55-58 (60-63) years old in 2003, while the treatment group included women (men) born between 1951 and 1954 (1946 and 1949), who were 55-58 (60-63) years old in 2009. The examination was conducted on the basis of a central assumption that women aged 55-58 and men aged 60-63 from the control group did not know in 2003 that the official retirement age would be pushed back, and that when they became aware of this, it was apparently too late for them to change their behavior in the labor market in the period remaining before reaching retirement. In contrast, women and men from the treatment group knew of the extension of the retirement age before they reached the tested age, and they therefore apparently had sufficient time to adjust their behavior in the labor market prior to retirement.

[29] Bank of Israel 2010 Annual Report, Chapter 5 (2011).

[30] The marginal change in continuity is the chance that a person will work during a certain year, given the fact that he worked in the preceding year.

The years we chose for the comparison are similar in terms of the business cycle. 2003 and 2009 were years when the economy was at the bottom of a recession (although in 2003 the recession had been deeper and longer), and the following years—2004 and 2010—were years of growth. In this context, it is important to note that over the intervening years between 2003 and 2009, the active policy in the labor market strengthened markedly, affecting the expansion of employment. But this policy mainly affected groups that were younger than those examined, and those aged 55 and above were excluded from most policy tools.[31]

The use of the data outlined above has some disadvantages. Since we are analyzing the marginal change in continuity in different years, the individuals in the file in the later year may be characterized by higher stability in the labor market, as well as by a higher number[32], for two reasons: (1) "the age group effect": Some of the increase that took place over the years in the employment rates of the older population is the result of an increase in the levels of education and in other characteristics, for instance in the level of health and in life expectancy; (2) raising the retirement age, which is the tested effect.

Figure 8.7 above shows that the rate of continuity of men prior to retirement age in 2009 was significantly higher than in 2003 and that there was no parallel increase in the rate of continuity among younger workers. In contrast, among women, the increase was similar in both groups.

To make a more precise comparison between employment continuity of the treatment group and of the control group, we used a binary (probit) model that estimates the

Table 8.4
Effect of Being in the Treatment Group Compared to Being in the Control Group on Marginal Continuity in the Labor Market, by Gender and Salary Group[a]

	Women aged 55-58			Men aged 60-63		
	Low wage	Medium wage	High wage	Low wage	Medium wage	High wage
Being in the treatment group rather than the control group	Positive effect (6.1)	No effect found	Positive effect (15)	Positive effect (7.5)	No effect found	No effect found

[a] Where it is noted that no effect was found, it means that there was no significant effect found at a level of statistical significance of 10 percent or less. In all other cases, the effect found is significant and in a positive direction. The value in parentheses is the change, in percent, of the likelihood of continuing to work among the group affected by the reform, and this likelihood is estimated in a probit model.

SOURCE: Bank of Israel calculations.

[31] The later the date of the examination, the weaker the validity of the assumption that the older groups have been affected to a lesser extent by the active policy in the labor market, because they were younger than age 55 when the implementation of the policy began.

[32] This attribute is also reflected by the growth that took place over the years in the number of observations in the file for each age group.

effect of different variables on the likelihood of continuing to work from one year to the next, while distinguishing between the groups. The factors whose effect we examined are: gender, wage, marital status (married vs. others), whether the worker is employed in the private or public sector, immigrant vs. native, and whether the worker worked for 10 months or less during the first year. The analysis was conducted on both the entire group and on sub-groups that were grouped by gender and according to three wage levels—low, intermediate and high.[33] For the purpose of further control, we made exactly the same estimation for women and men aged 40-43.

The findings of our examination show that for women with high salaries and women and men with low salaries, the delay in the retirement age increased the likelihood of remaining in the labor market during the following year among the age groups examined. In contrast, those with intermediate salaries and men with high salaries were not affected by the delay (Table 8.4). The main finding is that between 2003 and 2009, the marginal chance of remaining in the labor market increased more among the older age group than among the younger group. This finding is compatible with the fact that during the examined period, the employment rate (calculated based on labor force surveys) of the younger groups rose less than the rate among the older groups.

Raising the retirement age, between 2004 and 2009, increased the chances of workers nearing retirement age continuing to be employed.

4. WELL-BEING INDICES AROUND THE WORLD AND IN ISRAEL

The path of economic growth as reflected in the growth of GDP and GDP per capita is considered by many not only as a reflection of the volume of economy activity, but also as the clearest criterion for the path of a country's economic development and the change in their residents' well-being. The term "economic growth" is relatively simple and intuitive, and there is a long-standing tradition in its use. These characteristics give it political and intellectual prowess that more complex systems of criteria have difficulty competing with.

GDP may reflect the volume of economic activity, but does not accurately portray changes in well-being.

But for some time, there has been an argument that even if GDP can reflect the volume of economic activity in the markets, it does not faithfully reflect the things that are most important to individuals—the changes in their socioeconomic status and their level of well-being. For instance, growth in policing expenses due to the exogenous increase in crime levels, or growth in the cost of mental treatment due to an increase in the level of stress among the population due to changes in the geo-political situation, may be reflected in a growth in GDP while behind them there is harm to the level of well-being in society. The exploitation of natural resources—such as natural gas, oil or precious metals—is also reflected in GDP growth, even though these are basically one-time uses of perishable resources. And if the growth in GDP

[33] The three salary levels were determined as follows: up to the 25th percentile, from the 25th to the 75th percentile, and above the 75th percentile of the wage for the gender group during that year (for all age groups).

is accompanied by sharp changes in the distribution of income and wealth in society, it my actually involve a decline in the "average" level of well-being of individuals.

Unease with the exclusive use of GDP as a measure of well-being has led to attempts to develop an alternative system. The challenges involved include setting a group of indices to aggregate and establishing how to use it to outline public policy.

A lack of ease with the exclusive use of GDP development has taken hold in recent years in the OECD and in the public and political establishments of a number of countries, including Australia, the UK, France, Canada, and recently also in Israel, bringing with it attempts to develop an alternative system. Concerning Israel, pursuant to the government decision of December 2, 2012, professional teams will prepare well-being indices for the country in 2013, and will submit them to a steering committee led by the head of the National Economic Council as well as the Directors General of the Prime Minister's Office, the Finance Ministry and the Environmental Protection Ministry. The challenges here are not easy. They include, first and foremost, the drafting of a group of capturing indices, and then the determination of how they will be used to plot public policy.

The alternatives to GDP can be divided schematically into two types. The first type is a single index, and the second is a system of criteria. There is an advantage to a single aggregate index (comprised of a series of various indices), in that it is easy and simple to use. However, it also has drawbacks: its compilation frequently involves a certain degree of arbitrariness, particularly due to the need to ascribe weights to its various components; a large part of the variables that are important to the public remain outside the index; and it is difficult for changes in the index to follow the original. The prominent drawback of a system of criteria is the concern of losing the forest for the trees.

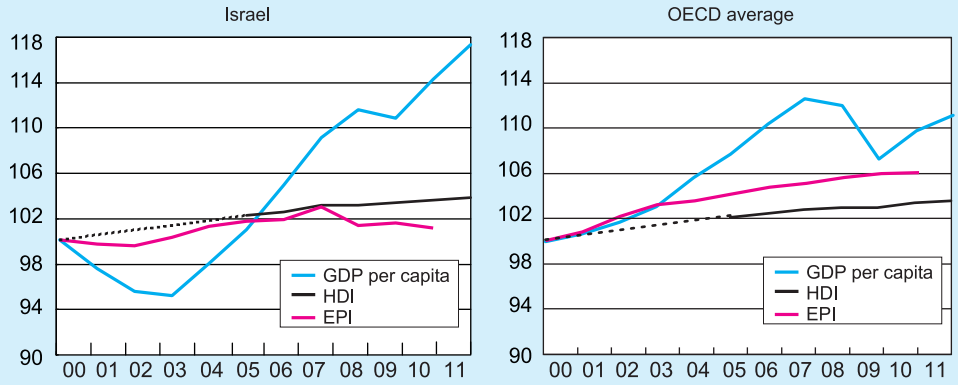
Prominent in the first type—a single index intended to reflect the level of well-being in a country—is the Human Development Index (HDI). This index was developed more than 20 years ago based on the ideas of Amartya Sen[34], is published each year by the United Nations, and is comprised of the average of three indices—life expectancy, level of education and level of income. The index has two major advantages. The first is that the index offers a broader perspective than using GDP. Life expectancy faithfully reflects many components of a country's state of well-being, such as the quality of the health system, and the level of education is actually connected to individuals' level of well-being and satisfaction, as well as their future earnings potential. The second advantage of this index is that it is compact and easy to use in order to make comparisons over time and between countries. On the other hand, the index is not free of drawbacks. It does not relate to many important components, including the state of the environment; its compilation involves the use of arbitrary weights; and it does not relate to equality in the distribution of income or resources among the population. And even though the index's data are published both in relation to developed countries and in relation to emerging economies, it is less useful for comparisons between developed countries since the differences between them are not large in terms of life expectancy and education.

[34] http://hdr.undp.org/en/statistics

A comparison of the rates of change in GDP per capita and in the Human Development Index examining Israel and other developed countries for the years 2000–11 shows that the standard of living as reflected in the index changed less—and along a less volatile path—than GDP per capita (Figure 8.9), to a large extent due to the character of the Human Development Index: education and life expectancy change more slowly than GDP. It is very possible that such a moderate and measured development path actually reflects the changes in individual well-being better than changes in the GDP.

This comparison does not include the quality of the environment since the HDI was developed relatively early and does not relate to this field. However, since this field has since captured an important place in public awareness, it makes sense to include it in the comparison. This can be done through utilizing and environmental index, such as the Environmental Performance Index (EPI) developed at Yale University[35], alongside the HDI. As expected, the EPI also indicates an improvement that is smaller—and less volatile—than growth in the GDP per capita (Figure 8.9).

Figure 8.9
GDP per Capita, HDI and EPI, 2000-11
(2000 = 100)



SOURCE: Based on data from Yale University, UNDP, and OECD.

It turns out, therefore, that during this period, GDP per capita in developed countries in general, and particularly in Israel, increased more than the level of well-being as reflected in these two indices.

In 2000–11, GDP per capita in advanced economies in general, and in Israel in particular, increased more than well-being, measured by the HDI and EPI indices, did.

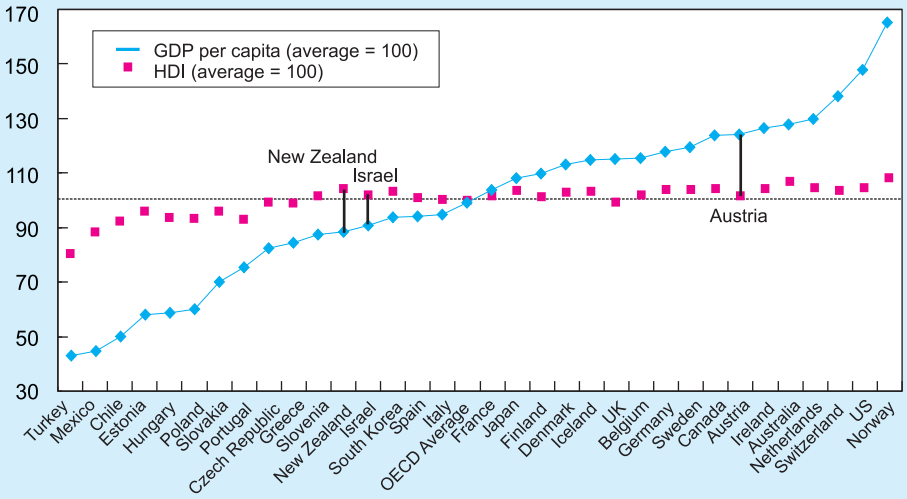
When assessing the rankings of the developed countries—including Israel—according to GDP per capita and according to their place in the HDI index, we see that for most of the countries, GDP per capita and the HDI go hand in hand: if GDP per capita is lower than average, so is the HDI, and vice versa (Figure 8.10).[36] However, this is not the case for all countries. In Israel, GDP per capita is lower than the average,

[35] http://epi.yale.edu
[36] The rank correlation between the HDI and GDP per capita is 0.85.

but the Human Development Index is higher than the average, because life expectancy and the level of education are relatively high.[37] New Zealand is similar to Israel, since it is characterized by a lower-than-average GDP and a higher-than-average HDI. In contrast, Austria's GDP per capita is much higher than the average, while its HDI is close to the average.[38]

Among the attempts to create alternatives of the second type—the formulation of a broad system of criteria—is the framework first published in the Bank of Israel's Annual Report for 2004.[39] Alongside the HDI, the framework presented the life satisfaction rate and a series of indicators in the fields of economics, education, health, environmental quality and social capital. This framework was pioneering and tentative in nature, relied only on available indicators and was not continued in the annual reports published thereafter.[40]

Figure 8.10
The HDI and GDP per Capita in OECD Countries, 2010



SOURCE: Based on UNDP and OECD data.

[37] Israel's place in the ranking of developed countries declined slightly between 2000 and 2011, from 15th to 16th in the HDI, and from 21st to 22nd in GDP per capita.

[38] The distribution (between different countries) around the GDP per capita average is larger than the distribution around the HDI average. This is because the differences between the countries in education and life expectancy are smaller than the differences in GDP per capita.

[39] Bank of Israel 2004 Annual Report, pp. 212-217.

[40] Other publications presenting alternatives to the use of GDP in assessing the level of well-being in Israel: (1) The Society in Israel Report by the Central Bureau of Statistics; (2) The Societal Robustness Index. This index has been published annually since 2003, and it assesses the feelings of the population regarding its level of well-being; (3) "A Genuine Progress Indicator for Israel—A Pilot Index: 1979-2004", by Hagai Kot, August 2008, The Israeli Society for Sustainable Economics; (4) "Adjusting GDP in Relation to Air Pollution and Other Environmental Issues, Toward Green Accounting in Israel – Methodology and Examples," by Nir Becker, Gadi Rosenthal and Dana Gabay, August 2012, submitted to the Ministry of Environmental Protection.

- Many countries have conducted widespread professional activities in recent years with the aim of formulating a comprehensive system of criteria that will enable the methodical tracking of chances in the level of well-being in different countries. The Stiglitz Report, written at the request of the French president at the time and submitted in 2009, laid the groundwork in this field.[41] The Stiglitz Report contains a series of recommendations, including:
- Changes in household property should be emphasized alongside changes in household income, since they are no less important than changes in GDP, and don't always go hand-in-hand with them.
- The testing framework should be expanded, and should include changes in activity that does not pass through the markets (but takes place, for instance, within households), as well as changes in the volume of leisure time.
- The fields of health, education, employment (particularly salaried employment), quality of government and the involvement of individuals in elections, social connections and interpersonal relations, current and future environmental quality, and the level of financial and physical security, all have an effect on the level of personal well-being. Therefore, the framework to be built must relate to them and to the manner in which they are distributed among various socio-economic groups.
- Alongside the objective quality of life indices, there is also place for subjective indices that express the feelings of individuals regarding their situations.

In 2011, following the Stiglitz Report and the development and expansion done by the OECD, the OECD proposed a system of criteria for assessing the level of national well-being. This system is based on a well-being concept with three components—material living conditions, quality of life and environmental sustainability—which is characterized by the following points:

- Emphasis on household and individual income, and not necessarily on macro-economic aggregates, since they often develop differently.
- Emphasis on consequential well-being, meaning well-being as it is perceived, and not on inputs (for example: the level of health and not the volume of health-related expenses or the number of surgeries carried out).
- Emphasis on the distribution of well-being within the population according to parameters of age, gender, income and socio-economic background.
- Emphasis on the subjective aspects alongside the emphasis on the objective aspects, since the feelings of individuals pertaining to their lives are no less important than the objective indices in relation to quality of life.

The first attempt to implement a path for assessing the level of well-being was made by the OECD through the formulation of the Better Life framework.[42] This framework enables the calculation of a well-being index, and is comprised of eleven

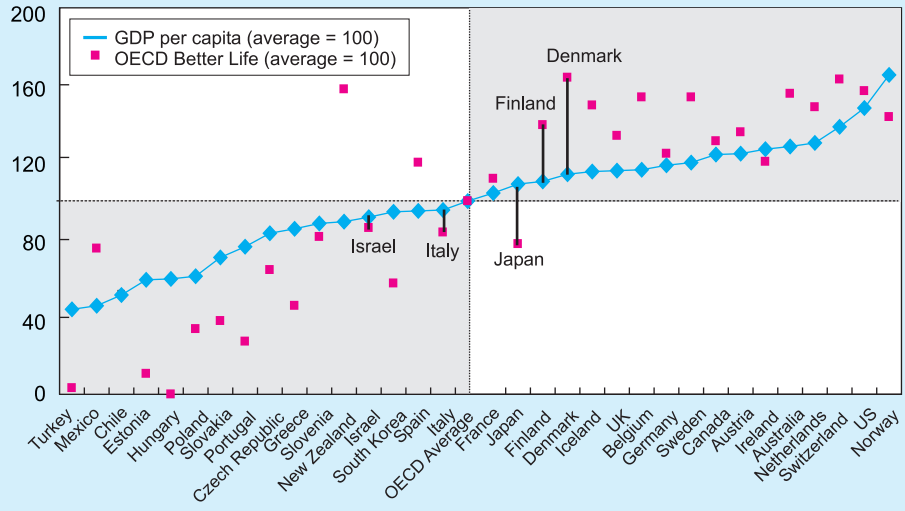
[41] http://www/stiglitz-sen-fitoussi.fr/documents/rapport_anglais.pdf
[42] http://www.oecdbetterlifeindex.org

components: income, jobs, housing, work-life balance, health, education, community, civic engagement, environment, safety and life satisfaction.

A calculation of the well-being index[43] shows that in most countries, the index goes hand-in-hand with GDP per capita: when GDP per capita is higher than average, the Better Life Index will also provide a better result than the average (Figure 8.11).[44] However, this is not the case for all countries. In Italy and Japan, GDP per capita is close to the average, while the quality of life is lower than the average according to the Better Life Index. In contrast, in Finland and Denmark, GDP per capita is close to the average, but the quality of life is higher than the average according to the same index. In regard to Israel, it is higher than the average in five components of the index, and lower than the average in six. The weighted result is slightly below the average.[45]

GDP per capita index in the OECD countries and the OECD's Better Life Index, 2010

Figure 8.11
GDP per Capita in OECD Countries and the OECD's Better Life Index, 2010



SOURCE: Based on OECD data.

[43] The Better Life Index was calculated here by ascribing equal weights to its various components. Ascribing different weights to the components, for instance according to the subjective value ascribed to them by the residents of each country, could generate different results. The Index's data exist for just one year, so at this stage, it is not possible to examine developments over time.

[44] This is reflected in the figure in the fact that most of the countries are positioned in the lower left-hand and upper right-hand quadrants. A high rank correlation is notable here between the GDP per capita index and the Better Life Index, at 0.82. As stated, the rate of the correlation between the HDI and the GDP is even higher, at 0.85, since the GDP per capita constitutes a larger component of the HDI than of the Better Life Index.

[45] According to the framework developed by the OECD, Israel is above the average in the following areas: income, work-life balance, health, safety, and life satisfaction. It is below the average in employment, housing, education, civic engagement, community and environment.

The comparison between the two well-being indices and the GDP in various countries (Figures 8.10 and 8.11) shows that despite differences in nuance, the general picture is similar: in countries where GDP per capita is high, the level of well-being in general is also high, and vice-versa.

Well-being in Israel increased steadily in the first decade of the third millennium, but the improvement is smaller than the increase in GDP during that time frame.

The Ministry of Environmental Protection has used the framework that was first developed in the Stiglitz Report and then expanded by the OECD in order to formulate a parallel framework for Israel. In November 2012, the Ministry published an initial framework of complementary indices to the GDP—environmental, social and economic indices—and assessed their developments between 2000 and 2012.[46] As the authors of the publication emphasize, this is a very tentative framework (particularly in the areas that are not connected to environmental quality), and it constitutes a basis for further work in the field. However, the mixed picture that arises from it is consistent with the picture presented in Figure 8.9: well-being in Israel has increased steadily during the first decade of the third millennium, but the improvement in well-being is smaller than the growth in GDP per capita during the same period.

[46] "Environment, Society and Economics: Growth, Sustainability and Well-Being Indicators, Israel 2000-2010", the Ministry of Environmental Protection, Jerusalem, November 2012. The system of indices is divided into three areas—environmental quality and sustainability, society and well-being, and economy and equality. In each area, there are roughly fifteen separate indices, which were selected, among other things, because the Central Bureau of Statistics gathers data about them. The formulation of a more complete system of indices, including those that are not already published by the CBS, requires the allocation of financial resources.