Chapter 1 | Social Policy and Trends in National Insurance

1. Historical Development of the Main Processes

The social security system in Israel utilizes a major portion of the public budgeting system, since it is responsible for a wide variety of welfare payments to the public – from family benefits and disability pensions, through wage-replacing benefits, to subsistence benefits and old-age and survivors' pensions.

Table 1 summarizes the financial development of the NII's activities during the last 25 years. Contributory payments are defined as those benefits that are funded by receipts from insureds' contributions, in their broadest sense: insureds' current insurance contributions, the government's participation in the current funding of national insurance and interest receipts on the national insurance reserve. The reserve has accumulated over the years as a result of unutilized surpluses of insurance contributions, of government participation and interest income on the reserve since the establishment of the NII. These cash inflows do not include benefits funded directly by taxes (under section 9 of the National Insurance Law and by virtue of agreements). The cash inflows do include the indemnification that the government pays in lieu of employers.

One salient conclusion that may be drawn from this table is that, according to the above criteria, there has never been a deficit in the national insurance accounts (not between 1985 and 2010 and not previously).[1] However, this surplus has steadily diminished since 2007 (at current prices), from NIS 8.6 billion to approximately NIS 5.5 billion in 2009 and to NIS 4.7 billion in 2010.

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In recent years, national insurance benefits have undergone significant upheavals due to policy changes. At the beginning of the 2000s, benefits were sharply increased (a real increase of approximately 15% in 2001). Subsequently, the policies relative to the especially weak populations needing unemployment benefits, child allowances and income support became particularly imbalanced (Graph 2), as a result of an assessment that the public purse was in jeopardy due to a forecasted deficit. This assessment caused a toughening of the welfare policy and to a sharp cut-back in benefits, a policy that became even more stringent in 2003 and 2004, in order to motivate working-age recipients of benefits to join the labor force. This policy was implemented procyclically, even though, due to considerations of economic stability, it would have been preferable to enable the automatic stabilizers to work – during a recession, public deficits must be allowed in order to moderate the economic slowdown or recession. It should be noted that the benefits policy is particularly suited to this role of being a countercyclical policy, inter alia, due to benefit recipients' high Marginal Propensity to Consume (MPC). Subsequent governments were forced to drastically amend this policy, such that, retrospectively, benefit payments have increased over time at the average real rate of 3% per annum.

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1   The operating account, which does not include the interest receipts, was in deficit during the years 1996 – 2003 and since 2009.

Table 1
Total Benefits and the Funding Thereof (NIS million)

Year	Contributory payments	Total surplus (collection)	Receipts/ payments funded by outside sources	Total receipts	Contributory receipts	Collection from the public (including indemnification)	Government participation	Interest receipts	Third-party compensation
1985	15,079	5,926	5,043	26,048	21,005	13,549	3,398	3,995	62
1986	15,087	6,192	4,513	25,793	21,280	14,444	3,566	3,224	46
1987	16,298	7,406	3,989	27,693	23,704	16,104	4,232	3,343	25
1988	18,373	8,201	4,181	30,755	26,574	17,770	5,104	3,602	98
1989	19,765	5,170	4,169	29,103	24,934	17,257	4,843	2,754	80
1990	20,301	5,626	4,377	30,305	25,928	17,114	4,018	4,716	81
1991	19,895	4,878	4,643	29,416	24,773	17,998	3,736	2,940	98
1992	20,919	6,320	5,379	32,618	27,239	18,409	4,890	3,869	71
1993	23,150	4,971	5,910	34,031	28,121	19,814	4,302	3,921	84
1994	24,751	7,292	5,957	38,000	32,043	21,583	6,395	3,967	97
1995	27,553	4,289	7,822	39,664	31,842	20,473	7,102	4,212	55
1996	29,745	3,471	8,025	41,241	33,217	20,426	8,366	4,345	81
1997	32,413	3,096	8,037	43,547	35,509	21,660	9,289	4,493	68
1998	34,903	1,971	8,590	45,464	36,874	22,429	9,727	4,626	92
1999	36,351	1,908	9,098	47,356	38,259	23,364	10,152	4,663	80
2000	39,022	1,857	10,074	50,953	40,878	25,658	10,307	4,831	82
2001	43,643	802	11,925	56,369	44,445	27,192	12,159	4,983	110
2002	42,413	1,615	12,253	56,281	44,028	26,744	12,156	4,936	192
2003	40,674	3,541	10,826	55,041	44,215	26,215	12,412	5,118	470
2004	39,482	5,488	9,866	54,835	44,970	26,569	12,691	5,329	382
2005	39,510	7,289	9,814	56,613	46,799	27,676	13,326	5,524	273
2006	41,025	7,344	10,019	58,387	48,368	28,148	14,055	5,901	265
2007	42,373	8,751	9,883	61,007	51,124	29,168	15,412	6,215	329
2008	43,157	9,129	9,809	62,094	52,286	29,524	15,849	6,525	387
2009	46,679	5,689	10,207	62,575	52,368	28,989	16,079	6,846	454
2010	49,105	4,683	10,032	63,821	53,789	31,289	15,014	7,000	485

Motivating benefit recipients to enter/rejoin the labor market could have been accomplished by pro-active means, such as by initiating employment programs combined with a negative income tax mechanism, such as the Israeli version of the Wisconsin Program "Lights to Employment"

Such a policy is difficult for the public of benefit recipients to bear, since, in retrospect, it is clear that it could have been feasible to supply the same volume and scope of benefits without such volatility. Motivating benefit recipients to enter/rejoin the labor market could have been accomplished by pro-active means, such as by initiating employment programs combined with a negative income tax mechanism, such as the Israeli version of the Wisconsin Program "Lights to Employment." Raising of the minimum wage acts in the desirable direction mainly in the non-tradable products and services sector, while in industry, which primarily manufactures tradable products, the raising of the minimum wage is liable to adversely impact employment and accelerate a structural shift in the direction of increasing the volume of non-tradable products. In the final analysis, some of the means were employed, even if sometimes tentatively.[2]
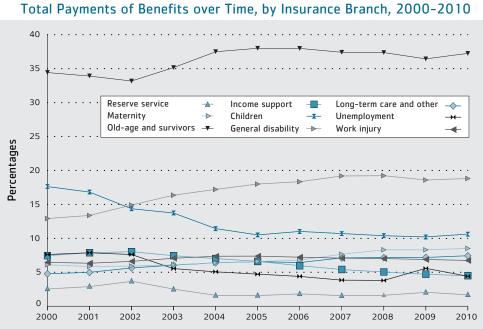
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2   In this context, it is unfortunate that the employment program was discontinued. It would have been preferable to improve the program by way of increasing the competition among enterprises and factories.

Graph 1
Real Rate of Change in National Insurance Benefits
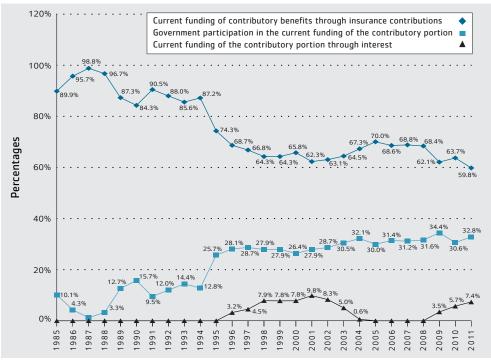**(Including noncontributory benefits), 1998-2010**

This policy and demographic and other developments had a significant impact on the distribution of the total payments of benefits by insurance branch: Graph 2 shows that while the benefits paid by some of the branches of insurance – Old-age and Survivors, General Disability, Maternity and Long-term Care – increased over time, benefits paid by the other insurance branches, such as Income Support, Unemployment and Children, have steadily diminished, while exacerbating the poverty and inequality situation in Israel, inter alia, as a result of the cutbacks. Since 2005, with the accelerated growth in the economy, the dimensions of poverty have stopped deteriorating – although they remain at a high level. In 2009, the renewed downslide in the dimensions of poverty apparently had been a temporary phenomenon relating to the global economic crisis, and, indeed, during the first half of 2010, some improvement in the dimensions of poverty was evident.
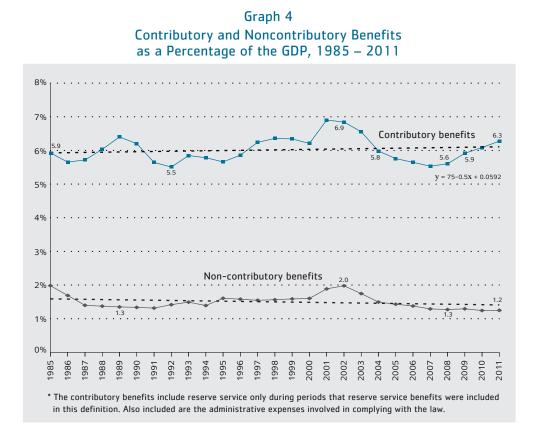
Payments of contributory benefits are funded mainly by collection from the public, although the public's share of their funding has gradually diminished since the end of the 1980s, while the government picked up the slack. In recent years, the government's share of funding has stabilized at about one third of the cost of the contributory benefits. During two periods, the NII used a portion of its interest income to supplement funding – from 1996 to 2003 and since 2009. It should be noted that, since 1985, the majority of

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Graph 2

Total Payments of Benefits over Time, by Insurance Branch, 2000-2010

Graph 3

Funding of Contributory Benefits by Collection from the Public, by Government Participation and by Interest, 1985 – 2011

Graph 4
Contributory and Noncontributory Benefits
as a Percentage of the GDP, 1985 – 2011

* The contributory benefits include reserve service only during periods that reserve service benefits were included in this definition. Also included are the administrative expenses involved in complying with the law.

the interest income (80%) has been used to increase the reserve and not to fund current payments of benefits.

Graph 4 shows that the ratio of contributory benefits to GDP has been stable for the last 25 years, and ranged between about 5.5% and 7%. The fluctuation derived from reversals in the benefit policy (expansion in 2001 and a steep cut-back in 2002), and from developments relating to the business cycle. The business cycle usually has a counter-cyclical affect on the benefits, particularly in relation to unemployment benefits. In 2010, the ratio of contributory benefits to GDP stabilized at 6%.

Theoretically, it could have been possible to interpret the decline in the non-contributory benefits, which are comprised mainly of subsistence benefits, as a successful policy (Graph 4), since a steady decrease in the number of families needing support through these benefits is a desirable outcome. However, this decline in noncontributory benefits also indicates a perturbing trend, since it means a perpetuation of the inception of poverty and the intensity of poverty at high levels. Consequently, this statistic should apparently be considered more as an indication that families experiencing hardship are having a tougher time obtaining benefits to alleviate their situation rather than improving their situation.

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2. The Volume of Payments

The NII's payments of contributory and non-contributory benefits, in cash and in kind, totaled NIS 59.1 billion in 2010, compared with NIS 55.4 billion in 2009. These sums also include other payments that the NII pays, mainly to government ministries, for expenses relating to the development of services in communities, as well as for administrative and operating expenses of the national insurance system's entire spectrum of activities (totalling approximately NIS 1.2 billion), The real increase in the NII's total volume of payments reached 4%, which derived from a few interrelated factors: the gap between the rate of the update of benefits, which is based on the previous year's rise in prices and the rate of the rise in the index in 2010, (which accounts for about 1.1 percentage points out of the total rise in payments); the increase in the number of benefit recipients; and the real rise in some of the benefits, due to the revision of the rates of various benefits under the Economic Efficiency Law (Legislated Amendments for Implementing the Economic Plan for 2009 – 2010), and agreements pursuant to the law (some of which are coalition agreements). Also in terms of percentages of the GDP, the benefits rose by 0.06 percentage points (table 2), after a few years in which they decreased or remained without change: the ratio of benefits to GDP, which had peaked in 2001 – 2002 at the rate of 8.7%, steadily decreased until it reached 6.7% in 2007 and in 2008, and rose for the first time in 2009 to 7.1% of the GDP. In 2010, the ratio reached 7.12%. In terms of the GDP, the collection rate for the branches of national insurance declined from 3.8% in 2008 to 3.7% of the GDP in 2009, and rose again in 2010 to 3.85% of the GDP, this, inter alia, as a result of the increase of the maximum payment for insurance contributions, as a result of the increase in the employers' reduced rate, and also, apparently, as a result of the increase in wages.

In total, payments of contributory benefits under the National Insurance Law in 2010 increased by 5.2% in real terms. The payments of non-contributory benefits – those paid by virtue of State laws or by virtue of agreements with the Ministry of Finance – which are fully funded by the State Treasury (such as income support, mobility, maintenance and old-age and survivors' pensions for the uninsured (particularly new immigrants) – declined by 1.7%. In 2010, non-contributory benefits, including administrative expenses, totalled approximately NIS 10 billion, constituting approximately 17% of all benefit payments.

The data in Table 3 present the main trends in benefit payments by branches of insurance. A particularly sharp decrease of approximately 17.8% was recorded in the Unemployment branch, due to a decrease in the rate of unemployment, from 7.6% in 2009 to 6.6% in 2010, in light of the economy's rapid recovery from the economic crisis. The Reserve Service branch also recorded a sharp decrease of approximately 14.4%.

In the Long-term Care and Maternity branches, there was a real increase of

Table 2
Benefit Payments and Collection from the Public (excluding administrative expenses) as a Percentage of the GDP, 1980–2010

Year	Benefit payments		Collection	
	Total	Thereof: contributory benefits	Total*	Thereof: national insurance contributions**
1980	6.09	4.98	6.77	5.15
1985	7.14	5.51	6.57	4.45
1990	8.36	7.04	7.21	5.28
1995	7.23	5.66	7.54	4.21
2000	7.65	6.09	6.00	4.08
2001	8.63	6.78	6.34	4.30
2002	8.65	6.71	6.35	4.32
2003	8.12	6.41	6.23	4.22
2004	7.35	5.88	6.04	4.05
2005	7.02	5.63	6.00	4.03
2006	6.87	5.53	5.80	3.87
2007	6.67	5.42	5.76	3.81
2008	6.73	5.49	5.84	3.83
2009	7.06	5.80	5.63	3.67
2010	7.12	5.92	5.85	3.85

*   Including collection for the sick funds.
** Including indemnification from the Ministry of Finance in respect of the reduction in employers' national insurance contributions.

approximately 7% in total payments. The increase in payments for long-term care is partially explained by the fact that, since March 2009, additional hours of care have been provided to eligible insureds at the two highest benefit levels, if they employed Israeli caregivers: an additional three weekly hours of care were granted to those eligible for a benefit at the rate of 150% and an additional four weekly hours of care to those eligible for a benefit at the rate of 168%. Furthermore, an increase has been recorded in the number of recipients of long-term care benefits, particularly at the higher benefit levels. The increase in maternity payments reflects a phenomenon occurring in recent years of an increase in the number of those eligible for a maternity allowance, and an increase in the average maternity allowance payment, due to the increase in women's employment rates and wages over time. In 2010, there was a 6.6% increase in the number of births compared with 2009 and, as in previous years, this increase was higher than the increase in the number of women of fertility age. A significant increase was also recorded in payments for hospitalizations of women giving birth.

Payments of child allowances rose by 8.2% between 2009 and 2010. This increase derives, inter alia, from the gradual increase in the child allowances that began in July

2009 following the enactment of the Economic Efficiency Law (Legislated Amendments for Implementing the Economic Plan for 2009 – 2010). Under this law, the allowance for the second, third and fourth child in a family was gradually increased, so that, in 2012, an additional NIS 100 will be paid for every child in the above orders of birth. The cost of this increment in 2010 totalled approximately NIS 250 million (in 2012, the cost of this increment will be NIS 1,500 million compared with 2008). It should be noted that, within the scope of the agreement, the increments will be purely nominal, and the allowance will not be updated according to the price changes during this period, so that this increase can be expected to be eroded in real terms. We emphasize that the increase in child allowance payments was set-off, in part, due to children "graduating" from the system (those born prior to 2003), and being replaced by "new" children, for whom a uniform allowance is being paid that is lower than that paid to the "graduates" (a process that began in 2002), a measure aimed at reducing child allowance payments.

The payments of old-age and survivors' pensions increased by 6.3%. In recent years, a few changes have been implemented in order to increase the payments of old-age and survivors' pensions: in April 2008, the basic old-age and survivors' pensions were increased from 16.2% to 16.5%, and elderly in the 80-and-above age bracket received a special increment at the rate of 1% of the basic amount. Concurrently, the income support benefits were increased, according to the age of those eligible for this benefit. Additionally, under the Economic Efficiency Law, the old-age and survivors' pensions were increased again in August 2009, from 16.5% to 17%, in January 2010, to 17.35%, and, in January 2011, the basic pension was increased to 17.7% of the basic amount, thus completing the process.[3] The income supplement to these pensions will also be increased at a similar rate.

Table 3 also presents the distribution of the total payments of benefits by branch of insurance. The largest branch, the Old-age and Survivors branch, paid 37.2% of the total benefits paid in 2010. Compared to the previous year (2009), the share of this branch has increased by 0.8 percentage points. The share of the second largest branch, the Disability branch, also increased, from 18.6% in 2009 to 18.8% in 2010. The Children branch increased its share from 10.2% in 2009 to 10.6% in 2010. The share of the Unemployment branch decreased considerably, from 5.6% of the total payments in 2009 to 4.4% in 2010 (see above), while the Reserve Service branch also decreased its modest share, from 2.1% in 2009 to 1.7% in 2010. Continuing the trend of recent years, the Income Support branch's share dropped to 4.5% of the total payments (compared with 8% in 2002). The other branches more or less maintained the same ratios as they had in 2009.

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3   "The basic amount" is the amount that has been used to calculate most benefits since January 2006. This amount is updated annually on January 1 at the rate of the rise in the consumer price index that applied in the previous year. The basic amount has various tariffs for the purpose of updating the various benefits: in 2010, the basic amount for most benefits was NIS 7,975.

Table 3
Payments of National Insurance Benefits (including administrative expenses), 1995–2010

Year	Total payments	Old-age and survivors**	General disability	Work injury, victims of hostile actions	Maternity	Children	Unemployment	Reserve service	Income support***	Long-term care & other
				NIS millions (current prices)						
1995	21,188*	7,675	2,254	1,487	1,206	4,287	1,280	1,053 *	1,149	798
2000	39,706	13,670	5,128	2,569	2,423	7,000	3,023	1,039	2,957	1,897
2004	42,759	16,032	7,355	3,145	2,727	4,887	2,166	708	3,003	2,735
2005	43,305	16,457	7,792	3,192	2,857	4,548	2,044	713	2,859	2,842
2006	45,760	17376	8,392	3,306	3,103	5,038	2,013	860	2,730	2,941
2007	47,089	17,615	9,034	3,332	3,605	5,038	1,812	760	2,543	3,350
2008	49,920	18,655	9,599	3,506	4,146	5,188	1,896	841	2,518	3,572
2009	55,394	20,180	10,295	3,811	4,604	5,650	3,089	1,169	2,613	3,984
2010	59,137	22,023	11,130	3,986	5,033	6,279	2,606	1,028	2,659	4,394
				Real annual increase (percentages)						
1995	10.1	8.6	16.1	14.6	20.8	4.5	16.2	2.9	13.7	13.5
2000	8.1	8.4	14.8	11.4	10.8	1.5	-0.9	-7.4	18.1	18.2
2004	-4.2	2.2	0.8	0.3-	0.2	-20.3	-12.3	-38.1	-9.5	1.2
2005	-0.1	1.3	4.6	0.2	3.4	-8.1	-6.9	-0.6	-6.0	2.5
2006	3.5	3.4	5.5	1.4	6.4	8.5	-3.6	18.1	-6.5	1.4
2007	2.4	0.8	7.1	0.2	15.6	-0.5	-10.5	-12.1	-7.3	13.3
2008	1.4	1.3	1.6	0.6	10.0	-1.5	0.0	5.8	-5.3	2.0
2009	7.4	4.7	3.8	5.2	7.5	5.4	57.7	34.5	0.4	7.9
2010	4.0	6.3	5.3	1.9	6.5	8.2	-17.8	-14.4	-0.9	7.4
				Distribution by insurance branch (percentages)						
1995	100.0	36.2	10.6	7.0	5.7	20.2	6.0	5.0	5.4	3.8
2000	100.0	34.4	12.9	6.5	6.1	17.6	7.6	2.6	7.4	4.8
2004	100.0	37.5	17.2	7.4	6.4	11.4	5.1	1.7	7.0	6.4
2005	100.0	38.0	18.0	7.4	6.6	10.5	4.7	1.6	6.6	6.6
2006	100.0	38.0	18.3	7.2	6.8	11.0	4.4	1.9	6.0	6.4
2007	100.0	37.4	19.2	7.1	7.7	10.7	3.8	1.6	5.4	7.1
2008	100.0	37.4	19.2	7.0	8.3	10.4	3.8	1.7	5.0	7.2
2009	100.0	36.4	18.6	6.9	8.3	10.2	5.6	2.1	4.7	7.2
2010	100.0	37.2	18.8	6.7	8.5	10.6	4.4	1.7	4.5	7.4

* The data for 1995 do not include the sums transferred to the Ministry of Defense in repayment of a debt in respect of savings of a number of days of reserve service.
** Including payments for income supplements.
*** For the working-age population.

3. The Benefit Levels

In January 2010, the benefits were updated at the rate of the rise in the consumer price index during the period from November 2008 to November 2009, at the rate of 3.8%. This rate updated the "basic amount,"[4] which has been the basis for updating most of the benefits since January 2006, pursuant to the Economic Recovery Plan Law of June 2003. During that period, the average wage, which had been the basis for updating the benefits in the past, rose by 1.1%. On a cumulative basis, from 2002 to 2010 the average wage rose at the rate of approximately 15%, which was similar to the rate of the rise in prices during that same period. Thus, the gap between these two indicators has narrowed, even though past experience has shown that benefits that are updated according to prices are likely to become eroded relative to wages, since, when looking back over the past 30 years, real wages (i.e., wages adjusted for inflation) increased at the average rate of approximately 1.5% per annum. However, if the aforesaid trend continues, and the value received for work continues to diminish in the coming decades, then the erosion of the benefits (due to updates according to the Consumer Price Index rather than according to changes in wages), can be expected to diminish or perhaps even be stopped.

In 2010, the basic old-age pension for a single person, as a percentage of the average wage, increased from 16.0% to 16.8% of the average wage for single elderly persons up to age 80, and from 16.9% to 17.7% of the average wage for elderly in the 80-and-above age bracket. The survivors' pension for widows/widowers with two children increased from 30.8% to 32.4%.

In 2010, the guaranteed minimum income for the working-age population rose slightly. The minimum income for a single person, including all definitions of "income," as a percentage of the average wage, rose by 0.6 –0.7 percentage points between 2009 and 2010. The benefit paid to a single parent up to the age of 55 with two children is 38.8% of the average wage, compared with 52.2% of the average wage in 2002, just prior to the deep slash in the income support benefits under the 2002 –2003 Economic Plan. By contrast, the benefit paid to an individual at the age of 55 and above rose above its level in 2002 and reached 24.9% of the average wage in 2010, compared with 24.0% in 2002.

The average disability pension decreased from 32.3% of the average wage per employee post in 2009 to 32.1% of that average wage in 2010. Cumulatively since 2003, the value of the disability pension has eroded, in terms of its percentage of this average wage, by approximately 1.7 percentage points. The average attendance allowance remained the same as in 2009 – 28.1%. The average monthly benefit for a disabled child decreased by approximately 1.5% between 2009 and 2010. On the other hand, the mobility allowance increased by 0.10% in real terms between 2009 and 2010.

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4   See footnote 3 of this chapter.

The average long-term care benefit granted to the elderly (the amount of the benefit is translated into hours of care) rose in 2010 by 1.5% in real terms, compared with 2009.

The child allowance payable to families of varying compositions slightly increased in real terms between 2009 and 2010. The overall allowance to families also rose relative to the average wage, except for families with one child. The most significant rise was for families with four children born after May 2003, since the allowance to families rose by approximately 11% relative to the average wage. For families with four children born prior to June 2003, the allowance rose by approximately 8.5%. Notwithstanding the improvement in the overall sum of the allowance to families compared with 2009, the child allowances still remain more than 50% lower than they had been prior to the Economic Plan of 2002 – 2003.

In the Work Injury insurance branch, which pays a wage-replacing benefit, the average injury allowance per day for employees and for the self-employed decreased by 4.4% and 13.8%, respectively, compared with 2009. The decrease in the injury allowance to the self-employed in 2010 in effect cancels out the increase to the allowance in 2009.

The average unemployment benefit per day slightly decreased compared with 2009 (the recession during 2009 was characterized by a wave of layoffs, even of highly paid employees). The decrease in the level of the unemployment benefit in 2010 derives apparently from the addition of newly unemployed who had earned low wages and the addition of young people (25% is deducted from the unemployment benefit for which young people are eligible).

No significant change occurred in the level of the maternity benefits compared with 2009; the maternity allowance rose less than 1% in real terms, while the birth grant rose by 1%.

4. Benefit Recipients

In 2010, the number of recipients of old-age and survivors' pensions – from the largest of all of the national insurance branches – rose by 1.5%. The NII paid pensions to 758,500 elderly persons and survivors on average per month (Table 4). In the Children insurance branch, the number of families receiving child allowances rose by 1.8%, as a result of natural population growth. In 2010, child allowances were paid to approximately one million families for approximately 2.47 million children.

The sharp rise recorded in the number of recipients of unemployment benefits between 2008 and 2009 has halted. This sharp rise occurred after the steady decline in the number of recipients of unemployment benefits since 2003 at rates of between 4% and 27% (except during 2005, when the number remained stable). The economic situation, and changes in the eligibility criteria led to fluctuations in the number of recipients of unemployment benefits during the last decade.

Table 4
Number of Recipients of Benefits in the Main Insurance Branches (average per month), 1990–2010

Year	Old-age and survivors	General Disability				Work Injury		Maternity		Children	Unemployment benefits	Income support (for working-age population)	Long-term Care
		General disability pension	Attendance allowance	Disabled child allowance	Mobility allowance	Injury allowance*	Permanent disability pension	Birth grant*	Maternity allowance*	Families receiving children's allowances**			
Number of recipients (thousands)													
1990	442.6	73.5	6.5	5.8	11.4	56.7	11.8	107.7	43.7	532.5	50.6	30.8	25.0
1995	553.9	94.0	10.2	10.3	13.2	84.9	14.6	113.4	55.2	814.7	61.5	74.8	59.0
2001	677.0	142.4	18.9	16.4	19.3	69.1	20.8	127.2	71.2	928.2	104.7	141.8	105.4
2003	709.2	157.3	21.7	18.4	22.3	61.5	23.0	136.4	73.9	939.1	70.5	155.2	113.0
2004	722.3	162.4	22.7	19.5	23.5	65.8	24.0	141.2	77.5	945.6	58.4	144.7	113.4
2005	719.9	170.9	24.0	21.0	24.9	63.9	25.2	148.4	77.0	956.3	58.8	139.9	115.0
2006	727.5	178.3	25.6	22.2	26.1	64.3	26.4	150.6	82.7	968.3	56.0	130.3	120.4
2007	728.9	187.5	27.4	23.8	27.3	67.6	27.8	151.6	86.0	980.6	49.8	120.2	125.4
2008	735.8	195.0	29.4	25.3	28.9	69.7	29.2	152.0	93.6	994.8	48.0	111.8	131.1
2009	746.9	200.1	31.2	26.5	30.4	65.8	30.9	156.4	97.7	1,012.0	73.0	111.8	136.6
2010	758.5	207.2	33.1	27.9	31.6	67.6	32.3	166.7	103.3	1,030.1	57.7	109.4	141.4
Annual increase (percentages)													
1986-1990	2.6	3.4	7.2	7.7	1.5	-0.1	3.6	0.5	0.5	-0.5	20.9	8.6	17.4
1991-1995	4.6	5.0	9.4	12.2	3.0	8.4	4.4	1.8	4.8	8.9	4.0	19.4	18.7
1996-2000	3.5	7.6	10.2	8.2	4.9	-2.1	6.3	3.1	5.0	2.3	8.5	11.4	10.2
2001	3.0	5.2	13.9	7.2	14.9	-9.3	5.1	-3.6	0.8	1.7	13.1	10.6	10.1
2003	2.4	4.5	5.3	5.1	6.7	-12.1	5.5	6.1	3.5	0.4	-27.4	2.6	0.7
2004	1.8	3.2	4.6	6.0	5.4	7.0	4.3	3.5	4.9	0.7	-17.2	-6.2	0.4
2005	-0.3	5.2	5.9	7.2	5.9	-2.9	5.0	–	-0.6	1.1	0.7	-3.3	1.4
2006	1.1	4.3	6.7	6.0	4.7	0.6	4.8	0.5	7.3	1.3	-4.9	-6.9	4.7
2007	0.2	5.2	6.9	7.2	4.7	5.2	5.1	2.5	4.1	1.3	-10.9	-7.7	4.3
2008	0.9	4.0	7.3	6.3	5.9	3.1	5.0	3.3	8.8	1.4	-3.6	-6.8	4.7
2009	1.5	2.6	6.1	4.7	5.2	-5.6	5.8	3.7	4.4	1.7	52.1	0.0	4.2
2010	1.5	3.5	6.1	5.3	3.9	2.8	4.5	6.6	5.7	1.8	-21.0	-2.1	3.5

* The number of different recipients during the year.

** The data for 1985 and 1990 include those families for whom the allowances for the first and second child were reinstated through the employers. In 1993, the allowances became universal once again.

*** When calculating the figure for 2004 and thereafter, the benefit that was split among a few recipients was attributed to only one recipient. The number of recipients for 2004, the calculation of which included all recipients of the split allowance, was 145.6 thousand on average per month

The second largest branch of insurance, the General Disability branch, recorded a 3.5% rise over last year. Since the beginning of the 1990s, the average number of recipients per annum has risen at rates of between 3% and 8%. Regarding benefits deriving from the general disability pension, the increases have continued at rates similar to those in recent years: the number of recipients of attendance allowance rose by 6.1%, the number of recipients of mobility allowance rose by 3.9%, and the number of recipients of benefit for a disabled child rose at the rate of 5.3%.

The Maternity insurance branch recorded a rise of approximately 6% in the number of recipients (of a birth grant and a maternity allowance), while the Long-term Care insurance branch recorded a rise of 3.5%.

The Work Injury insurance branch, which is affected by the employment rates in the economy, recorded a rise of 2.8% in the number of recipients of injury allowance. On the other hand, the number of recipients of permanent disability pension in this branch rose by 4.5%.

In 2010, the downtrend returned in the number of recipients of income support – a decline of 2.1% compared with 2009, the year in which stability in the number of recipients had been recorded for the first time. In 2010, the rate of the decrease in the number of recipients is lower than those observed since 2004 (3%-7% each year). In April 2010, the program motivating benefit recipients to enter/rejoin the labor force, "Lights to Employment," was discontinued. The number of families receiving income support benefits is continuing to diminish even after the shut-down of the program.

5. Collection of Insurance Contributions from the Public and the Sources for Funding Benefits

The NII's payments of benefits are funded from four sources: the collection of national insurance contributions (direct collection from the public and indemnification from the Finance Ministry in respect of the reduction in national insurance contributions imposed on employers and the self-employed), the government's participation in the funding of the contributory benefits, the government's funding of non-contributory benefits, and receipts from interest on the investment of monetary balances, primarily in government bonds. In addition to the collection of national insurance contributions, the NII collects the health insurance contributions and transfers them to the sick funds.

In August 2005, the first stage was implemented in a process that reduced the national insurance contributions imposed on employers. This gradual process continued until 2009 and, ultimately, employers' national insurance contributions were reduced at the rate of 1.5 percentage points. Concurrently, two insurance contribution rates were instituted – reduced rates and regular rates – instead of a uniform rate imposed on all levels of income liable for insurance contributions. This process is part of a more comprehensive

policy initiated during the 1980s of reducing employers' labor costs. It should be noted that the NII had expressed its opposition to this course of action: reducing receipts from collection from the public increases the dependence of the national insurance system on Finance Ministry budgets, and is liable to also indirectly cause a further reduction in the expenditure on benefits.

In early 2006, another reform was instituted that had an impact on the collection by the NII, whereby the reduced rate of insurance contributions imposed on employees was reduced from 1.4% of earnings to 0.4%, the regular rate was increased from 5.58% to 7%, and the reduced-rate bracket was increased from 50% to 60% of the average wage. These changes were made in a zero budget.

Similarly to the policy pertaining to benefits, the average wage by law was not updated between the years 2002 – 2005, and therefore, the brackets for insurance contributions and the minimum income liable for insurance contributions relative to the various categories of insureds were not updated. The freeze on the average wage continued until the end of 2005, and, since 2006, the ceiling has been updated only by the rate of the rise in the index. On the other hand, the reduced rate bracket and the minimum income liable for insurance contributions relative to the various categories of insureds will continue to be updated according to changes in the average wage even after 2006. The change in the methodology for updating the ceiling may, over time, ease the burden on those earning very high wages (see clause 4 above), thus affording them preferential treatment compared with those paying the minimum level of insurance contributions (such as the unemployed and students). On the other hand, continuing to link the reduced-rate bracket to the average wage will avoid increasing the burden of insurance contributions imposed on those earning low wages.

Under the Economic Arrangements Law for 2009 – 2010, the maximum payment for the collection of national and health insurance contributions was doubled, from five to ten times the basic amount, without instituting a corresponding increase in the basic ceiling for calculating wage-replacing benefits. Concurrently, the reduced rate imposed on employers was raised by 0.4 percentage points. These measures work to increase the payments collectible in respect of national insurance contributions from the public and to increase the government's participation. In fact, the additional collection and the additional allocations pursuant to section 32 were transferred in their entirety to the Finance Ministry, since, concurrently, the Finance Ministry's participation in the Children insurance branch was reduced from 210% in 2008 to 169% in 2010.

The NII's receipts from the collection of national and health insurance contributions totaled NIS 47.6 billion in 2010: NIS 29.1 billion for the national insurance branches and NIS 16.3 billion for the health system

A. Collection of insurance contributions from the public

The NII's receipts from the collection of national and health insurance contributions totaled NIS 47.6 billion in 2010: NIS 29.1 billion for the national insurance branches and NIS 16.3 billion for the health system. Added to the above collection from the

public are approximately NIS 2.2 billion that the State Treasury transferred to the NII as indemnification for the reduction in national insurance contributions imposed on employers and the self-employed (under section 32.C of the law).

Table 5 shows that in 2010, the direct collection from the public increased by 7.1% in real terms: the collection of national insurance contributions rose by 7.9% and the collection of health insurance contributions rose by 5.8%. Israel's recovery from the global economic crisis contributed significantly to the increase in collections: had it not been for the legislative amendments instituted in 2009 and 2010, the collection from the public would have increased at lower rates.

The collection as a ratio of the GDP rose slightly, from 5.4% in 2009 to 5.6% in 2010, similarly to the ratio between 2006 and 2008. It should be noted that in 2003, the collection from the public had been at the ratio of 6.3% of the GDP and, since then, the ratio has not exceeded 5.8%. The collection for the health system in 2010 remained at the same ratio of the GDP (2%). The ratio of collection from the public to total direct taxes

Table 5
Collection for the National Insurance and Health Systems, 2006–2010

	2006	2007	2008	2009	2010
	Current prices (NIS million)				
Total receipts of insurance contributions	37,792	39,740	42,402	43,224	47,579
Total collection from the public	36,112	37,910	40,452	41,228	45,346
For national insurance branches	23,554	24,454	25,877	26,233	29,055
For the health system	12,558	13,456	14,575	14,995	16,290
Ministry of Finance indemnification	1,680	1,830	1,950	1,996	2,234
	Indicators of development of collection from the public				
As a percentage of change in real terms					
Total collection from the public	2.2	4.4	2.0	-1.4	7.1
For national insurance branches	1.4	3.3	1.2	-1.9	7.9
For the health system	4.0	6.6	3.6	-0.4	5.8
As a percentage of the GDP					
Total collection from the public	5.6	5.6	5.6	5.4	5.6
For national insurance branches	3.7	3.6	3.6	3.4	3.6
For the health system	2.0	2.0	2.0	2.0	2.0
As a percentage of the direct taxes for individuals					
Total collection from the public	41.1	40.5	43.0	45.8	46.8
For national insurance branches	26.8	26.1	27.5	29.1	30.0
For the health system	14.3	14.4	15.5	16.7	16.8
As a percentage of the direct taxes					
Total collection from the public	28.8	28.7	32.5	35.4	35.6
For national insurance branches	18.8	18.5	20.8	22.5	22.8
For the health system	10.0	10.2	11.7	12.9	12.8

has continued to rise gradually, from 40.2% in 2003 to 46.8% in 2010, as a result of the tax reductions implemented as of 2003 as part of the income tax reform, and as a result of the legislative amendments (raising the ceiling and the insurance contribution rate imposed on employers). Over the last year, collections of both income tax and national insurance have improved,

The changes in the rates of increase in collections differ between employees and non-employees. The collection from employees rose by 7.7% in 2010, and the corresponding collection rate from non-employees rose by approximately 3%, compared with each of the years between 2006 and 2008, when the increase had been at high rates of approximately 10%. Cumulatively since 2005, the real collection from employees rose by approximately 10% compared with the corresponding rise of approximately 37% in collections from the self-employed. These rates can be explained by legislative amendments and by the improvement in the economic situation in Israel, both of which had a significant positive impact on collections. The increase in the average wage in the economy (3.6%), the increase in the number of employee jobs and the deepening of the collection from non-employees in recent years has also contributed to the increase in the volume of collection.

B. Sources for funding the benefits

Table 6 shows that, in 2010, the NII's total receipts for funding the national insurance branches totalled NIS 63.8 billion at current prices. This is a real annual increase of 2% between the two years, primarily as a result of the insurance contribution component, which rose 7.9% in real terms. This rise was set-off by a reduction of approximately 6.6% in the Ministry of Finance's participation, mainly due to the drop in its rate of participation in the Children insurance branch from 210% to 169% since January 2010.

Since 2005, receipts have risen by approximately 12.7% in real terms, primarily due to the increase in receipts from the collection of national insurance contributions. The government's funding of the non-contributory benefits has risen by only 2.2% since 2005, while the interest receipts, which constitute a relatively small ratio of the total receipts, rose in real terms during that period at the rate of approximately 26.7%. When we add the components of the government's participation, the increase is at a higher-than-average rate during that period. The cumulative increase in the government's participation reflects the increase in its share of the collection, as a result of its commitment to compensate the NII for the loss of income subsequent to the reduction in the national insurance contributions imposed on employers under section 32 of the National Insurance Law.[5] Therefore, these trends indicate the NII's growing dependence on government funding of benefits; i.e., erosion of its independence.

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5   The NII reached an agreement with the Ministry of Finance that the ministry's allocations under section 32 of the National Insurance Law shall not be adversely affected due to the reduction in the insurance contributions, and accordingly, the requisite adjustments were prescribed in the law.

Table 6
Sources of Funding of the National Insurance Branches, 1995–2010

Year	Total receipts*	Collection of national insurance contributions**	Government participation***	Government funding of benefits	Interest receipts
		At current prices (NIS million)			
1995	23,581	12,171	4,222	4,650	2,504
2000	41,207	20,751	8,336	8,148	3,907
2004	47,513	23,021	10,996	8,548	4,617
2005	49,705	24,299	11,700	8,616	4,850
2006	52,344	25,234	12,600	8,982	5,290
2007	54,974	26,284	13,888	8,906	5,600
2008	58,525	27,827	14,938	9,245	6,150
2009	60,934	28,229	15,657	9,939	6,666
2010	63,821	31,289	15,014	10,032	7,000
		Real annual increase (percentages)			
2000	7.6	9.8	1.6	10.8	3.6
2004	-0.6	1.3	2.2	-8.9	4.1
2005	3.2	4.2	5.0	-0.5	3.7
2006	3.1	1.7	5.5	2.1	6.8
2007	4.5	3.6	9.6	-1.4	5.3
2008	1.8	1.2	2.8	-0.7	5.0
2009	0.8	1.8-	1.5	4.1	4.9
2010	2.0	7.9	6.6-	-1.7	2.3
		Distribution (percentages)			
1995	100.0	51.6	17.9	19.7	10.6
2000	100.0	50.4	20.2	19.8	9.5
2004	100.0	48.5	;	18.0	9.7
2005	100.0	48.9	23.5	17.3	9.8
2006	100.0	48.2	24.1	17.2	10.1
2007	100.0	47.8	25.3	16.2	10.2
2008	100.0	47.5	25.5	15.8	10.5
2009	100.0	46.3	25.7	16.3	10.9
2010	100.0	49.0	23.5	15.7	11.0

*   Including third-party compensation.
**   Including Ministry of Finance indemnification.
*** Under section 32 (a) of the National Insurance Law.

C. Surpluses/deficits and capital reserves

If we disregard the interest income on the NII's investments, then the trend of a budgetary surplus, which had reached more than NIS 2 billion in 2007 and 2008, has reversed. In 2009, a deficit was generated of approximately NIS 1.1 billion and, in 2010, the current deficit swelled to about NIS 2.3 billion. Contributing to this reversal in trend were: the old-age and survivors' insurance branch, which has tripled its deficit since 2009 and

Table 7
Surplus/Deficit in the NII's Insurance Branches
(current prices, NIS million), 2007–2010

Insurance branch	Excluding interest on investments				Including interest on investments			
	2007	2008	2009	2010	2007	2008	2009	2010
Total	2,285	2,454	-1,126	-2,317	7,885	8,604	5,540	4,683
Old-age and survivors	-366	-406	-1,520	-1,532	1,844	1,964	986	1,058
General disability	-2,927	-2,934	-3,506	-3,541	-2,507	-2,394	-3,076	-3,271
Work injury	-1,104	-1,142	-1,351	-1,451	-914	-902	-1,151	-1,301
Maternity	-1,239	-1,608	-1,999	-2,176	-1,229	-1,558	-2,029	-2,305
Children	11,161	11,960	12,013	10,947	13,791	14,660	15,413	15,017
Unemployment	-1,312	-1,357	-2,468	-1,944	-1,342	-1,356	-2,468	-1,944
Long-term care	-2,000	-2,164	-2,376	-2,658	-1,970	-2,064	-2,377	-2,788
Other	73	107	81	38	213	257	241	218

reached a deficit of NIS 1.5 billion; the Children insurance branch, whose surplus shrank by approximately NIS 1 billion; the insurance branches that provide wage-replacing benefits (the Work Injury branch and the Maternity branch), with the deficit in each of these branches increasing by approximately NIS 150 million; and the Long-term Care branch, which added about another NIS 300 million to its deficit. The Unemployment branch is the only branch that recorded a reduction in its deficit of approximately NIS 0.5 billion. It should be noted that the findings of a simulation conducted show that this trend will intensify in the coming years.

The inclusion of interest receipts on past surpluses improves the financial position of the national insurance branches: nonetheless, the surplus, including interest, plummeted from approximately NIS 8.6 billion in 2008 to NIS 5.5 billion in 2009 and to approximately NIS 4.7 billion in 2010. With the exception of the Old-age and Survivors branch, all the rest of the branches in deficit (excluding interest on investments) remained in deficit even after inclusion of the interest. The renewed downslide into a current deficit receives expression in the deepening deficit in the State budget.

6. Model Analyzing the Financial Strength and the Social Strength of the National Insurance System

A. Introduction

A social security system is designed to mitigate economic damages deriving from risks involved in the life cycle of the present and future population, while striving to maintain the principles of social justice. It is important that the operation of such a system also reduces undesirable affects on the public's behavior and on the development of the

economy, such as factors hindering individuals' and families' attempts to work or save money.

A system's financial strength must be analyzed in order to ensure that the system is viable. A system founded on shaky financial foundations can be expected to collapse and thus be unable to guarantee the public that it will have social security over time. Moreover, the very collapse of the system is liable to cause direct and indirect economic damages to the economy as a whole.

The financial strength of the social security system is also important to the economy and to society in terms of the demand for multi-generational justice: a society that purports to take care of all of its citizens – including those who have not yet been born – must ensure that its social security system is financially capable of supplying an adequate level of services and benefits.

1. Financial strength – a combination of transversality and liquidity

Financial strength is achieved when two component conditions are being sustained simultaneously: the long-term condition of transversality and the short-term condition of liquidity.

The transversality condition is a dynamic concept that is usually defined for an infinite range. This condition mandates that the capitalized value of total receipts less total payments must be positive or at least zero. Transversality does not require balance between receipts and payments in every single period, but rather, only over time. Thus, this condition not only ensures long-term consistency relative to anticipated basic developments, but primarily allows for interaction between the set of laws and the anticipated demographic and economic processes. Transversality does not negate any possibility of consecutive deficits during certain periods, but rather, ensures financial strength in terms of capitalized value. In order to sustain equilibrium during each period (e.g., one or more years), the **liquidity condition** must be examined. This condition is more stringent than the transversality condition, in that it demands equilibrium during each period.

2. Social strength

A set of social indicators measures to what extent the social objectives of the social security system are being achieved. These indicators include, for example, the degree of the system's universality, and mainly, the absolute and relative level of benefits for the given standard of living. Another indicator is the degree of progressivity or congruence between the benefits and the collection, as well as the extent that rights are being exercised.

Disregard of the social implications of the implementation of tools to improve financial strength is liable to lead to solutions being proposed that will empty social security of its raison d'être. Therefore, we will define "strength" as a desirable state of transversality over

time, both in terms of financial strength and in terms of social strength. This strength is, as stated above, a type of multi-generational justice, since its objective is to safeguard a fair level of social security not only for the current generation but also for the generations to come. In order to accomplish this, there must be an assessment of future trends as they derive from the projected demographic and economic evolution. While we have a reasonable amount of knowledge with regard to demographic evolution, it is far more difficult to foresee long-term economic and social processes, if at all.

The Research and Planning Administration has constructed a model to analyze the financial and social strengths of the national insurance system projected over the next few decades. Since a model of this type is forced to rely on many working assumptions, sensitivity analyses of the key assumptions must be performed. Sensitivity analyses are particularly necessary in situations when it is difficult to decide on a reasonable level of key parameters.

B. Demographics

One of the main risks that a social security system faces is inherent in the demographic evolution. In most of the developed countries, the population has been steadily aging; i.e., the ratio of the elderly in the population is growing. On the one hand, the birthrate is dropping, usually parallel to the rise in the standard of living and the increasing number of women joining the labor market, and, on the other hand, the life expectancy is longer. These processes make it difficult to sustain consistent funding of the social security system.

The population in the aforesaid model is based on the updated data of the Central Bureau of Statistics for 2009. At this stage, a forecast for 50 years ahead has been prepared, segmented by gender and age. Plans are to expand the model to distinct population groups, according to their impact on the birthrate and mortality rate. This second stage will differentiate between groups by nationality and religiosity (orthodox and non-orthodox). The current forecast does not yet include a sufficient assessment of the rise in life expectancy, even though it is expected that the characteristic increase in life expectancy over recent decades will continue in the coming decades.[6] At this stage, this assumption is causing a downward deviation in payments, but also a deviation in the receipts of collections and in the volume of the Finance Ministry's participation. This deviation mainly affects the very distant results and not the coming decades. The forecast includes continuing trends with regard to the birthrate and mortality rate, without delving into differences between the various population groups.

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6   The Research and Planning Administration is already working on an improved version, with the assistance of the demographer, Mr. Eliahu Ben-Moshe. The new scenario will include a continued rise in life expectancy. However, it is important to note that three different forecasts of the projected development of the population will be calculated in the model. Notwithstanding the Israeli society's considerable experience with wars, this risk factor has not been taken into account in the forecasts.

The Research and Planning Administration has constructed a model to analyze the financial and social strengths of the national insurance system projected over the next few decades
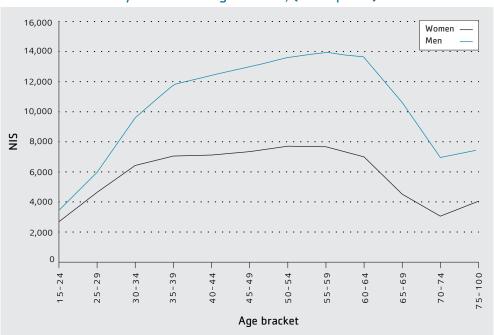
The purpose of the demographic forecast is to enable analysis of alternative developments relating to demography. Contrary to economic forecasts, the demographic data pertain to long-term processes.

C. The economic model – the labor market

Wages – one of the most complicated issues in any examination of financial strength is the matter of forecasting the behavior of the labor market, since the working population has a decisive impact on the development of financial strength. Labor market assumptions primarily affect collection estimates, but also those benefit payments that are affected by the number of employees and the level of their earnings from work (e.g., wage-replacing benefits, such as maternity allowances, work injury allowances and unemployment benefits). Therefore, the model must make assumptions relating to the rate of participation in the labor market and the rate of the increase in earnings from work.

The working population has a decisive impact on the development of financial strength

In order to maintain consistency among the scenarios, it is important to maximize the use of the assumptions inherent in the demographic data and to add assumptions only when unavoidable. One example of this is a determination regarding changes in the real wage in the economy. In the current model, this change is derived from a wage life-cycle model. According to this model, an employee's wage increases according to age and work seniority. Our assessments regarding wage developments were based on the distribution
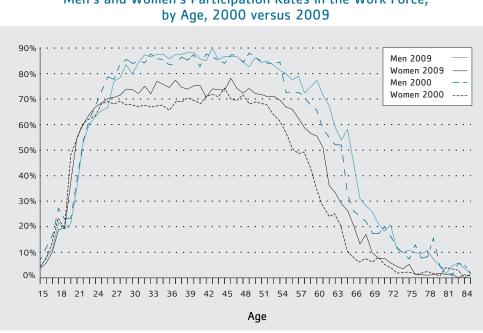
Graph 5
Average Wage During the Years 2000 Through 2009, by Gender and Age Bracket, (2009 prices)

of wages from 2000 through 2009, taken from the Tax Authority's file on earnings from work (Graph 5).[7]

The analysis of the wage of the population of employees shows that the real wage by gender has not changed nearly at all during these years, and that the average rise in the wage derived mainly from the aging of the population (a change in the composition of age brackets in the economy), due to the impact of seniority on the wage during the life cycle (since the higher the ratio of adults in the population, the higher the average wage can be expected to rise). Obviously, this assumption can be revised in the future relative to a change in the average wage after neutralizing the impact of the life cycle.

Participation rates in the labor market – The life-cycle model also reflects the participation rates in the labor market by age and gender (the employed and the unemployed as a ratio of the working-age population). Here too, the national insurance model specifies the participation rate by age and, similarly to the wage distribution ("bell graph"), also the participation rates that may be discerned in the form of a bell graph by age. We used a number of general assumptions regarding anticipated changes in the participation rates of men and women. These changes derived from experience during the last decade. Among young people, a delay has been observed in the age of entry

Graph 6
Men's and Women's Participation Rates in the Work Force, by Age, 2000 versus 2009

7   The rise in the wage over the life cycle, inherent in the historical data of the decade ending in 2009, might not sufficiently reflect the forecasted development of the wage. This assumption will be re-examined at a later stage in the project.

into the labor market, inter alia, as a result of the growing consideration of education as a criterion for success in the labor market. Another prominent characteristic of the period under examination is the rise in the participation rates by middle-aged men, particularly slightly before and slightly after reaching retirement age. It could be that a portion of this increase in the participation rates of middle-aged men derives merely from the gradually raising of the retirement age since the beginning of 2004. Among women, these changes are less evident: the main change among women is a trend that is narrowing the gap between their participation rates and those of men (graph 6). The analysis of this trend during the years 2000 – 2008 indicates some convergence of the participation rates between men and women over time. Nonetheless, it appears that this process is less in play as people approach retirement age.

The model makes no arbitrary assumption regarding the rise in the real wage during the period of the scenario (50 years). The change in the real wages derives from the impact of the composition of ages and genders on it and on the participation rate (which affects the weights of the working population). Therefore, the **average wage in the economy** during the period of the forecast derives from combined assumptions regarding the participation rate and the development of the wage over the life cycle for men and women separately, and, of course, from demographic assumptions. The outcome is that the average wage is not expected to rise among women nearly at all (approximately 0.5% per annum), and among men, the rise is also modest (approximately 1% per annum). This is a significant gap in favor of the men – at the beginning of the period, the average wage (at 2009 prices) was approximately NIS 6,220 for women and approximately NIS 10,200 for men – a gap of 64%. Due to this gap rate, the change over time is expected to increase by the end of the period to 69% – approximately NIS 6,320 for women and NIS 10,600 for men.[8] If the wage gaps between men and women will diminish and if employment practices become more egalitarian, the average wage of women might approach that of men.

D. Receipts

The receipts are the aggregate of the collection of insurance contributions from the public of employers and employees and of the government's participation. The government's participation also includes the Ministry of Finance's indemnification,[9] which reaches about two thirds of the collection from the public. In the final analysis, the government's participation is an expression of solidarity with the social security system, since the principle of universality in benefits and the assumptions regarding collection that consider

In the final analysis, the government's participation is an expression of solidarity with the social security system

....

8   Later on in the project, we will be integrating special research studies on the labor market, which may significantly change the results over time.
9   With the objective of reducing employers' labor costs, the government in the past decided to assume the employers' insurance contributions. Later on, the government reduced the indemnification at the expense of the national insurance receipts (see previous annual surveys).

economic status and other factors, require progressive funding, inter alia, through the tax system. The more progressive the tax system, the higher the solidarity the government shows through its participation. This solidarity has diminished in recent years, because the tax system has become less progressive (mainly as a result of the increase in V.A.T. and the reduction in the progressiveness of the income tax).

The model for receipts from collection from the public is built on a forecast of the development of the participation rate of the working-age population and the post-working-age population in the labor force and on the development of the real wage and the receipts from the self-employed.

In relation to collection, the model enables the key parameters to be revised, include the degree of progressiveness of the national insurance system.

E. Payments (benefits)

As stated, the main purpose of the model is to enable analysis of policy proposals relating to financial and social strength. Therefore, the model is built so that many parameters that are currently prescribed by law may be revised within the scope of simulations. Thus, it is possible to evaluate the benefits and costs relative to financial strength and to social strength. In many instances, they will contradict each other, and the model will enable us to consider which measures will safeguard the necessary equilibrium between these two critical factors.

At this stage, the benefits developed in the model at a reasonable level of detail are the **old-age pension**, the **general disability pension** (other than a work disability), the **child allowance** and the **maternity allowance** (hospitalization grant and maternity allowance). Parameters have been specified that express the principal rules used in each of these benefits, so that parameters in the model may be revised for the purpose of simulations. Therefore, these simulations enable us to scrutinize questions of policy, to analyze their budgetary costs and ascertain whether they are beneficial or detrimental to the insureds.

The **long-term care**, **survivors**, **accident injury**, **work injury**, **unemployment** and **bankruptcy benefits** are handled at this stage according to the relevant populations, and do not allow the parameters to be revised. The expansion of this section to handle these parameters is currently underway.

F. The omnibus account, and the reserve (the balance of assets) as indices of financial strength

The variable that, in the final analysis, determines financial strength is the NII's reserve, since it reflects the accrued inventory of all surpluses (and deficits). The index that is relevant to the degree of strength is the ratio between the reserve and the annual volume of payments, which is called the reserve ratio, or the reserve coverage ratio. If a social security system finds itself with a zero reserve, this means that the system must "eke out a

hand-to-mouth existence." In other words, under this circumstance, the total payment of benefits must be on par with the total receipts, unless the NII can collect more, pay fewer benefits or borrow money. Consequently, a zero reserve is tantamount to "bankruptcy," and therefore, the size of an adequate reserve should be defined.[10] At this stage, we will assume that an adequate reserve needs to cover two to three years of benefit payments. This means that if collections were to be completely halted, benefits could be paid for two to three years until the reserves would be depleted. The assumption is that this is a reasonable length of time to prescribe in an affirmative-action policy. Certainly, in reality, a reserve ratio of two to three years of benefits leaves more than enough time to restore equilibrium to the system, since an assumption of an absolute halt in collections is a worst-case and unrealistic scenario.[11] Naturally, the reserve varies according to the status of the omnibus account – as long as the account has a surplus, the reserve rises, but the minute the account falls into a deficit, the reserve begins to dwindle.

Once we have finished characterizing the model relative to receipts and payments, the results for the omnibus account for national insurance activities may be calculated. The omnibus account is defined as the total receipts from collections, from the government's participation and from the interest receipts, less the total national insurance payments of contributory benefits (including administrative expenses); i.e., the benefits being paid from the national insurance receipts, excluding benefits that are directly funded by the government.

The omnibus account in any given period is added to the reserve retained at the end of the previous year, and thus, if the current receipts are less than the payments, the reserve shrinks until it is completely depleted. Alternatively, if the receipts are higher than the current payments, the reserve swells.

G. Indices of social strength and financial strength

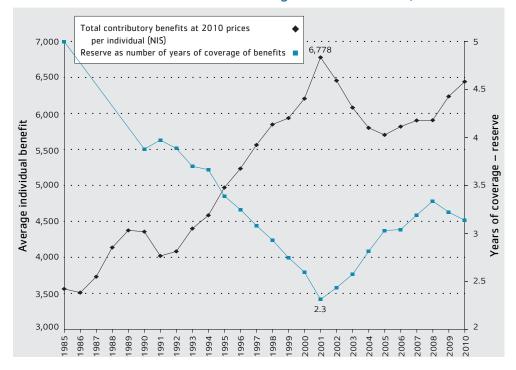The term "strength" expresses the transversality of the social security system.

Analysis of a long historical period also enables us to get an impression of the social strength. One of the indications, even if it is a bit simplistic at this stage, is the development of the average benefit per capita at constant prices (in this case, at 2010 prices): it is calculated as the total payments of benefits divided by the number of persons in the country (Graph 7). Such an index may also be calculated relative to specific benefits (of course, each divided by its specific potential population). This index may be split into two parts: (1) total benefit payments divided by the number of recipients; i.e., the average

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10 Salient questions: what is the optimal reserve that should be maintained, and what factors might impact the optimal size? These questions are not being addressed here, although they do pose interesting hypothetical questions.
11 In Germany, for example, within the scope of the old-age pension, policy-makers decided that the benefits and the collections must be sufficient to cover the scenario whereby the reserve diminishes below one to two months of benefit payments.

Graph 7

Basic Indices for Financial and Social Strength – Historical Data, 1985 – 2010

benefit per recipient; (2) the ratio obtained by dividing the number of recipients by the potential population. The second component constitutes an indicator of the degree of the benefit's universality.

The index of the average benefit per capita in the potential population indicates behavior that is the opposite of financial strength. This graph illustrates that, during the period under examination, the improvement in the financial strength triggered deterioration in the social strength and vice versa. There must be recognition that improvement in one objective is liable to adversely impact the other objective, and that therefore, equilibrium between the two objectives should be sought.

Notwithstanding the fact that the system is financially sound, in Graph 7, one can discern a tradeoff between the index of financial strength and the index of social strength. During most of the period under examination, the indices developed in opposite directions and it was only during the period of robust growth – 2005-2008 – that the indices progressed in tandem in a positive direction. When the recession of 2009 began, the financial strength index was adversely affected to a certain extent. It could be that this also relates to the fact that the improvements in social security were implemented without adequately taking care of funding for those improvements over time, for example, by increasing the collection.

One of the most important factors when analyzing aspects of financial strength is the size of the national insurance reserve (the accumulated principal of the surpluses of collections, of government participation therein and of the interest receipts on those surpluses from the past). Another particularly salient guideline is to look deeper than the billions of shekels held in the reserve, and to calculate the number of years of coverage of the total contributory benefits that those billions represent.

This index indicates financial strength throughout the period under examination, since, even at its low points, the index did not fall below about two and three years. In recent years, the index has risen above three years. This index has a very intuitive interpretation: the value of two to three is a reasonable threshold for target strength, since it leaves policy-makers lead time of two to three years to rectify problems affecting financial strength that pose a risk of depleting the reserve. This is a reasonable length of

Table 8
Indices for Evaluating Financial and Social Strength (percentages)

Year	Surplus				Contributory Benefits		
	As a percentage of the GDP	As a percentage of the reserve (adjusted value)	As a percentage of contributory benefits	The reserve, as the number of years of coverage of the contributory benefits	As a percentage of the GDP	NIS per capita per month at 2010 prices	Interest receipts as a percentage of the reserve
1985	2.3	7.9	39.3	5.0		33	5.3
1986	2.3	-	41.0	-	5.9	48	-
1987	2.6	-	45.4	-	5.7	62	-
1988	2.7	-	44.6	-	5.7	80	-
1989	1.7	-	26.2	-	6.0	101	-
1990	1.7	7.1	27.7	3.9	6.4	118	6.0
1991	3.7	6.2	24.5	4.0	6.2	130	3.7
1992	1.7	7.8	30.2	3.9	5.6	147	4.8
1993	1.3	5.8	21.5	3.7	5.5	176	4.6
1994	1.7	8.0	29.5	3.7	5.8	206	4.4
1995	0.9	4.6	15.6	3.4	5.7	246	4.5
1996	0.7	3.6	11.7	3.2	5.9	288	4.5
1997	0.6	3.1	9.6	3.1	6.2	334	4.5
1998	0.4	1.9	5.6	2.9	6.4	370	4.5
1999	0.3	1.9	5.2	2.7	6.3	395	4.7
2000	0.3	1.8	4.8	2.6	6.2	418	4.8
2001	0.1	0.8	1.8	2.3	6.9	462	4.9
2002	0.3	1.6	3.8	2.4	6.8	465	4.8
2003	0.6	3.4	8.7	2.6	6.6	441	4.9
2004	0.8	4.9	13.9	2.8	6.0	419	4.8
2005	1.1	6.1	18.4	3.0	5.8	417	4.6
2006	1.0	5.9	17.9	3.0	5.6	434	4.7
2007	1.1	6.5	20.7	3.2	5.5	443	4.6
2008	1.2	6.4	21.2	3.3	5.6	464	4.5
2009	0.7	3.8	12.2	3.2	5.9	506	4.6
2010	0.6	3.1	9.5	3.1	6.1	537	4.5

time to take action to rectify problems through policies and legislation. Therefore, this ratio can be used as a financial strength target for the social security system.
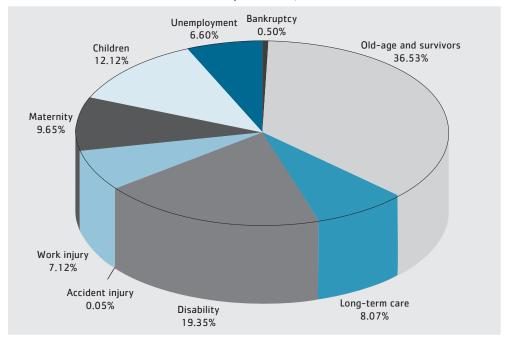
The average yield rate on the national insurance reserves has been quite stable during the last two decades – approximately 4.5% to 5% (Table 8).

H. Trial of the financial strength model

The starting point of any policy exercise relating to financial strength is the baseline scenario, which reflects the existing financial strength situation, without taking into account future policy changes. The baseline scenario in this instance is: maintaining the existing policies and legislation – initial results.

1. Payments

Relative to any given legislation, the payments side is first affected by the demographic forecast and by the developments in the labor market (e.g., the wage-replacing benefits and the seniority increment in the old-age and survivors' pension). Graph 8 shows that more than three quarters of the total payments of contributory benefits under national insurance are explicitly included in the model, while relative to the rest of the benefits, the extent of the payments is influenced by the size of the relevant populations.

Graph 8
Contributory Benefits, 2009[12]

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12 The model has already developed the benefits for old-age and survivors, children, maternity and disability.

Table 9
Composition of Benefits at the Beginning of the Period and Prospectively (percentages), 2009 and 2059

Insurance branch	2009	2059	Change – percentage points	Average annual growth rate
Total	100	100		1.8
Old-age and survivors	37	39	2.0	2.0
Long-term care	8	14	6.0	3.0
General disability	19	20	1.0	1.9
Work injury	7	6	-1.0	1.6
Maternity	10	7	-3.0	1.1
Children	12	10	-2.0	1.4
Unemployment	7	4	-3.0	0.6

The survivors, long-term care, unemployment and work injury benefits are still linked to the relevant demographic statistics in each case by way of the total expenditure of each item; i.e., without specifying the parameters under the law.
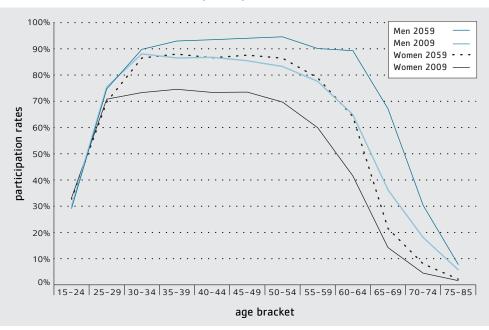
According to the results of the model (Table 9), if the policy will continue without any special amendments to the National Insurance Law, the total payments of benefits will increase over the next 50 years by 1.8% per annum. Some increase will occur in each of the benefit categories: the payments for old-age and survivors' pensions, long-term care and general disability will increase faster than the average increase, while the work injury, maternity, children and unemployment benefits will increase at a slower pace. The fastest increase is expected to be in long-term care and in old-age and survivors' pensions.

2. Receipts

The receipts side is affected by the collection, by developments in the labor market (the employment rate and the income from wages and from independent work) and by the government's participation, which is in addition to the collection for national insurance. The receipts are also affected by the interest that national insurance is accruing on surpluses from past collections.

Graph 9 illustrates the development of the labor market as generated from the baseline scenario.

According to the life-cycle assumptions regarding participating in the labor force and, as a result of the development of the composition of the age brackets (which does not yet sufficiently take into account the need for increasing the life expectancy), the total participation rate is expected to increase over time from 57% in 2009 to approximately 62% at the end of the period under examination (Graph 9). The assumptions regarding the life cycle led to a greater increase in participation among women (by about one percentage point over a period of 50 years). This represents a negligible narrowing of the gap between the genders relative to participation in the labor market and relative to any increase in the participation rate, which apparently, inter alia, is due to women

According to the results of the model, the payments for old-age and survivors' pensions, long-term care and general disability will increase faster than the average increase, while the work injury, maternity, children and unemployment benefits will increase at a slower pace

Graph 9
Labor Market Participation Rates – Gaps between the Genders, by Age,
2009 (actual) versus 2059

retiring earlier than men. According to our assessment, the retirement age itself affects participation in the work force as people approach retirement age.

Considering the stability of the wage structure between 2000 and 2009, we assumed, at this stage, that this phenomenon will continue in the future as well. This assumption may be revised in the future, both by way of sensitivity analyses and on the basis of a long-term macro-economic study. The known phenomenon of higher wages among men than among women over time can also be discerned. It is interesting to note that, notwithstanding the stability in the relative wage distribution, the graphs indicate a moderate rate of increase in the real wage for both genders. It is reasonable to assume that the wage gaps will steadily narrow over time. This hypothesis will be re-examined at a later stage. At this stage, we assumed that the relative distribution of the earnings from work by age will not change, but, since the age structure varies depending upon the population forecast, a rise in the real wage derives not only from changes in the participation rate, but also from the changes in the age and gender composition over time. In the future, the model will be analyzed for relevant sub-categories and adjusted according to the latest information[13] and the results of the study.

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13 Thus, for example, one important variable that cannot be satisfactorily accessed at the NII is the education variable. It is known that this is an important variable in the context of the distribution of income from work and even in the context of participation in the work force.
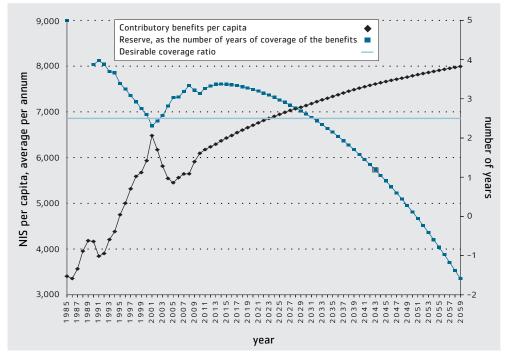
3. The omnibus account and the national insurance reserve – financial strength indices

The model described above enables calculation of the total projected surplus collection from the development of payments and receipts, and from the development of the reserve, and the ratio between the reserve and the annual volume of payments (the reserve's coverage ratio).

According to the assumptions in the baseline scenario, the model points to a problem that steadily intensifies as of 2014, in which the reserve ratio reaches a peak of approximately 3.5 years of coverage. If no policy adjustment is made between now and 2031, the system will reach the desirable reserve ratio of 2.5 years of benefits by around 2030, but will be completely depleted by around 2050.

The model enables the construction of alternative policy scenarios that could gradually lead to a state of both financial and social strength. Under the current scenario, which is based on the continuation of demographic trends without instituting a policy to rectify the financial strength problem, one can see that social strength will improve while financial strength will deteriorate. The challenge is to institute a policy that will overcome the deterioration in the financial strength indices while safeguarding a reasonable level of social strength.

According to the assumptions in the baseline scenario, the system will reach the desirable reserve ratio of 2.5 years of benefits by around 2030, but will be completely depleted by around 2050

Graph 10
The Status of Strength under the Baseline Scenario versus Full Financial and Social Strength, Data for 1985 – 2009, Estimates for 2010 – 2059

Graph 10 seems to indicate that a financial strength problem will arise in about another 20 years, given the indices' relevant assumptions and the accuracy of the model itself. However, even if these conditions are acceptable to us, we still must verify that all benefits being paid indeed need to be included in the social security system.

The Policy for Improving Financial Strength

The primary factor for sustaining financial strength is inherent in demographic evolution, which in many countries, including Israel, indicates the aging of the population. On the one hand, the social security system's expenses are heavily devoted to the elderly population, whether for old-age pensions or for long-term care benefits. On the other hand, according to the "pay as you go" methodology, in which the actively working population is responsible for funding these payments, pressure is also applied to the other source of funding. The accumulated reserve is that important source that contributes to alleviating the financial pressure on the social security system. In Israel, the reserve has been accumulating over the years, with the surpluses invested in government bonds. As stated above, throughout the history of the social security system in Israel, the government has always met its repayment obligations, both of principal and of interest. And indeed, these receipts have been used over the years to some extent to fund the current activities of the NII.

Nonetheless, the graph below shows that the financial strength problem clearly illustrated in the bar entitled "no policy" should not be disregarded, since, although the reserve is sufficient according to this scenario to cover annual benefit payments for approximately three years, the trend with no policy indicates a persistent adverse impact on this ratio, which is expected to drop below the desired level (2.5 years) by about 2031, and, by the end of the period under examination (2059), the reserve is liable to be completely depleted.

One conclusion that may be drawn from this is that Israel's financial strength problem is **not acute**, and is in a far better position than other countries, since it enables us to consider our courses of action prudently and without haste. However, the result shows that Israel must seek a permanent solution to the problem. Therefore, in the final analysis, the focus should be on the extent of the problem (and, in this regard, the assessment is liable to be revised during the coming year, since the Research and Planning Administration will be investing significant resources in improving the contingent forecasts).

Various policy scenarios

Following are four proposals for improving the situation (Table 1):

Proposal 1: raising the retirement age for women (the conditional age) from the current age of 62 to 64, while leaving the absolute age at 67. According to current
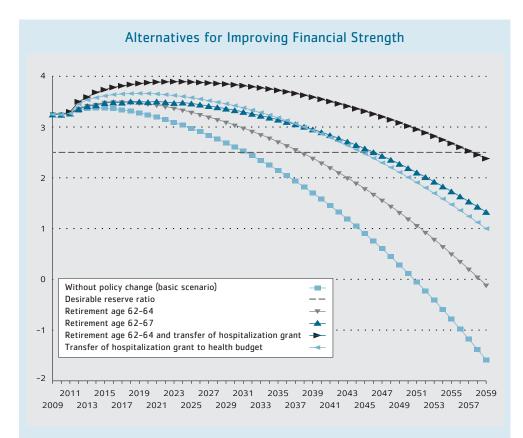
estimates (which still might change), the reserve coverage ratio will drop below the desired level (approximately 2.5 years) by about 2037. This proposal will postpone the problem for approximately six years, which may be very valuable, since many scenarios could occur during this period, for better or for worse. The six-year breather would also afford us the time to study the quality of the model and its forecasts.

Proposal 2: The NII is currently obliged to fund the hospitalization "grant." At issue is the funding of the hospitalization costs of women giving birth. This is actually financing expenses for the health system, although in fact a substantial portion of the costs are incurred due to the large number of premature babies, who are patients in the full sense of the word. It would therefore be more appropriate if these costs were to be funded by the health budget, as was done a few years ago, but then discontinued, inter alia, due to inefficiency in the funding. The NII can certainly continue to fund the hospitalization cost, but if it causes a financial strength problem, it would seem to be important to ensure the correct recording of these payments; i.e., to record them as a transfer to the health budget. This solution requires that the current volume of collection of national insurance contributions be left unchanged.

Since the majority of the benefits are directed to the elderly population, sooner or later this demographic evolution will lead to a financial strength problem. The solution of transferring the hospitalization payments, while maintaining the volume of collection, improves financial strength and postpones the drop below the desirable

Main Assumptions Underlying the Proposals

Year	No policy change / Retirement age of women	Proposal 1 / Gradual raising of women's retirement age to 64	Proposal 2 / Transfer of the hospitalization "grant" to the health budget without changing the volume of collection	Proposal 3 / Gradual raising of women's retirement age to 67	Proposal 4 / Combination of proposals 1 and 2
2011	62	62	11,210	62	62
2012	62	63	0	63	63
2013	62	63	0	63	63
2014	62	63	0	63	63
2015	62	64	0	64	64
2016	62	64	0	64	64
2017	62	64	0	64	64
2018	62	64	0	65	64
2019	62	64	0	65	64
2020	62	64	0	65	64
2021	62	64	0	66	64
2022	62	64	0	66	64
2023	62	64	0	66	64
2024 -2059	62	64	0	67	64

Alternatives for Improving Financial Strength

Legend:
- Without policy change (basic scenario)
- Desirable reserve ratio
- Retirement age 62–64
- Retirement age 62–67
- Retirement age 62–64 and transfer of hospitalization grant
- Transfer of hospitalization grant to health budget

coverage level by another eight years, i.e., until 2045. Clearly, this solution would require an increase in resources for the health system. This solution is important because it provides more accurate calculations, and also regulates each body's responsibility for its own expenses.

A very similar result is obtained by raising the retirement age of women to 67 (**Proposal 3**).

Proposal 4 offers an interesting combined solution, whereby the retirement age of women is raised to 64, the national insurance receipts are not reduced, and the hospitalization payments are transferred to the health system (this more correctly delegates the responsibility to each body for its own expenses).

The birthrate In Israel is still far higher than that in countries in a similar economic situation. Therefore, Israel has an adequate degree of freedom to prudently analyze the extent of the problem and to choose a policy that minimizes possible damage to the social security system.