CHAPTER VI

MAIN RESULTS

A. COVERAGE

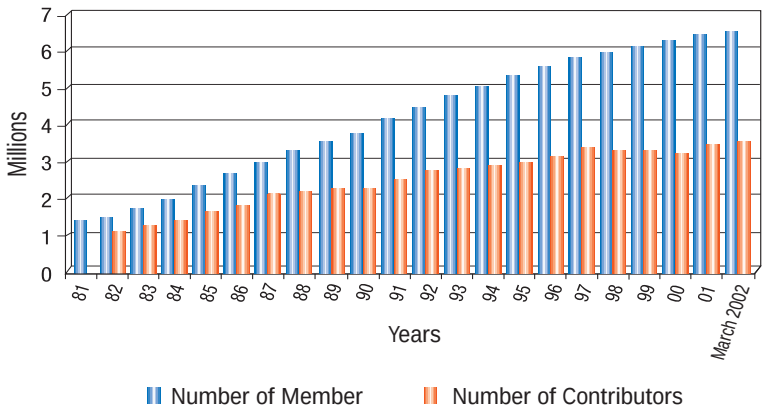
The number of members in the Individual Capitalization Pension System has grown from 1.4 million in 1981 to 6.5 million in March 2002, which means an increase of 361.3% and an average growth of 7.8% per annum. Meanwhile between 1982 and March 2002 the number of contributors increased from 1.1 to 3.5 million, which means a growth of 231.7% and 6.1% on average per annum.

Table Nº VI.1
DEVELOPMENT OF CONTRIBUTORS AND MEMBERS
(As of December each year)

Years	Number of Members (1)	Number of Contributors (2)
1981	1,400,000	n.a.
1982	1,440,000	1,060,000
1983	1,620,000	1,229,887
1984	1,930,353	1,360,000
1985	2,283,830	1,558,194
1986	2,591,484	1,774,057
1987	2,890,680	2,023,739
1988	3,183,002	2,167,568
1989	3,470,845	2,267,622
1990 (3)	3,739,542	2,289,254
1991	4,109,184	2,486,813
1992	4,434,795	2,695,580
1993	4,708,840	2,792,118
1994	5,014,444	2,879,637
1995	5,320,913	2,961,928
1996	5,571,482	3,121,139
1997	5,780,400	3,296,361
1998	5,966,143	3,194,755
1999	6,105,731	3,262,269
2000	6,280,191	3,196,991
2001	6,427,656	3,450,080
March 2002	6,458,117	3,516,454

(1) Active members are those who are not yet receiving a pension.
(2) This corresponds to members who paid contributions in December each year.
(3) Data of contributors corresponding to November 1990, because in December that year an unusual process was carried out to clarify misplaced contributions, with the result that the December figures are not representative.

Figure Nº VI.1
CONTRIBUTORS AND MEMBERS DEVELOPMENT
(Data for December each year)



Among other factors, the difference between active members and contributors reflects job loss, members leaving the work force, delays in the payment of contributions to the Administrators because they are being withheld by employers, misplacement of contributions due mainly to mistakes in information, and the non-payment of contributions by self-employed members who contribute voluntarily[56].

The coverage of the Individual Capitalization System has been a matter of constant interest, partly at least because of the difference existing between the figures for members and contributors, a situation explained above.

It is considered that neither the ratio of members to the total work force nor the proportion of contributors with regard to the work force constitute appropriate measures of coverage. In fact, taking the active membership as a measure of coverage would constitute an overestimation of the real coverage[57], because the measurement would include every person who entered the System at some point of his/her working life and is neither receiving a pension nor deceased, but he/she would not necessarily receive the benefits of the System because these are directly related to the contributions paid. On the other hand, if the statistics for contributors are used, this would produce an underestimate of the real coverage, because it would include only those members who contributed in a particular month for wages accrued in the previous months and would possibly

[56] None of the situations mentioned implies the loss of membership status.
[57] As may be seen in the first column of Table NºVI.2, since 1997 the number of members has been greater than the country's workforce.

exclude employed workers who would be entitled to the benefits of the System, even though they had not contributed in that particular month.

To obtain an indicator of the coverage of the Chilean Pension System, it is important to analyse the percentage of the workforce represented by the total number of workers covered by the Individual Capitalization System. The following table shows the coverage, including both members and contributors, while also giving a measurement approximating to the real coverage. This includes members with fewer than twelve months without movement in the account, in other words, those who have made contributions within the past year[58].

Table N° VI.2

COVERAGE OF THE AFP SYSTEM COMPARED WITH THE TOTAL WORK FORCE

(As of December each year)

Years	Members/ Work force	Contributors/ Work force	Coverated Members(1)/ Work force
1982	39.0%	29.0%	n.d.
1983	43.0%	33.0%	n.d.
1984	51.0%	36.0%	n.d.
1985	57.0%	39.0%	n.d.
1986	60.1%	41.1%	n.d.
1987	65.3%	45.7%	n.d.
1988	68.4%	46.6%	n.d.
1989	72.2%	47.2%	56.8%
1990	76.5%	46.8%	58.9%
1991	82.5%	49.9%	61.8%
1992	85.3%	51.8%	63.8%
1993	86.3%	51.2%	63.8%
1994	90.3%	51.9%	65.1%
1995	96.1%	53.5%	67.0%
1996	99.5%	55.7%	68.1%
1997	101.7%	58.0%	68.7%
1998	102.0%	54.6%	68.3%
1999	102.9%	55.0%	66.6%
2000	107.0%	54.5%	68.5%
2001	108.1%	58.0%	69.0%
March 2002	109.2%	59.5%	69.7%

(1) Covered Members refers to those members with fewer that twelve months in their account with no movement.

[58] It should be remembered that those employees who are out of work at the time when the event /accident occurs, maintain their right to the disability and survivorship insurance, as long as the disability or death occurs within a period of twelve months since the last contribution, and the worker has paid at least six monthly contributions in the year prior to the first month of unemployment.

It is worth emphasizing that the measurement of coverage described above includes only the workers covered by the Individual Capitalization System. However, in order to measure total social security coverage it is also necessary to consider the contributors belonging to the Old Social Security System. The available information about this latter system concerns only contributors, so the fact of adding them to the members covered by the New System will result in a slight underestimate of the total coverage.[59]

Table N° VI.3
COVERAGE OF THE SOCIAL SECURITY SYSTEM
(As of December each year)

Years	Covered Members/ Work force	Contributors Old System/Work force	Covered Members + Contributors Old System/ Work force
1989	56.81%	8.12%	64.93%
1990	58.91%	7.52%	66.43%
1991	61.82%	7.03%	68.85%
1992	63.84%	6.47%	70.31%
1993	63.82%	5.66%	69.48%
1994	65.11%	5.04%	70.14%
1995	66.99%	5.10%	72.09%
1996	68.07%	4.62%	72.69%
1997	68.71%	4.02%	72.73%
1998	68.31%	3.76%	72.07%
1999	66.58%	3.48%	70.06%
2000	68.48%	3.46%	71.94%
2001	69.00%	3.05%	72.05%
March 2002	69.73%	n.a.	n.a.

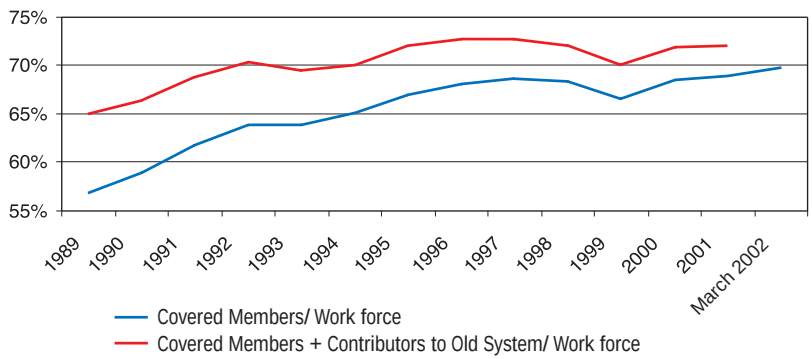
The coverage measured between December 1989 and December 2001, including workers covered by both systems, has varied between 65% and 73%.

Using this measure of coverage with regard to the work force, it may be observed that the coverage at the present time is greater than that of the

[59] It is considered that the underestimate of total coverage will be small because the people contributing under the Old System represent approximately 3% of the work force. The coverage of the total social security system is also underestimated because there is no information about members of the Armed Forces and Police, who are included in the work force and in the numbers of employed, but not counted as contributors, even though they are covered by their own systems.

Old System in its last four years before the Individual Capitalization System came into being. The statistics indicate that from 1976 to 1980 the coverage of the Social Security System then in existence, i.e. the pay-as-you-go system alone, averaged 67% of the work force, with a clear downward trend. By contrast, the coverage of the Social Security System as a whole in the past four years (1998-2001) averages 71.5% of the work force.

Figure Nº VI.2
DEVELOPMENT OF SOCIAL SECURITY SYSTEM COVERAGE
(As of December each year)



B. BENEFITS

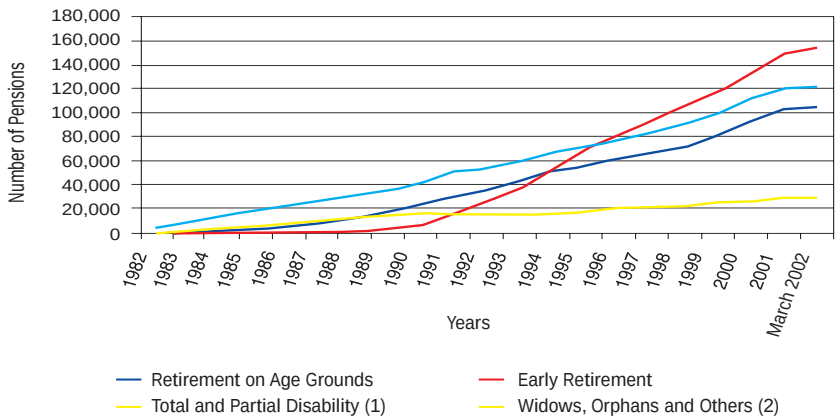
1. Pensions by Type

For the period December 1991-March 2002[60] it may be seen that the early retirement pension was the type which developed most rapidly. It showed a growth of 884%, with an average increase of 25% per year. This may be due in part to the fact that since 1991 members have been able to entrust the sale of their Recognition Bond on the Stock Market to their AFP. At that same period, retirement pensions increased by 249%, with an average annual increase of 13%, and a more rapid growth is expected over the next few years. Disability pensions are those which

[60] This period was chosen because legal changes were introduced in 1990 and 1991 which affected early retirement pensions and disability pensions, meaning that data for chosen period was not comparable with data from earlier years.

have had the lowest growth rate, reaching an average of 6.5% per year. The development in the number of pensions paid out by the System each year may be seen in Figure VI.3.

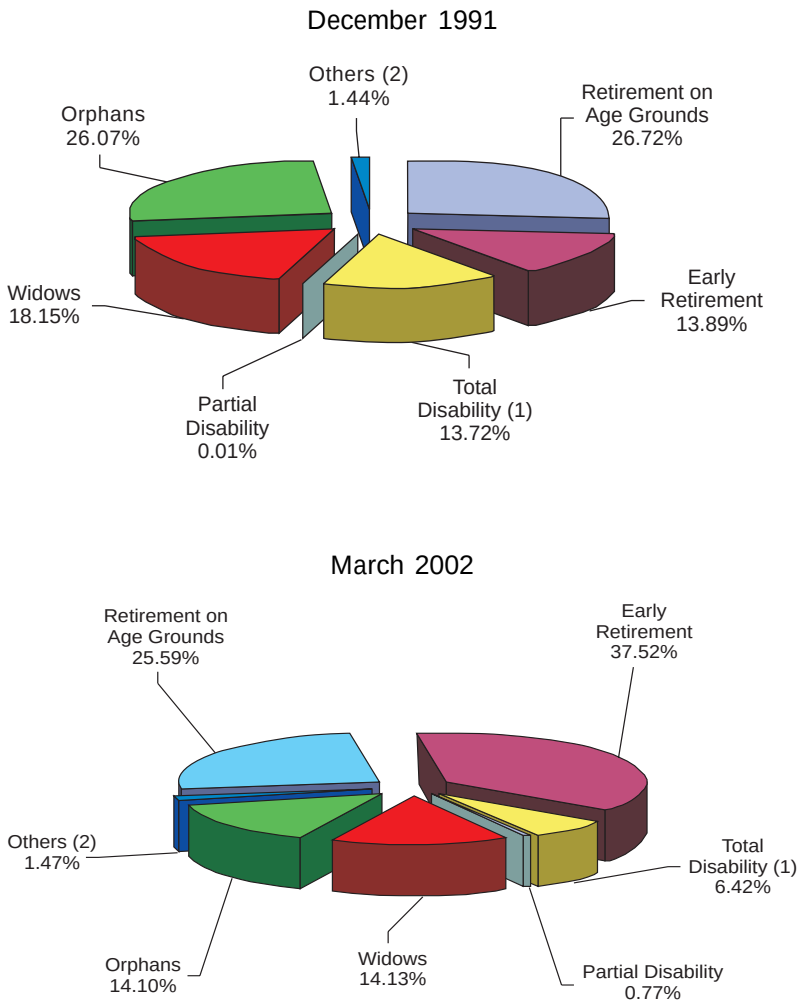
Figure Nº VI.3
NUMBERS OF PENSIONS
(As of December each year)



(1) Does not include transitory disability pensions.
(2) Corresponds to pensions granted to mothers of offspring from a non-marital relationship and to the member's parents.

The distribution of pensions in December 1991 and in March 2002 may be seen on the following charts. As may be seen, of the total number of pensions paid in the System, the largest percentage in 1991 corresponds to retirement pensions claimed by people reaching the legal retiring age (26.7%) and in March 2002 to early retirement pensions (37.5%). The second place for 1991 is held by orphans' pensions (26.1%), while in March 2002 this place is occupied by retirement pensions (25.6%).

Figure Nº VI.4
DISTRIBUTION OF PENSIONS PAID IN THE SYSTEM

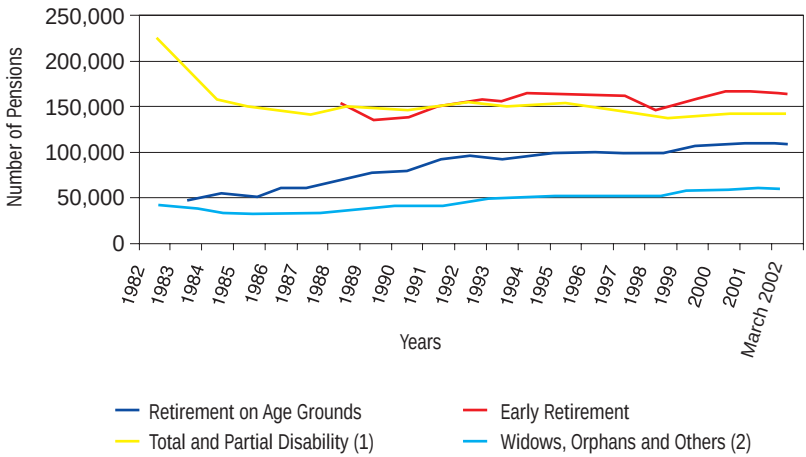


(1) Does not include transitory disability pensions.
(2) Corresponds to pensions to mothers of offspring from a non-marital relationship and the member's parents.

On the other hand, in the following graph it is possible to see that the average amount of pensions paid has not varied greatly. Retirement pensions have had a continuous growth: the growth in the average amount between December 1991 and March 2002 being 21.4%. Early

retirement pensions began to be claimed as from 1988 and their average amount has remained practically constant. Disability pensions, on the other hand, showed a decrease in the average amount until 1987, since when they have remained practically constant. Finally, it may be observed that the amount for widows and orphans pensions has shown an increase over the period (3.5% average per year in real terms).

Figure Nº VI.5
AVERAGE AMOUNT BY TYPE OF PENSION
(In pesos as of March 2002)



(1) Does not include transitory disability pensions.
(2) Corresponds to pensions to mothers of offspring, with a non-marital relationship and parents of the member.

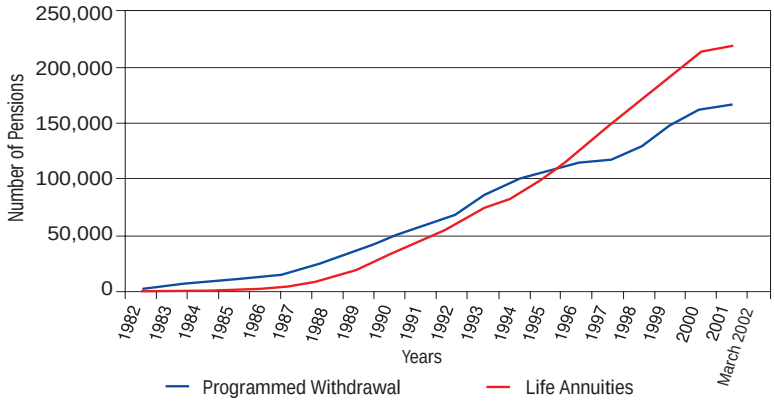
2. Pensions by Option

The two main pension options, programmed withdrawal and life annuity, have grown steadily and their development is shown in Figure Nº VI.6.

Life annuities have shown a more rapid growth since 1988, because since 1987 it has been permissible to transfer the Recognition Bond to the Insurance Company, thereby allowing the member to acquire a life annuity in the case of early retirement[61]. The average annual growth rate in life annuities between 1987 and March 2002 has been 36%, while in programmed withdrawals the rate has been 19.4% for the same period.

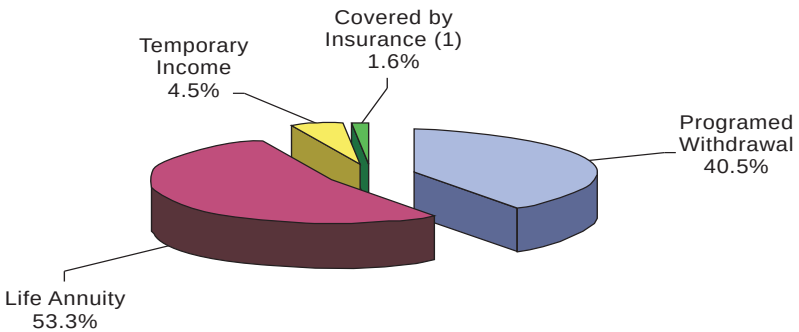
[61] Law Nº 18,646 of 29th August 1987.

Figure Nº VI.6
NUMBER OF PENSIONS BY OPTION
(As of December each year)



It may be seen that, from 1997 onwards, life annuities have overtaken programmed withdrawal as regards the number of people receiving pensions using that option. In March 2002, 219,256 people were receiving pensions by life annuity and 166,507 people by programmed withdrawal. The distribution of pension options may be seen in Figure Nº VI.7.

Figure Nº VI.7
PENSIONS BY OPTION
(As of March 2002)



(1) Corresponds to pensions being paid according to the "Covered by Insurance" method which existed before the modifications introduced to DL 3,500 by Law Nº 18,646 (29th August 1987).

3. Freely-Usable Surplus

As mentioned in Chapter IV, whatever the pension option chosen by the member, he/she may request the Freely-Usable Surplus, providing that the following conditions are met: the pension obtained is greater than 120% of the minimum pension guaranteed by the State and over 70% of his/her average monthly taxable income for the past ten years. This surplus may be withdrawn by the member to be used for whatever purpose he/she considers appropriate.

During the month of March 2002, a total of 1,583 members withdrew their Freely-Usable Surplus, involving the amounts given below:

Table VI.4
NUMBER AND AVERAGE AMOUNT PAID PER MONTH IN FREELY-USABLE SURPLUSES
(As of 31st March 2002)

Type of Pension	FUND TYPE 1		FUND TYPE 2	
	Number	Average Amount in UF	Number	Average Amount in UF
Retirement	262	218.02	1	352.81
Early Retirement	1,265	117.78	1	137.06
Total Disability	53	110.47	0	0
Partial Disability	1	5.00	0	0

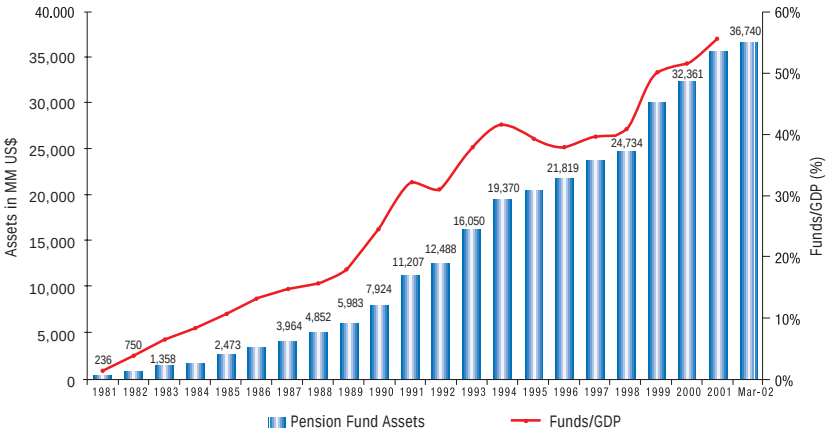
C. INVESTMENTS

1. Financial Structure of the Pension Funds

1.1 Assets

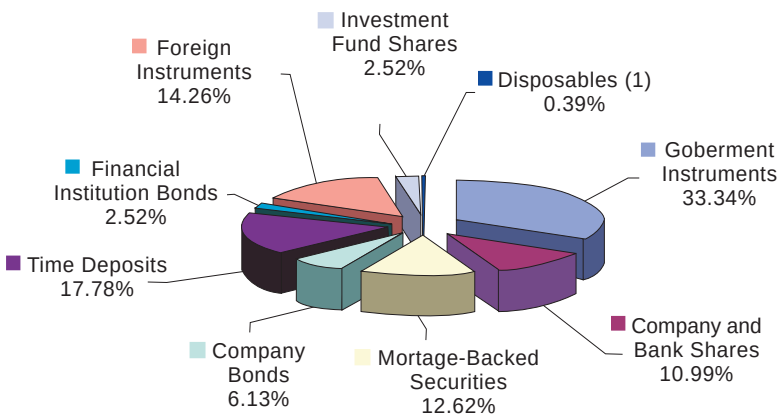
Since the creation of the System, the Pension Funds have grown on average at a real annual rate of 28.3%, reaching a value of 24,073,749.62 million pesos in March 2002, equivalent to 36,703.38 million dollars. In the past five years the growth of the Funds has averaged 10.4% per year in real terms.

Figure Nº VI.8
DEVELOPMENT OF THE PENSION FUND
(In dollars as of March 2002)



The Pension Funds have also increased their shares compared with the size of the Chilean economy, representing 55% of the GDP in December 2001.

Figure Nº VI.9
COMPOSITION OF PENSION FUND PORTFOLIO
(As of March 2002)



(1) Includes derivatives and local disposable assets.

As regards the composition of the Pension Fund portfolio by instrument, Figure VI.9 shows that a third of this portfolio is invested in government securities and a similar percentage in debt securities from the financial sector. Taken as a whole, investment in fixed income securities from local and foreign issuers accounts for 76.2% of the Pension Funds. With regard to investments in equities, 13.3% of the social security portfolio corresponds to capital securities from local issuers and 9.6% to foreign capital securities.

Within the state sector, with a concentration of 33.3% of the social security resources, i.e. 12,247.24 million dollars, the most outstanding are the instruments issued by the Central Bank of Chile (28% of the value of the Funds) and the investment in Recognition Bonds (5.3% of the value of the Funds) which members of the System trade on the market in order to be able to take early retirement.

In the local financial sector, with a concentration of 33.1% of the social security resources, 12,155.23 million dollars, most investment takes place in deposits and promissory notes from financial institutions and in mortgage-backed securities. 17.8% of the total value of the Pension Fund is invested in time deposits and promissory notes, while 12.6% is invested in mortgage-backed securities which finance house purchase. Other financial sector securities acquired by the Pension Funds are bonds, shares and forwards in currencies issued by local financial companies.

Meanwhile, Pension Fund investment in the company sector, amounting to 19% of the total, equivalent to 6,981.64 million dollars, is distributed in the following manner: 10.4% of the value of the Funds is invested in company shares, 6.1% in bonds and convertible bonds, and 2.5% in investment fund shares.

Finally, as regards investment in foreign securities, which amounts to 14.3% of the value of the Pension Funds, i.e. 5,239.2 million dollars[62], this is channelled mainly into foreign mutual fund shares (9.3% of the Fund), followed by participation in debt securities (4,4% of the Fund).

1.2 Liabilities

The liabilities of the Pension Funds are made up almost entirely of net worth; in fact in March 2002, 98.8% of the liabilities of the Type 1

[62] If indirect investment abroad is added to this, investment carried out through local investment fund shares, it may be considered that 14.46% of the value of the Pension Funds (5,314.76 million dollars) is invested abroad.

Fund[63] corresponds to net worth, while in the case of the Type 2 Fund[64], this percentage rises to 99%.

The net worth of the Pension Fund is made up of the individual capitalization accounts, the voluntary savings accounts and the compensation savings accounts. It also includes misplaced contributions and revenue which is in the process of being credited to personal accounts. In March 2002, 98.5% of the net worth of Type 1 and Type 2 Pension Funds corresponds to individual capitalization accounts belonging to active and passive members, 0.6% to voluntary savings accounts, 0.4% to misplaced contributions, 0.3% to contributions in process of being credited and 0.2% to compensation savings accounts.

The main enforceable liabilities include the revenue for the month which, once classified, is transferred to the respective personal accounts of the Fund's net worth, the amount corresponding to benefits accrued by members and commissions accrued by the AFPs, and the obligatory reserve which has to be held by the Administrators and is invested in Pension Fund Units. As of March 2002, enforceable liabilities corresponded to 1.2% of the System's total liabilities.

[63] This Fund corresponds to Fund Type C, as from the legal modification that set up the multifunds.

[64] This Fund corresponds to Fund Type E, as from the legal modification that set up the multifunds.

Table Nº VI.5

PENSION FUND LIABILITIES

(March 2002)-(In thousands of pesos)

TYPE 1 FUND:

AFP	ENFORCEABLE LIABILITIES		FUND'S NET WORTH												TOTAL LIABILITIES	
			Individual Capitalization Accounts		Voluntary Savings Accounts		Compensation Savings Accounts		Misplaced Contribution		Revenue in Process of Accreditation		Others New Worth Accounts			
CUPRUM	43,688,235	1.1%	3,718,772,403	97.3%	35,351,899	0.9%	993,891	0.0%	4,889,348	0.1%	18,326,639	0.5%	0	0.0%	3,822,022,415	100%
HABITAT	58,660,103	1.1%	5,338,065,291	97.3%	41,127,628	0.7%	6,993,649	0.1%	21,009,142	0.4%	18,928,554	0.3%	0	0.0%	5,484,784,367	100%
MAGISTER	8,504,253	1.3%	661,937,762	98.1%	2,247,445	0.3%	412,349	0.1%	1,609,655	0.2%	93,953	0.0%	0	0.0%	674,805,417	100%
PLANVITAL	7,453,045	1.1%	651,877,051	97.5%	1,190,780	0.2%	1,729,143	0.3%	5,975,896	0.9%	0	0.0%	63,830	0.0%	668,289,745	100%
PROVIDA	93,093,713	1.2%	7,412,971,938	97.0%	35,743,390	0.5%	17,016,113	0.2%	40,909,097	0.5%	42,344,840	0.6%	0	0.0%	7,642,079,091	100%
SANTA MARIA	33,722,505	1.1%	3,026,338,231	97.5%	15,851,216	0.5%	9,491,004	0.3%	20,000,372	0.6%	105,318	0.0%	304	0.0%	3,105,508,950	100%
SUMMA BANSANDER	34,666,139	1.3%	2,617,177,870	97.8%	15,154,840	0.6%	2,664,044	0.1%	6,582,641	0.2%	0	0.0%	0	0.0%	2,676,245,534	100%
TOTAL	279,787,993	1.2%	23,427,140,546	97.3%	146,667,198	0.6%	39,300,193	0.2%	100,976,151	0.4%	79,799,304	0.3%	64,134	0.0%	24,073,735,519	100%

TYPE 2 FUND:

AFP	ENFORCEABLE LIABILITIES		FUND'S NET WORTH												TOTAL LIABILITIES	
			Individual Capitalization Accounts		Voluntary Savings Accounts		Compensation Savings Accounts		Misplaced Contribution		Revenue in Process of Accreditation		Others New Worth Accounts			
CUPRUM	73,374	1.0%	6,864,308	95.6%	210,139	2.9%	10	0.0%	35,357	0.5%	700	0.0%	0	0.0%	7,183,888	100%
HABITAT	46,498	1.0%	4,371,142	91.9%	295,001	6.2%	0	0.0%	0	0.0%	43,438	0.9%	0	0.0%	4,756,079	100%
MAGISTER	6,320	1.0%	624,228	98.2%	5,254	0.8%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	635,802	100%
PLANVITAL	9,042	1.5%	585,056	98.0%	3,015	0.5%	4	0.0%	3	0.0%	0	0.0%	0	0.0%	597,120	100%
PROVIDA	85,413	1.0%	7,951,951	94.5%	371,226	4.4%	0	0.0%	1,908	0.0%	0	0.0%	0	0.0%	8,410,498	100%
SANTA MARIA	12,208	1.0%	1,156,761	96.0%	36,477	3.0%	0	0.0%	44	0.0%	0	0.0%	0	0.0%	1,205,490	100%
SUMMA BANSANDER	11,709	1.0%	1,134,508	97.6%	14,990	1.3%	0	0.0%	1,417	0.1%	0	0.0%	0	0.0%	1,162,624	100%
TOTAL	244,564	1.0%	22,687,954	94.7%	936,102	3.9%	14	0.0%	38,729	0.2%	44,138	0.2%	0	0.0%	23,951,501	100%

2. Risk of the Investment Portfolios

As was mentioned in the description of the System, in the case of fixed-income instruments, the resources belonging to the Pension Funds can only be invested in instruments rated as Category N-3 or higher, for short-term instruments, and BBB or higher where long-term instruments are involved. These minimum categories are applicable for both local and foreign instruments.

Nonetheless, within these eligible categories, the investments are concentrated strongly in lower-risk instruments. In March 2002 the average distribution of fixed-income instruments by risk categories was as follows:

Table Nº VI.6
PENSION FUND INVESTMENTS BY RISK CATEGORIES
(% in relation to total Pension Funds in March 2002)

		AAA-AA and N-1	A and N-2	BBB and N-3	State
Type 1 Fund	Local Foreing	33.36 2.98	4.79 0.47	0.37 0.25	33.31
Type 2 Fund	Local Foreing	33.7 0	3.02 0	0.45 0	62.72

As regards the average term for fixed income investments, at System level this corresponds on average to 1,166 days for the Type 1 Fund and 1,067 for the Type 2 Fund. The following table shows the distribution per type of instrument:

Table Nº VI.7
AVERAGE TERM OF PENSION FUND INVESTMENTS
(In days as of March 2002)

Instruments	Type 1 Fund	Type 2 Fund
Central Bank of Chile Securities	1,270	1,233
Treasury	192	-
INP	1,657	1,141
Time deposits and promissory notes issued by Financ. Institut.	145	111
Letters of Credit issued by Financial Institutions (mortgage-backed securities)	1,724	1,593
Bank bonds	1,683	1,109
Subordinated bonds issued by Financial Institutions	2,196	802
Bonds of public and private companies	1,642	1,481
Fixed-income from foreign issuers	1,504	-
Financial intermediation from foreign issuers	10	-
Total	1,166	1,067

As a measure of performance of portfolio managers there are indicators which combine risk analysis with the return on the portfolios. One of these indicators is the Sharpe index; this coefficient shows the variation in the yield of the portfolio per unit of risk. The higher the index, the better the historic behaviour of the portfolio.

The formula of the Sharpe ratio is as follows:

$$\text{SharpeRatio} = \frac{\text{Average Return (Real Annualized Yield - Risk Free Rate)}}{\text{Standart Deviation Average Return (Real Annualized Yield - Risk Free Rate)}}$$

Calculated for the Pension Funds for the period January 1998 – March 2002 the Sharpe index gives a return of 0.142 per risk unit. For this calculation, the risk free rate used was the interest rate on Re-adjustable Promissory Notes from the Central Bank of Chile (PRBC), while the yield on the Pension Funds was estimated on the basis of the value per unit on the last day of each month.

3. Development of the Investment Portfolios

Since the creation of the Individual Capitalization Pension System, the composition of the Pension Funds' investment portfolio has been affected by three aspects: the development of investment regulation, the growth of the Pension Funds and the development and maturity of the domestic capital market. These three forces operate in a context in which the main aim of the regulator of the System is to facilitate the achievement of adequate yield/risk combinations for the composition of the Funds' investment portfolio.

3.1 Development of Investment Limits and Investment Alternatives

a) The Beginnings of the System

During the first stage, investment of Pension Funds was permitted only in fixed income instruments, in other words, government securities, instruments from financial institutions and company bonds.

The relatively low development of the capital market, and the small size of the Pension Funds during the early eighties were compatible with the following levels of maximum investment limits per type of instrument: government securities, 100% of the value of the Fund; time deposits at over one year, 40% of the Fund; mortgage-backed securities, 80% of the Fund; company bonds, 60% of the Fund, and units of other Pension

Funds, 20% of the Fund. The investment regulations at that time were remarkable for the high maximum investment limit in state instruments and the total absence of instruments representing capital.

b) Authorization of Investment in Equities

At the beginning of 1985 an important change took place in eligible instruments and their respective limits; for the first time the Funds were authorized to invest up to 30% of their resources in the shares of public companies which were in process of privatisation: Enersis, Chilectra Quinta Región, Chilectra Generación, Entel, Laboratorio Chile, Soquimich, Cía de Teléfonos de Chile, Endesa and Empresa Eléctrica Pilmaiquén.

Later, the greater maturity achieved by the capital market as a result of the opening-up and privatisation of these public companies and the rapid growth of the Funds led to a gradual growth between 1986 and 1990 of investment in the shares of private corporations which fulfilled, among other things, conditions of openness and de-concentrated ownership. A further important change took place in 1989 when the Pension Funds were authorized to invest in the shares of companies with concentrated ownership and in 1990 when authorization was given to the shares of investment funds.

c) Law to Reform the Capital Market

An important change in investment rules for the Pension Funds is contained in Law Nº 19,301, known as the Capital Market Law, which was passed in the year 1994 and modified investment limits, increasing the number of eligible instruments.

As far as DL 3,500 specifically is concerned, the Capital Market Law introduces the following modifications:

i. New investment alternatives are allowed for the Pension Funds:

The aim was to incorporate new, duly regulated investment options, which, with an appropriate yield-risk combination, would allow social security resources to be invested efficiently and safely, and at the same time create suitable channelling of resources from savings into investment. The financial instruments incorporated by this law are the following: Recognition Bonds, debt instruments and convertible bonds for funding projects (instruments with no history), freely available shares of open corporations, which do not need the approval of the Risk Rating Commission and which comply with minimum eligibility requirements, shares of corporations with little

presence in the stock market, foreign capital instruments (company shares and fund shares), foreign corporate debt instruments and bonds backed by credits. In addition, risk-hedging operations were approved, both in international markets and in the domestic market.

ii. Modification to the investment limits structure of the Pension Funds:

The aim of this modification was to generate new investment possibilities for the social security funds by means of new classes of instruments and a greater universe of issuers in which resources could be placed. At the same time, it introduced portfolio restrictions per risk class and instrument, in order to limit the exposure of the Funds in high-risk instruments and introduce greater diversification of their portfolios.

iii. Regulation of conflicts of interests:

The Capital Market Law introduces specific rules to DL 3,500 to reduce potential conflicts of interests which may occur in the administration of Pension Funds and to encourage greater transparency in the capital market. This is a fundamental requirement for increasing the flexibility of investment possibilities for social security resources.

d) Investment Abroad

The incorporation of foreign instruments as eligible securities for the Pension Funds took place in the year 1990, in response to the need to include new investment alternatives for social security resources. By means of a legal modification, investment of Pension Funds in foreign fixed-income securities became possible, with a maximum limit to be fixed by the Central Bank of Chile, but not to exceed 10% of the value of the Fund. In this first stage, priority was given to the security of the Pension Funds, with authorization being given to instruments with a very low level of risk: instruments from governments, central banks and banks.

Meanwhile the foreign instruments to be acquired by the Pension Funds had to be approved by the Risk Rating Commission and fulfil the conditions laid down in the relevant regulations.

As was mentioned in the previous section, foreign equities were included as eligible securities for Pension Funds by means of the Capital Market Law, passed in 1994.

In recent years, important progress has been made in the maturing of Pension Fund investment abroad. This progress has to do with the broadening of the margin for investment abroad and the incorporation of

new instruments that are eligible for the Pension Funds. It is particularly important to highlight the modification to the regulations regarding Pension Fund investment abroad which was approved during 1995. As a result of this, ADRs of foreign issuers were incorporated as eligible instruments, in addition to foreign debt instruments with a risk rating of less than A-, to a level considered as investment grade (BBB).

Law Nº 19,795, dated 28th February 2002 (the Multifunds Law) broadens the overall limit for investment of Pension Funds abroad, establishing for these purposes a level which varies between 20% and 30% of the value of all the types of Funds in an AFP, within which the Central Bank of Chile has to determine the definitive limit. This new level will come into operation as from March 2004. On the other hand, the Multifunds Law improves the limits per issuer for foreign fixed-income instruments, by including a risk factor to differentiate between issuers of greater or lesser relative risk, like that already used in the case of local instruments. The limits per issuer are increased in the case of issuers with better risk rating to match the increase in the overall limit. In the same way, the law includes new instruments, operations and contracts as investment alternatives abroad; this produces an increase in the number of instruments available for Fund investment, in order to allow investments to adapt to the dynamic development of international financial markets.

The following table shows how the investment limits developed for the main financial instruments established by law as eligible for the Pension Funds, up to the period before the Multifunds came into effect[65].

[65] The limits applicable to Pension Funds of Types A, B, C, D and E are given in Chapter IV.

Table Nº VI.8

DEVELOPMENT OF INVESTMENT LIMITS PER INSTRUMENT

INSTRUMENTS	1981		1985		1989			1990			
	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit		Lower Limit		Upper Limit	
Government Securities	100%		100%		50%			45%			
Mortgage-backed Securities	40%	100%	40%	100%	40%	100%		40%		100%	
Time Deposits, Bonds, other securities representing loans and guaranteed by Financial Institutions	40% if at least have a term ≥ 1 year 30% if term < 1 year	100%	40% if at least have a term ≥ 1 yerar 30% if term < 1 year	100%	40% if at least have a term ≥ 1 yerar 30% if term < 1 year	100%		40% if at least have a term ≥ 1 yerar 30% if term < 1 year		100%	
Bonds of Public + Private Companies	60%	100%	30%	100%	30%	100%		30%		100%	
Open de-concentrated plc shares	NOT AUTHORIZED		10%	30%	10%	-	30%	10%	20%	30%	40%
Real estate plc shares			NOT AUTHORIZED			-		10%		30%	
Open concentrated plc shares			NOT AUTHORIZED			10%		10%		30%	
Commodities investment fund shares	NOT AUTHORIZED		NOT AUTHORIZED		NOT AUTHORIZED			10%	10%	20%	20%
Real Estate Investment Fund shares								10%		20%	
Company Development Investment Fund Shares								0%		5%	
Securitized Loans Investment Fund Shares								NOT AUTHORIZED			
International Investment Fund Shares	NOT AUTHORIZED		NOT AUTHORIZED		NOT AUTHORIZED			NOT AUTHORIZED			
Foreign Fixed Income Securities	NOT AUTHORIZED		NOT AUTHORIZED		NOT AUTHORIZED			10% (1)			
Foreign Equities	NOT AUTHORIZED		NOT AUTHORIZED		NOT AUTHORIZED			NOT AUTHORIZED			
Other Instruments authorized by the Central Bank	NOT AUTHORIZED		NOT AUTHORIZED		NOT AUTHORIZED			NOT AUTHORIZED			
Risk Hedging Operations	NOT AUTHORIZED		NOT AUTHORIZED		NOT AUTHORIZED			NOT AUTHORIZED			

(1) An upper level was given for the limit to be fixed by the Central Bank of Chile of 1% during the first year in which the law was in force, and this increase by one percent per year up to five percent. Five years after the law came into force, the upper level for the limit would be 10%.

Table Nº VI.8 (Continued)

DEVELOPMENT OF INVESTMENT LIMITS PER INSTRUMENT

INSTRUMENTS	1994		1996		1999	
	Lower Limit	Upper Limit	Lower Limit	Upper Limit	Lower Limit	Upper Limit
Government Securities	35%	50%	35%	50%	35%	50%
Mortgage-backed Securities	35%	50%	35%	50%	35%	50%
Time Deposits, Bonds, other securities representing loans and guaranteed by Financial Institutions	30%	50%	30%	50%	30%	50%
Bonds of Public + Private Companies	30%	50%	30%	50%	30%	50%
Open plc shares	30% (the distinction between concentrated and de-concentrated is eliminated)	40% (the distinction between concentrated and de-concentrated is eliminated)	30%	40%	30%	40%
Real estate plc shares	10% (joint limit with real estate inv. fund shares)	20% (joint limit with real estate inv. fund shares)	10% (joint limit with real estate inv. fund shares)	20% (joint limit with real estate inv. fund shares)	10% (joint limit with real estate inv. fund shares)	20% (joint limit with real estate inv. fund shares)
Commodities investment fund shares	5%	10%	5%	10%	5%	10%
Real Estate Investment Fund shares	10% (joint limit with real estate plc shares)	20% (joint limit with real estate plc shares)	10% (joint limit with real estate plc shares)	20% (joint limit with real estate plc shares)	10% (joint limit with real estate plc shares)	20% (joint limit with real estate plc shares)
Company Development Investment Fund Shares	2%	5%	2%	5%	2%	5%
Securitized Loans Investment Fund Shares	5%	10%	5%	10%	5%	10%
International Investment Fund Shares	NOT AUTHORIZED		3% (included in sub-limit for foreing equities)	6% (included in sub-limit for foreing equities)	3% (included in sub-limit de renta variable extranjera)	6% (included in sub-limit for foreing equities)
Foreign Fixed Income Securities	6% 6%	12% 12%	6% 6%	12% 12%	10% 10%	20% 20%
Foreign Equities	3%	6%	3%	6%	5%	10%
Other Instruments authorized by the Central Bank	1%	5%	1%	5%	1%	5%
Risk Hedging Operations	5%	15%	5%	15%	10%	25%

3.2 Development of Investments by Instrument

As has already been mentioned, between 1981 and 1985 Pension Funds could only be invested in fixed income instruments. In fact, the most important instruments in the portfolios of these institutional investors were the letters of credit issued by financial institutions (mortgage-backed securities), government instruments, fixed time deposits and promissory notes of financial institutions. During the period mentioned, instruments with lower relative risk (government and mortgage-backed securities) gained ground, while time deposits and promissory notes decreased their share, due to the economic and financial crisis of 1982 and 1983.

In 1985, 56% of the Funds was invested in instruments issued by financial institutions. From 1988 onwards there was greater diversification of investments, with the result that securities issued by financial institutions began to lose their share in the funds' portfolios, with a corresponding increase in the weight of paper issued by companies; in other words, company financing from banks was replaced in part by the issuing of bonds and shares, some of which were acquired by the Pension Funds. Nonetheless, this trend began to reverse slightly as from 1995. In March 2002, 33.1% of the Funds' portfolio was invested in instruments issued by financial institutions, while the share of financial securities issued by companies amounted to 19%.

It should also be emphasized that in 1993 foreign investments were incorporated into the portfolio for the first time, and by March 2002 these added up to 14.3% of the portfolio of the Type 1 Fund.

Table Nº VI.9

DIVERSIFICATION OF PENSION FUND ASSETS BY INSTRUMENT

(Figures as percentages of the Pension Fund in December each year)

	1981	1983	1985	1988	1990	1993	1995	1999	2000		2001		Marzo 2002	
									Type 1 Fund	Type 2 Fund	Type 1 Fund	Type 2 Fund	Type 1 Fund	Type 2 Fund
State Sector	28.07	44.46	42.44	35.41	44.07	39.30	39.41	34.59	35.73	68.37	35.00	61.99	33.31	62.72
Central Bank of Chile	–	–	20.29	29.99	42.48	38.82	37.52	31.01	31.90	37.45	29.95	51.65	28.01	47.09
General Treasury of the Republic	–	–	22.14	5.40	1.53	0.47	0.11	0.00	0.00	–	0.00	–	0.00	–
Recognition Bonds	–	–	–	–	–	–	1.78	3.58	3.83	30.92	5.04	10.35	5.29	15.63
MINVU	–	–	0.00	0.03	0.06	0.00	–	–	–	–	–	–	–	–
Financial Sector	71.34	53.36	55.97	50.06	33.38	20.68	23.11	33.70	35.62	30.54	33.08	33.97	33.08	33.39
Mortgage-backed Securities	9.43	50.65	35.20	20.61	16.08	13.11	15.79	15.10	14.36	14.96	12.91	13.00	12.62	13.55
Time Deposits	61.91	2.71	20.36	28.49	16.26	6.14	5.32	16.11	18.73	15.53	17.54	20.11	17.78	18.22
Bonds of Financial Institutions	–	–	0.41	0.96	1.05	1.34	1.31	2.02	2.03	0.05	2.05	0.86	1.98	1.62
Shares of Financial Institutions	–	–	–	–	–	0.10	0.69	0.52	0.51	–	0.65	–	0.64	–
Forwards	–	–	–	–	–	–	–	-0.04	0.01	–	-0.07	–	0.07	–
Company Sector	0.59	2.17	1.11	14.49	22.43	39.36	37.18	18.45	17.82	1.06	18.73	4.05	19.02	3.78
Shares	–	–	0.01	8.08	11.29	31.77	29.37	11.89	11.11	–	9.96	–	10.36	–
Bonds	0.59	2.17	1.10	6.41	11.14	7.26	5.25	3.79	4.04	1.06	6.16	4.05	6.14	3.78
Investment Fund Shares	–	–	–	–	–	0.34	2.56	2.77	2.67	–	2.61	–	2.52	–
Foreign Sector	–	–	–	–	–	0.57	0.20	13.22	10.64	–	13.14	–	14.27	–
Mutual Fund Shares and Stock	–	–	–	–	–	–	–	8.91	8.86	–	8.65	–	9.64	–
Debt Instruments	–	–	–	–	–	–	–	4.15	1.671	–	4.37	–	4.40	–
Forwards	–	–	–	–	–	–	–	0.00	–	–	0.00	–	0.00	–
Others	–	–	–	–	–	–	–	0.16	0.11	–	0.11	–	0.24	–
Disposable Assets	0.00	0.02	0.48	0.04	0.12	0.09	0.09	0.03	0.19	0.03	0.06	-0.01	0.32	0.11
Total Assets	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Note: The diversification for all the years of the period is presented in the Statistical Appendix.

3.3 Development of Investments by Economic Sector

The demand for financial assets arising from the growth of the Pension Funds has produced a considerable flow of financing for many sectors of the national economy. The following charts compare the distribution by sector of the investment portfolio in shares and bonds between December 1994, the year in which the highest percentage of investment in these instruments was recorded, and March 2002.

The distribution by sector of investment in shares has undergone various modifications in the period analysed, reflecting an increase in diversification. In fact there was a reduction in investment in sectors where the share and bond portfolio was very concentrated, such as the electricity sector, which fell from 59.4% of Pension Fund investment in bonds and shares to 24% of the total invested in these instruments. At the same time there was an increase in the share of those sectors which showed a low level of investment in 1994, such as the services sectors (from 2.9% to 20.5%) and natural resources (from 9.6% to 18.5%). There was also an increase in the telecommunications and industrial sectors. All the above resulted in a greater diversification of the Pension Funds' share and bond portfolio.

Figure Nº VI.10
DISTRIBUTION BY SECTOR of Investment in Shares and Bonds
(As of December 1994)

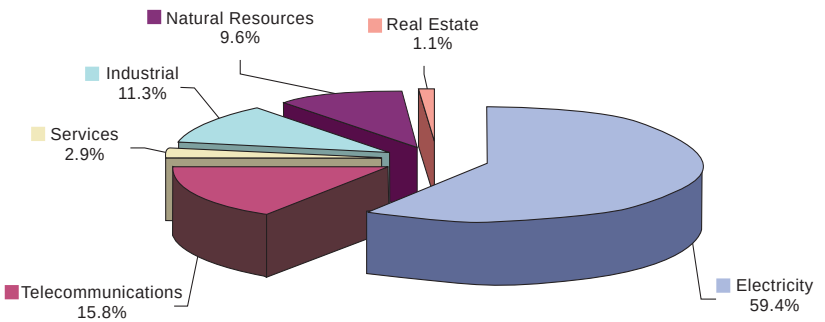
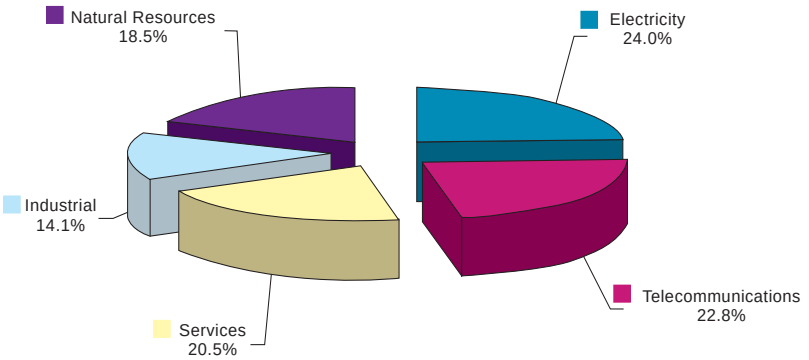


Figure Nº VI.11
DISTRIBUTION BY SECTOR OF INVESTMENT IN SHARES AND BONDS
TYPE 1 FUND
(March 2002)



D. NET WORTH VARIATION OF THE PENSION FUNDS

The net worth variation of the Pension Funds is determined by the difference between the sources which cause the increase and decrease of that net worth.

In December 2001 the main sources of growth in social security resources corresponded to re-valuation of instruments (capital gains, dividends, interest and re-adjustments) and to mandatory and voluntary contributions paid into the individual capitalization accounts; these two items between them represented 46.9% and 33.8% of the total net worth increase, respectively. The remaining 19.3% was made up of other payments to individual accounts, income from Recognition Bonds, additional payments from Insurance Companies and other increases.

As regards the expenditure of resources from the Pension Funds, this may be broken down into three main groups: 65.3% corresponds to the payment of pensions (mainly transfers of premiums for Life Annuities to Insurance Companies and payment of Programmed Withdrawals), 20.1% corresponds to commissions accrued (fixed and variable), while the remaining 14.6% is made up of withdrawals from VSA and CSA, and other reductions.

Table Nº VI.10 reflects the increases and decreases in the Pension Funds' net worth between the years 1990 and 2001. With regard to the increases

in net worth, it is worth mentioning that the variations in the proportion represented by the Revaluation account reflect the annual yield on the investments made with Social Security resources, which was over 15% in the years 1990, 1991, 1993 and 1994. With regard to the decreases in net worth, since the beginning of the period under analysis there have been constant increases in the share of the Benefits Paid and Transfers to Insurance Companies accounts, in relation to the total decreases, while Commissions Accrued have become less and less significant in the total decreases in the net worth of the Pension Funds.

Table Nº VI.10
COMPOSITION OF INCREASE AND DECREASES IN THE PENSION FUNDS
(In percentages)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
INCREASES	100	100	100	100	100	100	100	100	100	100	100	100
Payment of Contributions	24.3	20.0	35.6	24.1	27.0	34.8	43.7	41.5	36.3	21.4	38.2	33.8
Payment of Voluntary Savings Deposits	0.9	5.2	10.2	2.9	4.3	3.8	3.1	3.1	1.9	1.4	1.9	1.9
Payment of Compensation Savings Deposits	0.0	0.1	0.2	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.3	0.2
Agreed Deposits	0.0	0.0	0.1	0.1	0.1	0.1	0.4	0.4	0.4	0.3	0.6	0.9
Additional Contributions	1.6	0.5	0.7	0.5	0.8	1.0	1.2	1.2	1.2	0.7	1.4	1.5
Recognition Bonds	4.0	2.6	4.6	4.3	6.7	9.1	9.2	7.4	5.2	3.7	7.6	6.4
Re-valuation	66.3	68.4	48.1	67.7	60.6	29.3	35.4	45.3	16.1	49.3	48.1	46.9
Other Increases	2.9	3.1	0.4	0.2	0.4	21.6	6.6	0.9	38.7	22.9	2.0	8.5
DECREASES	100	100	100	100	100	100	100	100	100	100	100	100
Accrued Commissions	38.2	31.6	30.2	33.1	30.0	19.8	26.4	27.2	27.5	24.7	21.3	20.1
Benefits Paid	9.7	11.6	14.5	17.2	20.8	17.6	22.2	22.1	20.1	20.4	21.3	21.9
Transfers to Insurance Companies	29.1	18.1	15.1	24.4	29.7	22.9	37.9	37.2	37.8	41.0	42.9	43.4
Withdrawals of Voluntary Savings	4.9	16.8	37.4	22.0	17.2	11.5	10.9	9.1	10.9	6.5	5.2	4.8
Withdrawals of Compensation Savings	0.0	0.3	0.2	0.3	0.4	0.3	0.6	0.7	0.6	0.8	0.6	0.6
Other Decreases	18.1	21.6	2.6	2.9	2.0	28.0	1.9	3.7	3.2	6.6	8.8	9.1

E. YIELD

The Superintendency calculates two indicators of the yield obtained by the resources held by the workers in the different Pension Funds and publicizes them by various means[66].

The first indicator is the yield of the individual capitalization account (ICA), which includes both the yield on investments and the commissions paid by the contributors to the AFPs. In other words it is a yield net of costs, which makes it possible to compare the performance of the different AFPs over the course of time. The second indicator is the variation in the value of the Pension Funds' accounting unit, which reflects the yield of the Fund's investments in the period under consideration. In both cases the published yields are real, in other words, over and above the variation in the UF.

1. The Yield on the Account

The yield indicator is an Internal Rate of Return (IRR) and is calculated by solving the following equation:

$$\frac{FBA}{(1+y)^n} - IB_0 - \sum_{i=1}^{n} \frac{(0{,}1 + ACR_i - \beta) * TI}{(1+y)^i} = 0$$

Where:

FBA[67] = Final balance in the ICA.
IB_0 = Initial balance in the ICA.
ACR_i = Additional contribution rate for each month of the period of calculation in percentage terms.
β = Benefit received by members as a result of their insurance against risks of disability and death.
TI = Taxable income, which for purposes of the calculation is assumed to be constant in real terms throughout the period.
y = Real monthly yield of the ICA, to be determined in the calculation.
n = Period of calculation of the indicator.
i = Each month of the period.

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66 Press releases, the Statistical Bulletin of the Superintendency, the Superintendency's website and the statements sent by the AFPs to their members.

67 The fixed commission per contribution is deducted directly when calculating the final balance.

As may be seen from the above equation, the resulting IRR depends both on the income of the contributor and on his/her initial balance, in other words, there is a yield for each member of the System. As has already been mentioned in Chapter IV, in order to maintain the simplicity of the indicator, the information which is sent every four months to the members contains the yields of the account for five income levels: minimum, 10 UF, 15 UF, 30 UF and 60 UF. The initial balances in the ICAs are associated to these income levels.

By way of example, it may be seen in Figures VI.12 and VI.13 that the variations in yield which occur for periods of one year differ substantially from the yields for three-year periods. This occurs mainly because the shorter term variations reflect circumstantial changes.

Figure Nº VI.12
YIELD OF THE INDIVIDUAL CAPITALIZATION ACCOUNT
(One-Year Period)

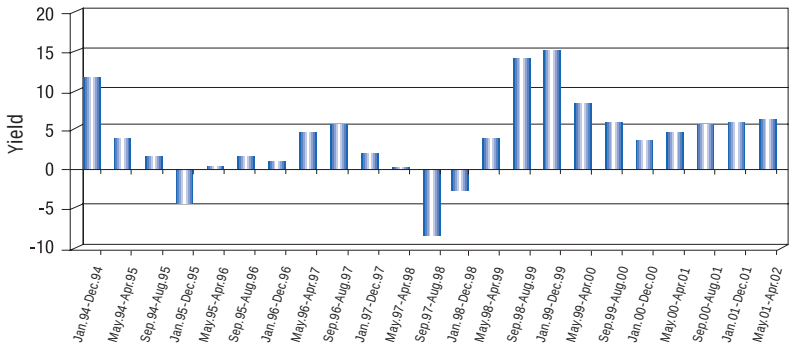
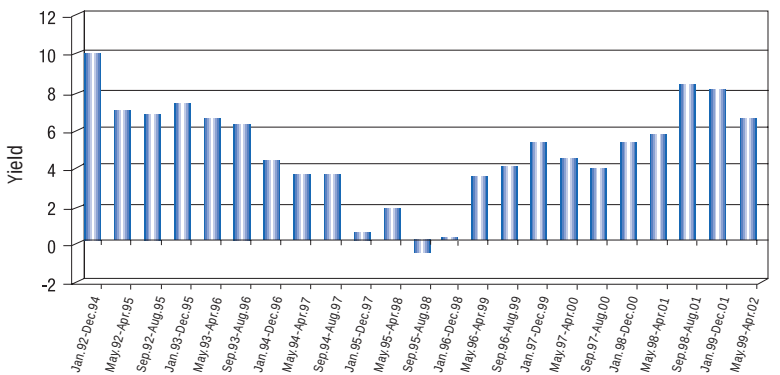


Figure Nº VI.13
YIELD OF THE INDIVIDUAL CAPITALIZATION ACCOUNT
(Three-Year Period)



Note: The yield corresponds to that obtained by a standard member with a taxable income of 15 UF, approximately equal to the average taxable income of the System.

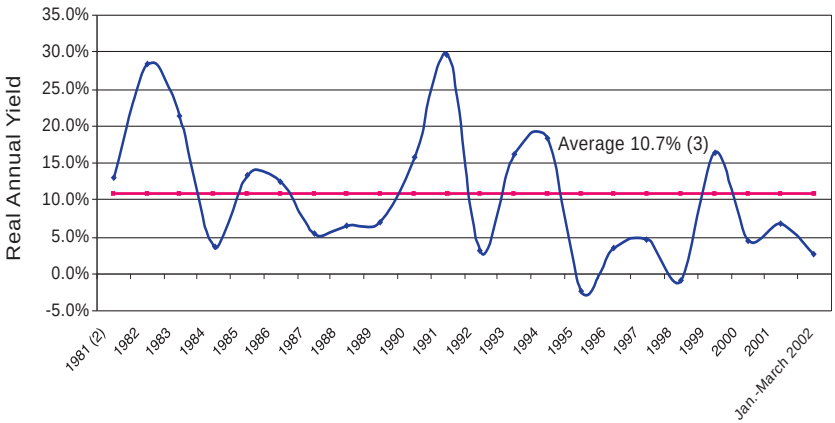
2. The Yield on the Unit

This yield, measured in annual terms, is the percentage variation in the average value of the unit[68] for one month, with regard to its average value in the same month of the previous year.

The highest average yield (deflated by UF) was achieved in 1991 with 29.7%, and the lowest occurred in 1995 when it amounted to only –2.5%. The average obtained for this indicator, considering the yields since the beginnings of the System, is 10.7% per year in real terms. The development of the yield may be seen in the following diagram.

Figure Nº VI.14

REAL ANNUAL YIELD OF THE UNIT, DEFLATED BY THE UF (1)



(1) Average weighted by the value for the Pension Fund of each AFP in the corresponding period. The calculations do not include the yield obtained by the Type 2 Fund, which started operating in March 2000.
(2) Period July – December 1981, annualised.
(3) Corresponds to the average real annual yield obtained by a contribution which entered the System in July 1981 and remained there until March 2002.

[68] The Pension Fund is expressed in a unit of measurement known as the "cuota" or accounting unit, whose value rises or falls according to the economic or market value of the investments. The changes in the value of this unit are a reflection of the yield of the Pension Funds' Investments. The average value of the unit of a Fund is determined for a calendar month as the sum of the unit values for each day, divided by the number of days in that month.

F. THE COST OF THE SYSTEM FOR ITS MEMBERS

1. The Importance of Social Security Cost

The central aim of the Pension System is to provide its members with a pension that is as close as possible to the income received during their active life. In an Individual Capitalization System, the replacement rate achieved depends primarily on the yield on the Pension Fund, while the cost charged by the AFPs for managing the Fund affects the efficiency of the contributions[69].

In addition to the effect on the efficiency of contributions, the cost of social security has an impact on the labour market, creating a gap between the wage paid by the employer and the income received by the worker. In fact, since the contribution is mandatory, it seems likely that part of it will be considered by the contributors as a tax on income. In other words, contributors probably consider the resources dedicated to purchasing Pension Fund units to be less valuable that the expected current value of the pensions that they will receive during the passive stage of their lives. So, the lower the cost of social security, the smaller will be the gap between gross wages and net wages, and therefore the higher the level of contractual employment in the economy.

The level of social security cost also influences social security coverage, because it constitutes a disincentive, discouraging self-employed workers from contributing.

Finally, for an open economy, the cost of labour is a very important variable when it comes to remaining competitive. From this point of view, a reduction in the cost of social security would contribute to reducing the cost of labour and so improve the external competitiveness of the national economy.

2. Defining Social Security Cost

In this section, we shall give the name net social security cost (NSC) to the sum expressed in pesos that a member has to pay to the AFP for all the services that he/she receives. In general terms, the social security cost corresponding to month t for a contributor would be:

[69] Naturally, the replacement rate is also affected by other variables such as the number of years of contribution, the contribution rate and the pattern of salaries over time, but these are variables which are outside the System itself.

$$NSC_{i,t} = FCC_t + FCB_t + \frac{PCB_t * B_{i,t}}{12} + (AC_t - \beta_t) * TI_{i,t}$$

Where:

$NSC_{i,t}$ = net monthly social security cost for contributor i in month t.
FCC_t = fixed commission per contribution as of month t.
FCB_t = fixed commission for maintenance of the balance accumulated in the individual capitalization account as of month t.
PCB_t = percentage commission for maintenance of balance accumulated in the ICA as of month t.
$B_{i,t}$ = balance accumulated by individual i in the ICA as of month t.
AC_t = additional contribution as of month t.
$TI_{i,t}$ = taxable income of contributor i in the period t.
β_t = premium of disability and survivorship insurance (DSI) for month t.
Where β_t is worth zero, the gross social security cost is obtained.

The main variables affecting social security cost are: the level of commissions, the structure allowed by the regulations, the operating costs of the Administrators and the degree of competition existing between them.

3. Measuring Social Security Cost

Since their creation, the AFPs have financed their operations with fixed and percentage commissions. The fixed commissions were charged for maintaining the balance, and are authorized nowadays only on the deposit of contributions. With regard to percentage commissions, these were charged on the balance of the ICA (for maintaining it or for transferring it from another AFP) and on the taxable income. At present only this latter is charged[70]. As from 1987, the possibility of charging commissions on the balance of the individual capitalization account was eliminated, in other words, $FCB_t = PCB_t = 0$.

Later, in order to define a way of calculating the social security cost that would allow comparisons to be made over time, it was necessary to define, in addition to the value of the commissions, one or various levels

[70] At the present time, no AFP charges a commission on transfers.

of taxable income for contributors and one, or various movements of the balance in the ICA. In fact, the price paid for the service depends both on the commissions charged by the Administrators and the contributor's own attributes, such as his/her taxable income, and in the first years of the System, the balance in his/her ICA.

The gross social security cost was estimated for a contributor with an income equal to the average for the System and with a movement of the balance in the ICA equal to the average for the members of the System.

The taxable income used for the calculation corresponds to the annual weighted average of employed contributors.

As far as the average balance in the ICA is concerned, since it was only necessary to calculate it for the period 1982 – 1987, a good approximation could be obtained by dividing the value of the Pension Fund of each AFP by the corresponding number of active members[71].

The percentage β corresponds to the premium rate agreed between the Insurance Company and the AFP. This premium is established as a percentage of the taxable income of the members. Although the contracts are not homogeneous, a considerable proportion of them are agreed in terms of two premium rates: the provisional rate and the maximum rate[72]. The DSI benefit was estimated as equal to the provisional premium rate. In order to reflect the differences in the premium rate paid by each AFP, the benefit was calculated as a weighted average for the whole System, using each AFP's share in the total number of contributors as the weighting factor.

Starting from the above equations and the average balance of the ICAs, a series of social security costs for each AFP in the period 1982 to March 2002 was obtained. Finally, in order to evaluate the behaviour of the social security cost of the System as a whole, the weighted average of gross social security costs was calculated, using each AFP's share in the total number of contributors as the weighting factor.

4. Development of the Average Cost of Social Security

The following table presents the results of applying the method described to measure the cost of social security in gross and net terms.

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[71] During this period the voluntary savings accounts and compensation savings accounts were not yet in force, and also the small number of people receiving pensions under the System meant that the difference between the Pension Fund and the balance in the individual capitalization accounts of the active members was not significant.

[72] Some contracts include the payment of fixed sums, independent of the amount of taxable wages insured. They also include the participation of the AFPs in surpluses on the contract where the claim is lower than expected.

The development of the gross cost of social security may be divided into five periods:

a. Between 1982 and 1983 the Administrators raised the percentage commissions on the balance and on taxable income appreciably, in an attempt to reverse the negative operating results of 1981-1982 produced by the high costs of launching the System. This was reinforced by an extremely adverse macroeconomic climate, characterized by a fall in real wages and in the ratio of contributors/members[73]. As a consequence of this, the gross cost of social security rose as a proportion of average real income, from 3.6% to 4.9% between 1982 and 1983. In terms of amount it rose from 7,255 pesos to 8,550 pesos.

b. In the period 1984-1987, the sharp reduction in operating costs per member (52.6% between 1984 and 1987) led to a fall of 16.4% in the gross cost of social security measured as a proportion of taxable income, and a considerable increase in the working margin. This social security cost fell from 4.8% in 1984 to 4% in 1987. In amount terms it fell from 7,627 pesos to 6,245 pesos in the same period.

c. Between 1988 and 1990 the change in the commissions structure permitted a further sharp reduction in the gross cost of social security which fell 21.4% as a proportion of income. Between 1988 and 1989, in addition to the change in the commissions structure, various factors combined to allow a simultaneous reduction in the social security cost and increase in the operating margin of the System. In the first place, a rapid growth in contributors' real income (12.7% between 1988 and 1990) which, given the new commissions structure, immediately increased the income of the Administrators. In the second place, the stronger competition arising from the entry of new Administrators and the liberalization of transfers encouraged the downward trend of the fixed commission to continue and the additional contribution to be gradually reduced.

d. The downward trend in the gross cost of social security became almost imperceptible between 1990 and 1997, when an ascending spiral of marketing costs began. This was in spite of the growth in

[73] The fall in the ratio of contributors/members affects the Administrators in the following way: on the one hand, the reduction in the quantity of contributors restricts the income in commissions related to taxable income, on the other hand the operating costs do not fall in proportion to the fall in income, because there are expenses which continue, even though the member is not contributing, such, for example, as the costs of managing the balance accumulated in the ICA. During the period in question, both the rise in the unemployment rate and the rise in self-employment or even informal employment, tended to reduce the ratio of contributors/members, due in the first case to the loss of employment, and in the second, because independent workers have no obligation to contribute.

contributors' real income (48.7% between December 1990 and 1997). In fact, between 1990 and 1997 the gross cost of social security stagnated at around 3% of taxable income, while in monetary terms it increased 39.9%.

e. Circular 998, issued in November 1997, made it possible to moderate some of the marketing problems of the AFP System. In fact, it produced a fall in the number of transfers taking place in the System and made it possible to decrease the number of rejected orders, due to the improvement in the quality of information required to complete transfer orders and the greater degree of formality introduced into the procedure. This brought about a reduction in the administrative and marketing costs associated with the rejection of transfer orders. Part of this reduction in costs was passed on to contributors via a change in commissions. This meant that between December 1997 and March 2002 the average social security cost paid by contributors fell11.8% in real terms. Nevertheless, a slight rise was recorded in the last available periods (the year 2001 and the first quarter of 2002).

Table Nº VI.11

MONTHLY SOCIAL SECURITY COST FOR A MEMBER WITH THE AVERAGE INCOME OF THE AFP SYSTEM

Years	Social Security Cost ($ as of march 2002)	Real Average Taxable Income ($ as of march 2002)	Social Security Cost % of Average Income
1982	7,255	203,300	3.57
1983	8,550	175,580	4.87
1984	7,627	160,089	4.76
1985	6,793	150,588	4.51
1986	6,724	163,149	4.12
1987	6,245	156,913	3.98
1988	6,923	172,826	4.01
1989	6,628	187,440	3.54
1990	6,128	194,857	3.15
1991	6,307	203,384	3.10
1992	6,618	215,776	3.07
1993	7,176	234,088	3.07
1994	7,548	246,976	3.06
1995	8,013	261,995	3.06
1996	8,180	273,936	2.99
1997	8,573	289,752	2.96
1998	7,868	287,985	2.73
1999	7,448	292,340	2.55
2000	7,262	291,966	2.49
2001	7,408	304,119	2.44
Mar-02	7,558	310,728	2.43

Starting in 1994, one of the Administrators in the industry began to charge a fixed commission from those receiving pensions by the programmed withdrawal or temporary income options. In 1999, all the Administrators began to charge their pensioners a commission. The following table shows the values involved, grouping pensioners using the programmed withdrawal option.

Table Nº VI.12
DEVELOPMENT OF COST OF PROGRAMMED WITHDRAWALS
(In pesos as of March 2002)

Date	Average Pension	Fixed Commission	Percentage Commission	Cost in $	Cost as %
Dec-94	77,752	26	-	26	0.03%
Dec-95	87,357	25	-	25	0.03%
Dec-96	79,428	165	-	165	0.21%
Dec-97	81,845	150	-	150	0.18%
Dec-98	72,864	183	-	183	0.25%
Dec-99	79,829	173	0.25%	375	0.47%
Dec-00	86,561	120	1.03%	1,011	1.17%
Dec-01	86,781	114	1.03%	1,008	1.16%
Mar-02	84,228	114	1.03%	981	1.16%

5. Equivalent Commission in Relation to the Fund

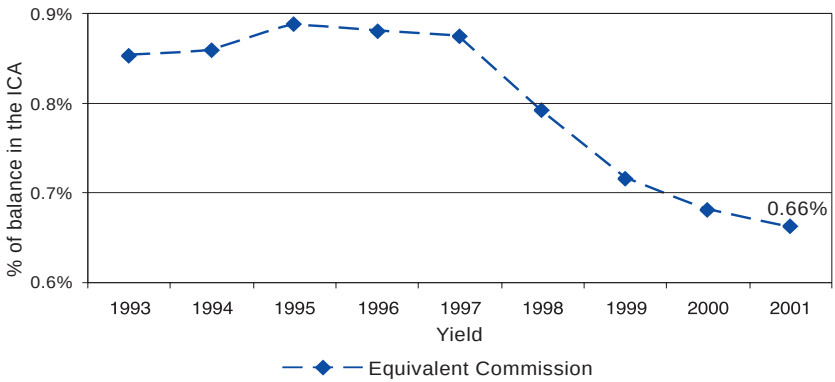
One of the great difficulties involved in the structure of charges used by the Administrators is that it is impossible to obtain a direct measurement of their efficiency in managing the resources, because the commissions that members are charged can not be compared directly with the yield obtained on the Pension Fund. It is for this reason that an estimation is given of what the annual percentage commission charged on the Fund should be, according to the commissions structure.

In order to do this, the following suppositions are made: a growth rate in wages of 2% per year in real terms, a contributions density rate of 0.9% and a yield on the Pension Funds of 5% per year in real terms.

The method consists in seeking the annual percentage commission which, taken on the balance in the ICA, gives the same final balance after forty years as in the application of the commissions structure in force for each year of the period 1993 to 2001 (percentage commission on taxable income and fixed commission deducted from the Fund). The payment of the disability and survivorship insurance is excluded from this calculation.

The results are given according to the period in which the member began his/her active working life.

Figure VI.15
EQUIVALENT COMMISSION IN THE AFP INDUSTRY



From the above diagram it may be said that a person who entered the System in the year 2001 will pay commissions equivalent to 0.66% per year on the balance, as long as the present structure for charging commissions is maintained.

G. RESULTS OF VOLUNTARY SOCIAL SECURITY SAVINGS (VSSS)

From March 2002 onwards, important changes were introduced in Voluntary Social Security Savings. These payments, when they are made to the Administrators, are paid in as voluntary contributions and agreed deposits. The following table shows the voluntary flows credited to the members' accounts.

Table Nº VI.13
COLLECTION OF VSSS BY THE ADMINISTRATORS
(In pesos as of July 2002)

		March 02	April 02	May 02	June 02	July 02
VOLUNTARY CONTRIBUTIONS	Number	23,458	24,675	25,191	27,671	24,750
	Amount M$	3,542,439	3,360,294	3,283,959	3,456,831	3,021,922
AGREED DEPOSITS	Number	6,533	6,670	6,461	6,349	7,336
	Amount M$	3,709,322	4,519,810	3,454,606	2,291,467	2,902,964
	TOTAL M$	7,251,761	7,880,104	6,738,565	5,748,298	5,924,886

In the month of March 2002, a total of 139,710 members registered voluntary contributions in their individual capitalization account, with a total accumulated balance of 215,789 million pesos under this item. At the same time, 15,815 members registered agreed deposits, with a total accumulated balance of 90,664 million pesos.

However, the amounts saved by members under the heading of VSSS are greater than those given, because there are other authorized institutions, apart from the AFPs, which can also act as channels for these savings.

H. DELINQUENCY

The contributions to the Pension System which have not been paid within the period laid down by the law, and for which employers have made a Declaration Without Payment[74], amounted to 190,373.95 million pesos (290.25 million dollars) in March 2002, representing 0.8% of the Pension Funds' net worth at that date. This amount corresponds to 6,028,733 declared but unpaid contributions to date. The development of delinquency as from the year 1990 may be seen in the following table and diagram:

Table Nº VI.14

CONTRIBUTIONS DECLARED BUT UNPAID

(Real figures accumulated in thousands of pesos as of March 2002)

Years	Declarations without Payment (DWP)	DWP Over Net Worth
1990	34,261,455	0.66%
1991	40,021,518	0.55%
1992	42,331,656	0.52%
1993	47,250,048	0.45%
1994	56,053,177	0.44%
1995	64,725,533	0.48%
1996	75,184,096	0.53%
1997	87,280,054	0.56%
1998	108,892,929	0.68%
1999	130,158,908	0.67%
2000	149,795,161	0.71%
2001	182,988,311	0.79%
Mar-2002	190,373,949	0.80%

[74] As defined in Chapter IV.

As regards the distribution of DWP per economic activity, it may be seen from the following table that there is a greater concentration of these in the manufacturing industry (21.9%), wholesale and retail business, restaurants, cafés etc. (17.2%) and the building industry (16.1%). It is worth noting that, in the distribution per economic activity of contributors to the Pension System, there are certain differences compared with the distribution of declarations without payment: namely, a greater proportion of contributors in the services sectors, including state, social, personal and international (23.8%); in wholesale and retail business, restaurants, cafés etc. (16.4%), and finances, insurance, real estate and technical services (13.1%).

Table Nº VI.15
CONTRIBUTIONS DECLARED BUT UNPAID PER ECONOMIC ACTIVITY
(As of March 2002)

Economic Activity	Thousands of Pesos
Agriculture, Ag. Serv., Hunting, Forestry, Fishing	12,440,623
Mining, Oil and Quarries	5,664,069
Manufacturing Industries	41,772,279
Electricity, Gas and Water	209,446
Building	30,589,395
Wholesale Business	12,363,396
Retail Business	14,493,223
Restaurants, Cafes and other Establishments	5,906,882
Transport, Storage and Communications	14,478,509
Finances, Insurance, Real Estate and Tech. Services	20,818,283
State, Social, Personal and International Services	22,312,053
Unspecified activities and others	9,325,790
Total	190,373,949