

Economic Watch

Pensions

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Economic Analysis

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Infrastructure Investment and Pension Funds in Chile

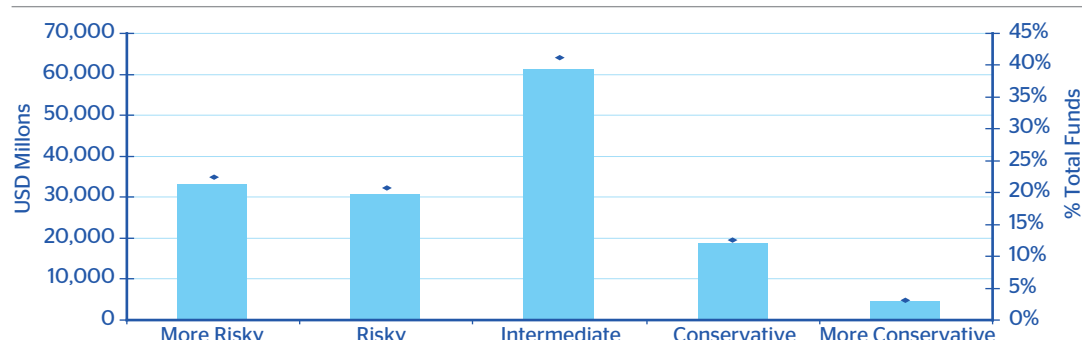
- **The objective of pension funds is to manage the risk-return ratio** in the best interest of the pension-savers' future pensions.
- **Pension funds maintain significant volumes of resources invested in stocks and bonds in companies in Chile.** The diversification is broad and covers different economic sectors, including infrastructure.
- **As the infrastructure projects have generated investment vehicles that serve said purpose,** pension funds have incorporated them as part of their diversified investment strategies.
- **The primary investment of pension funds in infrastructure has been by purchasing** stocks and bonds of companies in the electricity, telecommunications and healthcare sectors.
- **The most direct investment in infrastructure projects has been performed through the acquisition of infrastructure bonds,** which are debt instruments issued by the companies awarded public infrastructure concessions for transportation (highways, roads and an airport).
- **Alternatively, pension funds have also invested in the emerging industry of private equity mutual funds.** At the close of 2010, there were only two private equity mutual funds for infrastructure that were in place and active; the pension funds maintained investments in both.
- **In Chile, the system of concessions of infrastructure projects continues to evolve,** and is moving towards second generation concessions, such as penitentiaries and hospitals. However, since 2006, concession companies have not issued any new infrastructure bonds to finance their projects and have opted for other means of raising funds.
- **Excluding the issue of new infrastructure bonds,** the participation of the pension funds in the direct financing of infrastructure projects has decreased.

Pension funds accumulate a significant volume of funds that could be invested in financial instruments associated with infrastructure projects.

According to information reported by the Pensions Superintendency¹, as of December 2010, Pension Fund Administrators (AFPs) managed US\$ 148,437 million in assets, which was equivalent to 67.2% of GDP. The funds accumulated are managed under different investment policies in five types of funds that differ in their risk-return combinations; the distribution of assets in these funds is shown in Chart 1. These different investment policies differ fundamentally in the percentage of assets invested in equity and fixed-income and in the proportion in the domestic and foreign markets. The riskiest fund invests a greater proportion of its assets abroad (69.6%²) and in equity (77.5%²). Both percentages decrease as the aggressiveness of the fund decreases, and the most conservative fund is that which invests the least abroad (4.9%²) and in equity (3.8%²).

Chart 1

Size of the Multifunds in Chile



Source: Pensions Superintendency.

As of December 31, 2010, 54.7% of the total assets in pension funds were invested in the domestic market, which was equivalent to US\$ 81,228.1 million. Of the total domestic investment, 64.6% was invested in fixed-income and 33.4% in equity, representing 23.8% and 12.4% of GDP, respectively.

Pension funds can only be invested in instruments expressly authorized by law or by the investment regulations. The Pensions Superintendency issues the pension fund investment regimen, which fundamentally establishes the limits for investment by type of fund based on the types of financial instruments and risk classification. It also determines the conditions for eligibility of the different financial instruments. The objective of the investment regimen is that pension funds only be invested in financial assets publicly listed, due to their liquidity and relative ease of valuation.

Currently, authorized domestic investment includes state bonds; instruments issued by financial institutions, such as term-deposits, mortgage bonds, bills, bonds and stocks; investments in public and private company bonds; corporate convertible bonds; shares from open corporations; units in investment and mutual funds; commercial paper issued by companies. Foreign investment is also authorized in credit securities issued or guaranteed by foreign States, foreign central banks, foreign banking entities or international banking entities; stocks and bonds issued by foreign companies; participation shares issued by foreign investment or mutual funds; financial instrument bonds, etc.

Transactions can also be carried out with derivatives, and asset loan agreements can be entered into on domestic and foreign markets.

Another relevant aspect of the investment standards for pension funds is the requirement for the classification of risk to attain the ranking to be eligible. Depending on the nature of the financial instruments, they must undergo different processes of risk classification.

The risk rating of debt instruments is carried out by private companies. The pension funds can be invested in short-term debt instruments classified in categories N-1, N-2 and N-3 and in long-term instruments classified from AAA to BBB. It should be noted that the Pension Funds can invest in debt instruments with lower risk ratings than those stated, but with more restrictive investment limits.

1: <http://www.spensiones.cl/>

2: As of December 2010.

The stocks can be acquired by a pension fund if they meet the minimum requirements established by the Investment Regimen, which are basically linked to their liquidity. If a stock does not satisfy the requirements, it can only be acquired if it is ranked as first class by at least two risk rating entities. Thus, Pension Funds can acquire stocks that do not satisfy the requirements indicated above; this investment (like in the case of fixed-income that does not meet the requirements) is classified in the category of restricted instruments, which has specific limits.

All mutual and investment funds in which pension funds may invest must be approved by the CCR (Risk Rating Committee) which will assess the regulations, their risk rating reports, fund characteristics and additional factors. In the case of foreign mutual and investment funds, the CCR also takes into consideration the country risk, the nature of the institutional systems on regulation, auditing and sanction of the issuers and its bonds, and on the managers and parent companies; the fund characteristics and policy; the liquidity of the instrument in the corresponding secondary markets, and the existence of additional factors.

The infrastructure sector in Chile and the investment of pension funds

A process of privatization of public companies began in the mid 1970s in Chile. Thus, at the end of the 1980s, the electricity and telecommunications sectors were already totally privatized; in the 1990s, the healthcare sector was beginning to be privatized and the transportation infrastructure to be conceded. Finally, social infrastructure, like jails and hospitals, were conceded in recent years.

The objective of pension fund investment is to manage the risk-return ratio of the investments based on the best interests of the pension-savers' pensions. As a result, pension funds are invested in thousands of financial instruments backed by solvent states and companies, and the strategy of maintaining highly-diversified portfolios allows the risk of the investments to be significantly limited. In this framework, the investment in the infrastructure sectors has been consistent with the funds' investment objective; therefore, the financial instruments in which investments have been made are guaranteed by solvent projects and companies and contribute to the fragmentation of the portfolios.

Pension funds have invested in privatized companies in infrastructure sectors by purchasing stocks and bonds issued by said companies, since they meet the eligibility requirements of the investment regimen.

In order to participate in the financing of public infrastructure project concessions, the pension funds must have used other mechanisms: the infrastructure bond and mutual funds. These other mechanisms have been used due to the characteristics of the Chilean concessions system, through which the companies bidding for the projects for issue must constitute unique turnkey corporations for the execution and administration of the concession. This requirement implies that the debt instrument issued to finance the concessions is not backed by a company with a representative track record, but that the backing will be in the project itself and its expected future flows. Under these conditions, the instruments would not be investment-grade, so they will not be eligible for pension funds.

The infrastructure projects involve long-term and high requirements for funds; therefore, they could be an interesting investment opportunity for institutional investors. With this objective in mind, and at the government's request³, the infrastructure bond was developed and is attractive as an investment vehicle for pension funds and insurance companies and, at the same time, is an effective mechanism for raising funds for the concession companies. The infrastructure bond is basically a debt instrument without a prepayment option issued by the companies bidding for the works conceded, meaning that it is supported by the future income of the concession. In general, there is uncertainty regarding the future flows from the projects; therefore, there is not a sufficient guarantee for providing the investment grade to an instrument based exclusively by them. To overcome this obstacle, in the case of infrastructure bonds, mechanisms were added to mitigate the risks. Practically all bonds were 100% guaranteed by international insurance companies (monoliners), which allowed the issuer's risk to be substituted by that of the insurance company.

3: The Ministry of Finance and MOP (Ministry of Public Works) requested a study in order to develop a financial instrument to help institutional investors participate in the financing of concessions for public infrastructure projects.

In addition, the State of Chile offers insurance contracts to the concessionaires. The most common has been in the minimum revenue guaranteed flows, in which the State guarantees a certain level of minimum revenue (this level is that which allows the concessionaire to pay the debts, but loses all the capital) to the awarded company, by compensating it in the event the annual revenues are below this minimum. The concessionaire shall share part of the greater revenues that could be generated by the concession, should they be over a certain threshold. In this case, the risk of the debt instruments that finance the infrastructure project is replaced by the risk of the State of Chile. In this manner, the infrastructure bonds obtain the investment grade required to be able to be eligible for the pension funds, as shown in Table 1.

Table 1

Infrastructure Bonds Risk Ratings at the time of issue

Name of Bond	Issuance
SOC. CONCESIONARIA RUTAS DEL PACÍFICO	AAA
SOC. CONCESIONARIA AUTOPISTA DEL SOL	AAA
SOC. CONCES. AUTOPISTA LOS LIBERTADORES	AAA
SOC. CONCES. AUTOPISTA INTERPORTUARIA	A+
SOC. CONCES. MELIPILLA S.A.	AA-
AUTOPISTA DEL MAIPO SOC. CONCESIONARIA	AAA
TALCA-CHILLÁN SOC. CONCESIONARIA	AAA
RUTA DEL BOSQUE SOCIEDAD CONCESIONARIA	AAA
RUTA DE LA ARAUCANÍA SOC. CONCESIONARIA	AAA
SCL TERMINAL AEREO SANTIAGO S.A. SOC. CONCES.	AAA
SOC. CONCESIONARIA AUTOPISTA CENTRAL	AAA
SOC. CONCESIONARIA VESPUCIO NORTE EXPRESS S.A.	AAA
SOC. CONCESIONARIA COSTANERA NORTE	AAA
SOC. CONCESIONARIA AUTOPISTA VESPUCIO SUR S.A.	AAA

Source: Feller Rate.

Specifically, the pension funds are an important source of funds that can be invested in financial instruments from different sectors, and eventually in assets associated with infrastructure projects. The investment regimen in Chile permits the participation of the pension funds in the financing of infrastructure projects channeled through different investment vehicles, such as stocks, bonds and mutual funds.

As of November 2010, pension funds maintained US\$ 14,359.2 million invested in stocks and bonds of companies in different infrastructure sectors, and US\$ 92.6 million have been invested in infrastructure mutual funds. In total, the national investment in the infrastructure sectors reached 10.2% of the total from the pension funds.

1. The current investment in stocks and bonds of privatized infrastructure companies

Table 2 shows the diversification of the sector of the investments in domestic shares of the pension funds as of November 2010. With regard to shares in the electricity and telecommunications sectors, which are clear representatives of the infrastructure sectors, a US\$ 7,165.2 million investment was maintained. Of the total investment of shares in the services sector, US\$ 342.9 million correspond to infrastructure services companies: supplying drinking water and natural gas. As of November, a total of US\$ 7,508.1 million remained invested in infrastructure sector company shares, equivalent to 33% of the total invested in domestic shares by the pension funds.

Table 2

Domestic investment of pension funds in shares by type of fund and economic sector. In millions of dollars as of November 31, 2010

SECTOR	More Risky	Risky	Intermediate	Conservative	More Conservative	Total Pension System	% Total Pension Fund Value
Electricity	1,509.6	1,340.8	2,894.7	431.3	4.1	6,180.4	4.4%
Telecommunications	250.0	282.3	386.4	65.2	1.0	984.8	0.7%
Services	2,412.9	2,472.1	3,363.2	660.0	26.7	8,934.9	6.3%
Industrial	443.5	448.5	773.1	91.3	0.2	1,756.6	1.2%
Natural Resources	1,015.6	1,123.8	2,429.2	340.6	10.7	4,919.9	3.5%
Total	5,631.6	5,667.5	9,846.4	1,588.4	42.7	22,776.6	16.1%
% of each Type of Fund	18.0%	19.3%	16.8%	9.0%	0.9%	16.1%	

Source: Pension Superintendency.

With regard to fixed-income, Table 3 shows the investment maintained by the pension funds in company bonds as of November 2010. In the electricity and telecommunications sectors, US\$ 3,418.4 million were invested. Of the total bonds of services sector companies, US\$ 802.6 million corresponded to healthcare companies and suppliers of water and natural gas. In addition, US\$ 762.9 million have been invested in public infrastructure companies (subways and railways). Finally, the pension funds maintained US\$ 1,867.1 million invested in infrastructure bonds, which correspond to debt instruments that have been issued by companies conceding infrastructure projects in transportation. The investment in infrastructure bonds totals 3.8% of the domestic investment in fixed income of the funds. In bonds from companies in the different infrastructure sectors US\$ 6,851 million were maintained, which is equivalent to 4.9% of the pension funds and 13.8% of the total domestic investment in fixed-income.

Table 3

Domestic investment of pension funds in company bonds by type of fund and economic sector. In millions of dollars as of November 31, 2010.

SECTOR	More Risky	Risky	Intermediate	Conservative	More Conservative	Total Pension System	% Total Pension Fund Value
Electricity	181.7	369.1	1,561.0	657.2	252.2	3,021.1	2.1%
Telecommunications	13.3	46.2	176.6	109.9	51.5	397.4	0.3%
Services	347.6	963.1	3,574.2	1,448.7	586.4	6,920.0	4.9%
Water and gas	42.1	109.3	443.1	149.2	59.0	802.6	0.6%
Metro and Railways	25.8	106.9	436.1	144.4	49.7	762.9	0.5%
Infrastructure Bonds	111.2	283.0	978.6	397.2	97.2	1,867.1	1.3%
Industrial	43.2	138.7	586.7	302.5	198.7	1,269.7	0.9%
Natural Resources	87.8	218.4	1,269.4	506.5	277.2	2,359.4	1.7%
Total	673.6	1,735.3	7,167.9	3,024.8	1,366.0	13,967.5	9.9%
% of each Type of Fund	2.2%	5.9%	12.2%	17.1%	30.3%	9.9%	

Source: Pension Superintendency.

The domestic investment in corporate stocks and bonds has remained relatively constant over recent years. However, the total investment in infrastructure bonds for transportation presented a fall of over 9% with respect to the level invested prior to the subprime crisis⁴, and its weight as a percentage of the domestic investment of pension funds in company bonds has also dropped. The reason for this decreased participation of pension funds in these bonds is due to the fact that there have been no new issues of those instruments since 2006.

4: A 9.4% decrease with respect to May 2008.

2. The investment of pension funds in mutual funds for infrastructure projects

As of November 2010, the pension funds maintained US\$ 3,827.19 million invested in domestic investment funds, domestic mutual funds and foreign capital investment funds⁵; this amount represents 2.7% of the total pension funds and 14.4% of the domestic equity investment.

At the end of 2010, there were 109 investment funds in Chile with a total equity of US\$ 9,533.2 million. Of the investment funds, 23 are project development or private equity funds, and only 3 of them are focused on infrastructure. Of the 23 private equity funds, two are being settled and seven, as of December 2010, had not yet initiated operation; one that has not yet started operating is an infrastructure fund. As of November 2010, the pension fund administrators maintained investments in 12 of the 15 fully-effective private equity funds for a total of US\$ 367.37 million, the equivalent of 55.8% of the assets of the Chilean private equity funds, but only 0.26% of all pension funds. Specifically, of the total investment funds in which pension funds maintain investments, only two have a specific focus on infrastructure. The total amount invested in them reached US\$ 92.6 million as of November 2010, which is the equivalent of 0.07% of all pension funds.

The two infrastructure funds in which the AFPs have invested are managed by the same Administrator CMB-Prime AFI and coincide in their primary objective: to invest in companies geared towards the development of projects relating to the supply or management of roadway, airport, ports, railways, electricity, penitentiary, healthcare, telecommunications and sanitation infrastructure. According to the Fitch Rating as of September 2010, CMB-Prime AFI managed only 1.3% of the total assets of the mutual fund industry in Chile, but ranks as the second largest administrator of project development or private equity funds with a 20.2% holding, equivalent to US\$ 111.9 million.

One of those infrastructure funds began to operate in 2002 (Prime Infraestructura) and the other (Prime Infraestructura II) in 2010. Pension funds are the greatest contributors to both: 70.38% for the former and 69.8% for the latter, and Insurance Companies constitute the other major contributors to those funds. Both funds have similar investment policies and are focused on investments no smaller than US\$ 4 million per project.

As of June 2010, the Prime-Infraestructura fund had an objective investment portfolio comprising ten assets with which the fund participated in concessions for airport construction, operation and maintenance (22.5% of the fund's total assets), ports (21.8%) and roads (16.2%)⁶; specifically, the investment in awarded infrastructure projects reached US\$ 48.5 million. One of the problems with this fund has been maintaining a set of assets outside the established investment strategy, which originated out of the merger that took place in 2006 with another private equity fund with different investment objectives. Moreover, in September 2010, only five months after having started its operations, the Prime Infraestructura II fund maintained 81.2% of its assets in investments linked to the established investment objective, which consist of two infrastructure concessions in the development and construction stages, meaning they are pre-operative⁶.

Infrastructure Investment in Chile over recent years

In Chile, the system of concessions was consolidated as an effective tool for providing the infrastructure needed by the country. Since the awarding of the first infrastructure project, the El Melón tunnel in 1993, the system of awarding public infrastructure projects for transportation was successfully developed. In recent years, the MOP (Ministry of Public Works) opted to strengthen private investment in infrastructure projects towards other economic sectors and to incentivize the participation of the private sector in generating concessions initiatives. From the start of the concessions system to date, dozens of projects have been awarded and there are many more in the bidding process. As is shown in Table 4, the projects vary and include large highways, airports, transversal routes, urban highways, infrastructure projects for public urban transportation (Transantiago), irrigation dams, hospitals, penitentiaries, public buildings, as well as urban infrastructure projects like parks, neighborhoods and civic centers.

5: Corresponds to the domestic investment of funds domiciled abroad.

6: See the Fitch Ratings report.

Table 4

Status of the Concessions System: Projects Awarded as of December 2010

Project	Type	Dimension	Investment in Billion USD	Duration (years)	Allocated Date	Current State	Start of Operation	Infrastructure Bond
Túnel El Melón	New tunnel	5 km	73	23	Apr-93	In operation	1995	No
Camino de la Madera	Highway expansion	108 km	46	SPV*	Apr-94	In operation	1996	No
Acceso Norte a Concepción	New highway	101 km	315	28	Jan-95	In operation	1998	No
Autopista Santiago - San Antonio	Highway expansion	131 km	268	23	Jun-95	In operation	1999	Yes
Camino Nogales - Puchuncaví	Highway expansion	27 km	17	SPV*	Jul-95	In operation	1997	No
Carretera Panamericana, Talca - Chillán	Highway expansion	193 km	253	SPV*	Jan-96	In operation	1999	Yes
Carretera Panamericana, Santiago - Los Vilos	Highway expansion	218 km	370	23	Oct-96	In operation	2001	No
Ruta 57, Camino Santiago - Colina - Los Andes	Highway expansion	89 km	202	28	Dec-96	In operation	2000	Yes
Carretera Panamericana, Los Vilos - La Serena	Highway expansion	229 km	360	25	Feb-97	In operation	2000	No
Carretera Panamericana, Chillán - Collipulli	Highway expansion	160 km	340	SPV*	Jun-97	In operation	2002	Yes
Carretera Panamericana, Temuco - Río Bueno	Highway expansion	172 km	311	25	Aug-97	In operation	2001	No
Aeropuerto La Florida, La Serena	Expansion	3.000 m2	5	10	Aug-97	In operation	1998	No
Aeropuerto El Loa, Calama	Expansion	2.240 m2	6	12	Oct-97	In operation	1999	No
Carretera Panamericana, Río Bueno - Puerto Montt	Highway expansion	136 km	327	25	Nov-97	In operation	2001	No
Aeropuerto Arturo Merino Benítez, Santiago	Expansion	169.000 m2	251	SPV*	Dec-97	In operation	2001	Yes
Carretera Panamericana, Collipulli - Temuco	Highway expansion	144 km	304	SPV*	Apr-98	In operation	2002	Yes
Ruta 68 - Troncal Sur	New highway and expansion	141 km	564	SPV*	May-98	In operation	2002	Yes
Carretera Panamericana, Santiago - Talca y Acceso sur a Santiago	Highway expansion	266 km	1028	SPV*	Jun-98	In operation	2002	Yes
Aeropuerto Carriel Sur, Concepción	Expansion	8.200 m2	44	17	Jan-99	In operation	2000	No
Aeropuerto Cerro Moreno, Antofagasta	Expansion	2.350 m2	12	10	Oct-99	In operation	2001	No
Sistema Oriente - Poniente, Costanera Norte	Urban Highway	43 km	636	30	Feb-00	In operation	2005	Yes
Red Vial Litoral Central	New highway and expansion	80 km	153	30	Aug-00	In operation	2004	No
Sistema Norte - Sur, Autopista Central	Urban Highway	61 km	761	30	Sep-00	In operation	2005	Yes
Variante Melipilla	New highway	8 km	41	30	Aug-01	In operation	2004	Yes
Sistema Américo Vespucio Sur	Urban Highway	24 km	474	30	Aug-01	In operation	2006	Yes
Ruta Interportuaria Talcachuan - Penco	New highway	14 km	29	32	Jan-02	In operation	2005	Yes
Sistema Américo Vespucio Norponiente	Urban Highway	29 km	821	30	Mar-02	In operation	2006	Yes
Cárceles Grupo I (Iquique, La Serena, Rancagua)	Prison	112.000 m2	128	20	Mar-02	In operation	2005	No
Aeropuerto Desierto de Atacama, Copiapó	New	5.200m2	39	20	Jul-02	In operation	2005	No

Continued on next page

Table 4

Status of the Concessions System: Projects Awarded as of December 2010 (Cont.)

Project	Type	Dimension	Investment in Billion USD	Duration (years)	Allocated Date	Current State	Start of Operation	Infrastructure Bond
Ruta 60 CH, Los Andes - Con Con	Highway expansion	113 km	455	32	Oct-02	In construction	2009	No
Acceso Nororiente a Santiago	Urban Highway	22 km	251	SPV*	Oct-03	In operation	2008	No
Aeropuerto Chacalluta, Arica	Expansion	2.713 m2	15	15	Jan-04	In operation	2006	No
Cárceles Grupo III (Valdivia, Santiago, P. Montt)	Prison	65.000 m2	126	20	Feb-04	In operation	2007	No
Centro de Justicia de Santiago	Public Bulding	115.000 m2	148	20	Mar-04	In operation	2007	No
EIM la Cisterna	Public Transport Work	12.000 m2	37	20	Mar-04	In operation	2007	No
Plaza de la Ciudadanía	Public Bulding	35.000 m2	24	30	Apr-04	In operation	2005	No
Coliseo Parque O'Higgins	Public Bulding	12.000 personas	11	20	Jul-04	In operation	2006	No
Variante Av. El Salto - Av. Kennedy	Urban Tunnel	4,1 km	115	32	Nov-04	In operation	2008	No
Puerto Terrestre de Los Andes	Customs Building	240.000 m2	18	20	Nov-04	In operation	2007	No
Conexión Vial Suiza - Las Rejas	Public Transport Work	3,2 km	35	14	Mar-05	In operation	2006	No
Embalse Convento Viejo	Irrigation reservior	237.000.000 m3	192	25	Apr-05	In construction	2008	No
Estaciones de Tránsito	Public Transport Work	35 estaciones	45	15	Jan-06	In operation	2007	No
Corredor Santa Rosa	Public Transport Work	11 km	104	16	Jan-06	In construction	2008	No
Aeropuerto Diego Aracena, Iquique (1)	Expansion	4.920 m2	17	SPV*	Oct-07	In construction	2009	No
Aeropuerto El Tepual de Puerto Montt (1)	Expansion	13.650 m2	20	SPV*	Nov-07	In construction	2009	No
Ruta 160, Tres Pinos - Acceso Norte a Coronel	Highway expansion	88 km	353	SPV*	Jun-08	In construction	2011	No
Acceso Vial AMB (1)	Urban highway expansion	4 km	69	SPV*	Jul-08	In construction	2010	No
Conexión Vial Melipilla Camino de la Fruta	Highway expansion	31 km	40	SPV*	Nov-08	In construction	2011	No
Carretera Panamericana, Vallenar - Caldera	Highway expansion	221 km	331	SPV*	Jan-09	In construction	2011	No
Programa Hospitalario Maipú y La Florida	Hospital	766 camas	301	18	Aug-09	In construction	2013	No
Aeropuerto Carlos Ibañez del Campo, Punta Arenas (1)	Expansion	760 m2	15	SPV*	Nov-09	In construction	2010	No
Cárceles Grupo II (Antofagasta, Concepción)	Prison	2.349 internos	18	15	Feb-10	In operation	2011	No
Centro Metropolitano de Vehículos Retirados de Circulación	Public Bulding	240.000 m2	22	SPV*	Feb-10	In construction	2012	No
Autopista Antofagasta	Highway expansion	201 km	355	20	Apr-10	In construction	2014	No
Ruta 66 - Camino de la Fruta	Highway expansion	138 km	396	SPV*	Apr-10	In construction	2014	No
Aeropuerto Temuco	New	5.000 m2	125	SPV*	Apr-10	In construction	2013	No
Carretera Panamericana, Puerto Montt - Pargua	Highway expansion	55 km	189	SPV*	May-10	In construction	2014	No

(1) projects for re-tender including the construction of additional projects

SPV*: mechanism with varied terms based on the present value of the total revenues from the concession

(Δ) December 2010 dollars.

Source: Dipres (Budget Management), Ministry of Finance.

Within this framework, there is currently an extensive program of future concessions in place as shown in Table 5, which include different types of projects and a strong component of second generation concessions such as jails, hospitals and urban infrastructure. In addition, there is a considerable portfolio of projects under study that total an additional US\$ 3,730 million.

To select the priority order of the projects, their social benefit, the degree of project maturity and the lesser need for government subsidies shall be considered.

Table 5

Summary of the Concession Program as of December 2010

Summary of Concessions Program	Investment Billion USD
Biddings 2010 (*)	523
Biddings 2011	1,890
Biddings 2012	1,441
Biddings 2013	2,324
Hospital Program 2011-2013	1,338
Penitentiary Program II-B 2011-2013	245
Transantiago Program 2011-2013	248
Subtotal	8,009
Projects in Study	3,730
Total	11,739

(*) In addition to projects in bidding process for USD 1,062 billion

Source: Ministry of Public Works

The pension funds' participation in the financing of awarded infrastructure projects was intense at first, when major transportation projects were awarded (large highways, urban roadways and the capital city's airport). With this opportunity, as we have already mentioned in this study, the government commissioned studies to facilitate the participation of institutional investors in the financing of the concessions. The result was the creation of the infrastructure bond, a debt instrument that, though it is sustained on the future expected flows of the projects, has mechanisms in place to limit the risk and achieve the investment grade needed to be acquired by the pension funds. The mechanisms were primarily: i) a 100% guarantee of all bonds by international insurance companies and ii) the acquisition of insurance provided by the State. In both cases, the issuer's risk (that of an international insurance company) is replaced by the insurer's risk (that of the State of Chile).

Table 6

Chilean Infrastructure Bonds Risk Ratings

Name of Bond	International Insurance	State Insurance	Issuance	Aug-09	2010-2011
SOC. CONCESIONARIA RUTAS DEL PACÍFICO	IDB and Financial Assurance		AAA	AAA, stable	AAA, stable
SOC. CONCESIONARIA AUTOPISTA DEL SOL	Financial Security Assurance	IMG	AAA	AAA, stable	AAA, stable
SOC. CONCES. AUTOPISTA LOS LIBERTADORES	XL Capital Assurance	IMG	AAA	A+, negative	A+, stable
SOC. CONCES. AUTOPISTA INTERPORTUARIA	NO	IMG	A+	A+, stable	A+, stable
SOC. CONCES. MELIPILLA S.A.	NO	IMG	AA-	A-, negative	BBB, stable
AUTOPISTA DEL MAIPO SOC. CONCESIONARIA	MBIA Insurance	IMG	AAA	AAA, negative	A, stable to negative
TALCA-CHILLÁN SOC. CONCESIONARIA	MBIA Insurance	IMG	AAA	AAA, stable	A, stable to negative
RUTA DEL BOSQUE SOCIEDAD CONCESIONARIA	XL Insurance	IMG	AAA	A+, negative	A+, negative
RUTA DE LA ARAUCANÍA SOC. CONCESIONARIA	XL Insurance	IMG	AAA	AAA, stable	AAA, stable
SCL TERMINAL AEREO SANTIAGO S.A. SOC. CONCES.	MBIA Insurance	IMG	AAA	A+, stable	A+, stable
SOC. CONCESIONARIA AUTOPISTA CENTRAL	MBIA Insurance		AAA	AAA, stable	AA-, stable to negative
SOC. CONCESIONARIA VESPUCIO NORTE EXPRESS S.A.	MBIA Insurance		AAA	AAA, stable	BBB+, stable to positivas
SOC. CONCESIONARIA COSTANERA NORTE	BID y AMBAC Assurance	IMG	AAA	AAA, stable	AAA, stable
SOC. CONCESIONARIA AUTOPISTA VESPUCIO SUR S.A.	XL Capital Assurance		AAA	A+, negative	A+, negative

Source: Feller Rate, Humphreys and Dipres

Infrastructure bonds were issued for 14 of the projects awarded, which represent 50% of the investment in concessions made as of 2010, as observed in Table 4. The last issue of infrastructure bonds took place in 2006. The rest, more than 40 other projects awarded, have not issued infrastructure bonds, but opted to raise funds through other channels.

During the subprime crisis, the international insurance companies suffered a decrease in the Standard & Poor's rating on a global scale. In this situation "the rating of the infrastructure bonds would be sustained on the underlying risk of the issue, which would predominate against a backdrop in which the assessment of the bond guarantor's capacity for payment is less than the individual capacity of the issuer"⁷. Moreover, as shown in Table 5, many of the infrastructure bonds also had the IMG state guarantee, meaning that it had additional backing. Though many of the infrastructure bonds suffered decreases in their rating, all of the bonds issued maintained a sufficient investment grade to be within the eligible category for the pension funds.

Conclusions

Pension funds invest in the financial markets of Chile and the world with the objective of managing the risk-return ratio in the best interest of the pension-savers' future pensions. By following a diversified investment strategy, the pension funds maintain significant volumes of funds invested in stocks and bonds of companies in different economic sectors, including that of infrastructure.

To date, the primary investment of the pension funds in infrastructure has been carried out through the acquisition of stocks and bonds of companies in the electricity, telecommunications and healthcare sectors. As of November 2011, US\$ 11,729 million were invested in Chile under those headings, which is the equivalent of approximately 8% of the total pension funds.

The most direct investment in infrastructure in Chile, or rather that in which pension funds directly participated in the financing of infrastructure projects, has been through the purchase of infrastructure bonds and an incipient investment in infrastructure funds. Infrastructure bonds are debt instruments issued by concession companies of public infrastructure projects. This type of bond has only been issued for transportation infrastructure projects, such as highways, roads and an airport.

⁷ See Feller Rate report. "Feller Rate reviews ratings of bonds for highways guaranteed by monoliners".

In Chile, the system of concessions of infrastructure projects is still being developed, with movement towards second generation concessions like penitentiaries and hospitals. However, since 2006, no new infrastructure bonds have been issued. Therefore, the concession bidding companies have opted for other mechanisms for raising the funds needed to carry out the projects. Without the issue of new infrastructure bonds, the participation of the pension funds in the direct financing of infrastructure projects has decreased.

With regard to the participation of pension funds in infrastructure mutual funds, we must mention that this is an incipient industry in Chile that still requires major development. At the close of 2010, there were only two private equity mutual funds for infrastructure that were in place and active on the market; pension funds maintain investments in both.

As the infrastructure projects carried out in Chile have generated investment vehicles that are attractive to the objectives of the pension funds, the pension funds have incorporated them into their portfolios as part of their diversified investment strategies. While the new scheduled projects, which account for more than US\$ 8,000 million in the next 3 years, generate investment instruments that are useful to the pension funds' objectives, they will, without doubt, be incorporated into their portfolios.

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