

## How much would you pay for a pension fund manager?

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### ABSTRACT

In this case, the purchase of "Cuprum", a Chilean Pension Fund Manager (AFP) company by the North American company "Principal Financial Group Inc." is presented. This AFP is one of six private Chilean Pension System institutions. This company receives deposits from workers and manages them by investing in financial portfolios in order to generate returns that allow the payment of pensions. The principal source of revenue for AFPs comes from charging a commission on the salaries of contributing employees. The agreed purchase price was 52% higher than the Cuprum market share. AFP buyers say they paid the right price, but some experts say the opposite and that would be rather a speculative business. The main problem here is to decide what the reason is for the higher price and analyze whether or not the price paid is high compared to the market price of common AFP shares.

Keywords; fund management, pension fund, pension fund value

This case describes a real situation. The sources of information are public records submitted to the press, Cuprum Report 2011, the Chilean Pensions Supervisor, the Santiago Stock Exchange-Chile and the Chilean newspapers "El Mercurio" and "La Tercera." This article is for academic purposes only.

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## **PENSION FUND MANAGER (AFP) CUPRUM, ITS OWNERS AND ORGANIZATION**

The Pension Fund Manager (AFP) Cuprum SA is a private Chilean institution and publicly traded company (open stock company), whose headquarters are in Santiago and with branches in all regions of the country. AFP was legally founded in April 1981 in compliance with all laws and regulations governing the Chilean Pension System.

Cuprum provides pension products that includes mandatory employee-funded pension plans, voluntary pension products and other long-term savings plans. The objective of this AFP, as is with all companies belonging to this industry, is to manage Chilean workers' pension fund (social security) resources. In order to meet this objective, investment portfolios consist of five funds, A, B, C, D and E, which are ordered from most to least risk respectively. AFPs invest members or workers' resources in Equity Markets, Fixed Market Income (Bonds), Money Markets and other Financial Markets (Currency Market, Investment Fund Quotas) in both Chilean and foreign capital markets. There is a regulation which sets limits on such investments.

The investment system is governed by Chilean legislation and is supervised by the Chilean Pensions Supervisor, a state agency which has an organization and standards that are known to all participants within the system as well as the Chilean legal system that regulates workers' pension system. AFPs charge fees to their members for the administration of funds which is their main source of operational income.

AFP Cuprum has had some variations since 1987, amongst which saw the amendment of its bylaws. The central management of AFPs is governed by a Board as required by Chilean law, under which operational management is developed headed by a general manager and under different functional management pertaining to AFP business, including: Planning and Risk management, Administration and Finance, Operations and Technology and Sales and Investments. There is also a public prosecutor.

The Shareholders' Equity (Share Capital and Retained Earnings) on December 31, 2011, was U.S. \$ 228.71 million. There are 17,996,300 registered single series, common stock, all fully subscribed and paid, with no par value. These shares are held by different owners, the last participation of the twelve largest shareholders as follows:

Stockholders	N° of shares	Participation
Empresa Penta S.A.	5,708,435	31.72%
Inversiones Banpenta Limitada	5,708,435	31.72%
Larraín Vial S.A. Corredora de Bolsa	652,573	3.63%
BanChile Corredores de Bolsa S.A...	625,132	3.47%
BCI Corredor de Bolsa S.A.	574,995	3.20%
Santander S.A. Corredores de Bolsa	306,159	1.70%
BICE Inversiones Corredores de Bolsa S.A	270,594	1.50%
Munita, Cruzat y Claro S.A. Corredores de Bolsa	190,667	1.06%
Celfin Capital S.A. Corredores de Bolsa	150,713	0.84%
Corona Bozzo Pedro	110,582	0.61%
Inversiones Tocora Limitada	106,941	0.59%
BBVA Corredores de Bolsa Limitada	71,690	0.40%

Source: Cuprum Report 2011

Thus, Empresas Penta S.A. directly owns 5,708,435 shares of the Cuprum Company, which represents 31.72% of the capital and indirectly owns, through its

subsidiary Inversiones Banpenta Limitada another 5,708,435 shares of the Company, representing 31.72% social capital, which implies a total of 63.44% ownership of Cuprum. Empresas Penta S.A. is a closed stock company.

Individuals involved as owners of Empresas Penta SA are: Carlos Lavin Garcia-Huidobro, with 22.07873%; Carlos Delano Abbott, with 11.24492%; Veronica Mendez Ureta, (spouse of Mr. Delano), with 11.23399% and Maria Chadwick Hurtado, (spouse of Mr. Lavin) with a rate of 3.18958%. Empresas Penta SA has a 99.97% stake in subsidiary Inversiones Banpenta Limitada.

The principal owners of Cuprum, Messrs. Lavin and Delano, created Empresas Penta in the early eighties. Previously, both worked as executives in the financial sector and later started their own business activities through Empresas Penta. Its main business is in the financial sector in pension funds, insurance, health, housing and education. They entered into ownership of Cuprum in 1988. In 1998 they sold 31.7% of their shares to Sun Life of Canada, but in 2005 they repurchased that percentage.

## **THE AFP CUPRUM BUSINESS STRUCTURE**

On August 2012, AFP Cuprum has 623,503 affiliated persons, which represent 6.77% of the total persons affiliated to the system, this implies that it is the fifth relevant in a total of six AFP that comprise the Chilean pension system. 450,286 people have contributed, representing 9.41% of people contributing to the Chilean pension system. (See Appendix No 1.4).

As of September 2012 the funds managed by AFP Cuprum have a value of U.S. \$ 33 billion representing 20.73% of the total value of Chilean pension funds. This greater amount of value, much higher than the relative importance of members, is due to the fact that its portfolio consists of individual members with higher incomes who on average make up 36% Cuprum's contributors. This is important because an AFP's main income derives from fees charged on contributors' monthly income.

Under pension law, a worker must deposit a mandatory 10% in an AFP with a maximum monthly salary limit of approximately U.S. \$ 3,220 per month (at 10/08/2012), or about U.S. \$ 38,650 per year. Therefore it is important for AFPs to capture workers with higher salaries because an AFP depends on these for income by way of commissions. The AFP Cuprum applies a commission of 1.48% on the amount deposited by each contributor. See Appendix No. 2.4.

The profitability of AFP pension funds has fluctuated between 6.6% real annual for Fund A and 4% in real annual for Fund E, from 2000 until September 2012 (See Appendix No. 1.1). Pension fund returns in all AFPs within the sector do not radically differ.

The number of Cuprum participants since 2006 increased from 517,767 to 614,733 in 2011. This implies an annual growth rate of 3.5%. The number of participants in 2006 was 341,861 and in 2011 this had risen to 437,645, which is an annual growth of 5.1%. See Appendix No. 1.5.

## **SALES OF AFP CUPRUM**

Financial rumor stated that AFP Cuprum was for sale and so on the 8<sup>th</sup> of October, 2012 AFP Cuprum stated that the insurer and asset manager "Principal Financial Group", a U.S. company, agreed along with Penta group to buy AFP. The U.S. Company is

headquartered in Iowa (USA) and has offices in USA, Australia, Europe, Hong Kong, India, Singapore, Brazil, Mexico and Chile. Their businesses are insurance, pension funds and life annuity. The President of the Principal Financial Group for Latin America, Robert Walker said that "Entering the AFP business in our country has been a strategic priority for Principal and an essential step to consolidate our position in Chile and Latin America" according to the press.

This operation implies that Penta, a regulator of the AFP Cuprum, will sell shares to Principal Financial Group an equivalent of 63.44% of the total ownership of Cuprum, corresponding to U.S. \$ 955,628,698. Ownership of the remaining 36.56% will be acquired by Principal Financial Group Inc. through a "Shares purchase Public offering" (IPO) that will later launch the Principal Financial Group Inc., which agrees to pay the same price as the shares paid to Penta, giving Cuprum a total value of U.S. \$ 1,506 million.

Thus, Penta will sell the 11,416,870 shares held in Cuprum to the Principal Financial Group Inc. (i.e, 63.44% ownership), at a price of U.S. \$ 83.703 per share. This is the same price that must be paid to all shareholders who agree to sell the remaining shares (6,579,430 shares, or the remaining 36.56%) in a Public Offering of Purchase to later launch Principal Financial Group.

A summary of this transaction, with information from October 8, 2012, is as follows:

Number of Shares	Ownership Participation	Total Value (US\$)
11,416,870	63.44%	955,628,698
<u>6,579,430</u>	<u>36.56%</u>	<u>550,721,709</u>
17,996,300	100.00%	1,506,350,407

Source: "El Mercurio", Santiago, Chile, 10.8.2012

Other data show that Cuprum's Return on Equity has fluctuated. In 2010 this was 47.6% and in 2011 was 22.8%. The market price of its shares from 2006 to 2011 increased by 18% real, see Appendix No. 2.1. Its Net Income shows a changing pattern, reaching U.S. \$ 67.23 million in 2011 in June 2012 currency. Dividends on average per annum (Years 2006-2012), show a dividend of 9.17% of the share market price at the end of each year. See Appendix 2 which contains information on Cuprum and the Santiago Stock Exchange.

On the day of the announcement of the sale, Cuprum's shares were trading at U.S. \$ 55.23 each with a total of 17,996,300 common stock shares. This means that the sale price was 52% higher than the market price. Pedro Atria, CEO of Principal Financial Group Chile, according to the Chilean press, said: "We are not paying more than was paid previously", and also said: "We are very comfortable with the price we are paying," he added, "we believe that is equivalent to having a Price / Earning relationship of between 12 and 13 times." He also noted that "Cuprum's main asset is the weight who has an average taxable income much higher than the rest of the system." Another Penta Group manager told reporters about how they managed a premium of 52% above the market price of the shares: "They have always wanted to be in the Chilean pension system. There is an award for control."

Conversely, an executive who is proficient in the AFP business said that the price paid is high. Another stock market expert said that this transaction is a financial speculation

in shares rather than a transaction based on the core business of an AFP which is to obtain commissions for managing a financial portfolio. The three views are contradictory.

### **DISCUSSION TOPICS AND GUIDING QUESTIONS ABOUT THE CASE**

1) Mathematically demonstrate Price-Earnings Ratio deductions, in both continuous and discrete cases and, based on these, analyze whether the opinion of the CEO of Principal Financial Group, Chile is valid regarding the fact that the ratio is equivalent to between 12 and 13.

2) Calculate the probable value of the AFP Cuprum shares if Principal Financial Group decides to sell the AFP in the next two, four or six years. Calculate for these same years to see whether the investment is profitable. Based on this, analyze whether the 2012 transaction can be described as a shares speculation negotiation or Pension Fund Manager negotiation.

3) With the aforementioned data, examine whether it is a good argument that Principal Financial Group has paid a premium of 52% for the controlling interest in Cuprum.

4) Would you have bought AFP Cuprum? To respond, analyze from two points of view: a) As a financial speculator b) As a manager in the pension fund business.

### **APPENDIX N° 1. AFP Sector Details**

#### **Pension Fund Values**

As established according to Chilean law (Decree Law N° 3500), the amounts invested in Fund Type A variable profit instruments (most risky), must be greater than those held by the Fund Type B (risky), which in turn must be greater than Fund Type C (Intermediate), which at the same time are higher than Fund Type D (conservative), and the latter must be greater than the Fund Type E (most conservative).

The total value of the pension funds within the entire AFP system (in millions of dollars for the month of August 2012) is U.S. \$ 159,190, which breaks down as follows: Fund Type A U.S. \$ 27,088, Fund Type B U.S. \$ 28,045, Fund Type C U.S. \$ 62,295, Fund Type D U.S. \$ 23,968 and Fund Type E U.S. \$ 17,794. Dollar value is as of September 30, 2012 (\$ 470.48). Currently the system consists of six AFPs, which are as follows: Capital, Cuprum, Habitat, Model, Planvital and Provida. The following table shows the breakdown of these data for all Chilean pension system AFPs.

**Pension Fund Values**  
(Millions \$US Sep.2012)

AFP	A More Risky	B Risky	C Intermediate	D Conservative	E More Conservative	TOTAL	Total Variation. 12 months (%)
CAPITAL	6,368	6,064	13,178	5,406	3,462	34,479	7.7
CUPRUM	6,857	5,414	11,139	4,129	5,461	33,000	11.4
HABITAT	6,571	7,900	15,807	5,506	5,278	41,061	11.7
MODELO	127	281	148	107	141	804	261.9
PLANVITAL	459	692	2,057	940	272	4,520	9.0
PROVIDA	6,606	7,694	19,966	7,880	3,180	45,326	6.7
<b>TOTAL</b>	<b>27,088</b>	<b>28,045</b>	<b>62,295</b>	<b>23,968</b>	<b>17,794</b>	<b>159,190</b>	<b>9.6</b>
Total Annual Var.	1.5%	3.8%	4.6%	11.9%	67.9%	9.6%	

Source: Chilean Pensions Supervisor report, Value and Profitability of Pension funds, September 2012. Santiago, Chile.

**Real Return of Funds A, B, C, D y E, from the month of September 2012.**  
(In Percentage deflated by U.F.)

Pension Funds	September, 2012	Last 12 months Oct 2011-Sep 2012	Annual average last 36 months Oct 2009-Sep 2012	Annual Average Sep 2002-Sep 2012
Type A – More risky	2.40	5.87	1.74	6.62
Type B – Risky	1.79	4.46	2.62	5.64
Type C – Intermediate	1.18	3.57	3.02	5.06
Type D - Conservative	0.65	2.88	3.43	4.64
Type E – More conservative	0.16	2.69	4.49	3.98

Source: Chilean Pensions Supervisor (Superintendencia de AFP) report, Value and Profitability of Pension funds, September 2012. Santiago, Chile. U.F.: Is an account unit and Chilean non-circulating currency, periodically adjusted for inflation relative to the Chilean peso so that its value remains constant.

**Return and Volatility of funds A to E of all AFPs within the system.**  
(Percent per annum, October 2011, September 2012)

AFP	A More Risky		B Risky		C Intermediate		D Conservative		E More conservative	
	Return	Volatility	Return	Volatility	Return	Volatility	Return	Volatility	Return	Volatility
Capital	5.47	9.14	4.36	6.40	3.57	3.73	2.79	2.36	2.52	2.15
Cuprum	6.21	8.66	4.75	5.88	3.55	3.57	2.77	1.94	2.39	2.18
Habitat	6.34	9.22	4.69	6.15	4.01	3.60	3.40	1.93	3.13	2.14
Modelo	6.84	9.79	5.61	6.65	5.07	3.99	4.35	1.77	3.66	1.48
Plan Vital	7.39	9.16	5.70	6.20	4.64	3.50	3.46	1.70	2.53	1.98
Provida	5.26	8.97	3.94	6.25	3.10	3.69	2.56	1.99	2.65	2.20
<b>Total Sistem</b>	<b>5.87</b>	<b>8.97</b>	<b>4.46</b>	<b>6.16</b>	<b>3.57</b>	<b>3.62</b>	<b>2.88</b>	<b>1.93</b>	<b>2.69</b>	<b>2.12</b>

Source: Chilean Pensions Supervisor (Superintendencia de AFP) report, Value and Profitability of Pension funds, September 2012. Santiago, Chile.

**Total number of people who are Members and Contributors to the AFP System**  
**Number of Members in August 2012**

AFP	Number of Members	Distribution
Capital	1,885,708	20.48%
Cuprum	623,503	6.77%
Habitat	2,156,425	23.41%
Modelo	715,179	7.77%
Plan Vital	393,916	4.28%
Provida	3,433,642	37.29%
<b>Total</b>	<b>9,208,373</b>	<b>100.00%</b>

Source: Monthly affiliate and contributor Statistical Report. Chilean Pensions Supervisor. August 2012

**Number of Contributors to the entire AFP system in August 2012**

A.F.P.	Number of Contributors	Distribution in %	Voluntary Members
Capital	974,570	20.38%	58
Cuprum	450,286	9.41%	137
Habitat	1,188,435	24.85%	249
Modelo	308,894	6.46%	1,099
Plan Vital	165,744	3.47%	2
Provida	<u>1,694,545</u>	<u>35.43%</u>	6
<b>Total</b>	<b>4,782,474</b>	<b>100.00%</b>	<b>1,551</b>

Source: Monthly affiliate and contributor Statistical Report. Chilean Pensions Supervisor. August 2012

**Number of Members and Contributors to AFP Cuprum, Years 2006-2011**

<u>Year</u>	<u>Members</u>	<u>Contributors</u>
2006	517,767	341,861
2007	574,873	372,617
2008	575,081	392,855
2009	593,958	407,198
2010	607,048	428,524
2011	614,733	437,645

Source: AFP Cuprum Annual Report, years 2006-2009

**Real Return of AFP Cuprum Funds (September 2012).**

Fund Type	September 2012	Accumulated Jan.-Sept. 2012	Last 12 Months	Annual Average Sep.2002-Sep.2012
Fund A	2.31%	3.18%	6.21% Annual	6.57% Annual
Fund B	1.71%	2.63%	4.75% Annual	5.76% Annual
Fund C	1.11%	2.70%	3.55% Annual	5.34% Annual
Fund D	0.59%	2.79%	2.77% Annual	4.85% Annual
Fund E	0.14%	2.96%	2.39% Annual	4.01% Annual

Source: Chilean Pensions Supervisor, September 2012

**APPENDIX N°2. Cuprum Financial Data**

**Information about Stock Price and Dividends per Cuprum Share.**

(US\$ June 2012)

Year	Stock Price 31 Dec.(1)	Dividends per Share (2)	Ratio PER (3)
2006	21.21	2.49	8.32
2007	31.32	2.57	7.03
2008	16.81	1.78	11.51
2009	40.88	4.02	7.22
2010	48.01	3.70	9.13
2011	48.06	3.55	12.59
2012 (Junio)	51.40		12.38

(1) and (2) Price and statistical information from the Santiago Stock Exchange, for each year. The Stock Prices are expressed in dollars as of June 2012. PER= Price-Earnings Ratio

(3) Information from the Cuprum Yearly Report 2011. Figures in dollars as of June 2012

**Information on Shareholder’s Equity, Net Income and Earning per Cuprum Share.**

Figures for both Shareholder’s Equity and Net Income are expressed in millions of dollars as of June 2012. The Earnings per Share are expressed in dollars of June 2012, that is to say that all have been adjusted for inflation.

Year	Shareholder’s Equity (Share Capital and Retained Earning)	Net Income	Earnings per Share	Dividend/Earning (%)
2006	153.36	66.32	3.69	67.47%
2007	173.65	68.47	3.80	67.63%
2008	147.05	6.01	0.33	439.39%
2009	205.16	130.37	7.24	55.52%
2010	224.34	106.68	5.93	62.08%
2011	228.71	67.23	3.74	94.92%
2012(June)	219.96	50.04	2.78	

Source: The original figures in Chilean currency, unadjusted for inflation, have been obtained from the Cuprum’s Uniform Codified Statistical Record (Fecus). This is a report of the Financial Statements in a standardized format that is required by all Chilean corporations. The original figures in Chilean currency were adjusted for local inflation and later converted to U.S. dollars with a June 2012 peso-dollar exchange rate.

**Information about the Santiago Stock Exchange-Chile.**

Source: Annual Report 2011, Santiago Stock Exchange

Year	IGPA (1)	% ANNUAL VARIATION IGPA (2)	Ratio PER (3)	Price Share/Book Value Ratio (4)
2006	756.67	31.40%	20.73	2.16
2007	798.33	5.50%	19.72	2.22
2008	599.71	-24.88%	13.20	1.44
2009	893.77	49.03%	20.02	1.89
2010	1197.51	33.98%	22.26	2.39
2011	1004.42	12.38%	16.87	1.96

(1) IGPA= Stock Price General Index of Santiago Stock Exchange, (Base 100=30 December 1980). Real Values as of December 1980, last day of each month. (2) % Annual Variation IGPA .  
 (3) Price-Earnings Ratio calculated considering as a base 40 stock of Selective Stock Prices Index (IPSA) of Santiago Stock Exchange-Chile as of the end of each year. IPSA is a portfolio of 40 of the most relevant stocks in the Santiago Stock Exchange.  
 (4) Price-Book Ratio calculated considering as a base the market capitalization and book value of listed companies in the Santiago Stock Exchange.

**A.F.P. Commissions**

The Commissions charged by AFP on Quote deposits on October 2012 are:

<u>A.F.P.</u>	<u>Commission as a % of salary</u>
Capital	1.44
Cuprum	1.48
Habitat	1.27
Modelo	0.77
Plan Vital	2.36
Provida	1.54

Source: Statistical Report Chilean Pensions Supervisor. October 2012.