

PENSION NOTES

No. 12 - JANUARY 2017

Investment in alternative assets in a world of low returns

Executive Summary

The low return of traditional assets (mostly bonds and equities) is one of the main challenges currently facing pension systems worldwide. Hence, the search for proposals that contribute to improving the long-term returns of pension resources, and increasing pension amounts, is crucial for the private individually funded systems.

In this regard, investment in alternative assets can significantly contribute to meeting this goal. Their main advantages over traditional assets are:

- Increase in the expected long-term returns of pension resources, by accessing new investment opportunities in different economic sectors.
- They enable the pension funds, as long-term investors, to benefit from the award for illiquidity.
- They provide an opportunity for reducing the aggregate portfolio risk through better diversification of investments, acquiring assets with low correlation to traditional assets.

As for the risks/disadvantages involved in investment in alternative assets, we have¹:

- There are more and more investors trying to take advantage of the potential gains from these types of assets, so entering these markets is increasingly expensive and expected returns are therefore lower than historically observed returns.
- Investment in alternative assets is costly (high fees).
- Given the current climate of low interest rates, the discount rate used to appraise alternative assets is very low. A possible rate hike in the future could negatively impact the net return of the assets at the time of divestment.
- Valuation difficulties. Because they are complex assets, their valuation is also complex. This point is very important for the pension systems that allow transfers between different funds and between AFPs, since it could involve transfers of wealth among members.

¹ For further details on the risks of investing in alternative assets, you can consult FIAP (2016), "The opportunities and challenges of the investments of the pension funds and voluntary pension savings," pages 139-154. Available <a href="https://example.com/here/bension/pension/bension/pension/ben

 Returns on alternative assets often face a 'J' curve (losses at the beginning of the investment and profits at the end). The initial investment losses are borne by the retirees at the time, who do not subsequently perceive the future benefits of the investment.

Despite the gradual increase of investments in these types of instruments in Latin American pension funds, their volume is still very limited compared to pension funds in developed countries. This is mainly due to regulatory issues. It is therefore important for authorities and fund managers to ensure adequate conditions for advancing in the process of investing in these types of assets. It is particularly necessary for fund managers Superintendencies to strengthen corporate governance and risk identification, and management and control processes involving alternative assets. This particularly important because of the complexity of alternative assets.

Finally, even though it is not the purpose of the investment of the pension funds, it is worth mentioning that alternative investments can contribute to greater economic growth, mostly due to improved productivity.

Introduction

The current context of low global returns is a huge challenge for the pension systems in general, and for the individually funded systems in particular, due to its impact on the amounts of the pensions that can be financed. It is estimated that a 1% variation in the returns of pension funds (FP) during

the accumulation period, has an impact of approximately 25% on final pension amounts. This requires authorities and managers of pension funds (AFP) to seek out new investment alternatives for pension funds, which contribute to diversification and increase the expected long-term returns of pension resources, with proper control and management of the risks involved. In this context, investment in alternative assets becomes an attractive investment option, since incorporating such instruments into the investment portfolio enables obtaining greater returns with the same or lower risk than investing only in traditional assets.

According to Mr. Guillermo Arthur, FIAP's President, progress has been made in this area in Latin America, with new investment opportunities gradually opening up for the pension funds, at different rates, with tremendous progress in some cases, and serious difficulties in others.

A law was recently enacted in Chile authorizing the investment of the pension funds in alternative assets (Law 20,956, known as the Productivity Law). It takes effect on November 1, 2017.

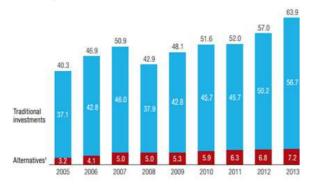
Given the increasing importance of investment in alternative assets for the pension funds, FIAP and the Chilean Association of AFPs jointly organized a seminar on this matter². The main ideas put forward are presented in this Note.

² Seminar entitled "Investment in a world of low returns, held in Santiago, Chile, on October 27, 2016. You can review the presentations at the following <u>link</u>.

I. Impact of alternative investments on returns

Negative interest rates seem to be the new reality in the debt market. According to JP Morgan figures, 28% of the total sovereign debt of developed countries was traded at negative rates to September 2016. 51% of the sovereign bonds of Eurozone debt pay negative real rates. Even more surprisingly, even corporate bonds have joined this trend: 30% of the existing corporate debt denominated in Euros has a negative rate. Moreover, according to Matthew Pedley, Managing Director of Private Equity at Blackstone, no significant returns are expected in the global stock market in the next few years.

Graph No. 1: Assets managed worldwide, 2005-2013 (USD trillions)



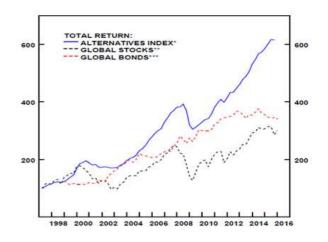
Source: McKinsey Global Asset Management Growth Cube.

In this context, alternative assets have become an attractive investment option, since they offer higher returns at lower risk. This would explain the rapid expansion of investments in these types of instruments (see Graph No. 1). Between 2005 and 2013,

alternative instrument assets under management worldwide doubled, and their annual growth rate was twice the rate observed in traditional assets (10.7% vs. 5.4%).

Alternative assets have a number of advantages over traditional assets. First of all, their returns are much higher. As can be seen in Figure No. 2, the total return on alternative assets (based on an index drawn up by BCA) was much higher than stocks and bonds. In fact, according to BCA's figures, the *private-equity* return since 1997 has been 13.4%³, well above the 5.8% obtained by the global equities index.

Graph No. 2: Return of alternative assets vs. traditional assets



Source: BCA.

This higher return is explained mainly by three factors:

- (i) Illiquidity premium. Alternative assets offer higher returns to compensate for their low liquidity.
- (ii) Complexity. Investors generally seek simple, standardized easy-to-value

3

³ Compound annual growth rate. Source: BCA.

assets. Alternative assets are complex, and higher returns are therefore required.

(iii) Alternative assets offer better longterm returns (explained by the 'J' curve, losses at the beginning of the investment, and profits at the end), which is compatible with the investment horizon of the pension funds.

Not all investors can invest in this asset class, but since the investment horizon of the pension funds is longer, it is in their interests to take advantage of the higher returns offered by alternative assets.

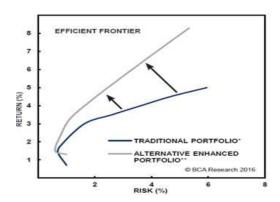
Secondly, alternative assets have low (or even negative) correlation with traditional assets. There is also a low (or negative) correlation between different alternative asset strategies. Portfolios containing alternative assets are also less volatile due to the diversification effect.

Finally, they improve the efficiency frontier: higher returns and lower risk. Graph No. 3 shows the risk- return efficiency frontier of a traditional portfolio compared to a portfolio including 20% in alternative assets. As can be seen, the efficiency frontier is considerably enhanced by incorporating alternative assets in the investment portfolio.

It is crucial to choose the best alternative asset managers to ensure a good return on investment, since there is a wide range of returns obtained by the different fund managers. Hence, it is important to consider two factors: (i) the size of the managed fund: the evidence suggests that the larger the managed fund, the lower the risk of the fund manager being bad; (ii) the "track record":

managers whose funds have had good returns in the past, tend to repeat their performance.

Graph No. 3: Efficiency frontier of a traditional portfolio vs. alternative portfolio



Source: BCA.

Despite the advantages offered by alternative assets, it is important to bear in mind that they have some challenges that must be taken into account.

First of all, there are more and more investors trying to take advantage of the potential gains from these types of assets, so entering these markets is increasingly expensive and expected returns are therefore lower.

Second, investment in alternative assets is costly. Fund managers usually charge annual commissions of 2% on assets under management, and 20% of the returns obtained.

Third, it is difficult for alternative assets to gain value. Because they are complex assets, their valuation is also complex.

Fourth, given the current climate of low interest rates, the discount rate used to value alternative assets is very low. A possible rate hike in the future could

negatively impact the net return of the assets at the time of divestment.

Fifth, it is important to bear in mind that the returns on alternative assets often face a 'J' curve (losses at the beginning of the investment and profits at the end). This is why it is important to have investment strategies with more stable returns, choosing those strategies with better 'J' curves. Alternatively, exposure to alternative assets can be limited in more conservative funds, which are specifically designed for individuals closer to retirement.

The Peruvian and Chilean experience

Peru

The regulator's role is critical for the AFPs and market development, particularly due to the established investment limits. In Peru, the current limits on investment in alternative assets are 15% for the Type 2 Fund (intermediate) and 20% for the Type 3 Fund (more aggressive).

There has been a significant increase in the proportion of alternative assets in the investment portfolios of the pension funds. According to Aldo Ferrini, General Manager of AFP Integra, in the particular case of the AFPs, alternative assets made up 0.2% of the Type 2 Fund, and 0.3% of the Type 3 Fund, in 2008. In the first quarter of 2016, they made up 6.9% of the Type 2 Fund and 10.2% of the Type 3 Fund.

Local industry challenges:

1. *First-time managers:* Many mistakes, learning process.

- Lack of vintage: There are no "mature" funds to compare with and see whether the promised returns are effectively obtained.
- 3. High dependency on AFPs
- 4. Inadequate legislation: divestment strategy is complex
- 5. Cost Structure
- 6. Management of conflicts of interest;
- 7. Active role of government
- 8. Direct investment (costs). The AFPs are not managers, this increases investment costs in alternatives.

Chile

Investment in alternative assets in Chile is still very limited (only 2% of the assets under management in the specific case of AFP Habitat). If one compares the pension and investment funds with common goals to those of the AFPs, but with fewer restrictions, one can see that they have much higher investment in alternative assets (see Table No. 1).

The implementation of Law 20,956 would enable investing up to 15% of each pension fund in alternative assets. Definitions and regulations required by law are still lacking, but they will be defined in the Investment Regime.

If the new Productivity Law is correctly applied, it is estimated that pension amounts could increase by between 15% and 20% in the long term, according to Alejandro Bezanilla, CIO of AFP Habitat-Chile.

Table No. 1: Asset Allocation of different pension funds

Asset Class	Yale University	Stanford University	Canadian Pension Plan	Calpers	Habitat
Domestic Equity	3,9%	10,0%	4,3%	51,9%	9,0%
Fixed Income	4,9%	5,0%	14,8%	26,3%	67,0%
Foreign Equity	14,7%	19,0%	27,3%		22,0%
Cash	2,8%			1,5%	0,0%
Sub Total Traditional	26,3%	34,0%	46,4%	79,7%	98,0%
Absolute Return	20,5%	22,0%	12,1%	0,5%	0,0%
Private Equity	16,2%	26,0%	20,7%	8,9%	2,0%
Natural Resources	6,7%	10,0%		0,7%	0,0%
Real Estate	14,0%	8,0%	20,8%	9,3%	0,0%
Venture Capital	16,3%				0,0%
Sub Total Alternatives	73,7%	66,0%	53,6%	19,4%	2,0%

Source: Presentation Alejandro Bezanilla, CIO AFP Habitat Chile.

II. Private Equity:Opportunities in an Uncertain World

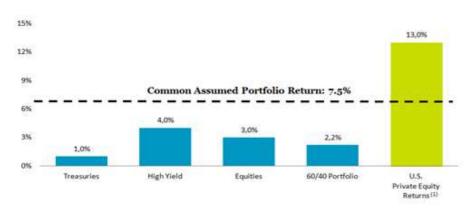
According to Goldman Sachs projections for the types of assets in which institutional investors mostly invest, returns would be below the required level (see Graph No. 4). By contrast, net annualized private-equity returns in the US over the past 20 years have been 13%.

Low interest rates not only make it difficult to obtain returns on the investment portfolio, but also increase the present value of non-documented debt and the deficits of the PAYGO systems (these deficits occur because the defined benefit pension systems do not have sufficient assets to meet their future obligations) due to the effect of the discount rate applied. The defined contribution pension systems are free of the undocumented debt problem, since they are individually funded. However, the liabilities of insurance companies issuing life annuities would be affected by using a lower discount rate.

In theory, private equity generates higher returns at lower risk at the expense of increased illiquidity. The evidence confirms this: private equity has historically performed better than most other assets in both absolute terms and adjusted for risk (Graph No. 5).

Graph No. 4: Projected annualized nominal returns

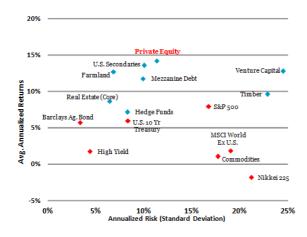
(Projected return in 5 years: 2016-2020)



Source: Goldman Sachs Investment Strategy Group "2016 Outlook" Report.

(1) Cambridge Associates. Shows the historical annualized net return of the last 20 years, to March 31, 2016.

Graph No. 5: Risk-return of different types of assets from 1996 to 2016



Source: Matthew Pedley's Presentation.

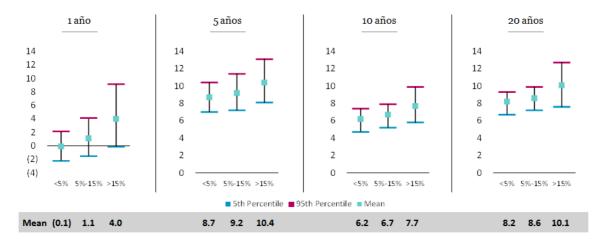
Because of this greater return provided by alternative assets, a significant increase in the proportion of these types of assets has been observed in the portfolios of institutional investors, particularly in private equity. In fact, most institutional investors worldwide have between 20-50% of their portfolios invested in alternative assets.

Obviously, one cannot have the entire portfolio invested in illiquid assets, but

liquidity clearly has a high cost. Different types of institutions have different liquidity requirements, and therefore different amounts allocated to alternative assets. Hence, the transcendental question that all investors should ask is what are their liquidity needs, and on this basis define what proportion of their portfolios can be illiquid (alternative assets).

A very important fact is that institutions with higher alternative asset allocations have consistently had better results than those with lower or no alternative assets. According to figures from Cambridge Associates, in the last 20 years, institutions with more than 15% of their portfolios invested in alternative assets exceeded the return of those with less than 5% allocation by 1.9% per year, on average. In fact, regardless of the time window one looks at (1, 5, 10 or 20 years), institutions with greater investments in alternative assets always outperform those with lower investment (see Graph No. 6).

Graph No. 6: Performance of institutions as a percentage of allocation of alternative assets in portfolios



Source: Cambridge Associates.

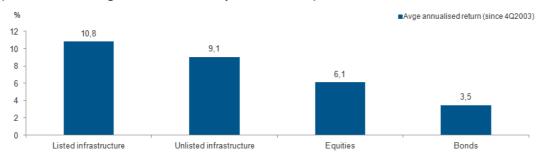
III. Investment inInfrastructure:Challenges and BestPractices

Those investments that provide essential services or facilities for economies and societies, such as: energy, transport, communications and waste management infrastructure, are denominated infrastructure investments. Infrastructure is a large physical asset with a long useful life and high initial capital costs. It also has high

entry barriers, allowing some degree of pricing monopoly, and produces goods or services that have a relatively low price elasticity of demand. Investment in infrastructure produces stable and predictable cash flows, with a relatively low risk of technological obsolescence.

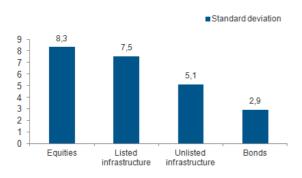
The return on investment in infrastructure is usually higher than for other traditional types of assets (such as stocks and bonds), both in absolute and risk-adjusted terms (see Graphs No. 7 and 8).

Graph No. 7: Total Return on infrastructure vs. traditional assets (Annualized average from the fourth quarter of 2003)



Source: Bloomberg and Cambridge Associates.

Graph No. 8: Volatility and risk-adjusted returns of infrastructure vs. traditional assets (to December 2015)



1,2
1,0
0,8
0,6
0,4
0,2
0,0
Unlisted Listed Equities Bonds infrastructure

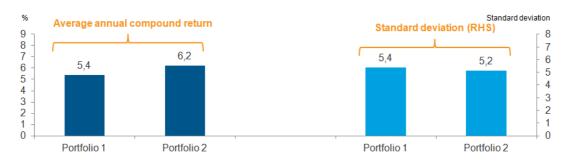
Source: Bloomberg and Cambridge Associates.

Another attraction of investment in infrastructure is that the revenue stream generated by this asset class is indexed to inflation, providing coverage against it. Since it is correlated with GDP growth, investment in infrastructure is also advantageous in periods of high growth, but the fact that it offers relatively stable revenue streams also provides protection in periods of low growth.

Infrastructure also has low correlation with other traditional asset classes, so that including it in the investment portfolio provides significant benefits in terms of diversification. Graph No. 9 shows the impact of the inclusion of infrastructure in the investment portfolio, by increasing returns and reducing volatility.

Since pension funds are long-term investment projects, infrastructure is an asset highly demanded by them. In fact, according to figures presented by Michael Glascott, Managing Director of Macquarie Infrastructure and Real Assets, 58% of its investors as of March 31, 2016 were pension funds.

Graph No. 9: Risk-return of traditional portfolio vs. portfolio with investment in infrastructure (to December 2015)



Portfolio 1: 60% stocks and 40% bonds.

Portfolio 2: 50% stocks, 30% bonds and 20% unlisted infrastructure.

Source: Bloomberg and Cambridge Associates.

The Chilean and Colombian cases

Chile

The Chilean experience of investment in concession infrastructure projects, shows that this type of investment has been profitable. The strengths of this industry have been:

- Contract qualifies as collateral: project financing.
- VAT treatment: minimizes impact on flows.
- Well-planned projects.
- Engineering already developed, that enabled eliminating risks in the construction phase.
- Demand (vehicle flow) greater than originally estimated, resulting in higher returns than budgeted.
- Structure of state guarantees that ensures adequate risk distribution.

However, the market for infrastructure projects has stabilized at an average level, far from the country's potential (see Graph No. 10). The existing potential is very broad, ranging from road and rail works to the installation of fiber optic networks throughout the country.

Recovering the impetus of this industry will require multiple efforts. First, increased investment in required project studies. Second, well-planned projects, in accordance with the country's present reality and longer maturity terms. Third, well allocated risks, which means that the State must internalize at least the expropriation, environmental, social, investment amount and construction startup term risks.

Inversión materializada en Concesiones, 1995-2015 (*) 40 40 35 30 30 3 25 2.0 15 10 1996 1997 1998 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 1999 2000 2001 2002 2003 2004 ■ Inversión Materializada UF. (*) Año 2015 corresponde a estimación.

Graph No. 10: Chile: Investment in concessions, 1995-2015

Source: Carlos Cruz presentation.

Colombia

In December 2015, Sura Asset Management, in partnership with Credicorp Capital, launched the first infrastructure investment fund (FCP 4G Fund) for financing these types of projects. The AFPs are the main investors in the fund, with a 55% stake.

According to David Aguirre, Managing Director of SURA Asset Management - Colombia, the launching of this infrastructure investment fund was possible due to a number of conditions.

First of all, the existence of a state infrastructure program, known as the Fourth Generation Program (4G), which covers 7,000 km, representing USD 17 billion in investments in 40 different projects.

Second, the institutional nature of the infrastructure program, with government involvement through the National Infrastructure Agency (ANI) and Financiera de Desarrollo Nacional (FDN). The purpose of the ANI is to plan, coordinate, structure, contract, implement, manage and evaluate concession projects and other forms of Public Private Partnership (PPP). The purpose

of the NDF, in turn, is to manage and encourage the structuring and financing of infrastructure projects.

Third, evolution of the regulatory framework of projects. The new regulatory framework reduced the main risks present in previous generations of road concessions.

Fourth, the establishment of infrastructure as an asset class. A new independent limit (5% - 7% of the portfolio) for investment in Private Equity Funds that invest in infrastructure projects under the APP system, was included in the rules and regulations governing the investment regime of the pension funds and insurance companies in 2014.

Finally, the evolution of the regulatory framework governing lenders. In 2014, the individual limit for active loan transactions was increased from 10% to 25% of the technical equity, provided that the excess funding is used for financing 4G infrastructure projects under the PPP system.

IV. Towards a new and enhanced investment regulatory system

The Industry's perspective

Chile

The Productivity Law updates the regulations governing the pension funds for the purpose of diversifying portfolios and obtaining better risk/return combinations for increasing pension amounts. In particular, the new law proposes:

- Authorizing investment in domestic and foreign alternative assets, directly or through investment funds (private equity, private debt, real estate, infrastructure and other assets stipulated in the investment regime).
 The ceiling will be set by the Central Bank at between 5% and 15% of the value of each fund.
- Authorizing investment in shares of concessionaires of infrastructure works.
- Authorizing investment in investment fund bonds.
- Eliminating obstacles relating to investment fund share subscription agreements.

- Increasing the limit per issuer applicable to the shares of domestic investment funds from 35% to 49%, requiring less investors for establishing a fund.
- Facilitating the acquisition of domestic instruments traded abroad.

This Law entails a serious management challenge for AFP investment managers.

As shown in Graph No. 11, the allocation of pension funds in alternative assets worldwide has increased from 19% to 26% in the 2009-2014 period. In Chile, however, an investment of just 2% in this asset class is recorded.

The Productivity Law is expected to enabled increasing the position of the pension funds in this asset class. However, according to Rodrigo Perez, former chairman of the Chilean Association of AFPs, effectiveness of the law will depend on what happens with the reform of the pension system announced bν the current administration. the In particular, announcement that the brokerage commissions paid to investment funds will be to the expense of the AFPs and not the fund, would make investments in alternative assets unviable.

 10%
 21%
 22%
 25%
 25%
 26%

 2%
 2%
 2%
 2%
 2%

 37%
 33%
 34%
 31%
 29%
 28%

 41%
 44%
 41%
 42%
 44%
 44%

 2009
 2010
 2011
 2012
 2013
 2014

Money Market

Graph No. 11: Evolution in pension fund assets held worldwide

Source: PwC Market Research Centre, Beyond their Borders, 2015.

■Fixed Income

■ Equity

While alternative assets have a number of advantages over traditional assets, they also have some complications, such as appraisal. The appraisal issue is particularly important for pension systems that allow the transfer of balances between different funds and fund managers, because they could involve transfers of wealth among members. It will therefore be a challenge to define an appropriate valuation methodology for these types of instruments.

Mexico

The growth in recent years of the assets managed by the Retirement Savings System makes it necessary to pose a medium-term strategy to ensure that the fund managers (Afores) adopt international best practices in corporate governance and investment, including alternative instruments.

On the other hand, there are favorable conditions in Mexico for the Afores to invest in new productive sectors, because:

 The Constitution was amended to allow private investment in sectors previously reserved for the state (Energy and Telecommunications).

Alternatives

 New investment vehicles have been created: The Energy and Infrastructure Investment Trust (Fibra-E) and Investment Project Certificates (CERPPI).

In this context, AMAFORE entrusted PWC with a study of the "Best Investment Practices" of the main pension funds worldwide. The main conclusions of the study regarding investment in alternative assets are presented below.

13

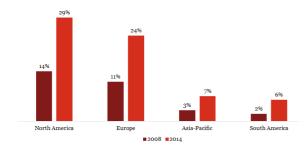
⁴ You can view the study at the following link http://www.amafore.org/documentos/PensionResearch.pdf. You can also consult FIAP (2016), "The opportunities and challenges of the investments of the pension and voluntary pension savings funds," pages 125-137. Available <a href="https://example.com/html/pension/pension/bension/pen

First of all, an increase in the alternative assets held by pension funds worldwide was observed (see Graph No. 11). Holding alternative assets is a common investment strategy among pension funds in North America and Europe (Graph No. 12). Although the presence of these types of assets has been increasing in Latin America (2% in 2008 vs. 6% in 2014), it is still well below the level observed in developed countries.

Second, the main reason why pension funds invest in alternative assets is portfolio diversification: 87% of the funds analyzed. 40% do so for their risk-adjusted return, and 33% for the illiquidity premium.

Institutional investors have three fundamental concerns regarding private equity: (i) valuation; (ii) yield or performance; and (iii) transaction flow. The main concerns regarding hedge funds are: (i) transparency; (li) regulatory standards; and (iii) correlation with traditional assets.

Graph No. 12: Proportion of alternative assets by region (2008 vs. 2014)



Source: PwC Market Research Centre, Beyond their Borders, 2015.

Peru

In a context of low interest rates worldwide, with aging populations and labor market constraints that prevent contributions by members with the required frequency, sound investment is more than ever a necessary condition for achieving a good pension. In fact, a good pension is the indicator of success *par excellence* of a pension system.

According to Giovanna Prialé, Chairman of the Peruvian Association of AFPs, the Peruvian experience shows that: (i) more flexible regulations allow the AFPs to generate higher returns for their members; (Ii) the more instruments available, the more efficient the investment portfolio is and the higher the return. In fact, since the creation of the multifunds, the Peruvian private pension system has obtained a higher average annual nominal return than other alternatives in the financial system (such as funds and term mutual deposits). Nonetheless, there is still considerable room for improvement. Greater flexibility in investment instruments and regulations based on results rather than processes, are particularly required.

The regulator's perspective

Chile

According to the Chilean Superintendent of Pensions, Mr. Osvaldo Macias, different factors are negatively impacting on the final amounts of pensions awarded by the pension system. One of them is the lower current and projected return of the pension

funds.⁵. An alternative for addressing this problem is to allow pension funds to invest in instruments that enable better risk/return combinations, thus improving the final pension to be received by members.

The current investment in alternative assets by Chilean pension funds represents 2% of the investment portfolio, whereas the main private pension funds in the OECD invest an average of 15.3% of their portfolios in alternative assets, and the Latin American countries with pension systems similar to the Chilean system invest 5% of their funds. Furthermore, other major institutional investors in Chile, such as life insurance companies, invest 23.9% of their portfolios (to August 2016) in the real estate sector (through mortgage loans, real estate and mortgage bonds).

Given these differences, the diagnosis of the Chilean Superintendency of Pensions was that the Chilean pension funds are lagging behind in the field of alternative investments and that it is time to update the regulations.

As a result, the Productivity Law was enacted, seeking to diversify pension fund portfolios for obtaining a better risk and return combination, and thereby improving the pensions of members. As already discussed, this law allows investment in alternative assets (up to 15% of the value of the fund) and makes other regulations more flexible in order to encourage alternative investment.

⁵ Other factors mentioned include increased life expectancy, the low contribution rate, low contribution density and lower rates of return on life annuities.

The law would come into effect in November, 2017, when the new provisions governing this matter, set out in the Investment Regime of the Pension Funds and its complementary regulations, should already be published.

The main issues addressed by the Productivity Law are:

- Assets. Definition of instruments, transactions and contracts representing alternative assets that are authorized for the investment of the resources of the pension funds, and the conditions that such investments must comply with.
- Limits. Maximum limits of investment in alternative assets will be defined by the Central Bank of Chile.
- Portfolios. Definition of cases in which the portfolios of the investment funds are considered to be constituted preferably by alternative assets.
- Concessionaires. Conditions to be met by the shares of domestic concessionaires of infrastructure for public use, to make them suitable for investment by the pension funds.

The Productivity Law also envisages strengthening the oversight the Superintendency of Pensions, through the introduction of risk-based supervision, allowing the Superintendency of Pensions to perform risk analysis, supervise proper management by the AFPs, and impart the instructions for them to correct the deficiencies observed. The new oversight model would come into effect as of May, 2018.

Mexico

The main concerns of the Mexican regulator, Mr. Carlos Ramirez, in terms of investment by the Afore in alternative assets, are as follows:

- Analytical capabilities of the Afores.
 There is still considerable heterogeneity among the different Afores in their analytical capability to properly select instruments (due-diligence) and make the most appropriate investment decisions.
- Conflicts of interest may be exacerbated by the fact that the Mexican financial market is still very small.
- Difficulty identifying investment risks, especially non-traditional risks (political, regulatory, social).
- 4. Asset valuation
- 5. Strength (or weakness) of corporate governance. Mexico still needs to strengthen the corporate governance of the Afores.
- Hidden commissions The commissions on alternative assets are sometimes not entirely transparent.
- 7. Risk of bubbles. Mexican regulations to date only allow investment in domestic alternative assets, which can generate bubbles. Hence, allowing investment in foreign alternative assets is being evaluated.

Investment in alternative assets was allowed in Mexico as of 2008, through two singular vehicles, very specific to the Mexican case: Development Capital Certificates (CKD's) and Real Estate Investment Trusts (FIBRAS).

Important regulatory changes where recently introduced to encourage investment in alternative assets, including:

- The creation of two new financing vehicles to facilitate the investment of the pension funds in large scale projects: Investment Project Certificates (CERPI) and the Energy and Infrastructure Investment Trusts (FIBRAS-E). The CERPIs seek to assign more responsibility to the fund manager, making investors (such as the Afores) less involved in investment decisions, which does not occur in the CKD's. Thus, CERPIs are more like private equity.
- Strengthening of due-diligence.
- Greater flexibility for investment in alternative assets. Investment limits in CKDs are increased to 20%, and to 10% in FIBRAS.
- Valuation and commissions. Valuation must be performed by an independent third party. Commissions are required to be disclosed and monitored.
- Investment and Risk Committee Requirements. Transparency of the Committees, the role of independent parties, risk assessment.

Peru

Peru is the country most advanced in the region in allowing its pension funds to invest in alternative assets. The pension funds have been investing in local real estate since 1998, recognized within the "equity" asset class. However, a new asset class "Alternative Instruments," permitted for Funds Type 2 and 3 was created as of 2012, recognizing that they have different risks.

Investment in alternative instruments has grown over time, maintaining an overall position of 5.60% in Fund Type 2 (the investment limit is 15% for this fund) and 10.22% in Fund Type 3 (the investment limit is 20% for this fund). The investment in alternative assets of the Peruvian pension funds is mainly concentrated in private equity (49%) and local investments (65%). Exposure by economic sector is much more diversified, with no sector having more than a 30% share.

According to Mr. Jorge Mogrovejo, the Deputy Superintendent of AFPs of Peru, the most significant risks in all alternative instrument investment strategies are: the selection of investments and the governance structure of the fund and its investments. Hence, there is a need for the AFPs to adopt robust alternative instrument screening procedures (due diligence) and risk monitoring (ongoing due diligence).

Given the challenges of alternative instruments, the AFP's must strengthen their investment processes before investing in these instruments. This must be monitored. The regulations should allow the gradual investment of the pension funds in different types of alternative instrument structures, depending on the level of sophistication of the AFP.

In addition, they must: (i) Assess the gradual incorporation of new investment alternatives in the category of "Alternative Instruments," such as liquid alternative instruments, coinvestments and investment mandates (a pending task in Peru). (Ii) Improve the monitoring of expenses and fees paid by private pension funds in alternative instruments.