INTERNATIONAL
FEDERATION OF
PENSION FUND
ADMINISTRATORS

INDIVIDUAL SAVINGS: BETTER PENSIONS PLUS ECONOMIC DEVELOPMENT

Presentations from the International Seminar "Individual Savings: Better Pensions plus Economic Development", organised by FIAP on 11th and 12th April 2013 in Colombia.

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PRESENTATION: OPENING SPEECHES

I would like once again to thank Mr. Alcides Vargas, President of the Board of the Colombian Association of Pension and Unemployment Fund Administrators (ASOFONDOS) and Mr. Santiago Montenegro, President of ASOFONDOS, for their hospitality and for giving us the opportunity to stay in this wonderful city while we debate a subject that is always pressing, namely the development of new pension systems based on the individual capitalisation of our contributions. The title of this seminar is very suggestive: "Individual Savings: Better Pensions plus Economic Development". With that title we want to point out that there really is a virtuous circle in the sense that, by our very efforts to procure better pensions, we are collaborating decisively with the economic development of the countries that have been farsighted enough to adopt individually-funded systems, in the light of the dramatic breakdown of the public pay-as-you-go systems. The aim of these pension systems is to provide good pensions for the workers who entrust their savings to us month-by-month. That is the main aim, and for that reason we need to promote the best yield on the savings and ensure the best regularity and amount in terms of the contributions that they pay us. Regulations that foster good yield or encourage greater contribution density among workers really do make a difference. As regards yield, we know (and this is true of most countries) that the aims of investment decisions are to achieve better yield and security for the workers' savings. In many cases any other aim that might be pursued is declared to be against the law.

During this conference we are going to analyse the way in which such crucial aims are being met and we are going to see how, unfortunately, there are countries in which investment limits have been imposed with a clear intention of steering social security savings towards specific activities. Replacing a fiduciary administrator's decisions with those of the State is certainly not going to be guided by a search for better yield, but rather directed towards obtaining resources that are occasionally lacking in the fiscal coffers. Despite the evident fact that the best yield is obtained through the widest possible diversification of investments, there is a group of countries in which very high percentages of the pension funds are still invested in government securities. I believe that this situation is a serious one, because it no longer justifies and upholds the private management of the pension funds, and this sometimes becomes a preliminary step towards a reversal of the individually-funded systems, with a return to pay-as-you-go systems. We need only to think back to the Argentine case. In Argentina the pension funds were first of all obliged to invest in some overvalued government securities, and then, on realising that that measure was insufficient, the resources were removed totally to obtain funding that was otherwise unavailable.

Among the norms that we should review, in order to improve the yield of the funds are the Multi-funds. Certainly, at this stage in our systems' development, the idea of offering all workers a single investment portfolio is unthinkable, in circumstances where there are people with such very different investment horizons. It is natural that a young person should be able to invest in a portfolio with a larger composition of equities, and then later, as he/she moves on in his/her life-cycle, to transfer to more conservative funds. Unfortunately, there are not many countries that have adopted this mechanism, despite its positive effect on yield.

The system of individual funding has made a massive contribution to economic development, as we shall also have the opportunity to see in this seminar, with the research papers that four distinguished economists are going to present to us regarding the impact that these systems have had in Chile, Colombia, Mexico and Peru. A point to be emphasised is that the contribution to economic development has been achieved without betraying the essential fiduciary role of pension systems, without attempting to channel investments into particular instruments, but by allowing the administrators to allocate resources to the sectors that they identify as having greater economic potential and therefore a better yield for the workers' contributions. These research papers will evaluate the contribution of these systems to the economic development of the countries by calculating the effect that they have had on capital markets, on the labour market, on saving, on investment and on total factor productivity.

Another central aspect that we shall be analysing in this seminar with the aim of obtaining a better pension is contribution density. This is a pressing topic in our countries, which have always been beset by high levels of informality. We are going to discuss the corrections that can be introduced into labour markets with a view to encouraging informal workers to integrate more fully in the formal economy, so bringing them under the protection of the social security regulations.

One of the phenomena that has a strong influence on whether contributions will be enough to fund an adequate replacement rate is the increase in the population's life expectancy. In Chile, life expectancies at retirement have grown by 30% from 1980 to the present day. Currently a man aged 65 in Chile has a life expectancy of 20 years, while a woman aged 60 has a life expectancy of 30 years. The increase in life expectancies does not affect us with the same force as it affected and ruined the public pay-as-you-go systems, but it naturally imposes on us the hard obligation of having to finance these longer periods of our lives.

Another aspect that endangers an adequate replacement rate is the steady growth in wages. In Chile, wages have grown in ranges of 4% to 5% per year in real terms, just as in Peru and Uruguay, which makes it absolutely necessary to save more in order to maintain standards of living during retirement. It is regrettable to see that workers often have expectations of receiving a pension similar to their final wage, in circumstances where they have paid contributions on ostensibly lower wages throughout their working lives.

As these systems mature, we are seeing today that all the concern is concentrated on the replacement rate (and it is good that this is happening), in other words, the focus is on the quality of the pensions that the system is going to be able to offer. That obviously obliges us to correct certain aspects that I have mentioned, which will result in an increase in the replacement rate. For example, the contribution rate and retiring ages must be reviewed on the basis of life expectancies.

Curiously, when these expectations begin to reveal themselves in criticisms of the system, we see that the comparisons made are with the defined-benefit systems. This is very unfair, not only because the defined-benefit systems have stopped having "defined benefits", since these have been completely changed, but also because there is a characteristic of the individually-funded systems that puts us, at least on the surface, at a certain disadvantage. In the individually-funded systems we are obliged to give a pension to all workers, even if they have only paid contributions for a single month of their lives. Therefore, when averages are calculated for replacement rates or pensions, they are averaging people who have contributed for 35 years with people who have done so for only a month or a year of their lives. Let us not forget that in the public pay-as-you-go system, there were people who had not managed to contribute for 15 or 20 years, and all their effort was lost. So, a central element emanating from workers' private ownership of their funds often transforms itself into an element of criticism against the new individually-funded systems.

Therefore, in view of the above, I believe that we are going to have to study contribution amounts and retiring ages seriously, but at the same time we need to go much more forcibly for better pension education that will enable correct expectations to be created concerning the pension systems' ability to provide adequate pensions. In the world, and especially in the countries that have adopted individually-funded pension systems, we have reached levels of economic development that were undreamed-of 20 or 30 years ago when these systems were adopted, and for that reason we sometimes find it incomprehensible that there should be criticisms of a system that has brought such well-being to our countries.

To conclude, I want to thank ASOFONDOS and the FIAP team once again for organising this seminar. I am sure that it will allow us once again to reaffirm the advantages inherent in the individually-funded systems, not only in terms of economic development, but also and especially in the improvement of pensions. We have great challenges that we are going to face up to in an appropriate way, not only by looking rationally at the changes that need to be made, but also by recognising the need to correct or improve the expectations that workers may have with regard to these systems.

Guillermo Arthur
President of FIAP

PRESENTATION: OPENING SPEECHES

A very good morning to you all: Mr. Guillermo Arthur, President of the International Federation of Pension Fund Administrators; Mr. Santiago Montenegro, President of the Association of Pension and Unemployment Fund Administrators (ASOFONDOS); all members of the governing board of ASOFONDOS and presidents of the Colombian Pension and Unemployment Fund Administrators; presidents of pension fund associations belonging to FIAP; presidents of Pension Fund Administrators; members of FIAP; Doctor Pissarides, Nobel Prize for Economics, 2010; Doctor Sebastián Edwards, Professor of International Business Economics at the University of California; Mr. Pedro Nel Ospina, President of COLPENSIONES; Mr. Andrés Restrepo, Technical Deputy-Minister at the Ministry of Finance and Public Credit of Colombia; members of the Governing Board of the Banco de la República de Colombia; Mr. Jorge Hernán Jaramillo, President of the Central Securities

Depositary; presidents of business associations; Mr. Roberto Borraz, President of the Stock Market Self-Regulator; Mr. Juan Pablo Córdova, President of the Colombian Stock Exchange; members of the national government; representatives of workers' federations and trade unions; officials from the Superintendence of Banks, Pensions and Finance of each of our guest countries; members of foreign governments; facilitators and speakers from both home and abroad; participants, both local and foreign; patrons, whose contributions have made this seminar possible; representatives of multi-lateral bodies; members of the press, ladies and gentlemen.

I want to begin these few words by giving you a warm welcome to this VI FIAP-ASOFONDOS Congress and the XI FIAP International Seminar, 2013. At the same time, I want to express my gratitude for the great task performed by the ASOFONDOS and FIAP team in their organisation of all the aspects that enable us to meet together at this event. It makes me very proud to confirm by the size of the audience, the importance and great relevance of the issues that bring us together here.

In an environment in which Colombia is searching for the peace that we all long for, and which of course has all our support, when it is also negotiating new free-trade agreements, implanting others, implementing fourth-generation franchise schemes to bring road infrastructure up to date, encouraging greater growth in household consumption and has a gross domestic product that grew by 4% in 2012, we consider it a good moment to remember the importance of the private pension scheme in the country's development over almost 20 years. The Individual Saving with Solidarity Scheme (RAIS) has grown significantly. In the month of December 2012 the total value of the savings under management was in excess of 130 billion Colombian pesos, which represents 20% of our country's gross domestic product. Furthermore, the historic yields obtained for the workers are a success. In fact, the moderate fund of mandatory pensions has shown an historic annualised yield of 16.32% (nominal) and 9.53% (real), which is higher than those shown by the other funds in the region, according to FIAP's research. These important yields generated by the pension and unemployment fund administrators have enabled the capital that workers hold in their individual savings accounts to increase more than 2.7 times, to the exclusive benefit of those same workers.

The RAIS has also contributed to the development of the capital market, by channelling Colombians' savings into productive investments. Currently, the workers' resources managed in the pension funds have made it possible to finance Colombian companies through investments in bonds and shares. This makes our members owners of over 38 billion pesos-worth of share capital, equivalent to 11% of the stock exchange capitalisation, and holders of over 47.8 billion pesos invested in the national government's public debt securities.

In infrastructure, 23.1% of the mandatory pension funds is invested specifically, in companies related with this sector. Today we also have the possibility of investing an additional 25 billion pesos in the Colombian Road Infrastructure Recovery Plan. In the same way, the high level of participation of the pension funds in the local stock market has been decisive in developing subjects that are vital for the market, such as the corporate governance of issuers.

Another important advantage of our system of individual saving is that it is a pension scheme which is intrinsically fair: it provides Colombians with a pension in accordance with what they have saved throughout their working lives, which produces no inequalities or privileges for any sector or segment of the population, makes no distinction between classes or groups of the population, grants no differential or unjustified benefits, represents no burden for the nation's general budget and assumes no fiscal deficit nor contributes towards producing economic pressures for public finances which, at the end of the day, belong to all Colombians.

We know the importance for the country of discussing the reform of the pension system and for that reason we believe that it must include all the sectors involved, since this will enable the reform that is now in the Congress to be legitimised. From what we know so far about the reform which is being worked on by the Ministry of Labour, we can say in advance that we share the diagnosis on which the proposals covered in the news media have been based. We know that our country needs a pension system that solves once and for all the problems of low coverage, unfairness and sustainability. Undoubtedly, the main problem of the pension system in Colombia is its low coverage, understood to mean not only the number of workers currently contributing, but also those who actually receive a monthly payment when they reach old age. In ASOFONDOS we estimate that the Average Premium Scheme (RPM) will allow 13% of its current members to retire with a pension, and the RAIS, 30% of them. Those results are mainly a consequence of a labour market with an informality rate of 60% among workers actually occupied, and an unemployment rate amounting to an average of 10% of the Economically Active Population. Furthermore, Colombia has one of the highest non-wage costs in the continent, meaning that if all the labour costs, both wage and non-wage, are taken into account, the minimum wage and the mean wage are practically identical.

In relation with the second of the problems, i.e. the unfairness of our pension system, it is quite clear that in Colombia the RPM increases the existing unfair aspects in the distribution of income and, contrary to what might be expected, the redistribution moves from individuals with lower incomes towards members with higher incomes, so generating an effect that is clearly regressive. This effect is the result of a system in which there is no recognition of the yields of the contributions of those individuals who do not manage to qualify for a pension, while on the contrary, the individuals who do manage to do so have access to sizable subsidies which increase with the level of income. In other words, the greater the income, the more the subsidies that are granted.

As regards the third of the problems affecting our pension system, in other words, fiscal sustainability, it is important to remember that the limiting of public expenditure on pensions is a direct consequence of the creation of the RAIS and the later parametric reforms to law 100 (1993). Thus its coming into operation produces a reduction in Colombian pension debt, which was calculated at around 260% of the Gross Domestic Product in the year 1993 and for the year 2013 is at levels close to 117% of GDP. However, it is worth emphasising that the sustainability of the system and the future limitation of its cost are based on the low coverage of the RPM. The fact that 87% of the population enrolled in that scheme cannot qualify for a pension is reducing the financial costs significantly in exchange for incalculable social costs.

Now, considering the elements of the proposal being studied by the Ministry of Labour, we find that it can be interpreted as a fiscal, but not social, type of welfare program, which has as its pillar the protection of old age and at the same time the termination of the coexistence of the RPM and RAIS, among other points. In ASOFONDOS we find this laudable and share the desire to improve old-age protection and fairness in the distribution of pension subsidies, but we must be alert and avoid the introduction of elements of inefficiency and imbalance that are contrary to the need to strengthen the pension system.

In the industry that I represent, we think that the system should continue supporting itself on the savings of the workers and should not be a fiscal burden for present and future generations. In addition, we have to preserve or improve what has already been achieved through the RAIS, so that initiatives to improve the RPM do not endanger the possibilities of saving for over 10 million Colombians who have believed in the scheme of owned individual savings, and have already chosen to be in this system. We want to ratify our proposal to seek wider spaces for dialogue with the representatives of the government's policies, with participation of trade unions, housewives, employees, the self-employed, agricultural workers, students, academics, the unemployed, employers, the Congress, and with civil society, in general without rush, but without stopping, and with a defined deadline, bearing in mind that this is the moment of well-informed, participative democracies, with courage to support the construction of a proposal that is superior to those we have known before. We hope that our country will continue on the right path and not go back on 20 years of structural reforms that have placed Colombia in the privileged position that it occupies today, and that there will be no adoption of intervention schemes that might bring us closer to the Mercosur than to the Pacific Alliance, since, according to international analysts, the macroeconomic results of these latter countries show that they are doing better.

Let us all remember that for any foreign investor, transparency, predictability and a serious approach to public policies are primordial when investing long-term.

As far as the capital markets and risks-rating firms are concerned, a pension reform in the terms discovered so far might be seen as a quasi-nationalisation of the pension funds, very much in line with what was done by another Latin American government.

However, in order to achieve all the changes and transformations that the millions of contributing working Colombians deserve, we believe that it is indispensable to go on holding events like this one, where initiatives and proposals emerge from the plurality and diversity of the speakers and audience that encourage us to continue along the path of strengthening and developing the pension system, and the system of individual saving with solidarity, to benefit our own members and all those who would also like to be members, as is the case of Colombians currently in an informal situation. In that sense, we, the pension fund administrators represented in ASOFONDOS, will make every effort to contribute our full support so that any changes that may be introduced in the system may be fruit of the wide participation of all the stakeholders and the ongoing search for consensuses.

Finally, to close this warm welcome, it just remains for me to share my deep conviction that this congress will contribute towards consolidating our ideas and our hopes.

Thank you very much.

Alcides Vargas
President of the Governing Board
Colombian Association of Pension and Unemployment Fund Administrators (ASOFONDOS)

INTERNATIONAL FEDERATION OF PENSION FUND ADMINISTRATORS (FIAP).

FIAP was created in May, 1996. The legal status of this international institution was granted on 29th June 2004 in the city of Montevideo, by Supreme Decree Nro 801, issued by Uruguayan Ministery of Education and Culture. It currently has eighteen "full members" in sixteen countries and twelve "collaborating members". The "full members" are associations, federations, chambers or other institutions that represent the interests of the pension industry in the country concerned. Thus, the following countries are represented in FIAP: Bolivia, Bulgaria, Colombia, Costa Rica, Curaçao, Chile, El Salvador, Spain, Kazakhstan, Mexico, Panama, Peru, Poland, Dominican Republic, Ukraine and Uruguay.

The workers enrolled in the FIAP member associations and institutes number more than 117 million as of December 2012, and have accumulated more than USD 684 thousand million in their respective individual accounts.

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The main objectives of FIAP are:

- To contribute to the success of the new pension systems based on individual funding and private management.

- To promote reforms to pension systems that lead to the adoption of pension programs based on individual funding and private management.

In order to achieve these objectives FIAP has undertaken intense activities that include the holding of Seminars, Conferences, Workshops and Round Tables, specialized publications, the creation of a Web site, permanent contact with international organizations and authorities of the different countries, support for its partners in the promotion of improvements to the regulations of the respective countries, participation of its Chairman and the Steering Committee in propagating activities of the new individually-funded systems, drawing up of documents to contest criticism faced by such systems and the preparation of Guidelines to assist in the better design of individually-funded systems regulation.

PART I

LESSONS FROM THE INTERNATIONAL RECESSION FOR MANAGING RISK AND INVESTING PORTFOLIOS

INTRODUCTORY LECTURE

THE LATIN AMERICAN ECONOMIES: OPPORTUNITIES AND CHALLENGES AFTER THE GLOBAL CRISIS

SEBASTIÁN EDWARDS[1]

1 *Sebastián Edwards graduated in Business Administration from the Catholic University of Chile, with a Master's and Doctorate in Economics from the University of Chicago, U.S.A. He is currently Henry Ford II Professor of International Business Economics at the Anderson School of Management of the University of California, Los Angeles (UCLA), U.S.A. From 1993 until April 1996 he was Chief Economist for Latin America and the Caribbean at the World Bank. He is also a researcher attached to the National Bureau of Economic Research (NBER), member of the advisory council of the Transnational Research Corporation and joint-president of the Inter-American Institute of Economics (IIE). He was formerly President of the Latin American and Caribbean Economics Association (LACEA), an international professional association of economists with academic interests in Latin America and the Caribbean. He is also a member of the Scientific Research Council of the Institute of World Economics in Kiel, Germany.*

In this short article I shall be referring to the situation of Latin America after the crisis. The emphasis is on the word "after"; which is certainly an optimistic word in the sense that it assumes that there is an "after the crisis" or that the crisis looks like coming to an end or may indeed already have done so.

Nevertheless, a cursory analysis of the world press shows us that there are problems today in Cyprus. There are also serious problems in Portugal, where the highest court of the land rejected very important elements of the program, meaning that new adjustments will have to be made. There are problems in Spain and also in Slovenia, a new country that is joining the crisis once again. The fact of these new countries joining the crisis is beginning to make it difficult to use initials to refer to them. At first we talked about the PIIGS (acronym for the following countries: Portugal, Ireland, Italy, Greece and Spain). It is not clear what name will be given to this new group, if one adds the C of Cyprus and the S of Slovenia, respectively. What is quite clear is that the crisis is continuing.

However, I am going to be referring to Latin America after the crisis and I am going to stress the challenges and traps into which our region could fall in the next few years, while also referring to the opportunities that they offer. I believe that it is very important to concentrate on the issue of challenges and potential traps, because if we fail to overcome these problems, what appears to be a promising pathway in most of our countries could turn into a backward step and a return to that sad spiral so typical of our economies, which over the decades have gone from being very promising to being economies in recession.

I shall also be referring briefly to the system of individual capitalisation. I listened very attentively and with great interest to the opening speeches of the seminar and they clearly reflect not only the core issue, which is the system of capitalisation in Latin America, but also the controversy that still surrounds this system over 20 years after it was first brought in. For an outside observer who watches the region with affection, it is really surprising in some ways that the system remains under constant attack, so this also deserves analysis.

Latin America: a solid middle-class region with rapid growth and stability

I shall start with an overview of what Latin America really is. We tend to look at each of our countries in isolation and not to think much about the region as a whole. I want to start with this general overview, especially in view of the fact that there is palpable enthusiasm about Latin America in the rest of the world, in the international press, in the *Economist*, in the *Financial Times*, in the *Wall Street Journal* and others.

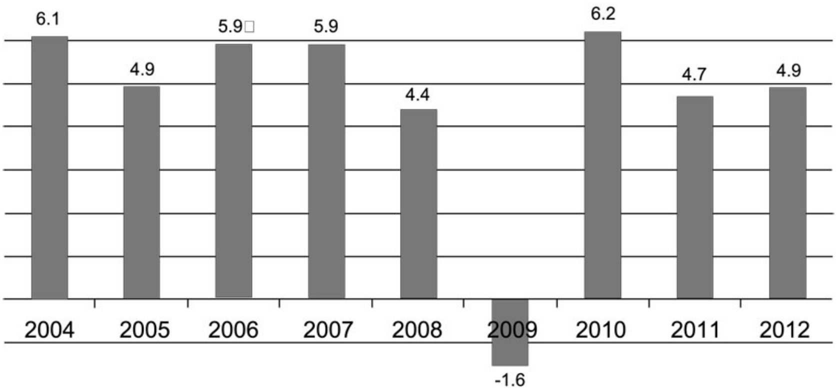
Essentially, ours is a great region, a region that at this moment holds and affirms great promises from an economic point of view. There are 600 million inhabitants and a gross domestic product of USD 7.5 trillion. In other words, it is a region that has double the population of the United States and more or less half the gross domestic product. This results in a figure of which we are all more or less aware: the per capita income in Latin America is equivalent to 20%-25% that of the United States.

Now in the year 1720, the per capita income of Latin America, or welfare, was the same as that of the United States, and that is one of the big issues to which we should return and ought always to bear in mind: we have moved from a long-term historical scenario – several centuries ago - of parity with the North American countries (Canada and the United States) to a situation in which our income fell to 19% of that of those countries. Behind those recessions were challenges that we met badly, traps into which we fell, which, as I am going to suggest on this occasion, we must avoid, because they are the reason why, despite having set off on an equal footing with the northern countries, we became only a fifth of what they were in terms of welfare.

Latin America, which had been associated traditionally with the word "crisis", has reversed that situation in the past few years and, for the first time that I remember, we are seeing a different environment: we have certain countries that are solidly middle-class and are also maintaining steady growth over time. Colombia is growing at 4.5% every year and other countries in the region, such as Peru and Chile, are growing at extremely interesting rates. The region as a whole is growing at an average rate of 5%, more or less, (see Graph Nº 1). If we compare this with the rest of the world, in Latin America we have had a growth rate in the past few years that is both healthy and interesting and a similar one is forecast for about the next five years.

GRAPH N°1

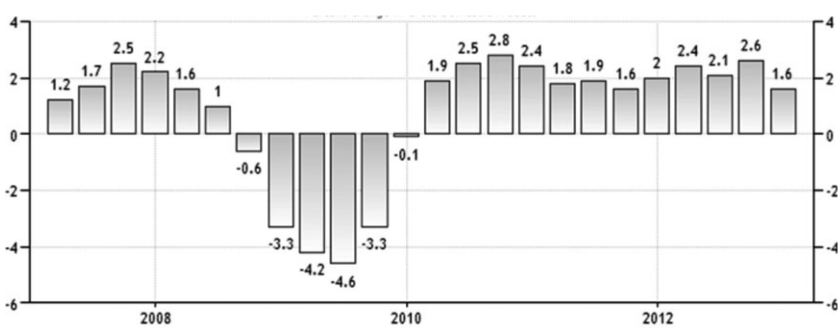
AVERAGE GROWTH OF GDP IN LATIN AMERICA



SOURCE: PRODUCED BY THE AUTHOR.

GRAPH N°2

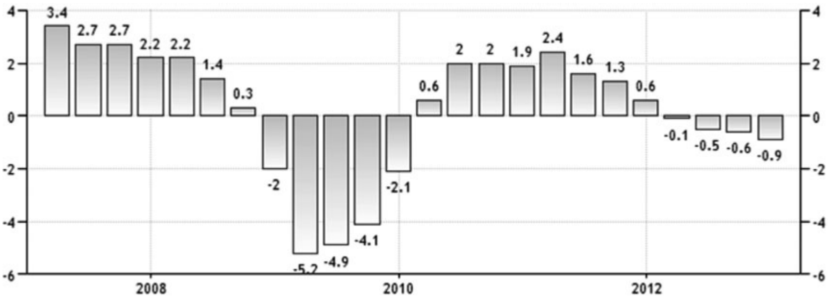
AVERAGE ANNUAL GROWTH OF GDP IN THE UNITED STATES



SOURCE: WWW.TRADINECONOMICS.COM BUREAU OF ECONOMIC ANALYSIS (BEA) U.S.A.

GRAPH N°3

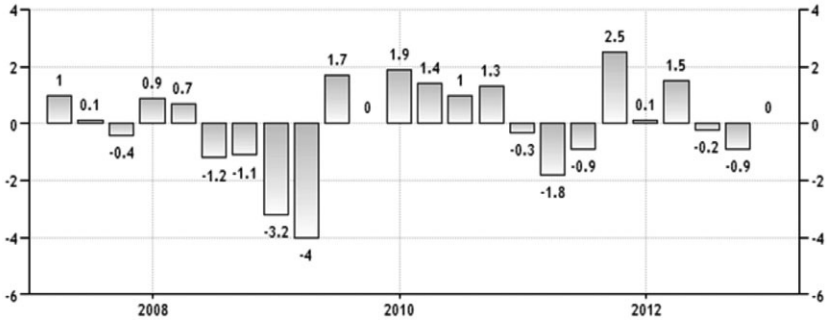
AVERAGE ANNUAL GROWTH OF GDP IN THE EUROZONE



SOURCE: WWW.TRADINECONOMICS.COM BUREAU OF ECONOMIC ANALYSIS (BEA) U.S.A.

GRAPH N°4

AVERAGE ANNUAL GROWTH OF GDP IN JAPAN



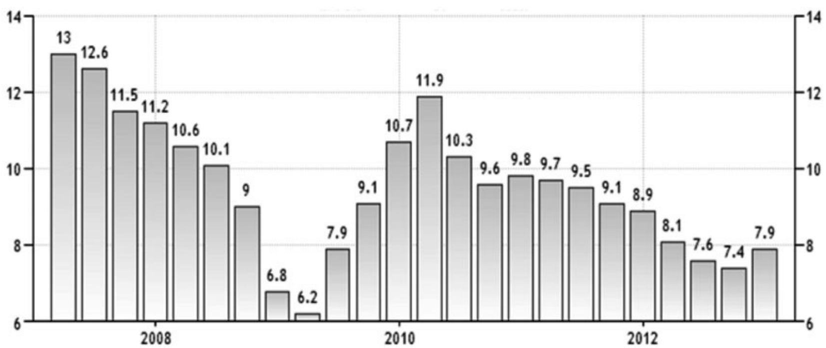
SOURCE: WWW.TRADINECONOMICS.COM BUREAU OF ECONOMIC ANALYSIS (BEA) U.S.A.

We see in Graph Nº 2 for example that the United States is growing, with difficulty, at 2%. Europe is obviously growing at a negative rate and the news we have had in the past few days indicates that this is going to continue (see Graph Nº 3). Japan, with a recession that is still dragging on, also shows a negative growth-rate (see Graph Nº 4).

Obviously, the great comparison that we have to make as we look ahead is between Latin America and the two great powers of the emerging world, India and China. Though our region is growing at a slower pace than those countries, both India and China are in mid- deceleration in terms of their economies (see Graphs Nº 5 and Nº 6), from extremely high rates to rates that are a little lower, but it is a deceleration even so, which we are not necessarily seeing in Latin America, in spite of the traps to which I referred earlier.

GRAPH N° 5

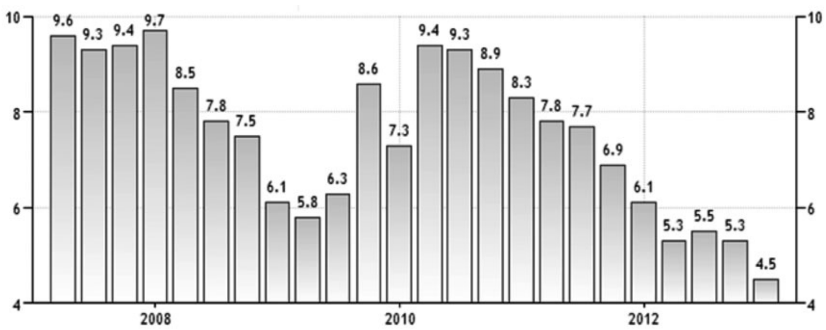
AVERAGE ANNUAL GROWTH OF GDP IN CHINA



SOURCE: WWW.TRADINECONOMICS.COM BUREAU OF ECONOMIC ANALYSIS (BEA) U.S.A.

GRAPH N° 6

AVERAGE ANNUAL GROWTH OF GDP IN INDIA



SOURCE: WWW.TRADINECONOMICS.COM BUREAU OF ECONOMIC ANALYSIS (BEA) U.S.A.

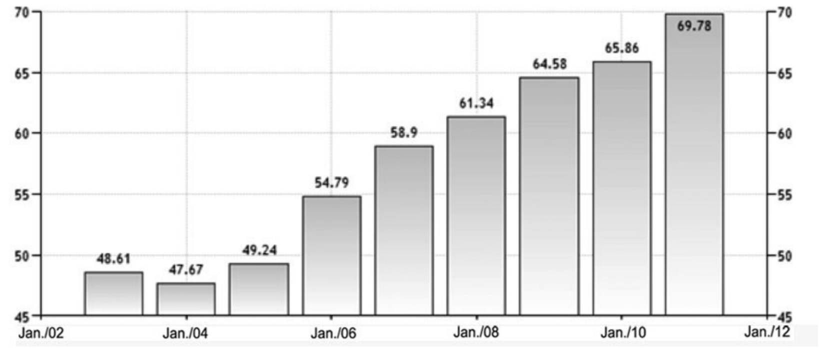
This unprecedented situation in Latin America consists not only in the fact that we are growing at a good rate, but also that we are experiencing an absence of big exchange and inflationary explosions, which were typical of our economies for many, many years. Colombia, as an exception, was the first country in the world to see the expulsion of the International Monetary Fund, when the exchange-rate law was adopted and the system of mini-devaluations was begun: the "grandfather" of the quite pragmatic system of exchange flexibility that we see today throughout the region.

Latin America, due to the fact that it is growing in a crisis-free situation with low inflation, offers enormous business opportunities that are starting to look extremely attractive. Just as an example, we can look at the question of the financial sector.

The financial sector in Latin America, which is naturally related with the sector involved in the management of pension and capitalisation funds and individual accounts, represents 70% of the GDP, on average (see Graph Nº 7). The financial sector in the United States, after becoming smaller and having adjusted downwards as a result of the global financial crisis, represents almost 200% of the GDP (see Graph Nº 8). If Latin America continues to extend itself, the financial sector will be a sector of economic activity, innovation and business that will tend to treble in the next few years if things are done well and if we manage to stay out of the traps into which we could fall.

GRAPH N° 7

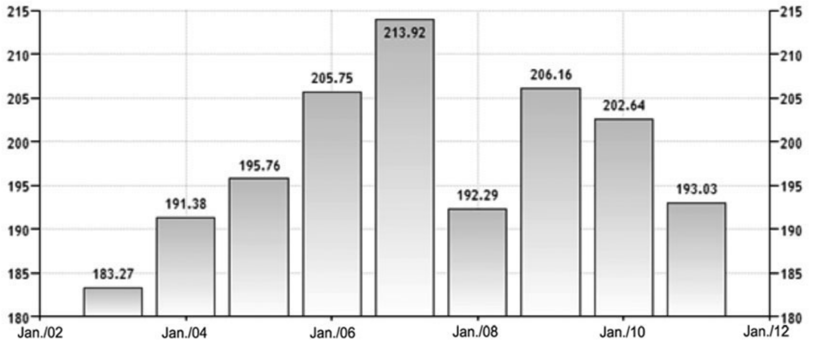
SIZE OF THE FINANCIAL SECTOR IN LATIN AMERICA



SOURCE: PREPARED BY THE AUTHOR.

GRAPH N° 8

SIZE OF THE FINANCIAL SECTOR OF THE UNITED STATES (% OF GDP)

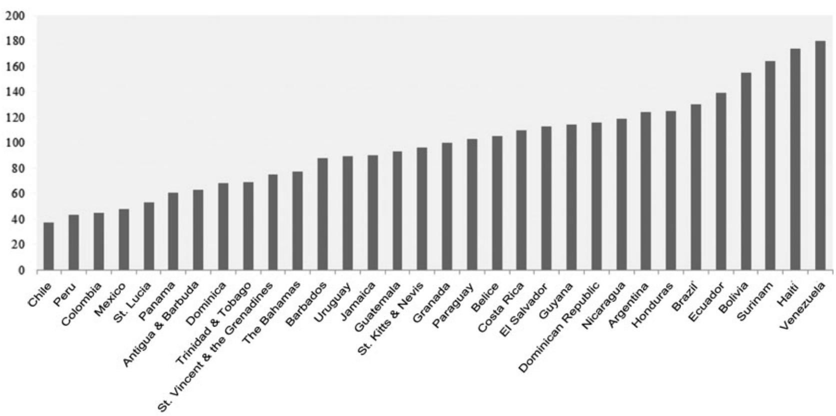


SOURCE: PREPARED BY THE AUTHOR.

Latin America: measurement using various types of ranking

In Graph Nº 9 it is possible to visualise the ranking of ease for doing business at regional level in Latin America. As can be seen, Chile is in position Nº 1, Peru in Nº 2, Colombia in Nº 3 and Mexico in Nº 4. In some ways, this order makes us very proud.

GRAPH N° 9
REGIONAL RANKING OF EASE FOR DOING BUSINESS – LATIN AMERICA

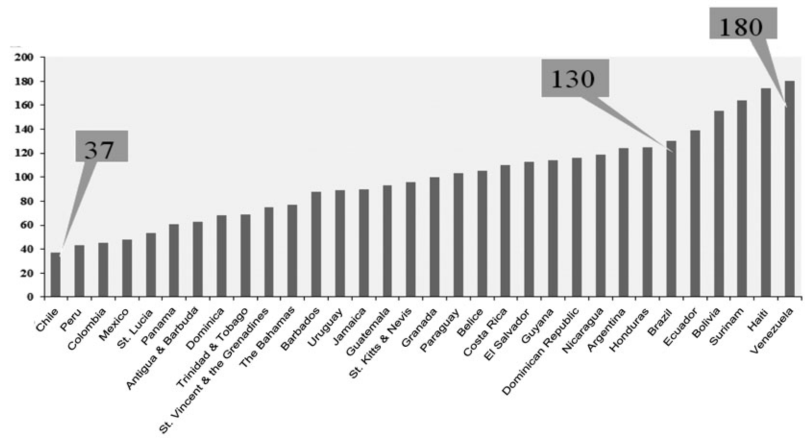


SOURCE: DOING BUSINESS 2013, WORLD BANK AND INTERNATIONAL FINANCIAL CORPORATION.

In Graph Nº 10 it is possible to see the same indicator with a different order. Unlike Graph Nº 9, in Graph Nº 10 all the bars are taller and instead of concentrating only on Latin America, it shows the order at worldwide level, where each country appears in a place in the ranking compared with all the countries in the world. So, as can be seen, the best country in the Latin American region (Chile) occupies 37th place at global level. Meanwhile, the worst country in the region for doing business is Venezuela, occupying place 180 at worldwide level. Brazil, the largest country in the region, is in place 130, and that is worrying, because if this were the World Football Cup, no Latin American country would qualify. In other words, we would have a World Cup without Latin America, and that is not only unthinkable, but would be very bad for the sport. What I want to argue is that a World Cup based on families' social welfare, on countries' innovation and growth potential, in which the Latin American countries do not take part, is definitely very bad for our nations and for the world, so part of our effort and the opportunities that we have before us must consist precisely in trying to shift ourselves from our present position to higher up the international ranking of ease for doing business.

GRAPH N° 10

GLOBAL RANKING OF EASE FOR DOING BUSINESS



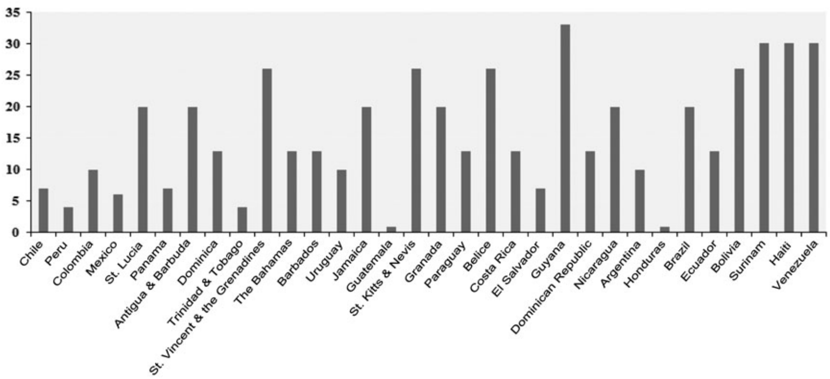
SOURCE: DOING BUSINESS 2013, WORLD BANK AND INTERNATIONAL FINANCIAL CORPORATION.

In Graphs Nº 11, Nº 12, Nº 13 and Nº 14 it is possible to see the ranking of ease for obtaining loans, ability to solve bankruptcies, ability to ensure that contracts are legally respected and ability to protect the investor, respectively.

If one sees different categories of ranking, it is possible to infer that there is great diversity within our region. Though Chile appears systematically as number 1 at regional level and Colombia is very well placed, once one enters into details, a great difference occurs, showing us that there are many areas in which the various countries have to act if they really want to qualify for this World Cup and compete on equal terms with the best countries of all.

GRAPH N° 11

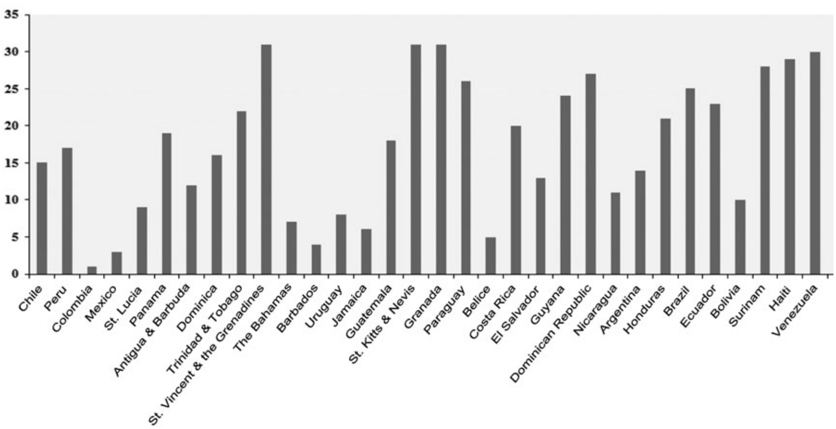
REGIONAL RANKING OF EASE FOR OBTAINING LOANS – LATIN AMERICA



SOURCE: DOING BUSINESS 2013, WORLD BANK AND INTERNATIONAL FINANCIAL CORPORATION.

GRAPH N° 12

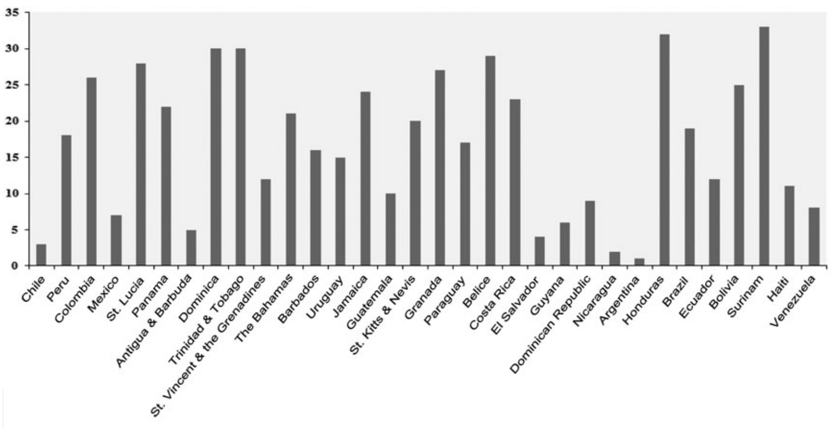
REGIONAL RANKING OF ABILITY TO SOLVE BANKRUPTCIES – LATIN AMERICA



SOURCE: DOING BUSINESS 2013, WORLD BANK AND INTERNATIONAL FINANCIAL CORPORATION.

GRAPH N° 13

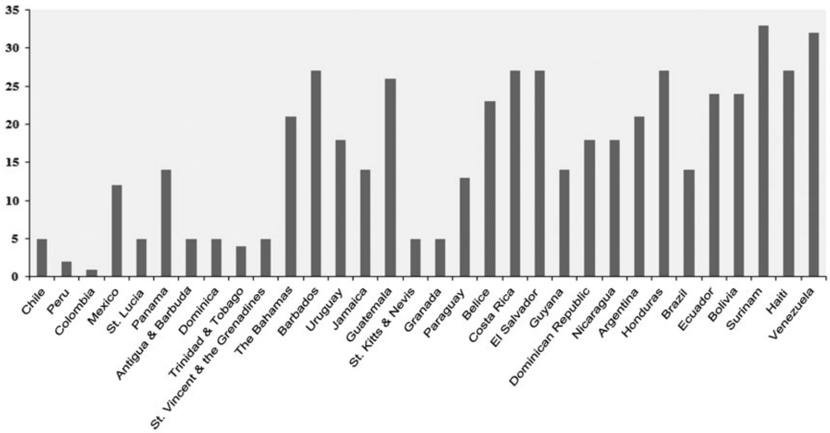
REGIONAL RANKING OF ABILITY TO ENSURE THAT CONTRACTS ARE LEGALLY RESPECTED – LATIN AMERICA



SOURCE: DOING BUSINESS 2013, WORLD BANK AND INTERNATIONAL FINANCIAL CORPORATION.

GRAPH N° 14

REGIONAL RANKING OF ABILITY TO PROTECT INVESTORS – LATIN AMERICA



SOURCE: DOING BUSINESS 2013, WORLD BANK AND INTERNATIONAL FINANCIAL CORPORATION.

An issue that concerns me within Latin America, and does not appear on the previous graphs, has to do with our skill or efficiency in foreign trade in a region where we have betted on making exports the driving force of our growth. In this aspect we are really doing quite badly. Colombia is particularly bad in terms of the efficiency of its ports and its whole foreign trade set-up, with costs that are four times higher than the best costs in the region. The best countries in the region – Chile and Panama - meanwhile, are 60% more inefficient than countries like Malaysia or Finland. There are therefore many areas that need improvement within this positive environment.

China and Latin America

A subject that has been quite frequently under discussion, though in a way that has been none too illuminating, is the relationship between China and Latin America. Naturally, any discussion on the future of the world economy and the economy of Latin America has to involve an analysis of what is going to happen in China. China has an important role in Latin America, especially as a purchaser of raw materials.

It has therefore been behind the great commodities boom in the countries of our region. There is a great debate going on at this moment as to whether copper's positive super-cycle is going to come to an end, due to China's deceleration. This is undoubtedly very important for countries like Chile and Peru, though also for Colombia, a country where there is a new mineral boom driven by China's big demand for metals.

I want to emphasis a different aspect of the Chinese economy in terms of its relationship with Latin America. That aspect concerns three events that are going to occur inevitably in that Asian country. The first, which is obvious and seems to me perhaps the least important, is the deceleration of the Chinese economy, which is going to move from an 11% growth rate to one of 7.5%, which is still an absolutely phenomenal figure. The second event is that the Chinese currency, which has played an important role in promoting Chinese exports by making them competitive, is going to continue getting stronger in the coming years. The other side of this will be a weakening of the other currencies in the rest of the world against the Chinese currency. And the third event is that labour costs, especially in China, are going to continue to grow as a natural consequence of that country's welfare and prosperity.

The combination of higher labour costs in China and a stronger currency means that China will lose certain competitive advantages with regard to the rest of the world, especially in light manufacturing, and that is going to work to the advantage of the Latin American countries which have a stronger manufacturing base and are in a privileged geographical position with ports and infrastructure that allow them to export efficiently. Obviously, we are talking about Mexico. This Mexican boom, which is coming as a result of Chinese prosperity, poses a very important question, i.e. Pacific versus Atlantic, or rather Brazil versus Mexico. This question is being asked forcefully today and it is necessary to raise it and analyse what it means.

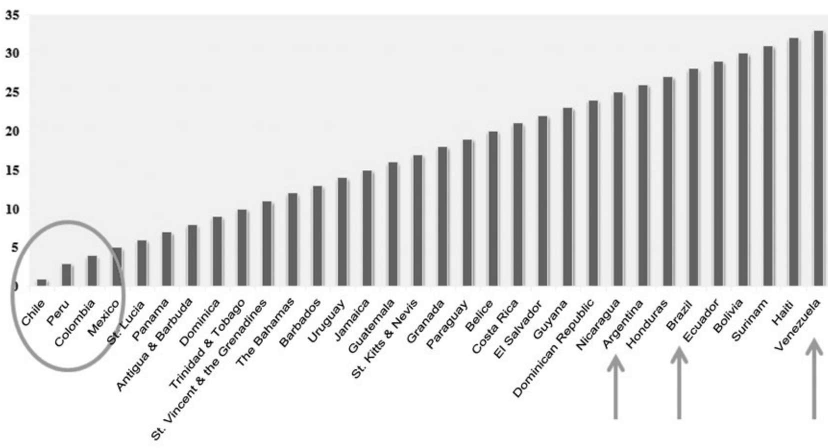
Brazil has almost double the number of inhabitants of Mexico and a per capita income that is very similar to that of the latter country. However, Mexico today has a new and very pragmatic government. Enrique Peña N., the current President of Mexico, is young, full of energy and dynamism, with new ideas, in a privileged location. Porfirio Díaz famously remarked: *"poor Mexico, so far from God and so close to the United States"*. This is a mistake, because being close to markets is a privilege, even if the markets are North American ones. What does it matter? We go there and sell our products and with the money that we manage to make we can do what we like, and make our society prosperous. For that reason, there is the possibility that Mexico might overtake Brazil.

This question in practice means the Pacific versus the Atlantic, or rather, the "Pacific Alliance" versus the Union of South American Nations (UNASUR). If we look at

Graph Nº 15 we can see that the four best countries in Latin America are all on the Pacific side: Chile, Peru, Colombia and Mexico. And the important countries in the UNASUR (Argentina, Brazil and Venezuela) are worse than appalling. Coincidentally, the first four countries are not only on the Pacific, but also have individual pension accounts. I don't want to claim that this is the only reason why the Pacific countries are first in the ranking, but it is a very interesting indicator, because having taken that step and defended that institutional framework, having had the ability to think ahead (because the reform of the pension system is one that bears fruit one or two generations later, and politicians are renowned for having a short-sighted view of things), in some ways the countries that have sustained or defended the individually-funded pension system are countries that have an approach and inclination towards innovation, towards new ideas and towards an intelligent and dynamic regulation system.

GRAPH Nº 15

REGIONAL RANKING OF EASE FOR DOING BUSINESS – LATIN AMERICA



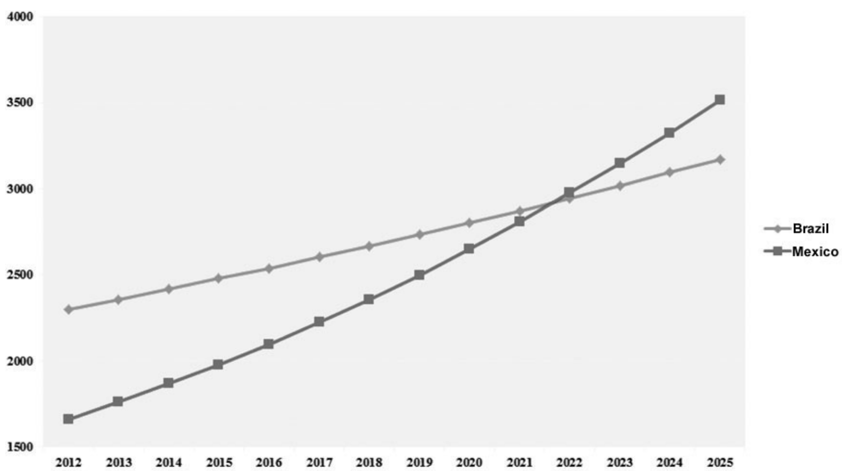
SOURCE: DOING BUSINESS 2013, WORLD BANK AND INTERNATIONAL FINANCIAL CORPORATION.

Graph Nº 16 shows the possibility that Mexico will overtake Brazil in approximately the year 2022. The exercise assumes that Brazil grows at 2.6%, which is somewhat higher than its growth rate over the past few years, but not completely impossible. If these assumptions are correct, a country such as Mexico could overtake Brazil and become the most important country in the Latin American region.

With the above exercise, I want to emphasise the fact that there are possibilities of rearrangement within our diversity. Those possibilities of rearrangement have to do with economic policies that are being launched, economic policies that are being reinforced or no longer being reinforced and institutions that are respected and strengthened or those (as in the case of many UNASUR countries) that are left aside and excluded from the way the economies operate. We need countries with strong institutions, countries with adequate infrastructure, countries that can continue exporting, that go on being concerned for their macroeconomic stability, that understand the fact that inflation is the worst enemy of the middle class. A capital market that does not work endangers a fairer distribution of income, because, as history has shown, people with high resources always find a way to circumnavigate problems, while the middle class and the poorer people are most affected by a situation of that type.

GRAPH N° 16

WILL MEXICO OVERTAKE BRAZIL?



SOURCE: PREPARED BY THE AUTHOR.

The competition between Brazil and Mexico is obviously interesting and produces an explosion of possible ideas. Nevertheless, I believe that at the end of the day this fight is a false dilemma. The world is big enough to have two poles of growth in Latin America, Brazil on one side and Mexico on the other, each competing with the other as they competed in the Olympic Games, as they will compete in the World Cup, as they are competing in various events, to see which of the two is on top, and it is precisely in this competition that we are going to see more innovation, more growth and more efficiency.

Possible interruptions in the region

There are things happening at the moment that are going to affect us in one way or another. On the one hand, the new gas deposits in the United States and the Energy Department of the United States are allowing that resource to be exported, which is going to have a positive effect on countries that import energy, such as Chile, and a not-so-positive effect of the countries that export energy, such as Colombia. In the case of Peru, in Lot 88 of the Camisea gas field, the whole question of the gas is in the air and nobody knows what is going to happen.

On the other hand, world protectionism is something that we cannot rule out. Furthermore, the matter of technology is also something we need to think about with very few exceptions, one of which is Mexico. At the moment we do not have sufficiently advanced technology to cope with an invasion of robots. The issue may sound like science fiction, but in fact the invasion of robots is fast approaching.

Obviously, another matter that we cannot fail to mention is the European crisis, in which we see the so-called PIIGS, but also, as I said at the beginning, now joined by Cyprus and Slovenia. Cyprus is a very interesting case because, among other things, some of the solutions attempted there were “à la Argentina”, without there being much to show for them.

Challenges for Latin America

What are some of the most important challenges that I see in the region? Some are well-known, but I ought to mention them anyway.

Currency war and competitiveness

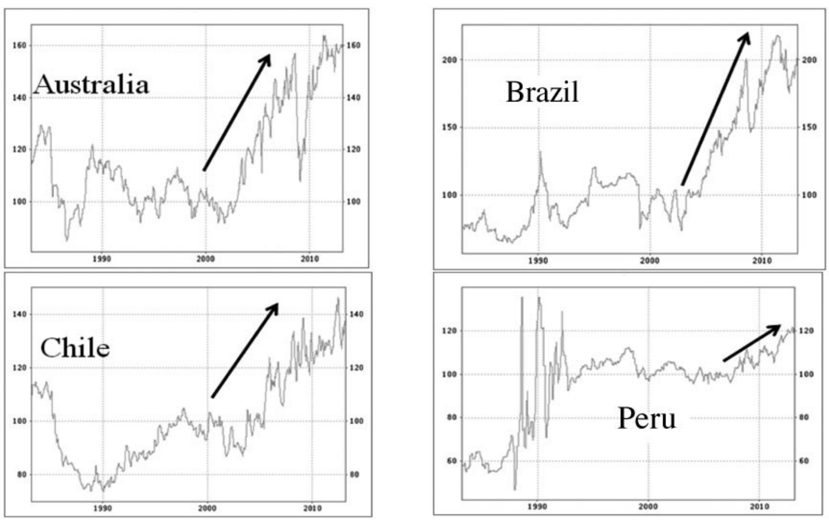
The first challenge is the currency war. The currency war is a term invented by Guido Mantega, Finance Minister of Brazil, and it refers to the strengthening of Latin American currencies attributable to the excessively lax policy of the Federal

Reserve, in particular, but also of the advanced Central Banks of other countries. Mantega says that if these Central Banks inorganically create and print vast quantities of their own currency – let us say dollars – the value of the dollar, due to an elementary question of primary economics, increases the supply and the price of the dollar falls, but this means that other currencies rise in value and those countries lose competitiveness. He is partially right, but also partially wrong, because this phenomenon is also related with the high price of commodities in metals and in agricultural and other products.

In Table Nº 1 we see the data on currency pools corrected by inflation for Australia, Brazil, Chile and Peru. We can see that in general all these currencies are getting stronger and their opposite effect is the collapse of the value of the dollar (see Graph Nº 17).

TABLE Nº 1

INDEX OF COMMODITIES CURRENCIES IN VARIOUS COUNTRIES



SOURCE: JP MORGAN.

GRAPH N° 17

THE WEAKENING OF THE US DOLLAR

SOURCE: JP MORGAN.

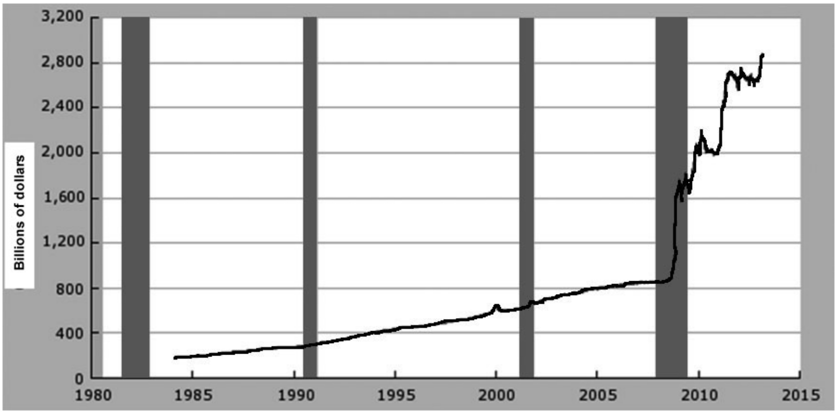
If we look at Table Nº 1 we can see that there is an essential difference between Chile and Brazil, for example, which are those on the diagonal. While in Chile the currency has appreciated 40% since the year 2005 (the currency index rose from 100 to 140), in Brazil the currency appreciated 100% (the currency index rose from 100 to 200).

That is a big difference. Meanwhile, in Peru and Colombia the index rose from 100 to 120. If we had included a graph of the situation in Mexico, we would have to say that there has been no strengthening of the currency, in other words, all the gains in productivity that Mexico has achieved have resulted in gains in international competitiveness.

In Peru and in Colombia, since 2005, companies have had to make themselves 20% more efficient in order to continue competing or to offset the over-appreciation of their currency. This is a challenge, but not impossible. In Chile, export companies must have made themselves 40% more efficient in order to be able to offset the fall in the value of the currency. In Brazil it is double: in Brazil they have to double their efficiency, which is very difficult, and that explains in part why Brazil is growing today at 2% and not at 7% as it was three years ago. This situation has to do with the fall of the U.S. dollar, and that in turn is associated with various policies carried out by the United States Federal Reserve: the so-called Quantitative Easing (QE) operations. The Federal Reserve is behaving like a banana Central Bank in the sense that the quantity of money created by the Federal Reserve has trebled in a matter of just five years (see Graph Nº 18)

GRAPH N° 18

ADJUSTED MONETARY BASE OF THE UNITED STATES
BILLIONS OF DOLLARS



SOURCE: BANK OF THE FEDERAL RESERVE OF SAN LUIS.
NOTE: THE AREAS SHADED IN GREY INDICATED PERIODS OF RECESSION IN THE UNITED STATES.

Recently the international news has told us that Japan has decided to turn itself into a country with a banana-type Central Bank: the Central Bank of Japan, responding to pressure from the Prime Minister, has decided that it is going to double its quantity of money in the next year. Furthermore, there is a commitment on the part of the Central Bank of Japan to raise inflation to 2% and finish with deflation, and at the same time, to keep its long-term rates at extremely low levels. The most likely outcome is that this will result in a considerable flow of money from Japan to the rest of the world, especially towards Latin America, where the differentials of long-term rates are going to be extremely important and this is naturally going to affect the pension fund administration industry.

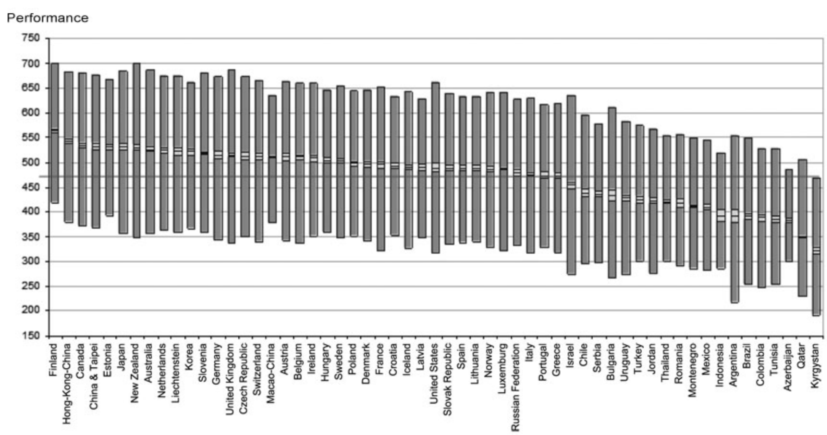
This large flow of dollars to Latin America is going to mean that the Latin American currencies get even stronger, producing the challenge of having to make ourselves more competitive in order to offset the effect.

Quality of education

The second great challenge is to improve the quality of education. As we know, according to the results of the Program for International Student Assessment, PISA, at Latin American level we are doing very badly (see Graph Nº 19).

GRAPH Nº 19

PISA TEST



SOURCE: PREPARED BY THE AUTHOR.

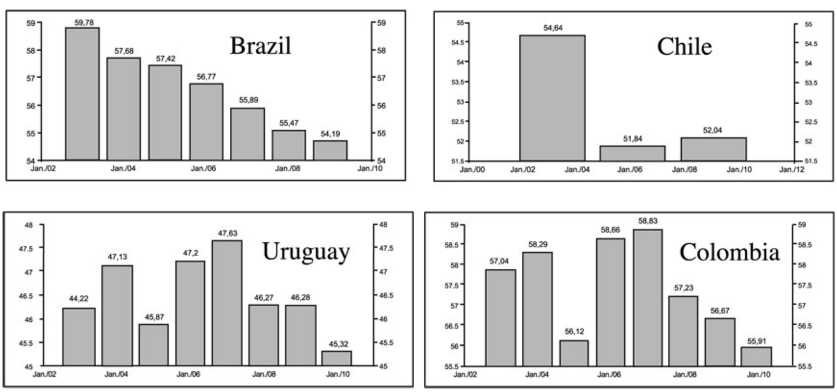
We all know the need to improve the quality of education, but my aim is not to point out the policies that are needed in this area. What I want to emphasise is the way in which we approach the political issue. In Chile, my country, of which I am extremely proud, each time the results of the PISA test come out there is a headline in all the newspapers comparing Chile with other Latin American countries. It is true that Chile is the best in Latin America in this test, but it is well below the mean. What we should be doing, I believe, is comparing ourselves with countries like New Zealand

and Australia, essentially because they are countries that export commodities and are also new countries, very far away from the world's trading centres, just like the Latin American countries.

We economists measure income inequality by using a measurement called the "Gini Coefficient"[2] : the higher this coefficient, the more unequal the distribution of income. Our region is legendary for being one with bad or unequal income distribution, but we are improving (see Table Nº 2). Brazil is traditionally the country with the most unequal income distribution in the world, of those whose information is more or less reliable. In Brazil, Chile, Colombia and Uruguay we can see how income distribution, though it remains unequal, has begun to improve in the past few years and this, to a large extent, is the result of having decided to finish with macroeconomic instability and having finished with inflation. In that sense it is essential to hold onto these achievements in the future, in order to continue advancing.

TABLE N° 2

GINI COEFFICIENT IN SELECTED COUNTRIES



SOURCE: PRODUCED BY THE AUTHOR.

2 *The Gini Coefficient is a measure of inequality invented by Italian statistician Corrado Gini. It is normally used to measure income inequality within a country, but can be used to measure any form of unequal distribution. A Gini coefficient is a number between 0 and 1, where 0 corresponds to perfect equality (everyone has the same income) and the value 1 corresponds to perfect inequality (one person has all the income and the others none at all).*

Naturally, if we are talking about the political issue, we have to talk about two leadership styles present within the Latin American left: on the one hand that of the former President of Venezuela, Hugo Chávez, who has been labelled "populist" in style; and on the other the leadership of the former President of Brazil, Luiz Inácio Lula da Silva, which is found in other Latin American presidents.

Sustainable management of natural resources

I have been keeping a close eye on what has happened in Peru, in Chile and in other parts of the world, and certainly the challenge to manage our natural resources sustainably is a serious one. It is important to face up to it in the most efficient manner and with the greatest possible respect for local communities and the environment.

There is some extremely complicated legislation, including the International Labour Organization (ILO)'s Agreement 169, which obliges every work project to be submitted to the communities in an extremely lengthy process. The problem is that once the consultation has taken place, the government or authorities can legally ignore all the results of that consultation. This leads to unnecessary conflicts which have to be appropriately resolved, and at this moment I feel this is not happening.

Violence and drugs

There is a ranking that shows that 9 of the 10 countries with the highest incidence of homicides are in our region. It also shows that the most violent country in the world is not Colombia or Mexico, but Honduras, and the second most violent is Guatemala. The third is El Salvador and the fourth Jamaica. Obviously this is a problem that we have to solve.

Now in the same way, the ranking shows that the countries with least crime in the world are also countries in our region. Chile has fewer than 3 homicides for each 100 thousand inhabitants per year, and Argentina, 4. Therefore our wide diversity means that there are some countries where this must be emphasised and others where it is not necessary. Some presidents in the region have suggested that certain drugs should be legalised and this is something that ought not to be ignored and should remain on the agenda.

Improving social conditions and reducing political risk

The issue of political risk and poverty and income distribution is obviously a very serious problem. It continues to be a challenge. I am convinced that the issue of income distribution is linked with having a fair, efficient and mutually supportive pension system, where the level of pension depends not only on the individual contribution paid by each person, but also, in an efficient, intelligent manner and without introducing perverse incentives, on there being a social network for those of our fellow-citizens who, for one reason or another, do not achieve a sufficiently high density of contributions in their accounts to obtain an adequate replacement rate.

Obviously that challenge is extremely complicated. From what is known about the proposed pension reform in Colombia, I tend to feel concerned about the effect it is going to have on incentives, because separating the contributions into 2 pillars depending on wage level produces what is known in the theory of incentives as a "break". Those breaks mean that the systems, instead of working smoothly with people moving gradually from one pillar to another, tend to produce different groups of people in two conflicting segments, one group in one pillar and the other in the other, which is not positive.

Final comments

I want to close with a summary of all I have said. It is most likely that there will be an "after" the crisis, and in this "after" the crisis, Latin America has great possibilities. Making those possibilities a reality depends on our tackling the challenges of education, the challenges of having a pension system with suitable characteristics, of being more competitive and doing business well, among other aspects. If we manage to tackle these challenges with decision and with the leadership of the presidents of those nations that have realised that modernisation and efficiency must necessarily be part of our future, we will be able to forge ahead.

Exactly 50 years ago, the novel "The City and the Dogs" by Mario Vargas Llosa was published in Barcelona, the publication becoming a great event just a few months later, not only for what it signified from the literary point of view and the break that it marked with traditional Latin American literature, but also because in order to be published, it had to overcome the censorship of the government of Francisco Franco, Generalissimo of Spain by the grace of God. That is the title that he gave himself, and Mario Vargas Llosa tells that one of the great problems that he encountered with that censorship was the fact that the word "prostíbulo" (brothel) was not accepted and had to be changed to "burdel" (brothel). "Rayuela" was also published 50 years ago. The publication of these two novels marked the start of the boom in Latin American literature, which was followed by Gabriel García Márquez in the year '67 with "One Hundred Years of Solitude" and then his other brilliant works. After that came other authors, such as Carlos Fuentes, José Donoso and Cabrera Infante, among others.

And today, when we are celebrating the 50th anniversary of the boom, people reread those novels and remember that revolution in Latin American literature as a lasting revolution, a boom that continues through time. Many of those authors are no longer writing and indeed many of them have died, but others continue to collect awards, like Mario Vargas Llosa with his Nobel Prize.

Our challenge, I believe, is to have people talking in 50 years' time about the economic boom of Latin America at the beginning of the 21st century as a lasting boom, as we think today about the boom in literature. We must not think about what has happened so often before and allow it to happen again, with the infinite number of miracles, mini-miracles or false miracles that have occurred in the region, shooting up like rockets and then simply fizzling out. That is our challenge, and that challenge calls for thinking long-term, thinking two or three generations ahead, thinking that in 50 years' time we will remember that this boom was launched on approximately this date, when different countries, in different ways, with different personalities and different dramatic histories, made this boom last for ever.

And that is why it has always given me great pleasure to address the pension fund industry, because it is an industry that thinks for the future. Of all the industries in Latin America, it is the one that thinks most, because it is for people who are going to retire. It is not for next year, or for 5 years' time; with the growth in life expectancy, we are thinking 50 or 60 years ahead. If all our industries and especially our politicians began to adopt a long-term view, a view that looks beyond the next few years or the next electoral cycle, and we think about the next generation, we could achieve this idea, so that in the year 2063 people say: *"It is the centenary of the boom of Latin American literature and the 50th anniversary of our economic boom that began to raise us out of poverty, moving us towards prosperity, inclusion and social harmony".*

LATIN AMERICA: OPPORTUNITIES AND CHALLENGES

EDUARDO MORÓN[1]

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In these comments I want to pick up some of the points mentioned by Sebastián Edwards in his presentation, and emphasise the challenges that I consider most important for the Latin American region. In fact, we can bear in mind that the worst of the crisis is now over, so we ought to reflect on how we managed that period of such turbulence for the world and for the region, and at the same time emphasise what it means in terms of the administration and provision of pensions in general (not just private ones).

The first great challenge lies in managing the impressive wealth shock that has occurred in the Latin American region. The funny thing is that this wealth shock has taken place in an environment of highly intense macroeconomic volatility. This produces on the one hand an opportunity for all the governments in the region to reduce the gap in pension coverage (a task still pending in all the countries) and, on the other hand, the challenge of managing pensions in a highly uncertain environment. In some senses, we have become used, as Sebastián Edwards was saying, to adding letters to "PIIGS"[2] , because it is no longer those 5 countries that are causing us problems. There is Cyprus too, and now we have to start thinking about Slovenia. Due to this high degree of uncertainty, we do not know which country is going to come next.

What is more, uncertainty is coming from all sides, even from the more "normal" countries. Sebastián Edwards stressed the recent news about Japan. Japan had always been characterized by being absolutely incapable of following up the decisions that it took: in that country an incentives plan would be announced, and reversed 6 months later. What we are seeing now in Japan is a movement without precedents and the markets seem to be convinced that it really is talking seriously about the attempt to push inflation from a period of deflation up to 2%.

A second challenge, which Sebastián Edwards also referred to, is that of managing to make the boom a lasting one: making the Latin American region richer on a

2 *Acronym for the following countries: Portugal, Ireland, Italy, Greece and Spain.*

permanent basis and not just a transitory one. As a region we still have a long way to go, but we are improving our position with respect to the more developed countries. In some ways we are returning to our earlier levels of growth, after two decades of mediocre growth.

Towards the end of my comments, I am going to touch on an issue that Sebastián Edwards did not mention. He showed us that poverty and inequality really have fallen significantly in the Latin American region. However, informality in employment has not fallen and that influences the pension market enormously. It is therefore an issue that must be discussed in greater depth.

China and the wealth shock

Obviously one ought to learn to thank China, because this whole wealth boom towards Latin America has come from the growth of the Chinese economy. Now the thesis suggests that China will cease to be the driving force of growth in the world economy, as a result of the factors mentioned by Sebastián Edwards (appreciation of the local currency, higher labour costs, etc.), and that leadership is going to be transferred in some way to Mexico. When China was the country in the lead, we were all happy: commodity prices soared exorbitantly and that made it possible to export and achieve enormous amounts of fiscal income (see Graphs Nº 1 and Nº 2). The question that remains for us is whether the situation would be the same if Mexico takes over part of the growth. Let's think about the fact that Mexico's starting position is clearly not the same as China's was when its boom began, so I believe there are differences here to be thought over. Mexico is not about to experience the rapid, deep urbanization process that has taken place in the Chinese economy.

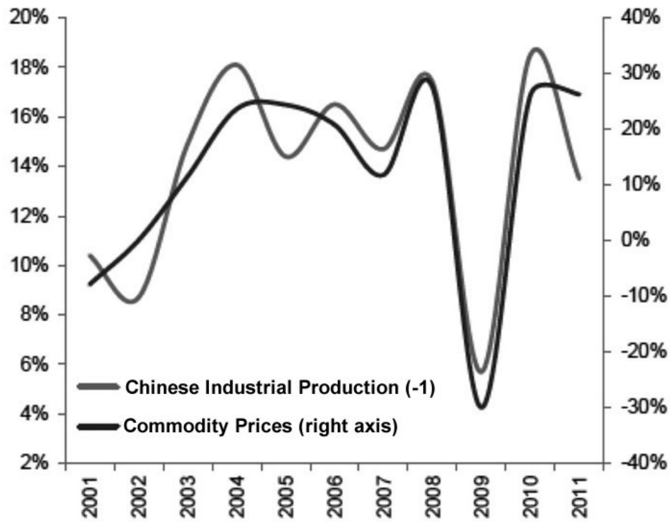
GRAPH Nº 1

LATIN AMERICAN EXPORTS AND COMMODITY PRICES
(ANNUAL GROWTH RATE)

SOURCE: INTERNATIONAL MONETARY FUND (IMF). CALCULATIONS MADE BY STAFF AT THE LATIN AMERICAN RESERVES FUND (FLAR).

GRAPH Nº 2

CHINESE INDUSTRIAL PRODUCTION AND COMMODITY PRICES
(ANNUAL GROWTH RATE)



SOURCE: INTERNATIONAL MONETARY FUND (IMF) AND BLOOMBERG. CALCULATIONS MADE BY STAFF AT THE LATIN AMERICAN RESERVES FUND (FLAR).

One would like all those responsible for regional policies to be thinking about whether or not they are prepared to find some way to accommodate this reduction in China's growth, which is definitely going to occur in the near future. In Chinese time, this might be within the next 20 years. China has the challenge of opening up its financial market and making its currency convertible, and when our countries went through such periods of opening up capital accounts, it meant a crisis for the region. The question is whether China will really be able to get out of that transition, make its currency convertible and open its capital markets fully, without stumbling as other countries did. It also remains to be seen how the Latin American region will react to that situation of instability. Thinking about the lessons learned from the crisis, I believe that we are not yet sufficiently prepared, fiscally speaking, though we probably are in terms of munitions. Most of the countries in the region have improved their fiscal position very much indeed, however, the tools to ensure that these fiscal "bullets" result in greater growth in periods of crisis have not yet been developed. The region has not developed mechanisms for increasing the effectiveness of fiscal policy. That task remains pending.

When one looks at the various countries of the region, there is great diversity in terms of the actions that have been taken with regard to these wealth shocks. There are countries that are very prudent and countries that are anything but prudent. There are countries that have not only had the shock, but also get into debt in order to spend more, and do not save even half a peso. I believe that the region should be a little more worried about this situation.

What has the region done with that wealth shock in fiscal terms? Here there are also totally different aspects across the region. There are countries that have implemented very aggressive social policies, which are part of the reasons why poverty has effectively gone down, and other countries that have chosen to spend an enormous amount on infrastructure, so reducing the existing gaps, but there are others that have spent, to some extent, without due concern for the population's real needs.

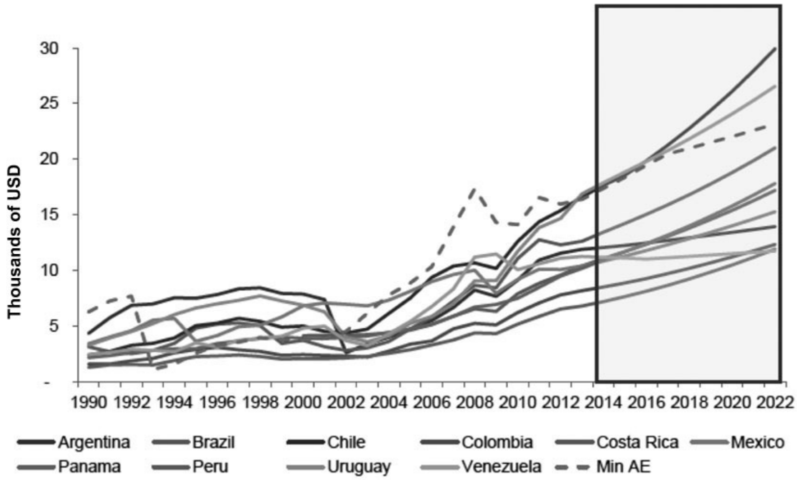
Impact on future pensions

How is all that has been mentioned above going to affect future pensions? I believe that we need to look a little more at the matter of diversifying pension fund investments. Guillermo Arthur was mentioning these worrying issues, such as the fact that some countries in the region insist on forcing the individually-funded systems to invest in certain items instead of concerning themselves with greater diversification.

Another relevant matter is that the wealth shock in Latin America can be used in part to increase the coverage of the lowest pensions, through the so-called non-contributory systems (social or solidarity pensions). In relation to this, it will be vitally important to ascertain whether non-contributory pension systems of this type are going to be sufficiently well-designed to mean that the incentives do not lead to increased informality. In this sense, the key point will be what governments do to ensure that this fiscal wealth shock takes place within the framework of managed government assets and liabilities. The idea of introducing asset management through sovereign wealth funds is becoming very important, but, with the exception of Chile, there are very few innovations in the region.

GRAPH Nº 3

AT LEAST ONE LATIN AMERICAN COUNTRY WILL ACHIEVE DEVELOPED ECONOMY STATUS



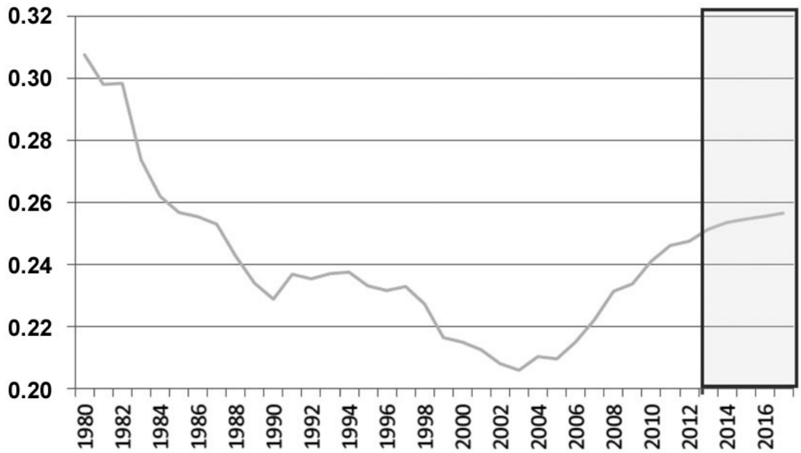
SOURCE: PREPARED BY THE AUTHOR ON THE BASIS OF THE ASSUMPTIONS IN THE IMF'S WORLD ECONOMIC OUTLOOK.

Building a wealthier region

The second challenge, as I mentioned, lies in managing to make the boom a lasting one, so that the Latin American region becomes richer. On that very subject, Graphs Nº 3 and Nº 4 help to clarify what will happen in the coming years. As can be seen, the Latin American region is simply returning very slowly to the levels of wealth that we had in the 1980s compared with the United States. As Sebastián Edwards was saying, 100 years ago, the GDP per capita in the region was exactly the same as that of the United States.

GRAPH Nº 4

GDP PER CAPITA IN LATIN AMERICA OVER GDP PER CAPITA IN UNITED STATES



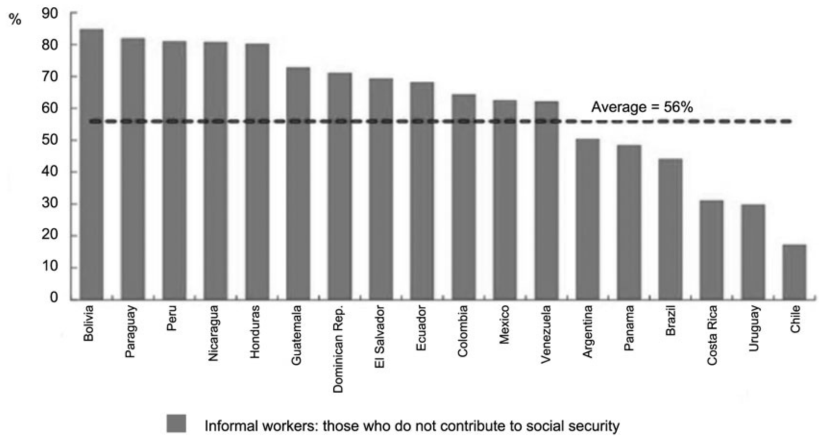
SOURCE: PENN-WORLD TABLES.

Additional challenge: to reduce informality

Probably the most critical issue for the pension market is that of labour informality, which is fairly high in the region (see Graph Nº 5). Informality is simply a symptom of the fact that the economic system is not working properly. Informality, combined with the increasing ageing of the population, will undoubtedly mean a tremendous fiscal problem, or growing political instability. In this sense, I do not see much action in the region. Countries are not introducing labour reforms that seek to reduce the costs of formality, but instead are creating non-contributory pension systems that are not especially concerned about the fact that they encourage informality by offering a benefit in exchange for nothing.

GRAPH Nº 5

INFORMALITY IN LATIN AMERICA



SOURCE: SCHADY AND LEVY (2013).

To summarise: the final challenge

- The region still has the challenge of building a mechanism to provide pensions for the whole population.

- Private pension fund administrators have been introduced instead of state bodies, but pension coverage has not increased.

- In Latin America the past decade has been very good in terms of growth, but this has not produced a fall in informality.

- It was thought that we would be able to cover non-contributory pensions with wealth shocks, but most countries in the region still lack fiscal discipline. Only Chile has a Sovereign Reserve Fund that works well.

- The final challenge consists in finding out how the wealth that we are going to be generating as a region in the coming years can be made to provide pensions effectively for the whole population, without producing more informality or unsustainable fiscal contingencies.

ALMOST THREE FIVE-YEAR PERIODS OF TARGET INFLATION IN COLOMBIA

MARC HOFSTETTER[1]

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In these comments I would like to concentrate on two elements mentioned by Sebastián Edwards, but focusing specifically on the Colombian case: inflation and exchange-rate appreciation.

Inflation: history and break-points in its course

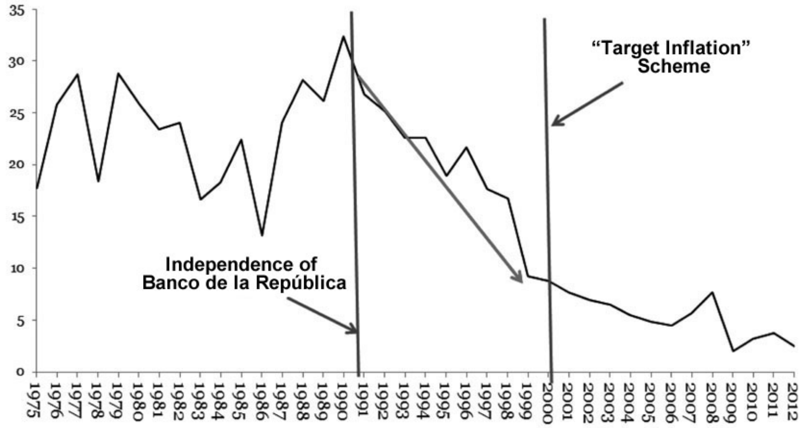
Graph Nº 1 shows Colombian inflation over the last 37 years. When I studied Economics in the 1990s, the inflation that we students had in our minds was in two figures: inflation rates between 15% and 30%, and it was quite possibly more than that for a student in some other Latin American country. Today, when I chat with my students about this, it sounds quite foreign to them: they have only seen inflation figures of one digit, and that is a triumph of good macroeconomic policy in many countries in the region. Colombia is no exception, an aspect that we should not forget. The above is very relevant, because low inflation, as Sebastián Edwards mentioned, is a very important factor in enabling a capital market to perform well, with pension funds playing an important part.

In Graph Nº 1 we can see what I believe to be the two fundamental break-points that brought us to the low, stable inflation level that we have in Colombia today. The first of these, which is very well-known, occurred with the independence of the Banco de la República following the Asamblea Nacional Constituyente in1991. From then on, inflation clearly began to lose ground, falling from levels of 30% (reached at the beginning of the 1990s) to the levels of just one figure that we have today.

The second break-point, less well-known but not necessarily less important, is the adoption by the Banco de la República of what is known among academics as a "target inflation" scheme. This is a bad name which has acquired a bad reputation. Some people interpret the idea of having a target inflation scheme as a Central Bank gone crazy in its attempt to lower inflation. The target inflation scheme is much more than that, and is not necessarily concerned only with inflation.

GRAPH Nº 1

COLOMBIA: INFLATION RATE 1975-2012



CULATIONS BASED ON INFORMATION FROM THE BANCO DE LA REPÚBLICA, COLOMBIA.

One of the important elements of target inflation schemes is that they use the interest rate as an instrument. When central banks issue statements today, and Colombia is no exception, they do so by stating which way the interest rate is going, and that is not just a play on words, but part of a transparency strategy. Part of what the target inflation scheme aims to do is to establish better communication with the public. People understand what it means when they are told that interest rates are going up or down, but do not necessarily understand the implications of changes in monetary aggregates that the bank formerly used to announce. Obviously, as the name suggests, the scheme has some goals with regard to inflation, but this is not a question of a central bank obsessed with inflation, but of one that anchors its policies around the long-term inflation goals. That does not mean that the central bank can have no other goals, which might be economic activity, employment, the exchange rate or financial stability, among others.

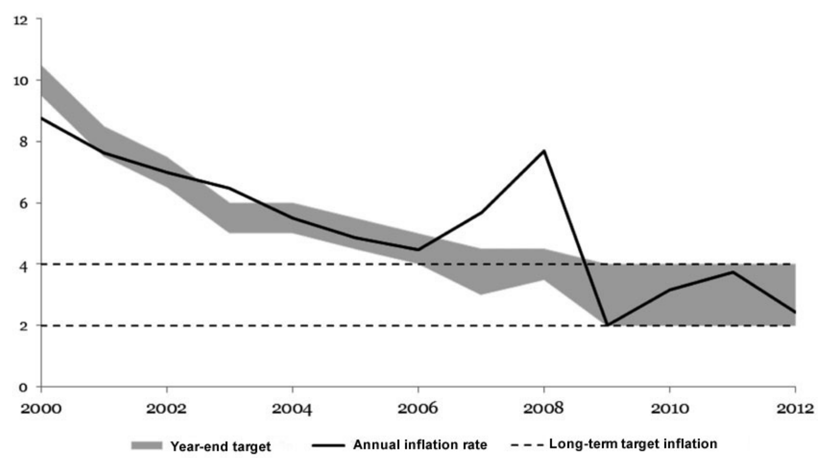
A final element of this break-point related with the target inflation scheme, is perhaps the most controversial and the one that creates the most important dilemmas for the future: the floating of the exchange rate. In purely academic terms, a target inflation scheme is a scheme that should, as a matter of principle, be accompanied by a floating of the exchange rate. In fact, part of what allowed Colombia to move into that target inflation scheme was, curiously enough, the end-of-century crisis, where the pressures to devalue at that period removed the fear - in the private sector and some Government sectors - that allowing the exchange rate to float would mean an appreciation. All of this in the context of the fact that we were emerging from 30 or 40 years of a scheme in which we tried to control the exchange rate, either by the famous "drop by drop" devaluation mentioned by Sebastián Edwards, or by using the scheme of exchange-rate bands that we had in the 1990s.

A zoom on target inflation

Graph Nº 2 makes a zoom on the inflation rate and target inflation over the past 12 years. The shaded band shows the inflation goals of the Banco de la República. With exceptions in 2007 and 2008, the Banco de la República has kept its promises in terms of inflation, and we have already had four years in which our inflation has not only met the short-term goal, but has been in line with the long-term inflation target. This is definitely a great triumph in the light of what we lived through in the 70s, 80s and 90s, when inflation rates between 2% and 4% seemed impossible.

GRAPH Nº 2

COLOMBIA: INFLATION RATE AND TARGET INFLATION 2000-2012

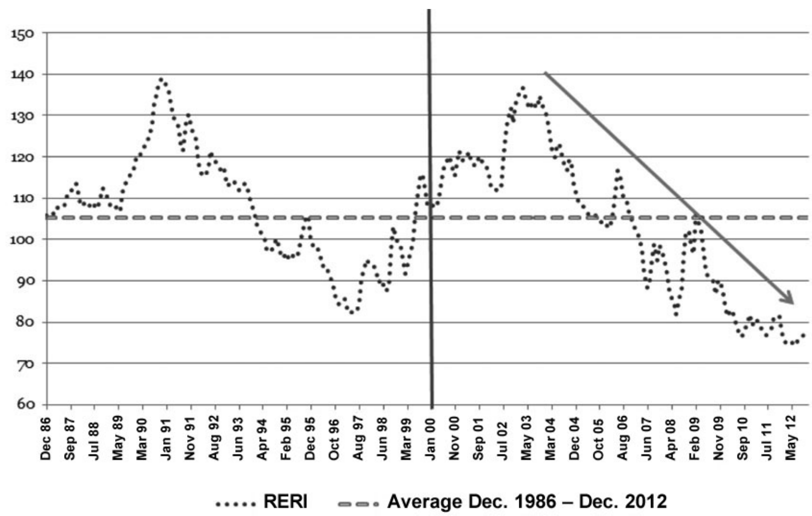


SOURCE: AUTHOR'S OWN CALCULATIONS BASED ON INFORMATION FROM THE BANCO DE LA REPÚBLICA, COLOMBIA.

Sebastián Edwards mentioned that the countries of the Latin American region have suffered a severe exchange-rate appreciation of their currencies, possibly as a result of the crisis. Graph Nº 3 shows the real exchange-rate for Colombia from 1986-2012. Essentially, what one sees is that Colombia has suffered a severe appreciation process since approximately 2002. The scale suggests that our exchange-rate has appreciated by about 50% in real terms. If one compares the actual real exchange-rate against the average of the whole period analysed, we see a real appreciation of more or less 25% to 30%. If we focus on the end of graph, in the past 3 or 4 years, the real exchange-rate has essentially been static. This indicates that we are apparently not now talking merely of a bad short-term situation, but rather of a more structural change. As Sebastián Edwards mentioned, several years of lax monetary policy in the developed world possibly await us, and for that reason one should expect high liquidity in the rest of the world in the future and, consequently, a challenge that is difficult to forecast related with the strengthening of Latin American currencies.

GRAPH Nº 3

COLOMBIA: REAL EXCHANGE RATE 1986-2012



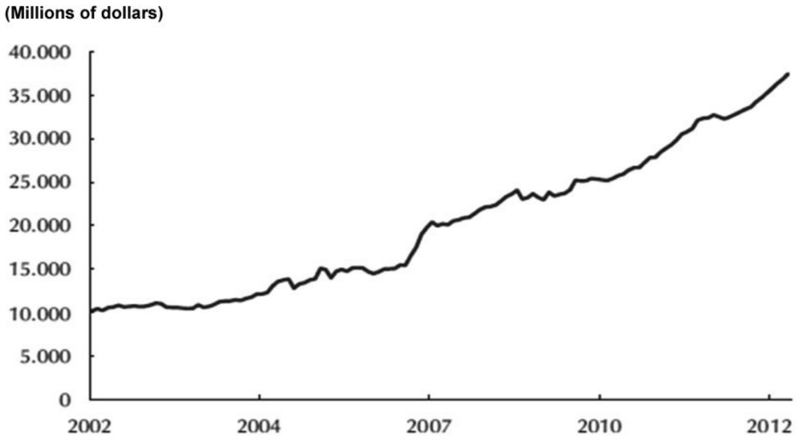
SOURCE: AUTHOR'S OWN CALCULATIONS BASED ON INFORMATION FROM THE BANCO DE LA REPÚBLICA, COLOMBIA.
NOTE: RERI = REAL EXCHANGE RATE INDEX.

In the region and in Colombia in particular, one of the things that have been done is to try to absorb the excesses of liquidity that have inflated our exchange-rates. The international reserves in the emerging world and in Colombia in particular have grown very considerably (see Graph Nº 4). In 2002, Colombia had USD 10,000 million in international reserves and this year will undoubtedly close with over USD 40,000 million. In other words, in only a decade we have quadrupled our international reserves in Colombia. Curiously enough, if one measures that accumulation of international reserves with other metrics, as a percentage of GDP for example (see Graph Nº 5), the accumulation of reserves in Colombia has not been particularly high. The figures indicate that in Colombia we have been more or less stable in international reserves, at around 10% of GDP, while other countries in the region, notably the Peruvians and Brazilians, have made a greater effort, with positive and negative consequences.

Sebastián Edwards mentioned that, according to the latest data, the Brazilians exceeded 6.5% of inflation over and above their band. Possibly part of that result has to do with the dilemma about what to do with such a heavy inflow of capital from the rest of the world. The Brazilians opted for more serious accumulation of international reserves, and have sacrificed their inflation target in exchange. In the Colombian case, the inflationary anchor has been stricter and as a result we have accumulated lower international reserves as a percentage of GDP. That is a dilemma that our central bank will be facing during the next 3 or 4 years, given the conditions in Europe, Japan and the United States.

GRAPH Nº 4

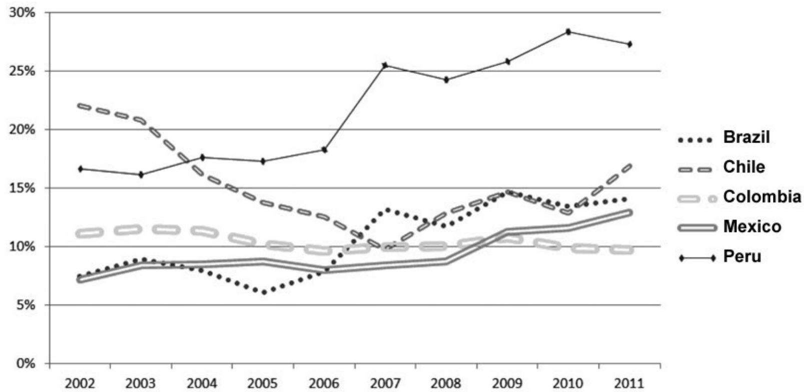
COLOMBIA: NET INTERNATIONAL RESERVES
(MILLIONS OF DOLLARS)



SOURCE: BANCO DE LA REPÚBLICA, COLOMBIA.

GRAPH Nº 5

NET INTERNATIONAL RESERVES AS % OF GDP – SELECTED COUNTRIES IN LATIN AMERICA

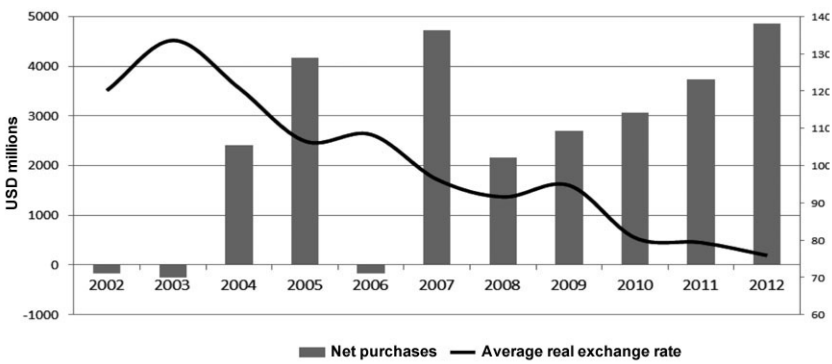


SOURCE: AUTHOR'S OWN CALCULATIONS USING INFORMATION FROM "INTERNATIONAL FINANCIAL STATISTICS" (IFS).

Graph Nº 6 shows what has happened in Colombia with the real exchange rate in the past decade, in the period of target inflation. What one sees is that at the beginning of the sample, when the real exchange rate was at relatively high or growing levels, we de-accumulated international reserves and, as the real exchange rate fell (in other words, the Colombian peso became stronger), the Banco de la República gradually accumulated more and more reserves.

GRAPH Nº 6

COLOMBIA: REAL EXCHANGE RATE AND NET INTERVENTIONS OF THE BANCO DE LA REPÚBLICA IN THE EXCHANGE MARKET



SOURCE: AUTHOR'S OWN CALCULATIONS USING INFORMATION FROM THE BANCO DE LA REPÚBLICA.

The purchase of dollars by the Banco de la República has resulted in a bad performance from the financial point of view. The low interest rates in the rest of the world and the depreciation of the United States dollar have meant that the profits of the Banco de la República have been negative for the past 4 years. Table Nº 1 shows the annual yield of the Colombian international reserves. Looking at the years 2010, 2011 and 2012, we realize that the annual yields are below 1%. We have more than USD 30 thousand million yielding less than 1% per year and once that is converted into Colombian pesos, we can see that the profits of the Banco de la República are negative (see Table Nº 2). In principle, the above might not be a cause for concern, but when we begin to talk of figures such as those forecast for the year 2013 (almost 1 billion COP in losses), the matter starts to be more worrying, especially because it might rock the Bank's budgetary independence.

TABLE Nº1

COLOMBIA: ANNUAL YIELD OF THE INTERNATIONAL RESERVES

Year	USD million	Annual yield %
1992[a]/	319.3	4.5
1993[a]/	386.5	4.9
1994	503.0	6.3
1995	818.4	9.9
1996	200.8	2.2
1997	204.6	2.1
1998	728.9	7.8
1999	78.4	0.9
2000	505.3	5.9
2001	477.9	4.8
2002	810.5	7.7
2003	464.8	4.2
2004	324.5	2.7
2005	81.4	0.6
2006	815.2	5.5
2007	1326.2	7.4
2008	1004.5	4.5
2009	321.4	1.3
2010	159.7	0.6
2011	136.0	0.4
2012	251.9	0.7

[a]/DATA FROM THE EXCHANGE BALANCE
SOURCE: BANCO DE LA REPÚBLICA, COLOMBIA.

TABLE Nº2

COLOMBIA: PROFITS OF THE BANCO DE LA REPÚBLICA
(MILLIONS OF COLOMBIAN PESOS)

2009	155,385
2010	-271,545
2011	-356,061
2012	-340,522
2013	-929,100 (forecast)

SOURCE: BANCO DE LA REPÚBLICA, COLOMBIA.

Challenges

The challenge that we are facing in terms of macroeconomic policies involves maintaining the inflationary anchor - that triumph achieved over the past 20 years - by using the reputation and credibility won by the Central Bank with the target inflation scheme. At the same time, the Central Bank is going to face the dilemma of what to do with this great international liquidity that has re-valued the Colombian currency and with the implications in terms of its budgetary independence.

There is a proposal that has been under discussion in other debates, which is based on the Central Bank's looking at the possibility of investing at least a portion of the international reserves in some type of sovereign fund that would allow investment in longer-term, higher-risk assets and mitigate, at least partially, the cost of interventions in terms of the low yield obtained.

GLOBAL CONTEXT AND MARKET EXPECTATIONS: REALITIES AND RISKS

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After reading the article by Sebastián Edwards, we already have a vision of Latin America for the next 50 years. The aim of my present comments will therefore be to focus on explaining how to produce short-term yield, on the basis of the predictions that we have for this year, 2013, at Bulltick Capital Markets.

As long as there are no catastrophic circumstances (such as a conflict between North and South Korea, nuclear bombs, tsunamis, etc.), it is possible to predict that the S&P 500 stock exchange index, which is made up to the 500 largest companies in the United States, should be at 1,600, with the risk of reaching 1,650 due to the situation in Japan, a new scenario that is extremely important for the financial markets.

That is the expectation, because there is a very large amount of money which is going to have to keep looking for something to do. We must not forget that it is impossible to produce sufficient growth in the future pensioners' savings portfolio unless the savings funds' investment managers take risks and invest in things that are productive. To put it a better way, it is not sustainable for "portfolio managers" to invest the resources permanently in a current account which generates no economic return. It is a situation very similar to that which occurred in February 2009, when the S&P 500 reached the value of 666, and suddenly shot up to 1,600. At the moment, the S&P is already at the level of 1,600 and will probably continue rising.

Basically, in Japan today, unlike the past, there is the absolutely clear aim of raising inflation to 2%, and the authorities have told us that they will do whatever is necessary to achieve that aim. If they have to double, triple or quadruple Japan's monetary base, it will be done, but the authorities are going to push inflation up to 2%. Taking that into account, when one knows that the pension funds in Japan have a huge amount of money and that the authorities are going to devalue the YEN, come what may, one must take advantage of the opportunities in investments to make money, by buying Mexican pesos for example. That is because the Mexican peso, at an exchange rate of $11.75 per USD, is still "ridiculously" good value. My view is that Mexico continues to be extremely cheap (the minimum wage in Mexico is USD 160, whereas in Colombia it is USD 330 and in Brazil, around USD 350).

On the other hand, at Bulltick Capital we think that the Colombian peso will end 2013 at a value approaching $1,850 per USD, but with the risk of rising to $1,950 by the end of the year. That risk is explained by the deceleration that we have seen in Colombia. I also think it extremely probable that the Central Bank will play a leading role in a change of paradigm for handling international reserves. We believe that from now on, and until the end of 2013, we are going to see much firmer intervention in terms of the share of international reserves in the GDP, approaching levels close to those of Peru. That is going to produce a certain depreciation of the Colombian peso, which is obviously not such good news for the foreign investor, but very good for the industrial investor who is going to be able to compete on slightly better terms.

Assuming that we will not have an "argentinization" in the handling of the European exchange crises, we must surely have something of an appreciation of the Euro by the end of 2013: €1.30 per USD, with a risk of reaching €1.25.

"Argentinization" was a very specific case of what happened in Cyprus: it was very difficult for Germany to contribute to a financial arrangement to rescue Russian savers who had resources in Cyprus (everyone knew that most of that money was illegal). However, I do not believe that we shall see this problem again, or at least we hope not.

Fixed income strategy

What is the strategy to be used in 2013 with regard to fixed income? The yield on high-quality sovereign bonds in USD (Brazil, Colombia, Peru) should tend to fall. Those bonds have already peaked at very high valuations and there is also a risk of adjustment in the U.S. yield curve. For this reason, it would be advisable to underweight exposure in bonds of this type in the fixed income portfolio.

It was the Bolivian case that really changed our opinion on the degree of over-extension in the emerging bond market. That country successfully issued sovereign bonds with a 10-year term on the New York financial market in October 2012 for USD 500 million and 4.875% interest, after generating a demand for USD 4,217 million in international investors. It seems incredible that the financial market should have lent money at that rate to a country whose President had previously nationalized the private pension funds. That just cannot happen, so there comes a point when one must change the geographic investment strategy.

Now, since the funds must go on investing, the option that remains is to stay "market-weight" in purchasing high-quality corporate bonds (Pemex, Ecopetrol, Bancolombia) as long as there is some space for these to resist volatility; to overweight exposure in low-quality corporate bonds in USD, if there is space to resist the adjustment in the yield curve in the USA; to overweight exposure in low-quality European debt (Spain, Italy, Portugal, Ireland); underweight exposure in U.S. treasury bonds (T-Bills) and in government bonds from Germany (Bunds) and the UK (Gilts); and overweight exposure in local currency (Brazil, Colombia, Mexico, Peru).

The people who are going to do very well with their portfolios are quite definitely not going to have exposure in Bunds or Gilts, but will have exposures in local currency in Brazil, Colombia and Mexico.

For foreigners, investment in Mexico is going to be unbelievable because, as Sebastián Edwards pointed out, it is a country that is becoming extremely competitive for reasons such as engineering and low wages and thanks to the fact that its currency is lagging behind the remaining currencies of Latin America. For example, it is said that 2014 will be the first year in which Mexico exports a car to China, because the model "Audi Q5" is going to be manufactured in Mexico and exported to China instead of coming directly from China to Mexico. This is obviously an impressive structural change and in that sense we are in full agreement with Sebastián Edwards in terms of what is going to happen in the future to the Mexican economy.

Strategy for equities

As regards the strategy for equities during 2013, one should keep buying: Mexican shares, for example. In my opinion, it is the best investment in Latin America for this year 2013, with an expected return of +20% in USD.

The strategy should also include an overweight in the S&P 500 index (expecting a return of +/- 12% in 2013); in China (expecting a return on +20% in USD, with a very cheap market and accelerating economy); and also significantly in Japan (currency issuance will be at much higher levels than those carried out by the Federal Reserve in the U.S.).

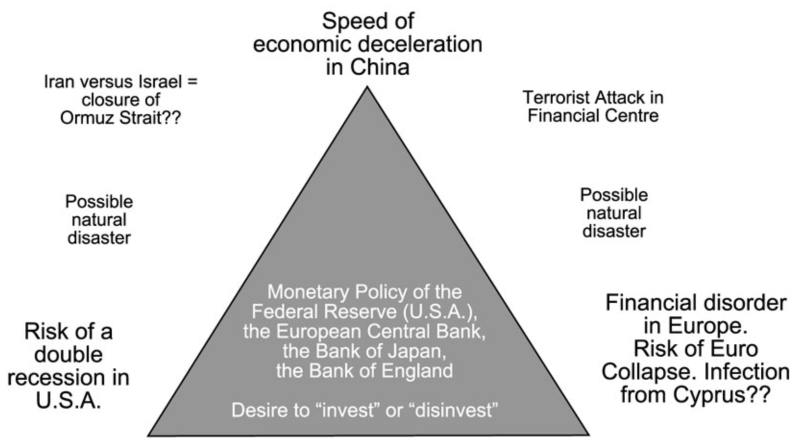
Now in the case of Brazil, there should be an underweight, because we are expecting a return of +/- 10%, or less than that in 2013. Although Brazil is very cheap, there is currently a lot of uncertainty due to the erratic handling of economic policy.

The strategy should definitely include a market-weight in Spain and Italy, expecting a return of + 10% in USD. According to our forecast, Spain and Italy are going to achieve stability in 2013.

What is the basis of our view of the world, the basis that we use to generate all the recommendations that I have just given you? Figure Nº 1 summarises in a triangle the factors that we are currently seeing as determining the global trends in economic/financial behaviour that we have to bear in mind. At Bulltick we think that this triangular world allows us to offer a very good summary of what customers should take into account when they intend to invest.

FIGURE Nº 1

THE WORLD TRIANGLE CONTINUES TO BE THE SAME



SOURCE: PRODUCED BY THE AUTHOR.

At Bulltick Capital we think that the United States economy is **NOT** in danger of going into a double recession, mainly because the total productivity of factors expanded violently following the 2008 crisis and because the real-estate sector is recovering solidly. Does this mean that the country has already come out of the crisis? No. What it means is that the collapse of the economy that we saw in 2008-2009 was so violent that there is not a lot of space for falling again at this moment.

The stability of the Chinese economy is the other point of the triangle. Without a buoyant China, there would not be high prices for raw materials and therefore the economies in Latin America would not be seeing benevolent behaviour. At Bulltick we reckon that China has all the degrees of freedom that it needs to avoid its economy making a forced landing.

Finally, the unity of the Eurozone continues to be a priority. Any country leaving the Eurozone could produce runs on the banks in the Eurozone countries. That scenario could launch a systemic international crisis of unprecedented proportions. Obviously at Bulltick we hope that responsibility will prevail when decisions have to be taken.

PART II

EFFICIENCY IN THE DESIGN AND ORGANISATION OF INDIVIDUALLY-FUNDED SYSTEMS

TRENDS AND CHALLENGES IN THE REFORMS TO MULTIPLE-PILLAR PENSION SYSTEMS AROUND THE WORLD

SOLANGE BERSTEIN[1]

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This brief article seeks to analyse the trends and challenges perceivable in multiple-pillar pension systems around the world, to enable workers to be provided with adequate replacement rates in their passive stage.

Significant reforms to the different pillars of the pension systems have been seen in the past few years. Presented here is the view of the International Organisation of Pension Supervisors (IOPS) on these reforms, especially where they involve programs based on individual funding, and the impact that they may have on the levels and quality of members' pensions and the long-term stability of the systems, and also the challenges that are pending to ensure that their main aim is achieved, namely that of providing their members with adequate replacement rates, covering the widest possible range of workers and at the lowest possible cost.

First there is a description of certain trends that are visible across various countries, followed by an explanation of the challenges facing the multiple-pillar systems. Then the article highlights the policies that have been put in place to meet those challenges and finally it shows some challenges that are specific to the systems of individual funding with defined contributions.

I. Trends

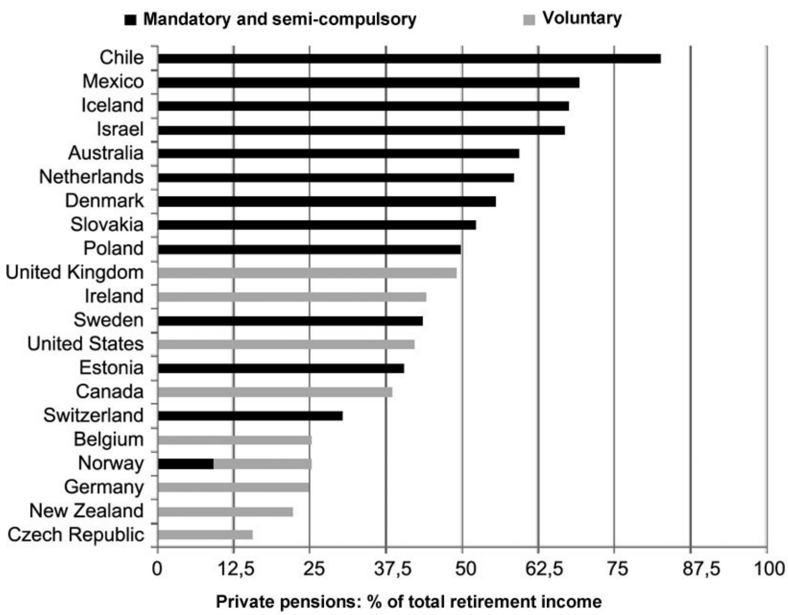
In general, what is seen is that pension systems do not have just one pillar to fund pensions but are made up of different components. In general, in all countries, what has been happening is a mixture of defined contribution (DC) plans and defined benefit (DB) programs, public and private, mandatory and voluntary, so we are seeing ever-increasing diversification in the source of funding for pensions.

There has undoubtedly been considerable growth in the private DC pension plans, either to complement the DB programs or to replace them, so solving their mainly actuarial imbalances. Such is the case, for example, of the notional defined-contribution systems, which are definitely pay-as-you-go systems, but are actuarially balanced.

The private systems, both mandatory and voluntary, have been becoming increasingly important around the world, as have automatic enrolment mechanisms (semi-compulsory systems) (see Graph Nº 1). Therefore we really have an increasingly active role for the private pension systems, meaning that the debate concerning the role of these systems is very relevant, not only in Latin America, but also in the rest of the world.

GRAPH N° 1

THE ROLE OF PRIVATE PENSIONS IN TOTAL RETIREMENT INCOME, BY TYPE OF FUNDING



NOTE: THE COUNTRIES WITH MANDATORY OR SEMI-COMPULSORY PENSION SYSTEMS MAY ALSO HAVE A VOLUNTARY PART WHICH IS NOT SHOWN ON THIS GRAPH. THE CALCULATIONS ARE BASED ON THE RULES AND PARAMETERS GOVERNING EACH COUNTRY'S PENSIONS THAT WERE VALID IN THE YEAR 2008.
SOURCE: OECD (2011), PENSIONS AT A GLANCE 2011: RETIREMENT-INCOME SYSTEMS IN OECD AND G20 COUNTRIES.

There is no doubt that the financial crisis of 2008-2009 was an important landmark for the pension systems. In the years 2008 and 2009, with the global financial systems in problems, countries' public finances were affected and this in turn rebounded on the pension systems in various parts of the world. The yields of the pension funds in the DC systems fell dramatically. In the case of the DB systems, the crisis also had a negative impact on the levels of solvency that they were required to have by law, and on their ability to meet them. In various emblematic cases, the fiscal resources for paying pensions in the DB systems suffered a considerable cut-back. Pressures on the fiscal coffers certainly affected the evolution of pension system reforms in different countries, to the extent that there were some reversals of reforms in those that had implemented DC plans as part of their pillars for funding pensions.

What is happening with the benefits? At the end of the day, what people are expecting is that the pension systems will pay the corresponding benefits, so the level of pensions in the DC systems is turning into a key variable for judging how the social security system is working. What we see is that in the DC systems of many countries the benefits that are starting to be received are not up to the level that people were expecting. In many countries, and specifically in Chile's case, the expectations generated in people when the individually-funded system was introduced were often greater than what the system was capable of providing, for a variety of reasons, many of them related with the labour market or the decreasing levels of yield.

The financial crisis has obviously not contributed favourably to the debate on the adequacy of the pensions that were being received. So various measures are being explored and applied to improve the state of benefits in pension systems all over the world.

Within this context of financial crisis and problems in the financial markets, I shall refer below to some of the challenges facing the pension systems.

II. Current challenges for the pension systems

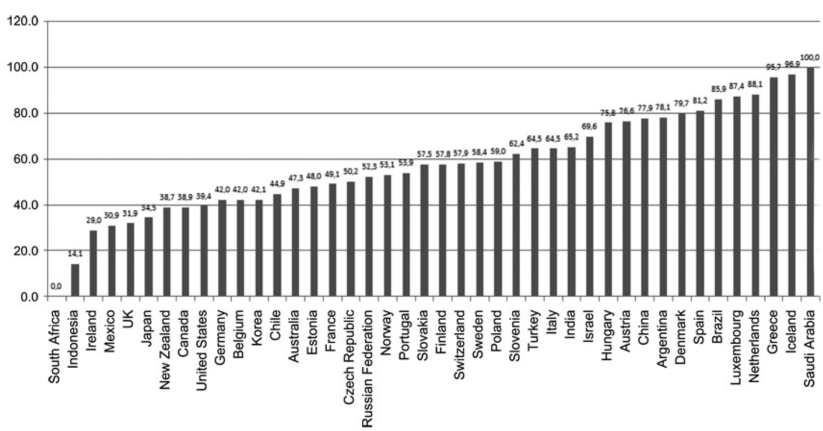
The first big challenge that has to be borne in mind is that by far the most important aim of pension systems is to provide adequate, sustainable pensions. In other words, it is not only a matter of increasing the amount of pensions, but also of managing to ensure that these improved amounts are sustainable, and this has to do with how we think in the long term, and avoid having "bread for today" that produces "hunger tomorrow". This is a classic subject in the pension world, precisely because those who pay are the generations of the future. They have no voice today for us to listen to, so there is a great temptation to solve the urgent problems today and leave the solving of future problems for tomorrow.

The other great challenge, caused to a large extent by the financial crisis, has to do with how to mitigate risks, mainly in the DC systems. As long as yields were good and positive, and the fluctuation was not obvious, there was little perception of what risk meant. However, today the concept of risk is considerably closer and how to cope with it is a major challenge.

When we look at the world outlook with regard to the replacement rates of the mandatory pension systems (see Graph Nº 2), we see a wide variety of results, from countries with extremely low replacement rates to countries with replacement rates between 30, 40 or 50%. We also have a large number of countries with mandatory systems that provide replacements rates – through their public and private pillars - of up to 60%, and to a lesser extent, countries that have replacement rates close to 70%, with some offering replacement rates at levels of 80%-90% and even 100%.

GRAPH N° 2

GROSS REPLACEMENT RATES PROVIDED BY THE MANDATORY PENSION SYSTEMS
(% OF FINAL WAGE)



NOTE: THE GROSS REPLACEMENT RATE SHOWN ASSUMES THAT THE WORKER EARNS THE AVERAGE WAGE.
SOURCE: OECD (2011), PENSIONS AT A GLANCE 2011: RETIREMENT-INCOME SYSTEMS IN OECD AND G20 COUNTRIES.

The replacement rates given correspond to calculations made by the OECD in *Pensions Outlook 2011*. The exercise has behind it a series of assumptions (for example, it assumes a 3.5% rate of return and a contribution density of 100%), which may or may not be appropriate, but at the end of the day it is the most comparable aspect that we have at international level and it allows us to get a feeling of what is happening around the world with regard to replacement rates. This type of analysis involves at least two items which are important to bear in mind when making evaluations. First, we are talking about the pensions received by those who are covered, and there may therefore be people in some of these countries who are not receiving a pension at all. Secondly, it may be that these replacement rates are extremely high in some countries, but it is also possible that they are not sustainable over time. The replacement rate is therefore a measurement that has to be looked at very carefully. We are working together with the OECD on a study that compares replacement rates in a slightly more realistic manner than the estimate in *Pensions Outlook.* The truth is that it has been very difficult to reach an agreement on which more realistic assumptions should be included in order to be able to construct a valid comparison at international level, but it is undoubtedly worth the effort, in order to have more accurate diagnoses.

There are some exogenous factors that have a bearing on the pension systems and at the end of the day we must assume responsibility for them. One of these involves the increased life-expectancies of the population, a trend that is here to stay. The point is that, in order to make increased life-expectancies really good news, it is vital to be able to finance pensions for more years. In that sense, the challenge facing the pension systems is undoubtedly a very important one.

The other critical exogenous factor is volatility, not only that of the financial markets but also of the level of returns that can be expected in the long-term future. Will the level be similar to what we have seen in past years, or will it not? One would tend to think that the levels of return in the future will not be similar to those we have seen in the past. There is a possibility, and not a minor one, that this may be so, especially if one considers the levels of volatility that have already tended to stay around for quite a time.

III. How do countries tackle these challenges?

In view of the challenges facing pension systems around the world, what kind of things have been done in the past few years? What types of reform have been adopted?

Better sustainable pensions

Some of the reforms have to do with preventing poverty in old age and achieving a society that takes responsibility for its elderly members, who contributed differently, perhaps not with contributions paid in cash to a pension system, but to building the country throughout their active lives. They therefore deserve a life of dignity when they retire.

In some countries, a one-off increase in benefits was introduced for the retired population with lower incomes (Australia, Canada and Korea). Let us remember that the structure of families has changed: today there is far more mobility and families take less responsibility for their elderly members. We also have a financial crisis that has debilitated the position of families for helping their elderly relatives. Therefore some countries have had to take measures in the sense of helping to finance those elderly people, providing incomes and new benefits for the population with lower incomes, through solidarity or other plans (Chile, Finland and Greece). In Chile's case we have a new solidarity pillar, considerably more robust than what existed previously. Also, tax benefits have been given to the elderly population, as in the cases of Finland and Sweden.

We therefore have a diversity of measures that are being taken to prevent poverty. An important issue in this sense is how to achieve prevention of poverty without discouraging the incentive to save. In the end, attempting to avoid poverty may turn out to be a huge burden in the long term if we solve people's lives for them, while leaving ourselves with no savings on the part of individuals, or contributions to help finance future pensions.

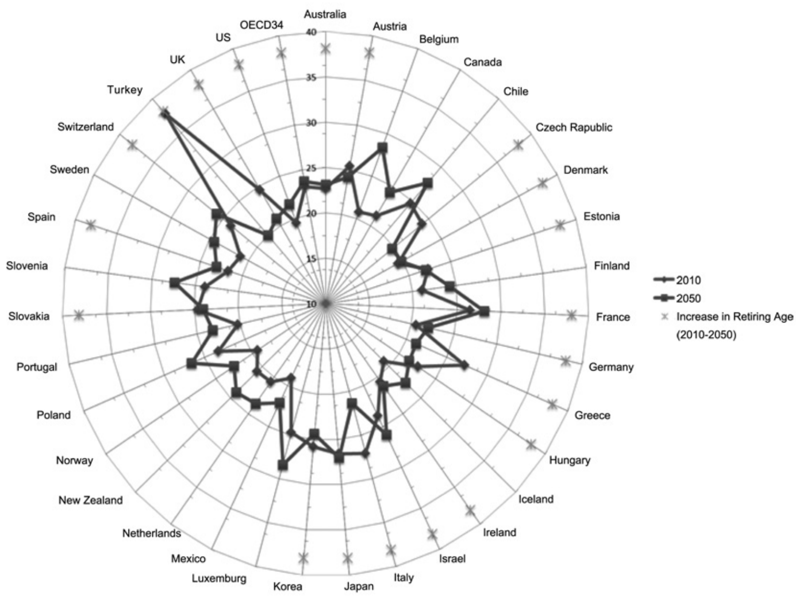
Measures to prevent poverty are therefore very often accompanied by measures to reinforce saving. We must prevent poverty, but at the same time we have to reinforce saving because otherwise there is no funding possible that can make the systems sustainable. In that sense, there are countries that have advanced towards making contribution mandatory (Israel and Norway, for example, and Chile in the case of the self-employed); towards increasing contributions in some cases; or towards automatic enrolment (a mechanism developed in New Zealand, England and the United States, for example), which has been quite effective in achieving better coverage and contribution density.

Other measures to encourage saving include tax incentives and subsidies for the case of voluntary savings (as in the case of Chile, Poland and Germany); increased contribution rates (in the occupational pension plans of Australia and New Zealand, for example); and an increased retiring age.

Increasing retiring age has been a policy that has been quite difficult to implement in many countries. However, progress is being made. In Graph Nº 3 it is possible to see, marked with asterisks, all the countries that have introduced or are introducing an increase in the retiring age for women. Several countries have opted to increase retiring ages gradually, in some cases in order to make the systems sustainable, and in other cases with the aim of achieving more adequate pensions. As can be seen, the forecast for the number of years to be funded at retirement shows a very considerable increase if one compares the years 2010 and 2050. There are some countries where gradual increases in the retiring age have been adopted, as is the case of Turkey, which formerly had an extremely early retiring age and changed, over quite a long implementation period, from being one of the countries that had to finance more years at the moment of retirement to one that has to finance fewer years. So, by gradual increases in retiring age, countries are moving in the correct direction towards funding a number of years of worthwhile retirement in a way that is really sustainable. It is a well-known fact that women live longer, which is why there are far more years of pension to be funded for them than is the case for men. The situation of women is made even worse by the fact that in many countries they retire earlier than men, but this has been changing, since countries are moving in the direction of making retiring age the same for men and women.

GRAPH N° 3

LIFE-EXPECTANCY FOR WOMEN AT RETIRING AGE (2010-2050)



SOURCE: PREPARED ON THE BASIS OF DATA FROM THE OECD PENSIONS OUTLOOK 2012.

Another group of reforms already adopted concerns the improvement of pension system sustainability. For example, we are talking of freezing pension amounts (in Austria, Slovenia, Finland, Greece and Italy, for example); of changing the rules for index-linking pensions and making adjustments in the tax benefits (in Austria, Hungary, Norway and the United Kingdom, for example); of advancing towards DC systems (funded or notional) as in Australia, Italy or Norway; of changing the ways of calculating the benefits in the DB systems, including in some cases an adjustment in accordance with the increase in life-expectancies (in Finland and Norway, for example).

Measures adopted to cope with the financial crisis

As regards the measures that were taken to cope with the financial crisis, some of them have a short-term impact and others, a long-term one.

We could quote for example the cases in which there were temporary reductions in contributions to the private pension system (as in Estonia and Lithuania); the partial reversals of the private pension system (whether temporary or permanent) (as in Latvia and Poland) and complete reversals, (as in the cases of Argentina and Hungary). It should be noted that reversals of this type may indeed have the desired fiscal impact in the short term, but it is important to weigh up and measure the impact that these may have in the long term, not only on pensions but also on the development of these economies.

Other types of measures to face up to the financial crisis have to do with yield guarantees. This issue has been widely debated, precisely because of the financial crisis experienced by the countries that are advancing towards funded DC plans. It has been so, because there are different opinions about whether or not people are able to absorb the yield volatility that is inherent in systems of this type. It is very difficult to transmit a long-term view to the participants in these systems, when they see the fall of up to 20% per year in the value of their individual accounts. So, as an authority, one can see that the advantage of transparency may turn into a problem, because one has to explain that the value should recover in the medium and long term, even though there are falls in value in the short term. The member obviously asks him/herself: *Who is going to give me a guarantee that this will happen?* The demand for guarantees increases in a context of high volatility, but the price of those guarantees can be quite high. We can quote the case of Slovakia, for example, a country that has had a yield guarantee of 0% since 2009; or the case of Switzerland, which lowered the minimum guarantee from 2.75% in 2008 to 2.0% in 2009. There is also the case of Denmark, which recently changed the yield guarantee from an absolute to a relative level.

We should also quote the measures taken to make the solvency requirements more flexible, in order to be able to recover the situation of the DB plans, as in the cases of the Netherlands and Finland.

IV. Future challenges for the defined contribution pillar

When we think of the future challenges of the defined contribution pillar, it is important to see them in the context of the pension system as a whole because the DC system is not isolated from the rest but is inserted in a system of pensions that often has multiple pillars or other components. Therefore the response of the

DC system to the aforementioned challenges has to be seen in the framework of the pension system as a whole. In that sense, it is also important that the pension system should be analysed in the fiscal context of the country concerned and the potential challenges that it faces in terms of its contribution to development and in terms of the characteristics of the labour market.

In that context, we can list some subjects of particular importance for the DC systems:

i) It is necessary to continue increasing coverage through automatic enrolment,

ii) There must be progress towards a definition of social security parameters that matches expectations. It is important to make it clear that one must not promise anything that one will be unable to deliver.

iii) The financial crisis sparked a deep discussion on the risks to which members are exposed.

iv) Some short-term considerations may have negative consequences in the long term and it is important to measure these appropriately.

v) The construction of mechanisms to mitigate risks is of vital importance. A decision must be taken as to whether yield guarantees are appropriate or not, depending on the incentives they produce and their costs. In countries like Estonia for example, a yield guarantee was put in place that led to all the funds being very conservative, meaning that in the end yield was sacrificed to security. The costs of these guarantees for greater security must be limited.

vi) Financial education is definitely a key subject, which could be talked about ad nauseam, but it will always be necessary to go on insisting. In that sense, transparency is an advantage, but it must be accompanied with a lot of explanation so that the information given is adequately understood, and that requires an immense effort.

vii) The design of default strategies is very necessary. Even when we try very hard to educate and provide a lot of information, at the end of the day workers want to be told what they ought to do and when to do it. We therefore have to be sure that the guidance that they are being given is the most appropriate for them. In that sense, the design of default strategies is critical.

BRIEF REFLECTIONS ON SOME OF THE CHALLENGES FACING THE PENSION SYSTEMS

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Pension systems are facing a variety of challenges worldwide and a few reflections on these are given below. I shall be referring to five major challenges inherited from the great global recession of 2008-2009, with special emphasis on the Mexican case.

Most of us who are economists have a certain obsession with the great financial crisis of 2008-2009, perhaps because it was unexpected. The effects of that crisis are still with us, particularly for the world's pension systems. The view on pension systems, their strengths, weaknesses and challenges, has been modified considerably as a result of that crisis.

On the one hand, the questioning regarding the sustainability of pay-as-you-go pension systems has been sharply increased. On the other, the crisis has brought to the centre of attention the important challenges that still remain if the individually-funded systems are to offer an effective policy of social protection.

The political economics of pension reforms

The financial crisis stepped up the concern and complaints about the pension systems, both those with defined benefits (DB) and those with defined contributions (DC). In view of this situation, many countries have found it necessary to reform their pension systems (and many others will inevitably do the same), but in order to put reforms in place, the political and macroeconomic environment is of key importance.

However, the political economics of pension reforms after the crisis have become more complex. Why? On the one hand, structural and/or parametric reforms become complicated in environments of macroeconomic weakness such as those being experienced today in some developed countries. On the other hand, in political environments where the average voter benefits increasingly from the *status quo*, reform becomes more and more complex. Furthermore, reforms in times of crisis will always be more complicated because there will always be battles of redistribution that make it more difficult to achieve minimum agreements. Finally, the redistribution struggle is compounded in federal systems (such as exist in the case of most Latin American countries), because state governments in the Latin American region usually aim for short-term political income, meaning that their incentives are not totally aligned with reforming pay-as-you-go pension systems.

Inequality in the centre of the agenda

A second major consideration is that the crisis brought the inequality issue back to the centre of global concern. The recent reforms of the pension systems, but especially those of the future, will tend to include the inequality issue to an even greater extent.

Now this is not only a matter of raising the amount of expenditure. We know that in Latin America, for example, public expenditure has historically produced only a limited redistributive effect. What is even worse, expenditure on pensions in Latin America is often highly regressive. Therefore the challenge for developing countries to design and reform their pension systems with a "pro-equality" approach is by no means a trivial one. It is not merely a matter of recognising the need to undertake reforms that seek to make things fairer; the design of those reforms is equally vital.

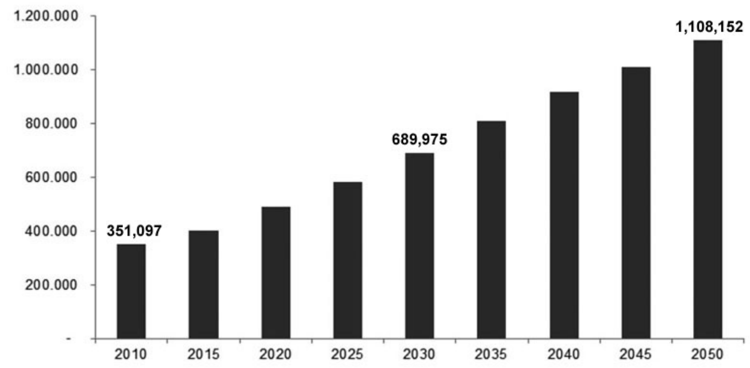
What has happened in these past five years following the crisis is that we have seen some countries undertaking reforms to their pension systems that concentrate on the issue of inequality, but without considering the effects (not necessarily positive ones) that those reforms will have in the medium and long term. For example, in Mexico's case, the federal government's expenditure on pensions at aggregate level is showing a regressive effect, in other words, most of the benefit is going to those who are in the higher income levels. Therefore, designing pension reforms with good "pro-equality" intentions means not only increasing expenditure but also targeting it in such a way that it is really channelled to the (correct) final beneficiary.

Pillar Zero, an unavoidable subject

In view of the above, it is not surprising that many countries are incorporating a non-contributory Pillar Zero in addition to their Pillars 1 (pay-as-you-go) and 2 (mandatory individual accounts). In the context of a rapid process of population ageing in the developing countries (Graph Nº 1) which will tend to become more accentuated in the next two decades, Pillar Zero is an unavoidable subject.

GRAPH N° 1

POPULATION OF 65 YEARS (COUNTRIES WITH LOW AND AVERAGE INCOMES)

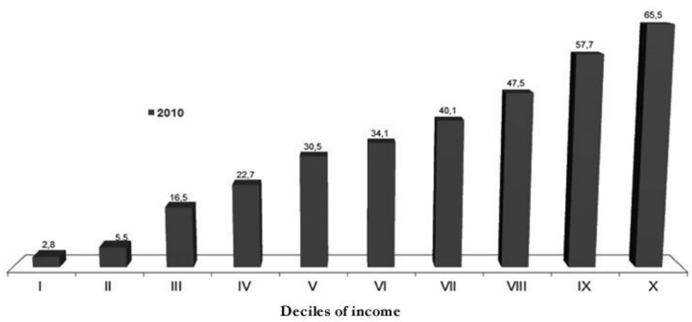


SOURCE: INTERNATIONAL PATTERNS OF PENSION PROVISION II, WHITEHOUSE, WORLD BANK.

Furthermore, in countries with high levels of informality and/or low levels of female participation in formal employment, the pensions do not cover the people with most needs (Graph Nº 2).

GRAPH N° 2

MEXICO: POPULATION OF 65 YEARS OR OVER WITH PENSION AND OR RETIREMENT BENEFIT PER DECILE OF INCOME



SOURCE: ESTIMATES OF THE NATIONAL COUNCIL FOR THE EVALUATION OF SOCIAL DEVELOPMENT POLICY (CONEVAL) BASED ON THE NATIONAL SURVEY OF HOUSEHOLD INCOME AND EXPENDITURE (ENIGH) 1992 AND 2010.

In addition to the clear need for the so-called Pillar Zero to exist, its design is of key importance, with the following items needing to be taken into account in that process:

- It must be fiscally viable in the medium and long term.
- It must really reach the most unprotected beneficiaries.
- There must be some homologation of eligibility criteria and benefits.
- Incentives that increase labour informality must be avoided.

Adverse conditions for investment

A fourth important issue is related mainly with the way of managing the investments of the resources of the pension systems with individual funding accounts, together with appropriate handling of the risks.

The global crisis had important repercussions on the investment conditions and strategies of the pension funds at worldwide level. Most countries were confronted with significant falls in the valuations of their pension systems, though some have been able to recover much more quickly than others.

Five years on from the crisis, its repercussions still have an active influence on global financial markets. The great challenge for the future, which will undoubtedly be faced by all the pension systems at global level, lies in how to administer or manage the excessive global liquidity which has occurred as a result of the unprecedented laxity of the monetary policies of the central banks of the main developed countries. All the asset prices have shown an upward trend and this has produced signs that certain bubbles of financial assets could be forming in some parts of the world. If these were to burst, this could have a negative impact on pension savings.

The pension fund administrators around the world therefore face the challenge of producing the greatest possible yield for their clients, bearing in mind the risks involved in the formation of these bubbles. This is added to the complication arising from the great demand for "safe assets" that exists in the markets, which puts a downward pressure on yields to historically low levels, and therefore complicates the likelihood of obtaining high yields in the future for the asset portfolios. Generating high yields in the future will therefore be much more complicated than it has been during the last few years.

From the regulator's point of view, it is necessary to pay close attention to how these risks are handled, so that portfolios are managed with the aim of achieving the highest possible yield, while bearing in mind the level of risk that can acceptably be incurred.

Furthermore, there is great global uncertainty about the moment in which liquidity surpluses should be withdrawn, and the effects that this will have. What will happen in two or three years, when the interest rates at global level start increasing again as an unavoidable effect of liquidity withdrawal? How will the markets react to this eventuality?

The need for greater social security and financial culture

The great financial crisis has also brought to light an important challenge that we face at global level, namely that of strengthening social security and financial culture. The poor level of knowledge about how pension systems operate and the ignorance that exists with regard to the requirements for achieving higher replacement rates are also some of the great legacies of the crisis.

This last made it clear that savers do not usually include the inherent risk of investing in their decisions and that they are in fact far more averse to losing money than to gaining very little. In other words, it is very different from a saver's point of view to receive an account statement that shows relatively small yields over a period of time than it is to receive one that records capital losses. It is therefore a known fact that there are conditions of ignorance among savers. What is not known is the answer, in terms of how to break savers' inertia with regard to seeking information and taking a more active part in the management decisions that concern their future retirement savings.

The recent analytical developments of the behavioural economics branch are helping us to a better understanding of what is needed to stimulate a "call to action" on the part of savers. However, to be quite frank, regulators have spent many years mulling over this issue and the challenge persists.

Final comment

Demographic changes, fiscal restrictions, financial volatility and employment instability are all factors that have made the last few years particularly complex for all the pension systems in the world.

Although there are pay-as-you-go systems that function acceptably, the legacy of the financial crisis indicates that most of them will face serious challenges of financial sustainability in the near future. Though not exempt from enormous challenges, the countries that moved into individually-funded account schemes seem to be better equipped to cope with the dual challenge of ageing (which will be particularly accentuated in Latin American countries in the next few years) and of less economic growth.

WHAT OUGHT THE AIMS TO BE IN A PENSION REFORM? A CRITICAL ANALYSIS OF RECENT REFORMS

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I. The aim of a pension system

Every pension system must aim to provide adequate, stable and financially sustainable replacement rates, regardless of the structure and relative weighting of its various component pillars.

There is no single answer to what the replacement rate should be for different countries or indeed for different individuals. What can be offered are a few suggestions from various institutions as to what the target replacement rate of pension systems ought to be (see Table Nº 1). So, for example, the Organisation for Economic Co-operation and Development (OECD) suggests a replacement rate of 70% of final wages, between the mandatory and voluntary components of the pension system.

TABLE N° 1

PENSION SYSTEM REPLACEMENT RATES: SUGGESTIONS FROM CERTAIN INSTITUTIONS AND WHAT PEOPLE EXPECT IN THE CASE OF CHILE

OECD	**70% of final earnings between the mandatory and voluntary components (1)**
MERCER	**45% - 65% of wages, mandatory only (2)**
ILO	**Target minimum 40% of wages (3)**
People's expectations: Chilean case	**70% of wages (4)**

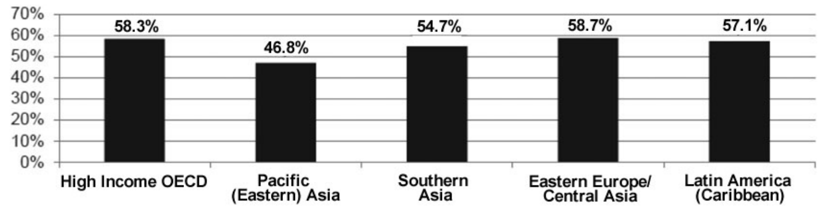
SOURCES: (1) OECD PENSIONS OUTLOOK 2012; (2) OFFICE OF THE UNDERSECRETARY OF SOCIAL PREVISION, CHILE; (3) OLD-AGE PENSIONS GENERATED BY THE AFP SYSTEM: A MEASUREMENT OF REPLACEMENT RATES, RICARDO PAREDES, JULY 2012; (4) SOCIAL PROTECTION SURVEY, CHILE.

When one defines and evaluates target replacement rates, it is vital to compare those targets with members' expectations and with the Pension System's rough estimates of the pensions that it is really capable of providing through its array of pillars. For example, as can be seen in Table Nº 1, the Social Protection Survey (EPS) shows that, on average, people in Chile expect a replacement rate of 70%. It is probable that people who have paid contributions systematically throughout their working lives, with few non-contributing periods, will be able to achieve replacement rates close to that percentage, or even higher. However, there are many workers in our countries who are not contributing regularly and it will therefore be difficult for them to reach replacement rates of a magnitude similar to what they expect. For this reason, it is desirable to check the match between targets, expectations and pension estimates regularly and provide members with adequate education about the system, in the sense that their pensions will depend directly on the contributions that they pay throughout their lives.

Graph Nº 1 shows an interesting exercise presented in a report from the World Bank about replacement rate targets for pension systems in different geographical areas, to be consistent with the real parameters of those systems in each country (contribution rates, retiring ages, formula for calculating benefits, mortality tables), and certain assumptions that are common to all countries (yield, growth in wages, etc.) As can be seen, the exercise shows that the simulated replacement rate fluctuates between 47% for the Pacific Asian zone and 58% in the high-income countries of the OECD and in Eastern Europe and Central Asia.

GRAPH N° 1

SIMULATED TARGET REPLACEMENT RATES WITH PARAMETERS FROM THE PENSION SYSTEM



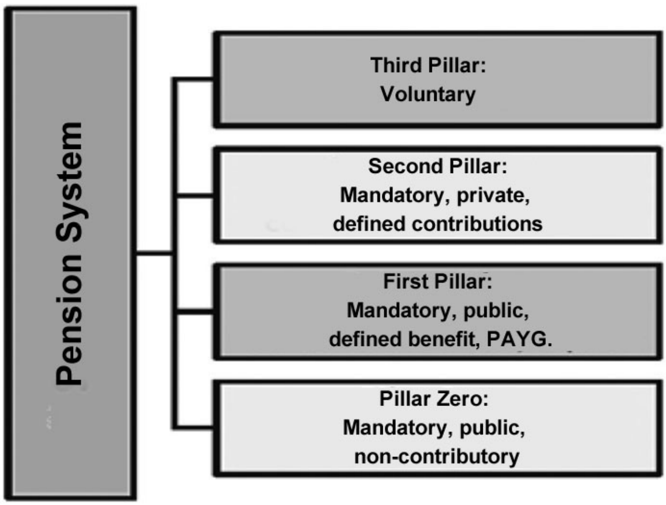
SOURCE: INTERNATIONAL PATTERNS OF PENSION PROVISION II. A WORLD OVERVIEW OF FACTS AND FIGURES. WORLD BANK, JUNE 2012.

This type of exercise is important for checking the match between the design of the pension system (contribution rate, retiring age, etc.) and the replacement rate targets that society expects to provide for its workers.

II. Different pension system designs

In order to meet replacement rate targets, there are different possible designs for the pension system, combining the various pillars. Figure Nº 1 shows the classification suggested by the World Bank. As can be seen, the structure makes the distinction between a Pillar Zero, which is mandatory, public and non-contributory; a First Pillar, which is mandatory, contributory and publicly administered, with defined benefits and funding based on PAYG; a Second Pillar which is mandatory and privately managed, with defined contributions and competition between various administrators; and a Third Pillar of voluntary pension savings.

FIGURE N° 1

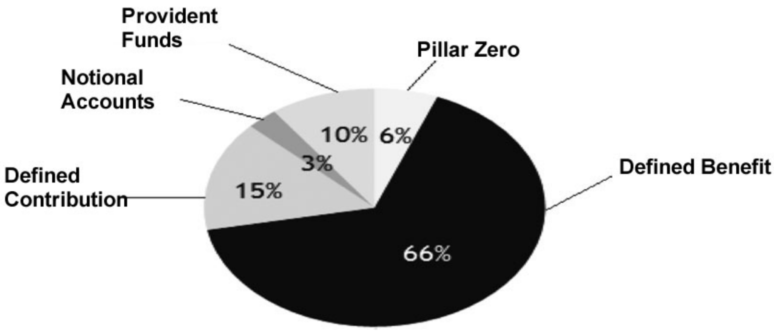


SOURCE: INTERNATIONAL PATTERNS OF PENSION PROVISION II. A WORLD OVERVIEW OF FACTS AND FIGURES. WORLD BANK, JUNE 2012.

The actual characteristics of the multiple-pillar system differ between countries. Almost two-thirds of them include a scheme of defined benefits and 15% include systems of defined contributions (see Graph Nº 2)

GRAPH N° 2

CLASSIFICATION OF THE PENSION SYSTEM BY BENEFIT DESIGN

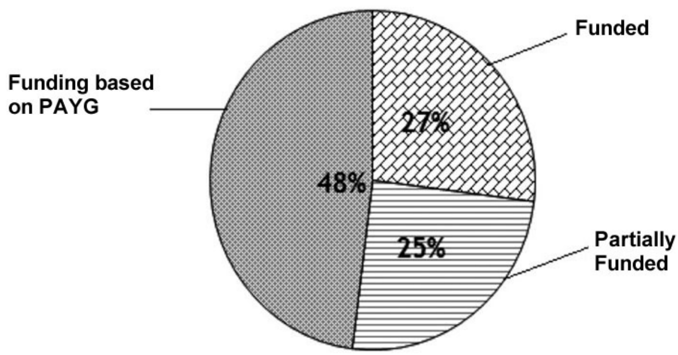


SOURCE: INTERNATIONAL PATTERNS OF PENSION PROVISION II. A WORLD OVERVIEW OF FACTS AND FIGURES. WORLD BANK, JUNE 2012.

On the other hand, almost half the pension systems are still based on PAYG-type funding schemes and the remainder on partially or totally funded schemes (see Graph Nº 3).

GRAPH N° 3

CLASSIFICATION OF THE PENSION SYSTEM BY TYPE OF FUNDING



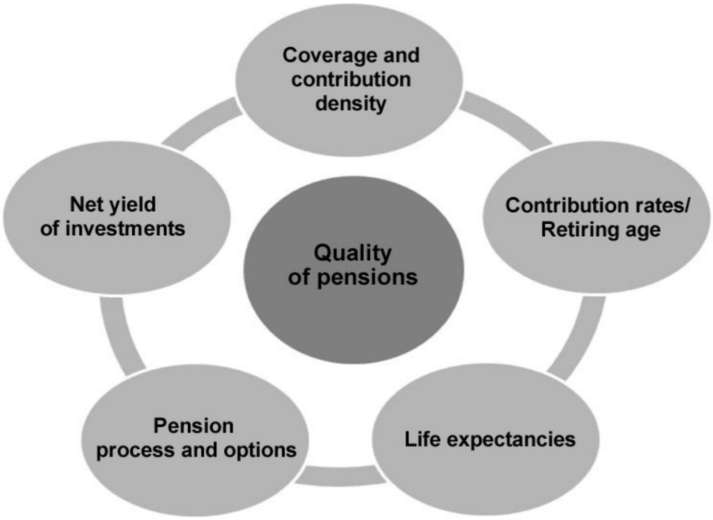
SOURCE: INTERNATIONAL PATTERNS OF PENSION PROVISION II. A WORLD OVERVIEW OF FACTS AND FIGURES. WORLD BANK, JUNE 2012.

In point of fact, there are various countries in Latin America that have pension systems operating on a PAYG basis with defined benefits and public administration. Worldwide evidence is showing the growing financial difficulties that systems of this type face in the long term, mainly, though not entirely, as a consequence of demographic trends (there are increasingly few active workers paying contributions compared with the passive workers who are receiving pensions). Added to the above is the unsatisfactory system of incentives that exists in most of those systems: benefits are defined on the basis of the final years of the working wage, so there are incentives to under-declare income from work during much of the working life and over-declare in the final stage which is generally taken into account for purposes of pension calculations. Furthermore, experience shows that in our countries the public scheme of centralized or segmented administration produces inefficiencies in management and inflexibilities in the labour market. For the above reason, we have the challenge of making a serious, technical, in-depth analysis of the pros and cons of keeping this type of PAYG scheme within Latin American pension systems, because they have structural problems of funding and incentives.

III. Main factors influencing the quality of pensions

As regards the programs of individual funding with private, competitive management and defined contributions, there are five main factors that influence the quality of the pensions that workers will receive (see Figure Nº 2)

FIGURE N° 2
MAIN FACTORS INFLUENCING THE QUALITY OF PENSIONS



SOURCE: PRODUCED BY THE AUTHOR.

1. **Net yield of investments**. One point more or one point less of net annual yield on investments means 20% more or less, respectively, in the final balance and the pension amount (for a worker who contributes throughout his/her working life). So this factor has a fundamental influence on the quality of the pensions that the workers in the individually-funded system will be able to receive. The yield results depend on the design of the pension system: particularly on the investment rules that are imposed on the pension funds, but also on how efficiently related markets, such as the financial and capital markets, operate.

2. **Coverage and contribution density.** These factors are affected directly by the operation of the labour market and the incentives to enrol and contribute in the pension system. They are, without the slightest doubt, vital determining factors in the pensions and replacement rates that workers are going to achieve. This subject will be looked at in more depth later on.

3. **Contribution rates /retiring ages**. It is important that the definition of contribution rates and retiring age is consistent with the expectations and targets set for the pension system. The contribution rate has a direct effect on the amount of the pensions, and retiring ages too, because they affect the time during which savings are capitalized and the time for receiving benefits. For example, in the Chilean system, it is estimated that if retiring age were postponed for one year in the case of women (from 60 to 61 years) it would generate an increase of about 8% in the size of the pension. This increase in the benefit occurs because postponing the age of retirement enables the balances accumulated in the individual account to be capitalized for longer and also produces a reduction in the capital needed to fund each unit of pension, due to the reduction in life expectancy.

4. **Life expectancies.** Life expectancies influence the period during which pensions are received and therefore, their amount. Our countries need to update mortality and life- expectancy tables regularly. However, this does not always happen.

5. **Pension process and options**. Finally there is the process of selecting a pension option and converting the accumulated balances into pensions, when workers begin to enjoy the savings that they have put aside throughout their lives. The supply of pension options available for workers when they retire, the competition between supplier institutions, the quality of the information given to workers who are retiring, and the choice of one option or another, can make a great difference in terms of the stability and amount of the pensions.

IV. Reforms to boost better net yield on investment

In terms of the matter of net yield on pension fund investments, there are some trends and facts in the countries of Latin American that are worth highlighting. These are listed below.

1. Gradual expansion of investment alternatives

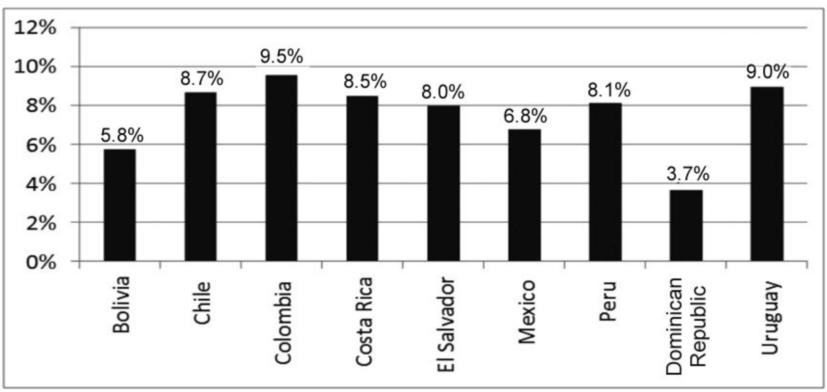
First of all, the gradual expansion of investment alternatives is clearly a trend. The possibilities for investing the pension funds have gradually become more flexible as experience has been gained on the part of both administrators and supervisory institutions and also as capital markets have improved.

Nevertheless, this is not true of all pension systems. In some countries, far from allowing the investment scheme to become more flexible, additional restrictions have been imposed and even minimum investment requirements in certain types of instrument, particularly government ones. This is the case in El Salvador. That is of course totally contrary to the essential aim of any system of individual funding, which is to achieve the best yields for the workers' social security savings in the long term.

The yield results of the pension funds have been quite satisfactory so far. Graph Nº 4 shows the historic annual average real yield since the individually-funded systems started in different countries. As can be seen, real historic yields oscillate between 3.7% and 9.5% per year.

GRAPH N° 4

ANNUAL AVERAGE REAL YIELD OF THE PENSION FUNDS SINCE THE SYSTEM BEGAN (UP TO DECEMBER 2012)



NOTE: YIELDS IN LOCAL CURRENCY ADJUSTED FOR INFLATION (CONSUMER PRICE INDEX). CHILE: FUND C; COLOMBIA: MODERATE FUND; MEXICO: WEIGHTED AVERAGE OF THE FIVE BASIC SIEFORES; PERU: FUND 2 OR MIXED FUND.
SOURCE: FIAP.

In Graphs Nº 5 and Nº 6, it is possible to see the investment structure of the pension funds by type of instrument and type of issuer.

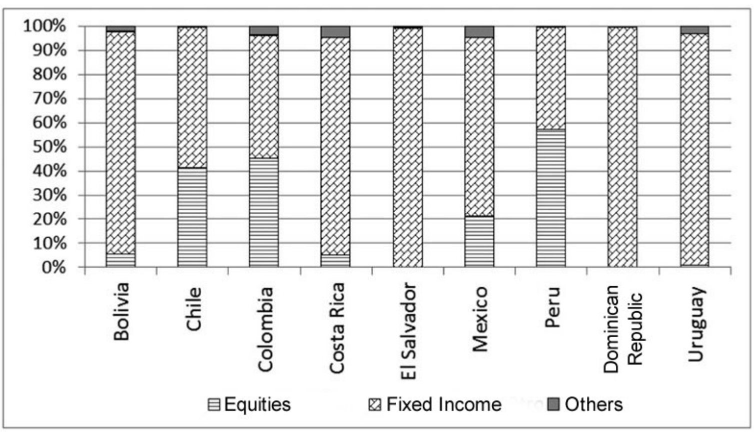
The average investment of the pension funds in fixed-income instruments is around 78%. In 5 of the 9 countries in Latin America, investments in fixed income are over 90% and in two of them the administrators have not yet invested in equities.

As regards the investment structure per type of issuer, on average 52% of the pension funds is invested in government instruments. In 5 of the 9 countries, over 50% is invested in instruments of this type. There is also a low level of pension fund investment in foreign securities. On average, 13% of the pension fund is invested in securities issued abroad. In two countries there is no investment of this type whatsoever and in 5 countries the investment is under 10% of the pension funds.

As stated above, the average annual yields of the pension funds have been quite satisfactory, but it is difficult to see how they will remain sustainable at similar rates in the future. Years of lower yields await us, probably with greater volatilities on those returns. It is therefore absolutely indispensible to increase the flexibility of the pension funds' investment possibilities more quickly, within the levels of risk that are appropriate for a pension system of course, in order to make it possible to achieve better yield/risk results and provide good pensions for enrolled workers.

GRAPH N° 5

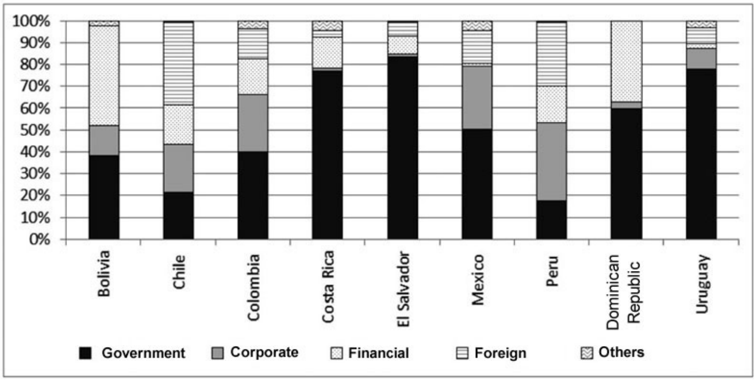
INVESTMENT STRUCTURE OF THE PENSION FUNDS BY TYPE OF INSTRUMENT
DECEMBER 2012



SOURCE: FIAP.

GRAPH N° 6

INVESTMENT STRUCTURE OF THE PENSION FUNDS BY TYPE OF ISSUER
DECEMBER 2012



SOURCE: FIAP.

2. Creation and expansion of multi-funds for pensions

In the second place, and related with the investments of the pension funds, there has been a trend towards creating and expanding multi-funds for pensions. Various Latin American countries have multi-funds for pensions, such as Chile, Colombia, Mexico and Peru. However, several others do not have this scheme and this should also be challenge to be implemented in the near future. It seems somewhat inappropriate that all workers, from those aged 25 to those aged 60 or over and those approaching retirement (or receiving a pension), should have the same single pension fund as the only option for investing their pension resources. At the very least, it would seem essential to make progress in this area in order to give workers who are close to retirement or already retired the opportunity of having more conservative portfolios and so prevent potentially adverse effects on their individual accounts and on the amount of their pensions as a result of financial volatility. It is also very reasonable for those workers approaching retirement to move gradually towards more conservative portfolios rather than doing so abruptly once and for all. In various countries, though not in all, convergence works like this, i.e. gradually. Other workers should also be given the possibility of choosing investment options for the pension resources, in order to make them better-adapted to their personal characteristics and preferences, while appropriate default options should be defined for those who do not choose their investment structure.

3. Increase in price competition

Another trend that has occurred in the pension systems is the increase in competition based on price. In Chile and in Peru, for example, open tendering schemes have been introduced for the management of the individual accounts of new workers joining the labour market, and these are awarded to existing administrators or new investors that offer the lowest prices.

This has certainly had an important effect on the barriers blocking entry to the industry, empowering new investors to challenge from outside the market, and consequently on competition and the administration fees charged by the administrators. As can be seen in Tables Nº 2 and Nº 3, in the case of Chile the tendering processes led to the average administration fee being lowered from 1.64% of the wage (prior to the tendering process) to 1.47% after the tendering had taken place (April 2013). The two processes carried out so far have been won by a new actor that entered the pension industry (AFP Modelo), which is currently charging a fee equivalent to 0.77% of earnings. If this fee on earnings is converted into a fee on balance, it is estimated to be equivalent to approximately 0.33%.

In Peru too, a new investor entered the pension administration market, reducing the fees charged. And in Mexico the simplification of the fee structure, leaving only a fee on balance, together with other measures adopted by the authorities, has led to a downward trend in the fees charged by the Afores. There has therefore been important progress in this area.

TABLE N° 2

CHILE: ADMINISTRATION FEE (% OF EARNINGS) BEFORE AND AFTER THE TENDERING FOR NEW MEMBERS

	Before tendering[1]	After tendering[2]
Average	1.64%	1.47%
Lowest fee (AFP Modelo)	1.36%	0.77%

(1) JULY 2009.
(2) APRIL 2013.
SOURCE: PRIMAMÉRICA CONSULTORES WITH INFORMATION FROM THE SUPERINTENDENCE OF PENSIONS.

TABLE N° 3

CHILE: ADMINISTRATION FEE (EQUIVALENT % ON BALANCE) BEFORE AND AFTER THE TENDERING FOR NEW MEMBERS

	Before tendering(1)	After tendering(2)
Average	0.68%	0.61%
Lowest fee (AFP Modelo)	0.57%	0.33%

(1) JULY 2009.
(2) APRIL 2013.
NOTE: AN ESTIMATE IS MADE OF THE AVERAGE FEE ON BALANCE BY WHICH THE SAME FINAL ACCUMULATED BALANCE IS OBTAINED AS WITH THE FEE ON EARNINGS. TO ESTIMATE THE FEE ON BALANCE, IT IS ASSUMED THAT THE AFP CHARGES NO FEE ON EARNINGS AND THAT THE CORRESPONDING PERCENTAGE IS PAID INTO THE INDIVIDUAL ACCOUNT. IN ADDITION, AN AVERAGE ANNUAL GROWTH OF EARNINGS OF 2.0% IS ASSUMED AND A REAL ANNUAL AVERAGE YIELD OF 5.0%.
SOURCE: PRIMAMÉRICA CONSULTORES WITH INFORMATION FROM THE SUPERINTENDENCE OF PENSIONS.

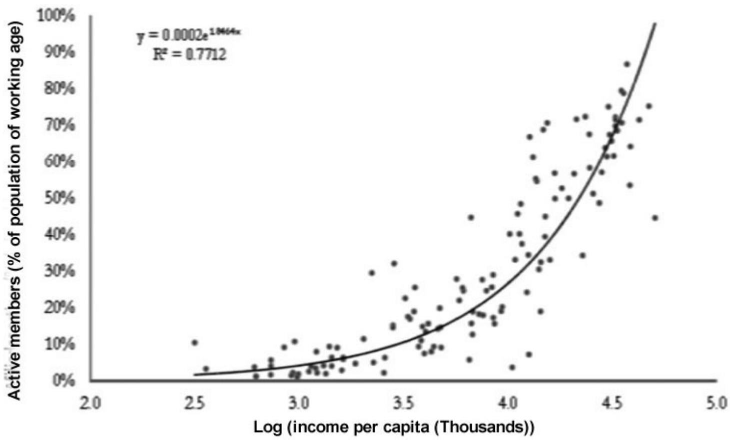
V. Reforms to promote greater coverage and contribution density

As was already mentioned, coverage and contribution density in a pension system are closely linked with the functioning of the labour market.

Furthermore, international evidence suggests that increases in coverage depend crucially on the per capita income level in the countries. As shown in Graphs Nº 7 and Nº 8, as the countries' income increases, so coverage increases too. So we need to be aware that improvement in this matter is slow: it is long-term.

GRAPH N° 7

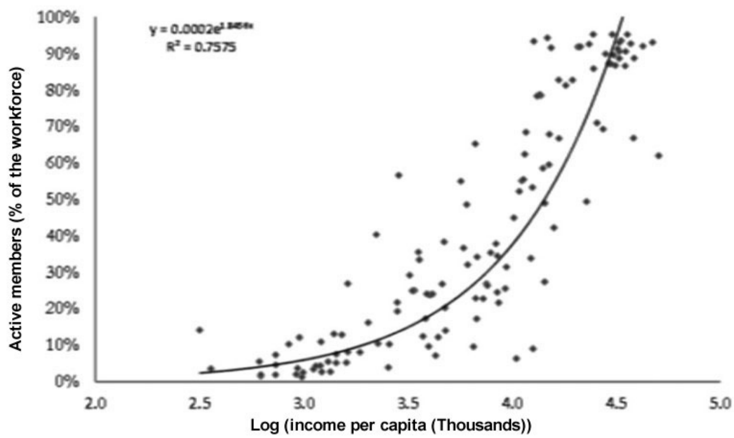
RELATIONSHIP BETWEEN COVERAGE OF WORKING-AGE POPULATION AND PER CAPITA INCOME



SOURCE: INTERNATIONAL PATTERNS OF PENSION PROVISION II. A WORLD OVERVIEW OF FACTS AND FIGURES. WORLD BANK, JUNE 2012.

GRAPH N° 8

RELATIONSHIP BETWEEN COVERAGE OF THE WORKFORCE AND PER CAPITA INCOME



SOURCE: INTERNATIONAL PATTERNS OF PENSION PROVISION II. A WORLD OVERVIEW OF FACTS AND FIGURES. WORLD BANK, JUNE 2012.

Despite the above, there are some measures that can be taken in the short and medium term to promote more extensive coverage and contribution densities in the pension system and so attempt to be placed, in this matter, above countries with similar levels of development and per capita income.

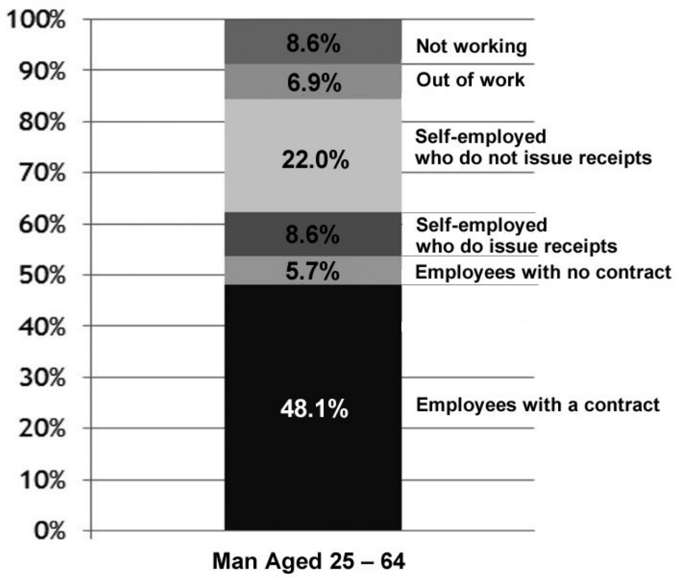
1. Measures that can be adopted in the Second Pillar of the pension system in order to increase coverage

- ***Mandatory enrolment and contribution of self-employed workers***. Several countries, such as Chile and Peru, have introduced mandatory contribution for self-employed workers. It is important to implement this obligation through operating schemes that make enrolment and contribution easy and form an integral part of the same system of individually-funded pensions, rather than working through segregated systems. It is also important to define incentives that make the pension system attractive for the self-employed, as well as making it mandatory.

- ***Knowledge of work histories and potential obstacles to the saving process***. It is necessary to have a deep knowledge of work histories in order to understand the reasons why people are not participating in the system or paying contributions. In Graphs Nº 9 and Nº 10 it is possible to see the structure of the average work history for the period 2006 to 2009 in the case of Chile, where one sees the reasons why workers end up not contributing in the pension system. An accurate knowledge of the work histories of the workers in our countries and the reasons behind the lack of coverage and contribution will enable the most appropriate measures to be taken to tackle these problems.

GRAPH N° 9

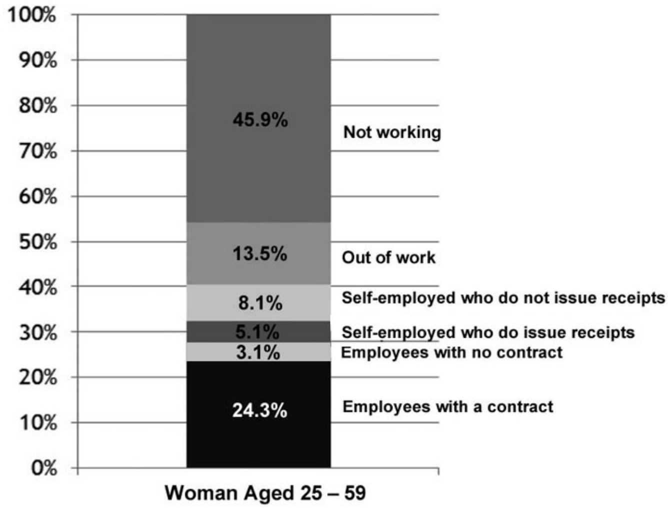
CHILE: AVERAGE WORK HISTORY: JANUARY 2006 – DECEMBER 2009 (MEN)



SOURCE: SOCIAL PROTECTION SURVEY (2009).

GRAPH N° 10

CHILE: AVERAGE WORK HISTORY: JANUARY 2006 – DECEMBER 2009 (WOMEN)



SOURCE: SOCIAL PROTECTION SURVEY (2009).

- ***Removal of disincentives and provision of incentives.*** It is also necessary to remove the incentives that exist for avoiding or getting round pension system contributions. In Chile for example, a university study[2] has just been carried out showing that, of 23 social protection programs, the majority discourage contribution to pension systems. In other words, programs that form part of social security itself mostly discourage contribution to pension programs. It is therefore also important to attempt to remove or at least moderate those disincentives and try to ensure that there are incentives to enrol and contribute. A typical example of a disincentive applicable to Chile is a person who begins to work with a good wage, but agrees to an informal relationship without contract or social security contributions in order not to lose or reduce benefits that he/she already has in health plans.

2 *Previsión y programas sociales: Principales incentivos y desincentivos al comportamiento previsional ", Centre of Public Policies, Catholic University of Chile, 2012).*

- ***Improve collection and auditing***. It is also necessary to improve collection and auditing related with social security contributions to the pension system.

- ***Avoid taxes on work***. In order to encourage formalisation and participation in the labour market, it is necessary to avoid imposing taxes on work. In various countries taxes of this type are imposed with the aim of funding certain social programs. In Colombia's case, for example, people who work with a contract and pay contributions are charged a contribution in order to finance the minimum pension and the so-called Pension Solidarity Fund (FSP).

2. Voluntary pension saving as a complement

Another important aspect to be considered in a pension system is the need for incentives to strengthen the voluntary pillar, which helps to complement the benefits provided by the other pillars of the pension system.

The design and characteristics of this pillar must take into account both objective elements, such as tax incentives, and psychological factors and others that arise from the experiences and lessons of behavioural economics, in order to identify measures that may stimulate voluntary saving and/or remove potential obstacles to saving.

There are countries that have no major rewards to encourage voluntary saving. In Peru, for example, workers receive no tax incentives when they save, either for the mandatory contribution or for the voluntary one. In addition to setting up incentives, it is vital that these be designed to benefit different types of workers. Many countries have incentives that consist of tax concessions, but in general these benefit only workers with high incomes. It is therefore necessary to review these incentives schemes to ensure that they reach different segments of workers, especially those with lower contribution density and greater social security risk, who are usually those with medium-to-low incomes. For example, in Chile an incentive was introduced in the year 2008 that is directed primarily to lower-income sectors: it consists of a fiscal bonus equivalent to 15% of the amount saved, with a certain annual limit.

Finally, as was already stated, it is necessary to learn the lessons from behavioural economics. An interesting publication from the World Bank issued early in 2013[3] offers a series of lessons on this subject, emphasising the need to take notice of the potential benefits of the automatic enrolment mechanisms that are being applied in various pension systems around the world; to keep the structuring of saving

3 Matching Contributions for Pensions: A Review of International Experience", World Bank, January 2013.

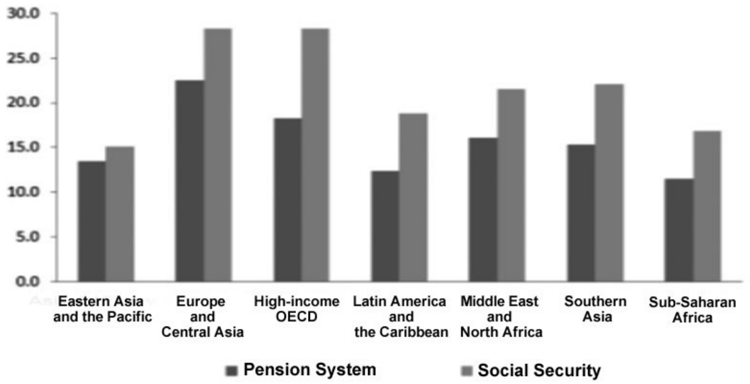
systems simple; and showing the advantages of using default options when there is no active choice on the part of workers.

VI. To ensure that contribution rates and retiring ages are consistent with the expected targets for the various pillars

It is important to ensure that the contributions rates and retiring ages defined in the pension systems are consistent with the expectations and pension targets that have been fixed for those systems.

In Latin America, contribution rates and retiring ages are generally low compared with other parts of the world (see Graphs Nº 11 and Nº 12). What is needed, therefore, is to make a regular evaluation in each country on whether the contribution rates and retiring ages are consistent with the expected or desired benefits, having taken into consideration the changes that have occurred in the most important factors affecting replacement rates, such as financial and labour market conditions and demographic trends.

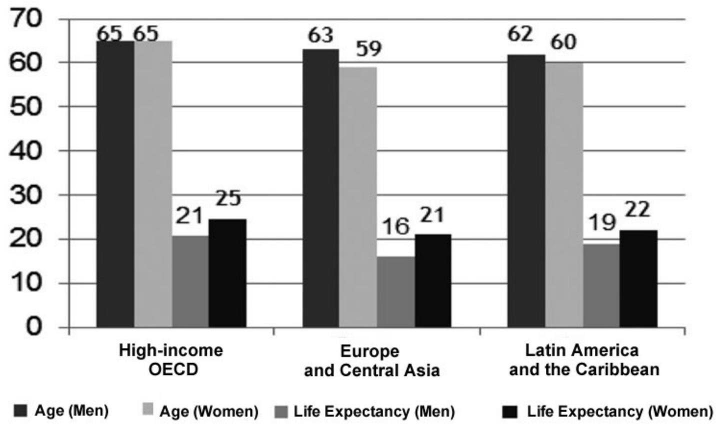
GRAPH N° 11
AVERAGE CONTRIBUTION RATE BY REGION



SOURCE: INTERNATIONAL PATTERNS OF PENSION PROVISION II. A WORLD OVERVIEW OF FACTS AND FIGURES. WORLD BANK, JUNE 2012.

GRAPH N° 12

AVERAGE LEGAL RETIRING AGE AND LIFE EXPECTANCIES BY REGION



SOURCE: INTERNATIONAL PATTERNS OF PENSION PROVISION II. A WORLD OVERVIEW OF FACTS AND FIGURES. WORLD BANK, JUNE 2012.

The ideal thing is for pension system regulations to include procedures for the regular, technical review of their design, within an institutional framework that contributes towards prompt implementation of the necessary adjustments, without postponements due to political considerations.

VII. Improvements in the pension process and options

In the process of selecting pension options there are very interesting experiences of improvement, such as the System of Pension Consultations and Offers (SCOMP) in Chile. This is an electronic system that has substantially improved the information received by retiring members. They are sent clear, prompt and comparative details on the amounts of pension that they can receive through the various options and supplier institutions. At the same time this reinforces competition between the life-insurance companies and pension fund administrators as pension providers.

As regards pension options, in most of our countries the systems offer various options, such as programmed withdrawal (PW) and life annuity (LA). Each of these options has advantages and disadvantages. Nevertheless, there is a pension option that has not been developed very much, despite having significant advantages for pensioners, which is a combination of temporary income and deferred life annuity. This option allows the pensioner to make the most of the advantages of the programmed withdrawal and life annuity options, because he/she retains the ownership of part of the balance in the individual account, using it to fund the pension during the period of time that the temporary income lasts, while at the same time being protected against longevity risk by means of the deferred life annuity.

VIII. Final thoughts

In a pension system it is very important to compare, regularly, the estimated replacement rates that are going to be provided for members with the targets that have been defined and with the workers' expectations. This may show the need to make adjustments in the design of the system, and these must be carried out regularly to ensure that the design and characteristics of the system are consistent with those targets and expectations. The system should include procedures and an institutional framework to ensure that these adjustments are made promptly, using technical criteria. It is also important to educate workers about the characteristics of the system, especially the direct relationship between the contributions that they pay into their individual accounts and the pensions they will receive in the passive stage.

The consolidation of the yield results of the investments calls for decisive progress to be made on expanding the pension funds' investment opportunities even further, so that they can achieve more efficient portfolios, with better expected yield/risk results, especially in view of the changes that have occurred in the financial markets.

Increases in coverage and contribution density in the pension systems are going to occur gradually over time, because they depend to a significant extent on improvements in the functioning of labour markets and on countries' levels of development and per capita income. There is evidence suggesting that our countries have percentages of coverage and contribution density that are somewhat lower than one might expect from their level of per capita income. This is a symptom of the fact that it is possible to adopt measures to improve these indicators in the short and medium term. To do this, a good diagnosis of the work and social security histories of the workers is required, because this makes it possible to identify the reasons why workers are not enrolling and contributing in the system and to define the most appropriate measures to resolve or attenuate these problems.

In addition, it is important to encourage complementary (voluntary) pension saving, taking advantage of the lessons from behavioural economics by adopting automatic enrolment mechanisms and default options for example, keeping saving plans simple, and reinforcing workers' education with regard to the characteristics and benefits of the pension system.

PART III

PENSION REFORMS IN LATIN AMERICA

COLOMBIA: A NEW MODEL OF OLD-AGE PROTECTION

RAFAEL PARDO[1]

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I. Introduction

At the Ministry of Labour in Colombia we have put forward a proposal for a new model of old-age protection, which includes a reform of the pension system. In this article we will explain the characteristics of the new model.

There are two alternatives for making a reform. One is to go directly to Congress and have the corresponding debate, and the other involves seeking the largest possible array of consensuses between the various sectors involved, in order to arrive at the Congress with the idea of holding an open discussion. We, as the Ministry of Labour acting on the instructions of the President of the Republic, advocated the second alternative and we have been holding a series of meetings since December 2012 in the commission responsible for coordinating wage and labour policies, which includes the country's main employers and the main workers' federations and pensioners' associations.

This discussion has been wide, rich and controversial, with positions that sometimes appeared to be incompatible. There are political and trade union sectors that have had a clear political stance ever since the reform of Law 100 (1993). In their opinion, the pension system ought to be exclusively public, based on pay-as-you-go. The other position that we hear is that the public PAYG system has to fade out and that the trend must be towards a single individually-funded system in the medium term. The discussion is therefore bounded by these points of view which, though worthy of respect, have a lot to do with ideological issues.

In the discussion we have been able to establish that there are three major aims that are essential to a pension system. First, the system must have as wide a coverage as possible. Second, it should be as fair as possible. And third, it must be financially sustainable.

II. Elements of discussion

Why do we not talk of a "pension model"? For a very simple but very weighty reason. The Colombian constitution sets a limit on the pension system, stipulating that there can be no pension lower than a minimum wage. Any old-age protection mechanism that is lower than a minimum wage therefore lacks the "legal" status of a pension. The Colombian pension system is defined from a legally valid minimum upwards. That of course has very solid consequences for the pension system's replacement rate; for a minimum wage the replacement rate is 100% in the case of the pension. For a population in a labour market which is over 60% informal, it is obvious that the constitutional restriction produces more exclusion than inclusion. That is why we talk about a new model of old-age protection.

What is the purpose of an old-age protection model? It is more than a reform. It means explaining a protection model to workers for when they stop working, when their working lives come to an end. Colombia has 22 million workers in the Economically Active Population. A fundamental aim, of course, is for there to be formal, decent work, but the pension system covers only those who are inside the formal worker category. Therefore, what the old-age protection model aims to do is ensure that workers have some protection mechanism when they finish their working lives: an income when they retire, whether in the form of a pension or through support from the state.

Today there are 22 million workers, of whom 7.7 million are contributing actively[2] in the pension system. Studies carried out at the level of different institutions show that barely 2 million of these 7.7 million active contributors will be able to achieve a pension. If we return to the number of 22 million workers in the Economically Active Population, then we see that 20 million will fall by the wayside (90%), without any protection in old age. The purpose of the model that we are proposing is to increase old-age protection substantially.

Colombia has a pension system with two schemes: first, the Average Premium Scheme (RPM), which is PAYG with defined benefits and second, the Individual Saving with Solidarity Scheme (RAIS) with defined contributions. The RPM is the old-age saving system administered by the State through Colpensiones and has pre-defined benefits subsidized by the State. The RAIS, meanwhile, is the system of old-age saving managed by private pension funds, where the pension depends on the individual effort to save, and members also contribute to a solidarity fund to guarantee pensions for those who are less fortunate.

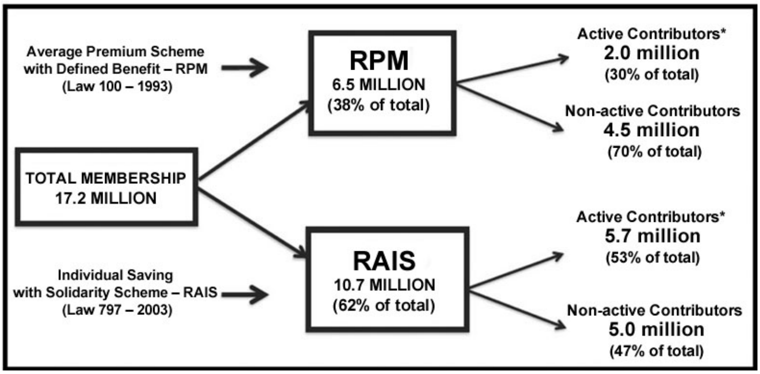
2 *The definition of active contributor means those people who have paid at least one contribution in the last six months.*

Enrolment in the pension system is mandatory for all workers (both employed and independent), but there is voluntary choice as to which scheme to be in. There is also freedom to change from one scheme to the other in certain conditions. Having belonged to one scheme for five years, it is possible to change to the other, up to 10 years before reaching retiring age.

In Figure Nº 1 it is possible to see the figures for active and non-active contributors currently in the RPM and RAIS. In the two schemes together there are 17.2 million members, of whom 7.7 million are contributing actively. The RPM has 6.5 million members of whom 2 million are active contributors, while the RAIS has 10.7 million members of whom 5.7 million are active contributors.

FIGURE N° 1

COLOMBIA: MEMBERS AND CONTRIBUTORS IN THE PENSION SYSTEM (NOVEMBER 2012)



*HAVE CONTRIBUTED AT LEAST ONCE IN THE PAST SIX MONTHS.
SOURCE: FINANCIAL SUPERINTENDENCE OF COLOMBIA.

We have to remember that there are some very important constitutional precautions in existence. One of these (Art. 48 of the Political Constitution of Colombia) says: "(…) *No pension shall be less than the currently valid legal monthly wage (…). For people with low incomes the government shall be able to create a system of Periodic Economic Benefits* (…)". In other words, the Constitution recognises that if there is no possibility of having a pension equivalent to the currently valid legal monthly wage, there can be a system called "Periodic Economic Benefits" (BEPS) as an alternative to the pension system.

The Constitutional Court has also defined the nature of the pension system. According to verdict C-177/98, the old-age pension has been defined by constitutional jurisprudence as: *"The worker's deferred wage, fruit of his/her mandatory saving during his/her working life"*. Therefore, says the Constitutional Court:*"The payment of a pension is not an unexplained hand-out from the nation, but simply the repayment of money owed to the worker for constant saving over many years."* This is very important, and in the discussions we have had it has been very important to highlight it, because there are political and ideological conceptions that call the pension system a welfare system. In fact, the pension system is not a welfare system at all but, according to the provisions of the constitution, a contributory system.

Table Nº 1 gives a comparison of the main characteristics of the pension systems of various selected countries. As may be seen, retiring age in Colombia at this moment is 60 years for men and 55 years for women. In 2014 it will be 62 years for men and 57 years for women, as stipulated in a reform enacted ten years ago. Colombia is one of the countries with the lowest retiring ages, compared with the rest.

The conditions, in terms of weeks contributed, are another interesting element of comparison. In Colombia today, 1,250 weeks of contributions are required to obtain the pension and in 2015 this requirement will rise to 1,300 weeks. In an international comparison, Colombia appears to have a balanced number of contribution weeks.

Another very striking feature of Table Nº 1 is the figure for pension coverage. While in Argentina, Brazil and Uruguay, coverage is over 80%, Colombia has coverage of only 33%, far lower than the rest of the countries.

TABLE N° 1

Country	Type of Scheme	Age	Conditions (weeks)	Coverage (%)	Contributors/ people in work (%)	Minimum pension (USD / month)	Maximum pension (USD/ month)	Replacement rate (%)	Contribution rate (%)
Argentina	PAYG	M:65 W:60	1560	90.4	51.1	308	2,261	M: 66.8-96.3 W:56-81.4	Worker:11 Employer:17 Total:28
Brazil	PAYG	M:65 W:60 Any age	780 M:1820 W:1560	86.3	55.9	274	1,856	70-100	Worker:8-11 Employer 20 Total:28-31 Self-employed:20
Chile	Individual saving	M:65 W:60	1040	57.2	82.9	151	Depends on amount of contributions and interest accumulated	M: 46-86	Worker:10 Employer:1.49 Total:12.49 Self-employed:13
Colombia	Both	Today: M:60 W:55 2014 M:63 W:57	Today: 1250 2015: 1300	32.8	32.4	331	RPM: 80% of basic earned income or 25 LVMMW RAIS: depends on amount of contributions and interest accumulated	53-100	Worker:4-6 Employer:12 Total: 16 Self-employed:16
Spain	PAYG	M=W: 65	780	n.a.	n.a.	731	3,425	50-100	Worker:4.7 Employer:23.6 Total:28.3 Self-employed:26.7-29.8
U. S.A.	Both	2011: M=W: 66 2027 M=W: 67	520	n.a.	n.a.	873	PAYG: 2,366 Individual saving: Depends on amount of contributions and interest accumulated	35	Worker:4.8 Employer: 23.7 Total:28.3 Self-employed: 26.7-29.9
Portugal	PAYG	M=W: 65	780	n.a.	n.a.	337-479	No upper or lower limit	n.a.	Worker: 11 Employer:23.5 Total: 34.25 Self-employed:29.6
Uruguay	Both	M=W: 60	1560	85.7	70.7	111	PAYG: 2,475 Individual saving: Depends on amount of contributions and interest accumulated	45	Worker:12 Employer:23.6 Total:34.26 Self-employed:29.7

SOURCE: INTERNATIONAL LABOUR ORGANISATION (ILO).
NOTE: LVMMW= LEGALLY VALID MONTHLY MINIMUM WAGE.

III. The problems of the current pension system in Colombia

What are the problems of the current pension system in Colombia? First, the system has low coverage; second, there is great inequality in the RPM; and third, the RPM has a financial sustainability problem.

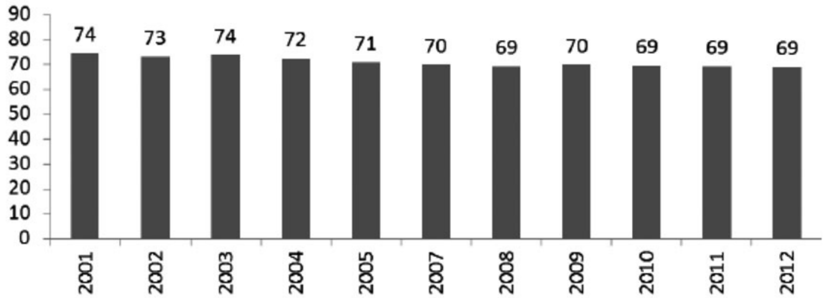
1. Coverage

The low coverage of the pension system is related with the high level of informality that exists in the labour market. On average, workers in Colombia do not spend even half their working lives in the formal market. Therefore, having conditions defined in terms of weeks or in terms of capital in order to qualify for a pension is a very difficult requirement to meet, in the light of the high informality of the labour market. The result of this is that 90% of workers do not achieve a retirement pension.

Graph Nº 1 shows the informality rate of the April-June quarter from 2001 to 2012. As may be seen, the informality rate has fallen five points in 10 years, but its level is very high at around 70%. In other words, there are 14 million people in work who do not pay contributions into the pension system, 68%. Someone who works for 25 years (1,300 weeks) contributes on average for 10.3 years. This shows a structural problem of the labour market, which is reflected in the pension system.

GRAPH N° 1

COLOMBIA: INFORMALITY RATE FOR APRIL-JUNE QUARTERS 2001-2012 (*)



(*) PERCENTAGE OF PEOPLE IN WORK WITHOUT ENROLMENT IN A PENSION SYSTEM. DATA NOT AVAILABLE FOR 2006.
SOURCE: MINISTRY OF LABOUR, COLOMBIA.

2. Inequality

The issue of inequality is very critical in the RPM. A first element of inequality has to do with the fact that only one in every ten Colombians manages to receive a pension, due to the lack of options and mechanisms for inclusion in the old-age protection system. A second element of inequality concerns the fact that in the RPM people with higher incomes receive higher subsidies. The third element of inequality lies in the fact that workers in the same circumstances receive a larger pension in the RPM than in the RAIS.

So, the current Average Premium Scheme (RPM) emphasizes inequality, since people with higher incomes end up receiving higher subsidies. For example, a person who contributes on the Legally Valid Minimum Monthly Wage (LVMMW) throughout his/her life receives a State subsidy worth COP 87.6 million. By contrast, a person who contributes on 10 LVMMWs throughout his/her life receives a State subsidy worth COP 428.3 million[3] . Furthermore, this exercise does not include the special schemes, where subsidies are even higher for people with higher incomes.

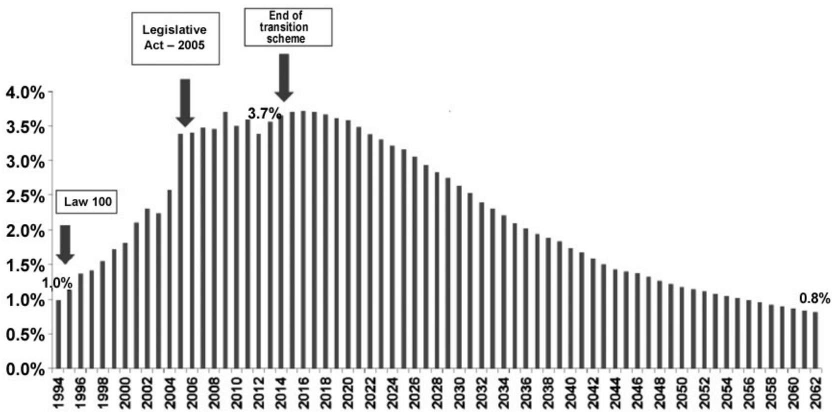
3. Sustainability

Graph Nº 2 shows the fiscal pension cost as a percentage of GDP, from 1994 to 2062. Law 100 came into force in 1994, which changed certain parameters and created the RAIS. In 2005 a Legislative Act was passed that also modified certain parameters and set the end of the transition scheme. During that period we talked about the existence of a pension bomb, with a fiscal cost of 1% of GDP in 1994 rising to one in the order of 3.7% of GDP in 2014, with the termination of the transition scheme set up in Law 100. As from that moment, according to the calculations made by the Colombian Ministry of Finance and Public Credit, the fiscal pension cost will fall over the next 50 years to 0.8% of GDP.

3 *The exercise worked in the example assumes 1,300 weeks of contribution for a man who retires at 62 years of age.*

GRAPH N° 2

COLOMBIA: PUBLIC EXPENDITURE ON PENSIONS (AS % OF GDP)
1994-2062



SOURCE: MINISTRY OF FINANCE AND PUBLIC CREDIT, COLOMBIA.

The descending curve of the fiscal pension cost does not fill us with delight, because the reason why the cost of public pensions is going to fall is that there will be increasingly few pensioners, which is not socially sustainable, however one looks at it.

IV. The new model of old-age protection

In the light of the problems besetting the current Colombian pension system, we are proposing a system that protects all workers, based on three axes: more coverage, more equality, and sustainability over time. This model does not begin with the legal reform of the pension system, but starts from the basis of two components that have already been put in place: (i) the program called "Colombia Mayor"; and (ii) the program of "Periodic Economic Benefits" (BEPS).

The Colombia Mayor program is what is known in other places as a "minimum protection floor". The program seeks to increase protection for those elderly adults who have been abandoned, have no pension or live in destitution or extreme poverty (SISBEN 1 and 2[4]), by providing an economic subsidy. The monthly value of the subsidy provided varies between COP 45,000 and COP 75,000 (approximately USD 22 to USD 41[5]).

As of the end of 2012, "Colombia Mayor" exists in 1,090 municipal districts, has 933 thousand beneficiaries in the program and is supported by the municipal authorities, which fulfil a vital role in carrying out and following up the program. The target for 2013 is to reach 1 million beneficiaries. Through the Ministry of Labour, the National Government plans to achieve universal coverage of this high-risk population over the course of the next 5 years, which means enrolling almost 2 million 400 thousand adults who are over the age of 65 and meet the requirements to enter this program, in all parts of the country.

The BEPS are a mechanism of individual accounts for voluntary saving, which is flexible and variable. This mechanism will be administered by Colpensiones (the RPM administrator) and the people eligible for inclusion will be those with inadequate incomes (SISBEN levels 1, 2 and 3), as a result of the informality of the economic activity in which they work, or because they earn less than a minimum monthly wage. This is a flexible system in both amount and regularity (with an annual limit allowing periods in which there are no savings), so that these people will be able to save as much as they can, when they can, from now on, while the Government rewards that effort by providing a subsidy equivalent to 20% of the savings deposited.

Currently, Colpensiones is structuring the way in which the BEPS will operate on a day-to-day basis, but the intention is that it should be through a simple mechanism. The idea is that a person can have a BEPS account and at the same time be enrolled in the General Pension System (SGP). What will not be allowed is paying a contribution to the SGP and the BEPS account in the same month. In the year, the contribution in BEPS must be lower than the contribution to the SGP, because if the person is capable of saving, he/she should be in the SGP and not need the subsidy.

We are currently working with the various workers' organisations linked with the informal sectors that we expect to open BEPS accounts (taxi-drivers, travelling salesmen, small traders, etc.). We already have an agreement with the Coffee

4 *SISBEN means the System of Identification and Classification of Potential Beneficiaries for social programs. It is a survey that serves to identify and classify people who cannot cover their basic necessities, so that the State can give them fundamental rights and subsidies to allow them to have housing, education and health, among other things. SISBEN is classified in levels 1, 2 and 3.*

5 *The conversion of the US dollar (USD) includes the exchange rate of the Colombian peso (Representative Market Rate, RMR) at close of April 2013 (COP 1,828.79 per USD).*

Workers' Federation, which has a banking system covering some 520 thousand coffee workers, of whom 250 thousand meet the characteristics for opening a BEPS account. We estimate that in a few years there may be about seven million BEPS accounts.

The aim of the new old-age protection model is that the two schemes, the RAIS and RPM should no longer compete but instead complement each other. We advocate keeping the RPM, reinforcing it without raising retiring age, and giving all Colombians the possibility of having an income when they reach old age.

With the new model, all workers will contribute in the RPM on a basis corresponding to the minimum wage, and contributions over and above the minimum will go into the RAIS. This has an effect in terms of greater equality or fairness. In the RPM today, the higher the pension is, the higher the subsidy. With our proposal, all formal workers will receive the same subsidy from the State, and if they meet the requirements, will receive a pension in accordance with their savings.

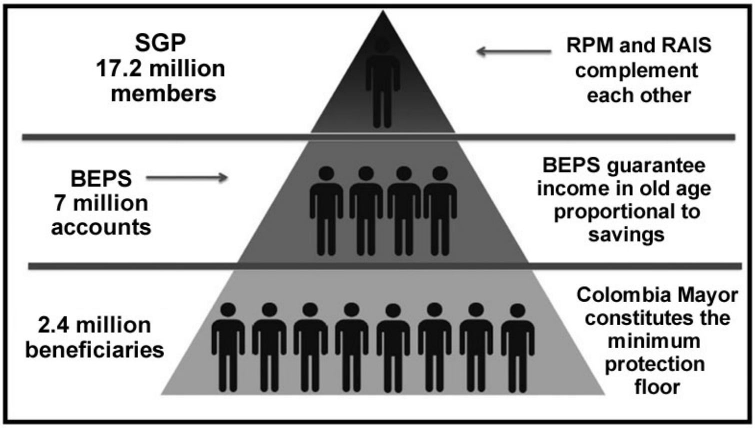
It is important to make clear that this proposal does not mean that there are two pensions. It is a single pension with two components: one fixed and guaranteed by the State (the minimum wage component) and another that is variable, the product of the person's individual savings. The portion of the pension involving individual savings is not subject to the indexing restriction of the minimum wage, but is adjusted according to yield and a parameter that is not tied to the minimum wage. This characteristic means that there is just one system, in which the RPM and RAIS complement each other and do not compete.

Historically, the minimum wage has grown faster than inflation. On average, in the past 15 years, the minimum wage has grown over two points more than the inflation. The minimum wage risk contained in the proposal must therefore be assumed by the government. This has a very positive effect for the handling of individual savings accounts and for the Administrators of Pension and Severance Funds. Given that the minimum wage risk is assumed by the government, there should be much more fluid competition in the supply of pension insurance and life annuities.

To sum up, therefore, we have a protection model in which the SGP has 17.2 million members. We expect the BEPS program to have 7 million open accounts and the "Colombia Mayor" program to have a universal coverage of 2.4 million beneficiaries by the year 2018 (see Figure Nº 2).

FIGURE N° 2

COLOMBIA: THE NEW MODEL OF OLD-AGE PROTECTION

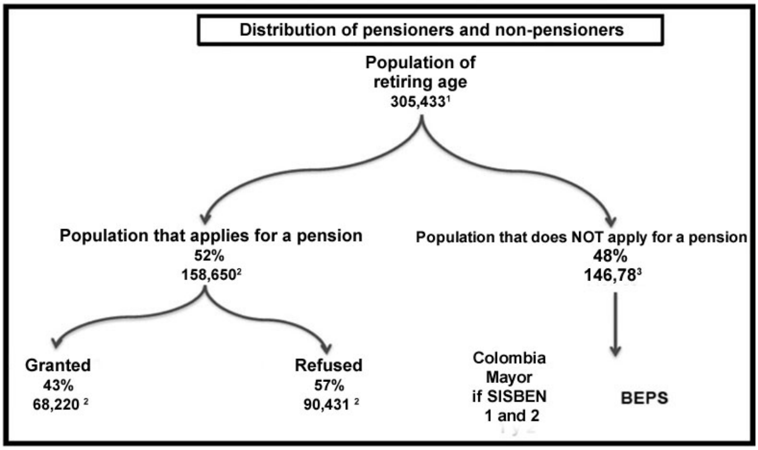


SOURCE: MINISTRY OF LABOUR, COLOMBIA.

The "tree" shown in Figure Nº 3 is very interesting. As can be seen, the average number of people reaching retiring age each year between 2005 and 2012 amounts to 305 thousand. Of this group, 52% applied for a pension (some 158 thousand people). But of these, only 43% (some 68 thousand people) actually received a pension (in other words, some 90 thousand people were refused a pension). This is very important and is what the reform we are suggesting aims to correct. Why are these people denied pensions? Simply because they do not comply with the number of weeks or reach the amount of capital required. In addition to these 90 thousand who apply for a pension and do not receive one, there are about 146 thousand who do not apply. This is what the drama of the Colombian pension system is all about.

In the case of the people who never apply for pensions, we suggest the alternative of offering them BEPS (in the form of a life annuity) with what they have accumulated in pension savings.

FIGURE N° 3



1/ AVERAGE 2005-2012 PEOPLE WHO REACH RETIRING AGE EACH YEAR. SOURCE: ADMINISTRATIVE DEPARTMENT OF NATIONAL STATISTICS (DANE), COLOMBIA.
2/ AVERAGE RPM APPLICATIONS 2005-2012.
SOURCE: COLPENSIONES, COLOMBIA.

In the case of the population that is denied a pension, there are various alternatives proposed in the easing mechanisms to increase coverage. These are listed below:

i. **Family pension:** The new system blends in with the existing family pension scheme, which allows spouses or partners to choose to qualify for a pension by combining their savings efforts.

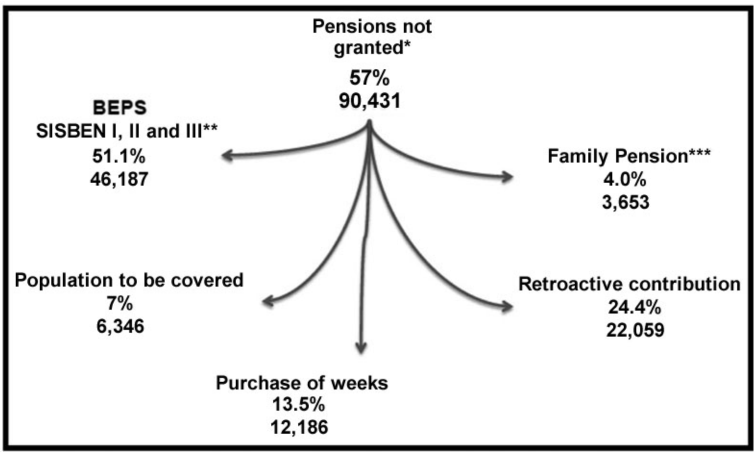
ii. **Retroactive contribution:** This mechanism operates for people who do not meet the requirement of contribution weeks needed to receive a pension. These people will be able to receive their pension and continue paying contributions from the monthly pension until they have covered the missing periods.

iii. **Purchase of weeks:** Members who have sufficient capital in the RAIS (contributions paid over and above one minimum wage) will be able to cover the missing contributions needed to achieve the minimum wage pension of the RPM by transferring resources from their RAIS account to purchase the missing weeks.

iv. **<u>Incentive of additional weeks for continuing to contribute:</u>** If the member does not have the number of weeks required, he/she will be able to continue contributing after retiring age and will receive additional weeks, over and above the weeks actually contributed, as an incentive for doing so.

Figure Nº 4 shows the estimates that have been made with regard to the coverage that could result from each easing mechanism.

FIGURE N° 4
COLOMBIA: NEW PROTECTION ROUTES



*/ NOTE: ROUTES DEFINED ON THE BASIS OF DATA SUPPLIED BY THE NATIONAL PLANNING DEPARTMENT (DNP), THE COLOMBIAN ASSOCIATION OF PENSION AND SEVERANCE FUND ADMINISTRATORS (ASOFONDOS) AND COLPENSIONES.
**/ SAVERS IN SISBEN IV ARE INCLUDED AND OTHERS THAT RECEIVE NO SUBSIDY.
***/ SOURCE: COLOMBIAN ASSOCIATION OF PENSION AND SEVERANCE FUND ADMINISTRATORS (ASOFONDOS).

In terms of coverage, in 2012 there are 5.3 million people of retiring age, of whom 1.6 million are pensioners[6] (31%), 627 thousand are in the Colombia Mayor program (12%) and 3 million have no coverage (57%). For this reason, between the minimum protection floor and the pension system, there is 43% coverage.

6 *Pensioners in this case include two only exempted schemes, i.e.: Teachers and Armed Forces.*

For 2030, the forecast is that there will be 9.7 million Colombians of retiring age. Including the easing mechanisms (purchase of weeks, retroactive contribution, family pension, and making the Minimum Pension Guarantee Fund more flexible), and assuming a 4% growth rate of current pensioners, we arrive at a coverage of 41.8% in the pension system. By 2030 it is estimated that Colombia Mayor will cover 30% of the population and that BEPS will cover over a million people (9.2%). So, adding everything together, with the new old-age protection model we move from 43% coverage to one in the order of 81%.

V. Some final thoughts

Before going to Congress, we are seeking the largest possible range of consensuses with all the actors involved in the new old-age protection model.

At the same time as the reform, I believe that it is important to seek some principles that unite us. So, we think that a true old-age protection pact should include at least the following topics:

- Universality of old-age protection
- Fairness and solidarity as core values of the General Pension System
- Reinforcement of the public and private pension system
- Formalisation of labour
- Sustainability and healthy public finances
- Complementary old-age protection schemes
- Gender fairness
- Definition of mechanisms to adjust retiring age
- Regular follow-up and thorough assessment of the system
- Social dialogue

Much has been said in the media about this reform being "pro-fiscal". I want to say quite emphatically that it is not a pro-fiscal reform: it is a reform that seeks to increase the coverage, fairness and sustainability of the system. It is not a reform to collect resources; it does not seek to extract money from one system to transfer it to another; it has no intention of nationalising the system or making it statist; it simply seeks to strengthen the RPM.

I believe that we are going to reach an agreement on these principles and on the details involved in the reform, so that this process can be given a wide-ranging debate in Congress. We have made a considerable socialisation effort, precisely because our aim is not to spring surprises on anyone with a pension system reform, but to achieve a situation in which there are more Colombians retiring, where it is easier to retire than at present, where the system no longer has the tremendously unfair features that exist currently in the RPM, and where public finances are able to sustain a system such as the one proposed.

CONCERNING THE PROCESSES OF PENSION REFORM AND THE PENSION REFORM PROPOSAL IN COLOMBIA

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In these comments I am going to refer to the processes of pension reform in general, and in particular to the pension reform proposal that has been put forward recently in Colombia.

Pension reforms: complexities of political economics

A pension reform tends to be the moment when the bad news comes to light, together with the fiscal crises, the demographic changes and the parametric adjustments made necessary by the increases in life expectancy. Those unpopular parametric adjustments make a public and political debate unavoidable, and this is usually so complex that many people prefer to postpone it indefinitely.

Generally, the political costs of a reform of this type are paid "cash down", while the possible benefits are deferred into the long term. There is generally also a fiscal conflict of interests, inter-temporally at least. Although some reforms help to create long-term sustainability, certain fiscal solvency crises seem to force decisions that mean bread today and famine tomorrow. Some "seizures" of pension funds in Latin America have more to do with solving short-term fiscal solvency issues, combined with certain ideological considerations, than with a long-term pension strategy.

However, there are exceptions to the reforms that emerge from this initially rather conflictive and unpromising situation. This depends on the fiscal solidity and quality of the reform process that is about to be undertaken. The main objective is to increase a coverage which is perceived today as being extraordinarily inadequate, bearing in mind both fiscal restrictions and fiscal sustainability in the long term.

Types of reforms

In the first place, we can identify the reforms that imply essential changes to the model. In this group we have the complete reversal of the individual saving scheme, as in the cases of Argentina and Hungary for example. We can also include the expansion of defined-contribution schemes in the OECD countries in this type of reform, but in the opposite direction.

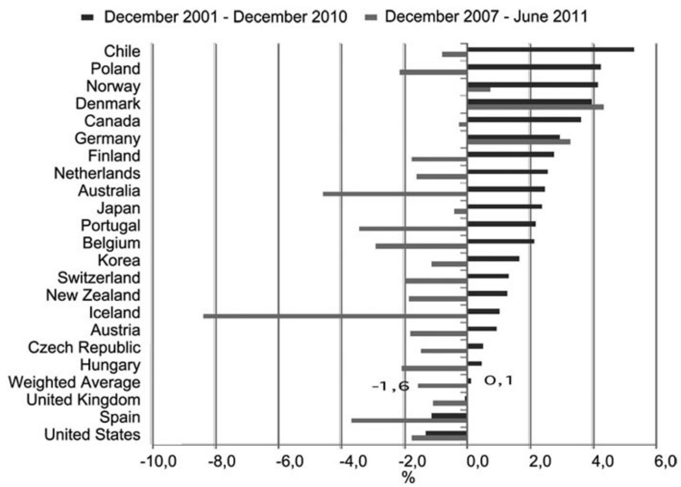
In the second place, there are reforms that imply changes and adjustments within the system. These are reforms that do not call the bases of the system into question, but seek to improve them. The Chilean reform in the year 2008 and the recent reform in Peru are clear examples. In reforms of this type, the questions tackled are matters related with coverage, industrial organization, benefits and ways of strengthening the basic solidarity pillar.

In the third place, there are reforms that consist of parametric adjustments, which we have seen mainly in Europe and should probably see in Chile in the near future. These are parametric adjustments that deal with two large dimensions or variables that are changing very rapidly: the fall in the expected yield on investments (see Graph Nº 1) and the increase in life expectancies (see Graphs Nº 2 and Nº 3).

All the experts say that lower interest rates are to be expected in the future. This will probably mean a much lower return on investments than we have been used to, especially in the case of fixed income. In Chile, for example, the first decade of the system saw returns of over 12%, in the second decade they were around 8% and in the third decade, abut 6%. Probably, in the long term, one should not expect returns on investments that are more than 4% or 5% per year in real terms. This will make it imperative to adjust both the contribution rate and the age of retirement in order to obtain the same pension. As may be seen in Graph Nº 1, the rates of return in the OECD countries have fallen steeply in recent times. The average weighted return of the OECD countries between December 2007 and June 2011 is almost nil. This reinforces the fact that we must get used to the idea of lower rates of return than those we have had in our minds.

GRAPH Nº 1

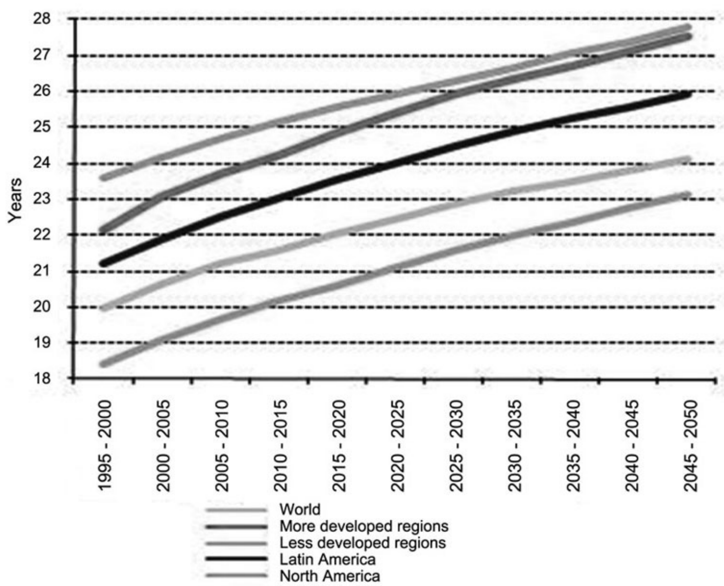
AVERAGE REAL NET ANNUAL RETURN ON PENSION FUND INVESTMENTS IN SELECTED OECD COUNTRIES



SOURCE: OECD, GLOBAL PENSION STATISTICS.

GRAPH Nº 2

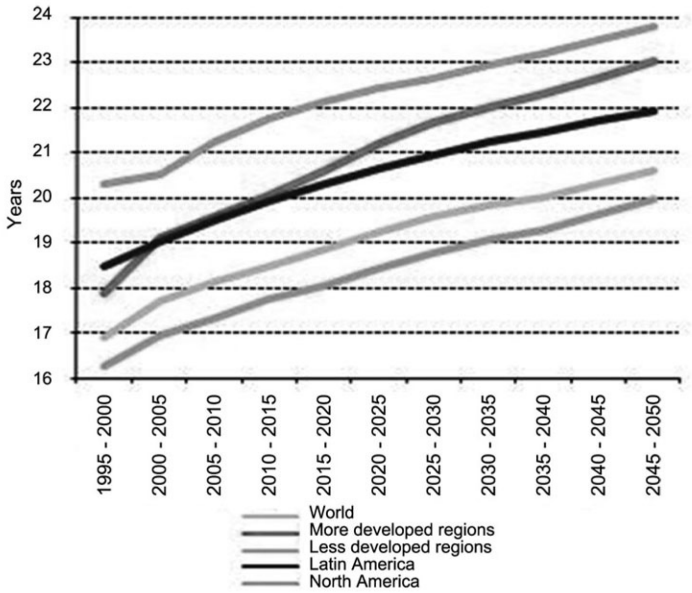
EXPECTED LONGEVITY AT AGE 60 – WOMEN



SOURCE: INTER-AMERICAN SOCIAL SECURITY CONFERENCE. HTTP://CISSBLOG.BLOGSPOT.COM/2011/04/LA-ESPERANZA-DE-VIDA-SEGUIRA-EN-AUMENTO.HTML

GRAPH Nº 3

EXPECTED LONGEVITY AT AGE 60 – MEN



SOURCE: INTER-AMERICAN SOCIAL SECURITY CONFERENCE. HTTP://CISSBLOG.BLOGSPOT.COM/2011/04/LA-ESPERANZA-DE-VIDA-SEGUIRA-EN-AUMENTO.HTML

The panorama that we see is therefore bad news. In order to buy the same pension today as we bought previously with a given amount of savings, we have to save much more and that calls for adjustments in the age of retirement and/or contribution rates. Governments are not happy with any of this. In the case of short governments, there will always be the possibility of handing on to the next administration the responsibility for bringing parliament this "bad news", which means paying political costs in the present in exchange for very long-term benefits. As a result, this type of reform is one that tends to be postponed until avoidance is no longer an option. However, that delay will be paid for in the quality of the pensions that will be received by those who are paying contributions today.

The other reforms

There are other types of reform, which are silent but equally serious or prejudicial to the expectation of paying pensions. At the beginning of April this year, news broke to the effect that 97% of the public pension reserve fund of Spanish social security is invested in that country's debt securities, which was not the case some time ago. It was definitely not considerations of risk-return that led to all the investments being concentrated in Spanish debt securities. That is equivalent, in practice, to concentrating the risk of future pensions in the solvency of the State, which looks very much like the non-funded pay-as-you-go systems.

Criteria for reforms to individually-funded systems, according to the OECD

I am not going to enter in detail into a complete analysis of the principles that a reform process should have in the individually-funded system, among other reasons, because the analysis is not restricted to the sub-system of defined contributions, but refers to the principles involved in reforming the pension system as a whole. In Table Nº 1 it is possible to see the guiding principles of the reforms defined by the OECD, as also the policy recommendations for improving defined-contribution plans.

TABLE Nº 1

GUIDING PRINCIPLES OF PENSION REFORM AND POLICY MESSAGES FOR IMPROVING DEFINED-CONTRIBUTION PLANS ACCORDING TO THE OECD

Guiding reform principles

Consistence

- Between public, basic pillar or pay-as-you-go, and the individually-funded system
- Between regulation for the accumulation and pay-out phases

Efficiency

Match between effort to save and expected benefit

Policy messages for improving defined-contribution pension plans

1. Consistence between regulation of individually-funded system and the size and importance of the basic state pillar.
2. Incentives to train for pension literacy
3. Incentives to contribute more and for longer.
4. Improvement of incentives design e.g. enrolment by default, subsidy on contribution of lower-income sectors.
5. Promote low administration costs.
6. Consider analyzing cost-effectiveness in the design of minimum yield guarantees.
7. Default assignment schemes:
   - That include adequate risk-return combinations
   - To reduce risk exposure when approaching retiring age.
8. Combination of programmed withdrawal and life annuity, deferred and index-linked to inflation, as a default pension option.
9. Life annuities:
   a. Promote real competition in provision of life annuities
   b. Encourage purchase of life annuities
   c. Produce instruments to cover longevity risk
   d. Ensure correct regulation and supervision of solvency and management.

SOURCE: "A POLICY ROADMAP FOR DEFINED CONTRIBUTION PENSIONS", OECD PENSIONS OUTLOOK 2012.

Brief comments on the Colombian pension reform

The proposed reform suggests an adjustment of pillars that seems conceptually correct. It does not seem reasonable to have a state system competing with a private system, with arbitration procedures, with competitions that may be more or less ethical, with circumstances that make it difficult to predict what will happen in terms of how many people will be in one pillar and the other, with subsidies that are not equivalent, etc. It therefore seems reasonable to superimpose a system of individual funding on a basic state pillar system. Ideally there should be discussion on the relative size of the systems and, unfortunately perhaps, the constitutional rules that exist in Colombia today seem to impose an external restriction which does not necessarily have any economic reason to exist, but is in place as a datum that seems to force the state system's coverage to be linked to the minimum pension (the same as the minimum wage).

It remains to be seen whether this is an insurmountable restriction or not, but I understand that the design of the proposal has to do with that aspect.

As I understand it, the reform as it stands would avoid the political risk of future rises in the minimum wage - which cannot be included in the model – being transferred to the insurance companies, with the resulting rises in the minimum pension which represents the "floor" of such companies' commitment. As a result, by leaving the risk of a minimum wage that evolves according to unpredictable political criteria in the State's hands, a life annuity market might theoretically be able to develop, at least as far as that percentage which is different from the pension equivalent to the minimum is concerned. However, if pensions higher than the minimum paid by the State are very few and low in amount, it is likely that in the end the life annuities will be very marginal.

The reform would also advance in focusing subsidies. The Ministry of Labour has been extraordinarily explicit and categorical in showing that the current pension system is regressive, with the largest subsidies going to those with highest pensions. However, the question is: will the mistaken focusing of the subsidy be totally eliminated with this reform? There are probably still spaces for focusing expenses and for a reform in which a greater progress is achieved for each peso spent.

The great challenge in Colombia is coverage and it is the main responsibility of the public pillar. There are two very strong restrictions in the logic of the pension in the Colombian system. First, the constitutional restriction, which makes the pension the same as the minimum wage; and second, the restriction that means that a person is only eligible for a pension if he/she has paid contributions for a given number of weeks, which I gather will rise to 1,300 weeks over the next few years, equivalent to 25 years' contributions.

The reform proposal seems to get round the constitutional restriction intelligently by creating a system of Periodic Economic Benefits (BEPS). It remains to be seen whether this tackles and solves the problem which exists in Colombia today, as I see it, regarding the money that is returned to people who did not manage to fund the minimum pension with their own savings. That money should finance a pension or some form of regular payment, because simply returning it seems to contradict the challenge of safeguarding income for old age.

There is a discussion of substance that has to do with the residual size of the individual funding system following this reform. From a long-term point of view, the incentives produced by a reform to encourage individual saving may be considered as a variable of measurement of the quality of that reform. If the issues of coverage and sustainability are resolved, one would prefer a system of individual saving that stimulates the development of economic activity, benefiting the cycle of saving and investment. So, a pending question in this reform is whether the residual size that will be left to the individual saving system will be consistent with the social benefits that it is appropriate to expect of it.

PENSION REFORMS IN LATIN AMERICA: THE CASE OF PERU

LUIS VALDIVIESO[1]

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This article contains a brief analysis of the pension reform passed in July 2012[2] in Peru: the positive aspects, the great issues that were omitted and the complexities encountered in its implementation, and finally explores some challenges and opportunities for improving the system.

I. The reform process

The debate preceding the reform concentrated on the costs of the administration fee and on competition. In order to make the diagnosis, the government set up a Technical Commission without the participation of the AFPs, and so far its conclusions and recommendations have not been made public.

However, at the beginning of 2012, the Association of AFPs (AAFP) presented a comprehensive reform proposal, analysing the pension and social protection system as a whole, because of the inter-related nature of the pension programs, medical insurance and social benefit programs. In that proposal, it was suggested that the members of the public PAYG pension system should be transferred to the Private Pension System (SPP) since, according to the Inter-American Development Bank (IDB), 60% of the members of the public system are not going to receive a pension because they cannot show 20 years of contributions. The estimated net cost of that structural reform was 8% of GDP. In our opinion, it was preferable to assume that cost today, rather than having to face up to a pension debt which is currently around 50% of GDP (with an operating deficit of around 20% of the GDP).

The proposal was ruled out without being examined in any depth, arguing that it was politically non-viable and very expensive in view of the situation through which the country was passing. In general there was very little dialogue and consensus. The reform put forward by the government was approved hastily in the Congress, without going through the proper channels. The draft law was not audited either by the Economics Committee or by the Committee of Labour and

2 *Law N° 29903 of the Reform of the Private Pension System (SPP).*

Social Prevision, as it should have been, but was passed on the basis of a report from the Consumer Defence Committee. Having started with a wrong process, the reform does not contribute to a comprehensive change in the pension and social protection system that will deal adequately and in a coordinated manner with pension and health benefits and social programs. Instead it gave rise to certain constitutional controversies which led to the presentation of two complaints in the Constitutional Court, one of which was ruled out recently and the other is still in progress.

II. Positive aspects of the reform

Despite the problems mentioned, the reform has introduced some positive aspects in at least seven areas.

In the first place, specific measures have been introduced to extend **coverage**, by making enrolment of self-employed workers under the age of 40 compulsory and by introducing a system of enrolment incentives for workers in Medium and Small Businesses (MYPES). At the same time, there is a proposal to set up the Social Pensions Fund. Though this segmentation of beneficiaries may help to increase coverage, it could be dangerous. In Peru, the steady annual growth of 7% in the past few years has encouraged a similar steady growth in formal employment, showing that this is the most appropriate and sustainable way to increase coverage, rather than through special programs where there is no way of telling "a priori" whether the increase in coverage will be sustained over time. The specialists recommend not having different systems for workers of different types, except for those in hazardous jobs who need higher contribution rates and earlier retiring ages.

In the second place, the reform contains correct measures for improving **contribution density and the supervision of pension obligations**. Some of the most important of these measures are: (i) the simplification of the rules of judicial collection for unpaid contributions in the private sector; (ii) the change in tax treatment on contributions that have not been paid by employers; (iii) authorization to conduct an assessment and technical review of the contribution rate every seven years (very important because it makes it possible to reinforce the viability of the system and enable more appropriate replacement rates to be given); and (iv) the reassignment of the supervisory role of the Superintendence of Banking, Insurance and AFPs (SBS) to the Ministry of Labour, which has a much larger team and is in a better position to supervise compliance with pension and labour obligations together.

In the third place, the reform also contains provisions that enable **investment and risk diversification opportunities** to be expanded by: (i) setting up a "Type 0 Fund" with minimum risk and the possibility of combining funds; and (ii) including limits for alternative financial instruments in the funds with medium and high risk.

In the fourth place, the reform contains measures to encourage a **reduction in costs**, due to the fact that: (i) it transfers the direct payment of pensions to the life insurance companies (formerly this was all done through the AFPs); and (ii) it proposes centralizing operating processes, leaving the AFPs with freedom to choose the centralized service provider subject to the regulator's approval.

In the fifth place, the reform will help to increase **transparency** by reinforcing increased information requirements for members in areas such as yield, administration costs - in absolute terms and compared with other AFPs in the system -, quality of service, updating of contributions and details of investments. This is clearly positive for the member because it promotes a better understanding of what his/her own savings are doing.

In the sixth place, the reform encourages improvements in **good corporate governance,** by requiring the boards of the AFPs to have a minimum of least two independent directors. Furthermore, the reform proposes setting up a Citizen Participation Council with representatives of the members (this is not yet operational), which will keep in contact with the independent directors and follow up the implementation of the reform, with the ability to suggest measures to guarantee improvements.

Finally, the reform fosters **social security culture** by setting up the so-called Educational Fund, which is going to be financed by means of voluntary contributions from the AFPs and from fines that may arise in the supervision processes.

III. The issues left out of the reform

One of the main issues omitted was the reform of the National Pension System (SNP, a PAYG system), which is critically important to encourage greater competition and guarantee a pension for all those enrolled in that system. In the past few years, approximately two-thirds of the pensions paid to retired people in Peru have been covered by public funds. The contributions of the active members cover only a third of the pension paid. That is unacceptable, though the existence of that system is defended because it only involves a fiscal burden of between 0.7% and 1% of the GDP per year. However, what has not been taken in account is that that cost is going to grow in time as the country's population gets older and, according to the IDB, it is estimated that 60% of those enrolled in the SNP are not going to receive a pension because they cannot show 20 years of contributions, as the law requires.

Another matter that was not included in the reform concerns the fact that no thorough review was made of the labour law. In Peru, there are significant extra labour costs. This indicates that the spirit of the law is not to promote employment and reduce informality, but to protect the benefits of those who have a formal job.

A third topic is related with contribution density and defence of the rights of those enrolled in the private system. The reform included no mechanism for reducing the State's social security debt. Between the State and the private sector, the social security debt that is in judicial action (not including those involved in an administrative process) is equivalent to almost 10% of the stock of resources being managed today by the AFPs, with the public sector being the major debtor. It is unacceptable that government bodies which have a budget for paying wages and social benefits should make legal deductions for social benefits and not comply with depositing pension contributions in the individual accounts of their workers. It is equally unacceptable that this should happen in companies in the private sector. Though the reform contains some measures to alleviate the problem of delays in the private sector, it contains no measure at all to deal with the indebtedness of bodies in the public sector.

Also related with contribution density, the reform does not include any measures to offset the elimination of the obligation to pay contributions on extraordinary income paid as bonuses. In Peru, 14 salaries are paid each year: 12 monthly wages and two bonus months, one for the country's anniversary (July) and the other for Christmas (December). The Members of Congress, in an act of "grace", said that they had decided to exempt those bonuses from deductions for purposes of paying contributions to the pension and health systems until the year 2014, to give people more cash in hand and enable them to consume more in the months of July and December. What the members of congress actually did is the equivalent of reducing the contribution rate from 10% to 8.5% and nobody has told members that their future pensions are going to be lower, due to the negative effect of a lower contribution rate on the replacement rate.

Finally, the reform has not made it easier to expand investment and risk diversification opportunities. Unfortunately, the reform was not accompanied by a modification of the capital market or by a plan to make the general investment scheme more flexible. Each month, the AFPs generate USD 480 million of investable funds and there is no possibility of investing that amount in new infrastructure projects or in the primary capital market. The lack of depth and liquidity of the domestic capital market and the limit on investment abroad, which is still low, limit the AFPs' ability to take advantage of opportunities to increase yield, depending on the relative conditions of the local market vis-à-vis the international one and on managing risks, because the opportunities of hedging locally are more expensive than in the international markets[3].

3 *In July 2013 the Law to reform the capital market was passed (the regulations are still lacking) and the discussion on making the investment scheme more flexible is under way. At the same time, in April and May 2013 the operating limit on investments abroad was gradually raised from 30% to 36%, though raising it to 50% has already been approved by Law.*

IV. The implementation of the reform and its complexities

Direct assignment of new members following a mini-tendering process on the basis of fee-on-flow

In September 2012, a mini-tendering process was carried out on the basis of the AFP that offered the lowest fee-on-flow (in other words, on wages). This was called direct assignment of members.

The four existing AFPs took part and all offered fee-on-flow that were lower, on average, than those prevailing in August 2012. The result was that AFP Prima won, and was awarded the right to recruit all the new members joining the SPP between 1st October 2012 and 31st January 2013, and to hold them for one year.

It is worth underlining the fact that all the offers made were binding, and all members (both old and newly-enrolled) benefited from a reduction in fee-on-flow.

Tendering for new members on the basis of a mixed fee

The tendering for new members on the basis of a mixed fee took place on 20th December 2012. Taking part were the four existing AFPs and two that received authorization to set up in business via fast track from the regulator, the SBS. The AFPs had to offer a mixed fee, made up of:

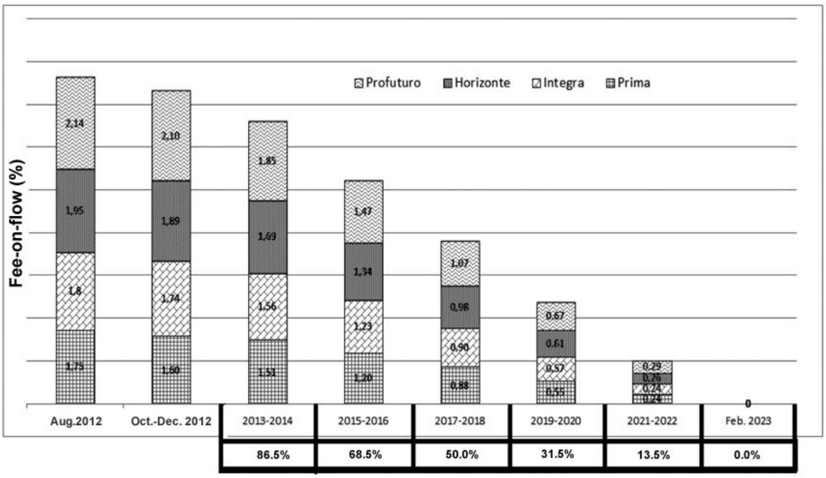
- A fee-on-flow (FF) no higher than the ceiling stipulated by the SBS at the time of the tendering, calculated on the basis of the fees that each AFP was charging in August 2012 (before the direct assignment); and

- A freely-decided fee-on-balance (FB).

All the AFPs had different fees in August 2012, so they entered the tendering with different fees-on-flow (which could be below their particular ceiling) and competed on the basis of the fee-on-balance. The reform stipulated that there would be tendering processes every two years, and a corridor of fees-on-flow (see Graph Nº 1) which will gradually reduce the ceiling of the fee-on-flow until it reaches 0%, leaving only the fee-on-balance. In all the tendering processes, the AFPs will have to offer a fee-on-flow that is no higher than their corresponding ceiling, and a fee-on-balance.

GRAPH N° 1

CORRIDOR OF FEES RESULTING FROM THE TENDERING OF NEW MEMBERS



SOURCE: PRODUCED BY THE AUTHOR.

The winning AFP would be the one offering the lowest equivalent fee (Fe), calculated from the following formula:

$$Fe = 0.9^{*} FF + 0.1^{*}FB$$

The winning company on 20th December 2012 was AFP Habitat, which was in process of formation on that date. On 26th December 2012, the companies that had not been awarded the tender had to announce the mixed fee that they will charge in the future for those members who do not choose to remain in the pure fee-on-flow system[4] .

As AFP Habitat was unable to start operations in February 2013, the new workers were automatically enrolled in AFP Prima which had won the direct assignment in

4 *The pure fee on flow that will be applied in the case of those workers who choose to remain in this type of fee-charging system will be set freely and is not subject to the ceilings mentioned.*

September 2012. The new members will be subject to the mixed fee announced by AFP Prima on 26th December 2012.

Fee structure following the direct assignment and the tendering process

The fee-on-flow has continued its downward trend following the processes of assignment and tendering. Currently the average weighted fee-on-flow is 1.76%, almost 8% lower than the fee that existed prior to the reform and 26.5% lower than what it was in 2001. In Table Nº 1 it is possible to see the current pure fees-on-flow and the maximum level of the mixed fee that came out of the tendering process and was expected to prevail between February 2013 and January 2015, regardless of changes that the AFPs may make within the period given[5].

TABLE N° 1

CURRENT PURE FEES-ON-FLOW AND THE MIXED FEE

AFP	Fee on flow following tendering (pure fee on flow)	Mixed Fee (February 2013-January 2015)		
		Fee on flow (FF)	Annual fee on balance (FB)	Equivalent fee (Fe) (*)
Habitat	-	0.47%	1.25%	0.548%
Horizonte	1.85%	1.65%	1.40%	1.625%
Integra	1.74%	1.55%	1.20%	1.515%
Prima	1.60%	1.51%	1.90%	1.549%
Profuturo	1.84%	1.49%	1.20%	1.461%
Weighted average	**1.76%**	**1.55%**	**1.43%**	**-**

SOURCE: SBS, PERU.
(*) THE EQUIVALENT FEE FOR PURPOSES OF CHOOSING THE WINNING AFP IN THE TENDERING PROCESS IS OBTAINED BY APPLYING THE FORMULA FE =0.9* FF+ 0.1* FB.

Transition towards fee-on-balance

All workers who enter the SPP as from 1st February 2013 will be automatically subject to the mixed fee. Those enrolled before 31st January 2013 will be transferred automatically to the mixed system on 1st April 2013 unless they choose to remain in

5 *As of the month of June 2013, the average of the on-flow component of the mixed fee was reduced to 1.33%, while the on-balance component fell to 1.26%.*

the fee-on-flow system. Those who choose to remain in fee-on-flow will have time until 30th September 2013 to change their minds and move to a mixed fee[6].

In spite of an extensive dissemination campaign, the changes in the fee system caused great complications. The decision to change to another system of fee collection is not easy for the member, because an informed decision – strictly speaking - would require every member to compare the present value of the fees he/she would pay under the two alternative fee systems, and that would mean taking into account his/her current age and the retiring age, and assuming alternative scenarios for variables such as yield, contribution density, etc.

Guiding the member

The dissemination requirements of the reform are massive and have involved the use of various media (TV, radio, social networks, internet, talks, etc.). Despite the coordinated efforts of the AAFP, the AFPs and the SBS, the prevailing atmosphere was one of great confusion, debates and long queues to do paperwork. For this reason the SBS extended the deadline for taking the decision to remain in fee-on-flow until 31st May 2013, and the deadline for reversing the decision to the 30th November 2013. As of 31st May 2013, approximately 1,925 million members (of the 2,600 million active members and 5.4 million total members) chose to remain with the fee-on-flow.

The debates covered a wide spectrum of issues, including questionings of the fundamental principles of the reform, such as its impact on freedom of choice, the government's unilateral modification of its contract with the AFPs, and the impact of the fee-on-balance on the member's individual savings fund, among others. But perhaps the most positive outcome has been the fact that members now value the private ownership of their pension funds much more highly than before.

V. Centralisation of operating processes

In Peru there is an electronic platform called "AFPnet", which the AAFP offers to all employers completely free of charge, so that they can prepare, declare and pay their payrolls of contributions to all the AFPs in a very simple form.

The SBS has stipulated that, from now on, the use of AFPnet will be compulsory. In any case, its implementation will be gradual, given the operating complexity involved in the centralisation of the collection process.

6 *These dates were later modified to 31st May and 30th November 2013, respectively.*

Among the advantages offered by AFPnet, the most important are: (i) it ensures that all contributions are paid correctly, because it identifies the member's AFP and makes the necessary calculations, avoiding employer errors; and (ii) it makes the implementation of the fee schemes stipulated in the reform viable.

In the short time that has elapsed since the passing of the regulations of the reform in this field, AFPnet has been used for paying contributions by all the employers that have members enrolled in the AFPs. User employers have increased from 45 thousand to 125 thousand so far. In February 2013 contributions were received from 2.45 million members. Members can also make contributions directly via AFPnet. The inclusion of AFP Habitat in AFPnet was concluded on 31st May 2013, allowing it to start operations on 1st June.

A massive communications campaign was also carried out in order to implement the use of AFPnet as the centralizing institution for operating processes. Over 57 thousand employers were contacted directly by letter or email and a rapid registration campaign was launched at national level to incorporate them. At the same time, a follow-up system was implemented with telephone calls to employers and the capacity of the technical support service was quadrupled. Communiqués were published in the printed press with nationwide circulation and over 400 thousand leaflets were produced and distributed in bank branches.

VI. Mandatory enrolment of self-employed workers

Coverage: Self-employed workers under 40 years of age will be covered. Those over 40 are subject to the contribution conditions of optional members.

Contributions: The basis for calculating the monthly contribution cannot be less than one Minimum Living Wage (RMV). Contributions must be paid within the first 12 working days of the following month. The contributions will be collected by the centralizing body through a retaining agent or paid directly by the member.

Mandatory contribution rate: For self-employed workers whose monthly incomes are no more than 1.5 RMV, the mandatory contribution rate will be 5% in 2014, 8% in 2015 and 10% in 2016. For workers who receive monthly incomes of over 1.5 RMV, the mandatory contribution rate is 10%.

Disability and survivorship insurance and funeral expenses: The insurance companies must make an annual calculation that makes it possible to have an exchange value for the minimum contributions needed for the insurance cover.

VII. Items of the reform still pending implementation

There are various items of the reform that have yet to be implemented, such as the regulations for MYPES; regulation of the Social Pension; the tendering of premiums for the disability, survivorship and funeral expenses insurance; regulations for "Fund 0" and the option to combine funds; and the practical application of investment limits for alternative instruments.

VIII. Conclusions, challenges and opportunities

As is obvious from all the above, the recent pension reform in Peru has meant an important structural change, but one that is still incomplete because it did not seek to reach a consensus among all the actors involved. A moral for the rest of the countries that are looking at the possibility of implementing second or third-generation reforms in their pension systems (such as Colombia and Chile) consists precisely in the vital need to make diagnoses with solid, serious studies and at the same time to seek improvements in a thorough, technical and consensual manner.
To close, it is important to point out that there are some challenges and opportunities that must be dealt with and taken advantage of, in order to improve the Peruvian pension system. In particular, it is necessary:

i. To create a real solidarity pillar and reassign members of the public PAYG system who are in a position to contribute to the individually-funded system.

ii. To give the debate on the pension system a new direction, concentrating on yield net of fees, quality of service and the replacement rate.

iii. To reformulate the labour law so that it encourages the creation of formal, decent employment and discourages informality, in order to extend the system's coverage.

iv. To extend opportunities to improve the yield of the funds and management of risks by a more flexible investment scheme with greater exposure to the international market, and by promoting measures to increase the supply of assets, including not only debt instruments but also direct participation, or "equity". Equal importance should be given to increasing the portfolio of short and medium-term projects for investment in infrastructure, using both public-private associations and private initiatives and specific projects funded from taxation.

v. To encourage individual saving, and identify and take actions to improve contribution density, including solving the unpaid debts owed to members by the public sector.

PENSION REFORMS IN LATIN AMERICA: THE MEXICAN CASE

OSCAR FRANCO[1]

1 *Oscar Franco has a Licentiate in Economics from the University of Mexico with postgraduate studies at Mexico College and the University of Texas in Austin. As from 1997, he has been working in the retirement savings sector, having served as General Manager of the administrators Allianz and HSBC. He has been a full member of the National Pensions Council; Vice-president of the Mexican Association of Retirement Fund Administrators (AMAFORE), and member of the Board of Directors of PROCESAR. He has also taught at the National Autonomous University of Mexico (UNAM), at Mexico College and at the Monterrey Institute of Technology and Higher Education, and given talks and lectures on economic and social security issues in academic and business forums. He was Executive President of the AMAFORE and also member of the Board of the International Federation of Pension Fund Administrators (FIAP) from the year 2009 until June 2013.*

The pension reform in Mexico is one of the most recent experiences of reforms of this type in Latin America. Nevertheless, it has been a story of development and continual change.

We have had a succession of modifications within the reform and I am sure that this will continue to be true in the days ahead because, given the challenges that we visualize for the future, we are convinced as an industry that it is healthy and necessary to keep up a rhythm and approach of constant adjustment, in order to improve the pension system.

1. Some important design features

In Mexico we share some aspects of design with the rest of the pension systems based on individual accounts, especially those that essentially take their inspiration from Chile's pioneering model of individual funding. Nevertheless, I would like to underline certain distinctive features that I consider important, and which have implications, particularly in connection with the challenges that we foresee for the future.

The 1997 reform

The 1997 reform, which modified the largest pension system - that of the Mexican Social Security Institute (MSSI) - which corresponds exclusively to employees in the private sector, carried us from a traditional system of defined benefits and government administration to one of defined contribution and individual accounts.

In Mexico, as may be seen in Table Nº 1, we have several participants (shown in the lines) and various branches of insurance (in the columns). In addition to the so-called Afores (Retirement Savings Fund Administrators), we have the National Housing Fund Institute (Infonavit) and the MSSI.

In the part corresponding specifically to retirement, unemployment and old-age insurance (RUO), the Afores are responsible for administering both the accounts and the resources. But there is an unusual feature in the Mexican case which consists of a housing contribution paid by the employer and a housing sub-account where, although the resources are entered for accounting purposes in the individual account in the Afores, they are administered and invested by Infonavit. Finally, the Disability and Life Insurance is entirely separate and is managed by the MSSI.

TABLE Nº 1

ADMINISTRATION BY TYPE OF INSURANCE

Body	RUO 1/		Housing 2/		DL 3/	
	Adminis-tration	Investment of resources	Adminis-tration	Investment of resources	Adminis-tration	Investment of resources
Afores	Yes	Yes	Yes	No		
Infonavit			No	Yes		
MSSI					Yes	Yes

SOURCE: AMAFORE, MEXICO
AFORES: RETIREMENT SAVINGS FUND ADMINISTRATORS; INFONAVIT: NATIONAL HOUSING INSTITUTE; MSSI: MEXICAN SOCIAL SECURITY INSTITUTE
1/RUO: RETIREMENT, UNEMPLOYMENT AND OLD-AGE INSURANCE (CONTRIBUTION: 6.5% OF WAGE).
2/HOUSING: CONTRIBUTION: 5% OF WAGE.
3/ DL: DISABILITY AND LIFE INSURANCE (CONTRIBUTION: 2.5% OF WAGE).

Another important characteristic is that the contribution parameters defined in the 1997 reform (see Table Nº 2) were not modified. In other words, we were left with the parameters of the pay-as-you-go period, which has had enormous implications in terms of one of our great challenges, namely the quality or sufficiency of pensions. We remained static, with savings efforts dating from the 1950s and 1960s, in a country that has clearly changed completely in terms of its demographic, economic and social profile.

TABLE Nº 2

1997 REFORM: CONTRIBUTION PARAMETERS REMAINED UNCHANGED

Heading	Contributor	% of wage of contribution	Wage ceiling for contribution
Retirement	Employer	5.15%	25 minimum wages
	Worker	1.125%	
	Government	0.225%	
	Social Quota (1)	1.3%	
	Total	7.8%	
Housing	Employer	5.0%	25 minimum wages

(1) GOVERNMENT CONTRIBUTION TO ACTIVE ACCOUNTS FOR WAGE LEVELS OF 1 TO 15 MINIMUM WAGES (REFORMED IN 2009). EQUIVALENT TO 1.3% OF WAGE, ON AVERAGE.
SOURCE: AMAFORE, MEXICO.

Another very important detail in Mexico's case, distinguishing it from the other countries with similar experiences, is that we chose a very unusual design for the transition stage. This is summarized in Table Nº 3. The universe of individuals covered by the reform was divided into two categories: on the one hand, those who were already contributing to social security before July 1997 and on the other, the new people joining the formal labour market. However, everyone changed to individual accounts: the previous scheme was not left in place and we all began to pay into the defined contribution scheme. It was in the scheme of benefits that the difference occurred, with the older contributors being given the possibility of choosing the benefits of the previous scheme or those of the new one, under the programmed withdrawal and life annuity options, while new workers entering the market can, of course, only take advantage of the benefits of the new system.

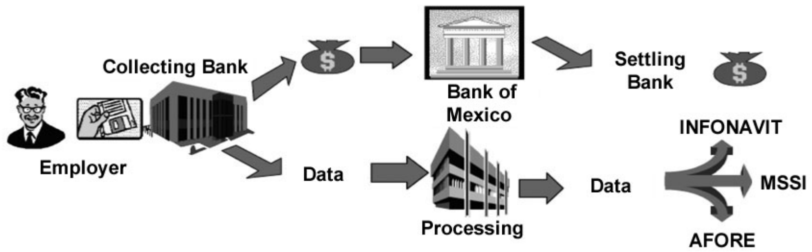
TABLE Nº 3
1997 REFORM: TRANSITION MECHANISM

	Contribution scheme		Benefit scheme	
Date of enrolment in MSSI	**Centralised account**	**Individual account**	**Defined benefit**	**Programmed withdrawal or life annuity**
Before July 1997	No	Yes	Yes	Yes
After July 1997	No	Yes	No	Yes

SOURCE: AMAFORE, MEXICO.

Finally, a distinctive feature of the 1997 Mexican reform is that it set up a centralized collection model, as shown in Figure Nº 1, which has been a point of reference for other countries in later stages.

FIGURE Nº 1
1997 REFORM: CENTRALIZED COLLECTION



SOURCE: AMAFORE, MEXICO.

The 2007 Reform

The Security and Social Services Institute for Government Employees (ISSSTE), the agency responsible for workers employed by the federal government, presented a very similar situation to that of the MSSI in matters of pensions: (i) unsustainable actuarial and flow deficits; (ii) crossed subsidies between health and pensions; and (iii) non-portable rights; etc.

The 2007 pension reform considered three situations:

i) Retired workers, whose position was left unchanged;

ii) Workers starting work after the reform, who were enrolled in the new system of individual accounts;

iii) Workers active at the time of the reform, who had the possibility of choosing between migrating to the individual accounts system, in which case they were granted a "Recognition Bond"; or remaining in the old pension scheme, with parametric adjustments in the contribution rate and retiring age.

II. The main results

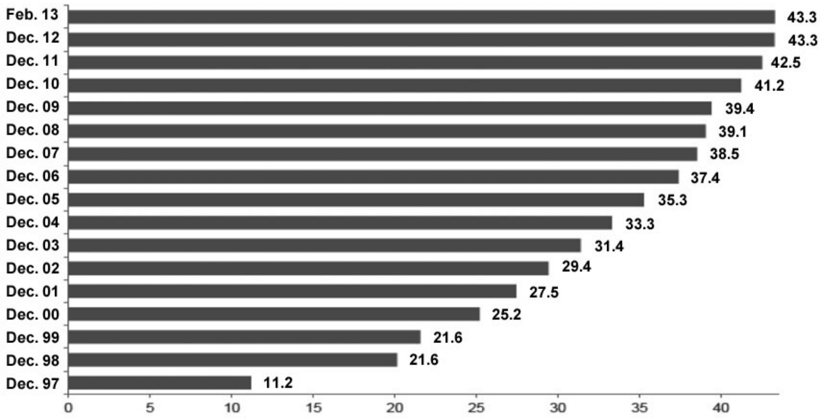
The recent history of the system of individual accounts has undoubtedly given us good results.

Accounts administered

Around 45 million Mexicans already have an individual account with savings for retirement (Graph Nº 1 and Table Nº 4).

GRAPH Nº 1

ACCOUNTS ADMINISTERED (IN MILLIONS)



SOURCE: NATIONAL COMMISSION OF THE SAVINGS FOR RETIREMENT SYSTEM (CONSAR), MEXICO.

The phenomena of informality and job instability occur frequently in the profile of these accounts, as is evident from Table Nº 4: approximately half the total are considered to be active and only 35% are regular contributors.

TABLE Nº 4
ACCOUNTS ADMINISTERED (MARCH 2013)

	Millions	%
Total	**43**	**100%**
Registered	32	74%
Assigned	11	26%
Active [1/]	21	49%
Inactive	22	51%
Contributors [2/]	15	35%

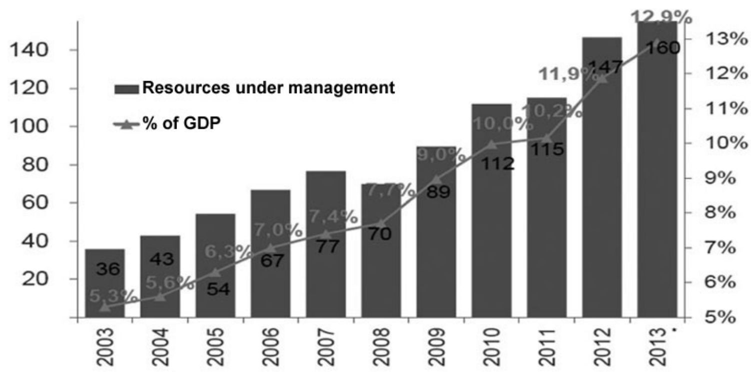
SOURCE: NATIONAL COMMISSION OF THE SAVINGS FOR RETIREMENT SYSTEM (CONSAR), MEXICO.
1/ ACTIVE: ACCOUNTS THAT RECEIVED AT LEAST ONE CONTRIBUTION IN THE LAST THREE YEARS
2/ CONTRIBUTORS: ACCOUNTS THAT RECEIVED A CONTRIBUTION IN THE LATEST TWO-MONTH PERIOD (INFORMATION AS OF FEBRUARY 2013).

Resources under management

As regards resources under management, a balance of USD 160,000 million has been reached, representing almost 13% of Mexico's GDP, with growth rates of over 20% on average in the past 4 years (Graph Nº 2).

GRAPH Nº 2

RESOURCES UNDER MANAGEMENT (THOUSANDS OF MILLION OF USD)



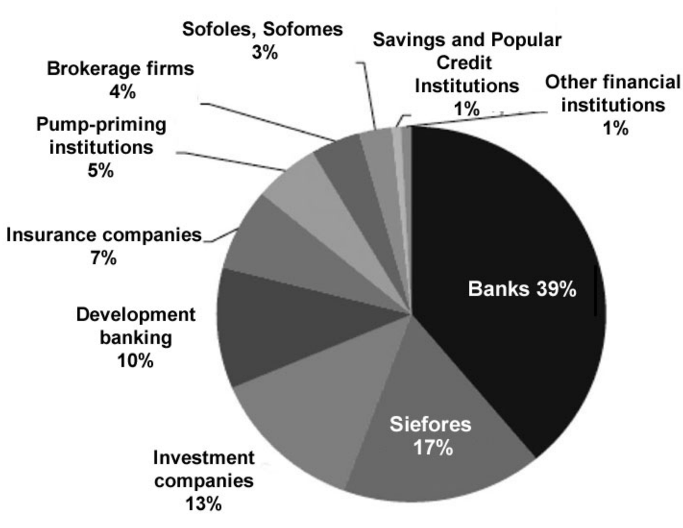
SOURCE: NATIONAL COMMISSION OF THE SAVINGS FOR RETIREMENT SYSTEM (CONSAR), MEXICO.
*DATA AS OF FEBRUARY 2013.

Relative importance in the financial sector

The AFOREs already represent the second most important component in the country's financial sector, through the Specialized Retirement Fund Investment Companies (Siefores). They are second only to the banking sector, as may be seen in Graph Nº 3, though with a growth at least double that of the remaining intermediaries in the market.

GRAPH Nº 3

SHARE IN THE FINANCIAL SECTOR'S ASSETS (FEBRUARY 2013)



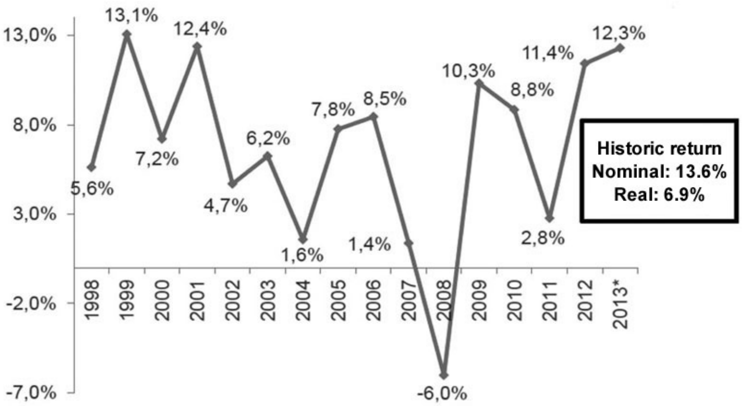
SOURCE: BANK OF MEXICO.

Returns

The results in terms of returns (Graph Nº 4) have also been very satisfactory: between 1997 and 2013, the average nominal annual return has been 13.6%, and 6.9% after deducting the effect of inflation. Comparing the relevant period – i.e. from 1997 to the present - the real return in Mexico is almost exactly the same as that of Chile, for example, though a little lower that those of Peru and Colombia.

GRAPH Nº 4

AVERAGE REAL ANNUAL RETURN OF THE SIEFORES



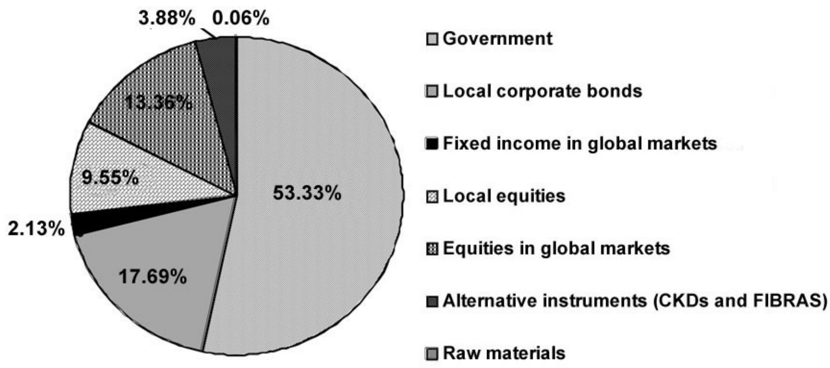
SOURCE: PREPARED BY AMAFORE USING DATA FROM CONSAR, MEXICO.
*/ RETURN OF THE LAST 12 MONTHS AS OF MARCH 2013

Diversification of investments

As far as investment diversification is concerned, we are reaching a position in which practically half are in government securities and half in instruments of other types (Graph Nº 5). It has been a slower process than in other experiences, with advantages and disadvantages. Although the returns have been lower, the 2008 crisis affected us far less that other more exposed portfolios, for example.

GRAPH Nº 5

AGGREGATE INVESTMENT PORTFOLIO, BY ASSET CLASS (MARCH 2013)

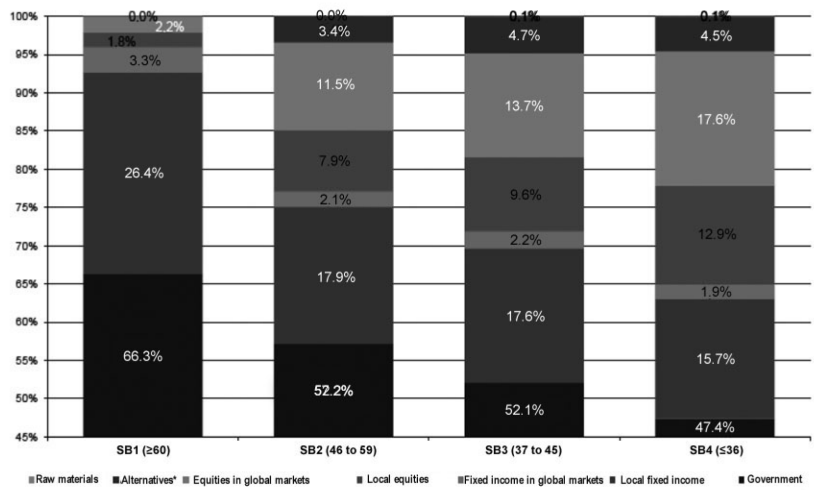


SOURCE: NATIONAL COMMISSION OF THE SAVINGS FOR RETIREMENT SYSTEM (CONSAR), MEXICO.

The structure by type of fund (Graph Nº 6) has been precisely along the line of more diversification for young workers and less for those approaching retiring age.

GRAPH Nº 6

INVESTMENT PORTFOLIO PER TYPE OF FUND (MARCH 2013)



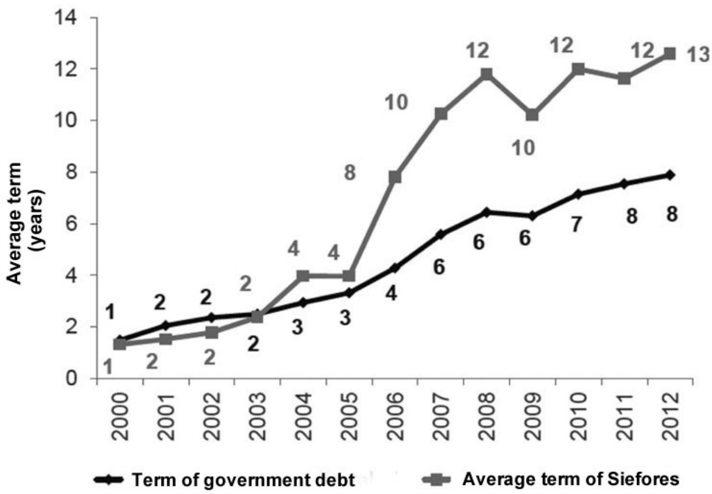
SOURCE: NATIONAL COMMISSION OF THE SAVINGS FOR RETIREMENT SYSTEM (CONSAR), MEXICO.

Incidence in financial markets

Graph Nº 7 illustrates the impact of the retirement funds on the curve of government securities, for example, and the incidence that the Siefores have had on building a market of long-term funds in Mexico.

GRAPH Nº 7

AVERAGE TERM OF SIEFORES VERSUS TERM OF GOVERNMENT DEBT (DECEMBER 2012)



SOURCE: BANK OF MEXICO AND CONSAR (MEXICO).

Fees

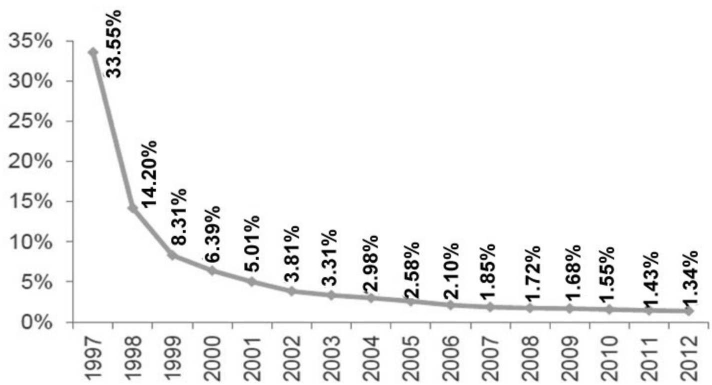
Initially the Afores were allowed to charge 3 types of fee: (i) on flow (contributions); (ii) on balance; and (iii) on real return.

However, the legal reforms in 2008 and 2009 fixed both the single charge on balances under management and the requirement that fees be authorized annually by the regulatory body.

In practice, what we see is a clear downward trend in fee income as a percentage of the funds under management (Graph Nº 8).

GRAPH Nº 8

FEE INCOME AS A PERCENTAGE OF ASSETS (*)



SOURCE: PREPARED BY AMAFORE WITH DATA FROM CONSAR, MEXICO.
(*) AVERAGE ASSETS PER YEAR, WITH THE EXCEPTION OF 1997.

III. The great challenges

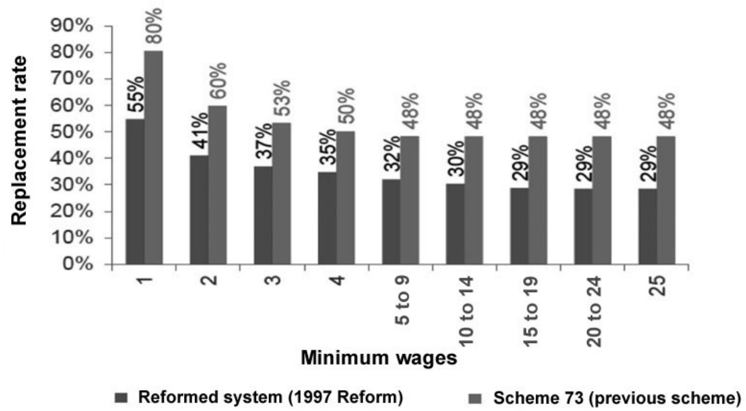
Pension sufficiency

There is no doubt that one of the vital challenges is that of achieving adequate replacement rates. On this subject, we share a concern that is very similar to that expressed by colleagues from other Latin American countries.

Graph Nº 9 shows the replacement rates forecast under the reformed scheme and the previous one. In other words, when the reformed system of 1997 comes to maturity, there will be individuals who will have retired under the scheme of the previous law and there will also be workers who retire with the benefits of the new law. The graph shows clearly that the circumstances of the two types of worker will be very different in terms of replacement rate. This means, in my opinion, that our problem of sufficiency will be even more striking, because we shall have this co-existence of individuals of the same generation, in very similar conditions in terms of their working careers, with benefits that are significantly different.

GRAPH Nº 9

FORECAST REPLACEMENT RATES



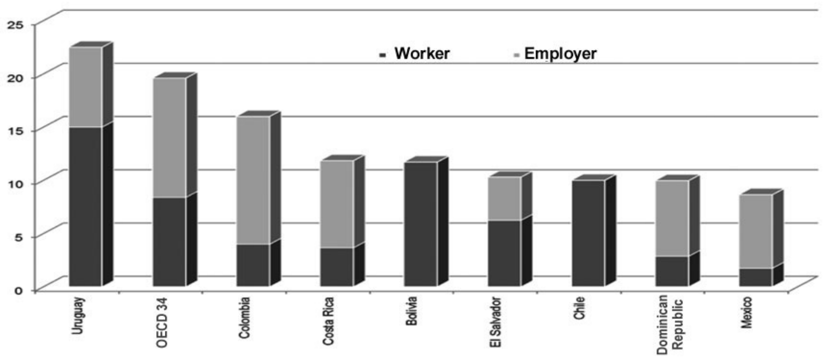
SOURCE: AMAFORE.
ASSUMPTIONS: (I) WORKING LIFE: 40 YEARS (25.65 YEARS); (II) CONTRIBUTION DENSITY: 60%; (III) REAL RETURN: 5%; (IV) FEE ON BALANCE: 1%; (V) INCREASE IN REAL ANNUAL WAGE: 0%; (VI) SOCIAL QUOTA REFORMED 2009.

The origin of this situation lies fundamentally in the inadequate contribution rate and the low average contribution density. In the MSSI scheme, as regards the level of contributions we are in the same boat as practically everyone else: we have a contribution of 6.5% of wage, plus a component called the "social quota" which brings us up to less than 8%. It is worth mentioning that in the 2007 reform for workers in government service, the scheme of contributions was modified and they were raised to a level significantly higher than the one existing in the scheme for private sector workers (11.3% plus "solidarity" contribution, which may raise the total contribution to almost 20% of the wage).

In the case of Mexico, the bulk of the contributions come from the employer (Graph Nº 10), with very important implications in terms of political economics. The opposite case would be that of Chile, where all the contributions come from the worker.

GRAPH Nº 10

CONTRIBUTION RATES (% OF WAGE)



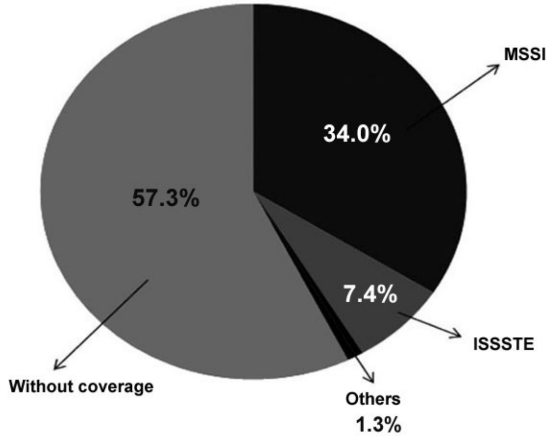
SOURCE: PAGÉS-SERRA, INTER-AMERICAN DEVELOPMENT BANK (IDB).

Coverage

Another major challenge corresponds to coverage (Graph Nº 11). In Mexico we currently have informality levels of around 60% (Graph Nº 12), which means that we have created no institutional mechanism of any kind to enable almost two-thirds of the population to face up to the situation represented by reaching retiring age. Consequently, this is the big debate in Mexico today from the point of view of the future of pensions and the implications for public policy.

GRAPH Nº 11

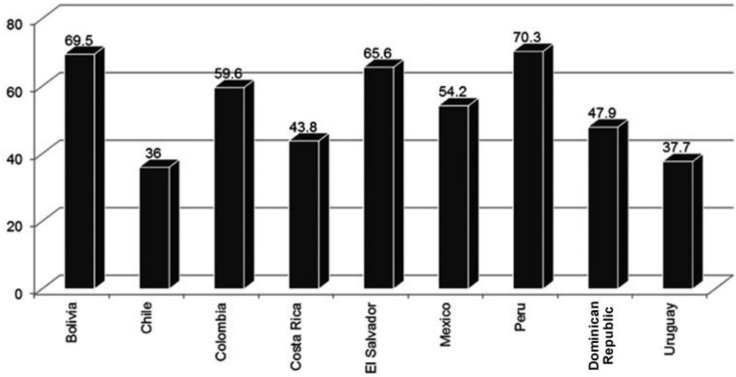
COVERAGE, BY INSTITUTION (% OF THE POPULATION IN WORK)



SOURCE: NATIONAL INSTITUTE OF STATISTICS AND GEOGRAPHY (INEGI), MEXICO

GRAPH Nº 12

INFORMAL SECTOR (% OF WORKFORCE)



SOURCE: PAGÉS-SERRA, INTER-AMERICAN DEVELOPMENT BANK (IDB).

A few recommendations

From the point of view of replacement-rate sufficiency, we believe that there are several actions that can be taken to improve the situation, and these have a lot to do with the specific features of the Mexican scheme. First, it would be appropriate to transfer some of the contributions currently in force to pension – even if partially – (especially those of housing and disability and life), which would make a substantial difference without the need to increase contributions; second, to eliminate lump-sum withdrawals, in other words, include them in the life annuity schemes; third, to study the possibility of increasing contributions, offsetting this by reducing other tax burdens; and fourth, definitely, to encourage pension saving, both by financial culture campaigns and by government incentives, "solidarity" contributions, etc.

Insofar as coverage is concerned, it is necessary to highlight the fact that during the 2012 presidential campaigns, this subject was on the platforms of almost all the political parties. For Mexican society, the issue of how to provide some kind of retirement protection scheme for two-thirds of the population has aroused enormous interest.

Furthermore, the so-called "Pact for Mexico" was signed in December 2012 under the new administration. In that document, which was put forward by the new government and signed by the country's main political forces, agreements were established on a wide range of issues, including social security coverage and specifically pensions. In particular, a commitment was made which contains the following characteristics:

(i) The provision of a universal "basic" pension for all Mexican over 65 years of age who do not have a normal pension benefit. This benefit is already being granted today.

(ii) An individual account will be opened for all Mexicans between 18 and 65 years of age, regardless of their work status, which will be funded with a contribution (social quota). The funding will not come out of contributions or taxes on labour, but out of general taxation.

This suggestion, especially the second phase, contains implications of great importance from the fiscal and operational points of view. The 'saving for retirement' industry in Mexico not only supports this proposal, but is fully prepared to take an active part in the process, because it considers that the effort of the past 15 years to build a widespread, efficient infrastructure of individual accounts can and must be used to advantage, to assist in the successful implementation of this new model of universal coverage, which is called to change the face of social security policy in Mexico.

PENSION REFORMS IN LATIN AMERICA: THE CHILEAN CASE

GUILLERMO ARTHUR[1]

1 *Guillermo Arthur graduated in Law from the Catholic University of Chile. He is currently President of the International Federation of Pension Fund Administrators (FIAP); President of the Chilean Association of Pension Fund Administrators; and Vice-President of SURA Chile and AFP Capital. He is also a member of the Administrative Council of the International Labour Organisation (ILO), the Executive Council of the International Employers' Organisation (IEO) and the Working Commission of the Chilean Confederation of Production and Commerce (CPC). He is a former Minister of Labour and Social Prevision and author of the book "The Legal Regime of the New Pension System", Editorial Jurídica de Chile, 1998.*

Given the fact that pension systems are everyone's business, they will always be surrounded by criticism. This has been valid not only for the individually-funded systems but also for the pay-as-you-go systems, for being incapable of delivering the benefits that they had themselves defined.

In Chile, the individually-funded system has now been in place for 32 years, having gone through governments of very varied political colours. The system has undergone over twenty modifications between the time it began and the present, but all without exception have tended to improve it.

During the last twenty years, mechanisms have been set up to expand overseas investment, to create multi-funds, to create new investment instruments and to extend investment limits in other instruments, among other aspects. In other words, there has always been interest in strengthening the pension system based on individual accounts. Since we are aware that one of the important factors on which the pension depends is the yield of the funds (the other factor being contribution density), we have always moved in the direction of improving it. The multi-fund scheme and greater diversification of investment instruments are two mechanisms that tend to produce a better risk-return profile. This is how Chile has produced a real average annual yield of over 8%.

However, as the criticism concerning the system continued, the previous government, led by former President Michelle Bachelet, appointed a commission of experts to carry out a thorough study of the great changes and challenges needed in the pension system. As a result of the diagnosis and subsequent reform, the system was deepened once again, but concentration was focused to a very great extent on coverage and the need to improve contribution density. This is why a first basic, solidarity pillar was set up, targeting the most vulnerable 60% of the country, who are being given a Basic Solidarity Pension. At the same time, a Solidarity Pension Contribution was created, aimed at improving the pension of all those workers who managed to finance part of a pension with their own contributions, but of insufficient amount.

The funding of this first solidarity pillar is covered by general taxation and is not charged to the wages of the workers who are paying contributions. This resulted in a law being issued which is still in the process of being brought into effect. However, since this is such a dynamic subject, we are already beginning to confront new challenges and are engaged in deep discussion on ways of tackling them.

The first of the challenges is how to achieve an improvement in the workers' replacement rate, bearing in mind the changes in life-expectancy that have occurred. In Chile today, life expectancy for a man when he reaches 65 years of age is 20 years, and for a woman who reaches 60 years of age, it is 30 additional years. We therefore have the immense challenge of covering and funding a much more extensive period of workers' lives, and this leads naturally to thinking about what an appropriate contribution rate should be.

The contribution rate that was fixed at 10% of the worker's wage in the year 1980, when workers lived 30% less than they are living today, is obviously not tuned to current reality. The contribution rate must be studied and fixed in accordance with the new social situation that we are experiencing.

The second challenge has to do with retiring ages. If we are living 30% more, it seems obvious that we cannot retire at the same age as we did in the past.

These are issues that we have to tackle in a technical manner and with the participation of all the sectors involved. It is worth saying, by the way, that in the so-called Marcel Commission, where the study for the 2008 pension reform was carried out, all the sectors involved, workers, businessmen, etc. were consulted for their opinions. All had the opportunity and the place in which to defend their positions on these matters.

One thing that was not present in the reform was the idea of reversing the system, because there was great awareness that the world's pay-as-you-go systems are no longer viable. I believe there is full understanding in Chile that this matter is not an ideological issue. There is awareness that the demographic trends (the fall in the birth-rate and rise in life expectancies) mean that a system in which young workers have to fund pensions for older workers is non-viable.

One of the most important lessons in political economics that can be learned from here is that of having managed to conduct the whole reform process on the basis of a technical study, in which all sectors of the political spectrum were represented, with the most varied views on what a pension system should be. By doing this, we managed to strengthen this system, which has given good results and, as the title of this seminar says, has created a virtuous circle of providing better pensions while contributing to the economic development of the country.

It is true that generating economic development is not the aim of a pension system. However, by collaborating with economic development, the pension system gives countries more strength, improves formality in employment and increases growth in wages. It is not a matter of chance that the four countries leading the economic growth in the Latin American region (Chile, Colombia, Mexico and Peru) have all implemented schemes based on individual capitalization of contributions in their social security systems.

In the forthcoming debate in Colombia on pension reform, I hope that it will be possible to find the most appropriate way to reinforce the various pillars that should exist in a pension system, in order to provide greater coverage and better pensions for all workers.

COMMENTS ON THE GOVERNMENT'S PROPOSAL FOR REFORMING THE COLOMBIAN PENSION SYSTEM

SANTIAGO MONTENEGRO[1]

1 *Santiago Montenegro is an Economist qualified at the Universidad de los Andes, Colombia, with a Master's in Economics from the same university. He also has a M.Sc. in Economics from the London School of Economics and a Ph.D. from Oxford University, United Kingdom. He has been a World Bank Economist, Government Advisor for Coffee-growing Affairs, Dean of the Economics Faculty at the Universidad de los Andes, Chairman of the National Association of Financial Institutions (ANIF); Director of the National Planning Department; and is currently President of the Colombian Associations of Pension and Severance Fund Administrators (ASOFONDOS). He is also a member of the Board of the International Federation of Pension Fund Administrators (FIAP).*

In Colombia, the first thing we have to mention is that there are two parallel schemes, one based on individual capitalisation (the Individual Saving Scheme, RAIS) and the other on pay-as-you-go (the Average Premium Scheme, RPM).

We are in agreement with the general diagnosis of the Colombian pension system presented by Rafael Pardo, Minister of Labour, in the sense that there is coverage but also a problem of financial sustainability and lack of fairness. However, in these comments I also want to emphasise the importance of evaluating the extent to which each of the pension system's schemes has contributed to these problems.
In Colombia, there is labour informality on a gigantic scale. According to the statistics that we have available, we currently have 21 million people working and only 6.5 million are paying contributions for health and pensions, meaning that informality affects 70% of the population of working age. The International Labour Organization (ILO) estimates this informality at almost 80%.

It is important to mention that the expected coverage is greater in the RAIS than it is currently in the RPM. In addition, the fairness and sustainability problems are concentrated in the RPM.

We understand the reform proposal that the Minister of Labour has presented, but we are not familiar with it in depth. We understand this proposal to be a combination of a structural reform and some parametric-type adjustments (which the Minister calls "easing mechanisms"). The structural reform in itself does not solve the problems that have been diagnosed; in fact it is quite likely to make them worse. Where it does achieve some effects is with the "easing mechanisms", or what I prefer to call "parametric adjustments".

Thinking along these lines, I want to make comments of three types: first, some methodological-type comments on the discussion of the reform; second, some comments on the proposal itself; and third, some general conclusions.

I. Methodological comments

As I have already mentioned, this discussion is not an easy one. It is loaded with ideology, it is complicated politically, and technically it is very difficult. Nevertheless, we feel that it is right for the debate to continue.

We would like to get to know the technical documents or models on which the government has based itself for making its proposal. Basically there should be three types of discussion papers: first, the quantitative model to estimate the effects on coverage; second, the fiscal model to analyse the impact on that area; and third, the model of financial sustainability. In fact we have had no access to those models, and we would like the government to share them, not only with us, but also with other relevant business associations and stakeholders (workers, academics, etc.), so that we can all evaluate the viability of the reform between us (with the participation of Congress) and legitimise the discussion. This is something that has also been requested by the workers' federations at the labour consultation group.

I believe firmly that we must do these exercises in order to evaluate the costs and benefits of this reform proposal and the different possible scenarios, to find out exactly who the winners and losers will be in each alternative.

It is worth highlighting one aspect that must be discussed, studied and evaluated. This reform contains a project for a new institutional framework and we have no idea of how it will be implemented. However, the creation of a public body has been mooted to take charge of a series of processes and administration. Something was mentioned at the labour consultation group, to which the Minister of Labour has invited us together with other business associations and union representatives. There is a consensus that the public institutions have demonstrated great incompetence in administration and operation, both in the case of social security and certainly in that of pensions, (without mentioning the problems of corruption and politicking). We are obviously concerned by the inability that these public bodies have shown in the past in handling systems that are complex, both operationally and in terms of information systems.

II. Comments on the pension reform proposal

As I said, the reform proposal has two dimensions: first a structural reform and then a series of parametric adjustments or "easing mechanisms".

The structural reform consists of eliminating the parallel pension schemes and creating a system of pillars. The first pillar is a PAYG pillar to which all workers will contribute on their first minimum wage. Over and above the first minimum wage, the rest of the workers must contribute in the RAIS.

Effects of the structural reform

With the limited information that we have, I want to argue that that structural reform does not of itself solve any of the problems that have been diagnosed, as I shall explain below.

1. Coverage

We believe that the structural reform put forward in this way actually reduces coverage by obliging all members to enter the pension system via the RPM. This is so because currently all the active contributors in the RAIS (some 4.5 million) have an expected coverage of about 25%, and if we include the proposed "family pension" approved by the Congress in 2012, the coverage might reach 30%. This is explained because there are currently various possibilities for retiring under the RAIS. A person can retire on completing the minimum capital necessary to receive a pension, regardless of age and the number of weeks contributed, but he/she can also retire if he/she has not managed to complete the capital but has the necessary number of contribution weeks and the age stipulated in the law. Furthermore, a member of the RAIS who has not managed to accumulate the minimum capital to fund his/her pension can currently have recourse to the Minimum Pension Guarantee Fund (FGPM) which will finance the shortfall to achieve a minimum-wage pension.

Apart from the ASOFONDOS model, there are others that show that the expected coverage of the RPM is 13%, in the best of cases. This coverage rate is what would have to be applied to this government proposal, because everyone will be entering by the RPM and the proposal requires the member to have achieved 1,300 weeks of contribution in order to qualify for this minimum-wage pension.

The Minister of Labour has told us in his proposal that the expected coverage of the RPM would be 40%. But we have serious doubts about whether the expected coverage will be able to rise from 13% to 40% with the easing mechanisms or parametric adjustments. Precisely for this reason we have to deepen this discussion so that the government shows us the models for achieving the stated coverage rates and we show them ours. And, in order to legitimise the discussion, we can call on academics, the universities and other research centres such as the Foundation for Higher Education and Development (FEDESARROLLO). This will make it possible to clarify the figures and the large gaps that we seeing initially.

2. Fairness

With regard to the question of fairness, the government proposal shows an advance insofar as it corrects many of the subsidies that are currently granted by the RPM. However, those subsidies are going to continue to exist, simply because the first PAYG pillar offers a replacement rate of 100% on the first minimum wage. A replacement rate of 100% of the minimum wage, with only 1,300 weeks of contribution (i.e. 25-and-a-half years) and a contribution rate of 16% contains a gigantic subsidy (approximately 80% of the accumulated capital. The problem is, therefore, that this subsidy will continue and be granted to everyone, to workers with high and low incomes, which makes it highly regressive.

There is a further dimension of fairness that must also be taken into account. No more than 13% of people are going to retire with a pension in the RPM. The 87% who do not manage to obtain a pension will be left outside. Some will point out that in fact these people who do not obtain a pension will receive the so-called Periodic Economic Benefits (BEPS). However, the problem is that the BEPS receive a subsidy of 20% of the capital that has been accumulated, equivalent to 175% of the capital accumulated in the case of those who retire on the first minimum wage. In other words, with this proposal there is a gigantic subsidy and continuing unfairness. By contrast, in the RAIS the allocation of subsidies concentrates only on the minimum-wage pensions.

3. Sustainability

As I have already said, we are not familiar with the sustainability model of the data and estimates presented to us by the Minister of Labour. (It sounds somewhat contradictory to say they are not familiar if they have already been presented. Are they not clear? Have they not been studied? Or what are we referring to?) What we have heard – from whom? – is that the present value of all the future obligations is practically the same, both before and after the reform. This means to say that a pension reform is being implemented which basically produces no reduction in the public sector's stock of pension obligations.

Of course, then the question arises as to whether it is worth introducing a reform that does not make a substantial contribution towards reducing public debt.

If it is true that the pension reform does not reduce public debt, it is a result of the fact that the subsidy on the first wage is so big and it is impossible to increase coverage to any significant extent. Because if pension coverage were to increase, the public debt would not remain constant; it would increase.

To conclude, the structural reform as such does not seem to solve the problems that exist, and it will definitely make the coverage problem worse.

Effects of the parametric adjustments

As the Minister of Labour says, in addition to the structural reform as such, there are some parametric adjustments or "easing mechanisms". Thanks to these, it should be possible to mitigate the fall in coverage, and some other results might be achieved. However, those parametric adjustments could well be carried out while maintaining the present dual system that we have now, and the structural reform would not be necessary. I shall quote a few examples.

Regarding easing mechanisms to increase coverage, the government proposes the so-called "retroactive contributions" or "purchase of weeks". This proposal could well be implemented now, and that would indeed increase coverage, especially in the RPM (at least in an attempt to bring it up to the current level of the RAIS).

There is also the proposal to recognise the real interest on substitutionary compensation payments, these terrible reimbursements that we have at present in the public scheme. For the benefit of those who don't know, the great majority of the contributors to the RPM who do not achieve a pension have their money returned to them, but it is adjusted only by inflation and has no real interest rate recognised for it. It is as if the government takes out a loan, at 0% interest, from the majority of people, the poorest of all, in order to pay pensions to the few who retire, who are the richest ones.

From what the Minister of Labour has told us, this situation will be corrected. However, there is no need to make a structural reform in order to do this. In fact it should have been done already and must be done as soon as possible: there are legal faculties in existence for such purposes. In order to improve sustainability and fairness, it is quite possible to limit subsidies on pensions over 10 minimum wages.

Something very important that the Minister of Labour has emphasised is the need to hedge the risk of a slide in the minimum wage, which is certainly of great importance to the Pension and Severance Fund Administrators and Insurance Companies.

There is a long way to go before programmed withdrawals will be possible and the life-annuity market can be revitalised. However, Law 1328 (2009) already contains an article that authorises the government to regulate this, so it could be implemented immediately.

III. Conclusions

What I have been suggesting is that a structural reform and some parametric adjustments are being put forward simultaneously in this reform proposal. Although the latter go some way towards correctly the problems of fairness, they do not solve the problems of coverage or reduce public pension debt to any relevant extent. Furthermore, as I have already argued, the parametric adjustments can be made without the structural reform. So, why is the reform being carried out? Or are there other goals that we have not grasped properly?

I finish by asking the Minister of Labour to allow us sufficient time to go more deeply into this discussion on pension reform, calling on our academic peers and on international experts. As I have argued in previous congresses, the experience of the Marcel Commission in Chile is very useful and we should learn from it, because it is a clear example of allowing oneself the necessary discussion space to produce a pension reform with consensuses among the various stakeholders before it is taken to the Congress of the Republic.

PART IV

VIRTUOUS CIRCLE LINKING THE DEVELOPMENT OF INDIVIDUAL FUNDING WITH ECONOMIC DEVELOPMENT (*)

RODRIGO FUENTES. Pension reform and economic growth: evidence for Chile.
LEONARDO VILLAR. Macroeconomic impacts of the pension system in Colombia.
ALEJANDRO VILLAGÓMEZ. Mexico: the macroeconomic effect of the pension reform.
PABLO SECADA. Macroeconomic effects of the pension system reform in Peru.

(*) The full studies of the four countries analised can be reviewed in the book published by SURA Asset Management "Contribution of the private pension system to the economic development of Latin America; experiences of Colombia, Mexico, Chile and Peru" (Spanish version), October 2013.

PENSION REFORM AND ECONOMIC GROWTH: EVIDENCE FOR CHILE

RODRIGO FUENTES[1]

1 *Rodrigo Fuentes graduated in Business Administration from the University of Chile with a Master's in Finance from that same university. He also has a Ph.D. and Master of Arts in Economics from the University of California, Los Angeles (UCLA), U.S.A. He is currently a lecturer at the Catholic University of Chile. He has been a Senior Economist at the Central Bank of Chile, Director of the Postgraduate Program in Economics and Business and lecturer at the University of Chile. He has also had the opportunity of being a visiting lecturer at the UCLA, the AB Freeman School of Business at the University of Tulane, U.S.A and at the National University of Tucumán, Argentina. He has also published articles in local and international periodicals and has been a consultant for private firms, government offices, the Inter-American Development Bank (IDB) and the World Bank.*

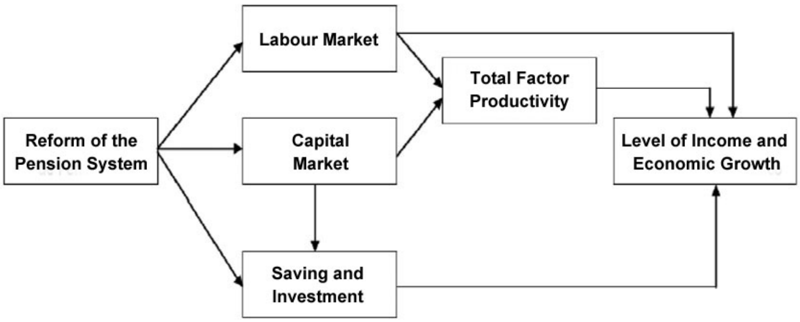
This brief article presents the main results of a global quantitative assessment of the macroeconomic effects of the pension reform carried out in Chile in 1981, estimating the long-term impact of the creation of the mandatory individually-funded system on the growth rate and GDP level. A special explanation is given of the channels through which the macroeconomic effects of the reform are generated and particularly the impact of the individually-funded system on the capital and labour markets and on savings and investment.

The pension reform in Chile is the oldest in the Latin American region and much has been written about it on topics related with coverage, fiscal sustainability and the social effects that it produced. Nevertheless, perhaps the impact about which least is known is the macroeconomic one. In that direction, the paper written by Vittorio Corbo and Klaus Schmidt-Hebbel (2003)[2] is an essential reference work when analysing this subject, since they were the first to analyse the macroeconomic impact of that reform in itself.

The pension reform based on the system of mandatory individual capitalisation acts basically through three channels: the labour market, the capital market and the saving-investment ratio (see Figure Nº 1). The main characteristic of the 1981 pension reform lies in the fact that it replaced the old pay-as-you-go system, managed by the state, with a defined-contribution system managed by private administrators. This change of systems affects public saving, due to the new needs to finance the fiscal transition deficit generated by the payment of pensions left over from the old system. This has a direct effect on national saving and investment. On the other hand, contributors are introduced to a scheme of involuntary savings which are paid into an individual capitalisation account. This, if carried out, affects the decisions of households to save voluntarily. Prior to the reform, this contribution was probably seen simply as a tax on the labour market, whereas today, after the reform, it is perceived as savings.

2 *Corbo, V. and K. Schmidt-Hebbel (2003) "Macroeconomic Effects of Pension Reform in Chile" in "Results and Challenges of Pension Reforms", FIAP.*

FIGURE N° 1
EFFECTS OF THE REFORM TO THE PENSION SYSTEM ON INCOME LEVEL AND ECONOMIC GROWTH



SOURCE: PRODUCED BY THE AUTHOR.

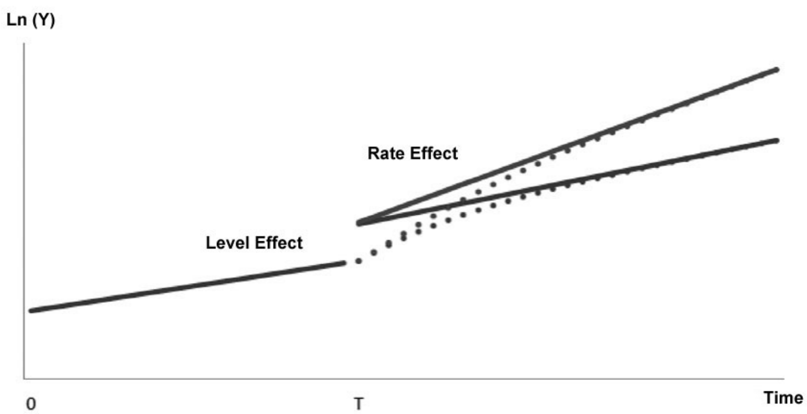
What happens in both the labour market and the capital market has an important effect on Total Factor Productivity (TFP) which is one of the most important sources of growth. Through TFP there is a change in long-term income level and potentially, a change in the rate of economic growth. Likewise, saving and investment plus the labour market also have a direct impact on the level of long-term income.

The analysis of this study is based on what economists call "steady state". In other words, in our thinking, there is long-term balance in the economy, towards which the economy tends and within which it stays. Many of the reforms that are carried out can be considered structural, because they modify the long-term balance. In Chile's case, when the pension reform was carried out, many other important structural reforms had already been implemented that permanently changed the structure of the economy. The three most important reforms of the period were perhaps the opening up of trade and finance, the privatisations and the pension reform. There was a series of other reforms that occurred at this juncture, so it is sometimes difficult to isolate the effect of each one of them separately.

To illustrate the point, in Graph Nº 1 we can see an economy that is moving along a particular growth path. Let us assume that in period T, this economy introduces a series of reforms. This means that its new long-term income will move along a different path (level effect). It is possible that one of these reforms may modify the slope of this path; in other words, modify the growth rate (rate effect). There are various aspects of the pension reform that might possibly have modified the slope of the path of economic growth. It is important to underline the fact that, even without modifying the slope of long-term growth, simply by modifying long-term income there is tremendous gain when reforms that move in the right direction are introduced. In other words, in T (let us say, the year 1981), in Chile's case, a pension reform was introduced and this is going to affect the long-term product, but the economy does not shift immediately from one balance to another. Instead it moves gradually closer to the new path over a period of years, and the change from one steady state to another may take several decades.

GRAPH N° 1

EFFECT OF A REFORM ON INCOME LEVEL AND GROWTH RATE



SOURCE: PRODUCED BY THE AUTHOR.

The 1981 pension reform

As I have already pointed out, the most important aspect of the 1981 pension reform was that it marked a replacement of the old pay-as-you-go system managed by the state by a system of defined, privately-managed contributions. At the point when the reform was introduced, workers who were paying contributions into the old PAYG system at that moment were given the alternative of changing to the new system or remaining in the old one and retiring there. Meanwhile it was stipulated that members who changed to the new system should receive a "recognition bond" on retirement, specifically to recognise those contributions paid into the old PAYG system before 1981. All the workers who entered the workforce after 1981 were incorporated into the new system, with the result that the old PAYG system is dying over time, and will fade out altogether with the death of the last worker who paid into that system.

The main modifications with macroeconomic impact that were caused by the reform are the following:

i. The reform produced increased national saving under the heading of involuntary saving. The fact that there are individually-funded accounts today means that people clearly perceive that they are saving for a future moment in time. Things are no longer as before, when the old system had approximately 32 different pension funds ("cajas") and over 100 different retirement schemes, and people paid contributions without knowing what was happening to the money. Obviously, that money would go to pay the pensions of those who were retiring at that moment, and when the worker reached the end of his/her working life, after paying a considerable amount of money over many years, he/she received a retirement pension that bore little relation to the effort made in paying the contributions. So now, after the reform, there is a much more direct link between saving and the benefit received on retirement.

ii. The reform produced a considerable fiscal pension deficit related with the transition. This was made up of the so-called "operating deficit" and the payment of the "recognition bonds" to old members of the PAYG system who decided to change to the new individually-funded system. The fiscal operating deficit occurs because the government, with this reform, no longer receives the pension contributions that were paid into fiscal coffers prior to 1981, and also because it is necessary to continue paying pensions to all those still enrolled in the old system who decided not to change to the individually-funded system.

iii. The reform produces an increase in the demand for long-term financial instruments. With the reform, the money formerly received by the State and used to pay pensions now passes into private hands and has to be made profitable, so naturally there is an increase in the demand for financial instruments, especially long-term ones, and this produces a deepening of the capital market which is important.

iv. The reform allowed the Pension Fund Administrators (AFPs) to invest in fixed-income instruments and equities in the capital market. For this reason, it is said that the AFP system sparked a series of qualitative changes in this market.

These qualitative effects may potentially be responsible for slightly modifying the long-term growth rate of the economy, however, it must be stressed that measuring these qualitative effects is fairly complex, so this present study does not measure them and it is possible, for that reason, that the total effect of the pension reform is being underestimated.

v. The reform reduced workers' contributions (in the case of those who changed to the new individually-funded system) from 26% to 11% of the wage, approximately, and this had a positive impact on the labour market in terms of a higher level of employment. The reduction in contributions means that companies pay less for hiring labour, so increasing the demand for labour, while workers receive more take-home pay, leading to an increase in the supply of labour. This implies more labour participation and more employment and also gives people a desire to change from the informal to the formal sector of the economy, with gains in productivity and welfare that are quite important.

The 2008 pension reform: a second-generation reform

A very important second-generation pension reform was brought in in the year 2008 and certainly involved various modifications, with a macroeconomic impact that is worth mentioning, even though its effects are not measured.

As we all know, this reform established a program of non-contributory pensions (solidarity pensions) and replaced the State Minimum Pension Guarantee (GEPM) with a Solidarity Pension Contribution (APS) scheme. At the same time, the 2008 reform made pension contributions obligatory for self-employed workers.

The aspects related with the creation of the solidarity pensions program, the replacement of the GEPM and the creation of the APS scheme involved an increase in fiscal expenditure which, because it is permanent, is financed totally by adjustment. Meanwhile, making contributing obligatory for self-employed workers should have a considerable positive impact by increasing involuntary saving and, through that, possibly leading to greater investment.

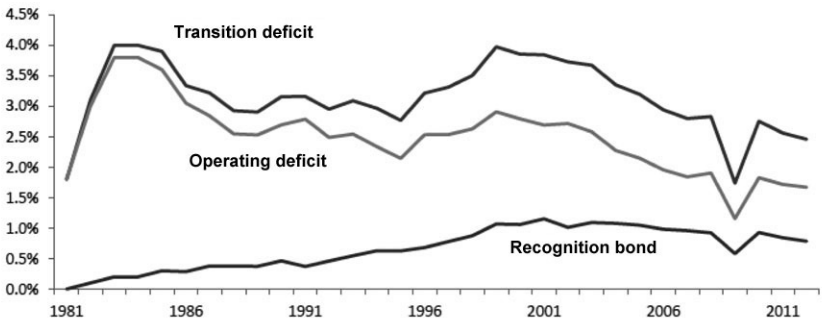
However, taken as a whole, all the aspects of the reform entail modifications to the formality incentives in the labour market, with potentially negative effects on employment and productivity, mainly in the case of workers earning a wage very close to the minimum. Possibly, due to the fact that the reform has opposing effects, the final effect might actually be zero from the macroeconomic point of view, though not from the social or fiscal point of view.

The savings and investment channel

In Graph Nº 2 it is possible to see the transitional fiscal pension deficit associated with the 1981 pension reform. The estimates made showed that this deficit would peak at about the year 2001 (approximately 4.3% of the GDP). As time goes by, the transitional deficit is disappearing due to the gradual reduction in the payment of the retirement pensions of the old PAYG system, while the operating deficit is decreasing at the same time as the reduction in the expenditure on paying recognition bonds, these being the bonds paid to people from the old system who retire under the new scheme. Today the deficit is at levels below 3% of the GDP and should reach 0% at some future date.

GRAPH N° 2

TRANSITIONAL FISCAL PENSION DEFICIT

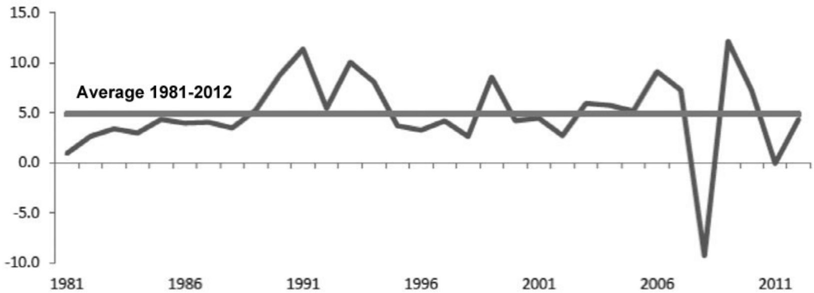


SOURCE: BENNET AND SCHMIDT-HEBBEL (2001) AND QUARTERLY REPORTS ON BUDGET PERFORMANCE PUBLISHED BY THE CHILEAN BUDGETS DEPARTMENT (DIPRES).

What has happened to involuntary saving as from the 1981 reform? The reform led to an average increase of 4.88% in the rate of involuntary saving. As can be seen in Graph Nº 3, the rate of involuntary saving has seen some fluctuations, mainly associated with the yield of the pension funds.

GRAPH N° 3

INVOLUNTARY SAVING (% OF CURRENT GDP)



SOURCE: AUTHOR'S CONSTRUCTION BASED ON BENNET AND SCHMIDT-HEBBEL 2001, DATA FROM THE CHILEAN BUDGETS DEPARTMENT AND CHILE'S SUPERINTENDENCE OF PENSIONS.

The exercise that should be done is:

1. To decide how private voluntary saving reacts to the change in the transitory fiscal deficit. According to an OECD study (2004), for each point of increase in the fiscal deficit there is a reduction of 0.51 points in private voluntary saving.

2. To determine the response of private voluntary saving to the change in involuntary saving. Bennet et al (2001) estimate a response coefficient of -0.36.

3. To determine the response of domestic investment to a change in national saving. Estimating a Feldstein and Horioka-type model, a specific value of 0.439 is obtained for the change in investment corresponding to an increase of one percentage point in national saving. Feldstein and Horioka's idea is that when an economy is totally integrated with the international financial system, the increase in saving should not produce an increase in investment. However, it has been found that increases in saving do produce increases in investment, because integration with the international capital market is not perfect.

In Table Nº 1 it is possible to see the estimated effects on national saving and investment of three different scenarios, depending on the various possibilities for funding the fiscal deficit. As may be seen, if the 1981 reform had been funded 100% with fiscal adjustment, in other words, not by producing a deficit but by reducing other areas of public expenditure, the increase in the public deficit as a result of the transitional pension deficit would be 0% of the GDP. As there is no change in the public deficit, the increase in private voluntary saving is nil. However, if we assume that 75% of the reform was funded by fiscal adjustment (and therefore 25% is transformed into deficit), this will generate a response of greater saving (0.41% of GDP).

Adding up all the effects, the impact on national saving should be 3.11% of the GDP (assuming fiscal adjustment of 100%) and, using the Feldstein and Horioka ratio, this should result in an increase in the investment rate of 1.37% of GDP. If one bears in mind that saving in Chile in the year 1981 was 16% of GDP, the increase in saving as a result of the reform is by no means negligible, since it represents approximately a fifth of what was saved in that time.

TABLE N° 1

EFFECT OF THE 1981 PENSION REFORM ON NATIONAL SAVING AND DOMESTIC INVESTMENT IN THE PERIOD 1981-2012, % OF THE GDP

	Fiscal Adjustment 100%	Fiscal Adjustment 75%	Fiscal Adjustment 50%
Increase in Public Deficit due to Transitional Pension Deficit	**0.00**	**-0.80**	**-1.59**
Increase in Mandatory Saving in Households	**4.86**	**4.86**	**4.86**
Increase in Private Voluntary Saving			
i. Response to Public Deficit	**0.00**	**0.41**	**0.81**
ii. Response to Involuntary Saving	**-1.75**	**-1.75**	**-1.75**
Increase in National Saving	**3.11**	**2.72**	**2.33**
Increase in Domestic Investment	**1.37**	**1.19**	**1.02**

SOURCE: PRODUCED BY THE AUTHOR.

The capital market channel

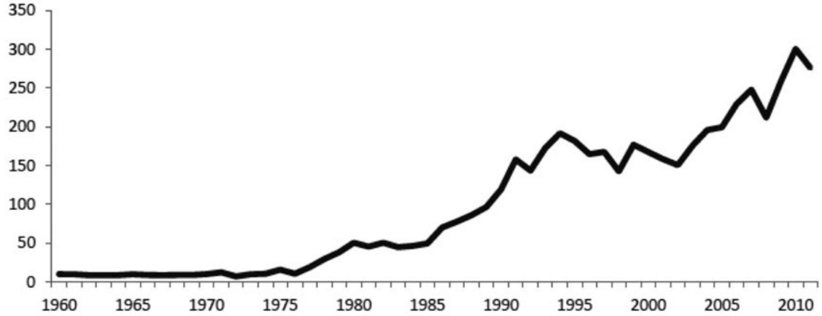
The development of suitable instruments, markets and institutions makes it possible to reduce trading and information costs, which affects saving and investment decisions, technological innovation and steady-state growth rates. This is the channel through which the capital market affects economic growth and it has been thoroughly researched in the literature. There are many studies in different countries where it is shown that this effect is positive and a considerable part of it occurs through total factor productivity.

In addition to the direct effect of the AFP system on the development of the capital market, (resulting from the increased demand for long-term financial instruments), the private pension funds have generated qualitative changes in the functioning of the capital market which have to do with corporate governance, financial innovation, efficiency and specialisation, and the improvement of financial regulation and transparency, among other things.

In order to capture the financial development or depth of the country, the Financial Intermediation Ratio (FIR) is used, which measures the sum of the main financial assets of the economy expressed as a proportion of GDP: bank deposits, mortgage liabilities, internal public debt, corporate bonds, Central Bank bonds and stock exchange capitalisation. In Graph Nº 4 it is possible to see the estimate of the series for this variable from 1960 to 2010, at constant prices.

GRAPH N° 4

FINANCIAL INTERMEDIATION RATIO (CONSTANT PRICES, % OF GDP) 1960-2010



SOURCE: PRODUCED BY THE AUTHOR.

We estimate the following econometric model for the FIR, for the period 1981-2009:

$$\underset{}{FIR_t} = \underset{(-1.36)}{-0.09} + \underset{(9.48)}{3.66 * AF_t} + \underset{(1.70)}{0.24 * IRE_t} - \underset{(-1.35)}{0.048 * Dinf20_t} - \underset{(-2.38)}{1.046 * AF_{t-1}} + \underset{(23.14)}{0.920 * FIR_{t-1}} + \varepsilon_t$$

*** Statistic t in brackets**

Where AF corresponds to Involuntary Saving, IRE to a Structural Reforms Index and Dinf20 to a dummy variable that takes the value 1 for years with inflation of under 20%.

A long-term coefficient of 32.6 is estimated for involuntary saving over FIR, which means that a constant increase of 0.5 percentage points in involuntary saving (the average for 1981-2012 is 5.0%) increases the FIR by 16.3 percentage points.

The labour market channel

As regards the labour market channel, there are basically two important issues to be brought out. First, the fact that in 1981 there was a steep decrease in mandatory contributions produces a positive effect on employment, which Corbo and Schmidt-Hebel (2003) estimate at between 1.3% and 3.7% in increased employment. Second, there is the effect of reducing a tax in the formal sector: this produces an incentive for workers to transfer from the informal to the formal sector, which increases productivity of work (if one assumes that the formal sector is more productive than the informal). Corbo and Schmidt-Hebbel (2003) estimate a range of gain in GDP of between 0.11 % and 0.32% as a result of the gain in productivity of work.

Overall effect of the pension reform on TFP

In Table Nº 2 it is possible to see the effect of the different variables on TFP, where two models are estimated with different adjustments in the series of capital and work to estimate the TFP. In Table N 3 the effect of long-term involuntary saving on the TFP is shown. Between 1981 and 2011, involuntary saving increased by 4.88% of the current GDP on average, so, taking into consideration the estimated regression coefficients for the TFP (with and without adjustment), the long-term effect on the TFP is between 11.75% and 13.13%. This increase in the TFP is due to effects on the labour market and on the capital market, the latter being far greater.

TABLE N° 2

REGRESSION MODEL FOR THE TFP

Dependent Variable: Ln TFP	(1)	(2)
1961-2011	TFP without adjustment	Adjusted TFP
Constant	0.386** (2.21)	0.330 (1.30)
Involuntary saving at t-1	0.387** (3.10)	0.355* (1.92)
Structural Reforms Index	0.079* (1.68)	0.051 (1.17)
Ln Exchange Terms	0.056* (1.68)	0.067** (2.22)
Inflation	-0.013** (-3.29)	-0.005 (-1.23)
Ln TFP in t-1	0.856** (16.53)	0.853** (11.41)
Long-term effect of involuntary saving or FIR over Ln TFP	2.692** (2.10)	2.41 (1.25)

NOTE: SIGNIFICANCE AT 5% (**) AND 10% (*). STATISTICS T IN BRACKETS.
(1) SERIES OF TFP OBTAINED USING WORK AND CAPITAL SERIES WITHOUT ADJUSTMENT.
(2) SERIES OF TFP OBTAINED USING WORK SERIES CORRECTED BY HOURS WORKED AND BY QUALITY, AND CAPITAL SERIES ADJUSTED BY ENERGY CONSUMPTION.
SOURCE: PRODUCED BY THE AUTHOR.

TABLE N° 3

LONG-TERM EFFECT OF INVOLUNTARY SAVING ON TFP

Regression model	**TFP without adjustment (1)**	**Adjusted TFP (2)**
Average involuntary saving 1981-2011 (% current GDP)	**4.88%**	**4.88%**
Estimated long-term coefficient	**2.692**	**2.410**
Long-term effect	**13.13%**	**11.75%**

(1) TFP SERIES OBTAINED USED WORK AND CAPITAL SERIES WITHOUT ADJUSTMENT.
(2) TFP SERIES OBTAINED USING WORK SERIES CORRECTED FOR HOURS WORKED AND QUALITY, AND CAPITAL SERIES ADJUSTED BY ENERGY CONSUMPTION.
SOURCE: PRODUCED BY THE AUTHOR.

Conclusions on the effect of the reform on GDP per worker in the long term

In the long term, the transition deficit tends towards zero, so the 100% fiscal adjustment scenario is used (0% via debt) to analyse the long-term effect of the saving-investment channel.

Two scenarios are defined to estimate the long-term effects of the capital market and TFP and the labour market channels.

- **Scenario 1**: Uses a TFP series obtained without adjusting the capital and work series. For the labour market, the lower limit of the range of effect is used.

- **Scenario 2**: Uses a TFP series obtained by using a work series corrected for hours worked and quality and a capital series adjusted for energy consumption. For the labour market, the upper limit of the range of effect is used.

Table Nº 4 presents a summary of all the effects. The investment rate of the year 1981 was around 16% of the GDP. The 1981 pension reform involved an increase in the investment rate of 1.37% in steady state, which produces a change in the product per worker (y* in the table) of 5.71% (in both scenario 1 and scenario 2).

If the effects of the increase in employment on the product per worker and on the financial market and long-term work productivity are added to the above, the total steady-state effect on the product per capita as a result of the pension reform is 13.94% for scenario 1 and 12.06% for scenario 2.

TABLE N° 4

EFFECT OF THE REFORM ON THE GDP PER WORKER IN THE LONG TERM

Saving-Investment (1)	**Scenario 1**	**Scenario 2**
Investment rate in 1980	16.00%	16.00%
Increase in investment rate due to pension reform	1.37%	1.37%
Exchange rate	8.56%	8.56%
Effect on y*	5.71%	5.71%
Labour Market (2)	**Scenario 1**	**Scenario 2**
Variation in employment due to pension reform	1.30%	3.70%
Effect on y*	-0.52%	-1.48%
Financial Market and Productivity (3)	**Scenario 1**	**Scenario 2**
Variation in productivity due to pension reform	13.13%	11.75%
Effect on y*	8.75%	7.83%
Total Effect (1+2+3)	**Scenario 1**	**Scenario 2**
Level of steady-state effect	13.94%	12.06%

SOURCE: PREPARED BY THE AUTHOR.

MACROECONOMIC IMPACTS OF THE PENSION SYSTEM IN COLOMBIA

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Motivation

Law Nº 100 in 1993 modified the Colombian pension scheme, creating the pension funds based on individual capitalization. Unlike Chile, the scheme implemented was a mixed one, in which the Average Premium Scheme (RPM) remained alongside the so-called Individual Saving with Solidarity Scheme (RAIS). In Colombia the fiscal impact of the 1993 pension reform has been dealt with systematically, but not its macroeconomic effects. In this article we show the results of a study which basically replicates for Colombia the exercise carried out by Vittorio Corbo and Klaus Schmidt-Hebbel to measure the macroeconomic effects of the 1981 Chilean pension reform[2] .

Channels whereby the pension reform was transformed into economic growth

The exercise carried out attempts to see how the annual growth rate of the Colombian economy changes as a result of the reform in the pension scheme.

The starting point is a basic equation that explains what economic growth depends on. The growth rate of GDP depends on the growth rate of total factor productivity, on the growth rate of the stock of capital and the growth rate of the quantity of work that exists in the economy:

$$\hat{Y} = \hat{A} + 0,42\,\hat{K} + 0,58\,\hat{L} \quad (1)$$

Where: $\hat{Y}$ = growth rate of GDP; $\hat{A}$ = growth rate of total factor productivity; $\hat{K}$ = growth rate of stock of capital; and $\hat{L}$ = growth rate of quantity of work.

2 *Corbo, V. and K. Schmidt-Hebbel (2003), "Macroeconomic Effects of the Pension Reform in Chile" in "Results and Challenges of Pension Reforms", FIAP, 2003.*

As can be seen, in (1) there are some weighting factors that measure the share of income from capital and from work in the economy, estimated for the case of Colombia[3]. The key to understanding how the pension reform affects economic growth is to see its impact on the labour market, on the accumulation of capital (through the saving-investment mechanism), and on total factor productivity (through financial deepening).

The effect of the pension reform on the labour market

In the case of the labour market, Colombia has a particular situation, totally different from that of Chile, and for that reason we are not including this channel in our calculations.

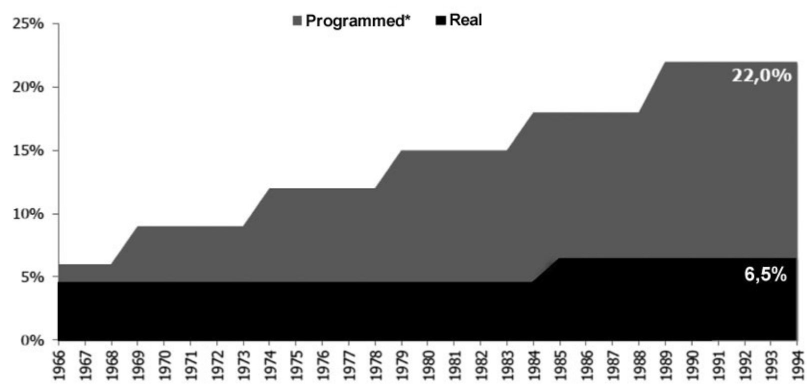
The reason is that, in Chile, the 1981 pension reform made it possible to lower the rate of contribution to the pension scheme. In the Colombian case, what happened was exactly the opposite: the contribution rate was raised, but not because an individually-funded scheme was introduced, but simply because we were tremendously behind with the contribution adjustments needed to make the pension system sustainable.

This can be seen in Graph Nº 1, which shows how the contribution rate really developed - compared with what had been programmed - from 1966, when the Institute of Social Insurance had been set up, until 1994, when the pension reform came into force. What had been planned was a gradual rise in the rate of pension contributions from 6% in the 1960s to 22% in the 1990s, due to the increase in life-expectancies. However, this did not happen and the pension scheme remained with a very low contribution rate: only 6.5% at the time of the reform, which was totally insufficient to give the system sustainability. At the point when the reform was introduced, the implicit actuarial debt associated with the pension scheme was over 200% of GDP, which made it necessary to implement a dramatic increase in the contribution rates of the pension scheme, from 6.5% to over 13%. Subsequently, in the year 2003 (Law 787), it was necessary to increase it further to 16%.

3 *The estimation of these weighting factors is taken from the publication by the Banco de la República Group of Studies on Economic Growth (GRECO), entitled "Colombian economic growth in the 20th century", Banco de la República, GRECO (2002).*

GRAPH N° 1

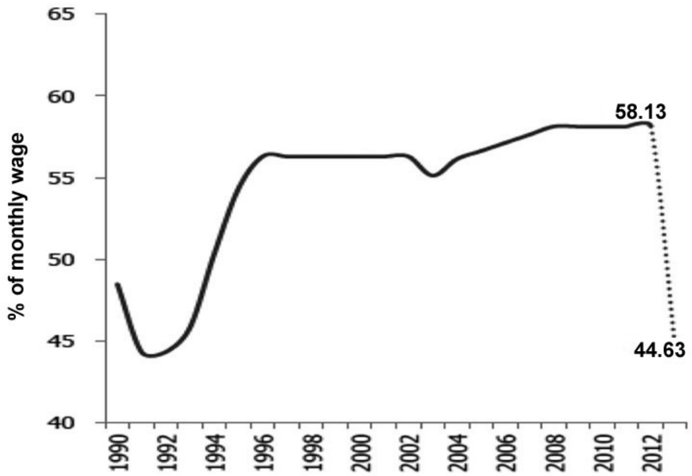
COLOMBIA: REAL RATE OF CONTRIBUTION TO THE PENSION SYSTEM VERSUS PROGRAMMED RATE



*REFERS TO THE CONTRIBUTION STIPULATED IN DECREE 3041 (1966)
SOURCE: AYALA (1992) AND RODRÍGUEZ (1992).

The above meant an enormous increase in non-wage costs which affected the functioning of the labour market to a very considerable, and very negative, extent (see Graph Nº 2). That increase in costs occurred, not only because of the higher pension contributions, but also because health contributions were raised at the same time as the pension reform. All this has meant that Colombia is described as having extra costs on the payroll of formal employees that are atypically high in the international context. Currently those costs represent 58% of the basic wage of a formal worker, though it must be noted that this percentage will be reduced by 13.5 percentage points for a very large group of workers as from May 2013 as a result of changes written into the tax reform that was approved by the Congress at the end of 2012. Specifically, that tax reform included considerable reductions in health contributions and certain para-fiscal contributions for the Colombian Institute of Family Welfare (ICBF) and for technical training through the National Apprenticeship Service (SENA), all of which allowed extra payroll costs to be greatly reduced. This is basically going to take us back to the levels we had before the 1993 pension reform (see Graph Nº 2).

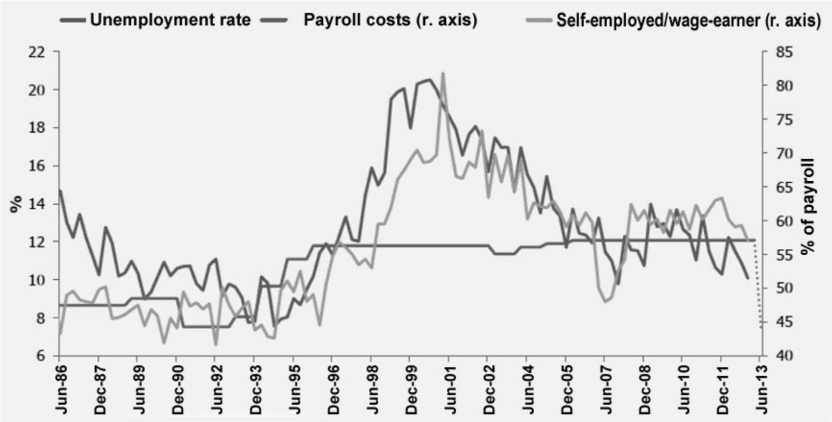
GRAPH N° 2
TOTAL NON-WAGE COSTS (*)



(*) NON-WAGE COSTS INCLUDE CONTRIBUTIONS FOR HEALTH, PENSIONS, NATIONAL APPRENTICESHIP SERVICE (SENA), THE COLOMBIAN INSTITUTE OF FAMILY WELFARE (ICBF), THE WORKMEN'S COMPENSATION FUNDS, SEVERANCE, HOLIDAY ALLOWANCE AND LEGAL BONUS. THE REDUCTION IN 2013 IS FOR INCOMES UP TO 10 VALID MONTHLY LEGAL MINIMUM WAGES (SMLV).
SOURCE: FEDESARROLLO CALCULATIONS.

Why is this important? Basically, because having such a steep increase in contributions in the year 1993 meant, unfortunately, higher rates of unemployment and informality in the Colombian economy. In fact, Graph Nº 3 shows that the unemployment rate rose very steeply after the increases in extra labour costs. Even in a period of economic boom, such as we have had in the past 10 years, with annual growth figures at over 4.5% of the GDP per year (a growth greater than the one that we had experienced in the 1990s), it is only with the utmost difficulty that we have managed to get the unemployment rate down to levels close to 10%, thus making it the highest in Latin America.

GRAPH N° 3



SOURCE: FEDESARROLLO CALCULATIONS.

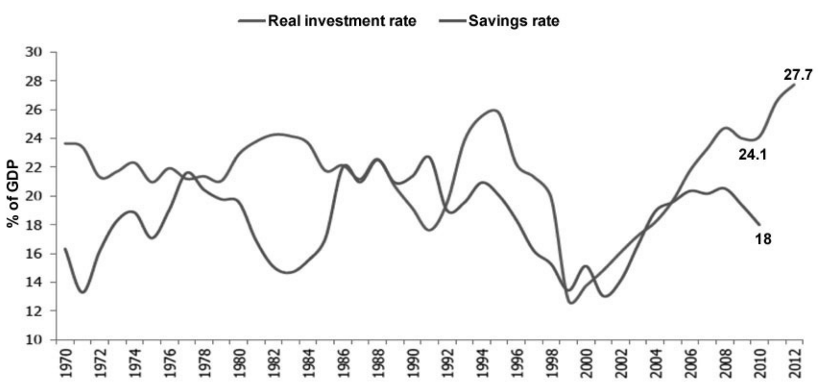
However, the deterioration in the labour market, of which there is no doubt, cannot be blamed on the introduction of the individually-funded scheme in the pension system. It should rather be put down to the fact that it was necessary to raise the contribution rates as a result of an accumulated deficit which had not previously been recognized and began to be recognized in the year 1993. Even so, empirically, it is very difficult to identify a positive effect of the reform on the labour market of the type found in Chile, and for that reason we decided simply not to quantify it in our study. The negative effect on the labour market definitely exists, but it arises from factors other than having introduced the individually-funded system, and for that reason it would not be logical to include it in our calculations. We therefore concentrated on the other two effects that appear in equation (1), shown at the beginning.

Effect of the pension reform on saving and investment

Graph Nº 4 shows what has happened to the investment rate in Colombia in the past 40 years and makes it possible to see very volatile behaviour patterns with a steep fall in the second half of the 1990s and a very strong recovery later. This, of course, cannot be attributed to the pension reform: there are many other factors that affected the performance of this macroeconomic variable simultaneously, some of the most outstanding being the exchange-rate and financial crisis that hit the Colombian economy in 1999, and the on-going process of inflation reduction that has taken place over the last two decades.

The behaviour of savings runs in parallel. The rate of saving in Colombia remains at very low levels[4] . How, then, has it been possible to produce such a steep increase in investment? In part, because we hold external savings (in other words, we keep a significant deficit in the current account of something over 3% of GDP), and also because the investment rate is constructed with GDP figures at constant prices from the year 2005, while the savings coefficient is estimated with GDP data at current prices. This means that, included implicitly in the difference observed between the two series - the investment rate and the saving rate -, is the effect of improvement in the terms of exchange, due to the boom in international prices that Colombia has been dealing with since 2005, a phenomenon that has made it possible to finance the real increase in investment to a considerable extent, without the need to increase saving.

GRAPH N° 4



NOTE: THE INVESTMENT RATE IS CALCULATED WITH CONSTANT FIGURES IN PESOS FROM 2005 AND THE SAVINGS RATE WITH FIGURES IN CURRENT PESOS.
SOURCE: NATIONAL ADMINISTRATIVE DEPARTMENT OF STATISTICS (DANE) AND AUTHOR'S CALCULATIONS.

4 *Unfortunately the savings rate shown on Graph Nº° 4 is constructed with current GDP figures only up to 2010. There are no more recent updates of the figures at current prices.*

The pension reform's impact on saving and investment is not easy to identify in a context such as the one described, in which both variables have had multiple changes for reasons unconnected with that reform. The method that we used to approximate that impact follows the one used in the study by Corbo and Schmidt-Hebbel (2003) quoted above.

Specifically, the pension reform's effect on total savings is analysed in five dimensions:

(i) **Impact on public savings (transition deficit)**. The pension reform has a negative effect on public savings and, if all else remains constant, it increases the fiscal deficit: first, because the government loses revenue when the contributions pass from the public to the private sector and second, because the government has to increase its expenditure as it starts to recognise pension bonds on the debts corresponding to workers who switch to the new scheme and whose previous contributions have not been accumulated as savings.

(ii) **Compensatory fiscal adjustment.** The aforementioned negative effect on savings is an increase of the public deficit that could be offset if the government funds it by adjusting expenditure on other fronts or by increasing taxes. In that case, the reform would have a positive effect on public savings.

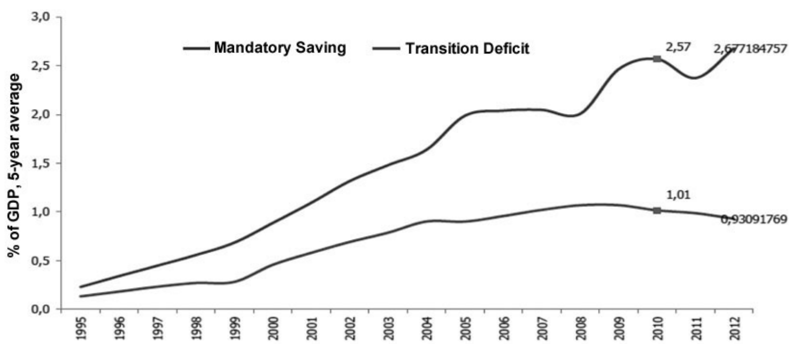
(iii) **Response of the private sector to the greater government deficit (Ricardian Neutrality)**. The reform might possibly have an impact on private savings if what economists call "Ricardian Neutrality" were to occur, which means that when the government has a larger deficit, the private sector saves more to compensate for the expectation that they will be required to pay the taxes needed to cover that deficit sometime in the future. As will be seen further on, that effect does not occur in Colombia, so we did not include it.

(iv) **Impact of the reform on mandatory household saving**. The most important positive effect of the introduction of an individually-funded scheme is that it increases workers' mandatory private savings, by definition. With the reform, the workers are obliged to start saving not only the flow of contributions that they pay each year, but also the interest that these earn, which is gradually built up in the pension funds.

(v) **Compensatory response of voluntary household saving in the light of the increase in mandatory saving**. Finally, one might think that there could be a negative compensatory effect on individual voluntary saving. People who find themselves obliged by the pension scheme to save for their old age might decide to lower their voluntary saving to compensate.

What does the behaviour of these variables look like? Estimates for the two most important variables can be seen in Graph Nº 5. The so-called "transition deficit" for the Colombian economy is much smaller than that found in the case of the Chilean economy, due to the fact that in Colombia the reform made was not complete but only partial, insofar as the individual-funded and PAYG schemes were kept running simultaneously. The estimate shows that the average transition deficit of the past five years, ending in 2010 (the 2006-2010 window is taken because it is the only period for which there is complete information) is around 1.01% of GDP, a percentage very similar to what exists today. In that same time-window, mandatory savings amounted to 2.53% of the GDP. The compensatory effects of the remaining variables, using calculations that take some assumptions similar to those made by Corbo and Schmidt-Hebbel as their basis, are summarised in Graph Nº 6. As can be appreciated, the negative effect of the transition deficit on savings seems to have been offset partially by part of the public sector itself, by an adjustment of 0.63% of the GDP. Meanwhile, the increase in mandatory saving is offset in part by less voluntary saving in the private sector itself, amounting to 0.61% of GDP. To summarise, in our base scenario, the introduction of the individually-funded scheme in Colombia, keeping all the rest constant, seems to have produced an increase of about 1.53 percentage points of the GDP in the coefficient of saving.

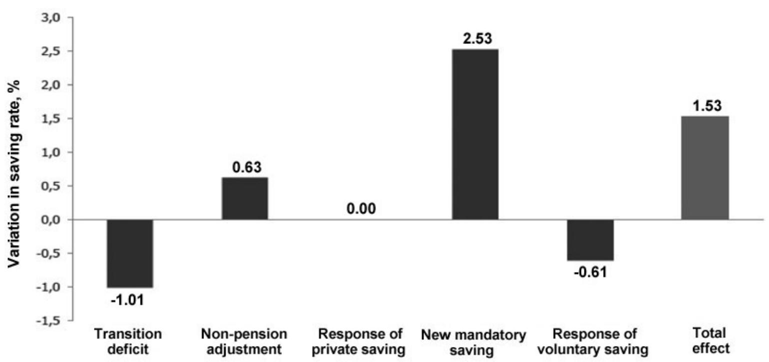
GRAPH N° 5



SOURCE: DANE AND AUTHOR'S CALCULATIONS.

GRAPH N° 6

EFFECT OF THE PENSION REFORM ON TOTAL SAVING (BASE SCENARIO)



NOTE. THESE CALCULATIONS CORRESPOND TO THE MEAN SCENARIO AND ASSUME A COMPENSATORY FISCAL ADJUSTMENT OF 62.5%. IN THE HIGH SAVING SCENARIO, THAT ADJUSTMENT WOULD BE 100% AND IN THE LOW ONE, 25%.
SOURCE: FEDESARROLLO CALCULATIONS.

Table Nº 1 presents two scenarios that are alternatives to our base scenario, in which changes are made in the assumptions concerning the degree of compensatory fiscal adjustment (high and low scenarios). Those alternatives lead us to conclude that the increase in saving, in scenarios with lesser or greater compensatory fiscal adjustment, could have been 0.81 or 2.12 percentage points of the GDP, respectively.

What effect did the reform have on investment? From one point of view it might be argued that resources are generated when savings increase that enable investment to increase by exactly the same amount. From another extreme point of view, it can also be said that in an open economy, internal saving has no effect on investment, because the country can have recourse to external savings by generating greater deficits in the balance of payments current account. An intermediate estimate between these two points of view takes up the impact that internal saving has had historically on the current account deficit, using the Feldstein-Horioka method. For the Colombian case, that estimate leads us to say that when savings increase by 100 pesos, investment may increase by 81 pesos. Using this estimated figure and the increases in savings induced by the pension reform in the alternative scenarios described above, we obtain the increases in the investment rate as a consequence of the pension reform that appear in Table Nº 1. These range from 0.78 percentage points of the GDP in the low scenario to 1.73 points in the high scenario.

TABLE N° 1

Scenario	Increase in savings	Elasticity of investment to savings	Increase in investment	Elasticity of GDP to investment	Acceleration of the GDP
High	2.12	0.81	1.73	0.17*	0.30
Base	1.53		1.25		0.22
Low	0.81		0.78		0.13

*WITH AN INCREMENTAL CAPITAL-OUTPUT RATIO (ICOR) OF 5.8.
SOURCE: FEDESARROLLO CALCULATIONS.

We estimate the impact of the increased investment rate on the growth rate of the GDP with an elasticity of 0.17. This, put in other terms, is equivalent to an estimate of about 5.8 for the so-called Incremental Capital-Output Ratio (ICOR), a level that is relatively standard in the literature on this type of subject. This tells us that, through the savings and investment mechanism, the pension reform produced an increase in the annual growth rate of the GDP that fluctuates between 0.13 and 0.30 percentage points.

Effects of the reform on increasing financial depth

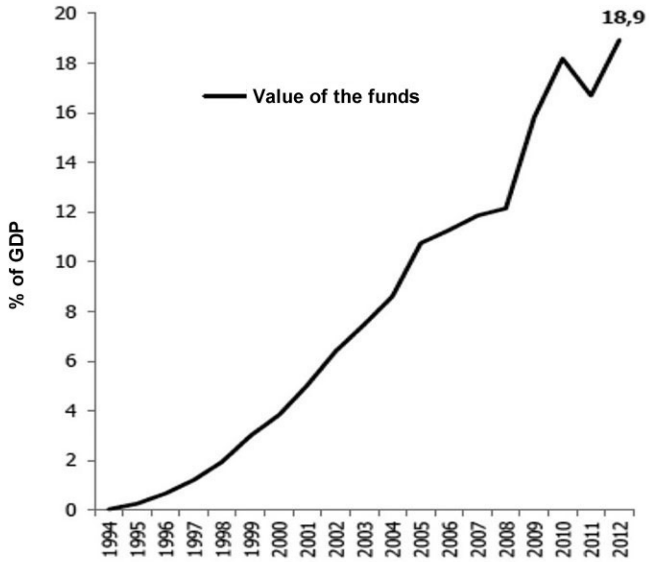
In order to estimate the impact of the pension reform on growth there is a channel that is totally different from the one involving the flow of savings and the accumulation of capital. This is the effect of total factor productivity (the first term in equation (1) described above), which is achieved by increasing financial depth.

As can be seen in Graph Nº 7, the value of the pension funds has been increasing very strongly and now represents almost 19% of the Colombian GDP. It could be said therefore that the individual capitalization funds have produced a financial deepening of around 19 percentage points of the GDP. However, there are arguments to say that the effect was greater than that, because the reform produced other side-effects (see Graph Nº 8). For example, there is the effect of influencing better regulation, or greater development of the capital market, which means that not only the funds, but also other institutional investors begin to develop. This can be measured approximately, following Corbo and Schmidt-Hebbel, by using the amplified financial deepening indicator (PFA), which is calculated as the sum of the deepening through the banking system (M3[5]), plus stock exchange capitalisation, plus the capital market itself through bonds (which in the Colombian case refers

5 *M3 corresponds to the widest definition of banking money.*

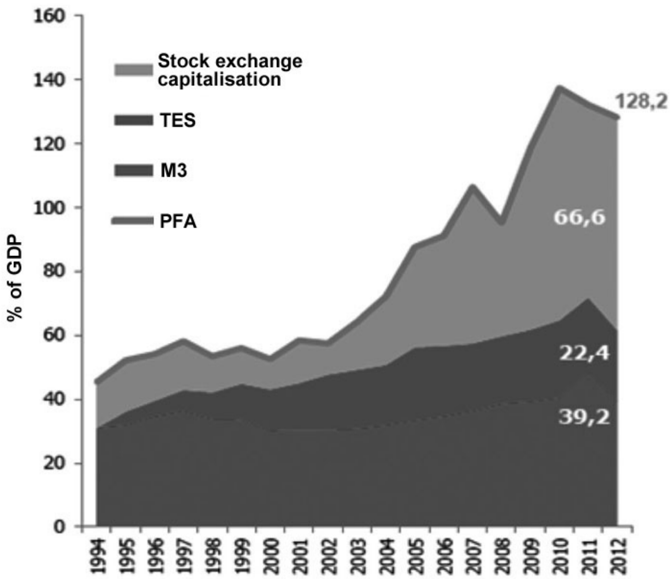
mainly to bonds of the public sector, TES). That indicator in Colombia has risen from levels of slightly over 40% of the GDP in 1994 to levels that are now close to 128% of the GDP.

GRAPH N° 7



SOURCE: BANCO DE LA REPÚBLICA DE COLOMBIA AND THE COLOMBIAN STOCK EXCHANGE (BVC).

GRAPH N° 8



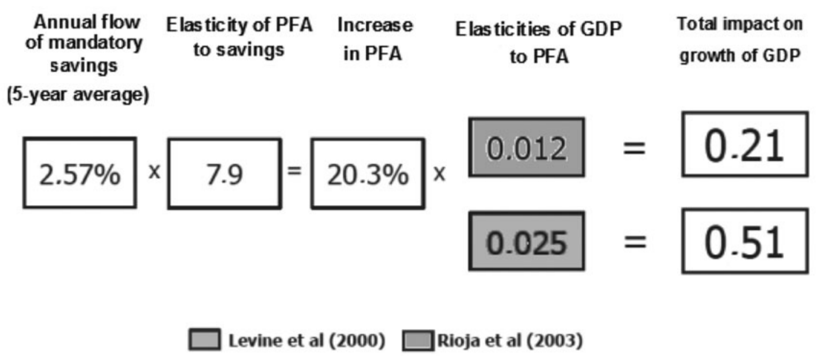
SOURCE: BANCO DE LA REPÚBLICA DE COLOMBIA AND THE COLOMBIAN STOCK EXCHANGE (BVC).

In order to see the impact produced by the pension reform on the growth of the GDP through greater financial deepening, a basic statistical exercise was carried out, which is represented in Figure Nº 1.

What we find is that flows of mandatory saving, which represent 2.57% of the annual GDP (on average) during the period 2006-2010, generate an increase in the PFA of almost 20.3 percentage points of the GDP. In other terms, a quarter of the total increase in the PFA between 1994 and 2012 (about 80 percentage points of the GDP) could be attributed to the 1993 pension reform.

Taking the increase in the PFA as fact, the next question to be answered is how this affects the growth of the GDP. Using two international estimations of the elasticity of the GDP to PFA, one by Levine et al (2000) and the other by Rioja et al (2003) the exercise indicates that through this channel there is annual growth in GDP that fluctuates between 0.21 and 0.51 percentage points.

FIGURE N° 1
EFFECT OF CAPITAL MARKET DEVELOPMENT INFLUENCED BY THE PENSION REFORM



SOURCE: FEDESARROLLO CALCULATIONS.

Overall effect of the pension reform on accelerating the GDP

Table Nº 2 summarises the final impact of the pension reform on the growth rate of the GDP on the basis of three scenarios (low, base, and high). As may be seen, there is an increase in national savings and an increase in investment. In addition there is an impact on productivity through the capital market and we assume that there is no impact on the labour market. Summarising the effect, the pension reform would seem to have generated an increase in the annual growth rate of the GDP (averaged for the period 2006-2010) that fluctuates between 0.34 and 0.81 percentage points. This is a significant effect, in line with the results obtained by Corbo and Schmidt-Hebbel for the Chilean case, though for purposes of comparison it is vital to underline a difference: those authors estimate an effect averaged over the life of the Chilean pension scheme, whereas we estimate in this study by comparing the present or very recent situation with the situation prior to the reform. This procedure is justified for the Colombian case because the transition period has been very much slower than in the Chilean case (due to the fact that the two types of scheme, public and private, exist side by side).

TABLE N° 2

FINAL IMPACT OF THE PENSION REFORM ON THE ACCELERATION OF THE GDP

	Low	Base	High
National Savings	0.96	1.53	2.12
Investment	0.78	1.25	1.73
Labour Market	0.00	0.00	0.00
Development of Capital Market	20.3	20.3	20.3
Gross Domestic Product	0.34		0.81
Savings-Investment	0.13	0.22	0.30
Increased financial depth	0.21		0.51
Labour market	0.00		0.00

SOURCE: FEDESARROLLO CALCULATIONS.

Evaluation of the effects of the new pension reform suggested by the government and final comments

The national government has recently put forward a new pension reform for Colombia in which all contributions on income up one minimum wage would be passed to the RPM and the values contributed over and above the equivalent of one minimum wage would be transferred to the individually-funded system. According to our estimates, this would mean, in the flow of contributions, that almost COP 4.1 billion (about 0.6% of the GDP) would no longer be paid into the RAIS in the short term and would pass to the RPM.

From a mechanical point of view, applying the exercise shown above, it might be said that this measure, due to its potentially negative effect on savings and increased financial depth, would have the result of reducing the annual growth of the GDP in Colombia between 0.06 and 0.20 percentage points (or, what is the same thing, between 6 and 20 basic points).

However, the real impact of this reform will depend on the dynamism acquired by the RAIS in the future and not on the specific short-term impact. So it is very difficult to estimate that effect, especially as the details are not known. Does this mean that the suggested reform is bad because it reduces the estimated economic growth by way of the channels included in this paper? Not necessarily. It is important to look at the issue in context. The purpose of the reform is not to affect growth: that is a positive side-effect. What is certain is that one must take into account the fact that a reform such as the one suggested, from what one knows of it, would have certain negative effects on growth that would have to be offset by positive effects on other, equally important fronts, such as improvements in fairness or coverage, or in making the pension system socially acceptable in a country where barely 10% of the working population has the prospect of retiring with a pension. There are many arguments that might justify a reform. The important point to be borne in mind is that the reform as suggested has a cost in terms of growth, and it must be analysed in depth if it is going to produce the benefits that are being sought.

One of the potential benefits of the suggested reform is improving fairness. It is not evident that, when the reform is processed, the benefit will actually occur. Another potential benefit is that of achieving greater coverage for the pension system, but once again the mechanism by which the reform would increase coverage is not clear. There are very interesting elements suggested by the government, such as the Periodic Economic Benefits (BEPS) system, that could help to generate income for elderly adults. However, those instruments already exist in Colombian legislation and it is not necessary to implement the suggested structural reform in order to bring them into operation.

The proposed reform could also produce some fiscal improvements in the short term, by transferring resources from the private sector to the public sector, but the fiscal effect in the long term is ambiguous. Everything will depend on the details of the proposal, but so far only the general outlines are known.

Finally, the proposed reform might also have other side-effects. For example, it might facilitate the operation of the life-annuity market, which has not worked in Colombia for a multiplicity of reasons. Will the costs of life annuities come down as a result of eliminating the dependence on the minimum wage? Other important aspects have to do with whether or not the reform will reduce the costs associated with the current minimum-pension guarantee, and whether or not it will facilitate the growth of contributions on incomes higher than a minimum wage.

To close, I want simply to repeat that the exercise carried out suggests that the individual savings scheme has produced a considerable gain in economic growth and that transferring resources from that scheme to a PAYG scheme would have a negative effect in terms of the growth-determining factors that we have looked at in this paper: saving and investment on the one hand, and the factor productivity associated with the development of the financial market on the other. That negative effect is a cost that should be weighed against any possible benefits that might be produced by the recent reform put forward by the government.

MEXICO: THE MACROECONOMIC EFFECT OF THE PENSION REFORM

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Objectives

Using a format very similar to the one presented by Rodrigo Fuentes and Leonardo Villar, this short article provides an evaluation of the macroeconomic impact signified by the 1997 pension reform in Mexico.

In the case of that country, this is the first study to attempt a comprehensive analysis of the impact of the pension reform, which is relatively young compared with that of other countries. Structural reforms of this type have medium and long-term effects, with important impacts on various areas of an economy (labour market, national savings, investment, the financial system, productivity and economic growth). As a result, it is very difficult to see its effects when it has only been in operation for just a few years. However, since the reform was implemented 15 years ago, it is important to assess its achievements, its problems and the effects it has produced on economic growth.

Outstanding features of the reformed program

Without emphasising all the features of the pension reform in depth, it is important to note the most relevant elements that it introduced.

First, the 1997 reform made a complete substitution of the public pay-as-you-go system and moved into a capitalisation system with individual accounts and private management.

In the second place, the pension reform was carried out in the context of a deep financial and economic crisis. The reform was debated in 1995 and involved rescuing the Mexican financial system. This was much more complex in terms of political economics, because there was a negative opinion of private financial intermediaries and, as a result, the discussion on this scheme was complicated. However, the reform was approved and began operations on 1st July 1997.

The third element worth highlighting is that in the Mexican scheme, the change was obligatory for all workers, and the possibility was left open for those who were already contributing in the old system to opt for the benefits of the previous law when they reached retirement, unlike the Chilean recognition bond. This is important, because it affects the public deficit and the funding of the deficit in the transition stage, which has an important effect in the study in terms of the reform's impact on savings.

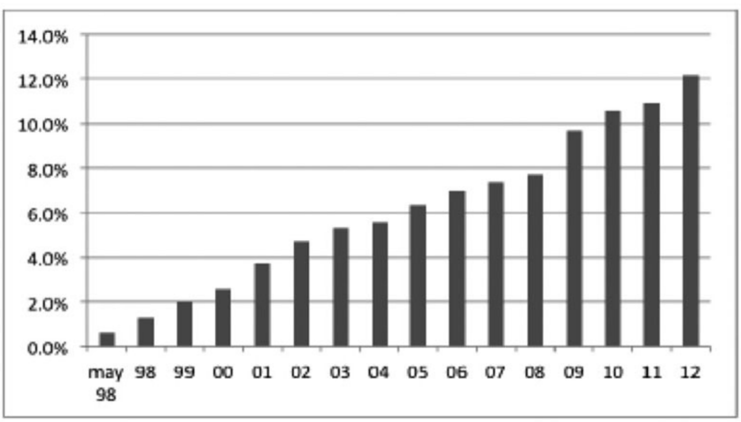
A final characteristic that must be emphasised is that the reform did not modify the worker's contribution rate. That is important because for that reason the reform did not have an effect on the initial labour market, as would have been expected in the debate, and as occurred, for example, in the Chilean case.

Main advances

The accumulation of resources managed by the Savings for Retirement Fund Administrators (AFORES) has been important, already exceeding 12% of the GDP at present (see Graph Nº 1).

GRAPH N° 1

ACCUMULATED RESOURCES (% OF GDP)
MANAGED BY AFORES

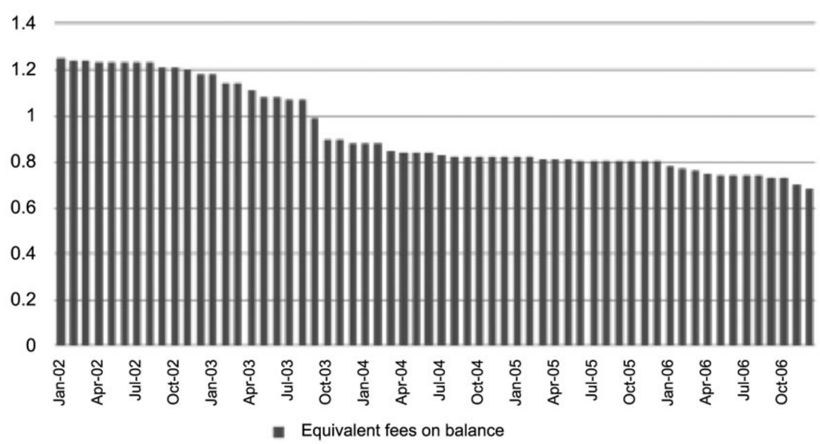


SOURCE: NATIONAL COMMISSION OF THE SAVINGS FOR RETIREMENT SYSTEM (CONSAR), MEXICO.

The fees charged by the AFORES have been falling considerably (see Graph Nº 2 and Table Nº 1) and there has been a growing diversification of the investment structure for the resources. This latter topic is worth underlining because the investment scheme of the pension funds in Mexico began in a very limited way, due to the atmosphere of financial crisis. However, as time has gone by, the investment scheme has diversified, which is significant for the effect on the capital market.

GRAPH N° 2

CHANGES IN EQUIVALENT FEES ON BALANCE



SOURCE: PRODUCED BY THE AUTHOR.

TABLE N° 1
CURRENT FEES (DECEMBER 2012)

Afore	Annual fee on balance
Afirme Bajío	1.50%
Azteca	1.52%
Banamex	1.28%
Bancomer	1.28%
Coppel	1.59%
Inbursa	1.17%
Invercap	1.59%
Metlife	1.54%
PensionISSSTE	0.99%
Principal	1.48%
Profuturo GNP	1.39%
SURA	1.31%
XXI Banorte	1.33%
Average	**1.38%**

SOURCE: NATIONAL COMMISSION OF THE SAVINGS FOR RETIREMENT SYSTEM (CONSAR), MEXICO.

Macroeconomic environment

In Mexico, a certain macroeconomic stability has undoubtedly been reached. However, the economic growth of the past few decades, from 1995 to the present, has been poor. Obviously, the financial crisis of 2009 has been largely responsible for the average annual growth of 1.6% of GDP for the period 2007-2012 (see Table Nº 2). In Mexico the recession was deep, mainly because of the country's close link with the United States. The Mexican GDP in 2009 fell about 6% in real terms, and this did not happen in the remaining countries of Latin America. However, even allowing for that factor, the growth of Mexico has been much lower than is needed, which is serious. This must be borne in mind, because it is in this context that the interaction of the pension reform is to be seen.

TABLE N° 2

Macroeconomic indicator	1995-2000	2001-2006	2007-2012
GDP	3.5	2.3	1.6
Inflation	22.5	4.4	4.4
Public Income	21.9	22.2	22.9
Public Expenditure	22.6	22.7	24.4
Public deficit	0.7	0.5	1.5
Internal Debt	3.9	9.7	16.0
External Debt	27.2	23.1	19.0
Exchange Rate	8.3	10.5	12.3

SOURCE: PRODUCED BY THE AUTHOR.
NOTE: INFLATION IN PERCENTAGES; EXCHANGE RATE IN MEXICAN PESOS PER US DOLLAR; THE OTHER VARIABLES AS PROPORTION OF THE GDP.

Macroeconomic impact of the reforms: results

National savings and investment

In Table Nº 3 it is possible to see the various channels and effects by which the pension reform affects national savings, based on three fiscal adjustment scenarios. First, there is a negative impact on savings due to the increase in the public deficit that is produced (to finance the transition), which in Mexico's case does not involve "Recognition Bonds". Second, there is the positive effect linked with the generation of new mandatory contractual savings, deriving from the new pension system. And third, there is the response of individuals who save voluntarily, in view of both the public deficit and the mandatory contractual savings. Considering all the effects, estimates show that in an intermediate scenario, and assuming a compensatory fiscal adjustment of 62.5% during the first fifteen years of its existence, the pension reform has generated an average annual increase in savings amounting to 0.99 percentage points of the GDP.

TABLE N° 3
MEXICO: EFFECT OF THE PENSION REFORM ON NATIONAL SAVINGS

		Fiscal Adjustment		
		100.00%	62.50%	25.00%
i) Increase in public deficit (fiscal cost of the reform)		0,00	-0,37	-0.74
ii) Contractual household saving		**1.70**	**1.70**	**1.70**
iii) Increase in private saving in:				
	Maximum	0.00	0.33	0.66
I. Response to public deficit	*Intermediate*	0.00	0.18	0.37
	Minimum	0.00	0.00	0.00
	Maximum	0.00	0.00	0.00
II. Response to contractual saving	*Intermediate*	-0.53	-0.53	-0.53
	Minimum	-1.00	-1.00	-1.00
	Maximum	**1.70**	**1.66**	**1.63**
Change in national savings	*Intermediate*	**1.17**	**0.99**	**0.81**
	Minimum	**0.70**	**0.33**	**-0.04**

SOURCE: PRODUCED BY THE AUTHOR.

Following the chain of effects, the change in savings leads to a change in investment according to the logic of the Feldstein-Horioka model (see Table N° 4). The exercise shows that in the intermediate scenario, with fiscal adjustment of 62.5%, the pension reform generates an average annual increment in domestic investment of 0.72 percentage points of the GDP.

TABLE N° 4

MEXICO: EFFECT OF THE PENSION REFORM ON DOMESTIC INVESTMENT

		Fiscal Adjustment		
		100.00%	**62.50%**	**25.00%**
	Maximum	1.70	1.66	1.63
Change in national savings	*Intermediate*	1.17	0.99	0.81
	Minimum	0.70	0.33	-0.04
	Maximum	1.24	1.21	1.19
Change in domestic investment	*Intermediate*	0.86	0.72	0.59
	Minimum	0.51	0.24	0.03

SOURCE: PRODUCED BY THE AUTHOR.

Capital Market

Financial saving has not grown substantially in Mexico in the past 12 years. The work done by the Mexican financial system apart from that linked with the pension system has been limited, in part as a response to the financial crisis of 1995. Between 2001 and 2012 the increase in financial saving measured traditionally has been 22.2 percentage points, and of that increase, 17.9 points correspond to the accumulation of resources in the pension system. Basically, in quantitative terms, the accumulation of financial savings in Mexico has been the result of the accumulation of resources in the individual accounts of retirement savings.

In the model used in this study, in order to quantify the effect of the reform on the capital market, the Financial Intermediation Ratio (FIR) is used, just as in the literature. This corresponds to the sum of the main financial assets of the economy expressed as a proportion of the GDP[2] . The result of the estimates is shown in Table Nº 5. In brief, it is found that the effect of the involuntary savings that have been building up in the pension system has contributed to explain between 16.9 and 25.7 percentage points of the total increase in financial deepening in Mexico in the past fifteen years, which is an important effect.

2 *Includes variables such as bank deposits, mortgage liabilities, internal public debt, corporate bonds, Central Bank bonds and market capitalisation in the Stock Exchange.*

TABLE N° 5

MEXICO: IMPACT OF INVOLUNTARY SAVING ON FINANCIAL DEPTH

Dependent variable	Estimated coefficient	Average (accumulated involuntary savings/measurement of financial depth	Percentage change in accumulated involuntary savings	Contribution of involuntary savings to financial depth (%)
FIR I	0.81	0.13	0.81	16.9
FIR I	0.98	0.13	0.81	20.2
FIR II	1.76	0.12	0.81	23.8
FIR II	1.89	0.12	0.81	25.7

SOURCE: PRODUCED BY THE AUTHOR.

Labour market: formality and productivity

Table Nº 6 shows the results of the estimates of the impact of the pension reform on formal employment. The final result on formal employment is poor: in terms of formality, the range of impact goes from -0.5% to 0.8%. This, in terms of mean work productivity is actually much lower (between -0.005% and 0.006% of the GDP).

Which variables lie behind this result? In the first place, Mexico has a large informal component: according to the latest information, the informal economy is over 60%[3]. This informality implies lower productivity and also, since it is concentrated in small micro-businesses which have low productivity, what we are going to see is that there is no impact on productivity as a result of the pension reform. Secondly, Mexico has a dual system of social security, in which a contributory pension system coexists alongside a non-contributory transfer system. This latter system has grown considerably over time and is producing an incentive for workers to move into informality.

Given the fact that there was no modification of the contribution as a result of the pension reform (it was not lowered), there is no positive change for the labour market in that direction. What is true is that the worker's contribution was a tax pure and simple in the PAYG system and with the reform there was an improvement in the perception of it as savings.

3 *Source: National Institute of Geographical Statistics and Information Technology (INEGI).*

TABLE N° 6

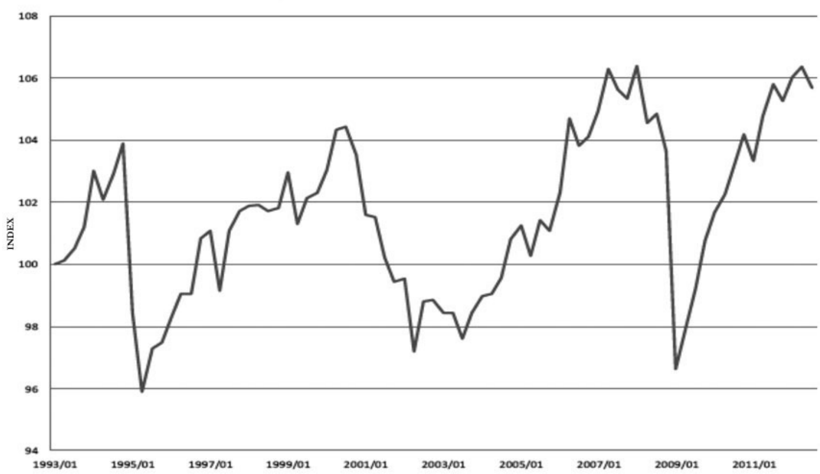
Variable	$\beta_{F=0.30}$	$\beta_{F=0.47}$	$\beta_{F=0.70}$
Total wage-earning employment	-2.4	-1.3	3.2
• Formal	-6.7	-5.1	14
• Informal	-0.9	0	-0.5
Self-employed (informal)	6.2	3	-8
Informal wage-earners + self-employed	1.1	0.8	-2.5
Wage-earners + self employed	-0.5	-0.4	0.8
Gross wage	1.5	0.9	-2
Valued wage	2.7	2.9	7.3
Net wage	1.2	0.6	-2.3

SOURCE: PRODUCED BY THE AUTHOR.
NOTE: β_F REPRESENTS MEMBERS' VALUATIONS OF THE SERVICES OFFERED BY THE CONTRIBUTORY PROGRAM.

In Graph Nº 3 it is possible to see the development of Total Factor Productivity (TFP). As can be seen, productivity in Mexico has not grown significantly. One of the reasons for this is the problem of informality in the labour market and the minimal economic growth of the past 15 years. It is estimated that the growth of the TFP attributable to the pension reform fluctuates between 0.12% and 0.15% on average during the past 15 years.

GRAPH N° 3

TOTAL FACTOR PRODUCTIVITY



SOURCE: PRODUCED BY THE AUTHOR.

The overall effect of the pension reform on economic growth

The total impact of the pension reform on the growth of the Mexican economy is shown in Table Nº 7.

The average annual growth of the GDP in Mexico, in real terms, during the period included between the first quarter of 1998 and the third quarter of 2012 (15 years) has been 2.4%. To what extent has the pension reform contributed to that growth? Considering the composition of all the effects analysed, the most important impacts come from the savings-investment channel and the development of the capital market and TFP. In this way, it can be concluded that the pension reform has helped to explain between 0.13 and 0.48 percentage points of the total growth of GDP that has occurred in the past 15 years. This means that the contribution of the pension system to growth is in the range from 5.4% to 20% of the average annual growth. In other words, in the most favourable scenario (case 3), a fifth of the growth of the Mexican economy is explained by the existence and development of the individually-funded pension system, which is a large figure.

TABLE N° 7

MEXICO: THE OVERALL IMPACT OF THE PENSION REFORM ON ECONOMIC GROWTH

	Case 1	Case 2	Case 3
Average real growth of GDP 1998 Q1 – 2012 Q3	2.40	2.40	2.40
Effects of the reform on the growth of the GDP			
1. Savings-investment	0.05	0.16	0.27
2. Labour markets:			
• Change in employment	-0.02	-0.02	0.03
• Change in labour productivity	-0.02	-0.01	0.03
3. Financial development and TFP	0.12	0.13	0.15
Total	**0.13**	**0.27**	**0.48**

SOURCE: PRODUCED BY THE AUTHOR.

Conclusions and implications for policy

The reform of the Mexican pension system was necessary and has had a positive effect on the growth of the economy which is by no means trivial and could have been magnified if greater structural reforms had gone forward.

It must be borne in mind that this study has referred only to the macroeconomic effects of the pension reform. However, there are more positive elements linked with the pension reform which have to do, for example, with its impact on improving the quality of the financial system or its effects on the worker's welfare.

It is worth remarking that although the implementation of structural reforms in Mexico has not been continued so far, it can be proved that the pension reform has had a very important macro effect, accounting for between 5.4% and 20% of the average annual growth. Within that overall effect, the impact has been greatest in terms of savings-investment and financial development, which affects the TFP.

Nevertheless, however important a structural reform may be, its effects on growth will be limited if other reforms are not carried out to eliminate important distortions. The economy is linked, there are many synergies and elements that help and complement one another. That was what did not happen in Mexico: the process got stuck and that meant, unfortunately, that the benefits in terms of the pension reform could not be fully exploited.

To name just a few challenges in terms of structural reforms that should be implemented: the first must be a labour reform, a complete reform of Social Security and also a fiscal reform. The aim is to reduce or eliminate the distortions that give rise to informality, while allowing a reduction in companies' marginal contributory rate.

Obviously, a key task is that of increasing the formality of the economy, generating greater coverage and more pension savings, so increasing the possibilities of greater effects on financial depth and, in this way, achieving a virtuous circle looking towards greater productivity and growth.

MACROECONOMIC EFFECTS OF THE PENSION SYSTEM REFORM IN PERU

PABLO SECADA[1]

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This short article aims to summarise the effects that the introduction of the Private Pension System (SPP) of Peru has had on the economy from 1993 to the present, based on a methodology similar to the one presented in the papers read by Rodrigo Fuentes (Chile), Leonardo Villar (Colombia) and Alejandro Villagómez (Mexico).

Initial considerations

The results of this present study must be put in the context of certain aspects that are important to mention.

First of all, the Peruvian economy is the fifth most informal in the world. Only the economies of Bolivia, Panama, Venezuela and Zimbabwe are more informal than the Peruvian. So whatever one would like to think concerning the effect of the pension reform on the labour market, intuitively it is going to be less than in other countries, (such as Chile, for example).

In the second place, there was State Capitalism in the 1970s in Peru. Afterwards, between 1985 and 1990, there was a macroeconomic experiment that resulted in prices increasing 21 thousand times. And in the 1990s, a very ambitious reform changed this panorama. This means that, in Peru's case, the use of long-term series (as in the pioneering study by Corbo and Schmidt-Hebbel[2]) leads to error. There is a series of structural changes in the Peruvian economy that can in fact underestimate the effects of the pension reform, because they overestimate what happened at the beginning.

Thirdly, it seems important to mention that the method used by Leonardo Villar is what should be used for Peru's case, i.e. comparing the last 5 years of the system with the 5 years at the beginning of the series. This makes it possible to give a better idea of the reform's benefits.

2 *Corbo, V. and K. Schmidt-Hebbel (2003). "Macroeconomic effects of the Pension Reform in Chile" in "Results and Challenges of Pension Reforms", FIAP.*

Fourthly, the Peruvian capital market today bears no relation at all to what existed a few years ago. At the beginning, the entire Lima stock exchange was worth some USD 250 million dollars and trading was essentially in shares. Afterwards the Brady Bonds reform came in and trading in debt began. Now there are private capital funds, real-estate funds and infrastructure funds. There are international funds that are operating actively in Peru for transactions of USD 15 million upwards. There are also the so-called "Family Offices"[3] that invest abroad, Peruvians who invest locally and also Chileans and Colombians, for example, who invest in Peru. The development of the capital market is due to a large extent to the existence of the Private Pension Fund Administrators (AFPs). The supervisor has learned to regulate these bodies and that has encouraged the capital market to grow. Quantifying these qualitative effects is no trivial matter.

Effects on saving

Table Nº 1 gives a summary of the effects of the pension reform on savings in the Peruvian economy, comparing the results with those found by Corbo and Schmidt-Hebbel (2003). Clearly there are differences in size when comparing the Peruvian case with the Chilean. Essentially, the findings show that in a base scenario, the Peruvian pension reform has generated an average annual increase in savings amounting to 0.3 percentage points of the GDP (annual average for the period 1994-2010), which is equivalent to saying that the reform accounts for 4.5% of the increase in savings following the reform.

3 *Organisations responsible for managing the investments and funds of families with large net worth.*

TABLE N° 1

PERU: EFFECT OF THE PENSION REFORM ON SAVINGS (% OF GDP)

	Chile Corbo y Schmidt-Hebbel (2003)	Perú IPE (2013)
Transition deficit	-3.4	-1.19
Fiscal saving	+3.4; +2.13; +0.85	+0.3; +0.74; +1.19
1. Government deficit	0; -1.27; -2.55	-0.89; -0.44; 0
Ratio private saving/fiscal deficit	[-0.36; -0.47; -0.57]	[-0.52]
2. Response of private saving to public deficit	0; +0.60; +1.20	+0.46; +0.23; 0
3. New mandatory pension savings	+4.6	+1.48
Ratio private voluntary/mandatory savings	[0; -0.36; -0.5]	[-0.7; -0.65; -0.6]
4. Household response to saving obligation	0; -1.66; -2.3	-1.04; -0.89; -0.74
Impact on savings	**+0.67; +2.27; +4.6**	**+0.02; +0.30; +0.59**
Increase in saving post-reform	19.0 (1982-2001)	6.7 (1994-2010)
% of increase explained by the reform	3.5; 11.9; 24.2	0.2; 4.5; 8.8

SOURCE: PERUVIAN INSTITUTE OF ECONOMICS (IPE), PERU.

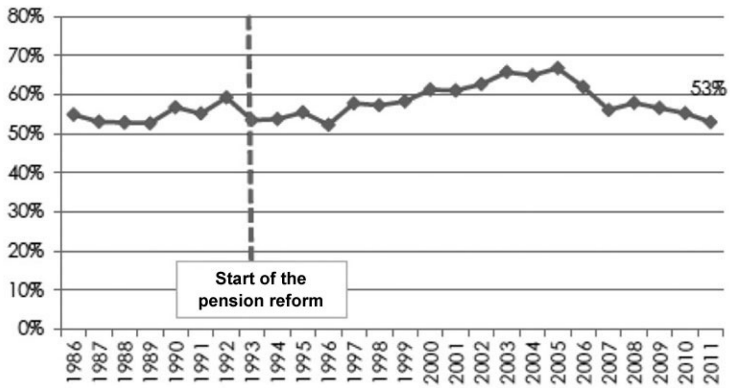
Effects on employment

It is important to remember that Corbo and Schmidt-Hebbel (2003) said that there was a pure tax on work in the formal sector in the Chilean case, and that the pension reform therefore reduced the tax (reduction of "extra costs") and so increased formal, and total, employment.

In the Peruvian case, however, three considerations have to be taken into account. First, in Peru the contribution rate did not fall from 26% to 11% of wage, as in Chile, but only from 9% to 8%. Second, informality in Peru rose from 1997 onwards (see Graph Nº 1). And third, the pay-as-you-go system was not eliminated in Peru as it was in Chile.

GRAPH N° 1

LEVEL OF INFORMALITY IN LIMA, PERU (%)



SOURCE: NATIONAL INSTITUTE OF STATISTICS AND INFORMATION TECHNOLOGY (INEI), PERU.

The results of the estimate show that employment increased between 0.31% and 0.54% per year[4] as a result of the Peruvian pension reform. Meanwhile, Corbo and Schmidt-Hebbel estimated that that same effect fluctuated between 1.3% and 3.7% of extra employment for the Chilean economy.

Effect on financial depth and total factor productivity

Intuitively, the effect of the reform on financial depth in Peru should be relatively great. The estimates show that this is in fact the case. A measurement was made of the Financial Intermediation Ratio (FIR), which was explained by elements such as financial liberalisation, structural reforms, privatised assets, returns on shares, the interest rate, the exchange rate, inflation and mandatory saving. From the

4 *Two simulations were made for making the estimate: (i) Simulation 1: it is assumed that the tax rate prior to the reform is the contributions rate (9%), and the post-reform rate is a weighted average by members between the tax of the Pension Standards Office (8%) and the tax of the AFPs (0%); Simulation 2 is similar to Simulation 1, but instead of making the contribution rate to the public system equal to the tax, it is adjusted by cost of opportunity.*

analysis carried out, it was concluded that the mandatory savings generated by the reform explain the FIR to a significant extent, since it was found that the mandatory savings/FIR ratio is more important for Peru than for Chile (the parameter in Chile was around 9 and in Peru it is 30).

In the model, the Total Factor Productivity (TFP) is accounted for by the FIR and other variables such as structural reforms, exchange terms, expenditure on public companies and inflation. Using the parameters calculated and the net effect on savings (0.3% of GDP), it appears that the reform accounted for 7.5% of the increase in productivity that occurred between 1993 and 2010. The conclusion, therefore, is that the FIR explains the TFP to a significant extent.

Total effect of the pension reform

In Table Nº 2 there is a summary of the total effect of the pension reform on the growth of the GDP. In order to determine the total effect of the reform on economic growth, what one does is compare the real average annual growth of the GDP in the period 1993-2010 (which was 5.2682%) with the growth that would have happened is there had been no increase in savings, employment and productivity. In other words, what one does is to break down the extent to which each factor contributed to the growth of the GDP.

TABLE N° 2

PERU: AGGREGATE EFFECT OF THE PENSION REFORM (1993-2010)

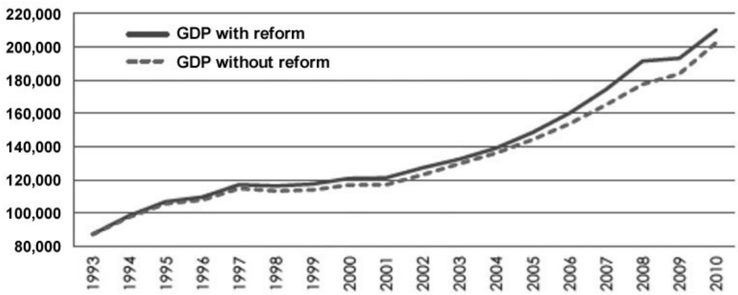
Growth	Average (%)	Effect of the reform (percentage points)
Current	5.2682	
Counterfactual: without net increase in savings (93-10)	5.2507	0.0174
Counterfactual: without increase in employment (93-96)	5.2639	0.0043
Counterfactual: without increase in productivity (93-10)	5.0731	0.1951
Counterfactual: without the three effects (93-10)	5.0514	0.2167

SOURCE: PERUVIAN INSTITUTE OF ECONOMICS (IPE), PERU.

As may be seen, the aggregate impact of the reform for the period 1993-2010 is 0.2167 percentage points[5] of growth, and one of the most important factors that it contributes to growth is the increase in productivity (explaining 90% of the total contributions). In other words, without the pension reform, the GDP in 2010 would have been 3.64% lower than its real value (it would have been USD 5,594 million lower than the real value). In Graph N° 2 it is possible to see the development of the real GDP with and without the reform.

GRAPH N° 2

GDP WITH AND WITHOUT THE PENSION REFORM
(IN THOUSANDS OF SOLES AT CONSTANT VALUE, 1994)



SOURCE: PERUVIAN INSTITUTE OF ECONOMICS (IPE), PERU.

Before socialising this result with regard to the contribution of the pension reform to economic growth, it would be important to compare it with the adjustment resulting from comparing the last 5 years with the 5 year prior to the reform. That would make it possible to have a kind of "counterfactual" with a more mature reform.

5 *This estimate is made in the context of growth studies that state that all structural reforms (trade openness, privatization, labour flexibility, administrative simplification, openness to foreign investment, etc.) contribute between 1.3 and 1.8 percentage points to the GDP.*

Final comments

In order to make a better contribution to the debate on the pension reform in Peru, it seems important to put forward a few ideas.

As we know, there is a mixed pension scheme in Peru, where the worker can choose to be in the public system or in the private pension system. It would be very useful to produce a calculator so that a person can decide which system suits him/her best. The calculator made by the authorities was not a lot of use: a well-made one must be produced.

It would be very opportune to encourage the production of micro-funded research papers, particularly to study the decision to be informal or not on the basis of the pension reform. Norman Loayza, a Peruvian economist who works at the World Bank, made a study of informality which compares the costs and benefits of being formal with the costs and benefits of being informal. When people talk about the subject of informality, they generally mention only the costs of formality, and that is a mistake. If the State provides public goods and services of the quality that it gives, with the coverage it grants, with everything so badly targeted, formalisation is always going to be precarious. Therefore, if we want to think in terms of a thorough pension reform, it will be necessary to include this aspect, which has not been mentioned, in the discussion.

In Peru, allowing the two pension systems to coexist is a serious mistake, because the institutions that exist are very unstable. There is massive income being generated and a very weak political class. In that context, the best course of action for the SPP is to make reforms from within the system to make it more competitive, to reduce its income. In the context of the recent reform, that alternative was suggested to the Ministry of Economy by the AFP Association (it cost about 8 points of the GDP) but was finally ruled out.

On the question of investments, the AFPs have world-class teams that want to be able to invest and so reduce the country risk. However, they cannot do so because of the regulations, so one big pending challenge is that of making the investment policy of the pension funds more liberal.

PART V

LIFE ANNUITIES AS SPONSORS OF ECONOMIC DEVELOPMENT

LIFE ANNUITIES AS SPONSORS OF ECONOMIC DEVELOPMENT

JORGE CLAUDE[1]

1 *Jorge Claude graduated in Civil Engineering with Specialization in Structures from the University of Chile; and has a Master's in Economics and Corporate Management from the Institute of Higher Business Studies (IESE) Barcelona, Spain. Among other positions held, he has been Vice-Principal and Dean of the Faculty of Economics and Lecturer in Finance at the University of the North, Chile; Finance Manager of Banmédica S.A.; Finance Manager of Banrenta Life Insurance Company; Academic Director of the Centre of Programs for Executives at the Centre of Higher Corporate Studies (ESE) at the University of the Andes, Chile. He is currently a lecturer at the business school of that university. He has also worked as a full member of the Risk Rating Commission (CCR) of the Pension Fund Administrators in Chile (representing the AFPs) and as a director on the board of several companies. As Managing Director of the Insurers' Association of Chile A.G. he has taken on international positions, becoming General Secretary of the Inter-American Federation of Insurance Companies (FIDES) for two periods. In September 2012 he was appointed Executive Vice-President of the Insurers' Association of Chile A.G.*

I. The challenge of providing Life Annuity insurance

The pillars of Life Annuity insurance

First of all, it is important to spell out what we mean by a Life Annuity (LA) so that we understand it properly. If we look at the international literature, we will find that the LA in the developed world involves both the accumulation and pay-out stages, and also includes health protection. That is not the case in Chile. In Chile, as we all know, the bulk of the accumulation is in the pension system, as a matter of fact. However, the Life Insurance Companies (LICs) are responsible for paying pensions and also for accumulation in the case of Voluntary Pension Savings (VPS) (APV in Spanish).

As regards health protection, though this is not included today, I believe it to be a topic that is going to be debated increasingly in the future. It has been pointed out many times that Chile's demographic structure has changed a lot. The social structure has also changed, and that means that someone is going to have to look after elderly people when they can no longer do so for themselves. For this reason, I think it possible that the introduction of some type of reform will be necessary, so that the LA can also have a protection component in case of loss of ability to manage alone, to the extent that the person requires it.

Payment of pensions in the private AFP system constitutes the bulk of the LICs' activity. It is important to make clear that, in Chile's case at least, LAs are part of the Chilean social security system and are therefore regulated with all the characteristics required.

What are the challenges that will have to be met by the LA market?

In the first place, as we know, life expectancies for the retired have increased. In Chile, for example, women can expect to live for 30 years after retirement and men, for over 20 years, and that means financing pensions for many more years. This of course constitutes a challenge for the LICs that have to administer and manage their investments in such a way that they can really meet those commitments.

In the second place, there has also been a fall in interest rates. The pensions to be paid are at 30 years, but investment instruments do not have lives that long, so at some point a payment is received that has to be reinvested. The problem is that the re-investment rate (or re-enlistment rate) is not what it was 5 or 10 years ago, but very much lower.

And in the third place, the insurance world, both in Chile and in the whole of Latin America and the world, is moving towards a scheme of risk-based assets, which is a new supervision scheme that requires the LICs to have a level of net worth based on the characteristics of the risk and on the risk management of each insurer. This should no doubt have a calming effect on the market in general, and in practice it means that the LICs are going to have additional net worth requirements. Obviously this is a challenge which is going to result in there being more backing to ensure that pension payments will really be met.

Attractions of the LA insurance

What are the advantages of a LA? First, in general terms, the whole pension system puts great emphasis on personal responsibility. One of the great features of the system lies in the fact the each worker is given the responsibility of building up the pension that he/she wants. This of course has implications in the accumulation period and also in the decision that is taken on retirement.

Secondly, the LA is an instrument that provides cover for longevity risk and financial risk. Basically, a person who is already of an age to retire has two major uncertainties. One of them is that he/she does not know how long he/she will live, which is an element that causes uncertainty, and on the other hand the person does not know how the economy and financial market will behave in the coming years either. So these are two powerful uncertainties, and they have some influence on the decision that has to be taken. The LICs take on these two risks themselves, both the longevity and the financial risk. The person also has the option of remaining in Programmed Withdrawal (PW) and in that case he/she keeps those risks, with full awareness of course. PW is a perfectly valid option. The important thing is that each person must take the decision that is best suited to his/her needs.

The third attraction of the LA is that it sets the State free, as far as it decides to be. The LAs, as they operate in Chile, work on the basis that the person is at least capable of funding a pension higher than the minimum demanded by the State [the so-called Basic Solidarity Pension (BSP) after the latest reform in the year 2008]. If the person does not reach that pension amount, he/she is simply ineligible for a LA and what he/she has to do is run down his/her own funds, after which the State will come in in a subsidiary capacity to fund a BSP, if the person survives beyond what his/her funds will allow him/her to finance.

However, there is always a political risk in this issue. You all know that the BSPs, like the minimum wage, are subject to political vicissitudes. In Chile's case at least, this does not affect the LICs in the slightest, since they simply continue paying the same amount as they promised, and the difference is paid by the State. Naturally, this is true of people who are already retired: if a person, due to a rise in the BSP for example, ends up with a pension below this latter, in that case the difference is paid by the State. Meanwhile, for new pensioners, the requirements are the new ones. In other words, in order to retire with a LA, people will have to be able to finance at least the new BSP defined in the regulations.

II. Life Annuities: the Chilean case

a) Situation and development of the market

Table Nº 1 makes a brief comparison between the old pay-as-you-go scheme and the present pension system in Chile. From there it emerges clearly that the LICs' main participation is in the Disability and Survivorship Insurance (DSI), the System of Consultations and Pension Offers (SCOMP) and the LA Insurance.

In the year 2012 there were 60 Insurance Companies in Chile, of which 32 are LICs (see Table Nº 2). Of those 32, about 20 LICs participate energetically in the LA market. This means that it is a deep, competitive market in which people really do have access to offers that are the best that can be made available to them, so that they can make their decision.

In Graph Nº 1 we see the development of the LICs' net worth at the close of the year 2012. As can be seen, by 2012 the LICs in total had accumulated a net worth of USD 5,384 million.

TABLE N° 1

CHILE: COMPARISON BETWEEN THE OLD PAYG SYSTEM AND THE CURRENT PENSION SYSTEM

In the Pay-as-you-go system the pensions were funded in part with contributions paid by active workers and the State, therefore the money contributed went to a common fund. Some drawbacks of the old pension system: I. Absence of automatic readjustment mechanisms II. High dependence on state funding III. Passive role of pensioners	a) Capitalization or individual saving b) Private administration (AFPs) c) Individual liberty (responsibility) *To choose and change AFP * How much to contribute (over the minimum) * When and how to retire • Equality: common rules for all • Net worth separation *AFP and Pension Funds • Multi-funds • Solidarity Pillar • **Disability and Survivorship Insurance (DSI)** • **System of Consultations and Pension Offers (SCOMP)** *Programmed Withdrawal ***Life Annuity Insurance**

SOURCE: PRODUCED BY THE AUTHOR.

TABLE N° 2

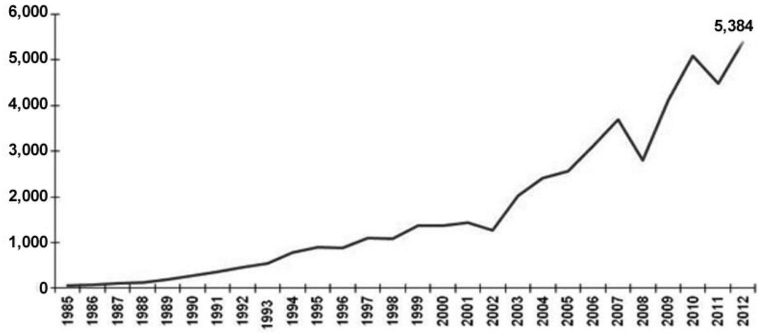
CHILE: ACTORS IN THE INSURANCE MARKET (2012)

General Insurance Companies	Life Insurance Companies	Credit Insurance Companies	Total
22	32	6	60

SOURCE: SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

GRAPH N° 1

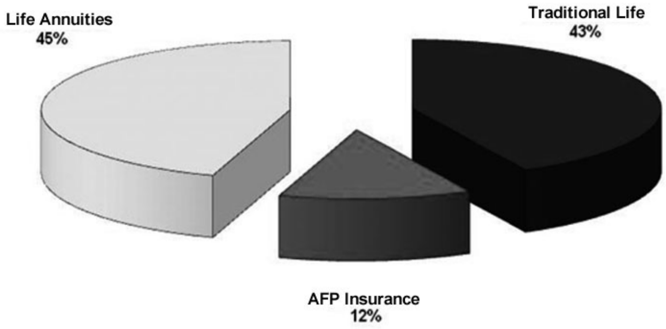
CHILE: DEVELOPMENT OF THE LICS' NET WORTH (USD MILLION)



SOURCE: SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

GRAPH N° 2

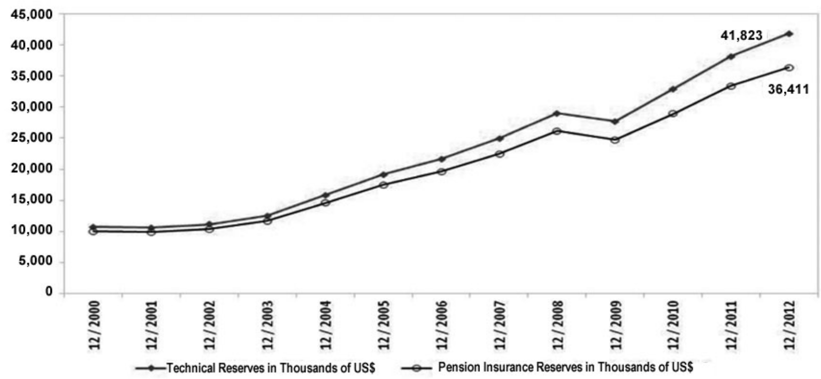
CHILE: COMPOSITION OF LIFE INSURANCE PORTFOLIO (DECEMBER 2012)



SOURCE: SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

GRAPH N° 3

CHILE: GROWTH OF THE LICS' TECHNICAL RESERVES, UNDER THE ITEM OF PENSION INSURANCE



SOURCE: PRODUCED BY THE AUTHOR ON THE BASIS OF INFORMATION PUBLISHED BY THE SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

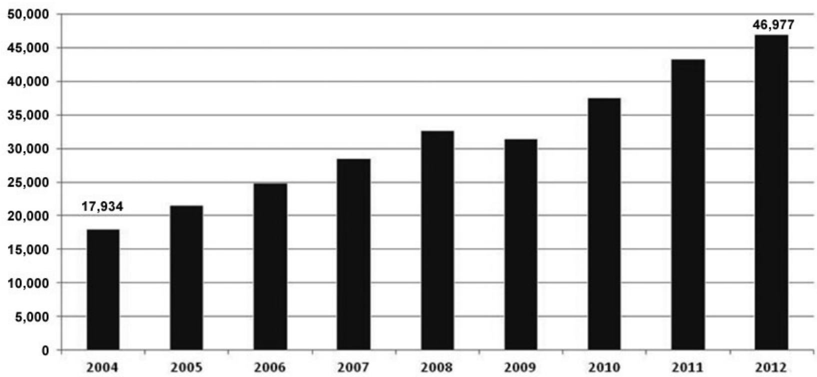
In Graph Nº 2 it is possible to see the Life Insurance portfolio as of December 2012. As is shown, of the total sales of Life Insurance in Chile (around USD 7,500 million per year), 45% corresponds to LAs, 12% to DSI and only 43% to traditional Life Insurance. To put it another way, the private pension system has been fundamental for the development of the Life Insurance industry in Chile.

Graph Nº 3 shows the growth of the technical reserves accumulated by the LICs as of December 2012. Under the item of pension insurance alone, there are USD 36,411 thousand that correspond to reserves solely for dealing with LA payments; and there is a total of USD 41,823 thousand corresponding to all reserves, where the difference corresponds to people's voluntary pension savings, over and above the mandatory level, which are open to competition between various actors, the LICs among them.

The LICs' investments can be seen in Graph Nº 4. At close of December 2012, investments were of the order of USD 47,000 million, approximately 17% of the GDP. That is already a significant figure, though obviously still very far removed from that represented by the accumulation of pension resources in Chile's private pension system.

GRAPH N° 4

CHILE: INVESTMENTS OF THE LICS (USD MILLION)



SOURCE: SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

The most important block of LIC investments corresponds to investments in fixed income, which are around USD 39,000 million. As can be seen in Table Nº 3, the bulk of the LICs' investments are in fixed income, because these are long-term commitments with index-linking. In Chile's case there is the so-called "Unidad de Fomento" (UF)[2] which allows the pension to readjust every month according to the variation in inflation.

2 *The Unidad de Fomento (UF) is one of the re-adjustability systems authorised by the Central Bank of Chile. The UF is readjusted daily from the tenth day of each month to the ninth day of the following month, at the average geometric rate corresponding to the variation that has occurred in the Consumer Price Index (CPI), as determined by the National Statistics Institute (INE) or the body replacing it, in the calendar month immediately prior to the period for which that unit is calculated.*

TABLE N° 3

CHILE: INVESTMENT PORTFOLIO OF THE LICS (USD MILLION)

Instruments	December 2012	Share (%)	% Accumulated
Bonds and debentures	15,647.66	33.3%	33.3%
Bank bonds	6,819.65	14.5%	47.8%
Real estate investments	5,897.63	12.6%	60.4%
Foreign investment	4,473.99	9.5%	69.9%
Mortgage documents	4,228.48	9.0%	78.9%
Government instruments	2,528.47	5.4%	84.3%
Mortgage securities	1,636.53	3.5%	87.8%
Mutual funds	1,054.74	2.2%	90.0%
Investment funds	1,054.41	2.2%	92.3%
Term deposits	995.10	2.1%	94.4%
Corporate shares	982.93	2.1%	96.5%
Loans	469.14	1.0%	97.5%
Advances to policy holders	278.57	0.6%	98.1%
Current accounts	109.57	0.2%	98.3%
Syndicated loans	105.01	0.2%	98.5%
Others	695.55	1.5%	100.0%
TOTAL	**46,977.42**	**100.0%**	

SOURCE: PRODUCED BY THE AUTHOR ON THE BASIS OF INFORMATION PUBLISHED BY THE SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

The 1981 pension reform in Chile activated the virtuous circle consisting of greater national savings, more investment, improvement of the labour market, development of the capital market, more growth and progress. As everyone knows, a study by economists Vittorio Corbo and Klaus Schmidt-Hebbel concluded that a third of the increased growth of Chile's GDP in the first two decades was achieved thanks to the private pension system[3].

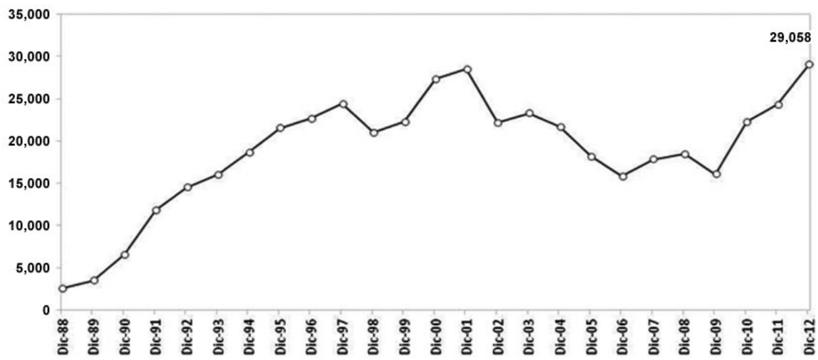
As regards the LA insurance policies that have been taken out, these have fluctuated between 16,000 and 29,000 from the year 2003 onwards, reaching a total of 29,058 in the year 2012 (see Graph Nº 5). This represents an increase of over 8 times compared with the year 1988.

3 *Corbo, V. and K. Schmidt-Hebbel (2003). "Macroeconomic effects of the Pension Reform in Chile" in "Results and Challenges of Pension Reforms", FIAP.*

The number of pensioners in Chile is now almost 500,000 people, in LAs alone (see Graph Nº 6). There is a similar or even slightly higher figure in the case of PW, which means that the new private pension system in Chile has slightly over 1 million pensioners for a population of 16 and a half million. The truth, therefore, is that the private pension system in Chile is absolutely mature.

GRAPH N° 5

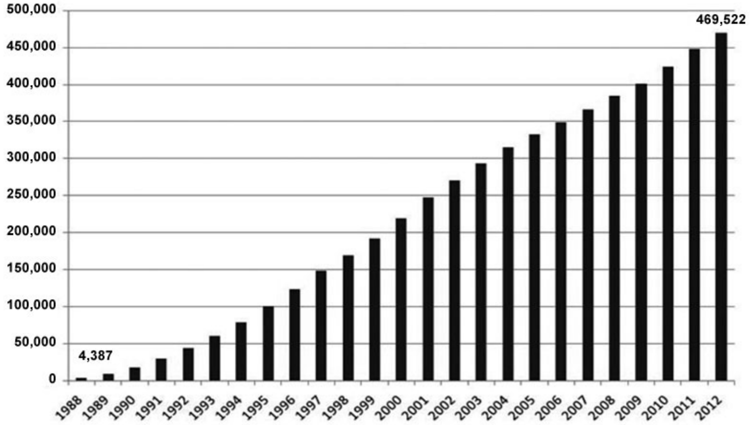
CHILE: GROWTH IN NUMBER OF LA POLICIES TAKEN OUT



SOURCE: PRODUCED BY THE AUTHOR ON THE BASIS OF INFORMATION PUBLISHED BY THE SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

GRAPH N° 6

CHILE: GROWTH IN TOTAL NUMBER OF PENSIONERS WITH SOCIAL SECURITY LAS



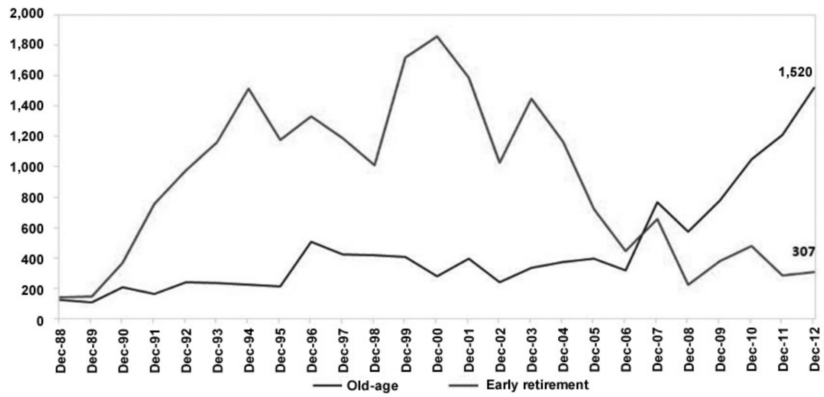
SOURCE: SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

Graph Nº 7 is very interesting, because it shows how people react to the situation that they are living through. It shows on the one hand the number of LA policies taken out for early retirement, (i.e. before reaching the legal age)[4], which has been falling radically due to a reform which made the requirements for early retirement stricter, but also because people have naturally been postponing their decision to retire, precisely because they want to achieve a larger amount of pension. On the other hand, the graph shows the number of people who retire when they have already passed legal retiring age. In 2012, in the Chilean pension system, men retired at age 67 on average (the legal age being 65) while women, on average, retired at age 62 (the legal age being 60). In other words, the people themselves are taking steps to adapt to the real situation, namely, that if they want access to a pension amount that is appropriate to their income level, then they must put off their age of retiring.

4 *In Chile, the law allows people who meet certain requirements to retire when they wish to do so, provided that they have access to a minimum amount of pension, which is calculated according to their income.*

GRAPH N° 7

DEVELOPMENTS IN THE NUMBER OF LA POLICIES TAKEN OUT FOR RETIREMENT (AT LEGAL AGE) AND EARLY RETIREMENT

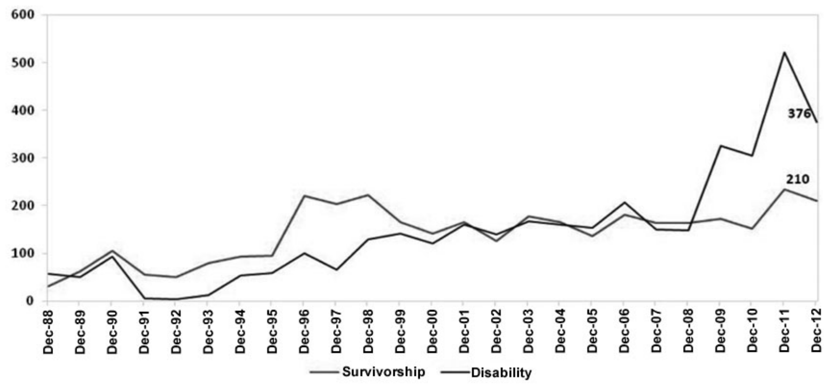


SOURCE: PRODUCED BY THE AUTHOR ON THE BASIS OF INFORMATION PUBLISHED BY THE SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

The growth in the number of LA policies taken out for disability and survivorship can be seen in Graph Nº 8. This is the other channel by which the LICs participate actively in the social security world. The DSI serves to top up the savings of people who have to interrupt their working lives for one reason or another, either because they die or because they become disabled. In that case, an actuarial calculation is then made and a decision taken on what that person's savings ought to have been in order to finance a reference pension that matches the income level he/she has had, and that difference is paid through an insurance policy (the DSI) which is also offered by the LICs; it is a single, one-off payment that is added to what the person has accumulated in his/her individual account, and with that sum, the person (or the heirs, if the person has died) can take the decision to remain in PW or take out a LA. In connection with the above, it must be emphasized that the system of disability assessment in Chile works very well. There are regional medical boards that work according to a very precise disability assessment manual and they give their verdict on that basis.

GRAPH N° 8

DEVELOPMENTS IN THE NUMBER OF LA POLICIES TAKEN OUT FOR DISABILITY AND SURVIVORSHIP



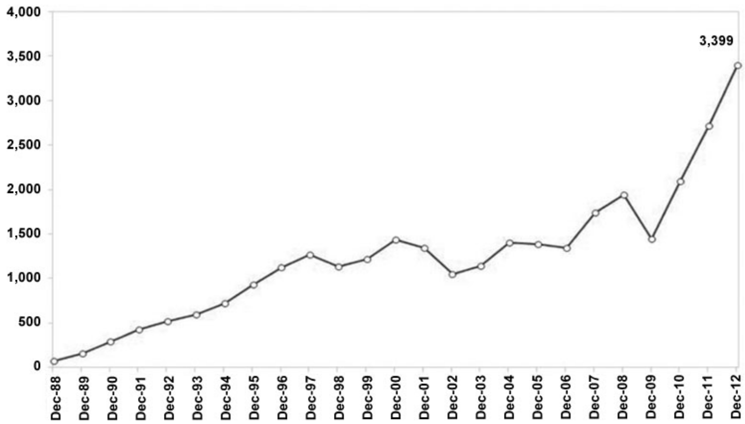
SOURCE: PRODUCED BY THE AUTHOR ON THE BASIS OF INFORMATION PUBLISHED BY THE SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

The total premium of the LAs has also grown significantly (see Graph Nº 9). In the year 2012 there was income of USD 3,400 million under the heading of LA premiums. Furthermore, the average LA premium amounted to USD 116,000 (see Graph Nº 10), which reflects a great increase over time. This is explained mainly by the yields of the pension funds and by the fact that members have more taxable income. That latter figure of the average LA premium is in fact the average of what a person who purchases a LA has in his/her individual account.

An important clarification should be made in the above exercise. On the one hand, people who have not managed to accumulate a minimum cannot even apply for a LA and are therefore outside this calculation. On the other hand, people who have accumulated an amount that is far higher than average in their individual accounts generally do not purchase a life annuity, but rather choose to remain in PW because of that option's characteristics, which make it particularly suitable for people whose sources of income for retirement are diversified and who are therefore more prepared to live with a fluctuating pension (one of the characteristics of the PW). The above is very different from what happens with the average middle-class citizen, who has lived with a known income throughout his/her life, and therefore feels more comfortable replacing income in retirement with a guaranteed life-time flow, which is what the LA option offers.

GRAPH N° 9

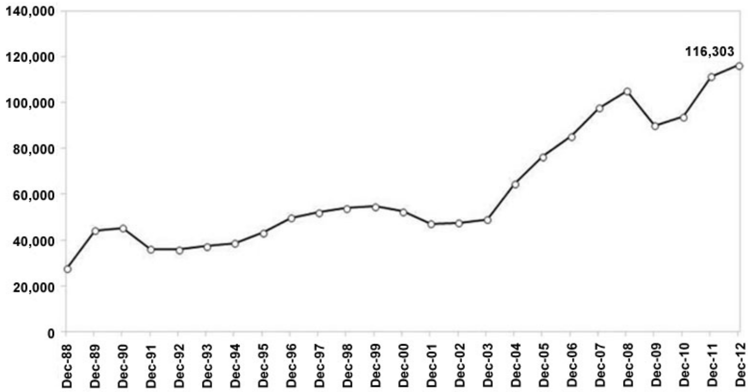
CHILE: GROWTH OF THE TOTAL LA PREMIUM (USD MILLION)



SOURCE: PRODUCED BY THE AUTHOR ON THE BASIS OF INFORMATION PUBLISHED BY THE SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

GRAPH N° 10

CHILE: GROWTH OF THE AVERAGE SINGLE LA PREMIUM (IN USD)

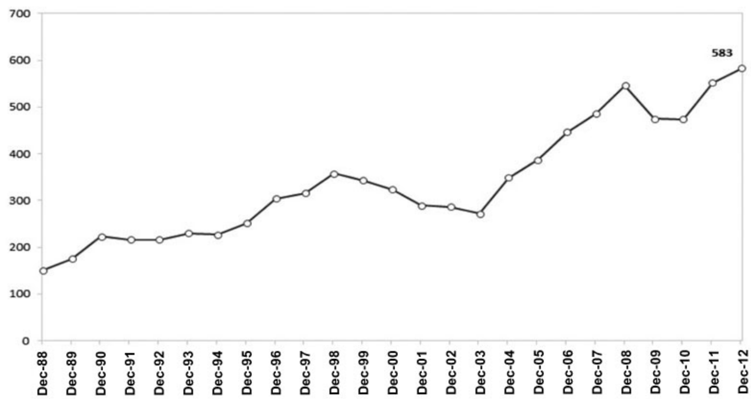


SOURCE: PRODUCED BY THE AUTHOR ON THE BASIS OF INFORMATION PUBLISHED BY THE SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

The average LA pension has also grown (see Graph Nº 11). It is now in the region of USD 600 per month. Although this is not yet a significant figure, it is close to four times the level of the BSP.

GRAPH N° 11

GROWTH IN THE AVERAGE LIFE ANNUITY PENSION IN USD

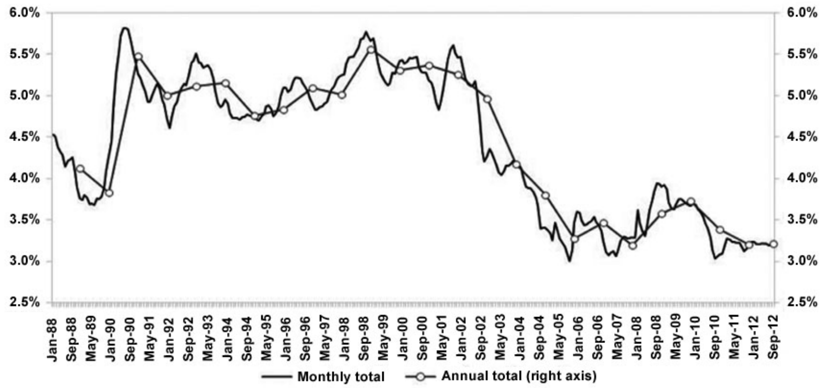


SOURCE: PRODUCED BY THE AUTHOR ON THE BASIS OF INFORMATION PUBLISHED BY THE SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

Graph Nº 12 shows the change in the implicit (real, after-inflation) interest rate of the LA. Each time a LA is offered, the LIC estimates that it is going to be able to invest the resources it will receive at a certain interest rate and it makes its calculations and offers the pension on that basis. That rate has changed from almost 5% at the beginning of the 1990s to a little over 3%, which is the rate being offered today. So, the interest rate has fallen and that means a challenge in terms of looking for new investment opportunities and new ways of making the pension fund assets produce returns, in order to honour commitments fully and deal with the pension payments that are forecast for several decades.

GRAPH Nº 12

CHANGES IN THE REAL IMPLICIT INTEREST RATE OF THE LA

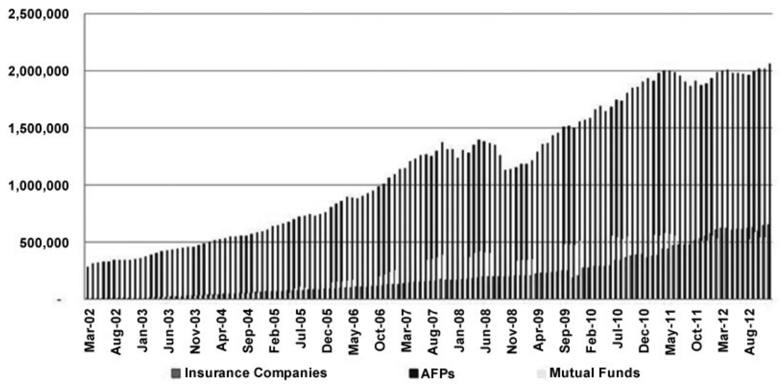


SOURCE: PRODUCED BY THE AUTHOR ON THE BASIS OF INFORMATION PUBLISHED BY THE SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

As was stated already, the Insurance Companies have also had a role in VPS (APV) since 2001, when this market was opened up to competition. As of the second half of the year 2012, the largest share of VPS in terms of balances under management is held by the AFPs, which are followed by the Insurance Companies (see Graph Nº 13). It is worth drawing attention to the fact that the Insurance Companies have the largest average balances.

GRAPH N° 13

GROWTH OF THE ACCUMULATED BALANCE OF VOLUNTARY PENSION SAVINGS (CLP MILLION)



SOURCE: PRODUCED BY THE AUTHOR ON THE BASIS OF INFORMATION PUBLISHED BY THE SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

b) The System of Consultations and Pension Offers (SCOMP)

It is also important to mention that in 2004 the so-called System of Consultations and Pension Offers (SCOMP) was introduced, a free electronic system that makes it possible for future pensioners, by using information technology, to connect with the institutions that exist in the LA market, so making it easier for them to take an informed, transparent decision. That system is maintained jointly by the AFPs and the Insurance Companies.

The SCOMP provides complete, comparable information about pension offers, giving the member more transparency and access to information, in addition to security and speed in the pension application process.

The system allows people to receive a pension offer from all the actors simultaneously and gives them an offer certificate (which is binding on those making the offers). This allows the person to compare and make the best decision, freely and with all the information. The decision is free: nobody forces the member to take the highest pension. This is a compulsory system, and nobody can acquire a pension without going through the SCOMP.

The SCOMP has been a great contribution. People are grateful because they view it as a very good service. The providers make their pension offers and the SCOMP concentrates all the information and issues a certificate which is given in the first place to the member and then to the pension advisor if the member so wishes (this is voluntary). With this, the person has a basis on which he/she can negotiate his/her pension with the other providers. By law, the negotiated pension cannot be lower than the pension offered by the provider via SCOMP, but must be higher.

In this way the SCOMP has allowed the AFPs and Life Insurance Companies to manage the requests for PW and LA offers and their related formalities more easily and more promptly, improving the standards of service quality offered to pension applicants.

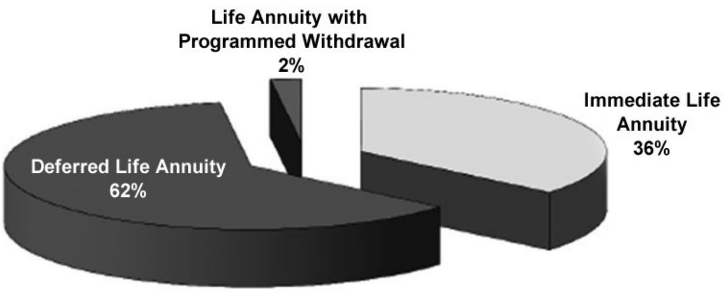
In the year 2012, 6 AFPs and 19 Insurance companies operated in the SCOMP and 64,419 applications for pension offers were received. 29,362 pension acceptances in LA and 12,743 in PW were registered during the same period (65% closures).

In the year 2012, 59% of LA acceptances corresponded to immediate income and 41% to deferred income. 0.3% chose a LA with PW. The distribution of the acceptances was 39% women and 61% men. The majority of people chose an immediate LA (59% of cases) and guaranteed the amount of their pension for a period of 10 years (30% of cases).

It must be said that the choice between PW and LA fluctuates considerably, depending on the characteristics of the interest rates at the time. There are years when the choices of the two pension options are quite similar and others when PW exceeds LAs. However, in general, over the long term, there have been more LAs than PW.

In 2012, 62% of the pension offers were for Deferred Life Annuities (see Graph Nº 14), which make it possible to obtain a monthly pension for a pre-defined period from the AFP and then, on an agreed date, a life-long monthly income in UF paid by an insurance company.

GRAPH N° 14
OFFERS ISSUED DURING THE YEAR 2012, BY PENSION OPTION



SOURCE: SCOMP ANNUAL REPORT 2012 FROM THE SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

c) Advantages and contributions of a LA

The advantages of purchasing a LA

The advantages of a LA are as follows:

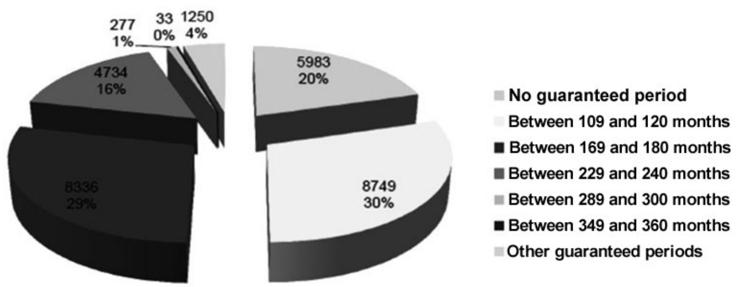
- The pension is for a fixed amount for life.
- The pension is index-linked to inflation, so it is not affected by market fluctuations.
- There is no risk that the funds will run out

Pension life annuities rose to represent 40% of life insurance policies in the year 2012. The premium rate grew more than 14 times, amounting to USD 3,399 million in the year 2012, with 29,058 policies issued and over 460,000 pensions paid in December that year.

One of the things said to be a disadvantage of the LA is that it leaves no inheritance. Personally, I believe that a pension system should not be designed with a view to leaving an inheritance; I do not believe that it corresponds to public policy. However, quite apart from that, we see in practice that people are acting rationally, since only 20% of those who take out an LA take out an "immediate" LA without a guaranteed period (see Graph Nº 15). Most of them take out an LA that does have a guaranteed period, in other words, even if the person dies, the company will continue paying until that guaranteed period (typically between 10 and 30 years) expires. In practice, we see that 79% of the LAs accepted by men and 81% of those accepted by women include a guaranteed payment period.

GRAPH N° 15

DISTRIBUTION OF THE LA ACCEPTED IN 2012, ACCORDING TO THE GUARANTEED PERIOD CHOSEN



SOURCE: SCOMP ANNUAL REPORT 2012 FROM THE SUPERINTENDENCE OF SECURITIES AND INSURANCE (SVS), CHILE.

Contribution to economic development and social welfare

There is no doubt at all that the development of LA has made a contribution to economic development and social welfare. First of all, there is stability for families. It is important to underline the fact that the LA pension is a fixed sum, index-linked to inflation for life. In other words, until the person dies, he/she has the certainty of receiving the same amount every month. That characteristic of the LA makes it a very stable product, well suited to social security.

Secondly, the development of LAs has given the capital market a boost by demanding very long-term financial instruments.

On this point it is important to emphasise that the very long-term market has appeared as a result of the development of the life annuity market. In Chile, any bond issued by a company is going to have two series, one at 12 years (which will typically be bought by the AFPs) and another at 20-25 years (which will typically be bought by the Insurance Companies). It is not that the AFPs do not want to buy bonds at 20 years. What happens is that they are obliged by law to value their accounting units daily. Because of this, with a very long-term instrument, any fluctuation in the interest rate has a very great impact on the value of the asset and therefore on the accounting unit, so the AFPs have to make a good combination between the length of the investment term versus the impact that they might suffer as a result of a fluctuation in the interest rate. This does not happen with the Insurance Companies because that regulation does not affect them and also because they have commitments at 30-35 years, which means they are really interested in very long-term investments.

A great program of infrastructure development was carried out in the 1990s in Chile: highways, airports, ports, prisons, etc. Although such projects were funded during the construction period through the banking sector, very long-term bonds were issued as soon as it became possible to do so. What happened in this case is that everything was financed through concessions, and the bonds were purchased to a very significant extent by the Insurance Companies.

The Insurance Companies also play a very important role in the world of mortgage loans. It is calculated that about 700,000 families in Chile are currently buying their homes by means of a loan which is supported at the end of the day by an insurance company that sells Life Annuities. The main issuer of the loans may be a bank or some type of building society and they are sold to a very long-term investor, such as the Insurance Companies. Therefore, the contribution to the very long-term financial market is a significant one.

What are the challenges for the LICs that offer LAs?

First among the challenges is the increase in life expectancies. Secondly, there is also the public policy challenge of how to improve replacement rates. Thirdly, there is also the challenge of the reduction in interest rates. And finally, the challenge represented by the new net worth requirements as a consequence of the new system of risk-based supervision.

d) The Disability and Survivorship Insurance (DSI)

The DSI is an insurance policy that the AFPs have to take out jointly to cover the risk of disability or death among their members. This insurance has been funded by the employers since July 2009 for companies contributing for 100 workers or more, and for the remaining companies since July 2011.

Members of an AFP who are not covered by the DSI will have to finance their pensions solely with the funds accumulated in their individual accounts.

The contribution for funding the DSI corresponds to a percentage of the taxable wages and income and is the same for all members, regardless of the premium established in the contracts between the AFPs and each LIC. Each AFP collects the corresponding premium from its contributors and distributes it between the LICs to which the contracts have been awarded, according to the charge fixed by each company.

III. Conclusions

The great peculiarity of the individually-funded pension system is that each person is responsible for building up his/her own pension. For this reason, pension education is important. I believe that progress has been made in Chile: many young people are involved in Voluntary Pension Savings, which shows that there is a realization that additional efforts are needed to achieve an old age in good economic conditions.

From my point of view, the pension LA is a very high-quality product, because it guarantees the person an income for life regardless of how long he/she lives, and one that is also index-linked to inflation. Furthermore, it frees the State of the responsibility of paying pensions to these people, except for the benefits provided by the solidarity pillar, which is very welcome of course and was a great contribution of the reform enacted in 2008.

The demand for very long-term instruments makes a powerful contribution to economic development. The contribution made by both the AFPs and the Insurance Companies is a very important one.

Finally, there is a very great challenge to improve pensions. In the case of the Insurance Companies, we are going to have to cope with the increase in net-worth requirements and also, ideally, be capable of maintaining the pension offers.

DESIGN CONSIDERATIONS FOR AN ADEQUATE PAY-OUT STAGE: THE CHILEAN CASE

FRANCISCO MARGOZZINI[1]

1 *Francisco Margozzini graduated in Industrial Civil Engineering from the Catholic University of Chile and has a Postgraduate Diploma in Company Administration (DPA) from the Adolfo Ibáñez University, Chile. From 1989 to the present he has been Managing Director of Chile's Association of Pension Fund Administrators. From 1993 to the present he has been Managing Director of Inversiones DCV. Since June 2011 he has been a full member of the Risk Rating Commission of Chile; from August 2004 to the present he has been Director of the System of Consultations and Pension Offers (SCOMP S.A.) and from March 2009 to the present he has been a full member of the Users' Commission of the Chilean Pension System.*

Pension systems in all parts of the world are facing growing challenges in financing good pensions.

In the first place, there is the increase in life expectancies, which is not really the "villain of the piece", though it seems to be. We are all living longer as a result of advances in medicine and the population's access to them; a better diet and education; and better standards of hygiene, i.e. drinking water, sewerage systems, etc. among other factors. However, as a result of this better situation, the pension systems have to pay pensions for a greater number of years.

Secondly, young people are entering the working world (and therefore starting to contribute to their pension systems) later and later. It is true that this is not a bad thing either, because they are studying for longer and are therefore able to opt for better-quality jobs. However, especially in the individually-funded systems, the early years of contributions are the ones that earn most interest as a result of investments, so they have an important impact on the capital that can be accumulated at the end of the working life.

Thirdly, a subject that has been widely discussed is the low contribution density that exists in pension systems.

Fourthly, and no less important for that reason, there is the steep fall in the birthrate. It has fallen in Chile in the last 50 or 60 years from around 5 children to less than 2 children per woman of childbearing age, and this will mean fewer workers in the future and in the so-called dependency rate. Fortunately, this demographic variable, which is affecting the finances of the world's pay-as-you-go systems, does not affect the pension systems based on individual funding.

And finally, there is the issue related with the fall in interest rates all over the world, which certainly has a very significant impact on the amounts of the pensions to be provided.

Therefore, given the challenges that exist, the search for efficiency in the accumulation and pay-out stages is a matter of great importance and due particularly, to the fact that our pension systems are going to have an increasing number of pensioners, the pay-out or withdrawal stage is going to be an increasingly frequent topic of debate. There are basically two pension types or options. One is the Life Annuity (LA) offered by the insurance companies, and the other is the Programmed Withdrawal (PW) offered by the Pension Fund Administrators (AFPs). There are great differences between these two pension options, especially with regard to the three risks that are present in the passive stage.

The risks of the passive stage are three:

- <u>The risk attached to yield</u>: will the funds yield less or more than forecast?

- <u>The risk of individual and collective longevity</u>: The life-expectancy tables in Chile tell us that, on average, a man 65 years old will live for 20 years. But a person is not an average and may live more or less years than the average. So there is a risk of individual longevity and also a risk of collective longevity: that people will live longer than the life-expectancy tables predict.

In very simple terms, as Jorge Claude explains, in the LA option it is the insurance companies that assume the three risks mentioned (the member assumes none of them). This is only true to the extent that the rules issued by countries are correct and likewise, the life-expectancy tables. Otherwise, the member him/herself, and Governments too, may assume part of the risks.

In the case of PW it is the member who assumes the three risks mentioned above. Notice that this may be a negative feature, or also positive.

In terms of yield, the pension funds may make more than they were expected to yield, or they may make less, all of which affects the amount of the pension. In the case of Chile, the Multi-funds scheme exists solely as a way of reducing that risk. To the extent that the member opts for the riskier funds, he/she is going to assume higher risks. If the member chooses less risky Multi-funds, the levels of risk will be lower.

With regard to the matter of individual longevity, it is clear that if the member lives longer than shown in the life expectancies, the profile of his/her pension will be a decreasing one, which is not desirable. This is a reality, and to a certain extent our regulations mitigate this effect with what has been called the “adjustment factor”, which is nothing more than a part of the capital saved which is kept as a reserve to reduce this fall in the amount of the pension.

With regard to the matter of collective longevity, which is a subject of the utmost importance, the risk can be lessened or reduced (but never eliminated) by regularly bringing life-expectancy tables up to date and by using dynamic tables. This was a lesson we learned in Chile, because we did not always have tables constructed in that way. In fact, we used the same life-expectancy tables in Chile for approximately 15 years and that was a great mistake, because when the new tables were made, the changes were so enormous and made such a great impact on the level of pensions that we did not know what to do. Today the law requires all tables to be reviewed every 4 years and, in addition, the tables are dynamic, in other words, they are forecast year on year.

Certainly the PW option also has advantages. The first of these is inheritance. With the PW the funds are the property of the retired worker and if he/she dies and has no pension beneficiaries, all his/her funds, together with other property, go to form part of his/her estate. This makes it a tremendously useful and valid alternative for a person who has poor health, for example. For this reason, I believe that the figure showing that only 20% of LAs have "no guarantee period" reflects in some way the fact that inheritance is a benefit that our members value very highly. A second benefit of PW is that it generally delivers slightly higher rates of pension than the LA, a difference that increases considerably in the case of the widow or widower's pension. A third aspect that especially justifies the PW is the temporary nature of the choice: there are circumstances - such as steep falls in interest rates or stock exchanges - when the alternative of choosing a PW temporarily is specially valid, enabling the member to wait until things improve and then take out a LA if he/she wishes. At the end of the day, the PW and LA are two options that are quite different and also complementary.

I believe it is interesting to highlight another option, namely Temporary Income with Deferred Life Annuity, where the member sets part of his/her savings aside when he/she retires and purchases a LA at that point that will begin to pay a pension in 10, 15 or more years, and with the rest of the capital, the member funds his/her pension for the initial period (a kind of PW that is called "temporary income"). This alternative makes it possible to eliminate the risks of individual and collective longevity, and maintains the ownership of the funds, with the associated advantage in terms of yield and inheritance. Furthermore, with this alternative, the amount of the pension does not have a falling profile, but tends to be stable, because it does not depend on life expectancy.

The specialists also recommend combining the LA with the PW in different proportions depending on people's characteristics and preferences. In conclusion, in Chile we have various pension options, so choosing the most suitable pension for a member is not a simple task, but one that calls for a certain amount of knowledge.

In this case there is no possibility of learning by trial and error, especially if one chooses a LA, because that is a one-off, irreversible decision.

For the above reason, it is fundamental for people to take good decisions, based on good information, with the knowledge and the advisory services of an independent expert. In that sense, it is important to highlight the extent of the contribution made by the System of Consultations and Pension Offers (SCOMP), whose outstanding characteristic is perhaps that of generating productive competition in pension matters, with the aim of providing or offering people the highest possible pensions, with useful, timely and transparent information. I have no doubt that this experience in Chile has been tremendously positive.

I also place a high value on the existence of voluntary advisory services from the AFP or a Pension Advisor, especially for this topic, because in many cases choosing between the various alternatives is not easy. There are well-prepared people who can take good decisions on their own, but there are also others, and many of them, who do not have sufficient knowledge and who, even if they have all the information in front of them, may not be in a position to take a good decision.

In deciding on a pension option, there is no way of learning. In many cases, the choice of a pension option is a one-off, irreversible decision and for that reason, information, training and advice are the keys to enabling people to choose between one pension option and another in full and complete knowledge of the advantages and disadvantages of each of them. We must not forget that the future welfare of the person and his/her family group will depend on his/her pension option decision for the next 20 or 30 years.

CHALLENGES FOR DESIGNING AN ADEQUATE PAY-OUT STAGE: THE CASE OF COLOMBIA

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Traditionally, a major part of the time spent on discussing pensions is dedicated to the accumulation stage, to the rules of the minimum yield investment scheme and the effects of the accumulation stage on the capital markets. Perhaps the fact that little time has been dedicated to the pay-out stage is due to the stage of maturity in the development of the Individual Saving with Solidarity Scheme (RAIS) in Colombia.

Against this background, some general reflections are given below on the pay-out stage in the Colombian pension system, from the point of view of the Ministry of Finance and Public Credit in Colombia.

The pay-out stage of the RAIS is taking off

For a start, it is necessary to call attention to the turning point that we are at today, in terms of a change of direction in the discussion from the accumulation stage (which will continue to be very important) to the pay-out or pension payment stage, which will have a growing relevance in the future.

In the year 2012 there were around 60,000 pensioners in the RAIS and by 2025 there are expected to be some 165,000 (see Table Nº 1).

As is shown in Graph Nº 1, the forecast trend shows an explosion in the number of pensioners in the future. The pay-out stage is therefore a matter of the utmost importance where all the stakeholders involved must get together to find out what is working and how.

The restriction of having a minimum pension equal to the minimum wage

The discussion must start on the question of managing the minimum-wage risk which has come to the fore in the past few years, because the law imposes the restriction that the minimum pension must be the same as the minimum wage. That political risk is difficult to state in model terms and cannot be covered with the financial instruments that are available.

What can be done about this problem? Graph Nº 2 shows the minimum wage increases over and above inflation in recent years. Since the year 2000, the average increase of the minimum wage has been 1.2% greater than the increase in the Consumer Price Index (CPI) of the previous year. This is undoubtedly a problem that has to be solved.

Life Annuities and the Minimum Wage

Article 45 of Law 1328 says: *"The National Government shall be able to set up hedging mechanisms that allow insurers to cover the risk of the increase that might occur in the immediate life annuities and deferred life annuities referred to in articles 80 and 82 of this law due to the increase in the current legal monthly minimum wage, if that increase is greater than the percentage variation of the Consumer Price Index…"*

As stated in this article of the law, it is true that the national government can set up hedging mechanisms to solve this problem. However, it is necessary to discuss what the most efficient tool for the market and insurance companies would be, given the national government's restrictions for dealing with the problem.

One way of solving the problem would be for the government to finance the difference, as happens in Chile's case. However, the real fiscal situation in Colombia has to be an element in this debate. One cannot think simply in terms of importing an idea that works very well in another country, in the light of the characteristics of the risk that has to be covered.

TABLE N° 1

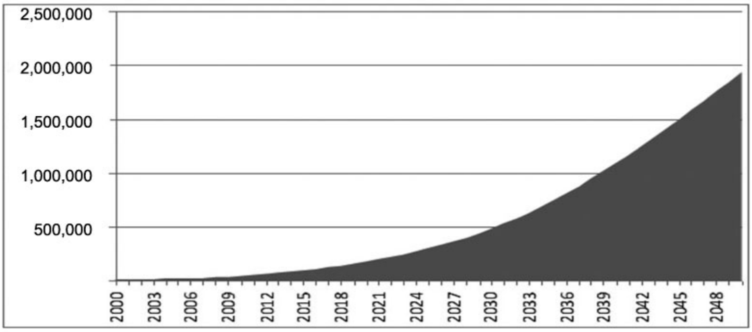
NUMBER OF PENSIONERS IN THE RAIS: CURRENT AND FORECAST

Year	Number of pensioners
2012	59,764 (*)
2020	165,000 (**)
2050	1,933,000 (**)

SOURCES: (*) SUPERINTENDENCE OF FINANCE OF COLOMBIA; (**) NATIONAL PLANNING DEPARTMENT (DNP), COLOMBIA.

GRAPH N° 1

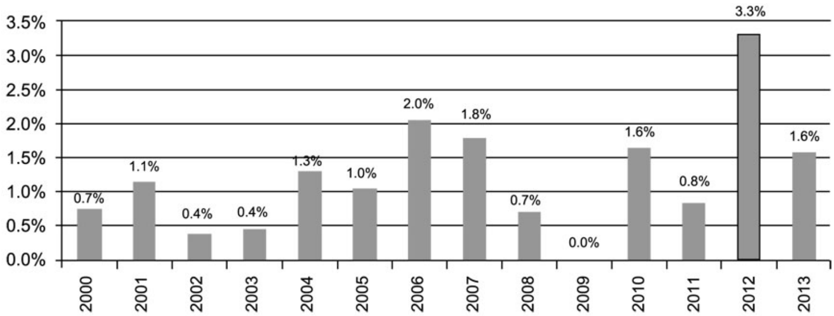
RAIS PENSIONERS (2000-2050)



SOURCE: NATIONAL PLANNING DEPARTMENT (DNP), COLOMBIA.

GRAPH N° 2

COLOMBIA: INCREASES IN MINIMUM WAGE OVER AND ABOVE INFLATION (2000-2013)



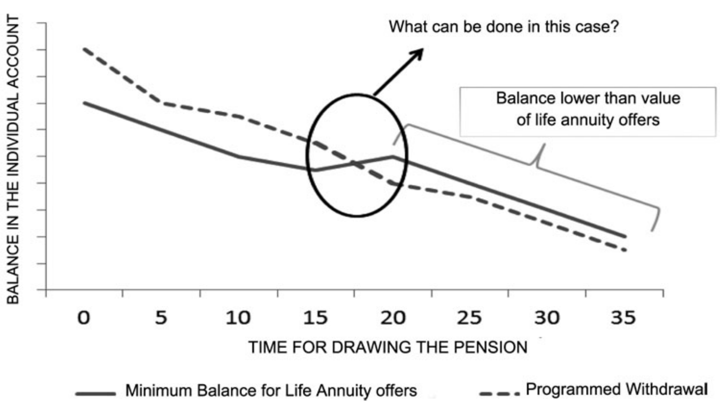
SOURCE: PRODUCED BY THE AUTHOR.

Programmed Withdrawal and the Minimum Wage

The ideal world that we would love to see is shown in the first part of the Graph Nº 3 (where the dotted line is above the solid line). The dotted line shows the development of capital necessary to finance a Programmed Withdrawal pension, which falls gradually over time, but always remains above the solid line representing the minimum capital needed to purchase a life annuity of one minimum wage. This is the world where everything would work perfectly.

The problem is that there are great uncertainties about how the two lines in Graph Nº 3 will behave at any moment in time. Circumstances may lead us to a world where the dotted line is below the solid line, so there is a balance lower than the offering value of life annuities (see second part of the Graph Nº 3, where the dotted line is below the solid line). This may be due to movements in the markets or volatilities that reduce the market value of the investments that provide the backing for the savings. It may also be due to movements in life expectancy (hence the importance of bringing the mortality tables up to date) or the minimum wage risk (risk of increases in the legal minimum wage). What can be done in this case?

GRAPH N° 3



SOURCE: PRODUCED BY THE AUTHOR.

The regulations currently say something that sounds quite logical: if the member is approaching the point described in Graph Nº 3, he/she must go out and look for a life annuity of one minimum wage. However, this is a mechanism that has not worked.

Centering on this issue, the national government considers that work needs to be done on modifying the regulations. The first proposal for discussion is to change from the concept of "on-going control" to an explicit "regular control" of the pensioners' situation.

Secondly, there is a proposal to have a balance or "cushion" that is over 1.05 times the value of a life annuity of one minimum wage. Behind the possibility of falling below the life annuity there are various associated risks (market risk, longevity risk and political minimum wage risk). If all these elements are included in the equation, intuition shows us that we may be talking about the need to have a balance of 1.08 or 1.10 times the value of a life annuity of one minimum wage.

In the third place, the regulations currently impose a scheme without a transition. In other words, if the member realizes in his/her on-going review that he/she is below the limit, he/she goes out and looks for the life annuity. What the Ministry of Finance is proposing is to think in terms of a risk-range zone and if the person starts entering this zone with a certain frequency in the regular reviews, he/she must go out to look for the life annuity.

Hedging the minimum-wage risk

The problem that arises lies in the possibility that no-one will offer those life annuities centred on the minimum wage. In this respect there are some conclusions about the government's options for managing the minimum-wage risk.

1. Bonds index-linked to the minimum wage

The World Bank has worked on the idea of bonds index-linked to the minimum wage. It is an idea that has been explored and as a Ministry we have some conclusions to put forward on the subject. What would be the liquidity and depth of this type of instrument? We are very concerned about the price formation of this type of instrument, as we are talking about a very specific business association that would be interested in hedging the minimum wage risk.

There must certainly be examples of other types of buyers interested in hedging that risk. However, in principle, one would say that the number of participants demanding that type of product would be small. What one would like to see in the public debt market is a movement towards liquid references throughout the length of the yield curve that would make it possible to have a *benchmark*, unlike a public debt market full of small, specific references, without liquidity and with difficult price formation for particular stakeholders who have that need.

The way to develop the capital market is to have a liquid yield curve with transparent price formation for all the stakeholders in the economy, and not small groups looking after different needs.

2. Risk band

A risk band has also been considered, in which the government assumes the risk above a limit (upside) while the insurer assumes the risk below a limit (downside).

Here the problem is basically the short-term fiscal impact of this measure. The figures have been discussed with the Federation of Colombian Insurance Companies (FASECOLDA) and we agree that in terms of present value, the fiscal impact of this measure may be very great. Therefore the measure does not necessarily make the life annuity market more dynamic.

3. Annual reimbursement of the increase in the cost of the life annuity to the insurers' reserves

The third option that has been looked at is to reimburse the increase in the cost of the life annuity, annually, to the insurance companies' reserves. Following the same line of reasoning as the previous point, the snag is the short-term fiscal impact.

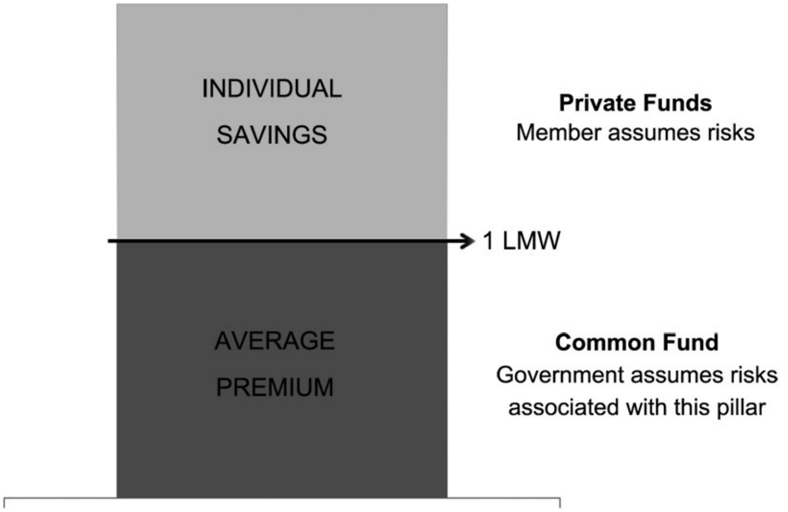
All the above does not mean that nothing will be done, just because the solutions have many problems. We are aware of the need: this is a fundamental point for the functioning of the life annuity market, and we understand that it is a type of risk that is best managed by the government itself.

Pension reform – Risk allocation

In that sense, with reference to the recent discussion on pension reform, this must be thought of not only in terms of flows but also in terms of risk allocation.

Figure Nº 1 shows an example in which the minimum-wage risk is allocated completely to the government. In addition, the example frees the agents who manage individual savings from having to deal with that risk. The example refers to the concern that exists in the government with regard to the cleanest way of allocating this risk to those who can manage it best. Obviously, it is possible to discuss the other risks that might be allocated in that distribution (longevity, market, etc.).

FIGURE N° 1



SOURCE: PRODUCED BY THE AUTHOR
NOTE: LMW: LEGAL MONTHLY WAGE; AVERAGE PREMIUM: PAYG SCHEME.

Life Annuity Offers

On the subject of life annuity offers, there is definitely a need to make the market more dynamic. We believe we must think about the transparency of how this market works. When we speak of transparency, this does not have to do only with the relationship between the AFPs and insurers, but also with the relationship between the member and the insurers.

The options we have thought about in this context are: (i) auctions for pensioners; (ii) compulsory contribution; and (iii) a blind electronic contribution market.

The supply of other instruments

A final idea has to do with opening the discussion on how a life annuity market works in a country with the labour market characteristics of Colombia.

In some way, we must think of a combination of instruments that enables the typical risks of the pay-out stage to be diversified.

If we think of limiting ourselves solely and exclusively to the world of the pensioner with two or three minimum wages in order to avoid the minimum-wage risk, we reduce our world considerably. With regard to this, we should think of a mechanism like the Periodic Economic Benefits (BEPS) where the matter of annual payments for those who reach retiring age and have a certain level of savings is included explicitly.

Therefore, we need to think of other kinds of product, with annual payments with the following characteristics:

- They should be lower than the minimum wage
- They should not be subject to the risk of increases in the minimum wage
- They should not be inheritable.

We have prior experience of successful micro-services in Colombia. For example, there are micro-insurance policies in which there were already 8.7 million insured risks and COP 261,000 million (about USD 148 million[2]) as of December 2012.

It is undoubtedly also necessary to implement other pension options in the RAIS, in order to diversify the various risks (financial, longevity, inheritance and liquidity risks). Among the options which are included in the regulations and were enacted recently are[3] :

- Definite Temporary Income with Definite Deferred Life Annuity
- Temporary Income with Deferred Life Annuity
- Programmed Withdrawal without Pension Bond negotiation
- Temporary Income with Immediate Life Annuity.

2 *Source: FASECOLDA - Micro-Insurance – General Report 2012.*

3 *Source: External Circular 013 (2012), Financial Superintendence of Colombia. Available on: http://www.superfinanciera.gov.co/NormativaFinanciera/Archivos/ce013_12.doc*

PART VI

LABOUR MARKET AND PENSION COVERAGE

THE LABOUR MARKET: UNEMPLOYMENT AND INFORMALITY

CHRISTOPHER PISSARIDES[1]

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In this brief article I will cover the labour market, emphasizing the issues of unemployment and informality. I will emphasize more the problems that concern Colombia and end up with making policy suggestions of where I think the labour reforms are needed and where they should be taking place.

First of all, I am going to talk about the key challenges that any labour market, and in particular the Colombian labor market, should be meeting. Then I am going to say why the labour market is not meeting those challenges. Then I am going to move on to try and find out the causes of the labour market failures. I will identify the minimum wage and non-wage employment costs as critical in the causes of those problems. Finally, I will conclude with an analysis on how to deal with labour market reforms.

I. Key challenges in the labour market

What do we want a labour market to give us? What kind of outcomes do we want to see from a labour market? In my view, what a labour market should be doing is to provide the right environment for an increase in the productivity growth, because this is what enhances living standards, and the first and ultimate objective should be that of improving living standards throughout the world. A second challenge for a modern labour market is how to reduce inequality, because if we leave labour markets alone they do tend to produce too much inequality, which is harmful for the social cohesion. Finally, we want a labour market to be able to reduce unemployment and increase participation and employment (some unemployment is necessary in all labour markets, because of the way that labour markets restructure as new jobs arrive, but unemployment should be fairly low). I would consider those are the main challenges in any labour market.

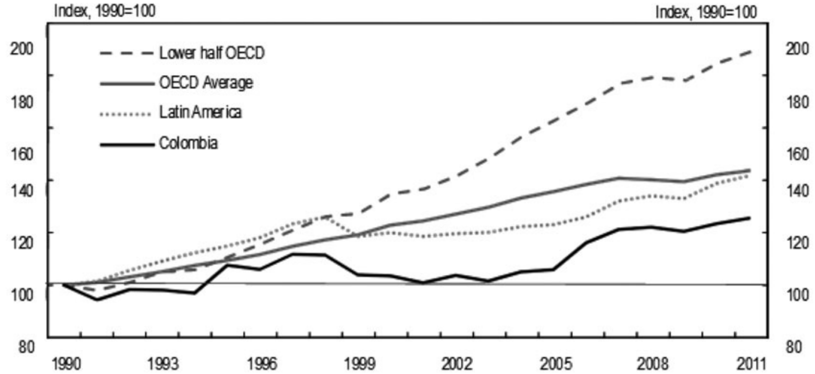
Let's take look at the Colombian experience with those three challenges.

Productivity growth

Graph Nº 1 shows the labour productivity growth (the growth of GDP per hour worked) for selected groups of countries. If we say that the index of labour productivity was 100 in 1990, one can see that in 2012 the Colombian index is about 130, so there has been a 30% increase in the productivity of labour. Importantly, in the lower half of the OECD (the OECD countries with lower income, which are comparable to the stage of economic development of Colombia), the productivity labour index is around 200. So, whereas the lower half of OECD countries managed to double their labour productivity in 22 years, Colombia only managed a 30% increase. Clearly, something needs to be done to increase the productivity growth in the Colombian labour market.

GRAPH N° 1

GDP PER HOUR WORKED



SOURCE: THE AUTHOR.
NOTE: LOWER HALF OECD REPRESENTS THE TEN OECD MEMBER COUNTRIES WITH THE LOWEST GDP PER CAPITA IN 1990. THESE ARE CHILE, CZECH REPUBLIC, ESTONIA, HUNGARY, KOREA, MEXICO, POLAND, SLOVAK REPUBLIC, SLOVENIA AND TURKEY. CHILE AND MEXICO ARE ALSO PART OF THE LATIN AMERICA GROUP, ALONG WITH ARGENTINA, BRAZIL AND COLOMBIA.

One implication of the slow productivity growth in Colombia is that per capita incomes are not as high as they should be. There has been research in the OECD to identify the reasons that the per capita income in Colombia is not as high, and low productivity comes out as by far the most important reason.

A second implication is related to unemployment. We do know from empirical studies that productivity growth usually reduces unemployment, through higher demand for services.

A third implication, quite important for Colombia, is that productivity growth ensures competitiveness of exports is maintained in the light of an appreciating exchange rate due to rising commodity prices (Colombia's main exports). With an appreciating exchange rate, the only way to succeed in selling manufactured goods in the world is through having a fast productivity growth in manufacturing.

Clearly, productivity growth is absolutely essential: it raises living standards, it reduces unemployment, and it helps sell our products internationally. So something needs to be done to increase productivity growth.

Inequality

Colombia has a very large divide between rich and poor (in terms of income), so income inequality is very large. The top 10% of households have a disposable income which is 12 times as large as the bottom 10%. That is a very big number. In the OECD countries, in average, the richest 10% of households have a disposable income that is only 4 times as large as the bottom 10%. In the Scandinavian countries, which have the most equitable societies in the OECD, if not in the entire world, the richest 10% are only 3 times as wealthy as the bottom 10%. I should say this problem of inequality is not only a Colombian one. It seems to be a Latin American problem, generally, and if anything I think that Brazil has even more inequality than Colombia. I do not know what is in the nature of Latin America that produces this large inequality, but there is a large inequality being observed.

Unemployment and participation

Unemployment in Colombia has been falling recently, but it is still around 10%. These rates are not justified by the relatively high rates of GDP growth (above 4% in last three years). A country that has the resources to grow by as much as 4% a year should not have unemployment above 5% or 6%. 10% is simply too high. Why is unemployment so high in a country that seems to be doing well in every other respect?

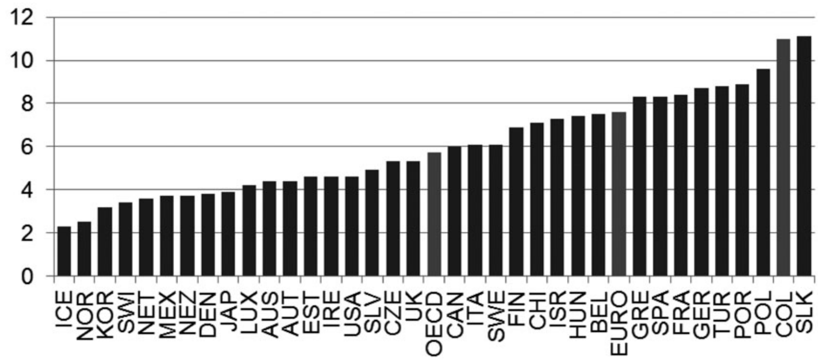
II. OECD comparisons

If we want to compare Colombia with the rest of the OECD, it is preferable to do it before the financial crisis. This is because most of the countries of the OECD have been affected so badly by the financial crisis that their statistics are distorted.

Graph Nº 2 shows unemployment rates before the financial crisis, in the year 2007. The average unemployment rate in the OCDE was just below 6%, which is the rate that one would expect to see if a country is doing things well. The average unemployment rate of European countries was a little bit higher (about 7.5%). The rate in Colombia was 11%. Only one country of the whole OECD was performing worse than Colombia: Slovakia. Slovakia is a new economy, still suffering from the hang-ups of the centrally-planned economy of the Communist era, and it is improving. In Graph Nº 2 one can see the usual champions: Iceland and Norway, with a rate of unemployment around 2%; Denmark, Netherlands and Switzerland, with a rate of unemployment below 4%; and the United States or the United Kingdom, with unemployment rates about 5%. Those are the rates one expects to see of a country that is growing at the kind of growth rates that we are seeing in Colombia, so there is a lot of room for improvement in this context.

GRAPH N° 2

PRE-CRISIS UNEMPLOYMENT RATES (2007)



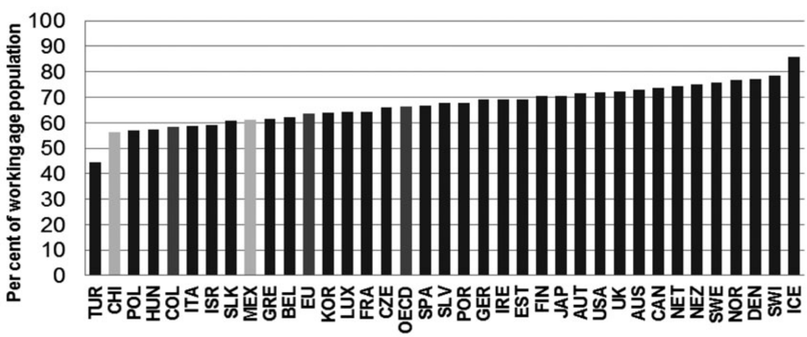
SOURCE: THE AUTHOR.

What about employment? Employment is the fraction of the population which is in jobs out of the working age population (aged 15 to 64). Here Colombia is not doing well (see Graph Nº 3) and it seems to be a Latin American problem. The average employment rate of the OECD countries is about 65%-66% of the population aged 15 to 64 years old. The average for Europe it's about 62%-63%.

Chile had an employment rate of 57%, Colombia about 58%, Mexico about 61%. These are relatively low employment rates. The same situation for European countries that have failures in the labour market: Poland, Hungary, Italy and Turkey (which had the lowest employment rate of all). The big success, again, is in Iceland, with an 85% employment rate. In Switzerland the employment rate is very high too, and then we have the cases of Denmark, Norway and Sweden.

GRAPH Nº 3

PRE-CRISIS EMPLOYMENT RATES (2007)



SOURCE: THE AUTHOR.

What does this all mean? We have a puzzle. On the one hand, we say that labour productivity is not growing, but in the other hand total income is growing. Why is that? The truth is that low productivity and high GDP growth rate are explained by the growth of oil and mining sectors, which are not labour intensive. It is like you have the wealth ready-made underground, you extract it, you sell it and your income goes up without the need to make labour more productive. Taking into account the high unemployment and the low employment, this story indicates that in Colombia there is something wrong with the labour market. We are talking about a country that is reaching resources and having improvements in income, but it has something wrong with the organization of the labour market. If there was nothing wrong with the organization in the labour market I would expect to see a 6% unemployment rate and a 65%-70% employment rate. So that is the big question: what is wrong with the labour market?

III. What's wrong with the labour market?

What is wrong with the labour market is what we might call a barrier to the proper functioning of this market. From what we know from research in other countries, there is regulation in the labour market that acts as a barrier to productivity growth and high-wage job creation.

Productivity growth requires education and training and employers need to have flexibility to create the jobs that can provide it. So if we are going to get productivity growth, we need to create the environment where there would be more education and more training that is directed at productive activities, and we need to give employers the flexibility to create jobs that can provide these characteristics, like training and education. We need to have secure long-term jobs where educated people would get trained and achieve high productivity growth.

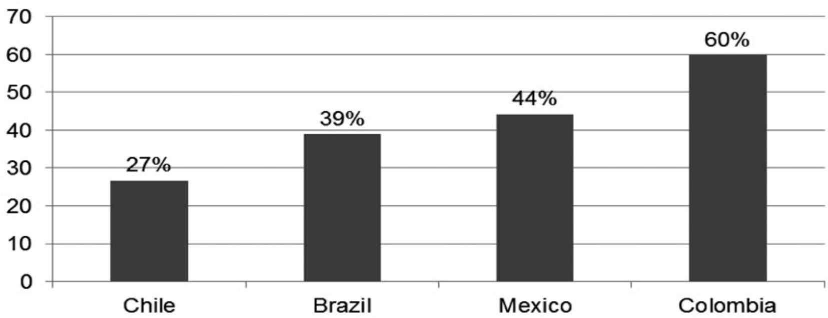
Instead, what we see in Colombia is that most job creation is in the informal sector, especially of the self-employed. The vast majority of self-employed and small enterprises in the private sector are in the informal sector and that is not quite the environment where we encourage the employer to invest in training. So we could identify that the failure of productivity growth is one that is due to the informality of jobs being opened, which are not conducive to the conditions that will create the education and training that will lead to fast productivity growth.

Graph Nº 4 shows comparisons of the informal economy across four comparable Latin American countries. Chile has an informal economy of about 27%; Brazil a bit higher, 39%; Mexico about 44%; and Colombia about 60%, on average; a very high number that is not consistent with an environment where we have good productivity growth and good relations. The Chilean example here is more or less what we find in the southern European countries, which are attracting a lot of attention now as failures in their labour markets. Greece might be a bit higher than that, actually. I would think that Spain and Italy are probably around that level. We do not have exact measurements, but they are about that level.

The implication is that informal employment acts as a disincentive to education and training, it leads to low productivity and what is more, it leads to a big divide between workers in formal employment and workers in informal employment, and that sustains more inequality, in terms of benefits, of wages and dignity in jobs. So informal employment, instead of reducing the very large inequality, enhances it. Graph Nº 5 shows the relation between informality (horizontal axis) and average monthly income (vertical axis) by region in Colombia. We can see that the relation is almost a perfect line. We have on the one hand Bogotá, the region with the highest income (a monthly mean income of COP 1,150) and the lowest informality (45% of informal employment). Pacífica, on the other hand, is the poorest region of Colombia (with a mean monthly income of COP 440) and it has the highest informality (69% of informal employment). So regions that have low informality are also the ones with highest income; and regions that have high informality are the ones with lowest income. What is striking, of course, to the outsider, is what a big different there is between Bogotá and Pacífica: in Bogotá there is 3 times as much income as in Pacífica, which is not something you find in other countries, actually. The other striking thing is this very close correlation, which could work both ways, in fact. It could be that with low incomes people try to avoid tax regulations even more and go informal, but then by going informal people are keeping income low because they do not conform to other regulations. Therefore we get that negative correlation.

GRAPH N° 4

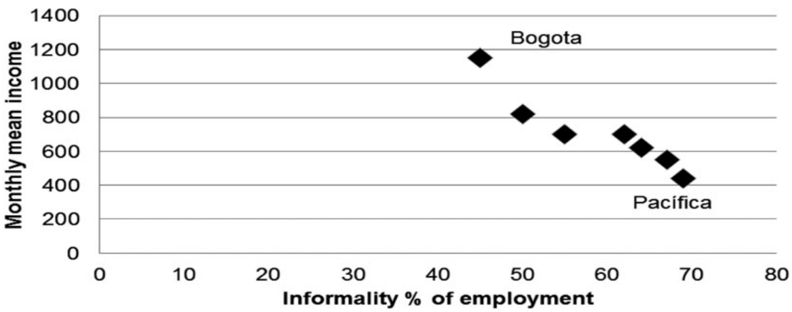
INFORMAL EMPLOYMENT IN SELECTED LATIN AMERICAN COUNTRIES (%)



SOURCE: THE AUTHOR.

GRAPH N° 5

COLOMBIA: INFORMALITY AND AVERAGE INCOMES BY REGION



SOURCE: THE AUTHOR.

What other things does informality do? Informality forces formal jobs to be heavily taxed, leading to a vicious circle with informality (large informal sector implies high payroll taxes which encourage informality). One way of breaking this vicious circle is to move taxes away from incomes and on to consumption, which is generally a good thing, except for one aspect: consumption taxes are not redistributive, so taxation then cannot help in reducing inequality. In fact, consumption taxes, if anything, are regressive, because poorer people spend a bigger fraction of their income on consumption and we tax them more heavily. Therefore, as a result, taxation in Colombia is not redistributive. It sustains inequality instead of reducing it through a redistributive tax system.

What about pensions and finance? There is no pension provision in informal jobs. No pension provision leads to more inequality because those in informal jobs have low pension wealth and low savings, and those in formal jobs have high ones. That is also bad for investment, because the biggest source of investment in many countries is the savings that pension funds make. We direct pension funds through the financial system into investment by companies and if we do not have wide pension coverage it means that we do not have enough savings to supply for investment. The same applies to other benefits, like unemployment compensation, and what governments do in that case, and the Colombian government does it too, is to use a pay-as-you-go system, but this system to finance pensions is not good for economic development and growth, because it deprives the country of the stock pension wealth that could be invested, so it discourages the development of a good financial sector and it discourages productive investment. So if we could find a way of reducing inequality, increasing a fully-funded pension scheme in the newly formalized jobs would also be good for productivity growth and wealth accumulation, because it would immediately provide a source for new investment, which is going to lead to productivity growth. So, in a way, it is a win-win situation to bring more jobs from the informal sector into the formal one, because it reduces inequality and at the same time increases investments and economic growth.

Summarizing, informality leads to low productivity growth, more inequality, non-redistributive taxation, low job security and social protection and low pension provision. Certainly it is not an attractive prospect to enter the labour market, which leads to low participation. And the labour market generally stagnates, leading to the high unemployment/low employment outcomes that we described before, because companies do not have the incentive to create many jobs to employ its people.

A second failure of the labour market is high unemployment. Unemployment is especially bad for young people, because it gives them what we might call a scarring effect: they get lower earnings and more incidence of unemployment in the future. We know that there is repeated unemployment once we enter the labour force if we experience it at a young age. There is a lot of disillusionment about unemployment, especially among young people, that might lead to crime. They need support. That is especially true for long-term unemployment. So it is important that governments support unemployment of more than 6 months through specific programs to avoid the problems of long-term unemployment.

IV. Causes of labour market failures

Labour markets have an institutional structure. Within that institutional structure, people (both employers and employees) will try and do as well as they can. Therefore, we have to view informality and high unemployment as an "equilibrium" outcome of a poor institutional or policy structure. Adam Smith, the founder of the economic science, said that given the set within which people operate, they will try and do the best they can, and that is how you should interpret the outcome. I do not want to interpret that as one side of the labour market forcing it on the other to profit more, like the employers, for example, forcing informality onto employees, or the unions forcing informality onto the employers. I want to look at it more as both unions and employers saying "*We have a given policy and institutional structure, and the best we can do is to create these informal jobs up to about 60% of total employment.*"

So what kind of institution could give that? We can go and ask generally what might give rise to informality. Informality is caused by the high cost of joining the formal economy, either because of high taxes or excessive regulation. When we have informality, what we avoid are taxes. We avoid conforming to any regulation that might be imposed by policy. In Europe, southern countries are the ones that have fairly high informality, and the reason (because there has been a lot of research) is due almost entirely to regulations in the labour market. Like in Greece, people might have to go through 20 offices before they can start a company, and therefore they start a company outside the formal economy just to avoid those 20 signatures that they need to collect. In fact, in Greece a company wanted to build a new hotel and tourist resort, but they needed 53 signatures before they had permission to start building it. The hotel and tourism sector is one that is doing well in that country. To avoid that, people can go informal, but this company didn´t do it in that case, because they were a respectable foreign company. So they managed to get the 53 signatures required. That is the kind of things that are being reformed. That is the kind of structural reform that is being implemented now in Southern Europe, and, in fact, both Spain and Greece have made big steps in that direction. I am going to mention later on what results we have seen from those big steps. But that does not seem to be the problem in Colombia, because the informality problem is even bigger; what is especially surprising is how big it is for salaried employees (about 60% of salaried employees are in formal employment, 40% in informal, which is an extremely high number).

I think that there are 3 factors that give rise to the informality in Colombia:

i) **Minimum wage**. Too high a minimum wage makes employers and workers who want to contract for less go informal. At this high minimum wage, other employers may not create jobs at all, causing unemployment.

ii) **Non-wage labour costs**. A non-wage labour cost is a cost that the employer has to pay when creating a job, that is not the wage rate that is passed on to the worker. So, generally, we could call it a tax. It has the same implication for the employer as a tax. And in order to avoid the tax, employers and workers go informal, or others are discouraged from creating jobs, contributing to unemployment. We do know from research in European countries, that countries with higher non-wage costs create fewer jobs and have higher unemployment rates and higher informal economies.

iii) **Social provision**. Generous non-contributory social provision (mainly health) which is lost in jobs in the formal economy paying above the minimum wage, because they become contributory. That it is like a low-wage cost; it has the same implication. It means that if people stay informal, then they do not have to contribute to get the benefit. If people go formal, they have to contribute and therefore there is a cost of going formal, and that makes people stay informal. In this case there is probably less of a direct connection with unemployment, but there is a strong connection with informality.

What about the benefits of formal employment? I do believe there are more benefits for formal employers, but do they give a direct incentive to go formal now? Well, the problem with the benefits from formal employment is that they are longer-term. It is something that we are going to enjoy, but not right now; maybe in 5 or 10 years´ time. Formal employment creates the environment for better training and investment, but the rate of return from better training and investment will come as higher productivity in the future. If we prefer to get our reward now rather than later, we can go informal now and we pay less tax, rather than paying the tax now and expecting more benefits from the higher productivity 5 or 10 years from now. The other benefit from formal employment is the contributory pension. But, again, the pension is something that we enjoy when we retire, which might be 20 or 30 years from now. It is well known that if you leave people to worry about their pension alone, they are going to worry about it too late. No one will ever think about their pension before they are 45, and if you start thinking at 45, even then, other people might tell you *"You are so young! Why are you worried about your pension?"* We know that if that is the attitude towards pension, we will end up penniless in later life. That is the problem with the incentives of going formal.

Are there any short-term benefits? Scandinavian countries, for example, have even higher taxes in Colombia, but they do not have any informality. They have the lowest informality levels. But the reason is that in those countries there are many benefits associated with holding a job, mainly social and protection of rights of the worker and employer, and people trust in those benefits. When the Danish or the Swedish government says *"We have to increase taxes because we need to provide more childcare*," the tax payers trust that the government is going to provide a good-quality childcare, and therefore they pay the taxes without going informal. However, in Colombia, the basic welfare benefits such as health are given unconditionally to low-income groups. That is what explains to a large extent why there is no informality in those European countries, although they have high taxes.

The minimum wage

The minimum wage can do a lot of good if selected carefully, but it can also do a lot of harm if it is too high. The beneficial effect of the minimum wage is that it encourages labour supply, especially of the less skilled and workers who are not represented by unions, but it is extremely important that governments choose the level of the minimum wage correctly.

In fact, an analogy that I made before is that a minimum wage is a little bit like wine: it does good to our health if we drink one glass of wine, but if we drink 10 glasses of wine a day, it will damage your health. Zero is not good, a lot is not good, but there is a mid-level that is good.

The problem with the minimum wage is that any job relationship that is less productive than the minimum wage will either be destroyed or it will go informal. What we mean by a good level of the minimum wage, one that is beneficial to the country, is to set it at a point where we do not want jobs below that productivity to come into the market, because they are wasting our labour resources. We are better off going into education if we are young; we are better off staying at home and looking after our children, if we have them; and we are better off going and getting training if we do not have any household activities to do. That is the right level of the minimum wage, one which cuts a line in the labour market, and below which job relationships are not beneficial for the country and the people that were going to do those jobs are better off employed somewhere else.

What is the right level of the minimum wage? It is very difficult to find it, of course, and it is something that should be part of ongoing research. It is difficult to say what the right level is because we cannot measure productivity accurately and it differs across countries. I think that every year there should be reevaluations of the minimum wage. However, we do have examples of beneficial effects of the minimum wage. For example, Card and Krueger in the United States found that the minimum wage was beneficial in the fast-food industry.

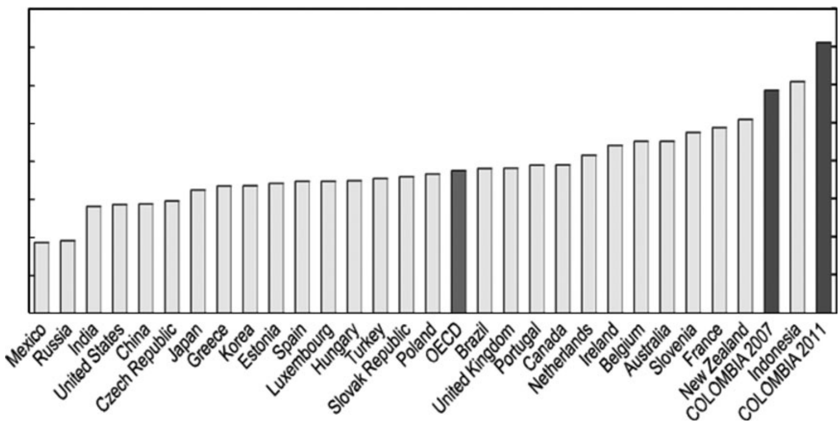
In the United Kingdom, the minimum wage has also been found to have beneficial effects on employment and inequality. It was introduced by the previous labour government, but the conservative government has kept it and follows the same principles, because of the benefits that it was perceived to have, but it is re-evaluated every year. There is a minimum wage commission, which every year does research on what the right level of the minimum wage is, makes recommendations and it is adopted by Parliament always. It is not a political decision; it is a pure technocratic economic decision.

In the United Kingdom, the minimum wage is about 45% to 50% of the median wage. Also, in the United Kingdom the minimum wage is lower for young workers (under 22) and even lower for very young people (16 to 17). But in Colombia, the minimum wage is much higher than those levels (see Graph Nº 6). We can see Mexico and Russia having very low ratios of minimum wage to average wage. The average ratio of the OECD countries is about 40%. We also can see the case of Colombia, with the highest minimum wage in the whole set of countries (70% of the average wage in 2011, up from 60% in 2007). The European country that has a minimum wage that is too high (and is believed to be affecting adversely the labour market) is France (50% of the average wage). In United Kingdom the minimum wage is about 45% of the average wage, which seems to be an adequate level in the light of the existing research.

It seems from studies done elsewhere that in modern societies a minimum wage up to about 45% of the average wage has no harmful effects, and it has beneficial redistributive effects and even positive labour supply effects. But a minimum wage above 45%-50% of the average wage causes unemployment and non-compliance in the form of a large informal sector. The outcome is that countries that have a higher minimum wage will have higher unemployment of low-skilled workers and a larger informal sector, which could explain why a fast growing country could have high unemployment and informality. Because of the low employment, there is more demand for social services, and therefore that explains why taxes are higher to finance those social services.

GRAPH N° 6

RATIO OF MINIMUM WAGE TO AVERAGE WAGE, 2011



SOURCE: THE AUTHOR.

So a single poor policy (too high a minimum wage) could be underlying a poor performance on a number of dimensions: high unemployment; large informal sector; and high non-wage costs (taxes) on formal labor. And the only beneficiaries from that policy are the high-income workers in secure jobs, such as the public sector ones. The public sector is the main, if not the only beneficiary from a high minimum wage.

What can we do about that problem imposed by a too high minimum wage?

A reform is urgently needed if a country is to take advantage of its skills and the liberalization of the business environment. One option would consider splitting the minimum wage between young and older workers, essentially to have a lower minimum wage for young people. Another option would also split the minimum wage by occupation, so different occupations would have different minimum wages on the basis of their productivity.

Given the political constraints, an adjustment of the minimum wage to a more reasonable level must be done gradually. For example, we could allow increases in the minimum wage that match past inflation, not productivity, until the productivity rise catches up with it and brings the ratio of the minimum to the average wage a more reasonable level, like 45% or 50% instead of 70%. And the real incomes would be protected during that adjustment period.

In the meantime, we would give help to employment. The minimum wage may take a long time to adjust, even if the policy is followed immediately. So in the meantime, low-wage employment can be helped with wage subsidies by the government: firms that hire unemployed in the formal sector could get a wage subsidy for a limited period. That is a strong incentive and would reduce informality. And I would leave it there with the minimum wage.

Non-wage employment costs

Non-wage costs in Colombia are very high by conventional standards, up to 60% or more for lower incomes. Coupled with the minimum wage this makes formal employment too expensive. I should add that the recent cut in payroll taxes is welcomed and should have a positive outcome on employment.

What roll do payroll taxes play? Payroll taxes should be used to boost the social security fund, to finance added benefits of employment, but should not be used to collect general tax revenue. For example, payroll taxes could be going towards a pension contribution or towards a contribution to unemployment compensation, but not into the general government budget.

The general government budget should consist of income and consumption taxes (VAT), not of employment taxes. If there is a clear link between the payroll taxes- the non-wage costs- and the social security benefits, then the effect on employment should be minimal, especially when low-wage jobs are not taxed.

The best kind of payroll tax is one that is progressive. Jobs near the minimum wage do not get taxed. They have zero payroll tax because they are very sensitive to these taxes. Higher-wage jobs have a payroll tax and the revenue from that is used to finance benefits to employed people, like insuring them if they lose their job until they get another one or providing a pension for them when they reach the retirement age. If we structure the payroll taxes in that way, although they will be non-wage costs of employment, they are not going to have a negative impact on employment, they will be equitable and will provide support for those who lose their job. For that to happen, workers should be clear about the link between cost and benefit, and that is the job of the government: to publicize that widely and make workers aware of it.

In the case of a pension in particular, there could be a very close link by creating individual savings accounts that come out of the payroll tax, because then the worker can see how much money is under his or her name. In the case of unemployment benefits, we do need redistribution in unemployment benefits. The majority of jobs are fairly secure but those who lose their job need to be financed, so it is a case of solidarity amongst workers. Those with high-income pay, who lose their jobs involuntarily get subsidized when they lose their jobs to maintain their standard of living. In some countries like Scandinavia, this is going a little bit too far: there is extreme solidarity amongst workers. That is why we have an inequality index of only 3, the top 10 over the bottom 10. In Europe there is a strong sense of a welfare state, what they call a sort of "social democratic kind of state". We need to avoid the big employment impact of these payroll taxes.

Most of the disincentives of non-wage costs are in the low-wage jobs, and that is why non-wage costs should be made progressive. Wages close to the minimum wage should not pay any payroll tax, is to say, non-wage costs should be zero in that case. If we want to avoid the disincentives, the cost to the employer should be only the minimum wage. At higher wages, disincentives are much less. For high-wages, to avoid informality, we need strong policing and strong punishment if workers go informal.

V. Political economics of labour reforms: how to deal with a labour market reform

On the basis of what has been indicated previously, there is clearly need for reform in the Colombian labour market. With the natural resources that Colombia has and the fast growth rates, unemployment should not be more than 6%, informality should be below 30%, employment rates should be 70% and everyone should have access to good social services and pensions. All these objectives are feasible, given the state of economic development that this country has.

The incentives need to be shifted from informality and non-participation to work. The way to do that is to give more incentives to people who are in employment than people who are outside employment. We have examples of that in Europe: Britain under Thatcher and the Netherlands and Germany under Schröder implemented such policies. My own preference is that the cooperative approach of Schröder - and the Netherlands, actually, I should add- is definitely preferable to the heavy-handed approach of Thatcher. I mean, Thatcher's approach was that there is no alternative: *"I am going to hit you with the law and, if necessary, bring the army out to enforce it,"* and even 30 years later, her death was not greeted with sorrow everywhere, sadly. I think Schröder will go down as the man who saved the economy of Germany. He lost the election, of course. Unfortunately, it is one of the misfortunes of great politicians, that they do lose elections. We have many examples of that, but that is a sacrifice, I think, that politicians should make for the benefit of their country.

What specific policies can we recommend? The minimum wage should be allowed to drop gradually down to 45%-50% of the average wage. Also, we should gradually reduce non-wage costs, starting with low-wage jobs. And there should be a link of social benefits to formal employment, except for basic health care, which should be provided universally, because we do not want to have a country with sick people not being able to get basic health care.

I do believe that, when money becomes more plentiful, supporting low incomes at work with subsidies is very effective. It is something similar to negative taxation that Milton Friedman advocated for many years. That could be given in the form of subsidies for low incomes. Again, it is something that Germany has implemented in the current recession with big success.

The unemployment compensation should be generous, up to about 9-12 months in recession times, and move workers on to programs where some kind of training is involved or a kind of matching services. This is what Scandinavia has pioneered. Unions agreed with Schröder to apply this policy with very positive results. And more and more countries are moving in this direction now, following the lead of Sweden and Denmark.

The regulation of employment should be reduced (such as employment protection policies), and the country should open up to international trade. Of course, by reducing regulation, we should not create too many uncertainties about people's income, but what we should do is to ensure people's income, not people's jobs. What people care about is family income, the standard of living of the family. Some Southern European countries are champions in this, especially Italy and Spain. Spain, actually, is the champion of the world in this. They thought that one way of securing family income was to secure jobs. Once you get your job, you are not allowed to lose it, the employer is not allowed to fire you, and they think that in that way they secure the family income. That is the wrong way of doing it, because we distort the labour market. The way to secure family income is to have government-provided insurance. The government should be taxing all jobs according the progressive principles that I outlined before, and when the employer decides to switch or decides that it is time for a job to be destroyed because it is no longer productive, then the government should step in and insure the worker who loses that job, so as to maintain the family income at reasonable levels, but we allow the employer to switch between employees or between sectors of employment according to the needs of the economy. It is a much better system for the operation of the labour market and for productivity improvements, which, at the same time, secures family income. That is the sense in which I say that employment protection policy should not be very strict. It is not that I want workers to fall into uncertainty about their family income. The family income, though, should be secured by the government, should be ensured by the government, not by the employer.

One thing to note about these policies is that they do take a long time to have a positive effect. In other words, policies that liberalize the labour market have a positive impact on productivity and employment but with a substantial lag. We have some examples. In the British case, the lag was something like 5 to 6 years; it was not until 5 to 6 years after the policies were implemented that we saw a positive impact in the labour market. In Germany, because the economy and the world economy were growing at the time, between 2002 and 2007, policies took something like 3 years to have an effect; we did not see any positive effect of the Schröder reforms until January 2007, which was, on average, 3 years after they were implemented. Spain did some positive reforms in 2010 and 2011, and there are still no positive effects to see. Spanish economists are saying that that is because unions are not cooperating very well now; that might be the case, but we are now in the second or third year after the reforms were implemented and there are still no positive effects. Greece has done a lot, considering their starting position; but we have not seen any positive effects yet; in fact, the Greek economy is still going down. The Greek reforms took place around 2011-2012, so we are still waiting.

So, this is something important to bear in mind: there are lags in effects. Do not expect miracles but patience is rewarded. We do not expect miracles from the payroll tax now, for example, but expect to see positive impacts 2 to 3 years down the line. I believe that this is the big mistake that the *troika* is making in Europe, especially the International Monetary Fund (IMF). They are imposing fiscal austerity at the same time as the reforms, but fiscal austerity has a negative impact on the economy immediately. If we raise taxes now, people will stop spending now. Reform the labour market and the new jobs will come on, and people will benefit 3 years from now. In the meantime, the economy will go down, so we are trying to persuade the participants in the labour market to cooperate and we are hitting them hard in the beginning, saying *"Accept the pain, because 3 or 5 years from now, you'll be better off"*. But that is like going to the hospital for a disease and the doctor telling us, *"I'm going to give you medication that will make you very sick for the next 5 years, but don't worry, 5 years from now you'll be healthy!"* How many will want to go to a hospital under those conditions? Only if the alternative is death would we do it! I think that this is a key mistake of the *troika's* approach to reform in Europe, and this is why we see happening what we see in southern Europe. I do not know how they do not see that point.

In Colombia, the distortions in the labour market—in some dimensions—are even bigger than in most of the European countries. But Colombians are lucky, in a way, because they have rich natural wealth and no debt problems, so they do not belong to Club-Med. They are not Argentina, and therefore do not need to call the IMF, which is the best thing that could happen to a country. Therefore, they can use the fact that they are growing so fast now, they have natural wealth, and it is the most fortunate combination of circumstances for pursuing the reforms under a cooperative approach. It is where Germany was in 2002, in fact, when Schröder came in. The only downside might be that the government will lose the next election, but that is a small cost to pay to fix the country. That is only looking at history. Maybe things will be different here.

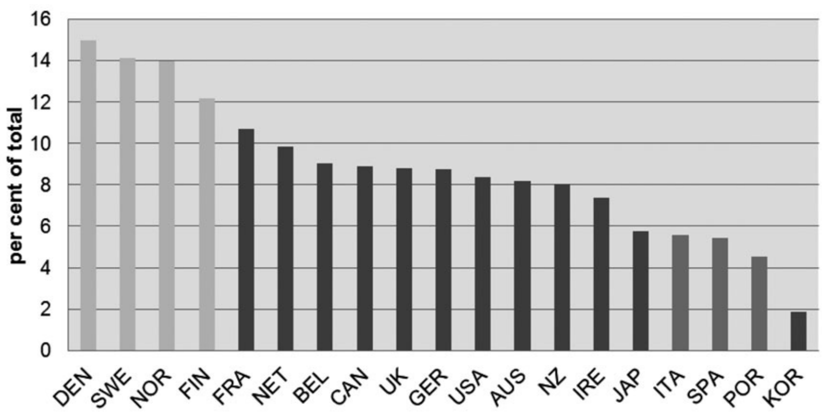
As a final remark, I would say that in modern labour markets, governments take on the role of providing good quality social services to support workers. The system that I have described is what is known as the *flexicurity system*, where there is flexibility for the employer and security provided by the government. The pioneer was actually the Netherlands, quite a long time ago, but Denmark is the current best practitioner and the one that is pushing the line with success in the EU, giving firms a lot of flexibility in their employment choices.

What about financing of the social services? The financing, I think, should be done through taxation, not through dead build-up. Budgets should be balanced. If the revenue is used with transparency to support social policy, there should not be disincentive effects. The tax will have a negative impact only if we see it in isolation but the use of the revenue has a positive impact and offsets it. In OECD countries the "social" services (housing assistance, child benefits, cash transfers to spend on basic needs, etc.) are provided by the government. Scandinavian countries are pioneers, southern Europe and Japan-Korea much less.

Graph Nº 7 shows the share of employment in health and social care, which is an indicator of how generous the social services are in some countries. We can see that the most generous social services are in Scandinavia (Denmark, Sweden, Norway, and Finland). The majority of the EU is in the middle in provision of social services. The countries that have failed badly in the provision of social services are Italy, Spain, Portugal and some Asian countries (Japan and Korea). Interestingly enough, these are the countries that have the highest spending, and the reason is that they have high debt and tax evasion because they do not provide the social services and people are less inclined to pay the taxes. For example, Italy is probably the most highly-taxed country in Europe, and it is also the one with one of the lowest provisions of social services in Europe, so the obvious question of an Italian taxpayer is *"What do they do with the money that the government collects?"* I have heard many answers from my Italian friends, and that is an incentive for tax evasion. *"Why should I give them the money when it disappears down a black hole?"* That is the attitude we see in those countries, whereas if we go to a similar tax country, Sweden for example, people know what they do with the money: they provide all these social services, which are good for the people. So that is why I say that there should be more transparency on what is being done on the budget, and then governments will avoid the incentives for informality.

GRAPH N° 7

SHARE OF EMPLOYMENT IN HEALTH AND SOCIAL CARE



SOURCE: THE AUTHOR.

Of course, different countries develop different institutional structures by historical accident or other reasons. So I am not saying that everyone should have exactly the same structure. We should work within our institutions. Once they work well, there is no need to change them. Policies of the type "one size fits all" are not good policies target in labour markets.

It is important to note that improving the quality of life of low-income workers with subsidized social services or social transfers is good for social cohesion and productivity growth. In Scandinavia workers and employers comply despite high taxes because they have positive perceptions of the quality of social services provided.

Finally, for reforms to succeed, it is extremely important that the policy is viewed as benefiting all and that policy-makers are acting in the best social interest. Mistrust of politicians and their motives might be the reason that reform in Greece is not yielding positive results. In this sense, cooperation amongst social partners seems essential for this to succeed.

LABOUR MARKET AND PENSION COVERAGE

DANTE CONTRERAS[1]

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A first message that I want to underline is that labour markets in Latin America transfer their imperfections to their pension markets. If one wishes to change this dynamic, then one should take notice of at least three factors. First, it is necessary to work towards changes in the labour market, which is generally forgotten when reforms of this type are being discussed. Secondly, modifications should also be encouraged in the pensions market, though these are certainly restricted by political economics and also by fiscal restrictions in the various countries. And thirdly, it must not be forgotten that experience in Latin America in the past 20 years shows that structural reforms in pension systems are very expensive in fiscal terms and also that the demographic change taking place in the region just makes the problem bigger and more significant. This last point must be considered not only from the point of view of the fiscal costs, but also in designing incentives for transfers and public sector expenditure.

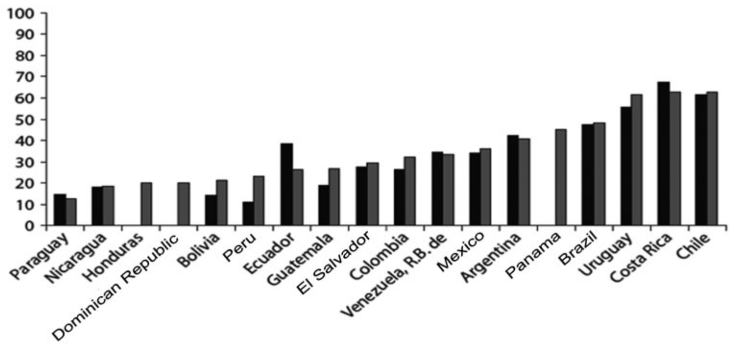
A second message to be delivered involves the need to weigh up the optimism of the pension industry in the region. I believe that there are some medium and long-term challenges that are very relevant, which will be analysed below.

The problem

What, in my opinion, is the problem? Graph Nº 1 shows the pension coverage (of contributory systems) in the countries of Latin America and the Caribbean. What we see is that pension coverage is low and heterogeneous. The same conclusion is reached if we examine the distribution of pension coverage for each of the countries by quintile of income (see Graph Nº 2).

GRAPH N° 1

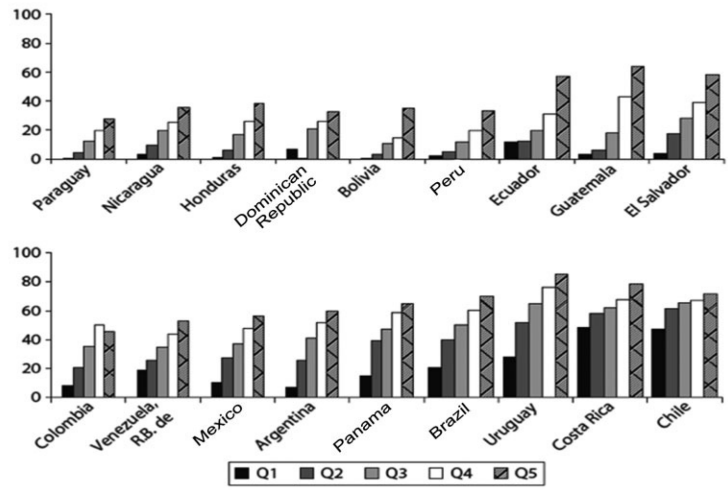
CONTRIBUTORY PENSION COVERAGE IN LATIN AMERICA AND THE CARIBBEAN, 1990 AND 2000
(% OF THE ECONOMICALLY ACTIVE POPULATION THAT CONTRIBUTES TO THE PENSION SYSTEM)



SOURCE: ROFMAN, LUCHETTI AND OURENS, 2008.
NOTE: THE DATA ARE FOR THE YEAR CLOSEST TO 1995 (FOR 1990) AND 2006 (FOR 2000).

GRAPH N° 2

CONTRIBUTORY PENSION COVERAGE IN LATIN AMERICA AND THE CARIBBEAN IN THE YEAR 2000 PER QUINTILE OF PER CAPITA INCOME
(% OF THE ECONOMICALLY ACTIVE POPULATION THAT CONTRIBUTES TO THE PENSION SYSTEM)



SOURCE: ADAPTED FROM ROFMAN, LUCHETTI AND OURENS, 2008.

To summarise, there is low coverage and, what is more, contingent on this low coverage there is also significant heterogeneity to be observed between countries. Greater heterogeneity also occurs between income quintiles within countries and by gender.

When one adds to this situation the obvious gaps in social security, the economic crises and the lack of competition, then the result is inevitable: in addition to low coverage, there are low pensions. And these low pensions are simply the reflection of what is happening in the labour market but also, importantly, in the design of public policies.

In fact, according to this analysis, public policies are going to play an increasing role over time in the region. So, given the heterogeneity existing in the countries, it is going to be very important to monitor the way in which these public policies are implemented in the various countries and how this affects the pension market.

The design of public policies is not neutral, so it is very important to take care of incentives and devote considerable attention to the fiscal pressure that these can exert, anticipating the effects on the AFP market and the pension system in general.

Are the aforementioned problems the fault of the AFP market? My answer is no. However, there is room for improvement, and for the sector to become more involved in different public policies and designs for the labour market, as I shall be mentioning further on.

For this reason, it is of the utmost importance to anticipate forthcoming problems and policies, in both labour and social spheres. Given below are the factors to which attention should be paid.

Some common elements in Latin America that must cause us concern for the medium and long term are: gender productivity and fairness, the labour market, income inequality, the demographic transition and informality in the labour market. Each of these points is analysed below.

Gender productivity and fairness

Several studies from the World Bank and Inter-American Development Bank (IDB) show that the region displays low productivity at work, low wages and high periods of unemployment (gaps), particularly in the case of women and young people in situations of risk. This fact switches on the first warning light, in other words, public policy cannot be directed at the labour world in general. On the contrary, it must be thought of in a focused way. Women and young people at risk are certainly key actors within the low-productivity segment.

Increasing long-term productivity is not something that can be done by decree. Increases in productivity involve significant improvements in the quality of education in the region, and that in my opinion generates a virtuous triangle between productivity, fairness and efficiency. There are very few economic policies that combine these three dimensions. Investment in quality education in the region is, and will be, a priority in the coming decade.

According to a sample from Latin American countries, coverage for very elderly women was approximately 10 percentage points lower than that of very elderly men. This is accounted for by the fact that women have a greater life expectancy at birth than men, have a smaller share of the labour market, suffer discrimination in the labour market and have more “gaps” (largely explained by bringing up children). Therefore, in addition to the investment in human capital, it is important in this area to continue the fight against gender discrimination in the labour market. Furthermore, since the women are not the only ones with responsibility for their children, policies should be designed to allow the costs associated with having children to be distributed more fairly. This could be solved, for example, by awarding a grant per child, as happens in the case of Chile and Uruguay. Public pension schemes reduce gender inequalities, whereas private schemes accentuate them, so the latter should introduce mortality tables that are not differentiated by sex, to avoid women receiving lower incomes and the pension being divided between the spouses, as happens in Chile's case.

The AFP Market

With regard to the market, it seems to me that there is room in the region to increase and stimulate competition. For example, there was recently a tendering of the membership portfolio in Chile and Peru which resulted in a considerable drop in the administration fees charged. However, we have an important puzzle to solve in Chile, namely, to understand why members did not change to any significant extent to the AFP that was offering a lower fee after the tendering. I believe it is an important matter that needs to be studied and deserves more attention than it has received so far.

However, it is always a good thing to continue furthering competition, so deepening the portfolio tendering processes seems a reasonable recommendation.

Information also plays a key role in the markets. Information can contribute to a considerable extent to improving the markets. We have the recent case of the confusion caused among members in Peru as the result of the tendering process described by former Minister Valdivieso. A recent study by Óscar Landerretche (2013) shows how financial education affects decisions regarding the choice of multi-funds and AFP. Therefore, every effort that means providing better information and financial education is going to be of key importance in improving the development of the AFP market.

Furthermore, I believe that together with improving the sources of information, we must also improve the databases that exist. Information about excluded workers and their socioeconomic conditions could be compiled on the basis of improved social security statistics or through house-to-house studies and surveys. The world's economic recovery has been weak, and the financial markets are still unstable, so it is necessary for pension supervisory bodies or other competent authorities to make a thorough review of the rules governing portfolio composition and also investment instruments and their limits. I believe that it is important for the industry to get more involved in these processes.

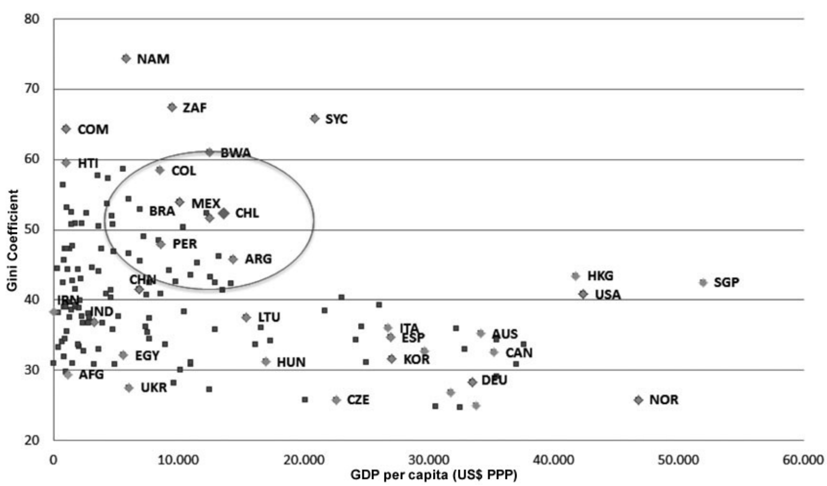
With the aim of minimising the negative effects of the instability of the capital markets, it seems highly recommendable to encourage multi-fund schemes such as those that exist in Chile, Colombia, Mexico and Peru.

Inequality

Graph Nº 3 never fails to appear in presentations of different types in the region when talking about inequality. In it one sees the ratio between the GDP per capita and the Parity of Purchasing Power (horizontal axis) and the Gini Coefficient (vertical axis). The countries of the region (Argentina, Brazil, Chile, Colombia, Mexico and Peru) appear in the circle, these being rated in international opinion as countries with average income and high levels of inequality. In Graph Nº 4 it is possible to see for Chile's case the distribution of income by percentiles from 0% to 100% (horizontal axis) and the level of income of the main occupation. The shape of the income distribution that exists in Chile tells us that income distribution from work is quite flat at the beginning (i.e. up to percentile 80 or 90), so the high levels of income are explained only by the behaviour of the upper 10%. That pattern is more or less recurrent in the region.

GRAPH N°3

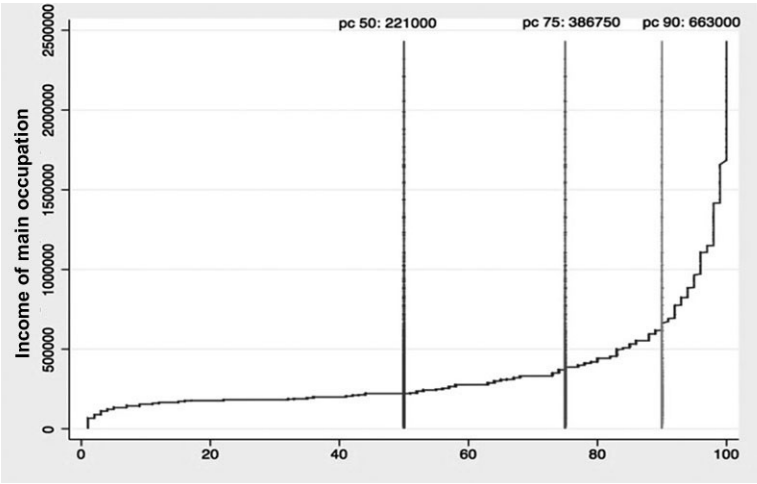
GDP PER CAPITA AND GINI COEFFICIENT



SOURCE: WORLD DEVELOPMENT INDICATORS, WORLD BANK.
NOTE: GDP PER CAPITA (PARITY OF PURCHASING POWER, PPP) IN DOLLARS AS OF 2005. DATA CORRESPONDS TO THE YEARS 2009 AND 2010. THE GINI COEFFICIENT CORRESPONDS TO DATA FROM 2005-2006.

GRAPH N° 4

CHILE: INCOME DISTRIBUTION OF THE MAIN OCCUPATION



SOURCE: PRODUCED BY THE AUTHOR ON THE BASIS OF THE CASEN SURVEY.

To summarise, the Latin American region presents a high level of inequality in total incomes, and there is also great inequality in income from work, meaning that there is a direct mapping between what happens in the labour market and what happens to families' total income. Of course, as a consequence of the above, if there is inequality of income and wages, we would naturally expect to see significant inequality in pensions, representing an absolutely direct effect.

Therefore, if this pattern of inequality lasts for a long time, as has actually been happening, then the Government is going to intervene increasingly through public policy. How does a policy-maker intervene in this area, if it is obvious that there is great inequality in pension matters? The most likely outcome is that an attempt will be made to try in some way to compensate for this inequality in pensions. So here a question arises as to the options that exist and their dynamic effects on the pension system, and also the public funds that are going to be involved. Not all "methods" have the same result. The design of incentives is going to be vital in optimising this intervention of public policy.

Furthermore, we have before us the problem of labour participation, concentrated once again mainly on young people and women in the region. A new element must also be added to this: according to the World Bank report on middle classes and vulnerability (2012), the middle class in the region has indeed been expanding, which is good news, but it also states that this is a population mass that suffers considerable fluctuations in income and is therefore in a vulnerable situation.

The discussion therefore arises on how much one wishes to protect the labour market versus ensuring income for families. That discussion is going to be very important in the coming years and is also going to be very relevant for the effects that it may have, for example, on the contributions that people can finally pay during their working lives.

So the design of social protection policies will probably increase over time. We have, for example, the Chilean case in which the solidarity pillar has been installed, advancing basically towards mixed systems of protection for old age. Part of the pensions are paid via individual funding and another part provided by the State. The question that one should be asking oneself, and I believe it is relevant for the whole pension sector, is: Are we going to see increasing State involvement in pensions? And, if so, what resources are going to be involved? What is the best design for incentives? If we add to this the demographic problem and health costs, the fiscal pressure is going to be quite significant. I believe that we should all be thinking ahead about how this is going to affect the different countries in the region. One good piece of news is that, given the heterogeneity of the region, there will probably be cases from which we can learn. There are learning opportunities that will allow us gradually to optimise our designs.

Demographic transition

The demographic transition is no longer front-page news. Latin America is getting older. There are different degrees of progress in the demographic transition across the countries in the region and this is therefore yet another opportunity to observe and learn from the other countries.

The obvious recommendations for dealing with this problem are to raise the retiring age and the contribution rate. Table Nº 1 shows the retiring age for various countries in Central America. One sees considerable heterogeneity in the ranges of retirement. Table Nº 2 shows the stages reached by different countries in the demographic transition. In Latin America, countries such as Argentina, Brazil, Chile and Costa Rica are classified as being in the advanced stage of the demographic transition, while Cuba and Uruguay are very advanced. Almost all the rest of the countries (Ecuador, El Salvador, Mexico, Peru, Venezuela, etc.) are in the middle of the demographic transition. In other words, what awaits us is an increasingly long-lived Latin America with a higher percentage of population in the third age.

TABLE N° 1

REQUIREMENTS AND CALCULATION BASIS FOR AN OLD-AGE PENSION, AND HOW PENSIONS ARE ADJUSTED FOR INFLATION IN CENTRAL AMERICA, 2010

Countries	Retiring Age (years)	Contribution (years)	Basic wage (years)	Adjustments for inflation
Belize	64/60	10	Best 3	Discretionary
Costa Rica	65	25	Last 20	CPI
El Salvador	60/55	25	Last 10	Discretionary
Guatemala	60	15	Last 5	Discretionary
Honduras	65/60	15	Best 3-5	Discretionary
Nicaragua	60	15	Last 5	Discretionary
Panama	62/57	15	Last 7-10	Discretionary

SOURCE: MESA-LAGO (2012).

TABLE N° 2

LATIN AMERICA AND THE CARIBBEAN: POSITION OF COUNTRIES ACCORDING TO THEIR STAGE IN THE DEMOGRAPHIC TRANSITION, FOR THE QUINQUENNIAL PERIODS 1950-1955, 1985-1990, AND 1995-2000

1950-1955				
Incipient transition		**Moderate**	**Full**	**Advanced**
Bolivia 2.3 Brazil 2.9 Chile 2.3 Colombia 3.1 Costa Rica 3.1 Ecuador 2.6 El Salvador 2.8 Guatemala 2.8	Haiti 1.6 Honduras 3.0 Mexico 2.8 Nicaragua 3.1 Panama 2.7 Paraguay 3.1 Peru 2.6 Dominican R. 3.0 Venezuela 3.4		Argentina 1.6 Cuba 1.9	Uruguay 1.1
135.8 million (84.3%)			23.0 million (14.3%)	2.2 million (1.4%)
1985-1990				
Incipient transition		**Moderate**	**Full**	**Advanced**
Bolivia 2.6 Haiti 2.8		Nicaragua 3.2 Guatemala 3.0 Honduras 3.2 Paraguay 3.0	Ecuador 2.4 Peru 2.3 Costa Rica 2.5 Panama 2.2 Venezuela 2.5 Mexico 2.4 El Salvador 2.3 Colombia 2.1 Dominican Republic 2.3 Brazil 1.9	Chile 1.8 Argentina 1.3 Cuba 1.1 Uruguay 0.8
13.6 million (3.1%)		20.8 million (4.8%)	338.5 million (78.4%)	59.4 million (13.7%)
1995-2000				
Incipient transition		**Moderate**	**Full**	**Advanced**
Haiti 2.1		Guatemala 3.0 Bolivia 2.4 Nicaragua 2.7 Honduras 2.8	Peru 2.0 El Salvador 2.2 Paraguay 2.8 Ecuador 2.0 Venezuela 2.0 Mexico 2.0 Dominican Republic 1.9 Colombia 1.9 Panama 1.9	Costa Rica 1.8 Chile 1.3 Brazil 1.3 Argentina 1.2 **Very Advanced** Uruguay 0.8 Cuba 0.6
8.4 million (1.6%)		31.1 million (6.1%)	226.8 million (44.3%)	245.7 million (48.0%)

SOURCE: CEPAL/CELADE CURRENT POPULATION ESTIMATES AND FORECASTS.

As was stated, the obvious recommendations were to raise the retiring age and the contribution rate. The inevitable question is: who pays for or finances this increase in the contribution rate? What percentage is going to be paid by the workers, what percentage by the employers and what percentage by the State? Once again, the design is important: either of the following two options, or the combination of both, is going to require political agreements that are difficult to achieve. One of them is to introduce a gradual increase in retiring age and contribution rate for the new generations, in order to include or anticipate this rapidly approaching demographic change. The second alternative involves seeking packages of benefits to offset the higher costs of implementing these reforms in the contribution rate and retiring age.

Therefore, discussion about the best package of benefits and the best instruments to enable political stakeholders to be convinced and persuaded to reach these two targets, will be of key importance.

There is recent evidence on subjects related with what has been mentioned above. Bertranou, Solorio and van Ginneken (2002) have shown that pensions financed out of taxes and appropriately targeted have reduced poverty in Latin America considerably. A reduction in inequality in Latin America is good news. However, I believe that we should also look carefully at the way in which we have achieved such improvements in inequality. Most, or a considerable part of the improvements in inequality are explained by what are known as conditional cash transfers (CCTs), with Brazil being the extreme case. Improvements of that type have to be compared with sustainable, longer-term policies that support economic development, such as those that have to do with employability and quality of education.

In another sphere, a recent study by Sergio Urzúa of the University of Maryland and Andrés Otero of the UCLA shows preliminary evidence about the solidarity pillar in Chile. The results show that that pillar has tended to reduce participation in the labour market, due basically to an income effect. Once again, design matters, and therefore we are going to have to predict the way in which the various fiscal balances are going to be affected, and its impact on the labour market.

Informality

In Graph Nº 5 it is possible to see the world's informality rate, Latin America being the region with the highest rate. Graph Nº 6 shows the percentages of informal non-agricultural work for different countries in Latin America and the Caribbean for the years 2009 and 2011. High levels of informal employment can be observed in the region, with great heterogeneity between countries.

The informality of the labour market has direct effects of coverage and contribution density. The empirical evidence shows that informality is concentrated among young workers, the self-employed, family and domestic workers, and those in micro-businesses, with low levels of productivity and no employer. Furthermore, when these people find an employer, they generally avoid paying contributions, so they do not benefit from social security coverage. These people are therefore excluded from future benefits, meaning that the problem for public policy will consist once again in trying to include them.

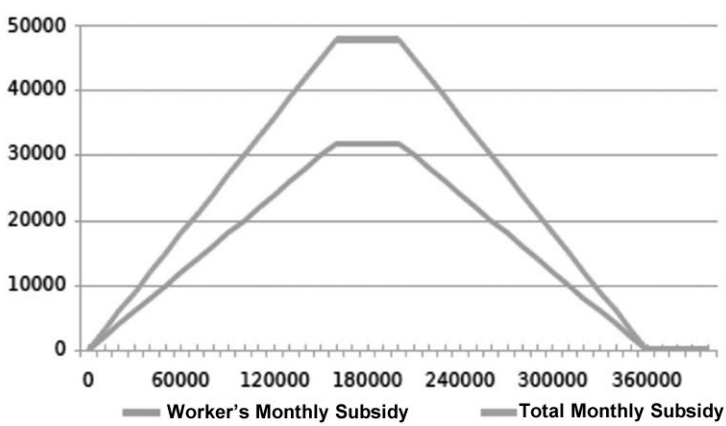
Mesa-Lago and Castañeda Angarita (2010) show that for each 1% increase in the informal sector, the pension coverage of the economically active population falls by 1%, while for each 1% increase in the incidence of poverty, the coverage falls by 0.33%. There is therefore a clear effect for which we must take responsibility. What can be done? Professor Pissarides has said that we have to concern ourselves about incentives, so that people will work, and also about what is known as "negative taxation". Explained below is a pilot scheme carried out in Chile, which has that spirit and may be informative and useful for the discussion on this topic.

A less traditional proposal: employment, targeting and incentives

A couple of years ago, an "Earned Income Tax Credit (EITC)" was invented in Chile for young informal workers, basically because this group has low productivity, high unemployment, and high informality. This policy was also described as a pilot scheme, so that we were able to monitor it and see whether it really had any effect, whether is worked or not, and the quality of its implementation.

The EITC programs are schemes that encourage people to participate in the working world by means of a direct subsidy. In other words, if the person works, his/her subsidy grows until it reaches a level where it levels off. Then, if the person continues to generate income, the subsidy is not withdrawn immediately, but gradually (see Graph Nº 5). As a result, with this design there will always be an incentive to participate, to become formal and to generate higher levels of income.

GRAPH N° 5
CHILE: BENEFITS OF THE SUBSIDY ON YOUTH EMPLOYMENT, BY WAGES



SOURCE: PRESIDENTIAL COMMISSION ON WORK AND EQUALITY.

The EITC program that was designed in Chile (Youth Employment Subsidy (SEJ)) was directed towards young people between 17 and 25 years of age. The main aim of the program was to increase the rate of employment and formality in that group. The subsidy amounted to 30% for young people under 25 years of age. Of that subsidy, 20 percentage points went directly into the worker's wage and the other 10 percentage points to the employer, in order to encourage the hiring of these workers. This is an indirect way of reducing the minimum wage, because part of the wage is given by the direct subsidy to the employer. This scheme therefore makes it possible to "get round" the minimum wage, at least partially. Another important aspect is that in the case of self-employed workers, the subsidy went directly to the AFP via the contribution.

What were the results of this scheme? Rau et al. (2012) show positive effects on the employment of these young people and the greater use of workers in relation to companies. Though this is preliminary assessment, it already shows positive results and it is important to examine them more closely. Naturally, a program with these characteristics can be complemented by adding an analysis according to the number of children each worker has, and whether or not he/she lives in a rural area. It is also possible to add training as an extra element. In my opinion, this program is better than direct subsidies on contributions, because it is linked with work and stimulates participation, especially if young people are involved at an early age.

Closing thoughts

To close, it is important to offer some relevant thoughts in the light of what has been explained.

Basically, I have an opinion about the growing participation of the State in social policies, due to demographic trends. I therefore believe that it is important to say that care must be used in the design of incentives and a lot of attention given to the fiscal impact of all interventions.

Labour and social policies have effects on the pension industry that are by no means neutral, and this is going to be increasingly true. I therefore believe that the private pension fund sector should become more involved in this matter, communicating better by improving the quality of information and reinforcing the technical teams to monitor and evaluate the various policies.

LABOUR MARKET AND PENSION COVERAGE

AGNIESZKA CHŁOŃ-DOMIŃCZAK[1]

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In this brief article I would like to complement the views of Professor Pissarides with some of my own perspectives on the pension coverage and pension systems, based on the results of a recent research conducted under the NEUJOBS research project[2].

If we look from the life course perspective, labour markets and pension systems are two sides of the same coin. We work, we earn money, we pay contributions, and those contributions form the basis for our benefits. This is particularly true in pension systems such as the ones in Colombia or in Poland, which link the contributions that are paid throughout life in financial Defined Contribution (DC) systems very closely with the amounts of pensions that people receive.

It must be noted that there are other challenges for pensions systems (apart from the labour market) that stem mainly from demographic development and the fact that populations are aging all over the world. People live longer lives, which is a tremendous achievement, but this also means specific challenges, both for labour market policy (as people have to work longer), and for the pension systems (as people's retirement periods last longer).

I will compare the demographic trends with developments in the economic labour market and pension system, in order to see if we can supplement some of the labour market differences in pension systems. Can pension systems compensate for the labour market shortages? I will do this exercise for women, because I am a woman and I think that women have a different situation in the labour market, which also affects their rights in the pension system.

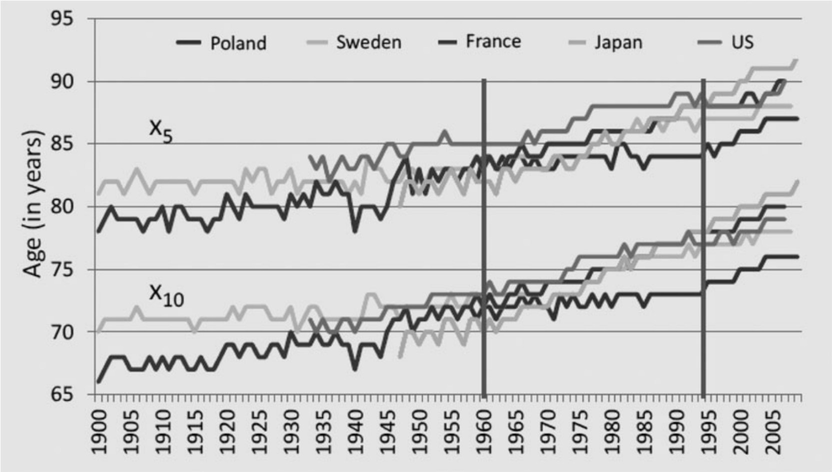
2 *Part of this research was supported by the European Commission 7th Framework Programme project "Employment 2025: How will multiple transitions affect the European labour market" (NEUJOBS).*

Demography

If we look at what has happened over the course of the last century, basically, we see rising life expectancies. The Graph Nº 1 shows the age at which the life expectancy of individuals was 10 years or 5 years in selected countries. As we can see, after the year 1960, life expectancies in developed economies started to rise. This process was postponed in Poland and appeared only after the economic transformation in the mid-1990's.

People live longer, but their retirement age stays more or less the same. People whose retirement age was 60 in 1960 might live in retirement for approximately 20 years (10 years until up to the age of 70 plus 10 years as the life expectancy), but in 2005 they might live for some 25 years (15 years plus 10). That means that people do live longer lives after retirement, and that causes changes in the division between the time spent in employment and in retirement.

GRAPH N° 1

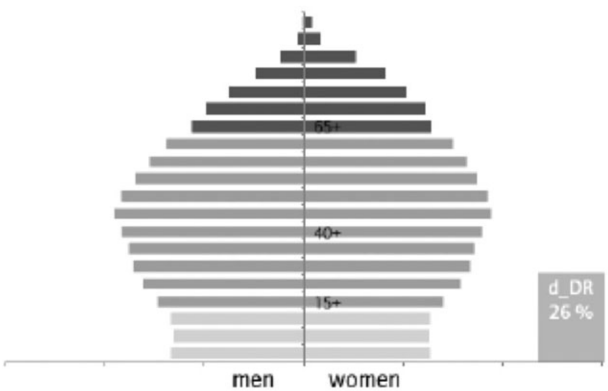


SOURCE: ABRAMOWSKA-KMON ET AL. 2012.

It is also important to look at economic developments, which add an additional dimension to the demographic structure. As we can see in the Figure Nº 1, the bottom of the demographic pyramid has already narrowed, showing that fewer children are being born in Europe, which is a huge problem. However, if we compare the share of people of working age with the share of people of post-working age, the result is a demographic dependency ratio of 26%, which means that there are 26% in post-productive age (65+), compared with 100% of the people aged 15 to 64. However, if we look at how many of those people are working and how many of those people are receiving benefits, including unemployment benefits and pensions (see Figure Nº 2), we see that these shares differ: for the whole of Europe, there are 64% of people receiving unemployment or pension benefits per 100 people working (economic dependency ratio of 64%), which means that there is a huge challenge in terms of how to sustain these kinds of systems in the future.

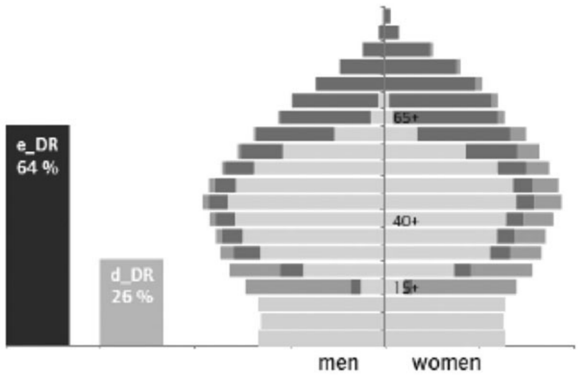
FIGURE N° 1

AGE STRUCTURE OF THE POPULATION 2010 (EU-27)
DEMOGRAPHIC DEPENDENCY RATIO = 26%



SOURCE: WÖSS & TÜRK 2011.
NOTE: D_DR: DEMOGRAPHIC DEPENDENCY RATIO.

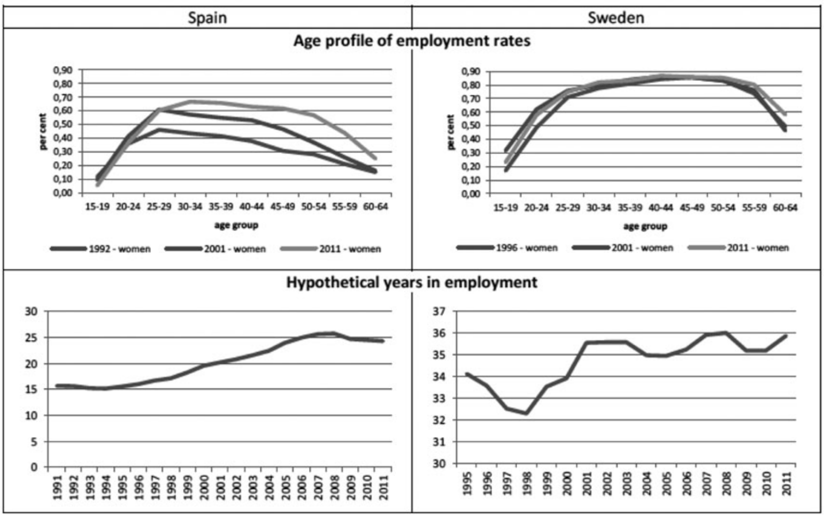
FIGURE N° 2



SOURCE: WÖSS & TÜRK 2011.
NOTE: D_DR= DEMOGRAPHIC DEPENDENCY RATIO; E_DR= ECONOMIC DEPENDENCY RATIO.

The issue of the labour market participation is important from the perspective of pension systems. If people work longer and more intensively, they have a higher total number of working years than higher compared to the case if they work for a shorter time and less intensively. It is illustrated in Figure Nº 3 for the cases of women in Spain and Sweden. At the beginning of the 1990s, female labour-market participation in Spain was rather low, across all age groups. Even for the prime age-group the employment rate did not exceed 40 per cent. As a result, they did not contribute highly to the pension system. Due to the labour market reforms and to the economic changes, this labour market participation increased, and that meant that the overall number of years spent in employment for an average Spanish woman increased from 15 years at the beginning of 1990 to around 25 years at the beginning of this century. Thus, the actual average career length was actually much shorter than the typical OECD profiles used for assessment of pension income. In these simulations it is assumed that people who start their employment at the age of 20-25 end up at retirement with 40 or 45 years of work experience, i.e. much longer than the one that would result from observed participation rates.

FIGURE N° 3

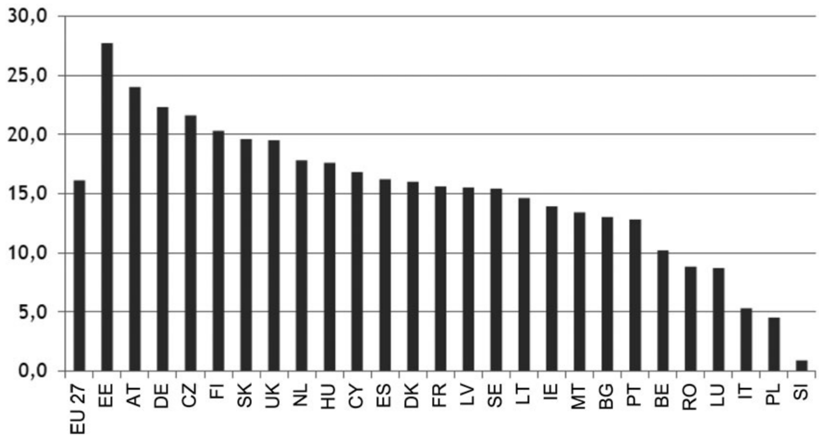


SOURCE: CHŁOŃ-DOMIŃCZAK (TO BE PUBLISHED SHORTLY).

Sweden is an example of a country where both men and women have very high labour-market participation, as was mentioned by Professor Pissarides. However, I would like to show that changes in the education system also affect the labour market participation. If people attend formal education, especially if they go to universities, they start their employment later. That means that even though employment at older ages is increasing somewhat, employment at younger ages is on the decrease. As a result, in the case of Swedish women, over the course of the 1990's, the number of hypothetical years of employment for women stayed more or less the same. They enter the labour market later, they leave the labour market later, but they stay in the labour market for roughly the same number of years. That means that from the pension system perspective they also contribute for the same number of years.

Another important challenge for the labour market is the wage level. Professor Pissarides talked a lot about the level of minimum wages, and how they affect the labour market situation, but also there is a lot of segmentation within the labour market. People earn different wages because they have different skills, they have different qualifications and they are of different genders as well, and this is an issue particularly visible in many of the European member states, which is illustrated in the Graph Nº 2. For many European countries, the wage-gap of earnings between men and women is even higher than 20%. That means that women participate less in the labour market and they also earn less. As a result, their total wage and employment history is much shorter than men's. That, of course, results in their having much lower pension rights, which has to be taken into account.

GRAPH N° 2
GENDER PAY GAP IN EU COUNTRIES, 2010



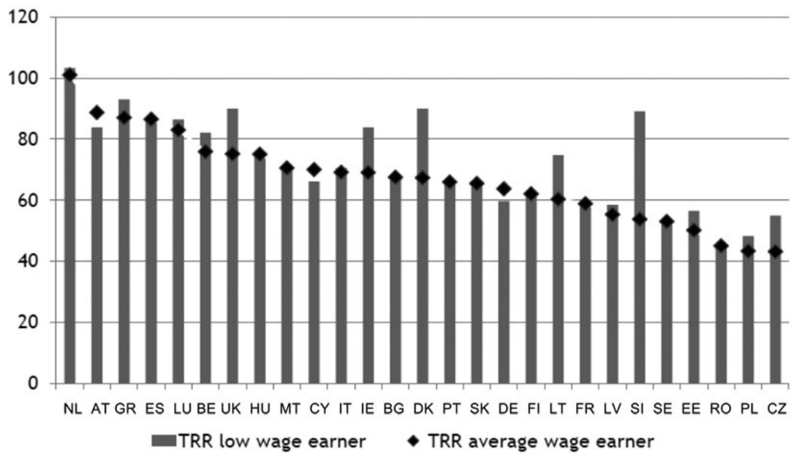
SOURCE: EUROSTAT.
NOTE: EE=ESTONIA; AT=AUSTRIA; DE=GERMANY; CZ=CZECH REPUBLIC; FI=FINLAND; SK=SLOVAKIA; UK=UNITED KINGDOM; NL=NETHERLANDS; HU=HUNGARY; CY=CYPRUS; ES=SPAIN; DK; DENMARK; FR=FRANCE; LV=LATVIA; IE=IRELAND; MT=MALTA; BG=BULGARIA; PT=PORTUGAL; BE=BELGIUM; RO=ROMANIA; LU=LUXEMBOURG; IT=ITALY; PL=POLAND; SI=SLOVENIA.

Pension systems

DC pension systems lead to consumption smoothing. Basically, the whole wage and employment history is reflected in the pension system. These systems have no other purpose, such as poverty protection. That is why in some European pension systems have introduced different mechanisms aimed at protecting all aged people against poverty. If we look at what happens in the European countries, we see that in some countries the low wage earners can expect to have pensions that are relatively higher than those of average wage earners. This is particularly the case of Slovenia, Bulgaria, the United Kingdom and Ireland, among others (see Graph Nº 3). However, in many countries, it is not the case. So basically there is a very close link between wages, life histories and pensions for low income earners and for high income earners. If someone gets a replacement rate of an average wage or 200% of the average wage, that means a relatively decent pension. But if someone gets a replacement rate of 50% of a minimum wage, it does not give a decent pension. That is why certain mechanisms of protection should be offered.

GRAPH N° 3

THEORETICAL REPLACEMENT RATES (TRR) OF LOW WAGE AND AVERAGE WAGE EARNERS, EU COUNTRIES



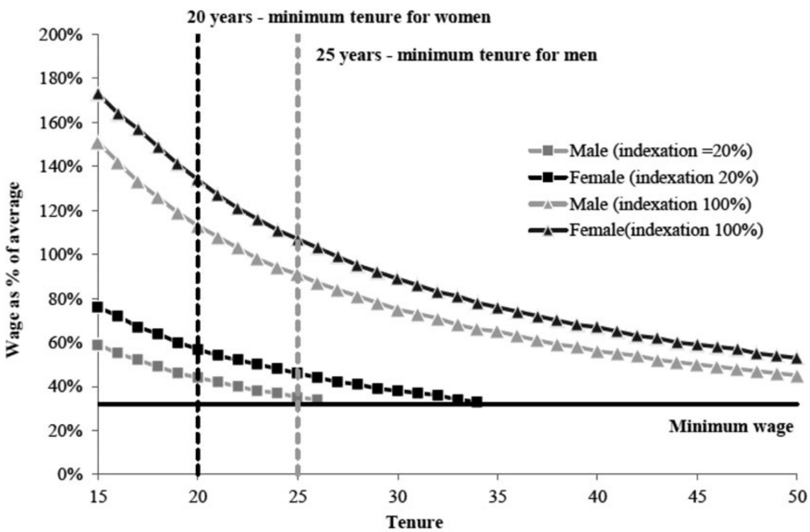
SOURCE: DIRECTORATE-GENERAL FOR EMPLOYMENT & SOCIAL PROTECTION COMMITTEE 2012, WITH MODIFICATIONS FOR POLAND, ITALY AND LITHUANIA FOR INCREASED PENSIONABLE AGES OF WOMEN.

Income redistribution mechanisms are important from the perspective of providing poverty protection for those people who have short official labour-market histories resulting from low coverage and low earnings.

In the case of Poland, Chłoń-Domińczak and Strzelecki (2013) calculated a combination of earnings and wage history that protects against the minimum pension level. If people earn higher wages, they can work for a shorter time and still reach the minimum pension. If they earn lower wages and work longer, they can have a pension above the minimum. However, if they have shorter working careers and they have lower wages, they will end up receiving a minimum pension. So we can get any combination of wage and work history, forming a kind of borderline between those who would get a minimum pension and those who would be above a minimum pension (see Graph Nº 4).

GRAPH N° 4

POLAND: COMPARISON OF THE INFLUENCE OF THE COMBINATIONS OF TENURE AND WAGES THAT LEAD TO MINIMUM PENSION (THE FIELDS BELOW THE LINES) UNDER CURRENT RULE OF PENSION INDEXATION (20% OF WAGE GROWTH) AND 100% WAGE INDEXATION.



SOURCE: CHŁOŃ-DOMIŃCZAK AND STRZELECKI (2013).

The previous comparison led to the conclusion that if the minimum pension level that we have in Poland is kept (this being about 23% of average wages) in the future 4.4% of men will get a minimum pension. But if we apply the same situation or analysis for women, it turns out that 45.3% of Polish women will risk having a minimum pension, because they have shorter working lives and they have low wages. Basically, what we see is that employment history or labour market participation matters hugely in the outcome that we can see in a pension system. If we have people who participate in the labour market significantly, who have longer working histories and have higher wages, which are usually correlated, they will get a different pension. If they have shorter coverage periods, working for less time and having lower wages, they will get very low pensions.

Sources of low pensions of women

Based on these profiles, Chłoń-Domińczak and Strzelecki (2013) analyze what actually causes the aforementioned difference in pensions for women and men (see Table Nº 1). Is it the lower pension age? Is it the lower labour-market participation? Or is it the lower wage level? Results show that the pension age explains a significant share of this difference, which is 29.6% altogether (11.3 percentage points (pp) of this difference are actually caused by different retirement ages). Meanwhile, 11.8 pp are explained by shorter working lives and 17.8 pp by earnings levels. Even if we change the pension system or the retirement age in Poland, there will still be a difference between women (with shorter working careers and lower wages), and men, due to labour-market participation. That is why the labour market and labour-market policies are important for pension systems, because they do not only lead to better lives when people are working, but have significant implications on what happens in the pension system.

TABLE N° 1

RESULTS OF SIMULATION - THE SOURCES OF HIGHER COVERAGE OF NEW MINIMUM PENSION AMONG WOMEN

	Minimum pension indexation	
	20%	**100%**
Baseline scenarios:		
Female	**3.4%**	**45.3%**
Male	**0.5%**	**4.4%**
Sources of differences between men and woman:		
Influence of pension age		
Tenure - Female, Wage - Female, Retirement age - 65 (Male)	**1.9%**	**29.6%**
Explained difference (only due to retirement age):	1.0%	11.3%
Influence of tenure and pension age		
Tenure - Female, Wages - Female, Retirement age - 65 (Male)	**1.3%**	**17.8%**
Explained difference (due to tenure and retirement age):	1.7%	23.1%
Explained difference (due to tenure)	0.7%	11.8%
Influence of differences in lifetime wages (residual)		
Explained difference between women and men (due to differences in wages)	1.3%	17.8%

SOURCE: CHŁOŃ-DOMIŃCZAK Y STRZELECKI (2013).

As many know, Poland has undergone significant pension reforms and changes in the pension system in the course of the past couple of years, and those changes included first reducing the pension fund contribution rate, so the part that was diverted to the funded pension system was reduced and the part going to the pay-as-you-go system was increased.This change on its own would cause a further deepening of the risk of differences in the minimum pension levels between men and women, because as we observe from our historical development, the funded part of the pension system actually generates slightly higher rates of return. That means that future pensions would have been higher if we had not decreased the funded contribution. Women, in the baseline scenario, without increasing retirement, would have a 45% risk of having a minimum pension; if there had been no cut in the contribution, 29% of them would have got a minimum pension (see Table Nº 2). However, we have also extended our retirement age to 67 for both men and women, and that means that the share of women who can expect to receive the minimum pension has decreased to 13%.

So pension reforms are important and rises in the retirement age are crucial for increasing pension levels, provided that there is higher labour market participation and longer working lives.

TABLE N° 2

POLAND: COMPARISON OF THE PROJECTIONS OF THE COVERAGE OF FUTURE PENSIONERS BY MINIMUM PENSION UNDER DIFFERENT SCENARIOS

	Minimum pension indexation	
	20%	100%
Baseline scenario (OFE* contribution 3.5% in the long run):		
Female	3.40%	45.27%
Male	0.45%	4.41%
Without cutting OFE contribution (7.3%)		
Female	2.90%	39.52%
Male	0.42%	3.40%
Extension of retirement age until 67		
Female	1.06%	13.25%
Male	0.40%	3.42%

* OFE= OPEN PENSION FUNDS.
SOURCE: CHŁOŃ-DOMIŃCZAK Y STRZELECKI (2013).

Pension rights gap

Taking into account the life-course perspective combining employment with developments in the labour market and pension system, it is very important to see the dimensions that actually have an impact on the level of individual pensions. On the side of the labour market, we have the fact of the number of years spent in employment combined with the wage levels. On the side of the pension system, the key is how to devise mechanisms that can actually supplement some of these differences. For example, if women work for less time because they have children, we can make pensions a little higher and reduce part of this difference by introducing credits for childcare.

If women retire early, that would also have an impact on their future pension level, with differences and risks of minimum pension for a significant part of the population. We should remember that women usually live to older ages.

Finally, it is also important to look at the outcomes of how pensions are indexed, whether the indexation mechanism is able to maintain the standard of living for those who receive them for a long period of time, or whether old people will also have different standards of living, because the relative value of their pension is lower, due to low indexation mechanisms.

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CLOSING LECTURE

COLOMBIA: THE MACROECONOMIC ENVIRONMENT

MAURICIO CÁRDENAS[1]

1 *Mauricio Cárdenas is an Economist who graduated from the Universidad de los Andes, Colombia, and has a doctorate from the University of California U.S.A. He is currently Minister of Finance and Public Credit of Colombia. He previously filled various positions in the Colombian government, such as Minister of Mining and Energy; Director of the National Planning Department; Minister of Transport; and Minister of Economic Development. He has also held positions in the private sector, such as Director of the Initiative for Latin America, Brookings Institute U.S.A, Executive Director of the Foundation for Higher Education and Development (FEDESARROLLO), Colombia; and President of the Colombian Mortgage Securitization Company. He has been a visiting Lecturer at the Center for International Development, University of Harvard, U.S.A., and Consultant to the Inter-American Development Bank (IDB) on matters related with social security networks, and to the International Finance Corporation on the subject of the secondary mortgage market.*

It is impossible to visit the Colombian Association of Pension and Severance Fund Administrators (ASOFONDOS) without admiring the work that has been done by the leaders of the pension fund industry over the years. Today it is an industry with standards of international class, a professional industry that has the best talents in the country. At the Ministry of Finance, I can vouch for the fact that the people who have arrived with training from this industry are people with extraordinary levels of professionalism. Many members of staff in our team have worked in this industry.

The country is probably unaware of the quality of the corporate governance standards of this industry. I want to illustrate this with a personal example. In the year 2008 when ECOPETROL[2] was just finishing a highly successful share-issuing process for bringing in private capital, the Board of ASOFONDOS at that moment – given the agreement that existed with the government – was authorized to suggest the representative of the minority shareholders. Doctor Santiago Montenegro and the Board were kind enough to offer me the chance of representing those minority shareholders on the Board of ECOPETROL. I mention this because the only time that I spoke to Dr. Montenegro on this matter was the day when he made me that offer. For almost three and a half years, during which I carried out that function, and until I became a member of the government, I never received a phone-call to ask for any clue about how things were going in ECOPETROL. The reason for that was the strict adherence to the principles of corporate governance, which demand independence, so that the representation of the minority shareholders can be exercised under conditions of complete impartiality. So I know, at first hand, the seriousness of this industry.

The pension fund industry has contributed enormously to the generation of savings in Colombia. It is an industry that has deepened the capital market and, perhaps more than any other, has allowed Colombians of all sectors to have access to funding on more efficient terms. That is the great contribution that this industry has made to the country.

2 *Public joint stock company dedicated to exploring and digging new oil wells in Colombia.*

Now I want to glance at a few figures that will help us yet again to see the proof of the great moment through which the Colombian economy is passing. We Colombians feel deeply proud of the transformation that we have been able to produce in our economy and feel that that transformation has been the result of many years of work and a lot of consistent handling of economic policies, so it is a great asset belonging to all Colombians.

Colombia: Macroeconomic and Fiscal Balance

I want to begin by referring in the first place to the growth of the Colombian economy. The growth that has occurred in the course of this administration since the year 2010 has averaged 4.8% per year, which is exactly the potential growth of the economy (see Table Nº 1). Our economy is probably somewhat removed from the textbooks in the labour market field, but in large macroeconomic figures, it is an economy that really reflects what an economy in macroeconomic balance should be.

TABLE N° 1

GROWTH OF GDP IN COLOMBIA (2010-2012)
GDP BY SUPPLY (ANNUAL VARIATION)

	Pro-portion	2010	2011	2012				
				I	II	III	IV	Total
Supply								
Financial Sector	20%	3.6	7.0	7.2	5.4	4.5	5.1	5.5
Social Services	15%	3.6	2.9	3.8	4.2	5.5	5.9	4.9
Industry	12%	1.8	5.0	1.1	-0.1	-0.8	-3.1	-0.7
Commerce	12%	5.2	6.0	5.0	5.0	3.4	3.0	4.1
Taxes	10%	6.6	10.9	8.1	5.4	2.2	3.3	4.7
Mining	8%	10.6	14.4	13.8	8.6	0.7	1.5	5.9
Transport	7%	6.2	6.2	6.5	3.6	3.2	2.9	4.0
Construction	6%	-0.1	10.0	-0.5	12.2	-2.3	5.0	3.6
Agriculture	6%	0.2	2.4	2.8	2.8	3.0	1.7	2.6
Electricity, gas and water	4%	3.9	2.9	4.0	3.7	3.2	3.1	3.5
TOTAL		4.0	6.6	5.3	5.0	2.7	3.1	4.0

SOURCE: GENERAL MACROECONOMIC POLICY DEPARTMENT, MINISTRY OF FINANCE AND PUBLIC CREDIT, COLOMBIA.

We have particularly dynamic investment behaviour, which is what one would always like to see on the side of aggregate demand, a high investment rate and a very satisfactory rhythm of expansion in terms of capital formation. One factor that marks a great difference between Colombia and the developed world is consumers' confidence about the prospects, which results in a good level of consumption. Growth in consumption during the year 2012, in the case of Colombian households, was 4.3% (see Table Nº 2), which reflects that level of confidence.

TABLE N° 2

GROWTH OF GDP IN COLOMBIA (2010-2012)
GDP BY DEMAND (ANNUAL VARIATION)

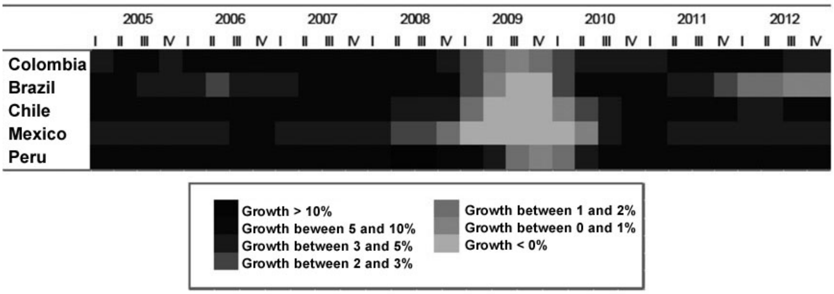
	Pro-portion	2010	2011	2012				
				I	II	III	IV	Total
Demand								
Total consumption	82%	5.1	5.4	5.4	4.0	4.2	4.1	4.4
Private consumption	65%	5.0	5.9	5.7	3.7	3.9	4.0	4.3
Public consumption	16%	5.6	3.6	4.0	4.8	5.2	6.5	5.1
Investment	28%	7.4	18.3	7.4	11.9	1.0	3.0	5.7
Exports	17%	1.3	12.9	9.1	4.0	6.8	1.4	5.3
Imports	27%	10.8	21.2	11.2	9.9	8.0	3.3	8.0
TOTAL		4.0	6.6	5.3	5.0	2.7	3.1	4.0

SOURCE: GENERAL MACROECONOMIC POLICY DEPARTMENT, MINISTRY OF FINANCE AND PUBLIC CREDIT, COLOMBIA.

The behaviour of the Colombian economy has been in line with that of its Latin American peers (see Table Nº 3). As can be seen, Colombia suffered a smaller setback during the 2009 international financial crisis. Colombia had no falls in growth. On the contrary, it has had very solid growth, over 5% in several quarters since 2011 and in the final quarters of the year 2012. Although it has had a slight deceleration, it still has quite satisfactory growth and in that respect we are comparable with Mexico, better than Brazil, and we continue looking to Chile and Peru as reference. For that reason we are always thinking of how to achieve growth rates similar to those of these last two countries.

TABLE N° 3

GROWTH IN GDP – ANNUAL ACCUMULATED VARIATION FOR 12 MONTHS

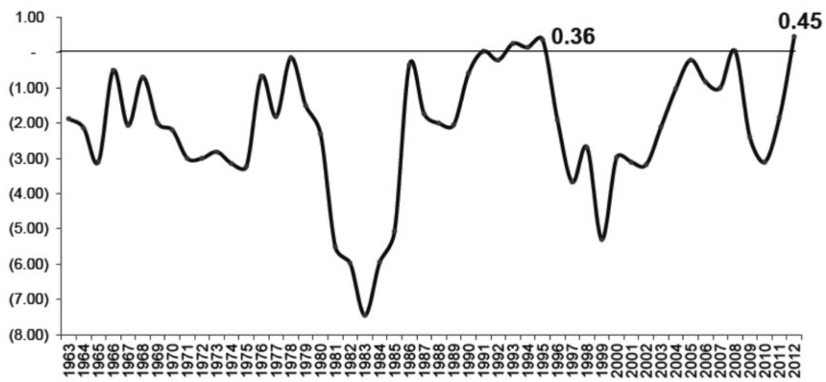


SOURCE: GENERAL MACROECONOMIC POLICY DEPARTMENT, MINISTRY OF FINANCE AND PUBLIC CREDIT, COLOMBIA.

What is our formula? We are fervent defenders of the idea that the seed of good economic performance is in the prudent and responsible handling of public finances. The surplus of the Non-Financial Public Sector in 2012 was the highest in the past 49 years (see Graph Nº 1). Meanwhile, the Consolidated Public Sector closed 2012 with a fiscal surplus of 0.3% of the GDP. That is a fundamental pillar. Why? Because we know that an economy with a lower level of fiscal deficit, with a lower level of public debt as a percentage of the Gross Domestic Product (GDP), is an economy in which the cost of capital will be lower. And an economy with lower interest rates is an economy that produces two great effects, the first on the private sector, by keeping investment dynamic and motivated; and the second, of which I am a constant witness day by day, is that a public sector in which the cost of funding is brought down is a public sector that releases resources for social investment. It is for that reason that a reduction in interest rates has such an enormous effect and impact on the economy: it gives the government more space for investment and stimulates private investment. With greater investment we have more growth and more revenue is generated. This government started in the year 2010 with revenue of COP 65 billion and in the year 2012 we reached COP 100 billion. Of course, the increased revenue is behind all our good fiscal results and with that increased revenue we can then reduce the fiscal deficit and continue with this virtuous circle. This is the first conceptual axis of our economic policy and it has given Colombia very good results.

GRAPH N° 1

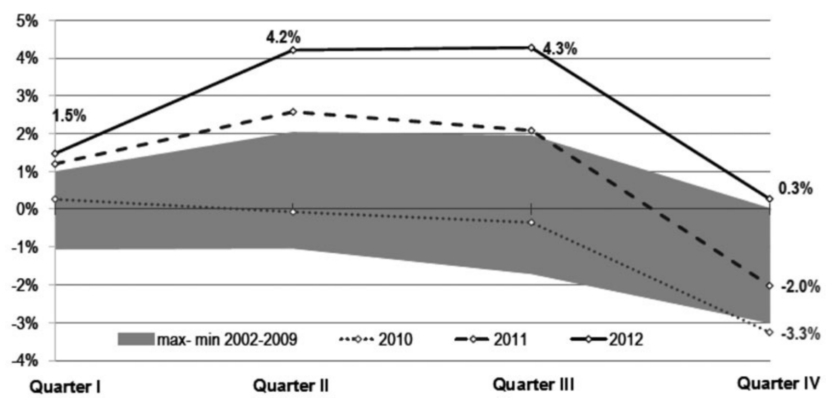
COLOMBIA: BALANCE OF THE NON-FINANCIAL PUBLIC SECTOR (% OF GDP)



SOURCE: MINISTRY OF FINANCE AND PUBLIC CREDIT, COLOMBIA.

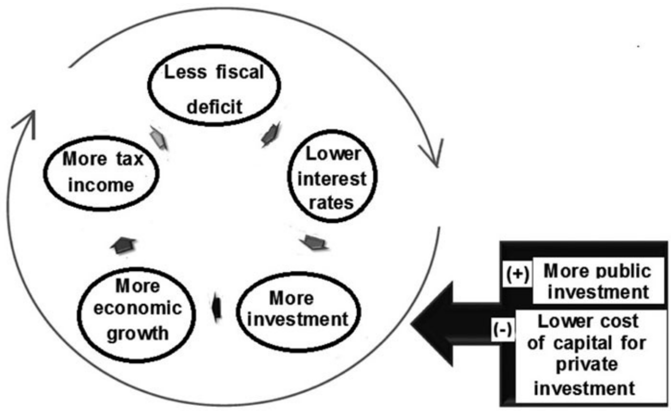
GRAPH N° 2

COLOMBIA: BALANCE FOR ONE FULL YEAR CONSOLIDATED PUBLIC SECTOR (% OF GDP)



SOURCE: MINISTRY OF FINANCE AND PUBLIC CREDIT, COLOMBIA.

FIGURE N° 1



SOURCE: MINISTRY OF FINANCE AND PUBLIC CREDIT, COLOMBIA.

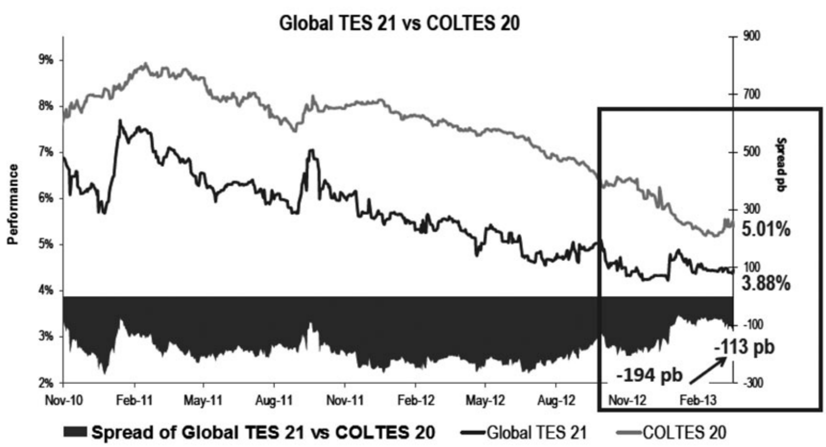
There is a second axis that emerges as a result of collective decisions dating from long ago, and its basis is the independence of the Central Bank. The independence of the Central Bank has enabled us not only to have the lowest inflation rate since 1953 (1.9% is our inflation rate for the past 12 months) - Colombians of my generation had never lived in a country with such low inflation – but also the monetary policy has allowed us to act anti-cyclically. In the middle of the year 2012, when the deceleration of the economy became evident, the monetary authority responded immediately by reducing interest rates, producing a rapid and effective impact on the market.

I want to take advantage of this opportunity to pay tribute to the results of the dialogue that we have had with the financial sector, which were illustrated in the recent communiqué reducing interest rates for consumer loans by a proportion that fully reflects the reduction in the Banco de la República's intervention rates. In other words, our request that the transmission channels of monetary policy should operate without delays was well-received by the country's principal bank and dialogue and consultation, rather than confrontation, bore fruit in producing results that were very positive for all Colombians.

The government's fiscal responsibility and the recent tax reform have resulted in a very considerable reduction in interest rates, reducing the costs of internal debt. The interest rate of our papers at 10 years is 5%. 6 months ago that rate was at 650, meaning that it has fallen 150 base points in 6 months. Our papers in pesos, invested in international markets – what we call "Global TES", also at 10 years, are now traded at an interest rate of 3.88%. In other words, Colombia borrows in its own currency in international markets at 3.88% (see Graph Nº 2).

GRAPH N° 2

GLOBAL TES VERSUS COLTES 20



SOURCE: BLOOMBERG, WITH CUT-OFF AT 01.04.2013.

Six months ago we had a difference of almost 200 base points between the interest rate in pesos inside Colombia and the interest rate in pesos in the international markets. This was ridiculous, because the asset was exactly the same, with the same risk and the same duration. We asked ourselves why we had such great differentials between our papers in Colombia and our papers (also in pesos) in the international markets. We discovered that we still had some excessively high levels of tax on the portfolio investments in our market, compared with the rest of our benchmark group. We have a tax rate of 33% on the yields of these papers, whereas that rate is 6% at most among the countries with which we compare ourselves (Chile, Mexico and Peru). In several of them, these yields are not taxed.

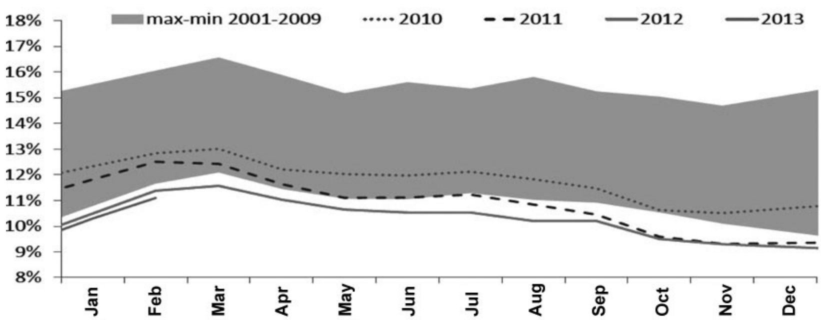
The tax reform enabled us to bring down the tax rate from 33% to 14% when the capital comes from countries that are not tax havens. This immediately reduced that 200 base-point differential to practically half, with a benefit for all those issuers of paper in our market and for the whole corporate sector in Colombia, for which the cost of capital was reduced. This shows the impact of timely and well-studied measures that are, of course, intended to accelerate our long-term growth.

Our investment continues to grow are very high rates as a result of the reduction of interest rates and the low rate of inflation. The goal of our monetary policy is to have investment within a range of 2% and 4%, with a specific goal of 3%. In this way, our monetary policy is directed towards keeping inflation a little higher than it is at present.

The unemployment rate, which is perhaps our main concern, remains high for an economy that is essentially balanced in macro terms, but the rate is lower than it has been in recent years (see Graph Nº 3). In fact, the February figure in 2013 is the lowest since we have had the Continuous Household Survey, but this continues to be a central matter of concern for the government.

GRAPH N° 3

UNEMPLOYMENT RATE – NATIONAL TOTAL (MOVABLE QUARTERLY AVERAGE)



SOURCE: NATIONAL ADMINISTRATIVE DEPARTMENT OF STATISTICS, COLOMBIA.

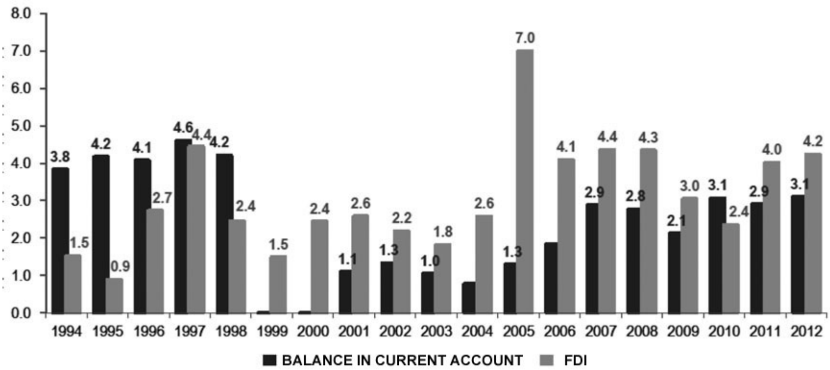
In order to reduce the unemployment rate, we naturally have to create more work. Since this government came into office, we have generated 2 million 100 thousand jobs, and what is more interesting is that the vast majority of these correspond to formal employment, with wages. The growth of wage-earning employment has been much greater than the growth in self-employed or informal work. The tax reform, bearing in mind that long-standing diagnosis about the distortions of the labour market, is a reform that reduced employment taxes from 29.5% to 16%. We estimate that the reduction in taxes on employment (the non-wage costs of labour) will have a positive influence on the generation of formal employment of between 400 thousand and 1 million job opportunities. This is an unfinished agenda that calls for additional decisions to continue eliminating this distortion and seeking greater generation of employment.

We have been very serious and very responsible in our handling of the minimum wage. The increase in the minimum wage for this year was 4.02%, when inflation at that moment was 2.6%. In other words, we estimated an increase of at least 1.5% in productivity. The lower inflation has therefore resulted in an increase of purchasing power for Colombian homes, but we are handling the increase in the minimum wage responsibly.

As regards our overseas sector, Colombia has a current account deficit with the outside world of 3.1% of the GDP (see Graph Nº 4). This figure reflects the fact that we have a very high investment rate and that there is great investment in purchases of capital goods, many of them imported. We have a surplus in Foreign Direct Investment (FDI) of 4.2% of the GDP. The current account deficit is within the standards of any developing country and is amply financed with FDI. In fact, the income from the balance of payments capital account generates enormous pressure to appreciate the currency, which is one of our main concerns, and for that reason, within the Board of the Banco de la República, we have agreed to increase interventions in the exchange market.

GRAPH N° 4

COLOMBIA: CURRENT ACCOUNT DEFICIT AND FOREIGN DIRECT INVESTMENT (% OF THE GDP)



SOURCE: BANCO DE LA REPÚBLICA, COLOMBIA.

Macroeconomic Prospects and Economic Policy

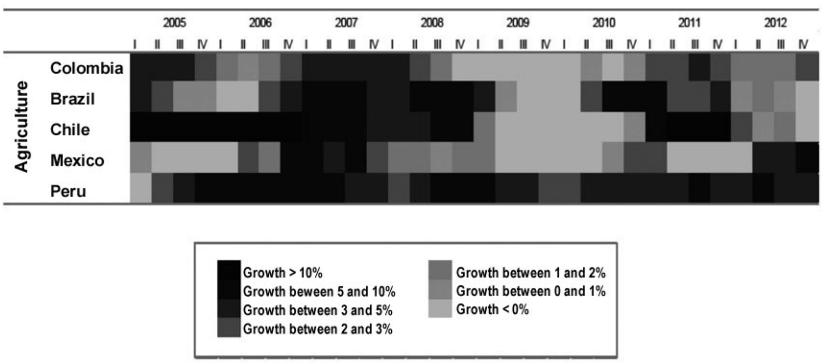
In the month of February 2013, the country accumulated USD 819 million in international reserves. In the year 2012, the accumulated total was USD 4,800 million, in other words an average of US$ 400 million per month. That means that this year, 2013, we are accumulating international reserves at a monthly rate that is double that of last year, with the intention of seeking a more competitive currency, a currency that will allow us to support sectors that have been left behind somewhat and have not been able to enjoy the full benefits of this good moment of our economy.

The above has enabled us to raise the exchange rate a little: we began the year at COP 1,750 per dollar and we are now at COP 1,826 per dollar. We shall continue in that struggle for a more competitive currency because we are firmly convinced that this is what is best for the country. The studies of the Banco de la República and the Ministry of Finance talk about a level of exchange overvaluation of about 10%. Other more journalistic studies, such as that of the *Economist,* agree with that figure. It is not necessary to be an economist to know that the Colombian currency is overvalued. When a Colombian travels abroad and finds that everything seems particularly cheap, and when one sees that Colombian industry and agriculture have a hard time competing with imports, those are the surest signs that there is overvaluation. We are therefore convinced that the balanced exchange rate that we shall have in the long term must be higher and that the best service that we can render the country is to be able to raise the dollar to that level.

There is plenty of evidence for this; notice what is happening in the agricultural sector, for example (see Table Nº 4). That sector is somewhat backward, even compared with our peers. In Colombia we have relatively low growth rates in agriculture.

TABLE N° 4

GDP AGRICULTURE – ANNUAL ACCUMULATED VARIATION FOR 12 MONTHS



SOURCE: GENERAL MACROECONOMIC POLICY DEPARTMENT, MINISTRY OF FINANCE AND PUBLIC CREDIT, COLOMBIA.

Perhaps what concerns us most is the industrial sector, which suffered a fall of 0.7% in its production last year, so this is a matter on which the government's economic team is concentrating its attention. Obviously, when one talks about industry, one has to be aware of the fact that there is heterogeneity: not all industry is in the same package. For example, in the case of products made from rubber, the machine parts of electrical artefacts, publishing activities and products derived from plastics, there has been a fall in production in the past year. There are other sectors which are not in trouble and are growing, such as the cement industry, the vehicles industry, soft drinks, and even clothing and dairy products. However, we have a large group of these industrial sectors that are going through a hard time, which is why we have so much to do in terms of competitiveness and especially exchange rates, in order to solve this problem and achieve slightly more level growth in our economy.

I take this opportunity to share a thought. If that is what is happening in the Colombian economy today; if those are the good results in general terms, while accepting that there are some concerns in certain sectors, and particularly certain sub-sectors, just imagine what this economy could be in a scenario of peace. I have said that the Colombian economy is successful, but it has the capacity to be much more successful in a scenario of peace. It is for that reason that the government of President Juan Manuel Santos is heading up a process of dialogue and negotiation, which is taking place in the midst of the conflict. That is the truth, and many people find it difficult to understand such a scenario, but what we are applying here is a very simple principle: in Colombia we are waging war as though there were no peace process, as though there were no dialogue. I bear witness to that. We set aside more resources every day to strengthen our armed forces and police, to improve their technology, reinforce their intelligence capacity and increase their manpower. We carry out that process in La Habana as though there were no war in Colombia, but in Colombia we handle the conflict and reinforce the struggle against the rebel forces as though there were no dialogues. That is the principle under which we are working.

This economy is the main ingredient for building a fairer, more modern and more secure country. Why a fairer country? Precisely because, with the additional fiscal resources that we are obtaining, we are developing a large number of initiatives whose common denominator is the improvement of living conditions for the poorest Colombians. If one looks at the budget items that have been increased most, they are those that are reaching the Colombians whose conditions are riskiest.

There are examples of policies from the Ministry of Labour's branch, where we have had great impact in matters of social policy. One of these is the Colombia Mayor Program, which gives a subsidy in money or food to Colombians in the third age who never saved for their old age. This program covers 1 million 100 thousand fellow-citizens today and we have a great challenge for the future to continue increasing coverage, because we know that there are 2 and a half million Colombians over 65 years of age in that position.

Another program that is also very important, with a clear social purpose, is that of Periodic Economic Benefits (BEPS), to help Colombians who do not manage to build up pension savings to have some resources with which to obtain some kind of income at the end of their working life. This program is also aimed at Colombians with lower incomes.

I could refer to many other programs that help to construct a fairer country: for example the Families in Action Program, a program of conditional monetary transfer payments that I had the honour of introducing during the administration of former President Andrés Pastrana in the middle of a great crisis. That program is going to reach 2 million 600 thousand families this year (2013) and has been very successful in keeping Colombian youngsters in secondary education. The families that are beneficiaries of this program have let us know of their concern about what to do to support their children in the next phase of their training. It is precisely because of that need that the Young People in Action program has come into being, providing support for 120 thousand young people this year (2013) with a monthly benefit of COP 200 thousand so that they can continue their training process in technical and technological centres. Once again, this is an example of the fairer country that is being built by the government of Juan Manuel Santos.

Colombia is a more modern country, a country whose economy has the standards of a developed country, with low inflation and with standards of public debt similar to those of developed countries. We talk about a modern country, in the sense that we have achieved none of this by resorting to the expedient of protectionism. We have an open economy, where we attract foreign investment, where investors' rights are protected, where contracts are honoured. For that reason, we aspire to enter the club of developed countries, the Organisation for Economic Co-operation and Development (OECD), not because membership of the club signifies an achievement in itself, but because we know that that organization will always demand the highest standards of us in terms of public administration, state appointments, the generating of reliable, credible statistics, in matters of trade, flows of capital etc. These are the standards that we want to reach, and we want to be the third country in Latin America to enter the OECD, after Mexico and Chile. We are working ceaselessly to that end, in order to build a more modern country.

Modernity in Colombia also means having better infrastructure. If we have one defect in Colombia, it is in transport infrastructure. For that reason the national government has made great transformations in the infrastructure sector, which go far beyond simply earmarking more resources. One very recent development is the creation of the National Development Investment Bank, a new development bank which will be responsible for offering guarantees and coverage, so that the bonds with which our country's infrastructure will be financed will be of interest for the pension funds and so finally close this gap in infrastructure.

Colombia has also made great progress in terms of security. We want Colombia to be a country in which we can all enjoy the benefits of security. We obviously still have great challenges in this area, and for that reason we are reinforcing our armed forces and police and at the same time seeking through dialogue a solution to this conflict that has already been going on for over half a century.

Pension System

I want to wind up with some specific thoughts on the subject that has given rise to this seminar, the subject of the pension system. On this matter, I would like to leave you with two messages. The first message is that, within the framework of this philosophy that seeks a fairer, more modern and more secure country, we are always wanting to find a pension system that offers Colombians a pension and gives Colombian social security sustainability, fairness and coverage. All the proposals that may be made on the subject of reform will have to pass through that filter.

We all know that the Colombian pension system has great defects, especially in terms of fairness and coverage. The great challenge is to seek formulas to solve those problems. For that reason, the government for some time past has been bringing forward the dialogues that are needed to seek those formulas. As a result of the consultation, the government is not going to impose a formula; the government is going to build a formula that solves those problems, and the voices of the private sector and the workers are going to be fundamental in the construction of that formula. The Minister of Labour and I have made progress in the search for those formulas, in the attempt to construct a proposal that will enable us to advance towards the building of a fairer country, to give a pension to those poorer Colombians who do not have one; a more modern one, so that those pensions do not come into conflict with fiscal sustainability, and that Colombians can be given security as they face the uncertainties of moving into the age where they can no longer count on income from work.

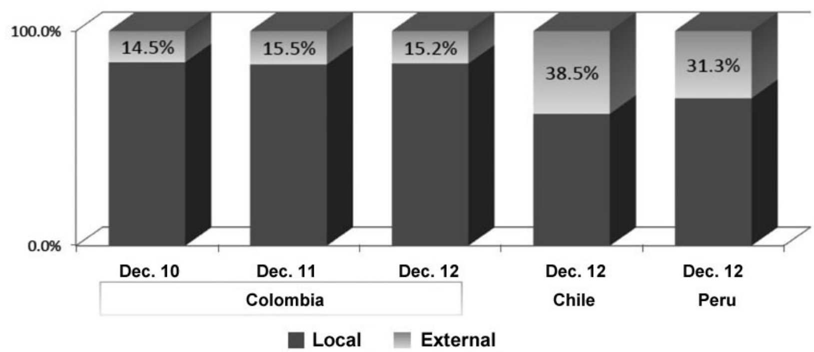
This is not a naturally easy process, but it is a possible process and that is the thesis that we want to defend: namely, that it is possible to improve and to identify formulas that take us into better scenarios.

The second message to be transmitted is that, due to the way we have evolved over the years, we have built a very solid institutional framework in the AFPs which has made it possible to allocate 20% of savings so far. We are talking about COP 120 billion in mandatory pensions, COP 20 billion more in voluntary pensions and other forms of saving managed by the pension funds. We have a massive achievement and it is because we have the highest rate of yield. On average, the rate of yield of the pension funds in Colombia has been of 10 points plus inflation, and we have achieved that to a large extent because we have made yield our priority as a management criterion. I believe that we have to start having a debate on risk; we have to ask ourselves whether we are at the best possible point on the efficiency frontier between yield and risk.

When one looks unsuspectingly at the figures and we compare ourselves with Chile and Peru, we find that there is a higher level of concentration in local or domestic assets, which is the result of rules that reward yield above all else and where the risk dimension is not really included. Our model has to become more sophisticated day by day; we have to look for greater diversification to protect ourselves in volatile scenarios. Excessive concentration in a single class of paper produces risks, and economic science discovered this any number of years ago. The current investment level of 15% of the portfolios abroad is low by comparison with Chile and Peru (see Graph Nº 5), and in fact it is even lower when one looks at the part which is really un-hedged. In Colombia only 6% of the portfolios is really exposed to international markets.

GRAPH N° 5

COMPOSITION OF PORTFOLIOS BY CURRENCIES



SOURCE: DEPARTMENT OF ECONOMIC REGULATION OF SOCIAL SECURITY, COLOMBIA, BASED ON DATA FROM THE SUPERVISORY AUTHORITIES OF THE PENSION FUNDS IN EACH COUNTRY.

The Colombian corporate sector understood this message a long time ago and has diversified. That is why we see so many Colombian businessmen buying assets abroad. The Banco de la República has already understood it and is accumulating more international reserves to protect our economy. We have to play our part and think about the management of our pension savings: what is the best mix of local assets and foreign assets? That is a reflection that I want to leave for discussion, and at the same time, I invite you to analyse all these issues technically, with arguments and not emotions, with a deep conviction of the importance of building up our homeland: of building progress in our country.

CLOSING REMARKS

I want to address these words to Mr. Mauricio Cárdenas, Minister of Finance and Public Credit; Mr. Rafael Pardo, Minister of Labour; Mr. Santiago Montenegro, President of the Colombian Association of Pension and Severance Fund Administrators (ASOFONDOS); and all friends here present.

We are now rounding off the work of this seminar, which has seen people congregating in Cartagena de Indias from such different parts of the world to enjoy this lovely city and the warmth of its people, and to exchange experiences and lessons on the development of pension systems around the world.

Almost all those attending had a special interest in finding out about the economic development that has occurred in this part of the world. It is not mere chance that the countries that have shown a more accentuated development within the region are precisely those countries that had the far-sightedness, years ago, to change the pay-as-you-go systems that were running into crisis for systems based on individually-funded accounts.

I believe that by doing so, it was possible to deactivate the time bomb that was threatening us, due to the demographic changes in the world. We did it, and today we see the advantages of having done it in time, as we are able to observe the crisis that Europe is passing through today. At the root of that crisis, among other factors, is the funding of pensions.

We gave this seminar a suggestive title: "Individual Savings: Better Pensions plus Economic Development", to give the idea that there is a virtuous circle in this topic, which results in pensions being improved while at the same time promoting countries' economic development.

To improve pensions, we have analysed what the structures of the pension systems should be in order to encourage better yield on the workers' savings. This was how we realized the need to create multi-funds, to broaden the diversity of the investments in the various markets of the world. This was also how we were able to prove that most countries that have introduced reforms based on individual accounts have had an extraordinarily high yield performance, with Colombia being particularly distinguished with the highest real historic yield of all the reformed systems: 9.5% per year in real terms.

Naturally, the pension does not depend only on yield. We have an urgent problem in the whole of this region, which has to do with the regularity of contributions. Christopher Pissarides, Nobel Prize for Economics, has been very clear in showing us what the main causes might be of the informality that exists to such an accentuated degree in this part of the world, strongly affecting the pension systems.

We also talked about pension coverage and the challenges incumbent upon us as a result of the extraordinary growth in life-expectancies. But we also dealt with the contribution of the systems to the economic development of the countries. And we saw how, through their contribution to the process of saving and investment, they have had a healthy and important effect on countries' economic development. Here we have heard exposés from four distinguished economists. In the case of Colombia, Leonardo Villar showed us that the pension reform had generated an increase in the annual growth rate of the GDP (average of the period 2006-2010) that fluctuated between 0.34 and 0.81 percentage points. This is a significant effect, on a par with the results obtained for the Chilean case by Corbo and Schmidt-Hebbel.

We are sure that the targets sought by the pension reform proposed by the government in Colombia are very laudable, insofar as they tend towards greater equality, better pensions and greater coverage. In that respect we want to express our intimate desire that the reform will safeguard all that has been achieved during the 20 years that this pension system has been operating.

As Sebastián Edwards said to us, we are sure that later on we will celebrate the fiftieth anniversary of the high point of economic development in this part of the world, just as we celebrate the 50^{th} anniversary of the boom of Latin American literature. That is going to depend on institutional robustness, on economic growth and undoubtedly on consistent policies.

I want finally to thank you all once again for having come from so far away to get to know and exchange these experiences. I close by giving you the great news that our next international seminar will be held in Peru in May 2014.

Thank you very much.

Guillermo Arthur
President FIAP

CLOSING REMARKS

Mr. Mauricio Cárdenas, Minister of Finance and Public Credit; Mr. Rafael Pardo, Minister of Labour; Mr. Guillermo Arthur, President of the International Federation of Pension Fund Administrators (FIAP); Mr. Alcides Vargas, President of the Board of the Colombian Association of Pension and Severance Fund Administrators (ASOFONDOS); members of the Board of ASOFONDOS, and presidents of the Pension and Severance Fund Administrators of Colombia; presidents of the pension fund associations and members of FIAP; Professor Pissarides; Mr. Andrés Restrepo, Deputy Minister of Finance; Mr. Mauricio Olivera, Deputy Minister of Labour; members of the Board of the Banco de la República; members of the National Congress; presidents of unions; members of the national government; ladies and gentlemen.

Dear Ministers, it is an honour to have you with us. I want to thank the superintendents of pensions from various countries who are with us and convey a very warm greeting to the senators and representatives of the Congress of the Republic. I also want to thank Guillermo Arthur, President of FIAP for his leadership of an organisation that brings together almost 100 pension fund administrators throughout the world, managing resources worth some USD 605 thousand million that belong to 117 million workers.

My gratitude goes to all the speakers, especially those from abroad, for the insights they have brought us and to the participants, the 160 visitors who came from 32 countries. I also want to thank the sponsors who made this event possible and say a very special word of thanks to Professor Christopher Pissarides, Nobel Prize for Economics in the year 2010. To all the highly-appreciated visitors and participants in this seminar:

I truly hope that your stay among us has been a very pleasant one. Come back soon to Cartagena de Indias and visit other regions and cities of Colombia. This is the land of the best coffee, with the largest number of bird species on the planet, one of the largest water resources in the world and the third most varied and broken geography, according to data from Harvard University.

But we are also proud of many other things. For example, we have one of the most stable republican and democratic traditions, which has resulted in one of the longest electoral histories not only in the continent, but in the world. Colombia has not been a country subjugated by caudillos, autocracies or dictatorships. For 200 years, except for very short periods, we have been governed by civilians who have made limited use of power. As a result of that institutional stability, we have had the most stable growth of the region since 1930. We have only had one year, 1999, with a negative growth of the GDP. In a century we have had no uncontrolled inflation and even in the so-called lost decade of the 1980s, Colombia was the only country apart from Kenya that did not restructure its foreign debt. Colombia is a country that has honoured its external commitments, has never nationalized foreign companies and gives foreign investment full guarantees.

We have met at this seminar at a moment when the Colombian government has considered presenting a pension reform project to the country. Without going again into the discussion that we have had in this seminar, I want to reiterate an idea expressed by Edmund Burke over 200 years ago. On that occasion, Burke said that society is in fact a social contract, not only between the living and those who are already dead, but also between the living and those who are not yet born. The world at that time was very different from how it is today, but Burke's statement remains equally valid, particularly when we are talking about a pension system, which is neither more nor less than a contract which we have set up as a society between the present generation and the members of the previous ones, to some of whom we are paying pensions. The pension system is also a contract that we set up between the present generation and those who will come afterwards. It is a contract that may be fair or unfair, a contract between parties that are as different as they can be, between a generation of adults who are aware and have power to take decisions and those who are still living through their childhood or adolescence and others who have not yet opened their eyes on this Earth. It is definitely a contract between the powerful and the defenceless, and therefore has the possibility of reflecting the true quality and humanity of this generation – our generation. That contract will be more humane and more fair, to the extent that each generation has the responsibility and ability to foresee the risks of old age, to save the appropriate amounts to finance and cover them and does not leave forthcoming generations with the double task of paying the pension liabilities of the previous generations and also being forced to save to cover their own old-age risks.

History has shown us that adjustments to these inter-generational contracts are difficult to carry out, because they are politically expensive, usually loaded with ideological biases, and are difficult to understand because of the highly technical complexities of pension topics.

Over two decades ago, a generation of Colombian leaders began to amend a situation in which there was only the Average Premium Scheme (RPM) which had extremely low coverage and was disgracefully unfair. It was fiscally unsustainable and had pension liabilities estimated then at over 260% of the GDP. Those reforms were given formal shape in Law 100 (1993), which set up the Individual Savings with Solidarity Scheme (RAIS) and introduced parametric reforms to the RPM, which continued to exist in parallel.

Twenty years later, several of the old problems still unfortunately exist and other new ones have appeared along the way, and for that reason it is necessary to examine what has worked and what has not worked in these years.

In the framework of the discussions that have taken place in the committee responsible for coordinating wage and labour policies, the Minister of Labour has presented the representatives of the workers and the business sector with a sketch of a structural pension reform and various parametric adjustments to the Colombian pension system.

In the framework of this seminar we have also had a very profitable exchange with the Minister of Labour about this project in the light of international experiences.

As I said at the beginning, I am not going to repeat the arguments and the discussions that have already been put forward. I simply want to say to the ministers here present that we believe that a reform is not only possible, but necessary, because of all the problems that we have mentioned. We reiterate our willingness to work with the government, with all the social actors and with the Congress to achieve the best possible pension reform. But we also insist that we should do all the technical studies, hold the debates, listen to the opinions of our academic peers and international experts, so that they can lead us to the best possible design for this pension reform.

To close, I want to repeat my thanks once again to all of you for being here and for taking part in this seminar. To the speakers, both ladies and gentlemen, and to the participants who came from so many countries, may you come back soon to Colombia, this land that welcomes you with kindness and hospitality, and may Providence grant that, when we meet again in a not-too-distant future and remember the deliberations that brought us together here, we will be able to say with satisfaction that our hope was well founded.

When we meet again, at that future date that we hope will not be too far away, may we also be able to say with satisfaction that after wide-ranging, deep discussions, we Colombians have enacted a good pension reform, a good contract, not only among those living now, but also with the future generations and those who have not yet opened their eyes on the Earth; that among this generation of public servants and the representatives of the people, the workers and the private sector, perhaps it may be said that we wrote some good terms into this inter-generational contract, that with greatness, humility and sacrifice, this generation, our generation, showed more solidarity not only with today's actors, but also with those generations that have no spokesmen to represent them, the generations of our children and grandchildren and all those who will come afterwards.

Thank you very much.

Santiago Montenegro
President ASOFONDOS

EARLIER FIAP PUBLICATIONS

EARLIER FIAP PUBLICATIONS

One of the aims of our Federation is to make known the advantages of pension systems based on individual saving and support the governments that wish to adopt them. With this in view, one of our regular activities as a Federation is the organization of seminars and round-tables. As a result of these activities, FIAP has published eleven books, which summarize the presentations given at those seminars, and are sure that these have contributed towards improving the literature on this subject. These books are described below:

"Regulación de los Sistemas de Pensiones de Capitalización Individual: Visiones de los Sectores Público y Privado" (Seminar held in Lima, Peru, December 2002).[1 2]

This publication tackles aspects such as the challenges of the new pension systems, the models and priorities of supervision, collection of contributions and management of individual accounts, coverage, regulation and supervision in the area of benefits, price formation in the social security industry, regulation and supervision of marketing and sales, and regulation and supervision of pension fund investments. The authors deal with these subjects from different points of view, which contribute to an enrichment of the debate on the subject of pensions in the countries that have carried out social security reforms, especially in Latin America.

1 *This book is the only one on the list that was published not by FIAP, but by the International Labour Office (ILO). However, it is included on this list because the seminar on the basis of which it was written was organized jointly by the International Association of Pension Fund Supervisory Authorities (AIOS) and FIAP.*

2 *This book is not available in an electronic version on the FIAP website.*

"Pension Reforms: Results and Challenges" (Seminar held in Cancun, Mexico, May 2003).

In this book an analysis is made of the results of the new social security systems, both in Latin America and in Central and Eastern Europe, from the point of view of how they have influenced improvement in pensions and contributed to the growth and economic development of the countries. In order to do this, it reviews the rates of return of the investments of social security resources and matches them with the growth of workers' wages. At the same time, it measures the impact of the reforms on savings and investment, thereby attempting to measure the contribution that they signify for the economic development of the country. There is also an analysis of the main challenges in the social security area for the industry, the regulators and the political system.

"Pension Reforms in Eastern Europe: Experiences and perspectives" (Seminar held in Kiev, Ukraine, May 2004).

This book summarizes the experiences of social security reforms in the countries of Central and Eastern Europe, such as Bulgaria, Croatia, Hungary, Poland, Kazakhstan and Kosovo. Also presented are the main perspectives for reform in Slovakia and Macedonia. The common denominator in all these countries is that they possess individually-funded systems in expansion. The book follows with an analysis of the challenges for implementing reforms, in terms of the regulation and supervision of pension funds and their fiscal and economic impact. The book concludes with an analysis of the conditions necessary to ensure the success of the reforms.

"Pension Fund Investment" (Seminar held in Lima, Peru, November 2004).

This book contains a diagnosis of pension fund investment regulation in Latin America. It contains an analysis of the improvements to that regulation, dealing especially with the case of the multi-fund system in Chile, Mexico and Peru. It also looks in depth at the development of the capital markets and analyses the political risks of pension fund investment in the region. Among the most important conclusions to be drawn from the aforementioned subjects are the role of the return of the investments as a deciding factor in improving pensions and the need for greater diversification, including investment abroad.

"The Strengthening of the New Pension Systems: The Role of each pillar in the Solution of Pension Problems" (Seminar held in Cartagena de Indias, Colombia, May 2005).

This publication analyses reforms to social security systems that have included mandatory individual capitalization/funding systems in their second pillar, in response to the criticisms and objections that are being leveled at them, and analyses future improvements. The role of each pillar within the social security system is highlighted and an in-depth study made of the structure of first pillar (non-contributory) programs in Latin America. The key issues of mandatory contribution programs in the second pillar are reviewed and experience in the area of voluntary social security saving (third pillar) is described. One of the most important conclusions arising from the discussion is that the criticisms made of the mandatory individual saving systems are seen to include aspects that, though part of social security, are not the responsibility of the contributory systems, as is the case of coverage.

"Pension Funds Investment Perspectives" (Seminar held in Santiago, Chile, May 2006).

This book discusses the best investment alternatives for pension funds. The facts show that 1% of additional return over the course of the whole working life of a member of a pension fund administrator may result in a pension that is 30% higher. To corroborate this, an in-depth analysis is made in this publication of issues such as the historic performance of the pension funds in Latin America, the regulation and control of investment risks, the best portfolios for social security funds, the characteristics of the multi-fund systems, the strategies for the international diversification of pension funds, the financial impact that occurs in the stage just prior to retiring age, and the importance of corporate governance in pension funds.

"Funded Systems: their contribution towards solving the pension problem" (Seminar held in Varna, Bulgaria, May-June 2007).

In the first instance, this book shows the political economics of pension reforms, taking into account the experience of countries in Central and Eastern Europe and also the pension reforms in Bulgaria and Mexico. Secondly, it analyses the results of the pension reforms for the workers, separating the effects on the labour market and on redistribution of income. An analysis is also included of the workings of the Disability and Survivorship Insurance (DSI) in the Chilean case. Thirdly, it shows how to structure an effective multiple-pillar system in the light of the new Chilean pension reform, the public/private ratio in the pension reform, the design alternatives for non-contributory pension programs (social pensions), and the fiscal effects of the pension reform in Chile. A fourth set of issues analyzed here concerns the investment policies and strategies of the pension funds, experiences and trends in multi-fund systems and regulation and monitoring of investment risk in mandated, defined-contribution pension systems. Finally the book culminates with a number of different views of the prospects for the pension reforms in Europe.

"Pensions for the Future: Developing Individually Funded Programs" (Seminar held in Lima, Peru, May 2008).

This book analyzes the performance of the new pension systems in Latin America and Central and Eastern Europe, describes the progress of pension reforms in countries that have recently begun to implement them or are about to do it in the near future, and identifies best practices for improving the design of regulations in the individual capitalization programs. It examines issues related to the lessons of pension reforms, investments regulation, supervision models, coverage, pension options, pension business management, and disability and survivorship insurance in the cases of Argentina, Chile and Mexico. It also discusses the pension reforms in China, Philippines, Romania and New Zealand. It also analyzes the future of pensions in Peru, addressing the issues of pension coverage, quality of social protection, capital markets, and the supervisor´s vision. Finally, the book ends with a discussion on whether the battle of public opinion regarding the pension reform has been won.

"Investments and Payouts in Funded Pension Systems" (Seminar held in Warsaw, Poland, May 2009).

The book is divided into nine chapters. The first four chapters refer to subjects related to the pension accumulation phase, whereas the other five chapters show issues inherent to the payout phase. The first chapter of the book deals with the pension fund investment performance. In the second chapter, the book asks how much financial risk level a funded system may accept, showing the life-cycle risk perspective in the context of pensions. The third chapter shows a close relationship between economic cycles and pension funds. Chapter four shows the current tendencies of pension fund investments and presents the views of three outstanding speakers on infrastructure investments, thematic investments and Exchange Traded Funds (ETF), respectively. Regarding the pension payout phase, chapter five refers only to the issue of explaining the optimal pension modes in a mandatory pension system. Chapter six analyzes the market of annuities and programmed withdrawals from the commercial and descriptive perspectives. Chapter seven contains issues that are of vital importance for an adequate development of the pension market: the keys for success in the annuities market, the challenges involved in the selection of products during the payout phase and an explanation on why the funded pension systems will be more capable to face the demographic challenges than the PAYGO systems. The second-to-last chapter deals with the perspectives of the Polish pension system. Finally, the book finishes with chapter nine, where the future of mandatory pension funds in Europe and beyond is reviewed, describing the financial crisis implications for the private pension funds, commenting the lessons derived from the crisis for the funded pension systems and stating the medium-term challenges to reform the mandatory pension funds in Europe and other industrial countries.

"Developing the Potential of the Individually Funded Pension Systems" (Seminar held in Viña del Mar-Chile, May 2010).

The publication provides the reader with several works that seek to identify means and instruments whereby pension fund managers can extend the contribution they make to solve the pension problem and, in more general terms, improve the quality of the population's social protection. Papers presented by renowned academics and authorities are featured at the beginning of the book. They address the seminar's subjects with a practical and objective focus aimed at highlighting the characteristics and concrete results of policies, products and organizational and management models that can serve as a reference for innovating and improving the processes and regulations of pension fund managers and regulators.

The book is divided into three parts. The first part, "How can the Coverage of the Individually Funded Programs be Extended?", explores different ways in which the funded programs can extend their coverage to sectors of the population that are not currently engaged in pension saving. The second part, "New Products", explores ways in which the pension industry can use its experience and capacity to advantage for attending to other social security protection needs of the population. The third part, "The Quest for Excellence", is divided into three chapters. The first one, "Pension Information and Education," analyzes the role played by financial education within the context of defined-contribution pension systems from the standpoint of the industry and the supervising agencies. The second chapter, "Ideas for Improving Operational Efficiency," analyzes the organization and process alternatives that enable the operational management and efficiency of the industry to be improved. Finally, the third chapter, "Ideas for improving the impact of investments on local economies," analyzes the investment alternatives available to the pension funds in housing, infrastructure and micro-companies.

"Advancing in the Strengthening and Consolidation of the Individually-Funded Pension Systems" (Seminar held in Punta Cana, Dominican Republic, May 2011).

This book provides the reader with various studies analyzing different issues related with pension fund investment (best practice in the design of investment policies; impact of pension funds in the development of infrastructure projects and securitization of assets) and the benefits granted in the payout phase (pension options, advantages and disadvantages; replacement rates and adequacy of contributions), and also presents experiences and proposals that enable continued progress in strengthening and consolidating individually-funded pension systems, after the global financial crisis of recent years. Additionally, the book analyzes, from the points of view of the industry and the international organisations, the topic of the implicit and explicit public debt generated by pension systems, its accounting and impact on the creation and development of individually-funded programs, in the light of recent events in Central and Eastern Europe.

"Opportunities and Challenges for Individually-Funded Systems in a Globalised World" (Seminar held in Cancun, Mexico, May-June 2012).

This publication looks into the opportunities and challenges being faced by the authorities and administrators, to boost the development and stability of individually-funded pension programs and obtain adequate replacement rates in a globalised world, with more volatile financial markets, imperfect labour markets and more demanding clients.

The book is divided into three parts. The first part analyses the spheres of responsibility and limits corresponding to pension funds in the performance and public information of the companies in which they invest the pension funds under their management, and how these can contribute towards the development of the corporate governance of such companies. The second part evaluates the extent to which the design and characteristics of the individually-funded programs, especially contribution rates and retirement ages, are appropriate and consistent with the replacement rate targets expected of such programs, given the conditions of the labour market and the trends in life expectancies. Also this second part examines the contribution that can be made by voluntary pension savings in funding pensions and meeting the defined targets. Finally, in the third and last part of the book, the basic conditions required to ensure the stability and development of the individually-funded pension systems are analysed, and the opportunities and challenges being faced in order to improve their public image and strengthen their relationship with their members in a globalised world where clients have become increasingly demanding.

For your information, these publications are available in an electronic version on the FIAP website, <http://www.fiap.cl>, in the "FIAP Publications/Books" section. Copies of these publications may be obtained writing to e-mail: <fiap@fiap.cl>.

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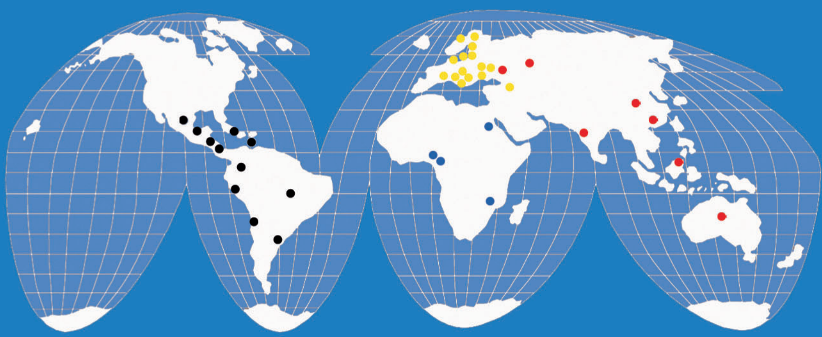
FIAP was created in May, 1996. The legal status of this international institution was granted on 29th June 2004 in the city of Montevideo, by Supreme Decree Nro 801, issued by Uruguayan Ministery of Education and Culture. It currently has eighteen "full members" in sixteen countries and twelve "collaborating members".

The "full members" are associations, federations, chambers or other institutions that represent the interests of the pension industry in the respective country. Thus, the following countries are represented in FIAP: Bolivia, Bulgaria, Colombia, Costa Rica, Curaçao, Chile, El Salvador, Spain, Kazakhstan, Mexico, Panama, Peru, Poland, Dominican Republic, Ukraine and Uruguay.

COUNTRIES WITH REFORMED SYSTEMS (1)



LATIN AMERICA AND THE CARIBBEAN | EUROPE | ASIA AND THE PACIFIC | AFRICA

Chile	1981	Poland	1999	Australia	1992	Nigeria	2005
Peru	1993	Sweden	1999	Kazakhstan	1998	Ghana	2010
Colombia	1994	Latvia	2001	Hong-Kong	2000	Egypt (**)	
Uruguay	1996	Bulgaria	2002	China	2001(2)	Malawi (**)	
Mexico	1997	Croatia	2002	India (*)	2004		
El Salvador	1998	Estonia	2002	Brunei	2010		
Costa Rica	2000	Kosovo	2002	Armenia (**)			
Panama (*)	2002	Russian Federation	2003				
Dominican Republic	2003	Lithuania	2004				
Brazil (*)	2013	Slovakia	2005				
Curaçao (***)		Macedonia	2006				
		Romania	2008				
		United Kingdom	2012				
		Ukraine (**)					
		Czech Republic (**)					

The year given corresponds in each case to the start of operations in the mandatory pension system based on individual funding.

(1) Information updated to 30th September 2013.

(2) This refers to a pilot plan of mandatory individual accounts for formal workers, which began in 2001 in the province of Liaoning. Currently, the individual accounts operate only in a subgroup of provinces, but it is hoped that they will be implemented nationally in the future.

(*) Reform for public employees.

(**) Reform approved, but not yet implemented.

(***) Reform proposed, but not yet either approved or implemented.

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