

# Economic Watch

## Pensions

Madrid, 13 May 2011  
Economic Analysis

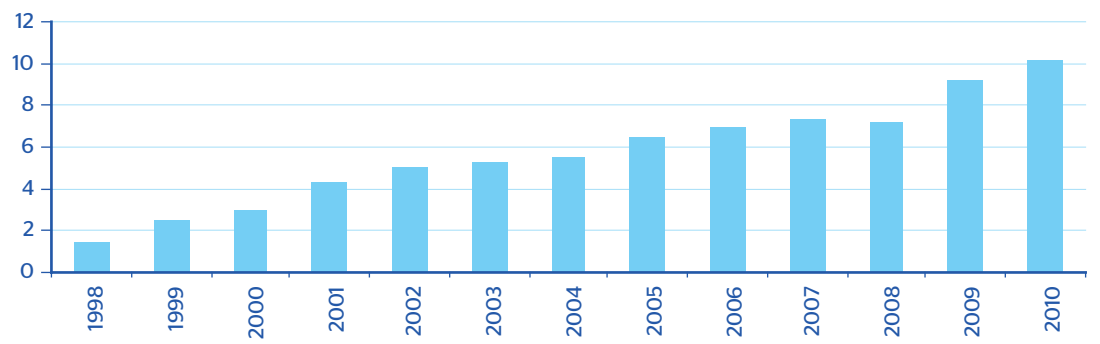
Liliana Castilleja Vargas  
liliana.castilleja@bbva.bancomer.com

## Pension funds and infrastructure in Mexico

- **Gradually, the investment regimen of the Specialized Retirement Funds (Siefore) has become more flexible** and currently allows for greater portfolio diversification and the possibility of channeling resources to infrastructure projects by way of structured instruments.
- **The growing participation of pension funds in domestic infrastructure projects will strengthen** the intermediation of financial resources in the long-term and in the domestic currency.
- **Of the structured instruments, Capital Development Certificates (CKDs), offer pension funds diversification and potentially attractive performance,** and at the same time, represent an interesting opportunity for those companies requiring long-term financing.
- **In turn, there are other elements that could boost infrastructure investment,** such as the bill on Public-Private Associations (APPs).
- **Despite the advances made, the need to continue working to obtain a favorable institutional framework is clear;** this framework would have to evolve according to the objectives of pension fund savers, infrastructure development and the growth of the country as a whole.
- **The goal established of placing Mexico among the top thirty countries in infrastructure** will be attainable to the extent that the required changes are made to the regulatory framework.
- **Resources from pension funds represent a potentially significant source of long-term financing for infrastructure project investment in Mexico.**

According to CONSAR data<sup>1</sup>, at the close of February 2011, funds managed by the Retirement Fund Administrators (Afores) totaled<sup>2</sup> USD \$114,240 million, and the managed accounts surpassed 41.3 million. As a percentage of GDP, pension funds in Mexico have risen from 1.4% at the end of 1998 to 10.2% at the close of 2010 (see chart). These accumulated funds are managed in portfolios with a diversification criterion depending on the age range of the pension savers. Potentially speaking, a percentage of them could be invested in domestic infrastructure projects with benefits for both the pension saver and for the national economy.

Chart 1

**Resources Invested by SIEFORES (% GDP)**

Source: CONSAR and Banxico (data from Dec. of each year)

On the one hand, investment opportunities for the pension funds in infrastructure assets are beneficial for those funds because it allows them to increase the diversification of the investment portfolio and reduce the risk, as they present a low correlation with other instruments, such as stocks and bonds. Furthermore, they provide a long-term investment horizon adjusted to the objective of offering a savings mechanism for retirement with the possibility of providing optimum performance for the pension savers.

On the other hand, due to their long-term nature, pension funds may play an important role in the financing of investment projects in infrastructure in Mexico. In general, this type of project is characterized by very long-term financing requirements; an elevated volume of funds related to the size of the market and a high and growing financing in the local currency. In contrast, the domestic capital markets in countries like Mexico are generally characterized by a scarce depth and low liquidity of long-term financing, not to mention a reduced capacity to absorb placements for the considerable sums usually required in projects of this nature.

Thus, the participation of pension funds in domestic infrastructure projects will strengthen the intermediation of long-term financial resources in the national currency. In addition to contributing to the potential development and growth of the economy, the above has several other advantages on the financial side. They include the mitigation of the so-called mismatches risk between the local and foreign currency, as the effects of the exchange rate, as well as the spreads in maturities between the short and long terms are significantly reduced.

Likewise, the participation of institutional investment in infrastructure projects reduces the pressure on public funds as it frees funds that could be allocated to other sectors, such as health, education and pensions themselves. Furthermore, as public investment in infrastructure is one of the most greatly affected areas during the stabilization programs, as shown in the recent financial crisis, a greater participation of pension funds in this sector would enable greater stability of investment allocated to that area and its positive effects on the economy. Resources from pension funds potentially represent a strong source of long-term financing for investment in infrastructure projects in Mexico.

1: <http://www.consar.gob.mx/>

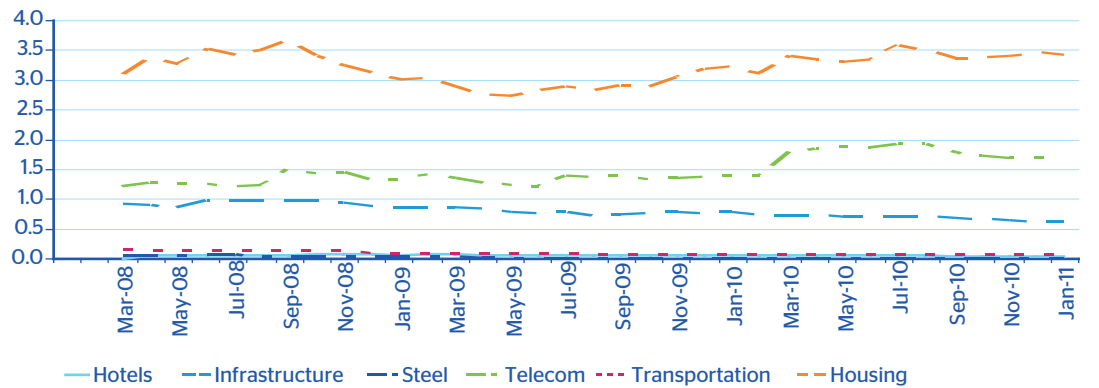
2: Totals calculated with the share prices for the SIEFORES registered on the Mexican Securities Market as of 28 February 2011, at the peso-dollar exchange rate to resolve obligations in foreign currencies (FIX).

### The role of pension funds in infrastructure investment

Also, regarding the pension funds, and as part of the measures announced by the Federal Government for promoting infrastructure investments, actions have been taken to expand the investment regimen of the Siefores. This way, they could invest in an increasingly broad range of instruments which, in turn, would promote investment in priority sectors.

Chart 2

Investments by National Private Debt Instrument, in the Total Siefores Portfolio (%)



Source:CONSAR

In theory, the investment regimen of the Siefores allows for the indirect investment of SAR funds in infrastructure projects through debt instruments, private bonds for the productive sector. As a percentage of the total portfolio, the investment in those funds in national private debt rose from 16% in March 2008 to 17.8% in February 2011. By type of instrument, the investment fell from 0.9% to 0.6% in the same period. However, upon considering other areas such as hotels, the iron and steel industry, transport, telecommunications and homes, the participation in those instruments increased from 5.5% to 5.8% (see chart).

It was only after March 2008, with the reform of the investment regimen<sup>3</sup>, that direct investment in infrastructure was allowed through trusts as well as financial instruments related to infrastructure projects. Specifically, Siefores were permitted to invest in so-called structured instruments through which direct financing is provided to new companies, specific projects, sectors or industries in Mexico. These instruments include Capital Development Certificates (CKDs)<sup>4</sup> designed for institutional investors; securities representing capital subject to Initial Public Offering (IPO); individual shares in companies listed on the Mexican Stock Market (BMV) that are not listed on authorized indices<sup>5</sup>; and Infrastructure and Real Estate Investment Trusts (REITs)<sup>6</sup>.

To date, the regulatory advances for the direct investment of pension funds through structured instruments has evolved such that currently, the investment regimen of the Siefores permits up to 15% of the portfolio in those instruments for the three most diversified Basic Siefores (BS) (see table). For further information on the current investment limits, please see CONSAR Circular 15-27 of the Official Bulletin of the Federation dated March 10, 2011<sup>7</sup>.

3: For more details, please see CONSAR Circular 15-20.

4: CKDs are senior bonds issued by a trust. A company is transferred assets that generate a variable performance. They are designed to finance medium and large-scale, long-term projects.

5: Those that are not on any stock index due to their low capitalization, as is the case of small and medium enterprises.

6: The FIBRAS are an investment vehicle designed for the construction and acquisition of real estate in Mexico for lease and potential sale in the future.

7: [www.consar.gob.mx/\\_pdf/.../circulares/Circular\\_CONSAR\\_15-27.pdf](http://www.consar.gob.mx/_pdf/.../circulares/Circular_CONSAR_15-27.pdf)

Table 1  
**Investment regimen of the Siefiores**

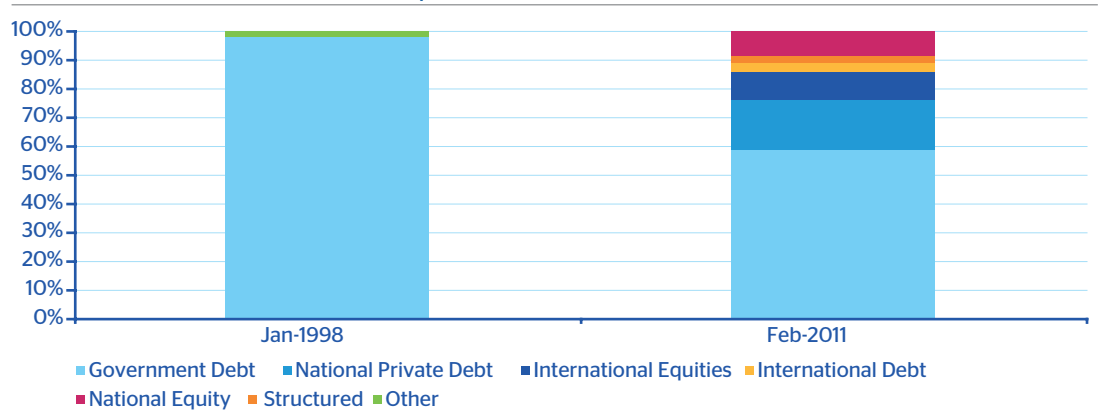
Type of instrument	Limits per Type of Basic Siefiore				
	1	2	3	4	5
Treasury Inflation-Protected Securities (TIPS)	Min 51%				
Government Debt Instruments	100%	100%	100%	100%	100%
Equity	0%	20%	25%	35%	35%
Foreign Instruments	20%	20%	20%	20%	20%
Asset-backed Securities	10%	15%	20%	30%	40%
Structured Instrumens	0%	10%	15%	15%	15%

Note: The limits of the investment regimen are expressed in percentages of net assets for the Siefiores.  
Source: Circular 15-27 of the Official Bulletin of the Federation

In addition, prudential limits on diversification per instrument are established in the investment regimen. In the case of structured instruments, the diversification criteria establishes that up to 35% of the capitalization value of the assets of a company per Afore may be invested. If the investment is over 50% but below 85% of the authorized limit, it must be diversified into two or more structured instruments. Finally, if the investment is over 85% of the authorized limit, it must be diversified into three or more structured instruments.

Unlike in 1998, when practically all of the funds were invested in government debt, at the close of February 2011, the portfolio of the AFORES presented a significant degree of diversification: 58.8% invested in sovereign debt; followed by 17.8% in private local debt; 9.5% and 8.6% in foreign and domestic equity, respectively, 3.3% in foreign debt and the remaining 2.4% in the so-called structured instruments. Given the total net assets of the Siefiores at that date of USD \$114,240 million and the investment limits established for the structured instruments, the potential funds that the Afores could allocate to these funds was more than USD \$13,800 million. Thus, with a holding of 2.4%, equivalent to USD \$2,700 million of the net assets of the Siefiores, the remaining investment capacity in those instruments is estimated at USD \$11,200 million.

Chart 3  
**Evolution of the Siefiores' Portfolio Composition (%)**



Source:CONSAR

Since the CKDs are designed to finance medium and large-scale, long-term projects, they provide an interesting opportunity for those companies requiring said type of funding. Likewise, they are an opportunity for institutional investors who need to place their money in projects with competitive performance levels and an acceptable risk. Furthermore, the CKDs could be a possible solution to the dilemma regarding the long-term projects; however we must also keep in mind that there are some disadvantages. For example, they permit the support of medium and

long-term projects with acceptable risk while providing the opportunity to obtain attractive yields for thousands of savers and Afore regimen savers. On the other hand, some problems that exist with these instruments include the difficulty of valuation, the associated risk of non-compliance with the guarantees and the fact that the expected yields are not guaranteed.

CONSAR data from December 9, 2010 indicated that, on that date, USD \$2,340 million were placed in CKDs (see table), the holding of the SIEFORES in CKDs supported productive projects valued at USD \$2,110 million and they were in the process of placing and analyzing nearly 20 new projects. Of the CKDs related to infrastructure acquired by the SIEFORES, some that stand out include Macquarie with the participation of the AFORES, FONADIN and Macquarie itself; and Red de Carreteras de Occidente (RCO, Western Roads Network), a subsidiary of Ingenieros Civiles Asociados (ICA, Associated Civil Engineers), the largest construction company in Mexico and Latin America.

Table 2

**CKD's acquired by the SIEFORES**

Issuer	Shareholding (%)	Total placed (million USD)
Agropecuaria Santa Genoveva	100	168.9
Red de Carreteras de Occidente - Western Roads Network	97	620.1
WAMEX Capital	80	62.5
Macquarie	100	280.4
Atlas Discovery México	89	97.5
Nexus Capital	96%	211.5
Promecap	94%	202.8
AMB	81%	254.7
PLA Inmuebles Industrias	80%	250.7
Artha Operadora	60%	196.8

Source: CONSAR (Figures from 9 December 2010)

Macquarie is the leading mutual fund for infrastructure of the Macquarie bank in Australia launched in Latin America. The fund gathering activities are carried out through the issue of CKDs placed among the Siefors. Their objective is to invest in infrastructure assets, such as roads and railways, airports and ports, water and water treatment and waste, energy and public services, as well as social infrastructure and telecommunications. The equity of the trust comprises infrastructure investments in the form of debt, capital or other capital-like investments such as infrastructure assets. The allocations depend on the cash received by the trust derived from a divestment or the payments of principal, interests, dividends and other income from the infrastructure investments.

Furthermore, RCO was the first project to issue CKDs (October 2009) through a trust for capital gains held jointly by ICA and Goldman Sachs Global Infrastructure Partners. Its assets are primarily made up of a security contract without transfer of possession on series B shares of capital stock in the variable of RCO<sup>8</sup>. Specifically, RCO is responsible for a package made up of four toll highways (highways in use), that were bailed out in 1997, whose grant is for 30 years: 1) Maravatío-Zaplotanejo Highway (309.7 km); 2) Guadalajara - Zaplotanejo Highway (26 km); 3) Zaplotanejo - Lagos de Moreno Highway (118.5 km); and 4) León - Aguascalientes Highway (103.9 km)<sup>9</sup>. It was announced recently that 1,100 million pesos (approximately USD \$92 million) would be invested this year for extension and maintenance projects<sup>10</sup>.

8: Does not have a credit rating for the issue granted by an authorized rater.

9: See Víctor Cardoso, "Entregará la SCT dos carreteras rescatadas a ICA y Goldman Sachs", La Jornada, 4 October 2007.

10: See "Red de Carreteras de Occidente invertirá mil 100 mdp en obras", informador.com.mx, 29 March 2011.

One point to highlight is that, depending on its shareholding, AFORES are given a representative seat in the Holders Assemblies of countries under the CKDs' trust. The above significantly fortifies the protection of investors' rights. However, there are possible risks associated with this scheme. There is no guaranteed yield and there is a certain liquidity risk as the companies are not listed on the securities market. Finally, without other infrastructure funds in which to invest, this market is still quite incipient and has zero competition.

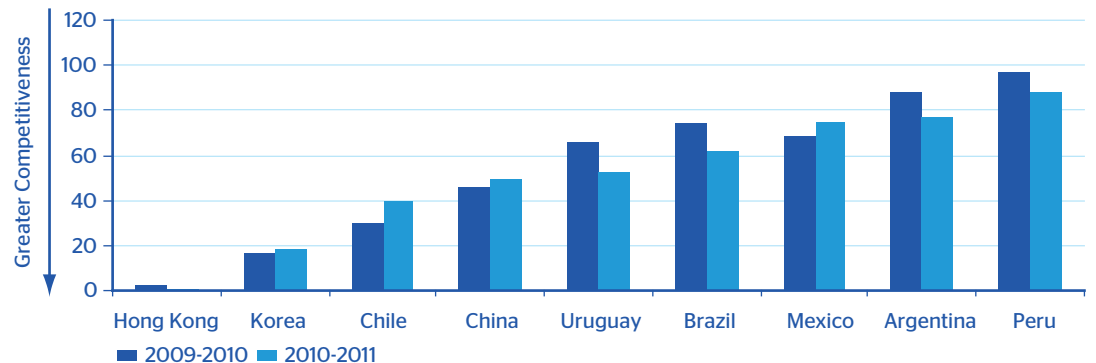
### Reforms needed for greater infrastructure investment in Mexico and the participation of the Afores

Infrastructure is a key factor in the economic growth, competitiveness and social development of countries. Due to its multiplicative effects on the domestic economy, in terms of domestic demand and job creation, promoting the infrastructure of a country has proven to be one of the best strategies for boosting long-term economic growth and competitiveness, and thus, potential growth.

However, Mexico currently holds the 75th place for competitiveness of its infrastructure and is 79th in quality of infrastructure of a sample of 139 countries in all regions of the world, according to figures from the 2010-2011 Global Competitiveness Report of the World Economic Forum (WEF). With respect to the previous year's report, which included 133 countries, Mexico lost competitiveness in that sector as it formerly held the 67th place. The above indicates a significant lag in comparison with other peer economies, such as Chile, Uruguay and Brazil, holding 40th, 53rd and 62nd, respectively; and with other emerging countries, such as the case of the Asian Tigers Hong Kong and Korea, holding 1st and 18th, respectively; and China (50th), in addition to severe consequences in terms of growth and reduction of poverty (see chart).

Chart 4

#### Competitiveness Ranking in Infrastructure from the WEF



Source: World Economic Forum 2009& 2011

Although an adverse economic environment negatively affects the competitiveness in this sector, we must keep in mind that an unfavorable and restrictive institutional framework for investment in long-term projects has direct negative consequences. Historically, one factor that has worked against a larger and more active participation of the private sector in infrastructure projects has been a rigid and inefficient institutional framework, overloaded with excessive administrative paperwork and an ambivalent, uncertain legal framework. Furthermore, the lack of viable studies for the projects or their low quality, as well as delays in environmental authorizations, road rights and permits continue to be major factors.

Therefore, the Mexican government has established a set of initiatives with the objective of boosting infrastructure in the country by promoting greater participation of private investment which comprises: 1) the National Infrastructure Program 2007-2012; 2) National Infrastructure Fund (FONADIN); 3) Public-Private Association Law initiative to Congress (APPs); and 4) Adjustments to the Siefors Investment Regimen<sup>11</sup>.

<sup>11</sup>: The Specialist Pension Funds Investment Companies (Siefors) are the instrument through which the Afore invests the funds from each individual worker

Specifically, the National Infrastructure Program (NIP 2007-2012) of the Federal Government establishes a set of objectives, goals and actions for increasing the coverage, quality and competitiveness of the country's infrastructure, as well as for increasing the creation of permanent employment, etc. In effect, the goal of this program is to place Mexico among the top thirty countries in infrastructure in the world, based on the 2010 evaluation by the WEF. In fact, concrete objectives are laid down in this program regarding the investment required and the goals per sector including the highway, airport, telecommunications sectors, etc.

However, to date, this responsibility has fallen predominantly on the public sector, ruling out any possible advantages of allowing a joint participation of the private sector in infrastructure investment. According to SHCP figures, 82% of infrastructure investment recorded in the 2007-2009 period comes from public funds, which total USD \$77.2 billion. Specifically, 76% (USD \$71.2 billion) comes from the Federal Expenditures Budget; followed by 4% (USD \$3.5 billion) from the National Infrastructure Fund (FONADIN)<sup>12</sup> and the remaining 3% (USD \$2.5 billion) in credits granted by Banobras. The participation of the private sector is limited to only the remaining 18% (USD \$17 billion).

As a supplementary part of the NIP, FONADIN's objectives include supporting the programs' projects with public-private participation. Likewise, by assuming the risks the market is not willing to take and facilitating the mobilization of private capital, efforts are made to achieve a balance with those projects with social profitability but low financial yield.

Likewise, given the need to create the legal context to promote private investment in that sector, some of the actions needed to speed up the infrastructure agenda include the Federal Government's planned modernization of the corresponding legal framework. To this end, the Chamber of Deputies has been sent a decree bill which would issue the Public-Private Associations Act (APPs). The purpose of this proposal is to regulate the long-term contractual relations between the private and public sector authorities, for the rendering of services to the public sector or end user and in which infrastructure provided partially or totally by the private sector is used. In turn, this act establishes restrictions to prevent private initiative from participating in the construction of infrastructure in strategic sectors, such as the petrochemical industry. Unfortunately, despite the State's efforts to promote new public-private participation schemes, especially since the 1995 crisis, these changes have been too slow in regard to the current need.

Although the modifications made to date in the Siefores investment regimen promote investment in local infrastructure projects, there are still significant limitations to optimizing the financing of private projects in that sector. Structural factors like low liquidity of the associated instruments, the difficulty of valuating those assets and the little or null background countries normally have and, therefore, the difficulty of assigning them a credit rating, hinders the participation of private investors.

However, not participating in the financing of this sector would involve a high opportunity cost for institutional investors like pension funds. Given the direct relationship between the greater flexibility of the investment regimen and a higher degree of diversification in the Siefores investment portfolios, it would be desirable that the authorities continue to promote greater participation of private investment in the infrastructure sector. Therefore, providing the proper conditions for pension funds to participate in the financing of infrastructure in a more committed fashion is essential. This requires an ad hoc evolution in the context of the investment regimen to be able to evolve properly and in line with the objectives.

Likewise, it is important to more quickly and constantly reduce the many legal restrictions so that the private sector in general could increase its holding in various economic sectors. Thus, it would be helpful to broaden the opportunities that the legal and institutional framework offers pension funds and other private investors to invest in this sector by creating a mutually beneficial situation.

---

<sup>12</sup>: This fund was created to be the primary vehicle for the Federal Government to boost private investment in infrastructure.

Finally, the capacity to assess and select infrastructure investment projects needs to be developed given the high level of specialization required. The highway bailout experience in 1997 in which the Federal Government bailed out 23 of the 52 highways in concession demonstrated the serious problems and consequences of a deficient valuation and estimation in this type of project. Likewise, institutional investors like the Afores must seek support from specialized consulting firms or develop their own capacity to select the projects in which to invest. Therefore, it would be highly recommendable to increase the quality of the technical assessments and to achieve a collaboration between the public and private sector where institutions like BANOBRAS (the National Bank for Public Services and Works) have years of experience in the matter.

### References

Albo A. et al. (2007), Hacia el fortalecimiento de los Sistemas de Pensiones en México: Visión y Propuestas de Reforma; Carried out by Pensiones y Seguros América y Servicios de Estudios Económicos, México.

Cardoso V. "Entregará la SCT dos carreteras rescatadas a ICA y Goldman Sachs", La Jornada, 4 October 2007

CONSAR, statistics, <http://www.consar.gob.mx/>

CONSAR, Circular 15-27, [www.consar.gob.mx/.../pdf/.../circulares/Circular\\_CONSAR\\_15-27.pdf](http://www.consar.gob.mx/.../pdf/.../circulares/Circular_CONSAR_15-27.pdf)

CONSAR, Circular 15-20, [www.consar.gob.mx/.../pdf/.../circulares/Circular\\_CONSAR\\_15-27.pdf](http://www.consar.gob.mx/.../pdf/.../circulares/Circular_CONSAR_15-27.pdf)

informador.com.mx, "Red de Carreteras de Occidente invertirá mil 100 mdp en obras", 29 March 2011



**AVISO LEGAL**

Este documento, así como los datos, opiniones, estimaciones, previsiones y recomendaciones contenidas en el mismo, han sido elaborados por Banco Bilbao Vizcaya Argentaria, S.A. (en adelante "BBVA"), con la finalidad de proporcionar a sus clientes información general a la fecha de emisión del informe y están sujetas a cambio sin previo aviso. BBVA no asume compromiso alguno de comunicar dichos cambios ni de actualizar el contenido del presente documento.

Ni el presente documento, ni su contenido, constituyen una oferta, invitación o solicitud de compra o suscripción de valores o de otros instrumentos o de realización o cancelación de inversiones, ni pueden servir de base para ningún contrato, compromiso o decisión de ningún tipo.

**El inversor que tenga acceso al presente documento debe ser consciente de que los valores, instrumentos o inversiones a que el mismo se refiere pueden no ser adecuados para sus objetivos específicos de inversión, su posición financiera o su perfil de riesgo ya que no han sido tomadas en consideración para la elaboración del presente informe**, por lo que debe adoptar sus propias decisiones de inversión teniendo en cuenta dichas circunstancias y procurándose el asesoramiento específico y especializado que pueda ser necesario. El contenido del presente documento se basa en informaciones que se estiman disponibles para el público, obtenidas de fuentes que se consideran fiables, pero dichas informaciones no han sido objeto de verificación independiente por BBVA por lo que no se ofrece ninguna garantía, expresa o implícita, en cuanto a su precisión, integridad o corrección. BBVA no asume responsabilidad alguna por cualquier pérdida, directa o indirecta, que pudiera resultar del uso de este documento o de su contenido. El inversor debe tener en cuenta que la evolución pasada de los valores o instrumentos o los resultados históricos de las inversiones, no garantizan la evolución o resultados futuros.

**El precio de los valores o instrumentos o los resultados de las inversiones pueden fluctuar en contra del interés del inversor e incluso suponerle la pérdida de la inversión inicial. Las transacciones en futuros, opciones y valores o instrumentos de alta rentabilidad (high yield securities) pueden implicar grandes riesgos y no son adecuados para todos los inversores. De hecho, en ciertas inversiones, las pérdidas pueden ser superiores a la inversión inicial, siendo necesario en estos casos hacer aportaciones adicionales para cubrir la totalidad de dichas pérdidas. Por ello, con carácter previo a realizar transacciones en estos instrumentos, los inversores deben ser conscientes de su funcionamiento, de los derechos, obligaciones y riesgos que incorporan, así como los propios de los valores subyacentes a los mismos. Podría no existir mercado secundario para dichos instrumentos.**

BBVA o cualquier otra entidad del Grupo BBVA, así como sus respectivos directores o empleados, pueden tener una posición en cualquiera de los valores o instrumentos a los que se refiere el presente documento, directa o indirectamente, o en cualesquiera otros relacionados con los mismos; pueden negociar con dichos valores o instrumentos, por cuenta propia o ajena, proporcionar servicios de asesoramiento u otros servicios al emisor de dichos valores o instrumentos, a empresas relacionadas con los mismos o a sus accionistas, directivos o empleados y pueden tener intereses o llevar a cabo cualesquiera transacciones en dichos valores o instrumentos o inversiones relacionadas con los mismos, con carácter previo o posterior a la publicación del presente informe, en la medida permitida por la ley aplicable.

Los empleados de los departamentos de ventas u otros departamentos de BBVA u otra entidad del Grupo BBVA pueden proporcionar comentarios de mercado, verbalmente o por escrito, o estrategias de inversión a los clientes que reflejen opiniones contrarias a las expresadas en el presente documento; asimismo BBVA o cualquier otra entidad del Grupo BBVA puede adoptar decisiones de inversión por cuenta propia que sean inconsistentes con las recomendaciones contenidas en el presente documento. Ninguna parte de este documento puede ser (i) copiada, fotocopiada o duplicada en ningún modo, forma o medio (ii) redistribuida o (iii) citada, sin el permiso previo por escrito de BBVA. Ninguna parte de este informe podrá reproducirse, llevarse o transmitirse a aquellos Países (o personas o entidades de los mismos) en los que su distribución pudiera estar prohibida por la normativa aplicable. El incumplimiento de estas restricciones podrá constituir infracción de la legislación de la jurisdicción relevante.

Este documento se proporciona en el Reino Unido únicamente a aquellas personas a quienes puede dirigirse de acuerdo con la Financial Services and Markets Act 2000 (Financial Promotion) Order 2001 y no es para su entrega o distribución, directa o indirecta, a ninguna otra clase de personas o entidades. En particular el presente documento únicamente se dirige y puede ser entregado a las siguientes personas o entidades (i) aquellas que están fuera del Reino Unido (ii) aquellas que tienen una experiencia profesional en materia de inversiones citadas en el artículo 19(5) de la Order 2001, (iii) a aquellas con alto patrimonio neto (High net worth entities) y a aquellas otras a quienes su contenido puede ser legalmente comunicado, incluidas en el artículo 49(1) de la Order 2001.

Ninguna parte de este informe podrá reproducirse, llevarse o transmitirse a los Estados Unidos de América ni a personas o entidades americanas. El incumplimiento de estas restricciones podrá constituir infracción de la legislación de los Estados Unidos de América.

El sistema retributivo del/los analista/s autor/es del presente informe se basa en una multiplicidad de criterios entre los cuales figuran los ingresos obtenidos en el ejercicio económico por BBVA e, indirectamente, los resultados del Grupo BBVA, incluyendo los generados por la actividad de banca de inversiones, aunque éstos no reciben compensación basada en los ingresos de ninguna transacción específica de banca de inversiones.

BBVA y el resto de entidades del Grupo BBVA que no son miembros de la New York Stock Exchange o de la National Association of Securities Dealers, Inc., no están sujetas a las normas de revelación previstas para dichos miembros.

**"BBVA está sometido al código de conducta de los Mercados de Valores del Grupo BBVA, el cual incluye, entre otras, normas de conducta establecidas para prevenir y evitar conflictos de interés con respecto a las recomendaciones, incluidas barreras a la información. El Código de Conducta en los Mercados de Valores del Grupo BBVA está disponible para su consulta en la dirección Web siguiente: [www.bbva.com](http://www.bbva.com) / Gobierno Corporativo".**

**This report has been produced by the Pensions Unit:***Financial Systems and Regulatory Chief Economist***Santiago Fernández de Lis**  
sfernandezdelis@grupobbva.com*Pensions Chief Economist***David Tuesta**  
david.tuesta@grupobbva.com**Javier Alonso**  
javier.alonso.meseguer@grupobbva.com**Liliana Castilleja**  
liliana.castilleja@bbva.bancomer.com**Soledad Hormazábal**  
shormazabal@grupobbva.cl**María Claudia Llanes**  
maria.llanes@bbva.com.co**Rosario Sánchez**  
rdpsanchez@grupobbva.com.pe**BBVA Research***Group Chief Economist*  
**Jorge Sicilia***Chief Economists & Chief Strategists:**Financial Systems and Regulatory:*  
**Santiago Fernández de Lis**  
sfernandezdelis@grupobbva.comFinancial Systems  
**Ana Rubio**  
arubiog@grupobbva.comRegulatory Affairs  
**María Abascal**  
maria.abascal@grupobbva.comPensions  
**David Tuesta**  
david.tuesta@grupobbva.com*Spain and Europe:*  
**Rafael Doménech**  
rdomelech@grupobbva.comSpain  
**Miguel Cardoso**  
miguel.cardoso@grupobbva.comEurope  
**Miguel Jiménez**  
mjimenezg@grupobbva.com*United States and Mexico:*United States  
**Nathaniel Karp**  
nathaniel.karp@bbvacompass.comMexico  
**Adolfo Albo**  
a.albo@bbva.bancomer.comMacro Analysis Mexico  
**Julián Cubero**  
juan.cubero@bbva.bancomer.com*Emerging Markets:*  
**Alicia García-Herrero**  
alicia.garcia-herrero@bbva.com.hk

Cross-Country Emerging Markets Analysis

Asia  
**Stephen Schwartz**  
stephen.schwartz@bbva.com.hkChina  
**Daxue Wang**  
daxue.wang@bbva.com.hk  
India  
**Sumedh Deorukhkar**  
deorukhkar@grupobbva.comSouth America  
**Joaquín Vial**  
jvial@bbvaprovida.clArgentina  
**Gloria Sorensen**  
gsorensen@bbvafrances.com.arChile  
**Alejandro Puente**  
apuente@grupobbva.clColombia  
**Juana Téllez**  
juana.tellez@bbva.com.coPeru  
**Hugo Perea**  
hperea@grupobbva.com.peVenezuela  
**Oswaldo López**  
oswaldo\_lopez@provincial.com*Financial and Economic Scenarios:*Financial Scenarios  
**Sonsoles Castillo**  
s.castillo@grupobbva.com  
Economic Scenarios  
**Juan Ruiz**  
juan.ruiz@grupobbva.com*Market & Client Strategy:***Antonio Pulido**  
ant.pulido@grupobbva.comGlobal Equity  
**Ana Munera**  
ana.munera@grupobbva.comGlobal Credit  
**Javier Serna**  
Javier.Serna@bbvauk.comInterest Rates, Currencies  
and Commodities  
**Luis Enrique Rodríguez**  
luisen.rodriguez@grupobbva.com**Contact details:****BBVA Research**  
Paseo Castellana, 81 - 7th floor  
28046 Madrid (España)  
Tel: +34 91 374 60 00 y 91 537 70 00  
Fax: +34 91 374 30 25  
bbvaresearch@grupobbva.com  
www.bbvaresearch.com