



TLTRO II analysis – Spanish financial institutions

Strong underlying liquidity to mitigate risks from TLTRO II redemptions

Miguel Ángel Monzón –miguel.monzon@bbva.com – +34 91 374 51 01

Head of short-term rates trading

Agustín Martín Calmarza- agustin.martin@bbva.com - +44 (0) 207 397 6087

Head of European Credit Research

London, 24 September 2018 (15:00 CET)

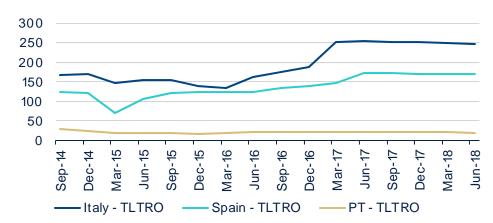
This document is intended for institutional investors and is not subject to all of the independence and disclosure standards applicable to debt research reports prepared for retail investors. This report may not be independent of BBVA or its affiliates' proprietary trading interests. BBVA or its affiliates trade in the securities in this report for their own account(s) and on a discretionary basis on behalf of certain clients. Such trading interests may be contrary to the recommendation(s) offered in this report.

PLEASE SEE IMPORTANT DISCLOSURES ON THE LAST SIX PAGES OF THIS REPORT.

Regional situation: Italy dominates total uptake

ECB TLTRO II (EUR bn)

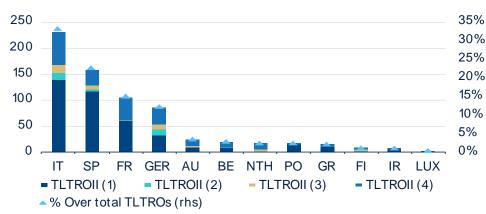
Source: Bloomberg, company data and BBVA Credit Research



Country breakdown of TLTRO borrowing at the ECB

(EUR bn)

Source: ECB and BBVA Research estimates

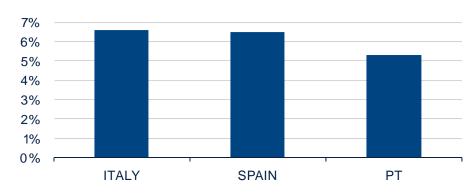


- The TLTRO II (EUR740bn) has to be repaid in full by June 2020 throug March 2021
- We estimate that banks in Italy and Spain account for at least 60% of total TLTROs
- First TLTRO II (EUR399bn, EUR11bn already repaid) matures in Jur 2020, which is the first important cliff, mainly for Italy (c.EUR140bn) and Spain (EUR115bn)
- As a percentage of total assets, Spain and Italy are more or less equal
- According to those banks that have reported their TLTRO II positions, most of the redemptions are concentrated in June 2020
- TLTRO II repayment affects both the funding strategy of banks and their regulatory liquidity ratios

TLTRO II as % of total assets (%)

Note: Consolidated balance sheet data

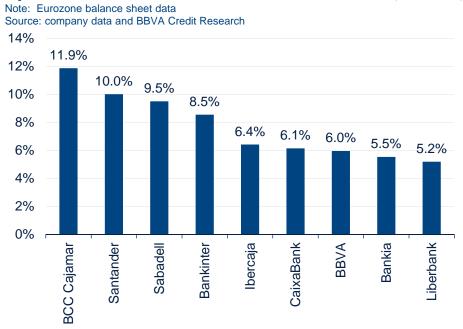
Source: Bloomberg, company data and BBVA Credit Research



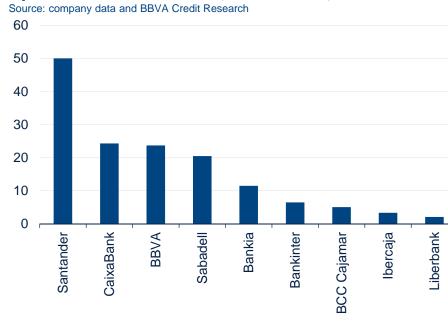
Spanish banks: manageable volume vs. total assets

- Generally speaking, Spanish institutions remain in a healthy position with regards to TLTRO II repayments, despite the significant uptake in funds since the introduction of the operation
- The range of TLTRO to total assets is on average 6-9%
- The impact of the impending repayment of TLTRO II funding is expected to be **manageable**, as Spanish banks mostly used the TLTRO II as a cheap medium-term funding alternative and not as a carry-trade play

Spanish banks: TLTRO as % of total assets (2Q18, %)



Spanish banks: TLTRO (2Q18, EUR bn)

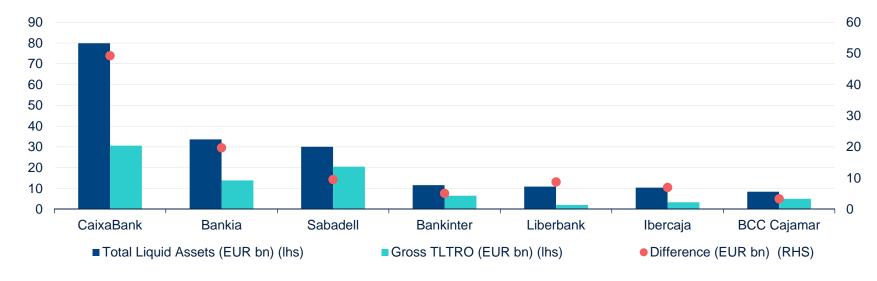


Available liquid assets are not under threat

 Observing the gross levels of both TLTRO and liquid asset positions, we come to a similar conclusion in that, Spanish banks show sufficient levels of liquidity in terms of the repayment of TLTRO II funding

TLTRO vs. liquid assets, gross positions (EUR bn)

Note: Eurozone balance sheet data. Santander and BBVA do not disclose Eurozone HQLA data. Source: company data and BBVA Credit Research



It is important to bear in mind that this is an extreme redemption scenario and that, in reality, there needs to be a consideration for any additional cash outflows outside of the TLTRO II redemptions (for example, in the net outflows of the denominator of the LCR ratio, deposit outflows also need to be considered as defined in the LCR delegated act) and the subsequent knock-on effects that this will have on the various regulatory ratios the bank adheres to

Breaking down our analysis

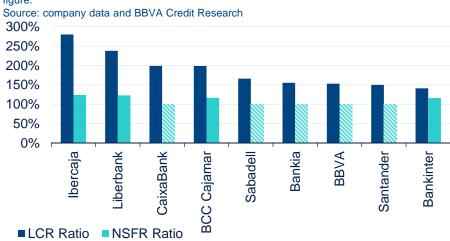
- First we find the liquid asset position of each institution, using the gross positions of total and liquid assets as reported in their Eurozone LCR ratio disclosure, if available, to examine how each firm's exposure may be sufficiently covered
- We then approximate each bank's TLTRO II funding using their current loans to central banks disclosures
- This gives us an idea of how much of a burden this TLTRO funding (and subsequent settling) will be for our sample of institutions
- We also examine gross positions as a measure of hypothetical funding needs for the issuers derived from the TLTRO redemptions

Bank liquidity ratios and TLTRO II repayments

- The banks under our coverage all have a healthy Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR)
- The impact of TLTRO II redemptions on the NSFR ratios is estimated to be 5-10 pts, which, even if the majority of the institutions do nothing to replenish their available funding, will still result in above requirement levels of NSFR, although the leeway is much more limited than the LCR one
- This suggests that, even without the liquidity provided for by the TLTRO II programme, these banks will remain sufficiently liquid in the eyes of the regulators

Reported LCR & NSFR (%)*

*Dashed bars are reported as meeting the 100% target, they have not provided a full ratio



Net Stable Funding Ratio:

- Designed to assess the funding stability of financial institutions
- Seeks to prevent maturity transformation
- Longer-term assessment than the LCR
- More difficult to manage by banks vs the LCR given the reduced availability of long-term funding options and the significant size of the denominator (up to 70% of total assets)

$$NSFR = \frac{Available\ Stable\ Funding\ (ASF)}{Required\ Amount\ of\ Stable\ Funding\ (RSF)} > 100\%$$

Liquidity Coverage Ratio:

- Designed to assess the short-term resilience of the liquidity of the financial institutions
- Shorter-term assessment than the NSFR
- Does the bank have sufficient High Quality Liquid Assets (HQLA) to cover liquidity requirements for 30 days, given a liquidity stress scenario?

$$LCR = \frac{High\ Quality\ Liquid\ Assets\ (HQLA)}{Total\ net\ cash\ outflows\ over\ 30\ days} \ge 100\%$$

Other considerations: funding and assumptions

- We have assumed that all banks are planning on waiting until the funds fall due to repay them and do not amortise them gradually over time. This is unlikely to be the case in reality. Banks need to balance the cost of pre-funding too early (if there is something announced later on) or too late (if they expect some transition and nothing is put in place). They have a number of ways in which they can achieve a gradual amortisation, not captured in this analysis:
 - Deleverage their balance sheets to generate additional liquidity and the cash position in their treasury.
 - Issue covered bonds, senior preferred and other regulatory instruments such as the senior non-preferred (SNP) in order to continue to meet MREL requirements and cover the TLTRO II redemptions. If clarity is not given regarding both the quality and quantity of the composition of the MREL requirements, as well as when the requirements are expected to be met, this would result in medium-sized banks, which are less likely to meet said requirements, issuing a substantial number of covered bonds to cover the TLTRO II redemptions as a way to mitigate the increased financing costs vs. the TLTRO II in a scenario of margins and profitability remaining under pressure.
 - In this regard, and due to the significant reduction in the outstanding amount of Spanish covered bonds since 2012, the potential issuance capacity is quite substantial, despite the high OC requirements of the Spanish framework, estimated at EUR104bn.
 - Selling liquidity-generating assets (e.g. real estate or NPL portfolios) to provide some additional funds with a mitigated impact elsewhere on the balance sheet.
- Institutions expect the ECB to implement a 'bridging-auction' to allow firms to mitigate the impact of TLTRO II redemptions, and significantly, the Fixed Rat Full Allotment Procedure (FRFA) of Main Refinancing Operations (MRO) to continue past December 2019, thus allowing banks to maintain sufficient levels of liquidity, although with a shorter maturity profile.
- An additional implication for the bank's LCR is that TLTRO II was collateralised with Non-high Quality Liquid Assets, meaning there was no impact on the LCR when the funding was received. If, after the redemption of TLTRO II, these institutions were to seek funding in the form of repurchase agreements (repo's) from a private institution, they would require HQLA as collateral which in turn would have a negative impact on the LCR ratio of the bank. Furthermore, the private repo market operation is somewhat constrained by the risk limits applied by the clearing houses.
- Regarding the **long-term liquidity ratio (NSFR)**, there would be a negative impact on the numerator of the ratio (ASF) when the residual maturity falls below 12 months (50% of haircut) and 6 months (100% haircut), another driver to foster the long-term issuance by banks through 2019, while the impact on the denominator would be positive but linked to the type of assets that the banks have used to collateralize their TLTRO borrowing (covered bonds, ABS, govies...), given the different regulatory treatment of encumbered vs. unencumbered assets in this ratio.

Contacts

Head of European Fixed Income & US Credit Research Javier Serna

javier.serna@bbva.com +44 207 648 7581

European Macro & Sovereign Bonds

Head of Macro & Sovereign Bonds Europe

Pablo Zaragoza

pzaragoza@bbva.com +34 91 374 3864

Sovereign Bonds

Jaime Costero jaime.costero@bbva.com +34 91 374 6174

Macro

Marta García

marta.garcia@bbva.com +34 91 374 6761

European Credit

Head of European Credit Research, Public Sector & Covered Bonds Agustín Martín

agustin.martin@bbva.com +44 207 397 6087

Financials

David Golin david.golin@bbva.com

+44 207 648 7501

Marc Sánchez

marc.sanchez@bbva.com +44 207 397 6091

Corporates

Ana Greco ana.greco@bbva.com +44 207 648 7669

Álvaro Andreu

alvaro.andreu@bbva.com +44 207 397 6082

US Credit

Head of US Credit Research Patrick Holert patrick.holert@bbva.com +1 212 728 2462

Important Disclosures

The BBVA Group companies that have participated in preparing or contributed information, opinions, estimates, forecasts or recommendations to this report are identified by the location (so the author(s) listed on the first page as follows: 1) Madrid, London or Europe = Banco Bilbao Vizcaya Argentaria, S.A., including its E.U. branches (hereinafter called 'BBVA'); 2) Mexic City = BBVA Bancomer, S.A. Institución de Banca Múltiple, Grupo Financiero BBVA Bancomer (hereinafter called 'BBVA Bancomer'); 3) New York = BBVA Securities, Inc. (hereinafter called "BBVA Securities"); 4.) New York Branch = BBVA, New York branch; 5.) Lima = BBVA Continental; 6.) Bogota = BBVA Colombia S.A.; 7.) Santiago = BBVA Chile S.A.; 8.) Hon Kong = BBVA, Hong Kong branch.

For recipients in the European Union, this document is distributed by BBVA, a bank supervised by the Bank of Spain and by Spain's Stock Exchange Commission (CNMV), and registered with the Bank of Spain with number 0182.

All Credit Analysts are subject to following BBVA's Corporate Procedures for "Financial Research Activity and the Regime Applicable to Research Analysts." Material information about proprietary models used in ratings securities in this report is available from the Head of Credit Research. Ratings on credits are updated as analyst(s) views on the outlook for the business of their corporate issuers, market conditions, and/or their outlook for the issuers' credits change in a meaningful way. BBVA has established reasonable physical and informational barriers, along with compliance reviews and policies, to minimize potential conflicts of interest in preparir reports on corporate credits. Investment research issued by BBVA has been prepared in accordance with delegated regulations and directives of the EU.

We have three ratings for corporate issuers based on our assessed changes in their credit quality over the upcoming six month period: i.) Positive – we expect the credit quality of the issuer to improve; ii.) Neutral – we expect the credit quality of the issuer to remain the same; and iii.) Negative – we expect the credit quality of the issuer to decline. Factors that might impact our ratings for issuers include financial position, cash flow operating issues and financing needs which may impact an issuer's ability to service its debts, macroeconomic trends and outlook for interest rates, and the potential for a change in rating by credit rating agencies.

Additionally, we have three ratings for bonds based on our current expectations of relative returns over a six month period: i.) Buy – we expect the bond to outperform its peer group, sector or relevant benchmark; ii.) Hold we expect the bond to perform in-line with its peer group, sector or relevant benchmark; and iii.) Sell - we expect the bond to underperform its peer group, sector or relevant benchmark. Factors which may influence or ratings for bonds include: current market prices and conditions, outlook for interest rates, and any other factors that are considered in our ratings for corporate issuers.

As of today, for the whole universe of companies which BBVA has under coverage there are 35.0% Positive ratings, 47.0% Neutral ratings and 17.9% Negative ratings. BBVA or any of its affiliates has rendered Investment Banking services or participated as manager and/or co-manager in public offerings in 41.5% of the Positive ratings, 40.0% of the Neutral ratings, and 33.3% of the Negative ratings.

Over the past twelve months, for the whole universe of companies which BBVA has under coverage, there has been a month-end average of 32.7% Positive ratings, 50.6% Neutral ratings and 16.7% Negative rating BBVA or any of its affiliates has rendered Investment Banking services or participated as manager and/or co-manager in public offerings for a month-end average of 35.2% of the Positive ratings, 31.3% of the Neutr ratings, and 21.6% of the Negative ratings.

BBVA or any of its affiliates owned a net short position exceeding 0.5% of the total issued share capital of the following companies that may be covered in this report: N/A.

BBVA or any of its affiliates owned a net long position exceeding 0.5% of the total issued share capital of the following companies that may be covered in this report: Ahorro Corporacion Infraestructuras, FCR, Altri, Grup Santander S.A., Bolsa De Valores De Lima, S.A., Bolsa Mexicana de Valores, Cemex Venezuela, S.A.C.A., Dogus Ge Gayrimenkul Yatirim Ortakligi A.S., General De Alquiler De Maquinaria, S.A., Grupo Aeroportuar Del SurESTE, SA. CV., Innova 31, S.C.R., S.A., Mercado De Valores De Buenos Aires, S.A., Metrovacesa, S.A., Sunpower Corp, Telefónica, Testa Residencial Socimi SAU, Tubos Reunidos, S.A., Turkiye Garar Bankasi A.S.

BBVA or any of its affiliates beneficially owned at least 1 % of the common equity securities of the following companies that may be covered in this report: Ahorro Corporacion Infraestructuras, FCR, Bolsa De Valores De Lim. S.A., Bolsa Mexicana de Valores, Cemex Venezuela, S.A.C.A., Dogus Ge Gayrimenkul Yatirim Ortakligi A.S., General De Alquiler De Maquinaria, S.A., Grupo Aeroportuario Del Sureste, SA. CV., Innova 31, S.C.R., S.A. Metrovacesa, S.A., Telefónica, Testa Residencial Socimi SAU, Tubos Reunidos, S.A., Turkiye Garanti Bankasi A.S.

The following companies hold more than a 5% of the total issued share capital of BBVA: BLACKROCK INC.

In the past twelve months, BBVA or one or more of its affiliates has had, or currently has, as corporate and investment banking clients the following companies that may be covered in this report: Acciona, ACS, Actinv AENA, Alfa, Alpek SA de CV, Alsea, Amadeus, Ara, Arca Continental SAB de CV, Bimbo, Cellnex, Cemex, CIE Automotive, Concentradora Fibra Danhos S, EDP, EDP Renovaveis, Ence, Endesa, Europac, Euskalte Faes, Galp, Gas Natural, Gmexico, Grifols, Grupo Fin Santander-B, Grupo Lala Sab De CV, Grupo Santander, Hispania Activos Inmobiliarios, Iberdrola, Jerónimo Martins, Lab, Livepol, Logista, Mapfre, Megacab Holdings-CPO, Meliá Hotels Int., Merlin Properties, NH Hoteles, NOS, OHL, Ohlmex, Organizacion Cultiba Sab CV, Prosegur, Red Eléctrica, Repsol, Técnicas Reunidas, Telefónica, Televisa, Tubacex, Walmex.

In the past twelve months, BBVA or one or more of its affiliates managed or co-managed public offerings of the following companies that may be covered in this report: AC BEBIDAS, S. DE R.L. DE C.V., Acciona, AC Actinyr, AEP Texas Inc. AIG Global Funding, Alabama Power Co. Alcoa Nederland Holding, Alexandria Real Estate (ARE 4.000 01/15/24 Corp), Alfa, ALPEK SA DE CV. Alsea, Amadeus, American Homes 4 Ren American Intl Group, American Tower Corp, American Woodmark Corp, Ara, Arca Continental SAB de CV, AutoNation, Bacardi Ltd, Baker Hughes a GE Co LLC, BANCO ACTINVER, S.A., BANCO DEL BAJÍO, S.A INSTITUCIÓN DE BANCA MÚLTIPLE, BANCO INBURSA, S.A., INSTITUCION DE BANCA MULTIPLE, GRUPO FINANCIERO INBURSA, BANCO INVEX, S.A., BANCO NACIONAL DE COMERCIO EXTERIOR S.N. INSTITUCIÓN DE BANCA DE DESARROLLO, BANCO NACIONAL DE MÉXICO, S.A., BANCO NACIONAL DE OBRAS Y SERVICIOS PUBLICOS SOCIEDAD NACIONAL DE CREDITO INSTITUCION DE BANCA D DESARROLLO, Bank of America Corp. BAT Capital Corp. Baver US Finance II LLC, Bimbo, BNP PARIBAS PERSONAL FINANCE S.A. DE C.V., Bombardier Inc. Brinks, Bruin E&P Partners LLC, Buckeye Partners LF Bunge Limited Finance Corp, CAL Funding II LTD, Callon Petroleum Co, Carriage Services Inc., Caterpillar Finl Service, Cellnex, Cemex, Chaparral Energy Inc, Chesapeake Energy Corp, CIBANCO,S.A. INSTITUCIO DE BANCA MULTIPLE, FIDEICOMISO F00939 (TERRA13), Citigroup Inc, Colgate-Palmolive Co, COMISIÓN FEDERAL DE ELECTRICIDAD, Commerical Metals Co (CMC 5.750 04/15/26 Corp), CONCENTRADOR FIBRA DANHOS S, Concho Resources Inc, Consolidated Energy Finance S.A., Constellation Brands Inc, Continental Resources, CORPORACIÓN INTERAMERICANA DE INVERSIONES, BID INVEST, Coty Inc, Cred Suisse Group AG, Credit Suisse Group AG, CREDITO REAL SAB DE CV, Crown Euro Holdings SA, CrownRock LP, CYDSA, S.A.B. DE C.V., DAIMLER MEXICO, S.A. DE C.V., Delta Air Lines Inc, Denver City & Cn Co/United Airlines Inc, DEUTSCHE BANK MEXICO, S.A., Deutsche Bank NY, Digital Realty Trust LP, EDP, EDP Renovaveis, Enable Midstream Partner, Endesa, Enterprise Products Operating LLC, Euskalte FINANCIERA BEPENSA, S.A. DE C.V., SOFOM, E.R., First Data Corp, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FORD CREDIT DE MEXICO, S.A. DE C.V., SOFOM, E.R., First Data Corp, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FORD CREDIT DE MEXICO, S.A. DE C.V., SOFOM, E.R., First Data Corp, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FORD CREDIT DE MEXICO, S.A. DE C.V., SOFOM, E.R., First Data Corp, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FORD CREDIT DE MEXICO, S.A. DE C.V., SOFOM, E.R., First Data Corp, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FORD CREDIT DE MEXICO, S.A. DE C.V., SOFOM, E.R., First Data Corp, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FORD CREDIT DE MEXICO, S.A. DE C.V., SOFOM, E.R., First Data Corp, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FORD CREDIT DE MEXICO, S.A. DE C.V., SOFOM, E.R., FIRST DATA CORP, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FORD CREDIT DE MEXICO, S.A. DE C.V., SOFOM, E.R., FIRST DATA CORP, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FORD CREDIT DE MEXICO, S.A. DE C.V., SOFOM, E.R., FIRST DATA CORP, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS AGR Gas Natural, GAS NATURAL MÉXICO, S.A. DE C.V., General Dynamics Corp, General Motors Co, Genesis Energy LP, GM FINANCIAL DE MEXICO, S.A. DE C.V., SOFOM E.R., Gmexico, GMÉXICO TRANSPORTES S.A. DE C.V., Goldman Sachs Bank USA (GS), Goldman Sachs Group Inc, Government Properties Income Trust, GRUPO AXO, S.A.P.I DE C.V., GRUPO FIN SANTANDER-B, GRUPO LALA SAB DE CV, Grup Santander, Gulfport Energy Corp, Hasbro, Healthcare Trust of America, Helix Energy Solutions, Hess Infrastructure Partners, Honeywell International, Hospitality Properties Trust (HPT 4.375 02/15/30 Corp), HSB Holdings PLC, HSBC Holdings Plc (HSBC 4.583 06/19/29 Corp), Hudson Ltd. (US Equity), Iberdrola, IHS Markit Ltd, Industrial Logistics Properties Trust, INMUEBLES CARSO, S.A. DE C.V., INSTITUTO DEL FOND NACIONAL PARA EL CONSUMO DE LOS TRABAJADORES, Intercontinental Exchange, Jerónimo Martins, JPMorgan Chase & Co, Kennedy-Wilson, Inc, Kilroy Realty LP, Kinder Morgan, Lab, Leggett & Platt Inc, LC Homes Inc , Liberbank, Livepol, Logista, Lonestar Resources, Microchip Technology Inc, Millicom International Cellular, Mondelez International, MONEX, S.A.B. DE C.V., Morgan Stanley, Nabors Industries (US Equity Nabors Industries Inc, Nextera Energy Captial, Nissan Motor Acceptance, Noble Energy, NOS, NR FINANCE MEXICO, S.A. DE C.V., SOFOM, E.R., Oasis Midstream Partners LP (OMP US Equity), Oasis Petroleum In (OAS 6 1/4 05/01/26 Corp), Occidental Petroleum, OHL, Ohlmex, PACCAR FINANCIAL MEXICO, S.A. DE C.V., Parsley Energy LLC, PDC Energy Inc, Philip Morris Intl Inc, Pilgrims Pride, Plains All-American Pipelin Plastipak Holdings Inc, PPG Industries Inc, Procter & Gamble Co/The, Prologis LP, Prosegur, Protective Life Global Funding, Reckitt Benckiser, Red Eléctrica, Repsol, Republic Services Inc, RLH PROPERTIES, S.A.I DE C.V., Schlumberger, Sempra Energy, Sempra Energy (SRE US Equity), Service Corp International, Shiloh Industries Inc. (SHLO US Equity), Snap-On Inc., Sociedad Hipotecaria Federal, S.N.C., Institucion De Banc De Desarrollo, Southern Co, Southwestern Energy Co, Spirit Aerosystems Inc, Summit Midstream, Tallgrass Energy Partners LP, Targa Resources (NGLS 5.000 01/15/28 Corp), Team Inc, Telefónica, Televisa, TOYOT FINANCIAL SERVICES MEXICO, S.A. DE C.V., Trimble Inc, Triton (TRTN UN EQUITY), United Airlines Inc (UAL 5.000 07/15/28 Muni), Valvoline Inc, Ventas Realty LP, ViaSat Inc, Viper Energy Partners LP (VNOM U Equity), Volkswagen Leasing, S.A. de C.V., Walmart Inc, Walmex, Washington Prime, Welltower Inc, Western Digital Corp, Whiting Petroleum, Wildhorse Resource Development, WPX Energy Inc. In the past twelve months, BBVA or one or more of its affiliates has received compensation for investment banking services from the following companies that may be covered in this report: Acciona, AEP Texas Inc, AI

Global Funding, Alabama Power Co, Alcoa Nederland Holding, Alexandria Real Estate (ARE 4.000 01/15/24 Corp), Alexandria Real Estate Equities, Inc. (ARE 3.450 04/30/25 Corp), ALPEK SA DE CV, American Campu Communities, American Homes 4 Rent, American Intl Group, American Tower Corp, American Woodmark Corp, Ara, Arca Continental SAB de CV, Asur, AT&T INC, AT&T Inc, Atento Luxco 1 S.A., AutoNation, Avangr Inc, AXTEL SAB DE CV - CPO, Bacardi Ltd, Baker Hughes a GE Co LLC, BANCO ACTINVER, S.A., Banco Bilbao Vizcaya Argentaria, S.A., BANCO DEL BAJÍO, S.A., INSTITUCIÓN DE BANCA MÚLTIPLE, BANC INMOBILIARIO MEXICANO, S. A. INSTITUCIÓN DE BANCA MÚLTIPLE, BANCO INVEX, S.A., Bank of America Corp, BAT Capital Corp, Bayer US Finance II LLC, BBVA Banco Frances S.A. (BFR US Equity), Bimbi Blue Racer Midstream LLC, Boeing Co (BA 2.800 03/01/23 Corp), Bombardier Inc, Brinks, Bruin E&P Partners LLC, Buckeye Partners LP, Bunge Limited Finance Corp, CAL Funding II LTD, Callon Petroleum Co, Carriac Services Inc., Carrizo Oil & Gas Inc., Caterpillar Finl Service, Cemex. Chaparral Energy Inc., Chesapeake Energy Corp., CIBANCO.S.A. INSTITUCION DE BANCA MULTIPLE, FIDEICOMISO F00939 (TERRA13), Citigrou Inc, CNH Industrial NV, Colgate-Palmolive Co, COMISIÓN FEDERAL DE ELECTRICIDAD, Commercial Metals Co, Commercial Metals Co (CMC 5.750 04/15/26 Corp), Compass Bank, Compass Bank (BCOMPS Floring) 06/11/21 Corp), CONCENTRADORA FIBRA HOTELERA, Concho Resources Inc, Consolidated Energy Finance S.A., Constellation Brands Inc, Continental Resources, CONVERTIDORA INDUSTRIAL, S.A.B. DE C.V Corporación Financiera Alba, Coty Inc, Credit Suisse Group AG, Credit Suisse Group AG, Credit Suisse Group AG (CS 7.500 PERP Corp), Crown Euro Holdings SA, CrownRock LP, CYDSA, S.A.B. DE C.V., Daimle Finance NA LLC, Delta Air Lines Inc, Delta Air Line BANCA MULTIPLE, F/1616, Deutsche Bank NY, Digital Realty Trust LP, Dollar General Corp (DG 4.125 05/01/28 Corp), EDP, EDP Finance BV, EDP Renovaveis, Elementia, Enable Midstream Partner, Endesa, ENEL SPA, Enel Chile SA, Enel Finance Intl NV, Energy Transfer Partners, Enterprise Products Operating LLC, FERREYCORP SAA, FibraPL, First Data Corp, FLNG Liquefacation 3 LLC, Funo, Gas Natural, General Dynamic General Dynamics Corp, General Motors Co, Genesis Energy LP, Gmexico, GMÉXICO TRANSPORTES, S.A. DE C.V., Goldman Sachs Bank USA (GS), Goldman Sachs Group Inc, Government Properties Income Trus Government Properties Income Trust (GOVPIT 4.000 07/15/22 Corp), GRUPO AXO, S.A.P.I DE C.V., GRUPO CEMENTOS DE CHIHUAHUA, S.A.B. DE C.V., Grupo Gicsa, S.A.B. de C.V., Grupo Gigante, S.A.B. D C.V., Grupo Industrial Saltillo, S.A.B. DE C.V., Grupo Kuo, S.A.B. DE C.V., Grupo Lala Sab De CV, Grupo Senda Autotransporte S.A. DE C.V., Gulfport Energy Corp. Hasbro, Healthcare Trust of America, Helix Energy Solutions, Hess Infrastructure Partners, Holly Energy Partners, Honeywell International, Hospitality Properties Trust, Hospitality Properties Trust (HPT 4.375 02/15/30 Corp), HSBC Holdings PLC, HSBC Hold (HSBC 4.583 06/19/29 Corp), HSBC Holdings PLC (HSBC 6.250 PERP Corp), Hudson Ltd. (US Equity), IHS Markit Ltd, Industrial Logistics Properties Trust, Intercontinental Exchange, International Paper Co, INVE CONTROLADORA, S.A.B. DE C.V.,

JPMorgan Chase & Co, Kennedy-Wilson, Inc, Kilroy Realty LP, Kinder Morgan, Leggett & Platt Inc, LGI Homes Inc, Lonestar Resources, Magellan Health Services, Medical Properties Trust (MPW 5 10/15/27 Corp Mexchem, Microchip Technology Inc, Millicom International Cellular, Mondelez International, Morgan Stanley, Nabors Industries (US Equity), Nabors Industries Inc, Nextera Energy Captial, Nissan Motor Acceptance Noble Energy, Oasis Midstream Partners LP (OMP US Equity), Oasis Petroleum Inc (OAS 6 1/4 05/01/26 Corp), Occidental Petroleum, Organizacion Cultiba Sab CV, Parsley Energy LLC, PDC Energy In Petrobal/Brigadier Oil & Gas, PETROLEOS MEXICANOS, Philip Morris Intl Inc, Pilgrims Pride, Plains All-American Pipeline, Plastipak Holdings Inc, PPG Industries Inc, Procter & Gamble Co/The, Prologis LP, Protective Life Global Funding, Province of Buenos Aires, Reckitt Benckiser, Republic of Uruguay, Republic Services Inc, Republica Oriental del Uruguay (URUGUA 4.975 04/20/55 Corp), Royal Caribbean Cruises, Schlumberge Semgroup Corp, Sempra Energy, Sempra Energy (SRE US Equity), Senior Housing Properties Trust, Service Corp International, Shiloh Industries Inc. (SHLO US Equity), Sinopec Group Overseas Development, Snap-Conc., Soriana, Southern Co, Southwestern Energy Co, Spirit Aerosystems Inc, Summit Midstream, Sunoco Logistics Partners, Sunoco LP/Finance Corp (SUN 5.875 03/15/28 Corp), Tallgrass Energy Partners LP, ViaSciences (NGLS 5.000 01/15/28 Corp), Team Inc, Tecpetrol S.A., Televisa, Trimble Inc, Triton (TRTN UN EQUITY), United Airlines Inc (UAL 5.000 07/15/28 Muni), Valvoline Inc, Vantiv LLC, Ventas Realty LP, ViaScience, Viper Energy Partners LP (VNOM US Equity), Walmart Inc, Washington Prime, Welltower Inc, Western Digital Corp, Whiting Petroleum, Wildhorse Resource Development, Williams Partners LP, WPX Energy Inc.

In the next three months, BBVA or one or more of its affiliates expects to receive or intends to seek compensation for investment banking services from the companies covered in this report.

BBVA or any of its affiliates have liquidity commitments or is a market maker in: Segment of BME Warrants, stock futures in MEFF, stock futures in PSI20 and Portuguese shares in EURONEXT, ETFs of BBVA Assimangement, on IBEX and EUROSTOXX50, preferred issues of Eroski, Gas Natural Fenosa.

BBVA is the Primary dealer for sovereign bonds issued by: Kingdom of Spain, Republic of Portugal, Federal Republic of Germany.

For recipients in Hong Kong, this document is distributed by BBVA, which Hong Kong branch is supervised by the Hong Kong Monetary Authority

For recipients in Mexico, this document is distributed by BBVA Bancomer, a bank supervised by the Comisión Nacional Bancaria y de Valores de México.

For recipients in Peru, this document is distributed by BBVA Continental, a bank supervised by the Superintendencia de Banca, Seguros y Administradoras Privadas de Fondos de Pensiones.

For recipients in Colombia, this document is distributed by BBVA Colombia, a bank supervised by the Superintendencia Financiera de Colombia.

For recipients in Singapore, this document is distributed by BBVA, which Singapore branch is supervised by the Monetary Authority of Singapore.

For recipients in USA, research on products other than swaps is being distributed by BBVA Securities, a subsidiary of BBVA registered with and supervised by the U.S. Securities and Exchange Commission and member of the Financial Industry Regulatory Authority ("FINRA") and the Securities Investor Protection Corporation. U.S. persons wishing to execute any transactions should do so only by contacting a representative BBVA Securities in the U.S. Unless local regulations provide otherwise, non-U.S. persons should contact and execute transactions through a BBVA branch or affiliate in their home jurisdiction.

Research on swaps is being distributed by BBVA, a swaps dealer registered with and supervised by the Commodity Futures Trading Commission ("CFTC"). U.S. persons wishing to execute any transactions should do sonly by contacting a representative of BBVA. Unless local regulations provide otherwise, non-U.S. persons should contact and execute transactions through a BBVA branch or affiliate in their home jurisdiction.

BBVA and BBVA Group companies or affiliates (art. 42 of the Royal Decree of 22 August 1885 Code of Commerce), are subject to the BBVA Group Policy on Conduct for Security Market Operations which established common standards for activity in these entities' markets, but also specifically for analysis and analysts. This BBVA policy is available for reference at the following web site: www.bbva.com.

Analysts residing outside the U.S. who have contributed to this report may not be registered with or qualified as research analysts by FINRA or the New York Stock Exchange and may not be considered "associate persons" of BBVA Securities (as such term is construed by the rules of FINRA). As such, they may not be subject to FINRA Rule 2242 restrictions on communications with subject companies, public appearances are trading of securities held in research analysts' accounts.

BBVA is subject to an Internal Standards of Conduct on the Security Markets, which details the standards of the above-mentioned overall policy for the EU. Among other regulations, it includes rules to prevent and avo conflicts of interests with the ratings given, including information barriers. This Internal Standards of Conduct on the Security Markets is available for reference in the 'Corporate Governance' section of the following we site: www.bbva.com.

BBVA Bancomer is subject to a Code of Conduct and to Internal Standards of Conduct for Security Market Operations, which details the standards of the above-mentioned overall policy for Mexico. Among other regulations, it includes rules to prevent and avoid conflicts of interests with the ratings given, including information barriers. This Code and the Internal Standards are available for reference in the 'Grupo BBVA Bancomer subsection of the 'Conócenos' menu of the following web site: www.bancomer.com.

BBVA Continental is subject to a Code of Conduct and to a Code of Ethics for Security Market Operations, which details the standards of the above-mentioned overall policy for Peru. Among other regulations, it includes rules to prevent and avoid conflicts of interests with the ratings given, including information barriers. Both Codes are available for reference in the 'Nuestro Banco' menu of the following web site https://www.bbvacontinental.pe/meta/conoce-bbva/.

BBVA Securities is subject to a Capital Markets Code of Conduct, which details the standards of the above-mentioned overall policy for USA. Among other regulations, it includes rules to prevent and avoid conflicts interests with the ratings given, including information barriers.

Exclusively for Recipients Resident in Mexico

In the past twelve months, BBVA Bancomer has granted banking credits to the following companies that may be covered in this report: Alfa, ALMACENADORA AFIRME S.A. DE C.V., ORGANIZACIÓN AUXILIAR DE CRÉDITO, ALPEK SA DE CV - Alsea, ANHEUSER-BUSCH INBEV SA/NV, ARRENDADORA AFIRME S.A. DE C.V., AT&T INC, AXTEL SAB DE CV - CPO, BANCO DEL BAJÍO, S.A., INSTITUCIÓN DE BANCO MÚLTIPLE, BRUPO FINANCIERO BANORTE, BIMBO E BANCO MÚLTIPLE, BRUPO FINANCIERO BANORTE, BIMBO E BANCO MÉRCANTIL DEL NORTE, S.A., INSTITUCION DE BANCA MULTIPLE, GRUPO FINANCIERO BANORTE, BIMBO E C.V., BNP PARIBAS PERSONAL FINANCE S.A. DE C.V., CATERPILLAR CRÉDITO, S.A. DE C.V., SOFOM, E.R., CATERPILLAR INC., CEMENTOS MOCTEZUMA SA DE CV, Cemex, Chdraui, COMISIÓ S.A.B. DE C.V., CORPORACION INTERAMERICANA DE ENTRETENIMIENTO, S.A.B. DE C.V., CORPORATIVO FRAGUA SAB DE CV, CORPOVAÉ S.A.B. DE C.V., CREDITO REAL SAB DE CV, CYDSA, S.A.B. DE C.V., DAIMLER MEXICO, S.A. DE C.V., Elementia, FARMACIAS BENAVIDES, S.A.B. DE C.V., Femsa, FibraPL, FINANCIERA INDEPENDENCIA, S.A.B. DE C.V., SOFOM, E.N.R., FONDO ESPECIAL PARA FINANCIAMIENTOS AGROPECUARIOS, FORD CREDIT DE MEXICO, S.A. DE C.V., SOFOM, E.R., Fshop, Gap, Gfamsa, GM FINANCIAL DE MEXICO, S.A. DE C.V., SOFOM E.R., GRUPO AXO, S.A.P.I. DE C.V., GRUPO BAFAR, S.A.B. DE C.V., GRUPO CEMENTOS DE CHIHUAHUA, S.A.B. DE C.V., GRUPO CIOSA, S.A.P.I. DE C.V., GRUPO HOTELERO SANTA FI S.A.B. DE C.V., GRUPO KUO, S.A.B. DE C.V., GRUPO LALA SAB DE CV., GRUPO LAMOSA, S.A.B. DE C.V., GRUPO MINSA, S.A.B. DE C.V., GRUPO NACIONAL PROVINCIAL, S.A.B., GRUPO POCHTECA SAB DE C.V., GRUPO POSADAS, S.A.B. DE C.V., HOLCIM CAPITAL MEXICO, S.A. DE C.V., HYUNDAI MOTOR COMPANY, IMPULSORA DEL DESARROLLO Y EL EMPLEO EN AMERICA LATINA, S.A.B. DE C.V., INSTITUTO DEL FONDO NACIONAL PARA EL CONSUMO DE LOS TRABAJADORES, Lab, Livepol, MERCADER FINANCIAL, S.A., SOFOM, E.R., Mfrisco, MONDELE INTERNATIONAL INC., NEMAK, S.A.B. DE C.V., NESTLE S.A., PACCAR FINANCIAL MEXICO, S.A. DE C.V., Pe&oles, PETROLEOS MEXICANOS, Rassini, REPSOL, S.A., Soriana, Televisa, VIN

In the past twelve months, BBVA Bancomer has granted Common Representative services to the following companies that may be covered in this report: N/A.

As far as it is known, a Director, Executive Manager or Manager reporting directly to the BBVA Bancomer General Manager has the same position in the following companies that may be covered in this report: Alfa, Alsea, Am Asur, Bimbo, CMR, S.A.B. DE C.V., COCA-COLA FEMSA, S.A.B. DE C.V., CONCENTRADORA FIBRA DANHOS S, DINE, S.A.B. DE C.V., Femsa, Gcarso, Gruma, GRUPO KUO, S.A.B. DE C.V., GRUPO POSADAS, S.A.B. DE C.V., Gsanbors, INVEX CONTROLADORA, S.A.B. DE C.V., Livepol, Oma, Pe&oles, TELEFONOS DE MEXICO, S.A.B. DE C.V., Televisa, TENARIS S.A., URBI DESARROLLOS URBANOS, S.A.B. DE C.V., VITRO, S.A.B. DE C.V.

BBVA Bancomer acts as a market maker/specialist in: MexDer Future Contracts (US dollar [DEUA], 28-day TIIEs [TE28], TIIE Swaps, 91-day CETES [CE91]), Bonos M, Bonos M3, Bonos M10, BMV Price and Quotation Index (IPC), Options Contracts (IPC, shares in América Móvil, Cemex, CPO, Femsa UBD, Gcarso A1, Telmex L) and Udibonos.

BBVA Bancomer, and, as applicable, its affiliates within BBVA Bancomer Financial Group, may hold from time to time investments in the securities or derivative financial instruments with underlying securities covered this report, which represent 10% or more of its securities or investment portfolio, or 10% or more of the issue or underlying of the securities covered.

Analyst Certification

The research analysts included on the front page of this report hereby certify that (i) the views expressed in this report accurately reflect their personal views about the subject companies and their securities and (ii) no page of their compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

Disclaimer

This document and the information, opinions, estimates, forecasts and recommendations expressed herein have been prepared to provide BBVA Group's customers with general information and are current as of the darkness and subject to changes without prior notice. Neither BBVA nor any of its affiliates is responsible for giving notice of such changes or for updating the contents hereof.

This document and its contents do not constitute an offer, invitation or solicitation to purchase or subscribe to any securities or other instruments, to undertake or divest investments, or to participate in any trading strategy. Neither shall this document nor its contents form the basis of any contract, commitment or decision of any kind.

Investors who have access to this document should be aware that the securities, instruments or investments to which it refers may not be appropriate for them due to their specific investment goals, financial positions or risk profiles, as these have not been taken into account to prepare this report. Therefore, investors should make their own investment decisions considering the said circumstances and obtaining such specialized advice a may be necessary. Other than the disclosures relating to BBVA Group, the contents of this document are based upon information available to the public that has been obtained from sources considered to be reliable. However, such information has not been independently verified by BBVA or any of its affiliates and therefore no warranty, either express or implicit, is given regarding its accuracy, integrity or correctness. To the extension permitted by law, BBVA and its affiliates accept no liability of any type for any direct or indirect losses or damages arising from the use of this document or its contents. Investors should note that the past performance of the securities or instruments or the historical results of investments do not guarantee future performance.

The market prices of securities or instruments or the results of investments could fluctuate against the interests of investors. Investors should be aware that they could even face a loss of their investment. Transactions futures, derivatives, options on securities or high-yield securities can involve high risks and are not appropriate for every investor. Indeed, in the case of some investments, the potential losses may exceed the amount initial investment and, in such circumstances, investors may be required to pay more money to support those losses. Thus, before undertaking any transaction with these instruments, investors should be aware of the operation, as well as the rights, liabilities and risks implied by the same and the underlying securities. Investors should also be aware that secondary markets for the said instruments may not exist. Before entering in transactions in futures, derivatives, or options, investors should review all documents on disclosures for risks of investing in options and/or futures at the following websites:

Options - http://www.finra.org/Industry/Regulation/Notices/2013/P197741

Futures - http://www.finra.org/Investors/InvestmentChoices/P005912

Covered bonds, collateralized mortgage obligations, and other mortgage-related or asset backed securities are not suitable for every investor and are subject to certain risks. The value and price of these securities sensitive to conditions affecting the assets underlying these securities. Accordingly, changes in economic conditions, the value of underlying assets, the real estate market, credit conditions, interest rates, or other factor can cause these securities to diminish in value. Such securities are also subject to risks related to prepayment and clean-up call risk. When the obligations underlying these securities are prepaid at a faster pace that expected and the securities are called, an investor may have to reinvest in securities with a lower yield and/or fail to recover additional amounts (premiums) paid for securities with higher interest rates, resulting in a unexpected capital loss. The structure of these securities may be complex and less information may be available about them than other types of debt securities. Before investing in such securities, investors shouthoroughly review educational material that is available on the securities at http://www.investinginbonds.com/.

BBVA or any of its affiliates' salespeople, traders, and other professionals may provide oral or written market commentary or trading strategies to its clients that reflect opinions that are contrary to the opinions expressed herein. Furthermore, BBVA or any of its affiliates' proprietary trading and investing businesses may make investment decisions that are inconsistent with the recommendations expressed herein. No part of this document may be (i) copied, photocopied or duplicated by any other form or means (ii) redistributed or (iii) quoted, without the prior written consent of BBVA. No part of this report may be copied, conveyed, distributed or furnished to any person or entity in any country (or persons or entities in the same) in which its distribution is prohibited by law. More specifically, this document is in no way intended for, or to be distributed or used by an entity of person resident or located in a jurisdiction in which the said distribution, publication, use of or access to the document contravenes the law which requires BBVA or any of its affiliates to obtain a licence or be registered Failure to comply with these restrictions may breach the laws of the relevant jurisdiction.

The remuneration system concerning the analysts responsible for the preparation of this report is based on multiple criteria, including the revenues obtained by BBVA and, indirectly, the results of BBVA Group in the fisc year, which, in turn, include the results generated by the investment banking business; nevertheless, they do not receive any remuneration based on revenues from any specific transaction in investment banking.

In the United Kingdom, this document is directed only at persons who (i) have professional experience in matters relating to investments falling within article 19(5) of the financial services and markets act 2000 (financi promotion) order 2005 (as amended, the "financial promotion order"), (ii) are persons falling within article 49(2) (a) to (d) ("high net worth companies, unincorporated associations, etc.") of the financial promotion order, (iii) are persons to whom an invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000) may otherwise lawfully be communicated (all succepts succeed to as "relevant persons"). This document is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this document relates is available only to relevant persons and will be engaged in only with relevant persons.

BBVA Hong Kong Branch (CE number AFR194) is regulated by the Hong Kong Monetary Authority and the Securities and Futures Commission of Hong Kong. In Hong Kong this report is for distribution only professional investors within the meaning of Schedule 1 to the Securities and Futures Ordinance (Cap 571) of Hong Kong.

This document is distributed in Singapore by BBVA's office in this country for general information purposes and it is generally accessible. In this respect, this document does not take into account the specific investment goals, the financial situation or the need of any particular person and it is exempted from Regulation 34 of the Financial Advisors Regulation ("FAR") (as required in Section 27 of the Financial Advisors Act (Chapter 110) of Singapore ("FAA")).

BBVA, BBVA Bancomer, BBVA Chile S.A., BBVA Colombia S.A., BBVA Continental and BBVA Securities are not authorised deposit institutions in accordance with the definition of the Australian Banking Act of 1959 not are they regulated by the Australian Prudential Regulatory Authority (APRA).

General Disclaimer for Readers Accessing the Report through the Internet

Internet Access

In the event that this document has been accessed via the internet or via any other electronic means which allows its contents to be viewed, the following information should be read carefully:

The information contained in this document should be taken only as a general guide on matters that may be of interest. The application and impact of laws may vary substantially depending on specific circumstance BBVA does not guarantee that this report and/or its contents published on the Internet are appropriate for use in all geographic areas, or that the financial instruments, securities, products or services referred to in it at available or appropriate for use in all jurisdictions or for all investors or counterparties. Recipients of this report who access it through the Internet do so on their own initiative and are responsible for compliance will local regulations applicable to them.

Changes in regulations and the risks inherent in electronic communications may cause delays, omissions, or inaccuracy in the information contained in this site. Accordingly, the information contained in the site is supplied on the understanding that the authors and editors do not hereby intend to supply any form of consulting, legal, accounting or other advice.

All images and texts are the property of BBVA and may not be downloaded from the Internet, copied, distributed, stored, re-used, re-transmitted, modified or used in any way, except as specified in this document, without the express written consent of BBVA. BBVA reserves all intellectual property rights to the fullest extent of the law.