

# Investment in Renewable Energy and Financing through PF



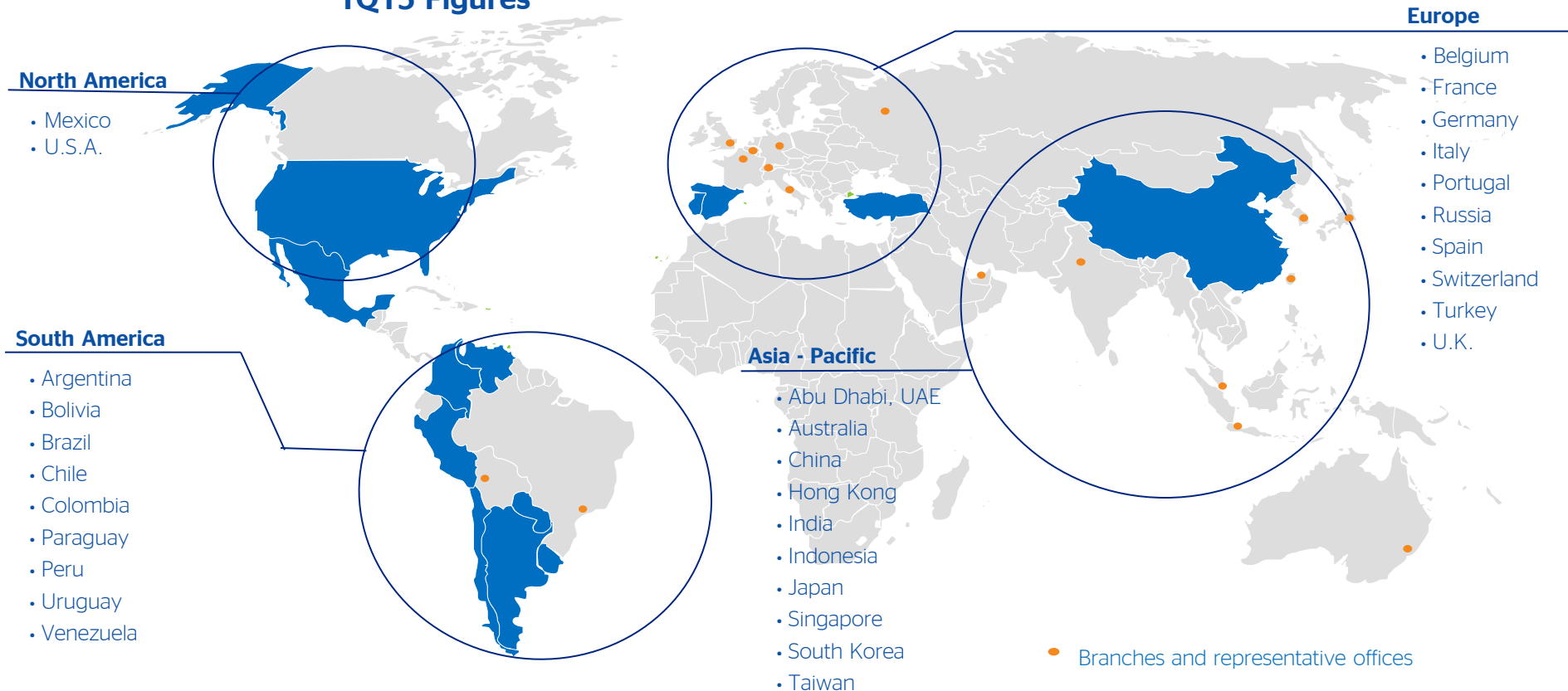
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## Section 1

# BBVA is a global financial group ...

## 1Q15 Figures



**€673 Bn**  
Total Assets

**51Mn**  
Customers

**31**  
Countries

**7,360**  
Branches

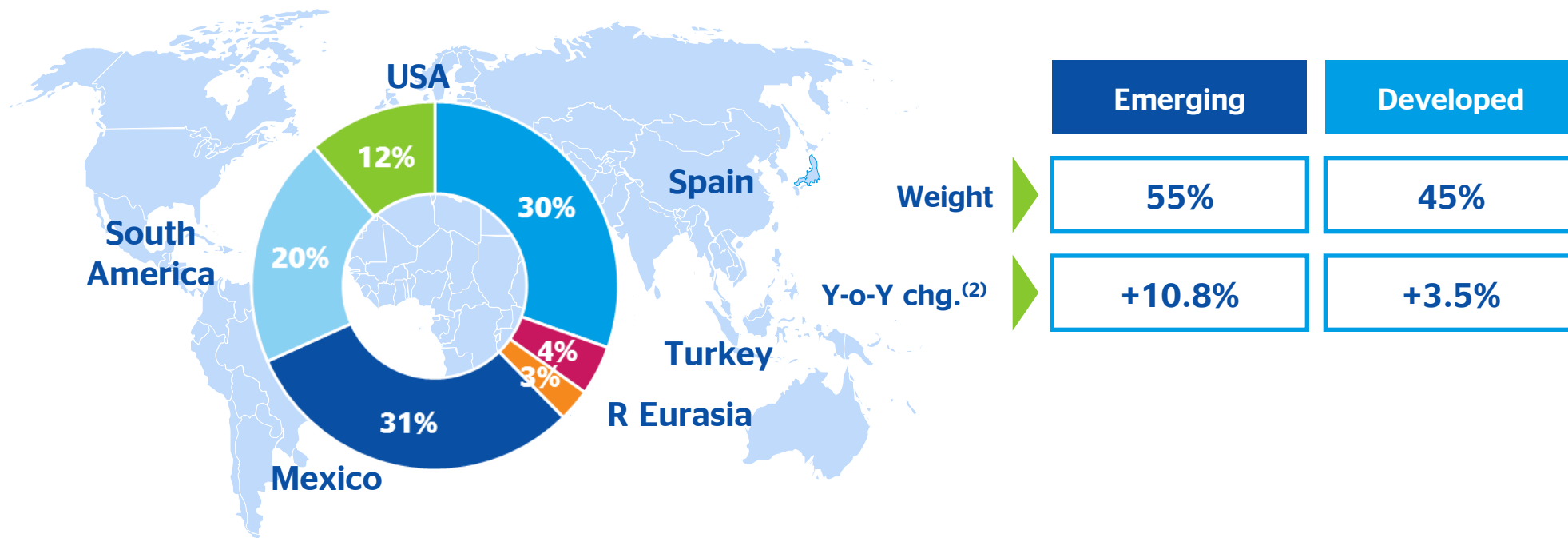
**22,595**  
ATMs

**108,844**  
Employees

## Section 1

... with a well-diversified footprint ...

**BBVA Group's 1T15 Gross Income**

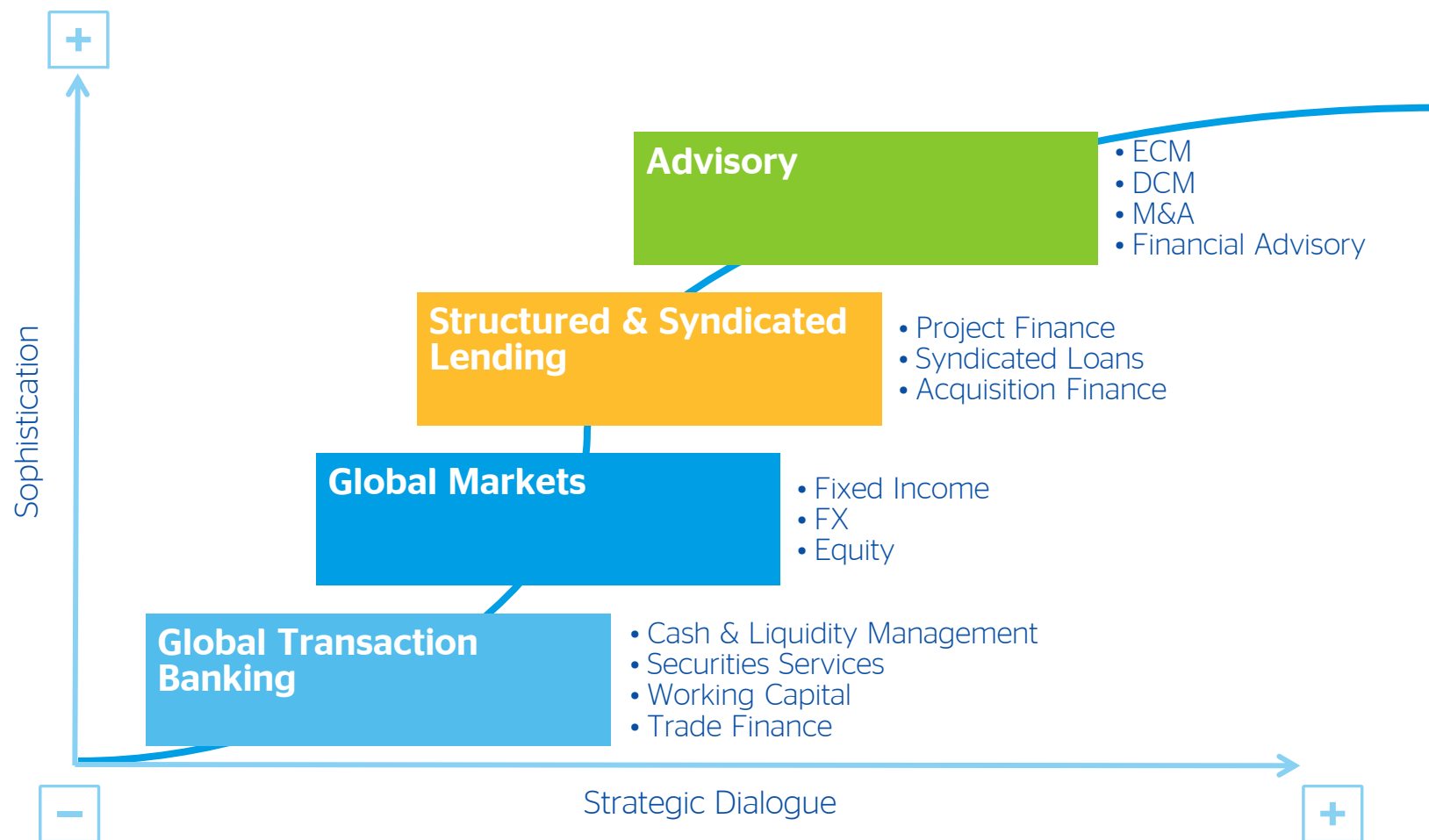
Breakdown by business area <sup>(1)</sup>


~ 90% of gross income coming from investment grade countries

(1) Excluding Corporate Centre. (2) In constant €. Note: Investment grade countries: Spain, USA, Mexico, Chile, Colombia, Peru, Uruguay, China, Turkey (except by S&P) and rest of Europe; Non-investment grade countries: Portugal, Argentina, Paraguay and Venezuela.

## Section 1

BBVA a solid client centric franchise that provides a full range of financial products and services



## Section 1

# Complete product catalogue adapted to the needs of BBVA clients

## Transaction Banking

Provides solutions for the efficient payments, collections & liquidity management, trade finance, security services and working capital needs through different channels and specialized services

## Structured & Syndicated Lending

Advisory, origination, structuring and execution of financing solutions (leveraged finance, asset finance, project finance, corporate lending,...)

## Global Markets

Investing in international financial markets, structuring and risk hedging services on equity, fixed income and foreign exchange

## DCM

Origination, structuring and allocation to investors of financing solutions through bonds and other structured debt products

## ECM

Origination, structuring and execution of equity and equity-linked financings such as initial public offerings, follow on offerings, equity block transmissions, convertible bonds and preferred stocks

## M&A

Advisory and execution of mergers, acquisitions, divestitures, privatizations, corporate restructurings

## Section 1

# Our achievements have been recognized by the industry



- Best **ECA Deal of the Year** (Star Refinery) by TFR (2014)
- Best **Domestic Cash Management Provider** for Non Financial Institutions in Venezuela, Colombia and Peru (2014) by Euromoney
- Best **Information Security Initiatives** at the World's Best Internet Banks Awards in Colombia by Global Finance (2014)
- Best **Sub-Custodian Bank in Spain and Mexico** by Global Finance
- Best **Treasury & Cash Management Provider** in Spain & Mexico by Global Finance
- Best **US regional middle market provider in the Southwest region** by Global Finance



- Best **Foreign Exchange Provider in Mexico** by Global Finance
- Rank #1 in 14 categories by Risk España Derivatives Dealers
- Best ETF- Linked Product & Best Institutional Product in Mexico, Best Client Service in Latam & Best FX House in the Americas by Structured Retail Products
- House of the Year in Latin America & Best Bank in Spain by Structured Products
- Landmark Deal by MTN-i



- Top Bank for Mexico & Spain Syndicated Loans by Dealogic
- Best Power Financing (Chaglla), Best Renewable Energy financing (Chaglla), Best Infrastructure Financing (Chaglla) and Best Port Financing (Transportadora Callao) by Latin Finance's Infrastructure Financing Awards
- 5 Deals of the Year (Freeport LNG, Los Ramones Sur, Budapest Airport, Niagara/Georges Besse, Star Refinery) by PFI Awards Deals of the Year
- 1 Deal of the Year by Infrastructure Investor
- 1 Deal of the Year (Chaglla) and 3 Finalist Deals of the Year by Infrastructure Journal



- Best M&A House and Best Debt House in Spain, Best Investment Bank in Mexico by Euromoney
- M&A Advisor of the Year in Iberia by Financial Times
- M&A Financial Advisor of the Year in Spain by Mergermarket
- Best Investment Bank in Spain by Global Finance
- Top Bank for Peru Fixed Income, Top Bank for Latin America Transportation DCM and Top Bank for Mexico Transportation Investment Banking by Dealogic

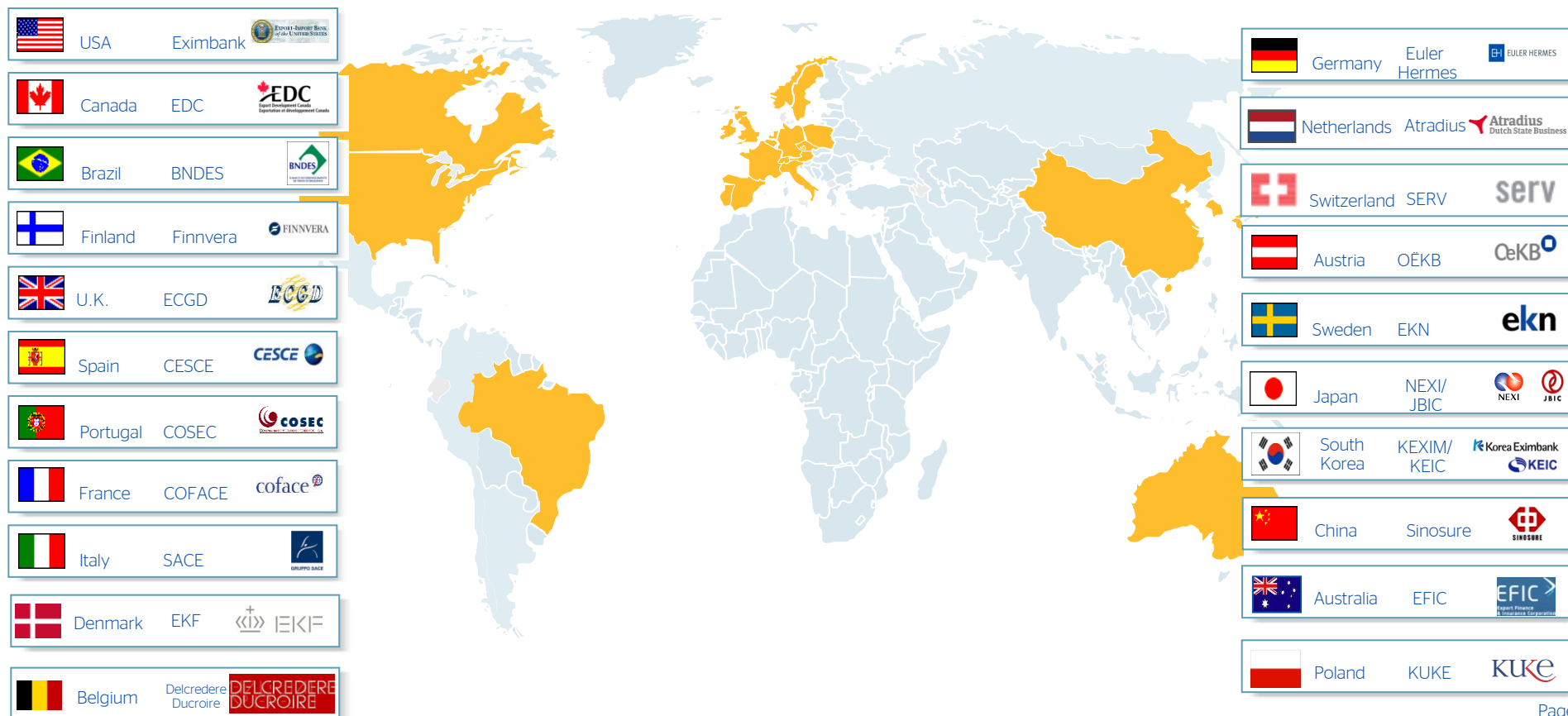
More information at BBVA CIB website: [www.bbvacib.com](http://www.bbvacib.com)

Note: Latest Awards selected as of 12<sup>th</sup> January 2015

## Section 2

# BBVA ECAs Capabilities

- Market leader in ECA product and solutions since 1997.
- Significant portfolio over 9 digits with assets across 5 continents.
- Strong network and Agency capabilities, delivering comprehensive worldwide coverage as follows:





Section 2

# ECAs covered out of GTF Team Germany



## Section 2

# Main Products

We provide customized structured finance solutions for companies importing or exporting capital goods or who are active in the trade value chain.

## Scope of Activity

- Specialized in direct export financing: Buyer's Credit structures (balance sheet or cash flow based - project finance)
- Financing through exporter (Supplier's Credit)
- Support the issuing of financing instruments related to import-export deals (cross-border and local Guarantees, L/Cs, etc)
- Support Trade by providing Factoring or Confirming allowing clients to increase cash flow without creating debt on their balance sheet

## Our main clients

- Companies manufacturing and exporting equipment for industrial production worldwide
- (Public / Private) Companies importing equipment for brownfield or greenfield projects worldwide
- SPVs importing equipment for a project
- Trading companies

## Section 3

# Presentation Overview

- The objective of this presentation is to provide a general overview of the renewable energy projects from the lender's perspective
- Technological and regulatory aspects, risk mitigants and financing structures have been considered
- The following questions have been considered providing answers through the lender's perspective:
  - What technological aspects are taken into consideration?
  - Which are the major perceived risks?
  - How are different regulatory frameworks treated?
  - What are the market trends?

## Section 3

# Presentation Overview

- BBVA has been financing renewable energy projects for more than 15 years
- BBVA has invested more than 5.000 USD Mn in renewable technology, with more than 30.000 MW financed

|              |  |
|--------------|--|
| Wind         | Spain, Germany, Portugal, Italy, France, United Kingdom, México, USA, Canada and Australia |
| Photovoltaic | Spain, Portugal and Chile  |
| Solar        | Spain and USA  |
| Biomass      | Spain  |
| Hydro        | Spain, Colombia, Peru and Chile  |

IJGlobal  
Americas  
Awards 2014

Latin  
American  
Solar DoY

2014 Chile

**USD 160.000.000**

Javierra PV



MLA

**BBVA**

ProjectFinance  
Deals of the Year  
2012

Latin  
American  
Project Bond  
DoY

2012 Mexico

**USD 148.469.000**

Oaxaca II  
Project Bond Financing



Joint Bookrunner

**BBVA**

ProjectFinance  
Deals of the Year  
2012

Latin  
American  
Power DoY

2012 Peru

**USD 590.343.858**

Cerro del Águila



Mandated Lead Arranger

**BBVA**


pfi  
AWARDS  
2009

Portfolio Deal  
of the Year

November 2009 UK

**GBP 340,944,000**

Boreas



Mandated Lead Arranger

**BBVA**

pfi  
AWARDS  
2009

European  
Renewables  
Deal of the  
Year

2009 Spain

**EUR 542.000,000**

Palma - Saetilla  
Thermal Solar Plants



Mandated Lead Arranger

**BBVA**

EUROMONEY  
ProjectFinance  
Deal of the Year  
2009

European  
Clean  
Technology

2009 Spain

**EUR 540,000,000**

Thermal Solar  
ARCOSOL-TERMESOL



Mandated Lead Arranger

**BBVA**

ProjectFinance  
Deals of the Year 2005

Biggest wind  
farm tra  
nsaction  
in Portugal up to date

2005 Portugal

**EUR 367,000,000**

Electrabel  
SVEZ



Sole Mandated Lead Arranger  
& Co-underwriter

**BBVA**

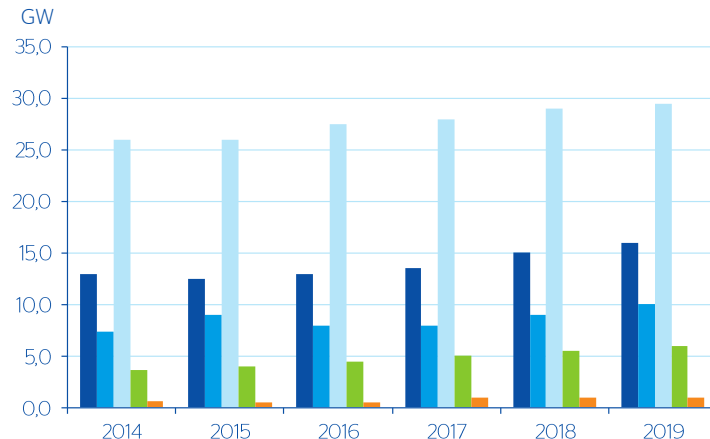
## Section 3

# Presentation Overview

- In the region, historically, hydro power and biomass in a minor way, have been the most developed technologies. During the last years, we have seen significant increase in the wind installed capacity, specially in Mexico and Brazil. Lately, PV sector is gaining terrain, specially in Chile and Uruguay.
- In Central America, there is also some investment in the wind and PV industry in countries such as Panama, Ecuador, Costa Rica and Honduras.
- In the following graph, you can see the installed capacity by the end of 2014, and the relevant investments (5GW per annum in wind) expected in the region in the coming years.

## Annual Market Forecast by Region 2014-2019

Source: GWEC



## LatAm Installed Capacity

| Country      | Wind         |
|--------------|--------------|
| Brazil       | 5.939        |
| Chile        | 836          |
| Uruguay      | 464          |
| Argentina    | 271          |
| Costa Rica   | 198          |
| Nicaragua    | 186          |
| Honduras     | 152          |
| Peru         | 148          |
| Caribbean    | 250          |
| Others       | 83           |
| <b>Total</b> | <b>8.527</b> |



## Section 3

# Presentation Overview

Following some of the main challenges across the region for the development of renewable energy technologies:

- A general problem in most of the region are **environmental and social concerns**, we have seen too many project delays or cancelled because of social and environmental issues
- Lack of **interconnection facilities**. A lot of development will be needed in many of these countries to support the expected growth of the upcoming capacity in the renewable energy sector, what bring up other issues as unused capacity of the lines, extra costs, and lack of regulation for expropriation process, with subsequent delays
- **Absence of regulatory support**, not too many FiT schemes and regulatory incentives to speed up the process. This happen occasionally in some countries, but it is missing in many of them
- **Absence of PPAs** with acceptable tenors and creditworthy counterparties, what implies significant problems to gain access to long term financing, specially under Project Finance schemes. The role of the multilateral agencies and ECAs has been crucial to promote the development of new capacity in countries such as Chile in order to provide liquidity for merchant projects
- In some countries such as Peru and Colombia, where hydro supply is strong and access to gas easy, the **cost of these technologies** make them non profitable, so development have been rather slow specially in wind and PV

## Section 3

# Country Renewable Overview

**Brazil**

- Estimated **Wind Potential** of more than 143 GW at 50 m and around 350 GW at 80-100 m
- For renewables, until December 2009 the **PROINFA system** was under operation through a feed in tariff with Eletrobras (sovereign risk) for 20 years (with a total of 3.300 MW, of which 1.191 small hydro, 1.423 MW wind and 685 biomass)
- From December 2009, the **auction system** comes into place with PPA with distributors for a period of 20 years for the wind, biomass and small hydro technologies. For 2000 MW per year over the next ten years
- **BNDES** had a crucial role in this market, allowing the growth of the most important market on the wind field in the whole region, with more than 6GW of installed capacity

**Chile**

- Important **foreign dependency** for fossil fuels. **Estimated demand increase** of 6% annually until 2020
- Most of the renewable energy projects up to date have been constructed to **supply large-scale consumers** and are based on long term PPA contracts
- The renewable sector is regulated through the Law **20.257 of 2008**. The generator will have the obligation to comply with the requirement that 5% of its energy should come from renewable sources, percentage that will increase **to reach 10% by 2020**. **Political support to achieve 20% by 2025**.
- Those who fail to comply will pay a fee of **30 USD/MWh**
- **Absence of long term PPAs** have been the major problem, together with the social opposition
- **Significant transmission upgraded** is needed to comply with the objectives
- **PV is gaining importance** in the northern part of the country, being one of the main countries for its development in the region
- This is the only market where **merchant projects** have been financed mainly by ECA and multilaterals, and lately also by local banks

## Section 3

# Country Renewable Overview

## Mexico



- From 2008, with the “Ley para el Aprovechamiento de las Energías Renovables y el Financiamiento de la Transición Energética (“LAERFTE”)”, an increasing investment need in new renewable capacity was born
- Excluding large hydro, current installed capacity from renewable sources in **Mexico is above 2.8GW**, mainly wind generation
- Since then, commercial banks, both local and international, and multilateral agencies played a significant role, participating in the financing over **2.2GW, providing them with debt above USD 3Bn**
- During 2013, a new constitutional framework for power policy, “**Ley de la Industria Eléctrica**” is under approval process
- For the period **2015-2018**, Mexican objective is to increase installed capacity from renewable sources in more than **5,4GW**, the breakdown by technology would be leaded by wind (50%), followed by hydro (40%), (10%) solar.

## Colombia



- **Minimum contribution** of the renewable energies to the system. Only 20 MW wind installed, nearly 70% of the installed power, being the rest gas and, to a less extent, coal.
- **Absence of measures** to develop the renewable energy sector. Most of the projects under development are hydros and thermal gas and coal
- Some **distributed projects** are starting to appear, very slowly, on the PV and wind field mainly



## Section 3

# Country Renewable Overview

**Peru**

- The **Peruvian government** through the Ministry of Energy and Mines and OSINGERGMIN, has decided to drive the renewable sector
- To this end, it has launched an **auction program**, with the objective that 5% of its energy to come from renewable sources
- The **first auction took place in July 2010**, with the facilities' commissioning date taking place before December 31st 2012. The results were as follows: 142 MW wind, 40 MW photovoltaic, 23 MW biomass and 161 MW mini-hydro. Each one of them with a guaranteed tariff for a period of 20 years.
- The **second auction, which took place in July 2012**, allocated 39,5 MW to biomass, 301MW wind and 115 MW solar
- **Last auction have been mainly focused on mini-hydro and biomass** on a marginal way, no wind or PV projects were part of the auction

**Uruguay**

- The **Uruguayan government**, through UTE, launched an initiative for the installation of wind parks through an auction process by which a 20 year contract with the UTE for wind, and 30 years for PV would be obtained for the sale of electricity at a closed price
- This has been **extremely successful**, specially in wind, where the installed capacity considering project under construction is above 1GW, what represents more than one third of the total generation capacity

Section 4

# Industry Overview

## Wind

Onshore wind and offshore wind, two sectors that have experienced different levels of development



|                          | Wind Onshore |   | Wind Offshore |   |
|--------------------------|--------------|---|---------------|---|
| Technological Maturity   | +            | + | +             |   |
| # of Suppliers           | +            | + | -             |   |
| Unpredictable Generation | -            |   | -             |   |
| Price Competition        | +            | + | +             |   |
| Potential Growth         | +            |   | +             | + |
| Construction Risk        | +            | + | +             |   |
| Load Factor              | -            |   | +             |   |
| O&M Costs                | +            | + | +             |   |
| "Bankability"            | +            | + | +             |   |
| Capacity to reduce costs | -            |   | +             |   |



## Section 4

# Industry Overview

**Solar**

Thermo and Photovoltaic, two sectors that have experienced significant development



|                          | Photovoltaic | Thermosolar |
|--------------------------|--------------|-------------|
| Technological Maturity   | ++           | +           |
| # of Suppliers           | ++           | +           |
| Unpredictable Generation | +            | +           |
| Price Competition        | ++           | -           |
| Potential Growth         | ++           | +           |
| Construction Risk        | ++           | -           |
| Load Factor              | +            | ++          |
| O&M Costs                | ++           | -           |
| "Bankability"            | ++           | +           |
| Capacity to reduce costs | +            | ++          |



## Section 5

# Regulatory Frameworks

Regulatory Frameworks can be summarized as follows:

- **Feed in Tariff:** Fixed tariff for a finite period of time. This scheme provides revenue stability as payment is backed by the government and purchases are compulsory. In place in countries such as Spain, Germany, Italy, France, Portugal, Peru, Brazil and Uruguay
- **PPA:** generally combined with the REC/GC system. In these cases, the lender will pay close attention to the PPA's counterparty's credit rating, contract scheme, terms, penalties, supply timings, committed amount, etc.
- **Auction:** Competitive process where a price is offered for the sale of electricity through a PPA with a public/proven distributor for a specific period. Similar revenue scheme and risk profile for lenders than FiT
- **Renewable Energy Certificates (REC) or Green Certificates:** through this mechanism the government enforces the distributor/generator to distribute a percentage of their energy supplied from a renewable source, if they fail to comply, a penalty will be applied. To do so they can either generate or purchase through PPA renewable energy or buy green certificates. It is a market mechanism to fix the price of the REC/GC. Applied in countries such as UK or Australia.
- **Tax Incentives and y Tax Credits:** Generates tax incentives such as accelerated depreciation and tax credits that will be monetized in the secondary market, in this case, being the counterparty's credit rating also very important

## Section 6

## Risks

**Risk Profile:**  
**Construction**  
**and Operation**

- Four main risks:
  - Regulatory and tariff
  - Permits and Construction
  - Technical and Operational
  - Resource

In some countries, other aspects should be considered:

- Country risk referred to :
  - Provisions will apply to each lender from their Central Banks, what makes much more expensive the financing and makes crucial in these countries the role of the ECAs or Multilateral Agencies
  - Political risk, expropriation, long-run exchange rate, etc.
- To help mitigate these scenarios, multilateral agencies (IFC, IDB A/B Loans, CAF, etc) and Export Credit Agencies (ECA) play an important role.
- Payer counterparty risk for long-term PPA, minimum rating required

## Section 6

# Guarantee Scheme

## Guarantee Scheme

- **Completion Guarantee:** should cover technical and administrative aspects, either by the contractor or, otherwise, by the promoter. Contingent guarantees are taken into consideration depending on the asset and the country
- **Overrun Cost Guarantee**
- **Performance Guarantee:** will depend on the technology's maturity. Generally provided by the contractor
- **Debt Service Reserve Account / Capex Account**
- **Interest Rate Hedging**
- **Security Package:**
  - Pledge over credit rights from commercial and financing contracts
  - Pledge over the Company's shares
  - Pledge over Insurance Policies
  - Mortgage over the assets

## Section 7

# Market Trends

## Conclusions

- Renewable Energy in LatAm is a **market with important potential**. In Mexico, Brazil and Chile renewables compete effectively against conventional power
- There are **other markets that could be considered more opportunistic**, including the surprisingly development of a renewable sector in Uruguay
- **Challenges are there**. We could expect in this Region a relevant level of investment in renewables and some limited support government programs as previously seen in some countries of Europe (Italy, Spain, Germany, France, UK, etc) or the US
- Having said that, **most of the international banks, multilateral and ECA agencies have a strong focus in this region**, specially after the slow down in the European business
- The **majority of these energy markets are dollarized**, something that helps a lot to bring liquidity in USD
- We must mention the **important the role of international banks**, with their expertise after the European experience, are helping a lot to the local banks in the understanding of this business, what helps to increase the liquidity
- **Social, environmental and interconnection issues, and weak regulatory support** are the main challenges for this region on the renewable energy field
- **Project Finance as a financing tool** has been crucial for the development of this sector in Europe and the US, in some of these countries, there **are significant barriers for this type of financing, mainly related to the stability and predictability of cash flows (absence of FiT schemes or long term PPAs)**
- **Most active players in terms of financing** are (i) commercial banks, either local or international, (ii) multilateral agencies (IFC, IADB, CAF, CABI, KFW), (iii) Equity and Subordinated debt
- There is a **significant interest for investing in the sector from industrial companies** (local, European, Asian or from the US), **Infra Funds, or Private Equities**. This investor appetite is making the return of these projects to reach low levels, each day closer to developed countries (Europe or the US)