MARSH & McLENNAN COMPANIES | Global Risk Center | IDB | IDB Invest

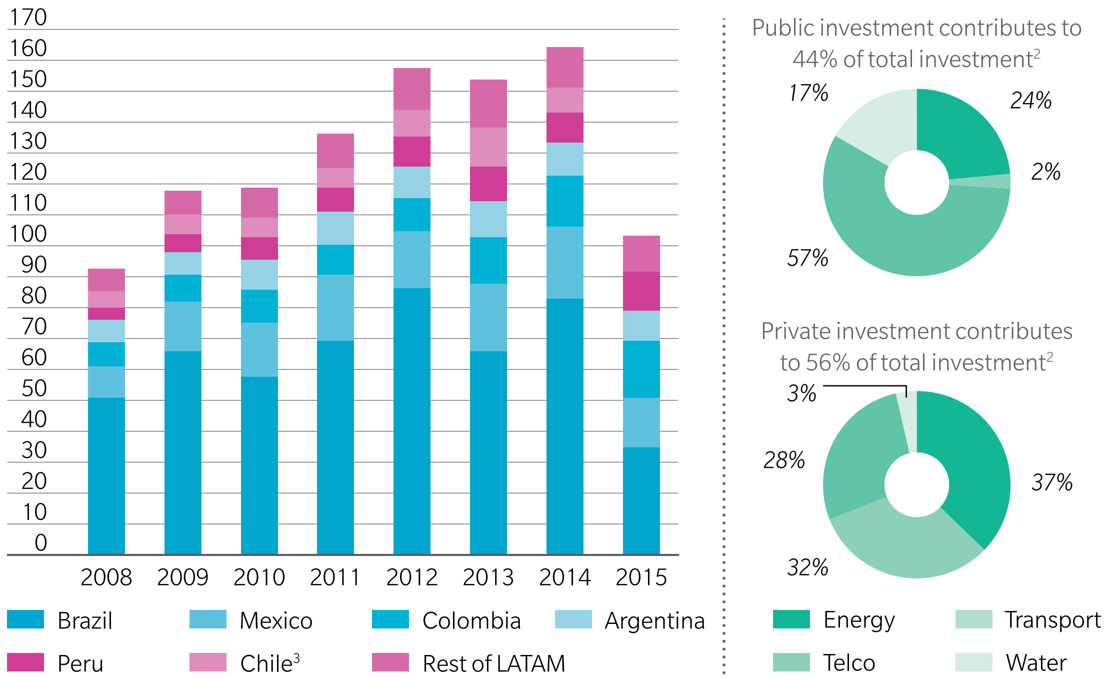
OVERVIEW OF INFRASTRUCTURE INVESTMENT IN LATIN AMERICA

MARSH GUY CARPENTER MERCER OLIVER WYMAN

A RECENT HISTORY OF LATAM INFRASTRUCTURE INVESTMENT

Exhibit 1: Total infrastructure investment in Latin American and the Caribbean[1]

US$ billion, data from InfraLATAM database for 2008-2015



1 InfraLATAM database excludes Oil and Gas and Social Infrastructure in their calculations.

2 Data from InfraLATAM for 2008-2015

3 Data not available for 2015

Private investment in infrastructure in Latin America (LATAM) are significantly higher than in other developing regions. For example, in Asia, only about 10 percent of infrastructure is privately funded compared to over 50 percent in LATAM. Whilst this is a seemingly favorable comparison for LATAM, governments across the region have set clear intentions to increase the level of private investment over the coming years. Total infrastructure investment in the region is estimated at 2.8 percent of GDP, which significantly trails the investment requirement of 5.2 percent by the UN. Estimates of the infrastructure financing gap in the region vary, but it is generally accepted that if the gap is to be closed, investment levels need to increase in the six countries which account for over 90 percent of infrastructure investment in the region.

In the immediate aftermath of the global financial crisis, annual levels of investment in infrastructure in LATAM increased steadily. However, total investment levels dropped significantly in 2015, driven mainly by economic struggles in Brazil. Over the last few years the slower level of economic growth in LATAM, coupled with the visibility of the Odebrecht corruption scandal, have resulted in some hesitancy amongst private investors in committing to new projects. Many governments have responded with new infrastructure targets and laws to increase project procurement transparency and to reduce the risk to the private sector, but ongoing political uncertainty is expected to have an impact on investors in the short-term.

In Argentina, the Macri government has set infrastructure development as a key target. Subsequent changes to PPP laws and an increased focus on attracting private investors have achieved reasonable success. Given the optimism surrounding the future of infrastructure investment in Argentina and the large pipeline of projects across sectors, the second half of this publication outlines some of the key infrastructure related developments that have taken place in the country.

THE INVESTOR LANDSCAPE
SOURCES OF PRIVATE CAPITAL

Exhibit 2: Private suppliers of capital to infrastructure projects in LATAM
As contribution to total private investment (%), data for 2005-2014 from IDB

Entity type	Percent
Commercial bank	50.55
National/State bank	13.65
Developer/engineering procurement/ construction firm	9.12
Private company	8.83
Multilateral development bank	7.34
Investment bank	3.28
Export credit agency	2.05
Investment or infrastructure fund	1.90
Government agency/public authority	1.88
Pension fund	1.11
Sovereign fund	0.24
Insurance company	0.04

Source: Financing Infrastructure in Latin America and the Caribbean: How, How much and by Whom?", IDB 2015

Exhibit 3: Private suppliers of capital to infrastructure projects in LATAM
By total transaction value, data for 2013-2017 from Inframation

Rank	Loan Provider	Value ($MM)	Number of transactions
1	Santander	12,086	168
2	Sumitomo Mitsui Banking Corporation	3,608	45
3	Itaú CorpBanca	2,319	29
4	Banco Bilbao Vizcaya Argentaria (BBVA)	1,969	31
5	Banco Bradesco	1,924	34
6	Industrial and Commercial Bank of China (ICBC)	1,681	6
7	Banco Itau	1,665	31
8	Mitsubishi UFJ Financial Group (MUFG & BTMU)	1,513	21
9	Mizuho Bank	1,477	18
10	Scotia Bank	1,404	16

● Latin America based provider
Source: Inframation News

Over much of the last decade, the greatest share of private capital investment into infrastructure in LATAM has come from banks. Commercial banks alone supplied over half of the capital for infrastructure projects. However, this trend has begun to change following regulatory shifts in the financial sector in the aftermath of the 2008 financial crisis. Notably, the more stringent rules set by Basel III have adversely affected banks' lending ability to infrastructure projects. As banks are now required to hold more liquid assets and reduce their reliance on short-term funding, the cost of financing greenfield infrastructure projects has significantly increased.

Multilateral development bank investment in the region will remain important, but there is significant room for institutional investors including pension funds and insurance companies, to increase their share of investment. In key LATAM infrastructure investment markets, ongoing legal and regulatory changes targeted at reducing the levels of risk for institutional investors will begin to materially change the investor mix in the coming decade. However, the change will likely be gradual rather than dramatic in the short term.

Data covering the top loan providers confirms the outsized role that banks have played in financing infrastructure in LATAM. Santander stands out as the top lender infrastructure projects in the region, contributing more than US$12 billion from 2013-2017 across 168 deals.

Interestingly, while major banks in the region are unsurprisingly present in the list, Chinese and Japanese Banks have shown that they are also very active in the region. Sumitomo Mitsui Banking Corporation, for example, has contributed US$3.6 billion across 45 infrastructure projects.

Going forward, the capital injection from Asia is likely to increase. The China led Asian Infrastructure Investment Bank (AIIB), for example, is looking to induct LATAM countries as members, in line with China's ambitious goal of increasing direct investment to LATAM to US$250 billion for the period 2015 to 2019. The Belt and Road Initiative (BRI) is also becoming a factor in LATAM, with Panama recently signing a Memorandum of Understanding (MOU) with China on the initiative. Separately, the Japanese government has also pledged continued financial support for the IDB and public-private partnerships (PPP) in the region.

REGIONAL OVERVIEW
INFRASTRUCTURE INVESTMENT IN KEY MARKETS

BRAZIL

The lack of long-term financing and of more sophisticated financing instruments, partly stemming from poor project preparation has prevented Brazil from establishing a more mature market for PPI.

A key source of weakness is the project preparation and project procurement processes. Lack of enforcement, together with capacity restrictions creates complications, while the detailed framework can stifle innovation, and has not completely removed governance problems including fraud and corruption. Despite these challenges, the large size and the dynamics of the Brazilian infrastructure market remain extremely attractive to both local and international investors. The current administration under Michel Temer has also established a new PPI program – Project Crescer ("Project Grow") – to further support the creation of a pipeline of attractive projects which will be suitable for concessions or privatization.

CHILE

Chile's robust institutions and strong PPP framework have ensured significant levels of private capital involvement in infrastructure development.

There are many important elements supporting the success of Chile's PPP program. One strength is a competitive and transparent bidding process for both national and foreign firms. Another is the appropriate and flexible deal structure, which is also built in to the bidding process. Also important is the availability of the appropriate risk transfer and mitigation instruments. However, critics have pointed to the negative effects of infrastructure privatization in some sectors (e.g. water) to highlight the need for a more stringent assessment of a project's economic, environmental and social implications.

ARGENTINA

While the recent PPP framework improvements have been generally viewed as positive, some investors still remain cautious.

Infrastructure investment has been placed as one of the top priorities for the current administration, which prompted the development of a major infrastructure investment plan in 2016 and a newly approved PPP law. The new law addressed several key issues surrounding project preparation, as well as the transparency and clarity of procurement processes. The new law has also been an enabler in delivering infrastructure projects which have greater diversity in their sources of funding.

MEXICO

After achieving significant success in its energy reform agenda which subsequently attracted substantial private capital investment, the main question is whether Mexico can replicate this achievement in other infrastructure sectors.

The energy reform aimed to transform the sector into an open market with more competition from both local private firms and from foreign entities. Some transparency issues remain, but progress has been positive. Aside from restructuring major institutions, the government also provided companies with different deal structuring options which have made the sector more competitive. New financing vehicles and risk transfer mechanisms were also put in place to further encourage PPI. Despite general levels of optimism, some future projects face significant environmental challenges for which solutions are yet to be found.

COLOMBIA

Colombia's promising levels of infrastructure Investment have been supported by a robust PPP framework, but challenges remain linked to certain financial and political risks.

The government enacted a PPP Law in 2012 which was designed to drive major increases in infrastructure development, and to attract and retain private investment for high quality projects across a range of sectors. Significant progress has been made, but more can still be done to address a lack of risk mitigation measures for demand risk. Project execution risks remain high due to the country's challenging geography and certain political risks linked to corruption remain. A future challenge for the government in securing foreign investment is likely to be linked to potential currency risk arising from high levels of inflation.

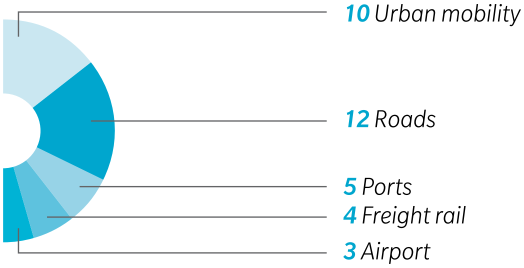
PERU

While the government had begun to address the major problem of project delays, recent political developments may complicate the governments' efforts to ensure continued support for infrastructure development.

In early 2018 a new government took charge after president Pedro Pablo Kuczynski resigned following the Odebrecht corruption scandal. Pre-existing challenges linked to levels of institutional capacity was being addressed by the administration prior to these political developments, and it has been reported that US$10 billion in projects have been freed out of a total back log of US$18 billion. Improvements were also being pursued in documentation and due diligence to consolidate bureaucratic processes and eliminate delays. The political fallout from the Odebrecht scandal, however, has risked halting ongoing progresses and slowing levels of infrastructure investment.

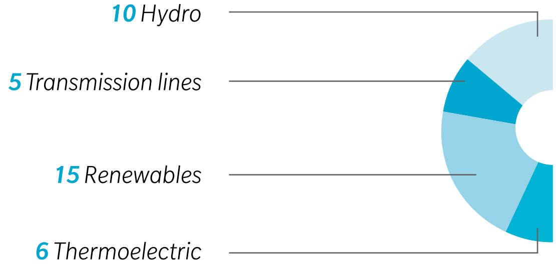
AMBITION TO INCREASE LEVELS OF PRIVATE SECTOR INVESTMENT

Exhibit 4: Breakdown of Argentina's US$33 billion transportation program, US$ billion (to 2019)[1]



1 Data taken from S&P report: "Are The Pillars Of Argentina's Infrastructure Investment Program Sturdy Enough?" (April 2017)

Exhibit 5: Breakdown of Argentina's US$36 billion energy program, US$ billion (to 2025)[1]



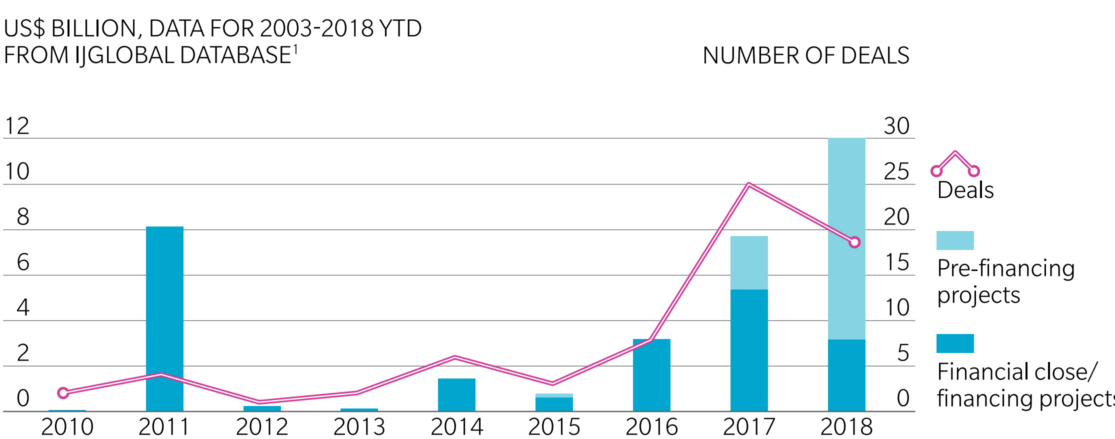
1 Data taken from S&P report: "Are The Pillars Of Argentina's Infrastructure Investment Program Sturdy Enough?" (April 2017)

In 2016, the new government of president Mauricio Macri set increasing levels of infrastructure development as one of the country's top priorities. The government subsequently announced significant new infrastructure investment programs, in particular covering the transportation and energy sectors (see exhibit 4 and 5).

In order to ensure that the infrastructure investment program was consistent with Argentina's priority of cutting its budget deficit, the government sought to markedly increase the levels of private investment in infrastructure in the country. This led to a strategy where PPP projects were a major component of planned infrastructure development, at a time when infrastructure spending levels were only a modest 1.9 percent of GDP (2017).

Recent levels of PPI in Argentina have been among the lowest of the six key infrastructure investment markets in LATAM, with private investment only contributing an average of about 20 percent over the period of 2008-2015. PPI fell significantly in the 2000s, when the country experienced a financial collapse, and again under the last administration's framework for private investor participation. PPI levels have picked up significantly as a result of president Macri's recent reforms and if this trend continues then Argentina will likely continue to see growing levels of private sector investment in infrastructure for much of the next decade.

Exhibit 6: Infrastructure transaction deals in Argentina



1 Data is based on latest recorded transaction stage and dates, excluding all projects with public sector finance

NEW PPP LAWS HELP TO ATTRACT INCREASED PRIVATE PARTICIPATION

To boost infrastructure development and PPI in Argentina, the Macri government has launched a set of business-friendly reforms, including a new PPP framework. Currently, 11 out of 23 provinces have adhered to the national PPP laws. Three other provinces are either following suit, or have approved their own PPP laws. The changes focus on four areas of best practices, integrating lessons learnt from the experiences in PPP models from countries including Chile, Peru and Australia.

1. Efficient risk allocation between the private sector and the state.
2. Improving project preparation facility through feasibility studies
3. More effective feedback from the market on project feasibility and optimization
4. Setting clear goals

The government has planned a total of US$26 billion in PPP investment, covering 60 projects across a range of infrastructure sectors. Whilst the largest areas of investment will be related to energy and transportation projects, significant investment is also expected in new hospitals and water projects (See Exhibit 7 and Exhibit 8 for further information).

Exhibit 8: Sector breakdown of government's US$26 billion investment plans
"Argentina PPP Pipeline and Structure", Ministry of Finance

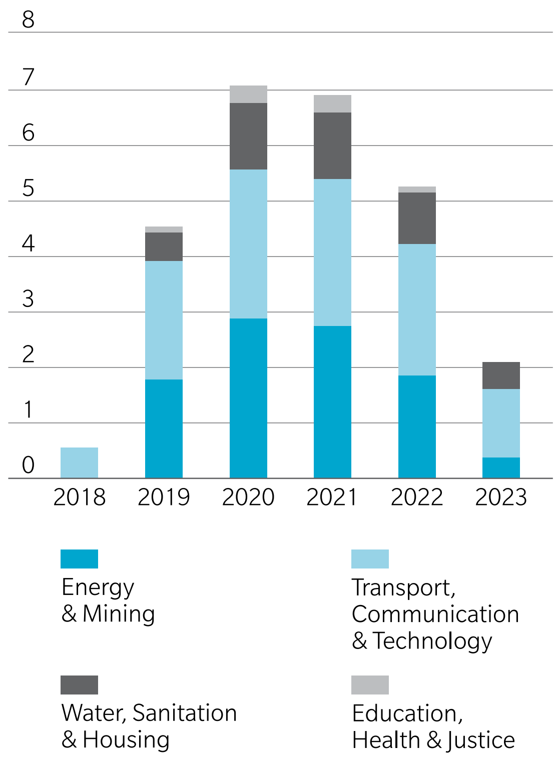


Exhibit 7: PPP projects main sectors/subsectors for the government's US$26 billion PPP plan to 2022
"Argentina PPP Pipeline and Structure", Ministry of Finance

Sectors	Subsectors	Description
ENERGY & MINING	Energy efficiency	Public lighting replacement to LED light
	Electrical transmission	Construction of new high voltage transmission lines
TRANSPORT, COMMUNICATION & TECHNOLOGY	Roads and highways	Road design, construction, expansion, improvement, maintenance, operation, managing and financing
	Railroads	Improvement of existing tracks and construction of new tracks
	Regional Express Railway	Interconnection of metropolitan railway stations in Buenos Aires
EDUCATION, HEALTH & JUSTICE	Construction of new hospitals and penitentiary facilities	
WATER, SANITATION & HOUSING	Includes various projects on water pipe systems, water and sewage water treatment plant, waste management, irrigation and housing solutions	

LATEST DEVELOPMENTS IN KEY SECTORS

TRANSPORTATION

Highways & Roads

- 6 highways PPPs were announced in January 2018 (capex ~US$6 billion), attracting 32 bids received from 10 consortiums
  - The concession period will be 15 years, based on a TPI model and winners have a deadline of one year to achieve financial close
  - Contracts are expected to be awarded in June
- Current and future bid rounds of road projects are expected to attract a total of US$12 billion. Revenue generated through taxes for the government is estimated at US$4 billion

Railways

- The Regional Express network (RER) was announced in March 2018, with capex of US$2.3 billion
- The government is also preparing for a tender of a US$500 million rail project in Vaca Muerta to help unlock the region's shale play potential

ENERGY

August 2018[1]

- The government is planning to launch RenovAR 3.0, the fourth round of tender for energy infrastructure in Aug/Sept 2018. It is expected to award 1GW in renewable PPA
- Plans to offer another tender for 8 transmission lines (capex ~ US$3 billion) have also been announced
- The role of commercial banks (and also international institutions) as well as the use of project finance is expected to grow

2016 2017 2017

July 2016

- RenovAR 1.0 launched

November 2016

- RenovAR 1.0 contract awarded, totalled 1.1GW
- RenovAR1.5 was launched, with 1.2GW awarded
- Total investment value was US$4 billion

August 2017

- RenovAR 2.0 launched, with 1.41GW awarded in November
- A further 634MW was awarded in round 2.5 where record low prices were secured
- Total investment value was US$2.2 billion

1 Updates from Inframation News

EXPLORING INNOVATIONS IN NEW PPP STRUCTURES

Exhibit 9: Transportation: Upcoming Road and Railway PPP projects

- Contractors will be issued a certificate of compensation (TPIs) based on the work carried out each quarter during the construction phase. These TPIs are transferable, irrevocable and denoted in US$. TPIs entitle the holder to received 20 semiannual payments from the government. These payments are taken from the PPP Trust, which is in turn funded by sources including petrol taxes and the national budget, amongst other sources
- To support operations and maintenance activities some contractors may receive availability certificates (TPDs) which are similar in structure to TPIs, but denoted in Argentine Pesos. For some individual road concessions where the traffic demand is expected to be particularly strong, the government may require the contractor to make payments to the PPP Trust to help fund concessions with lower demand

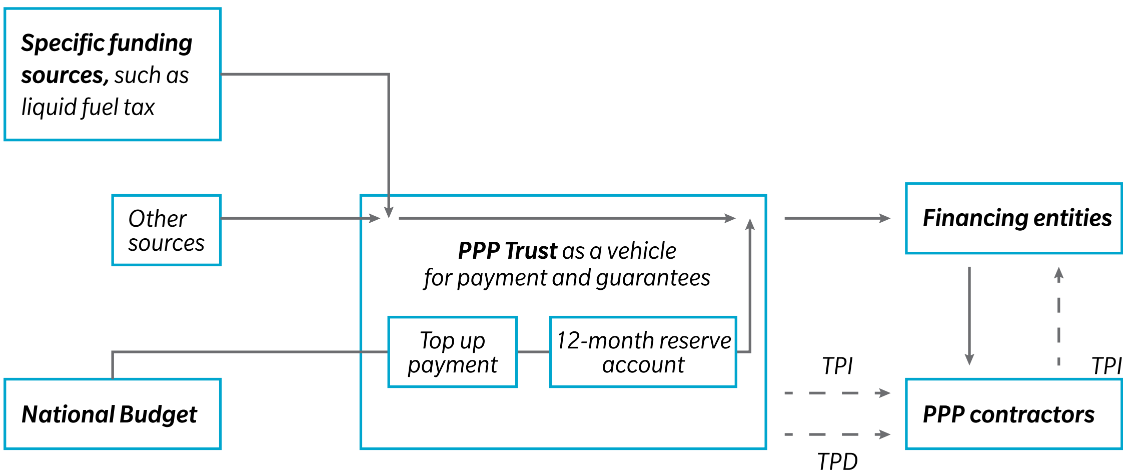
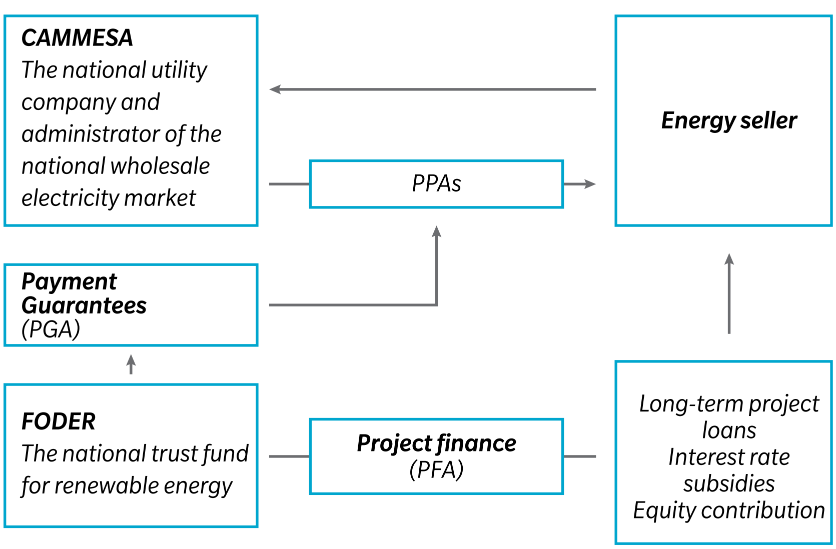


Exhibit 10: Energy: PPP projects under RenovAR



FODER, the National trust fund for renewable energy, was established to provide

- Payment Guarantees for Power Purchasing Agreements tendered under RenovAR
- A put option for winning bidders to return the project back to the government under specific circumstance
- Support project finance

ABOUT THE INTER-AMERICAN DEVELOPMENT BANK

The Inter-American Development Bank works to improve lives in Latin America and the Caribbean. Through financial and technical support for countries working to reduce poverty and inequality, we help improve health and education, and advance infrastructure. Our aim is to achieve development in a sustainable, climate-friendly way. With a history dating back to 1959, today we are the leading source of development financing for Latin America and the Caribbean. We provide loans, grants, and technical assistance; and we conduct extensive research. We maintain a strong commitment to achieving measurable results and the highest standards of increased integrity, transparency, and accountability. The Bank's current focus areas include three development challenges – social inclusion and inequality, productivity and innovation, and economic integration – and three cross-cutting issues – gender equality and diversity, climate change and environmental sustainability; and institutional capacity and the rule of law.

ABOUT IDB INVEST

IDB Invest, the private sector institution of the Inter-American Development Bank (IDB) Group, is a multilateral development bank committed to supporting Latin America and the Caribbean businesses. It finances sustainable enterprises and projects to achieve financial results that maximize economic, social and environmental development for the region. With a current portfolio of $11.2 billion under management and 330 clients in 23 countries, IDB Invest works across sectors to provide innovative financial solutions and advisory services that meet the evolving demands of its clients. As of November 2017, IDB Invest is the trade name of the Inter-American Investment Corporation.

ABOUT MARSH & MCLENNAN COMPANIES

Marsh & McLennan Companies (NYSE: MMC) is a global professional services firm offering clients advice and solutions in the areas of risk, strategy and people. Marsh is a leader in insurance broking and risk management; Guy Carpenter is a leader in providing risk and reinsurance intermediary services; Mercer is a leader in talent, health, retirement and investment consulting; and Oliver Wyman is a leader in management consulting. With annual revenue of $13 billion and approximately 60,000 colleagues worldwide, Marsh & McLennan Companies provides analysis, advice and transactional capabilities to clients in more than 130 countries. The Company is committed to being a responsible corporate citizen and making a positive impact in the communities in which it operates. Visit www.mmc.com for more information and follow us on LinkedIn and Twitter @MMC_Global.