DHL Energy Conference Latin America outlook

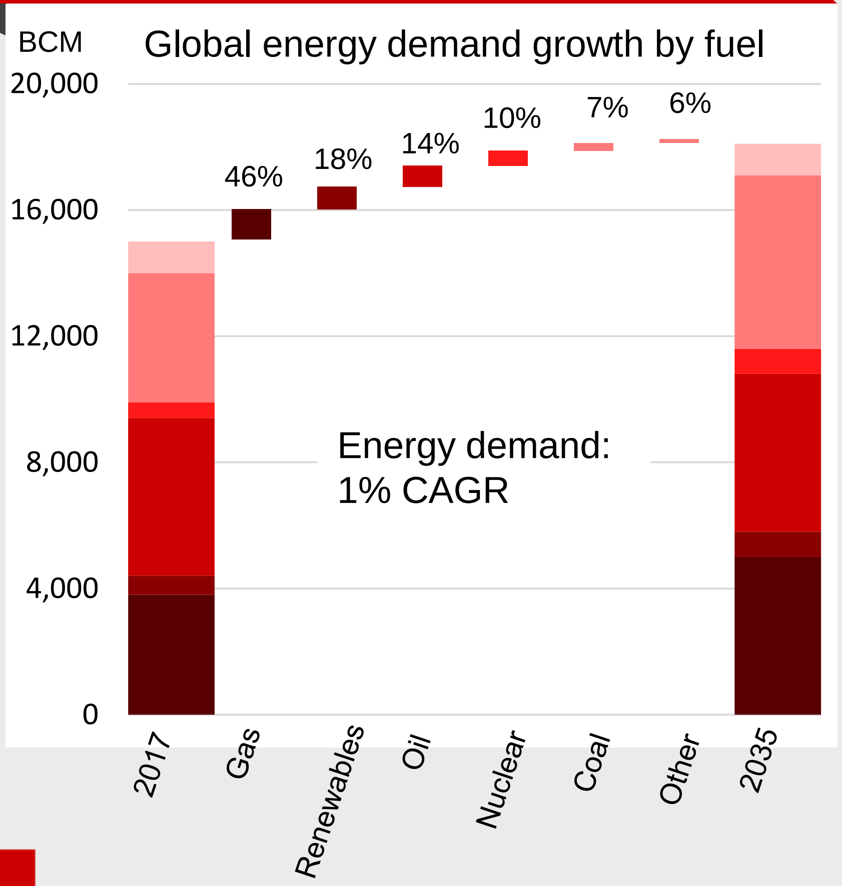
2018

Developed by
Americas Market Intelligence

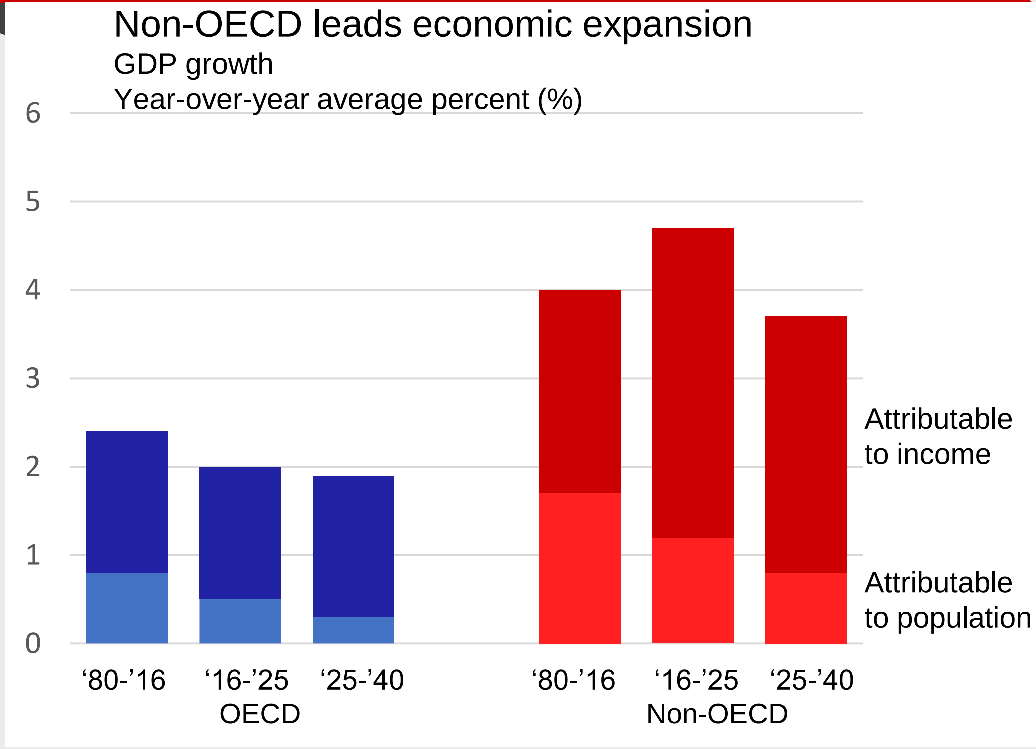
Global Energy Outlook

Global energy trends

Growth in Natural Gas and Renewables



Latin America and other Non OECD countries drive markets



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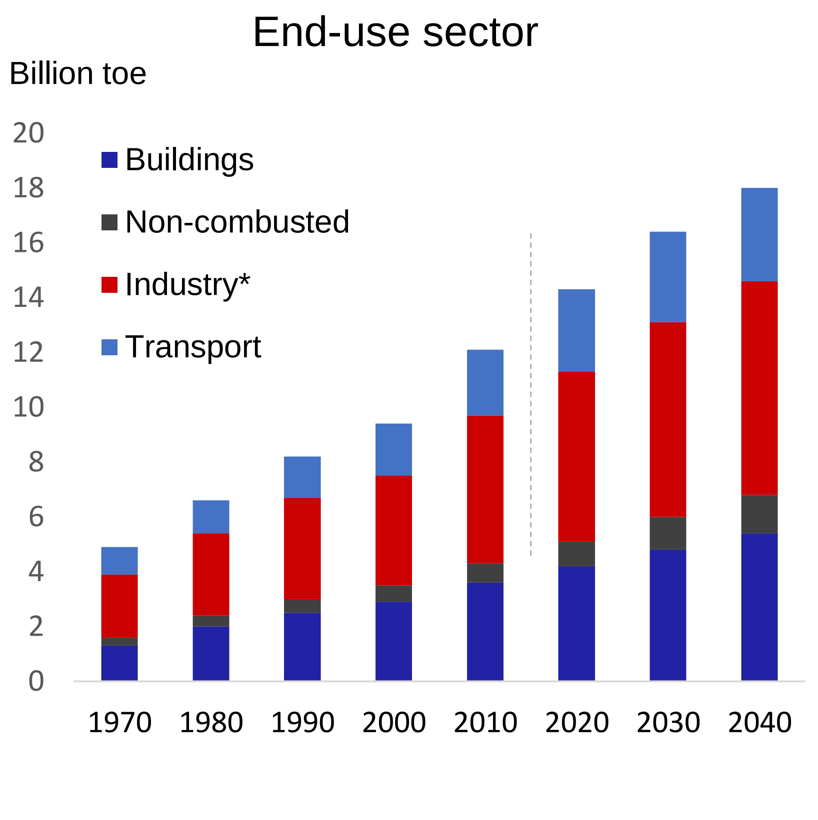
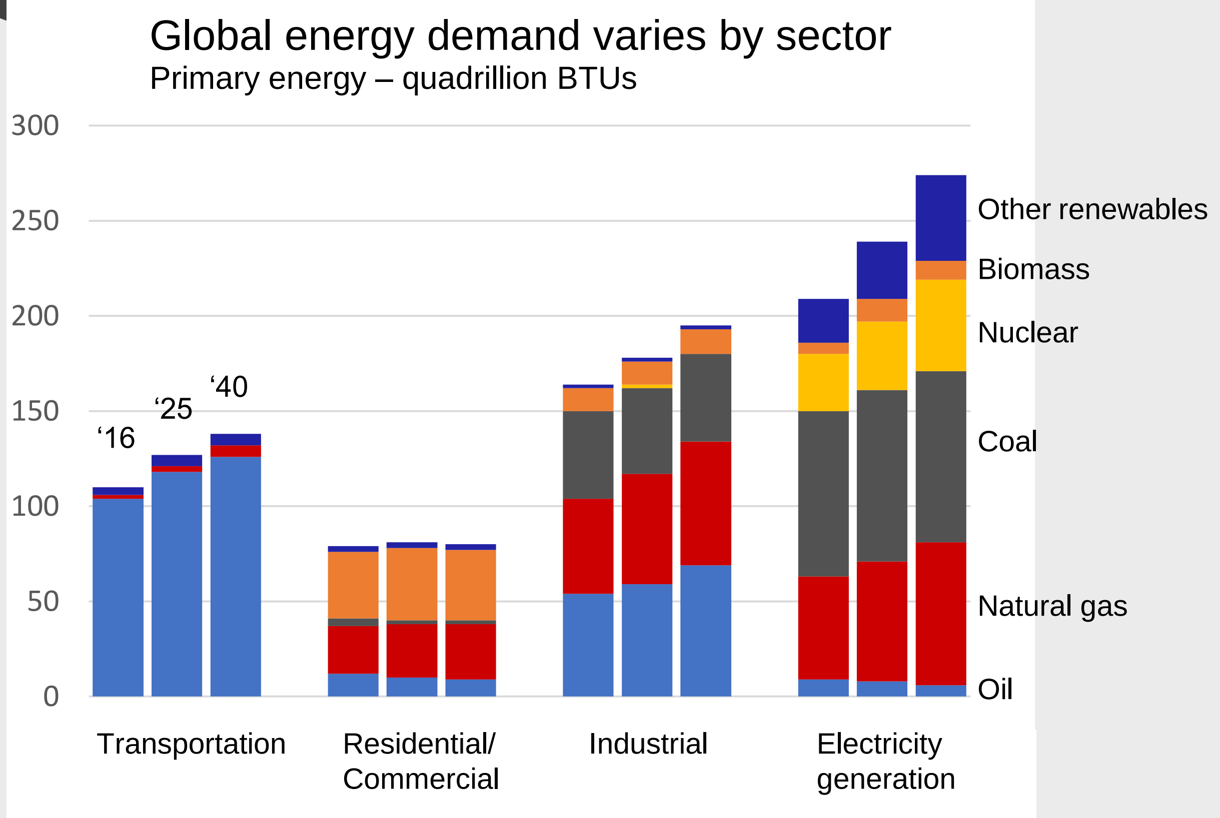
Source: Shell interpretation of Wood Mackenzie Q4 2017 data

Demand projections by sector

Industry and construction will drive demand



LNG and renewables shares increase by sector



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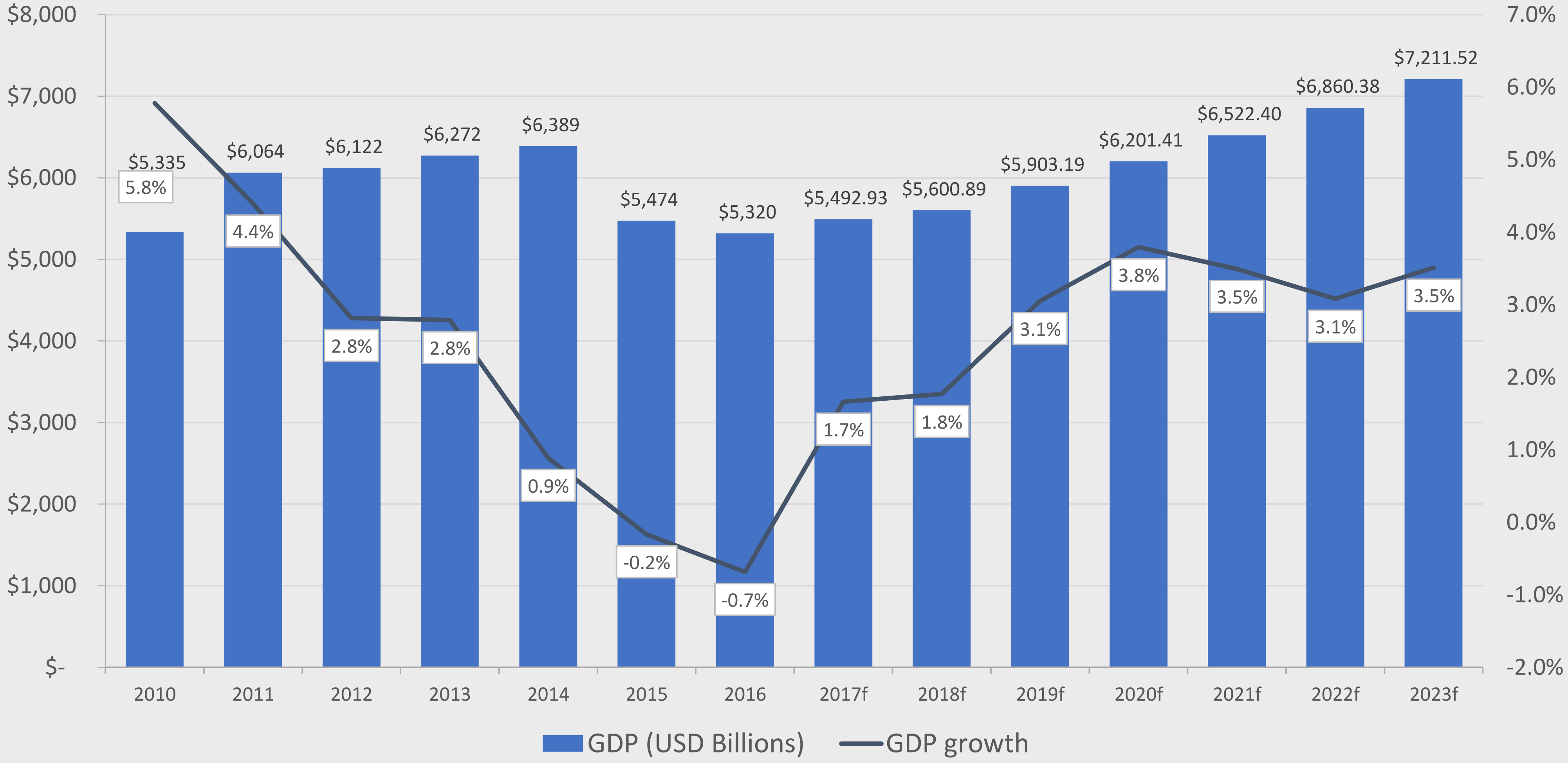
Latin America in the global context

A slow but steady recovery

By 2021, the region will regain the $1trn USD GDP lost in 2015/16



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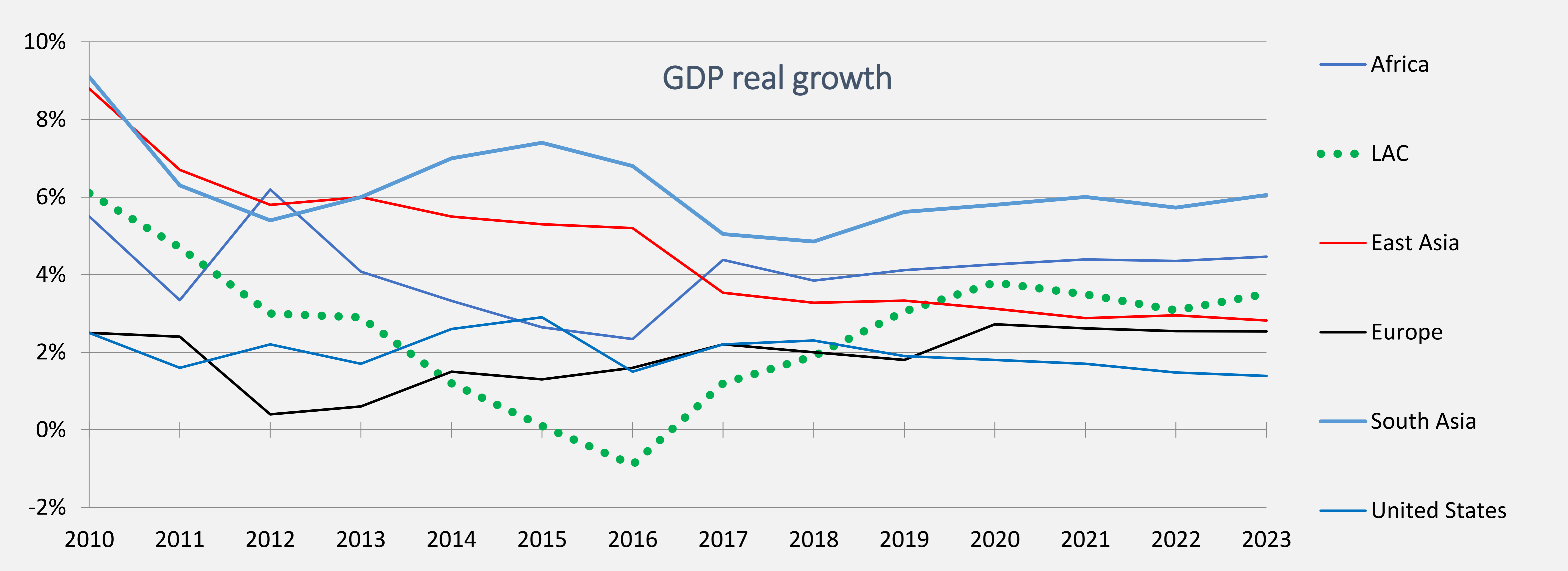
Note – all data is based upon CY (calendar year).
Sources: BMI, World Bank, UN, IMF

LAC is rebounding but will underperform other EMs

Modest commodity prices, rising Fed rate, small productivity gains all weigh on LatAm's future growth



Sources: IMF

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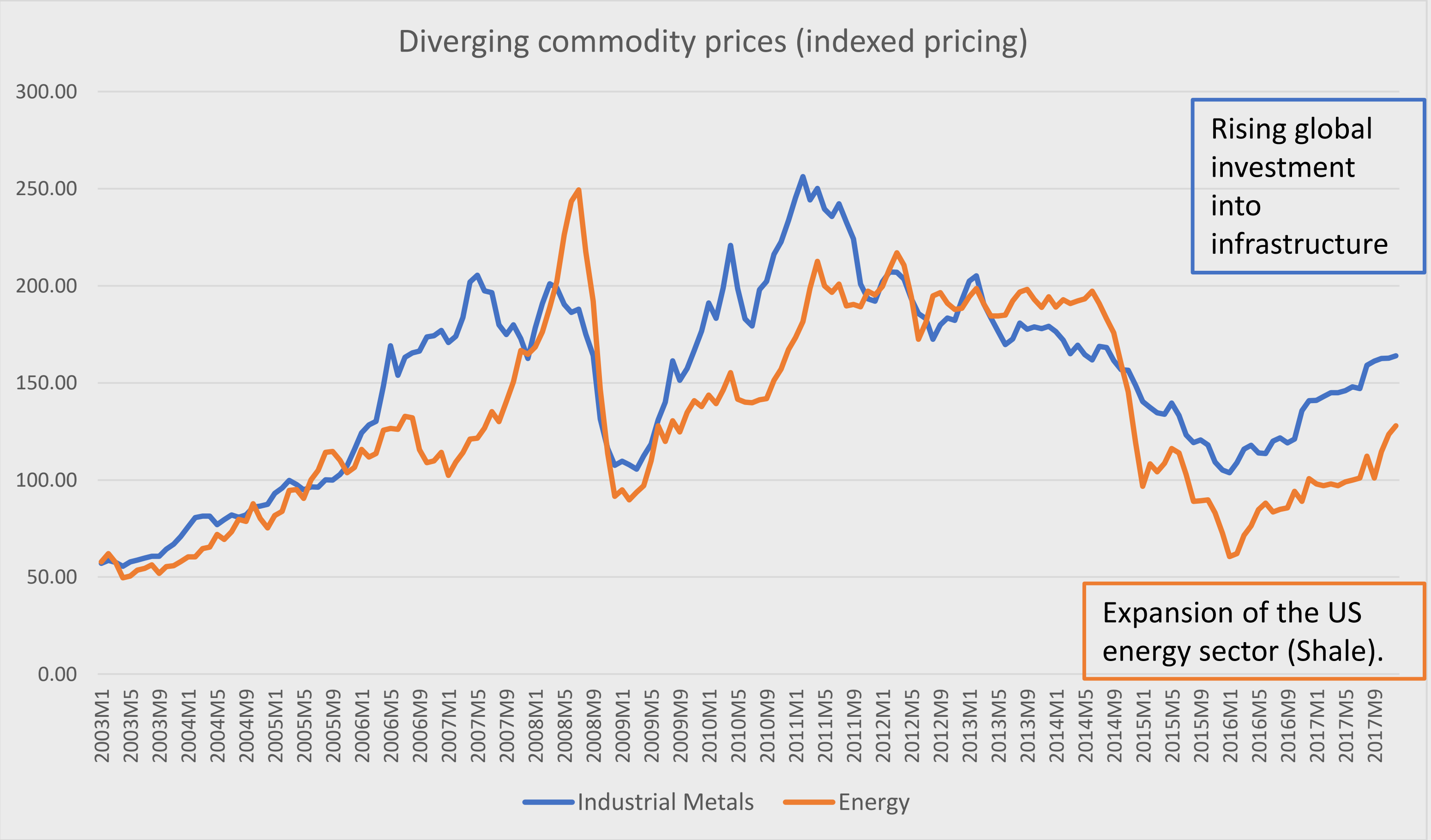
Commodities drive the F/X of LatAm economies

Energy is making a comeback but trails industrial metals



Advantaged

Perú, Chile, Brazil

Energy importers – Central America, Caribbean

- Latin Americans keep $4trn in savings off-shore, leaving the region chronically short of capital. LAC economies rely on foreign debt to fuel growth and service that debt primarily with surplus commodity exports.
- Bra, Mex, Arg, Chi, Col, Per, Ven currencies are 97% correlated to the movement of their respective top three commodity exports.

Disadvantaged

Venezuela, Ecuador, Colombia, Trinidad & Tobago

Source – The Economist
Data is updated through May 2018

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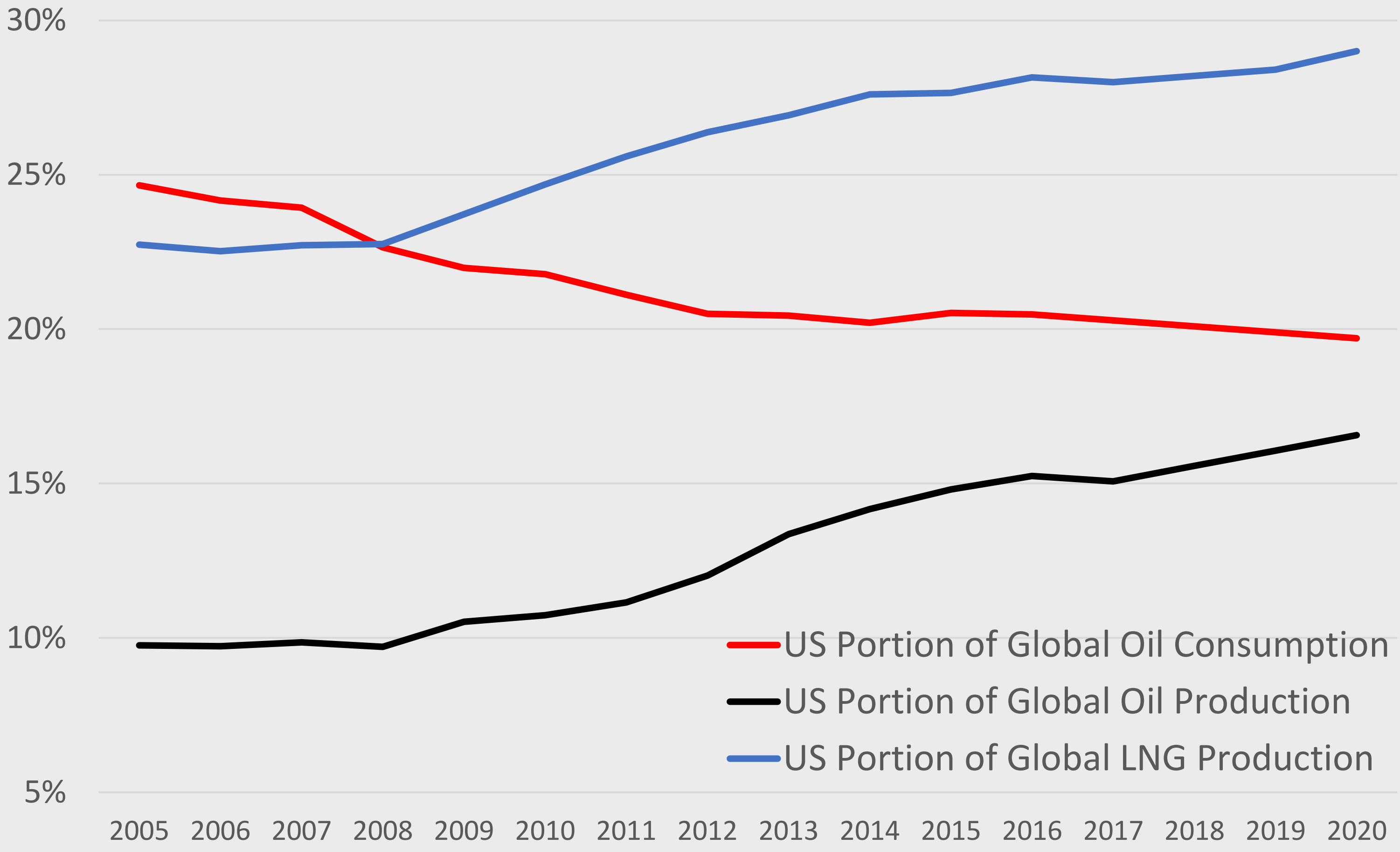
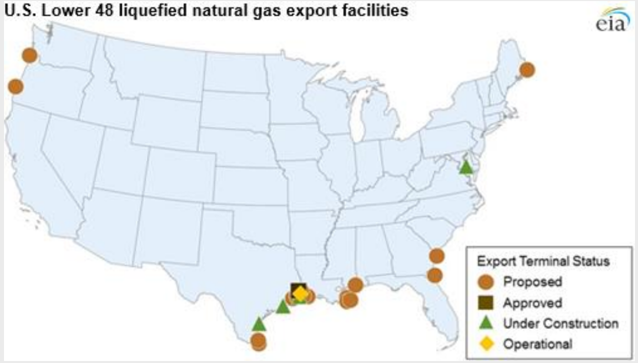
Saudi-America

Expanded US oil production is more threatening to Latin America than any Trump policy





Source – EIU

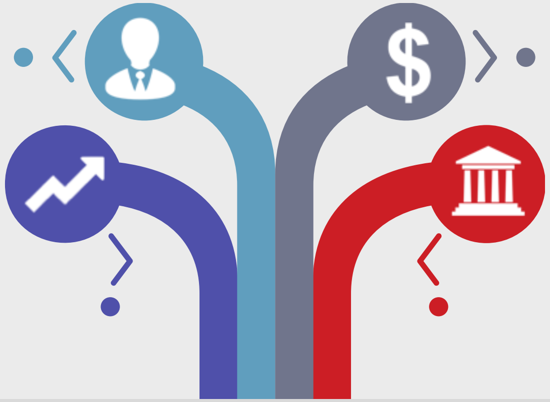
Note: Though data is from 2016, the underlying trends still hold true as of May 2018

The 2nd longest bull-run in US history will slow in 2019

However, the dollar, employment and wage growth will remain strong, buoying closely linked LAC economies

The U.S. labor pool is shrinking – immigrants are needed

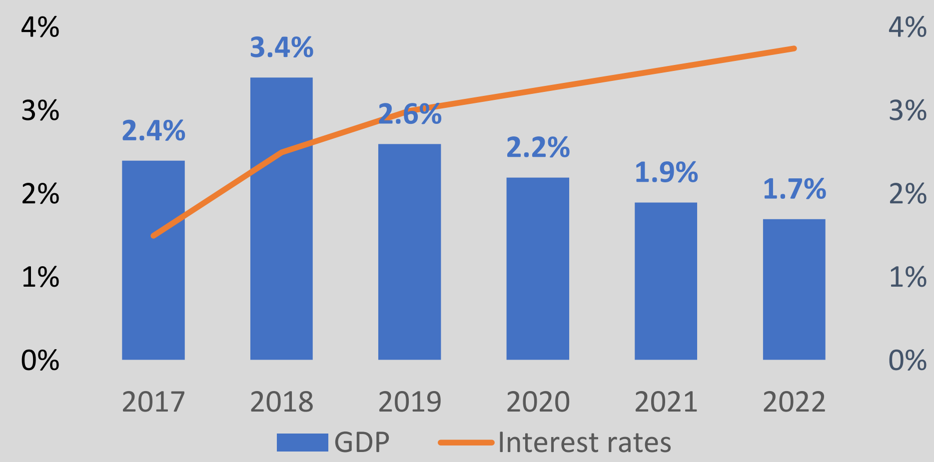
Full employment is driving up wages



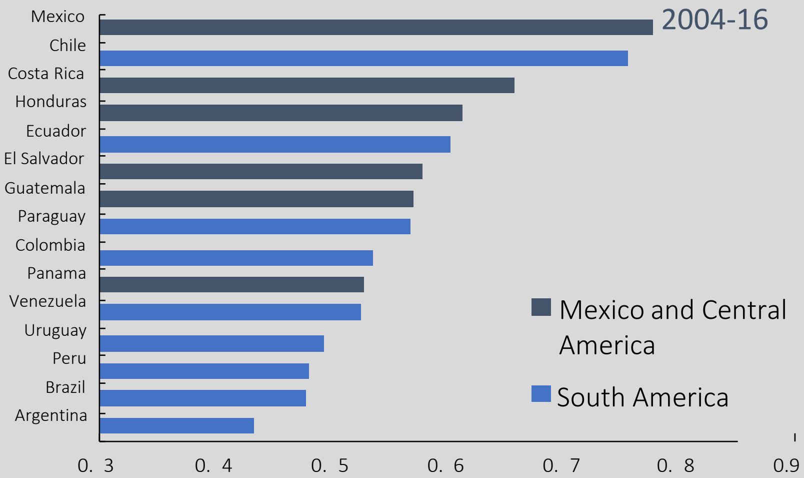
The dollar will further strengthen

The Fed plans to raise rates steadily (2% inflation target)

U.S. GDP and Fed Rate Forecasts (2017-2022)



Business Cycle Co-Movement with U.S. Economy



Sources: IMF, Kiplinger report

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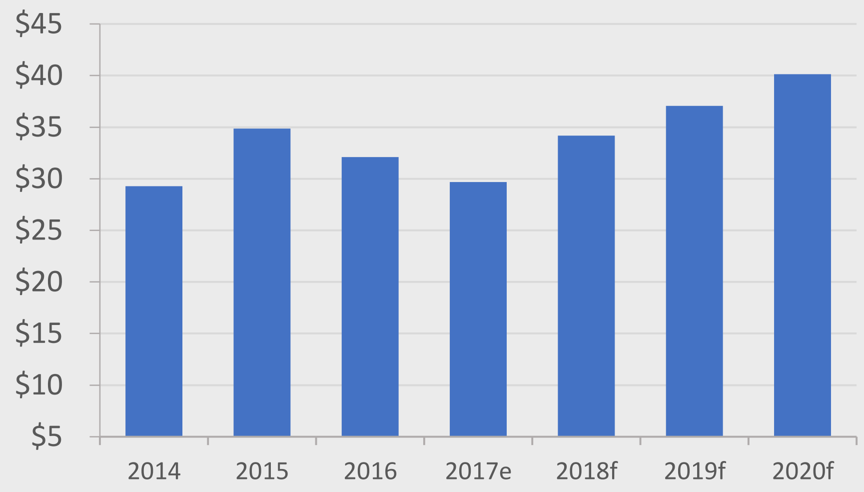
NAFTA 2.0 (USMCA) is finally negotiated

Key negotiated points

- Auto sector rules of origin (inside NAFTA) raised from 62.5% to 75%
- >40% of vehicle made using labor rates >$16/hr
- Increased protection of IP rights (Mexico)
- Partial liberalization of Canadian dairy market
- Chapter 19 dispute panel maintained
- 16 year time frame with review after six years

Mexico In-bound Foreign direct investment
(US$ bn)



Taper tantrum 2.0

Tightening Fed policy will continue to punish vulnerable emerging market currencies

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China – LAC engagement 2.0

- Chinese bilateral loans to LatAm since 2005 are > $150bn, ranked 1st
- China – LAC trade surpassed $300bn in 2017, ranked 2nd
- China was the largest source of M&A investment in 2017 (42%). FDI stock in LAC is >$170bn

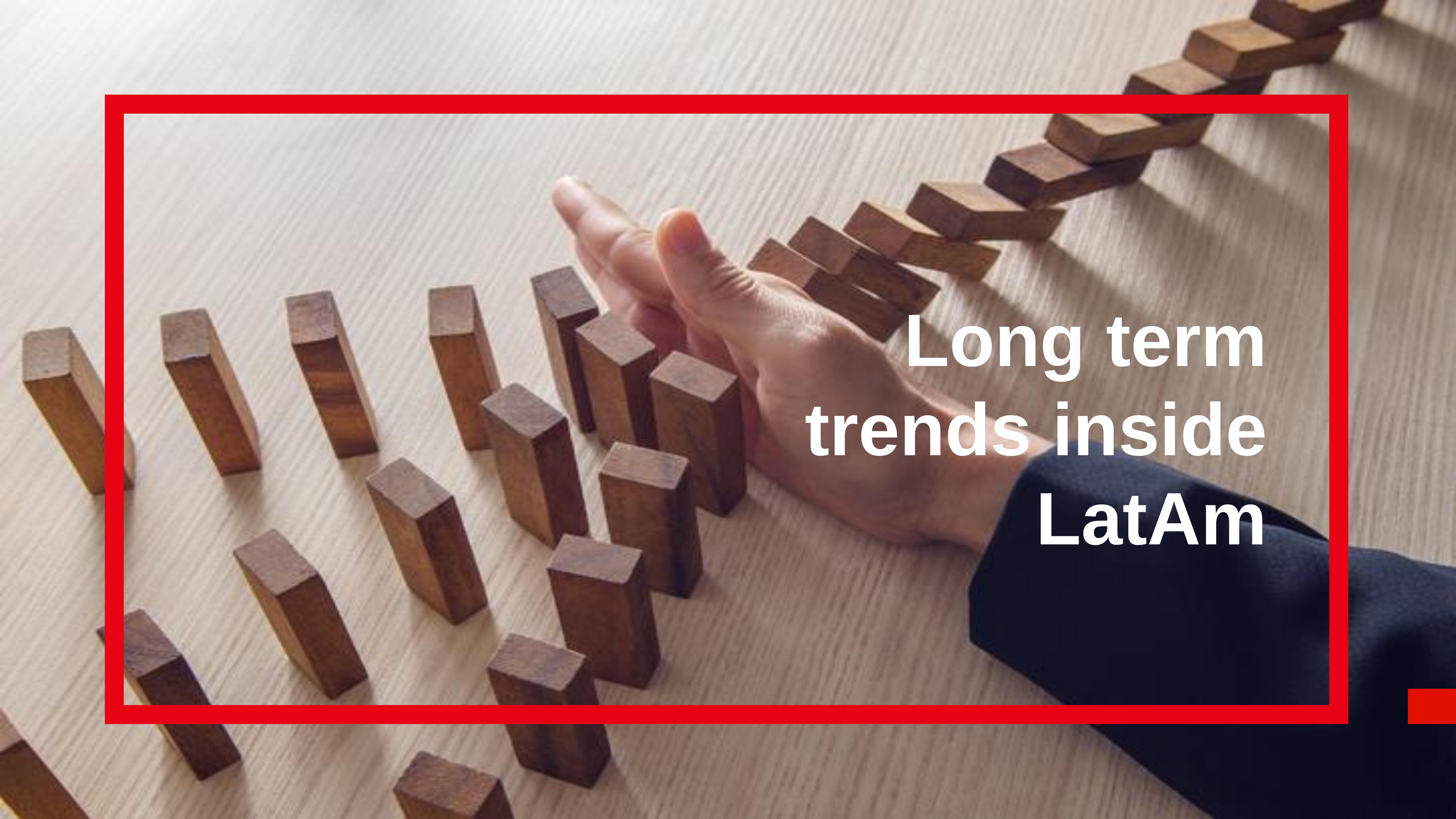
Secure long-term natural resources

Employ Chinese construction companies via infrastructure projects

Sell higher-value Chinese goods

Satisfy Chinese tourists

Source: Brookings Institute, AMI analysis

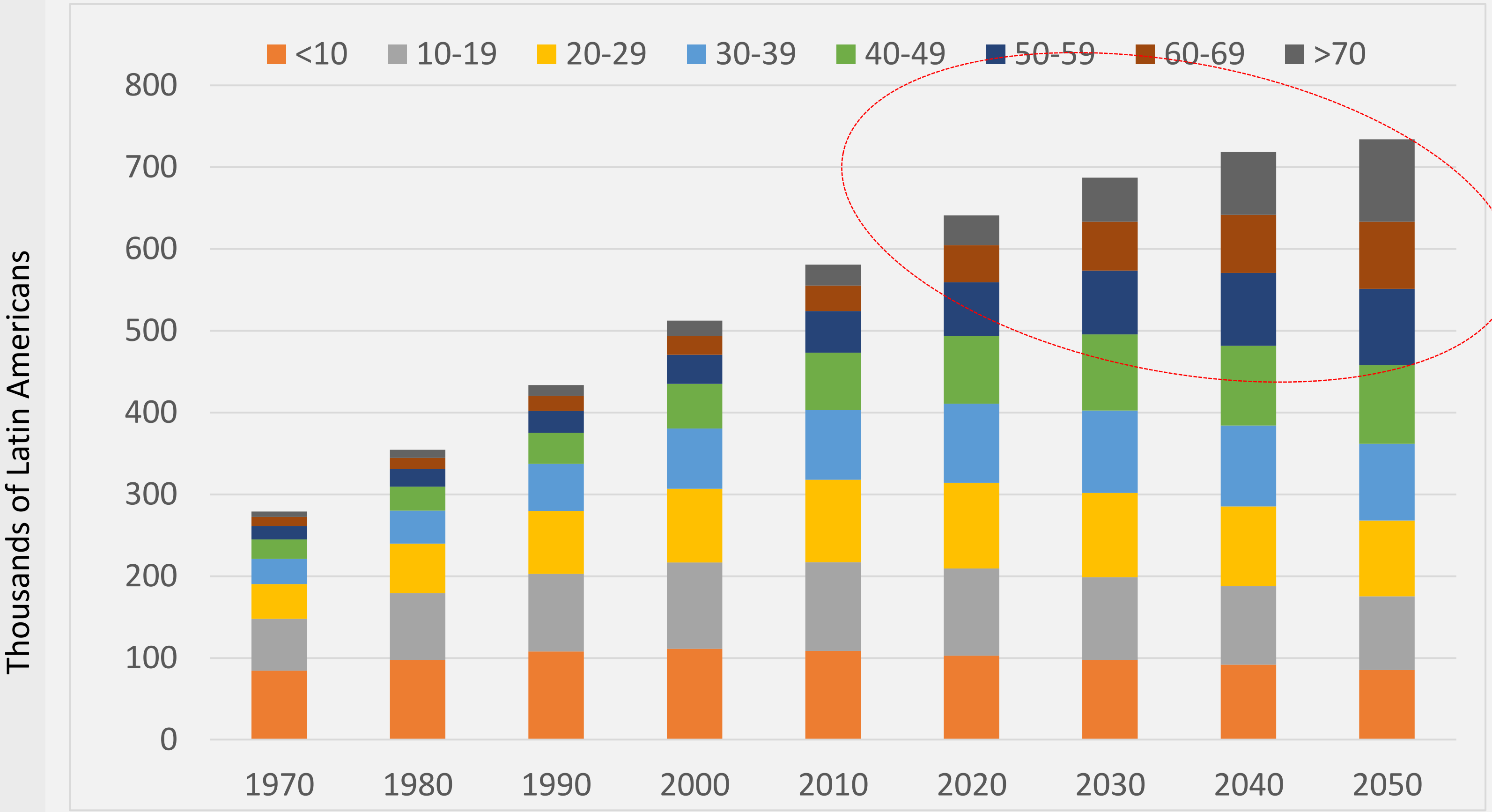

Long term
trends inside
LatAm

Latin America is the fastest aging region in the world

Latin American demographics will change rapidly over the next thirty years

Ages	2020-50 growth
<10	-21%
10-19	-17%
20-29	-8%
30-39	10%
40-49	37%
50-59	84%
60-69	164%
>70	291%

Population by age group (millions)



Source - ECLAC

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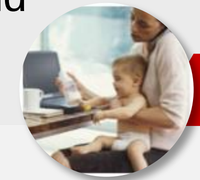
Consumers, employees, voters increasingly empowered

The instinct to conform declines while individualism and materialism ascend

1990 household

- 5.3 people per HH
- Ages 30-40 fastest growing
- 3% car ownership
- <3% have credit cards
- Shrinking middle class
- Economic crisis
- Conform to tradition
- Fitting in (collective)
- Undemanding consumers
- Cost conscious
- Traditional media, Predictable opinions

2020 household



- 4.1 people per HH
- Age 60+ fastest growing
- 21% car ownership
- >25% have credit cards
- Expanding middle class
- Social crisis
- Seek pleasure
- Gaining power (individual)
- Very demanding customer
- Value & convenience driven
- Social media, unpredictable

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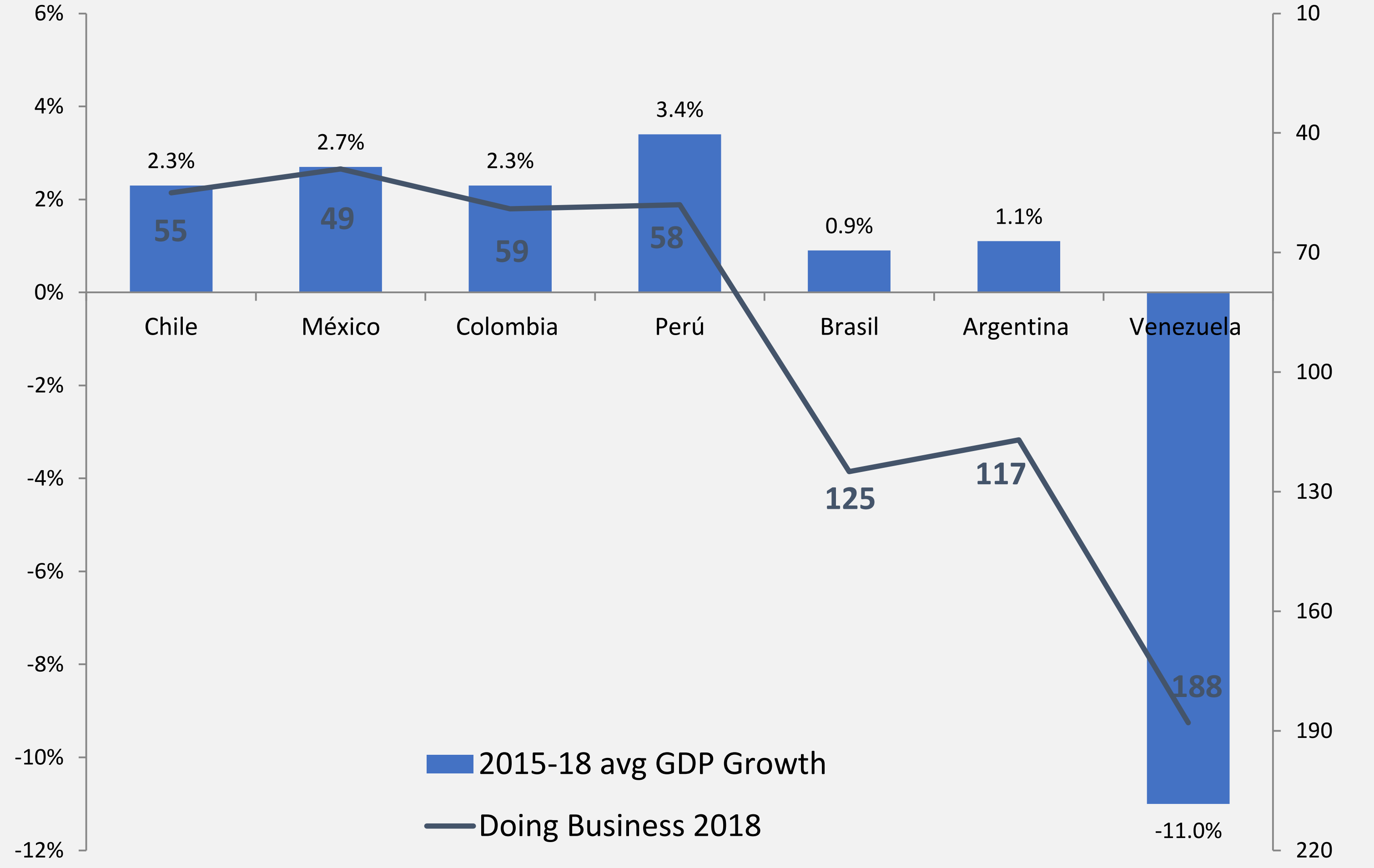
Latin America Outlook

Competitiveness Matters

The commodity boom is over. Countries compete for FDI by reforming structural inefficiencies

Countries that took on painful reforms in the past fare better in today's commodity driven downturn

- Pacific Alliance countries (Mex, Col, Chi, Per) have stood out as reformers over the last decade. By contrast, reforms backtracked in Venezuela, Brazil and Argentina (until recently).
- Chile's private sector held back FDI under Bachelet. Q1 2018 FDI (under Piñera) was larger than all of 2017.
- The removal of PPK and apparent peace between President Vizcarra and Keiko Fujimori will lead to greater investment flows.
- The election of Bolsonaro in Brazil will provide a short term financial boost but improved competitiveness requires radical reforms.
- Reversing over 15 years of damaging policies in Venezuela will take years to accomplish, even if political transition is smooth.
- Pacific Alliance (and Argentina) will capture over 50% of total FDI entering the region in 2018.



Sources – EIU, IMF, BMI, World Bank

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Thrown out

Voters are rejecting the status quo, not shifting right or left


✔

Brazilian Pres. Candidate
Jair Bolsonaro


✔

Mexican Pres. Candidate
AMLO


✘

Brazilian Ex-President
Dilma Rousseff


✘

Brazilian President
Michel Temer


✘

Peruvian President
Kuczynski


✘

Peru Opposition leader
Keiko Fujimori


✘

Mexican President Peña
Nieto

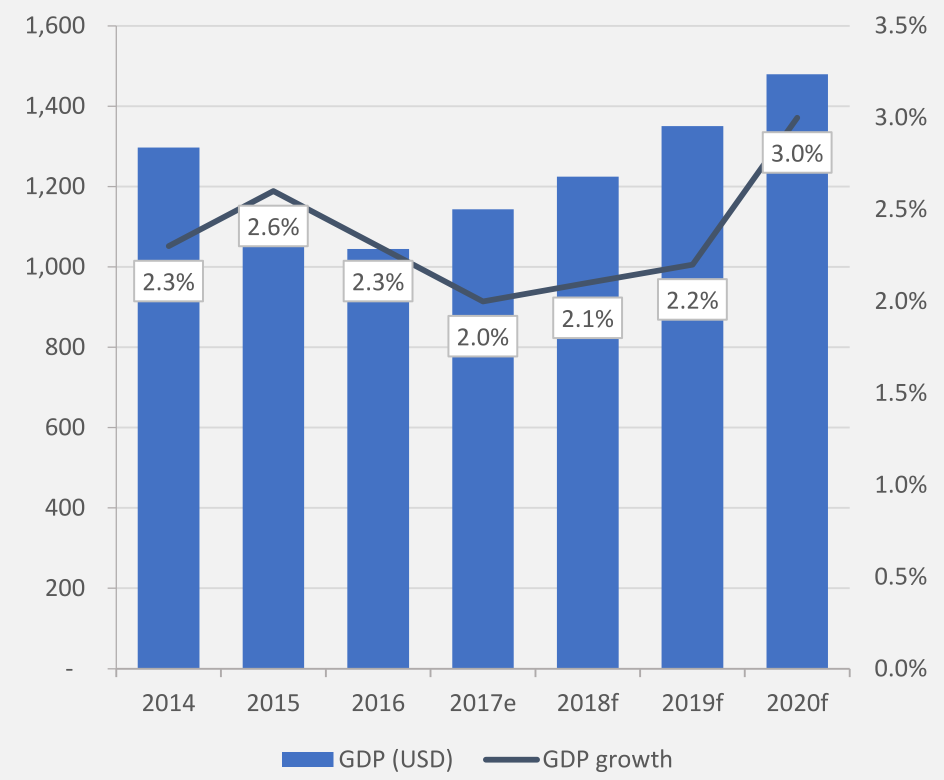

✘

Chilean President Bachelet

Did Mexico dodge a bullet?

AMLO has managed to build a positive relationship with Trump, helping create an alternate NAFTA agreement.

GDP (US$ bn) and Growth

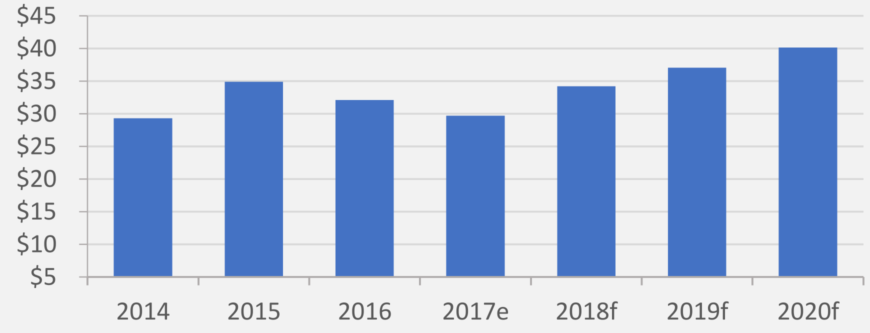


Upside & downside risks

- ✓ AMLO gov't more centrist than anticipated.
- ✓ NAFTA put back on track after US mid-terms

- ○ US taper-tantrum accelerates
- ○ Oil prices remain soft
- ○ Lack of fiscal discipline punishes the Peso

Foreign direct investment (US$ bn)



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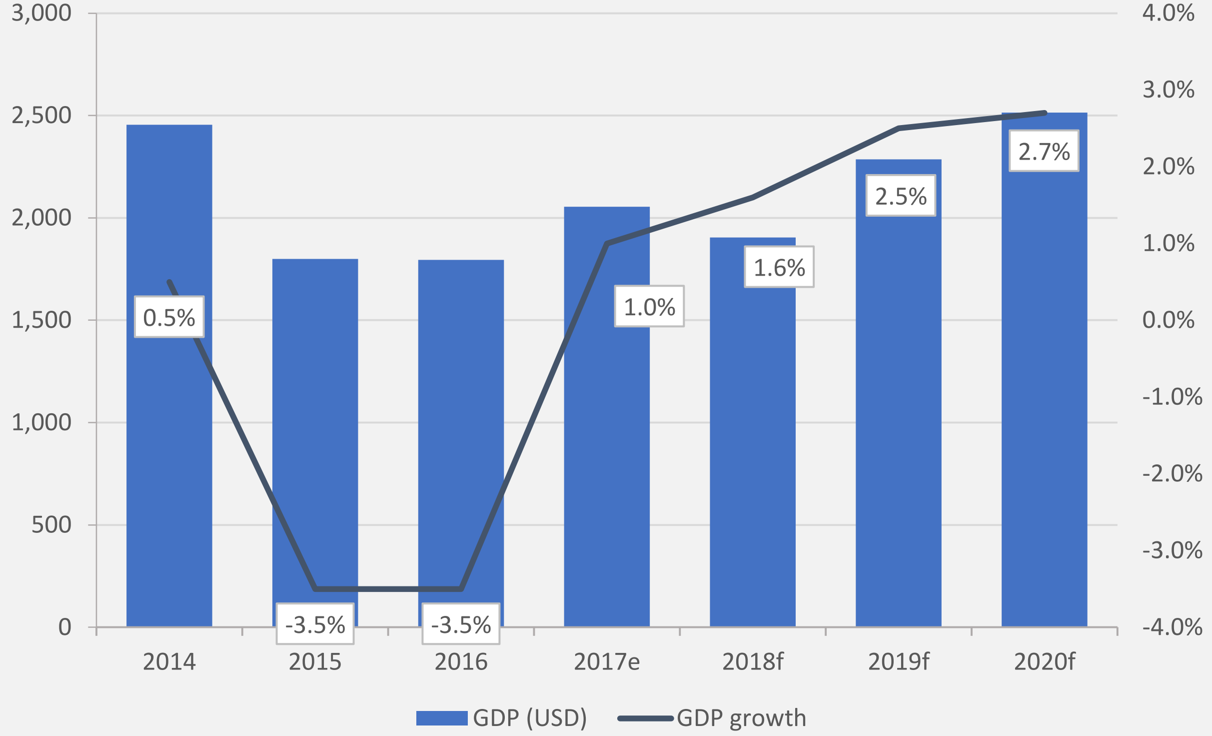
Some data estimated since many of the official sources in the region are still finalizing last year's data.
Sources: BMI, additional sources listed in final slide.

President Bolsonaro will aid recovery, for a while

Households and the corporate sector have paid down debt. Will the government get its act together?

GDP (US$ bn) and Growth



Upside & downside risks

- ✓ Temer reforms remain intact with the Bolsonaro administration
- ✓ Further reforms achieved with next government
- ✓ Brazilian currency strengthens
- ✓ Corporate sector raises equity financing

- ○ Taper tantrum 2.0 continues to punish Real
- ○ Lava Jato case continues to disrupt Brazil's political process
- ○ Mass demonstrations from opposition

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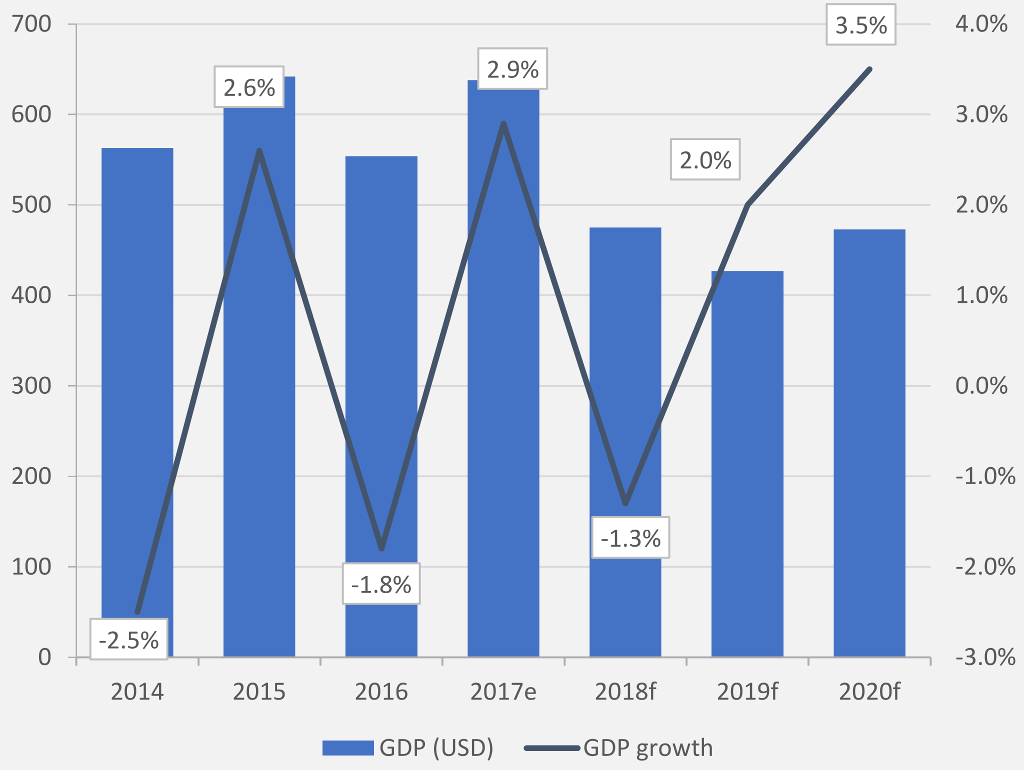
52% YTD depreciation lessens support for Macri

With few foreign reserves , Argentina was targeted by financial traders and forced to petition a line from the IMF

GDP (US$ bn) and Growth

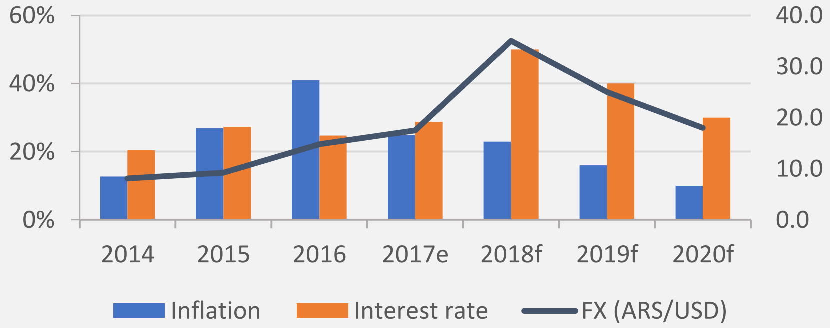


Upside & downside risks

- ✓ IMF strategy settles markets, currency strengthens
- ✓ Investors continue with plans
- ✓ Macri hangs on and is re-elected in 2019

- o Unions negotiate hard, pushing up inflation
- o Domestic investment stifled by high interest rates
- o Peronists win the election and turn the clock back on reforms

Inflation and Interest rates

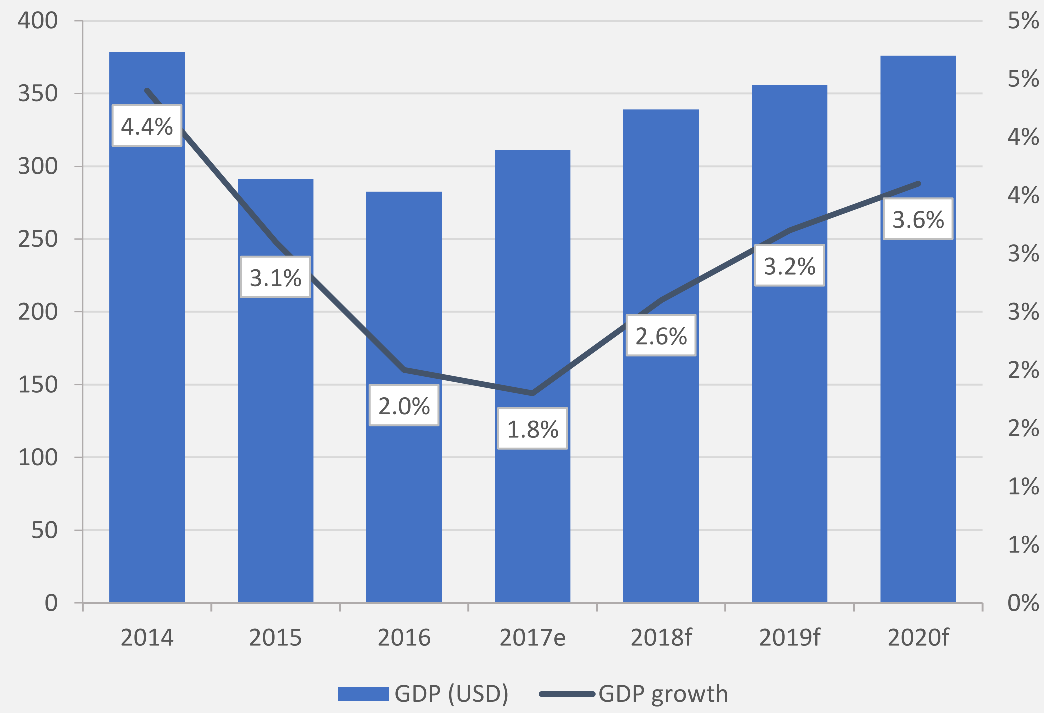


Some data estimated since many of the official sources in the region are still finalizing last year's data.
Sources: BMI, additional sources listed in final slide.

Ivan Duque's election should aid Colombia's recovery

Colombia's economic recovery stalled due to election uncertainty. Duque's pro-investment policies should entice more investment

GDP (US$ bn) and Growth



Upside & downside risks

- ✓ Duque administration will continue much needed reforms and loosen regulations
- ✓ Investor appetite for infrastructure projects should return

- ○ Renegotiating FARC peace accord ignites violence from FARC dissidents and frightens investors (e.g. mining sector)
- ○ Venezuelan immigration grows into refugee crisis

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Sources: BMI, additional sources listed in final slide.

Guyana: The country that wasn't ready to win the lottery

More than 4 billion barrels of oil equivalent could be recovered from the Stabroek block but the country's institutions are weak and the country is underdeveloped

01 Exploitation of record oil reserve could be hampered by underdevelopment and conflict

Record oil discoveries could turn Guyana into a "Caribbean Qatar". Exxon, Tullow, Repsol lead the pack

Human capital is very scarce. Corruption is endemic and the regulatory capacity very limited

Presidential elections are around the corner in a deeply ethnically divided nation.

02 The understanding of local dynamics and political risk is crucial

- Guyana is politically divided in two antagonistic ethnic groups (Indo-Caribbean and Afro-Caribbean). The road up to the 2020 elections will lead to rising conflicts
- The development of the mining sector already demonstrated the limited ability of Guyana to house large international companies. The regulatory capacity is weak. Corruption plagues the country.
- Basic accountability and transparency standards are still lacking. The presence of a strong investigative journalist tradition (Kaieteur News) presents reputational risks for international investors.
- Guyana's neighbors include Venezuela which defends territorial claims in Esequibo, as well as Suriname and French Guiana. Both could hold similar reserves but each is characterized by drastically different set of political, economic and social variables.

Renewable Energy Outlook 2019

Strong investments in renewable energy will continue in 2019 thanks to solid PPP frameworks

Engie invested $111 million in a **130 MW PV facility in Sonora.** 100% of the generated power to the steel producer, Gerdau Corsa.
Balam Fund completed a **35 MW solar project by in the state of Durango** to sell electricity to leading pharmaceutical chain, Farmacias del Ahorro. More importantly, the pipeline of future projects is solid with Mexican multinational bakery product manufacturing company, **Grupo Bimbo** announcing a plan to cover its energy consumption exclusively with renewable energies

The new Duque Administration launched **an auction for approximately 1.5 GW of renewable energy capacity** in late August.
National company **Celsa** is setting the example with a rooftop PV project for **Bogotá's international airport** El Dorado and a **80 MW(AC) PV power plant project** in the municipality of Los Santos.

Engie is also the main actor in Chile with a **122.4 MW PV power plant in the region of Antofagasta**. The $101 million investment aims at commercial production by December 2019.
Future investments will also be strongly supported by the commitment from **major mining companies** to power their operations with renewable energy. Last April, Codelco, Altonorte SA, Compañía Minera Lomas Bayas and Freeport McMoRan all announced agreements with Engie.

Energy transition policies but also **strong public financing support** from the National Development Bank (BNDES) have turned Brazil's **14GW wind** industry into the **eighth-largest in the world**.
Bolsonaro calls for deregulation and criticisms against BNDES have caused concerns within the industry. However, Paulo Guedes' policies will favor the **development of private companies in the energy sector**, both for power generation and distribution.

The outlier remains Argentina who suspended all auction rounds for large-scale wind and solar projects in August because of financing concerns. Nevertheless, the first three rounds of the RenovAr auctions had led to the approval of 1.7 GW of solar projects.

Remi Piet

Dr. Remi Piet is Senior Director at **Americas Market Intelligence (AMI)** and Leader of the firm's Natural Resources and Infrastructure Practice. He leads political and other **risk analysis** activities for the **mining, energy and infrastructure** sectors in Latin America.

Remi received a PhD in Political Economy from the University of Miami, a MBA from Laval University (Canada) and a Masters in Economics for Developing and Transitioning countries from Universite Paris La Sorbonne. He has worked on projects in more than 60 countries across **Latin America, South East Asia, Europe** and the **Middle East.**

Remi taught at several universities including the **University of Miami, HEC (Paris) and Qatar University.** In addition, he is a regular energy analyst for Al Jazeera, France 24, CGTN and TRT. Remi is the author of several books and publications, including **"Energy Security & Sustainable Development in the Western Hemisphere"** (Rowman & Littlefield, 2017)

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1 AMI is Latin America's leading independent market intelligence consultancy

2 Our founding partners helped pioneer the field of market intelligence in Latin America

3 Our consultants have advised a third of the region's 100 largest strategic investors over a span of two decades

4 AMI consultants have conducted over 3,000 client engagements in Latin America since 1993

5 Our holistic approach to market intelligence is unique. We combine market research, competitive intelligence, political analysis and economic forecasting in our studies.

Americas Market Intelligence

Remi Piet

AMI - Senior Director

Practice Leader

Energy – Infrastructure – Natural Resources

rpiet@americasmi.com

+1 (786 351 9077)