



OUTLOOK 2021:

Asia as an investment destination potential and opportunities

OUTLOOK 2021: "NEW BALANCE IN A VUCA WORLD"



Disruptions, headwinds and tailwinds for Asia in 2021

VUCA: Volatile, Uncertain, Complex, Ambiguous



FINDING OPPORTUNITY IN THE NEXT NORMAL: KEY THEMES

Asia is well placed...

Tailwind

Asia's century

Liquidity/ rates lower for longer

Engines of growth: technology, consumption, transformation, mitigation, adaptation, innovation, resilience, efficiency

Green Finance Opportunity

Lower oil price

Weaker Dollar

Trade

Headwind

Coping with debt

Coping with Covid

Climate

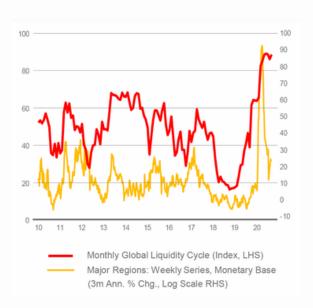
Geopolitics

Trade





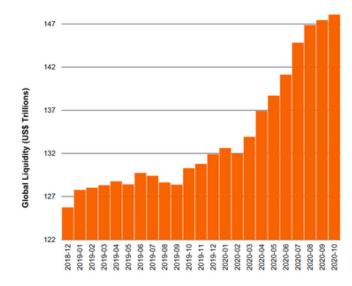
tailwinds



Liquidity support

Since the start of the Covid crisis, CBs liquidity totalled US\$24.2Tr. The US lead the emergency expansion (US\$1.4Tr). Relative size of BS for the Fed, ECB and BOE +40%; BOJ: 18%; PBOC -1%

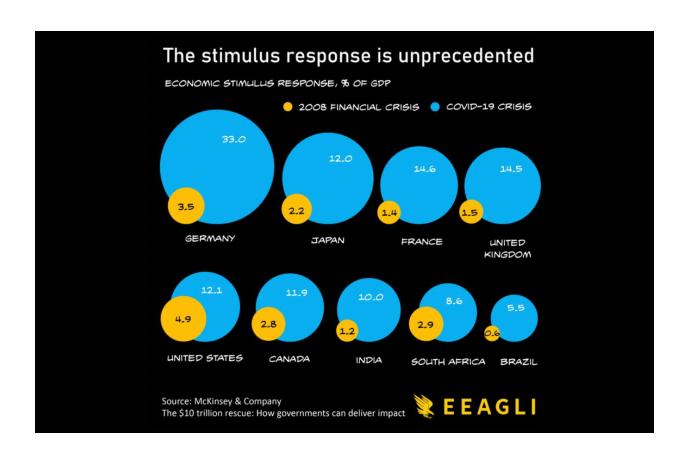
source: Crossborder







STIMULUS



Unprecedented response

US\$10Tr in the 1st 2 months of the crisis (3x more than GFC)

source: McKinsey



ON GOING DEMOGRAPHIC SHIFTS IN FAVOR OF ASIA

(United Nations)



1990

China (1177)

India (873)

USA (252)

Indonesia (181)

Brazil (149)



2019

China (1434)

India (1366)

USA (329)

Indonesia (271)

Pakistan (217)



2050

India (1639)

China (1402)

Nigeria (401)

USA (379)

Pakistan (338)



A SHIFTING WORLD

Global GDP (PPP basis)



Global Gross financial assets US\$200Tr**

World gross product: US\$81Tr **

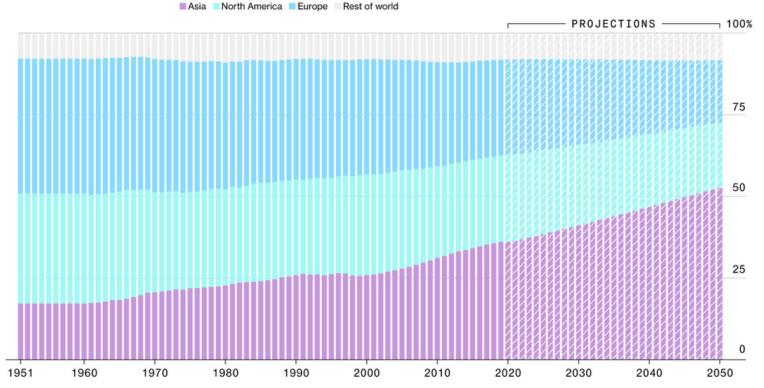
Aggregate Global Wealth: US\$ 360Tr***



Asia's Century

By 2050 Asia will host over half of the world's population and will contribute to over half of its economic output

West to East Share of global GDP by continent





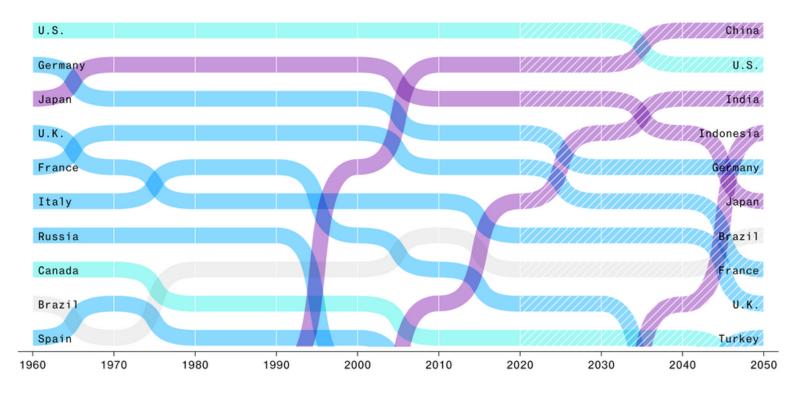
source: Bloomberg

Asia's Century

China and India soaring EM expected to overtake DM as the largest contributor to global GDP in 2042 (60% of global GDP by 2050)

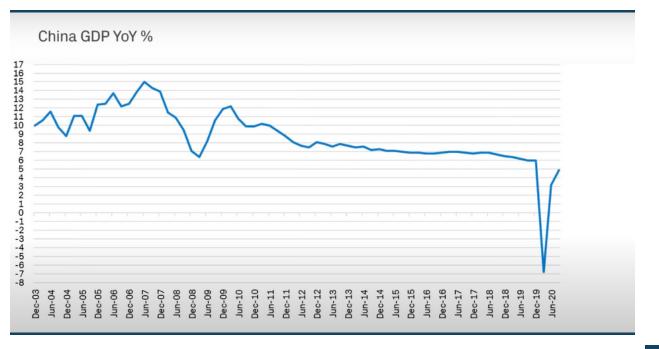
Who's Number One? Global GDP rankings

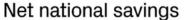
Asia North America Europe South America

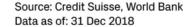


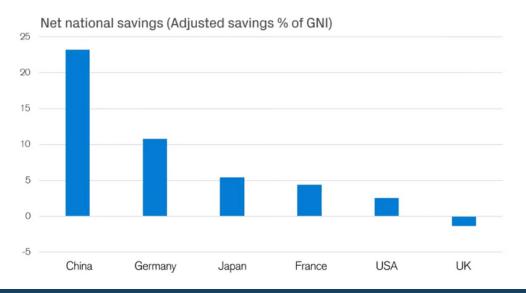


source: Bloomberg



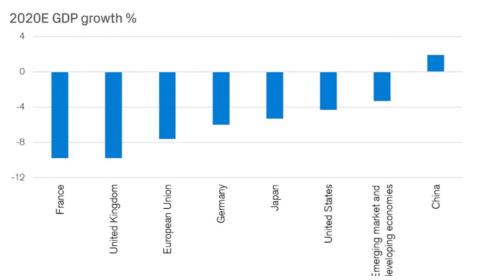








Source: IMF



China

Post Covid: October data shows continued recovery

Balancing domestic and International

NetZero 2060

Innovation and timing & scope of tech Antitrust guideline (tech/ digital)?

CHINA TODAY

Size matters

2020 GDP (est. US\$14.8Tr) will surpass the EU27. 55 million people lifted out of poverty 2016-20

Structural economic transformation underway: digital economy is over 35% GDP

Consumption and urbanization:

60% GDP from consumption since 2016.

Middle income population to double to 800 million by 2035

Urbanization: 60% (850m people. Excl.migrant population: 45%)

Tech power

5G: 700000 5G base stations established (twice as big as the 5G stations in the rest of the world ex China). Reach: 180m people Enabling: large scale education (including AR/VR)

Self Reliance: targets 70% self-sufficiency by 2025 in chip production (40mn chips, 80% of China's demand)

Negative shock of Covid to labor and service sector fully reversed:

October consumption +4.3% yoy

October FAI: +9.3% yoy (Infrastructure +7.5% yoy, Property

investment +12.2% yoy)

Industrial output: +8.7% yoy

source: NDRC, Ministry of industry and IT, Advisor to China's President Justin Yifu Lin, 14th Five Year Plan



LOOKING FORWARD

CHINA'S NEW 5 YEAR PLAN AND 2035 GOALS

Economy

Economic parity with the USA targeted by 2035 (doubling of real GDP per capita or 4.8% growth pa over the period)

Target 75-80% urbanization by 2035

"Double circulation" policy: balancing self reliance and opening to the world

Food security (crop per capita at 470kg)

New infrastructure development (IoT, Smart Cities, Mass transit, 5G, data centers, AI),

Environmental protection: National energy security: "4 Revolutions & 1 Cooperation": energy consumption, supply, technology and governance Revolutions + International Cooperation

Other key goals from the 14th Five Year Plan and "long vision 2035"

Innovation to drive agriculture modernization and society

National Defense: "a strong country must have a strong army" (aerospace, aviation)

Reduce inequality rural/ urban

Soft Power

Demographic bombshell

2022: China becomes an aged society (14% population aged 65+ years old)

2033: China becomes a super-aged society (20% population 65+years old)

2060: 35% population is over 65 years old. 2100: 40%

source: 14th Five Year Plan, 19th Party Congress



GLOBAL TRADE: "NOUVELLE DONNE"?

Volatility around trade will remain

Looking back

After WTO access (2001), international economic cycle grew strongly (01-08, China's exports grew 5 fold, av. annual growth of 29%)

"Nouvelle donne" in the US and with China's "Double circulation" policy

US increased cooperation with Europe to influence China Re-establishment of normalized diplomatic channels Tech ecosystems to remain (geopolitical Darwinism)

Geopolitics beyond tech

US marines training in Taiwan for the 1st time South China Sea

• RCEP: Regional Comprehensive Economic Partnership (China, Japan, ASEAN, S.Korea, Australia, NZ)

Supporting the "Asian century". Largest free trade bloc in the world; 30% world's population, 30% global GDP, 40% world trade

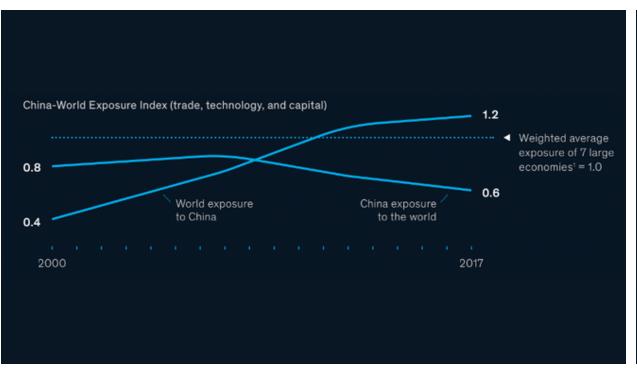
China-ASEAN relationship continues to rise in 2020. Asean is now a larger trading partner than the EU. Regional diplomatic priority

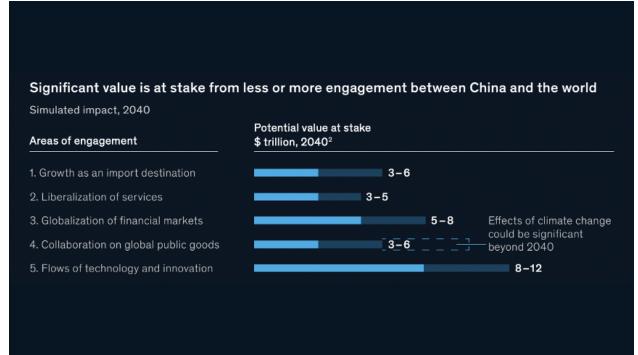
source: Li Keqian, 23rd ASEAN-China Summit (ASEAN: Indonesia, Thailand, Singapore, Malaysia, Philippines, Vietnam, Brunei, Cambodia, Myanmar, Laos)



CHINA-WORLD EXPOSURE

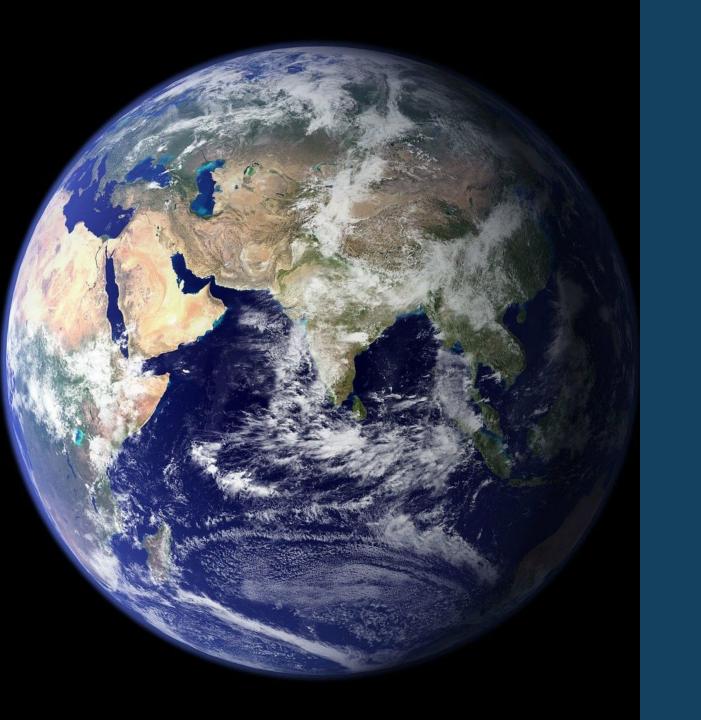
US\$22-37Tr of economic value at stake (15-26% 2040 Global GDP)
China has been reducing exposure to the world (net trade surplus from 8% in 2008 to 1.3%)





source: McKinsey





headwindschallenges

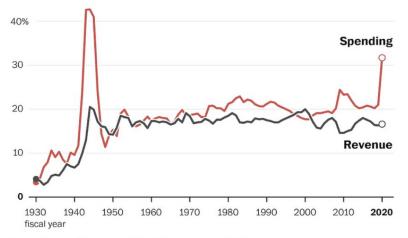
World's largest fiscal deficit on record

US Budget shortfall x3 to US\$3.1tr for year to Sept.

Deficit at 16% 2QGDP...last seen in 1945

U.S. revenue and spending

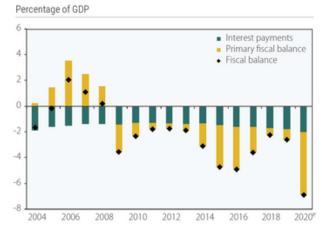
As a share of gross domestic product



Sources: Treasury Department; Office of Management and Budget; Congressional Budget Office

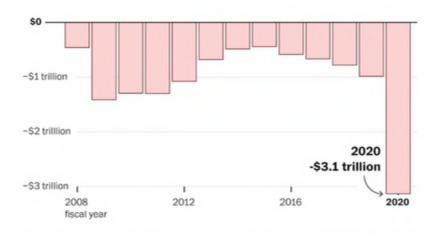
THE WASHINGTON POST

Selected fiscal indicators in developing countries, 2004-2020



Source: UN DESA based on IMF World Economic Outlook data (April 2020). Note: The figure shows mean values of the indicators. The fiscal balance is defined as general government net lending or borrowing. It can be decomposed into the primary balance and interest payments. 2020 values are estimated.

U.S. federal-government deficit

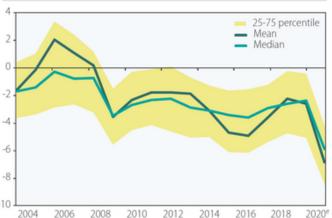


Sources: Treasury Department; Office of Management and Budget

THE WASHINGTON POST

Fiscal balances of developing countries, 2004-2020

Percentage of GDP



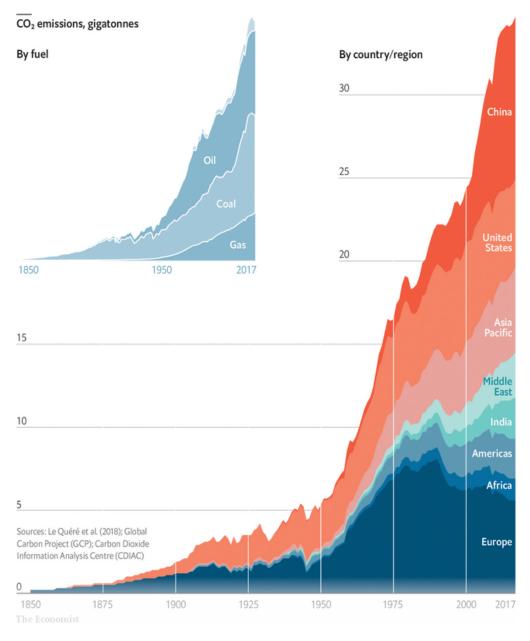
Source: UN DESA based on IMF World Economic Outlook data (April 2020). Note: The fiscal balance is defined as general government net lending or borrowing, 2020 values are estimated.



Climate

CO2 emissions by fuel and region

Post 2WW economic growth model is carbon intensive





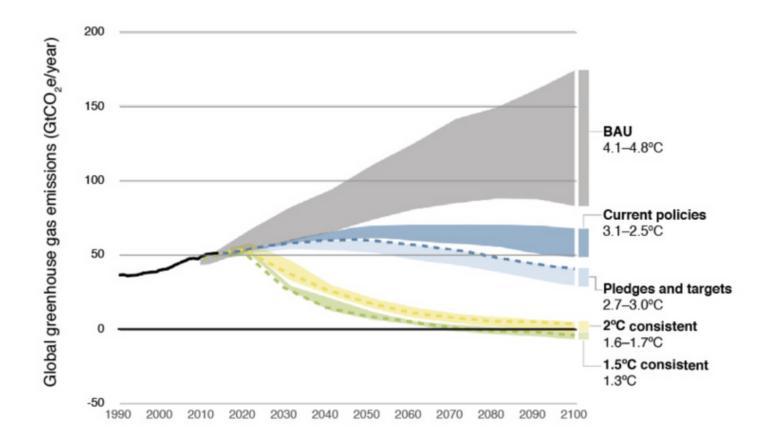
At a cross road

To meet the Paris Agreement (1.5°C by 2100) global CO2
Emissions must be slashed to zero by 2050. At current emission rates 1.5°C will be reached 2030-2050*

BAU points to a 3-4°C + warming by 2100 (1-3++ m increase in sea levels)

The difference in impact between **1.5°C and 2°C** is significant

80% reduction emissions needed by 2050 to meet the 2°C limit



Expected global temperature increase by 2100 compared to pre-industrial levels implied by global emissions pathways for the following scenarios: BAU ('no-policy' or 'reference' scenario), current policies, current pledges and targets, and emissions compatible with warming of 1.5 degrees Celsius and 2 degrees Celsius, respectively. Ranges indicate uncertainty in emissions projections; dotted lines indicate median (50 percent) levels within these ranges. Source: Adapted from Climate Action Tracker. "Warming Projections Global Update." December 2018. https://climateactiontracker.org/documents/507/CAT_2018-12-11_Briefing_WarmingProjectionsGlobalUpdate_Dec2018.pdf. (Accessed January 10, 2019.)



GLOBAL CO2 EMISSIONS CONTRIBUTION - 2018

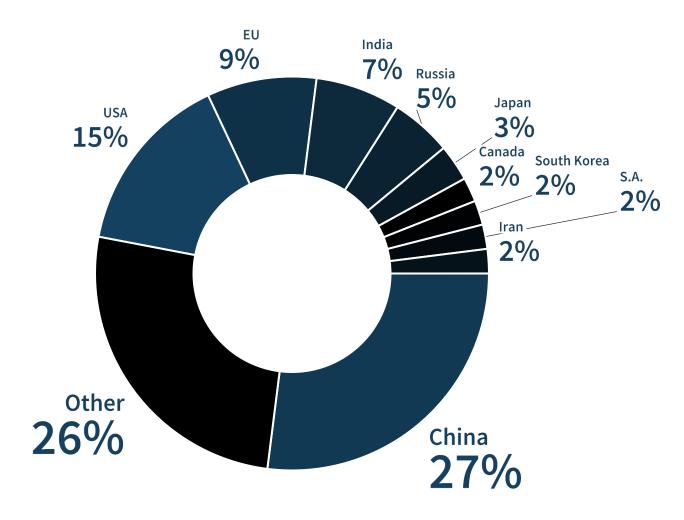
India: rapid growth of energy consumption. Leader in renewable

Russia: little investment in Renewable

China: Largest emitter. Expects peak in 2030

USA: Surge in Emissions in 2018 (-2% in 2019)

EU: collective emissions down 20% since 1990

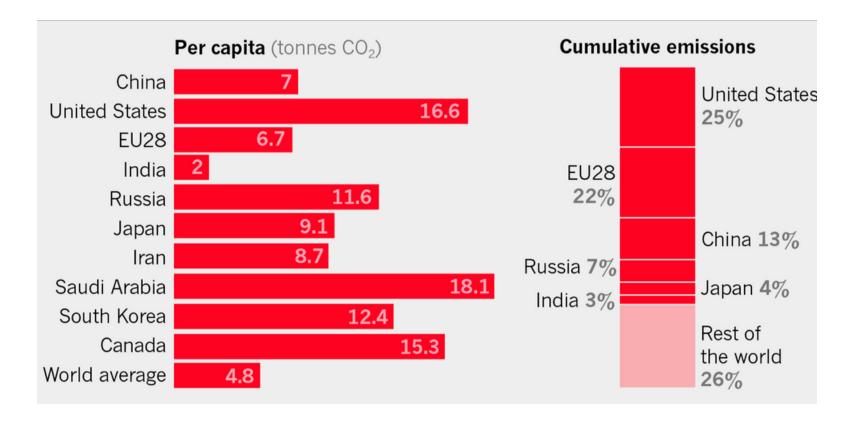


source: Global Carbon Project. The Hard Truths of climate change- By the numbers. www.nature.com



CO2 contributors

China is the largest current CO2 emitter but the US leads on both a per capita and a cumulative emissions basis





ASIA AND CLIMATE CHANGE

- Speed of sea level rising in Asia faster than Global average
- Concentration: 70% of the world's population living on land at risk are in 8 countries in Asia: Bangladesh, China, India, Indonesia, Japan, Philippines, Thailand and Vietnam. (410m Asian urban dwellers at risk of coastal flooding)
- Coastal population expected to double in Bangladesh, India, Vietnam, Philippines and Vietnam by 2025

- Climate change to exacerbate food and water security in APAC (loss of arable land, declining crop yield)
- At 2°C some effects are irreversible (coral reefs wiped out by 2100)
- Available water supplies shrinking (70% fresh water used for agriculture)

source: channelnewsasia.people-at-risk-of-rising-seas, ADB, IPCC



CHINA

World leader in wind and solar production (2019 China = 40% of global renewal energy expansion)

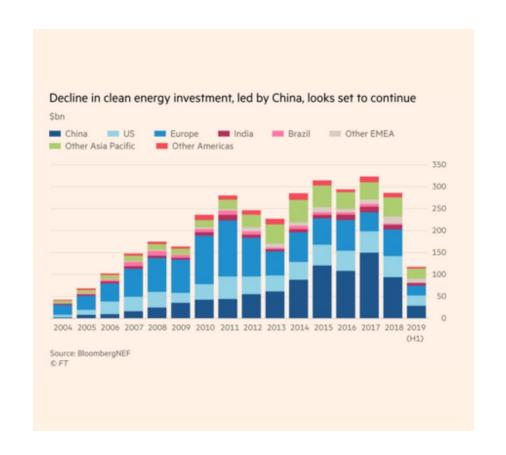
China is the largest world coal consumer, producer and importer. 2019: added a large coal power plant every 2 weeks to the Grid

70% CO2 from fossil fuel esp.coal

World largest EV market

Grid parity 2020: first contracts for wind and solar to generate power at the same price as coal power plants**

NetZero 2060



sources: BBC, Carbon brief-Global coal power, FT, Bloomberg NEF,



INDIA

Largest source of emissions: coal power plants, agriculture (16% of India's emissions) and cattle

India is the 2nd largest world coal producer, consumer and importer of coal after China

India has the most GDP exposed to river flooding* (estimated at US\$ 14bn in 2017). Could rise by 10 fold by 2030

2/3 population relies on **farming**

15% of global **cattle** population

Pledge a 33-35% reduction in emission intensity of economy by 2030 vs 05

Targets renewable or nuclear to be 40% of installed electricity capacity by 2030



THE ESTIMATED OF ECONOMIC IMPACT OF CLIMATE CHANGE VARIES GREATLY BY COUNTRY *

Economic impact of climate creates a lack of alignment to act

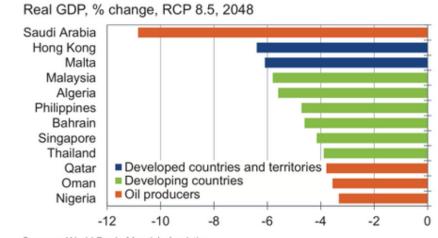
Largest impact on **oil countries and emerging markets economies. Warmer climate countries** are most vulnerable

Among the large economies, India, Russia, China most affected (-2.5/ -0.6% GDP)

Keeping temperature increase to 1.5°C could help avoid the loss of US\$12 TR or 10% of global GDP** (-US\$21 Tr vs -US\$33Tr by 2050)

3.2 degrees = -23% global GDP impact; +28% probability of category 4 or 5 cyclones, +70% in extreme rainfall (275m people flooded)

Hurricane Dorian took 25% of the Caribbean islands and the Bahamas GDP in 1 day...



Sources: World Bank, Moody's Analytics

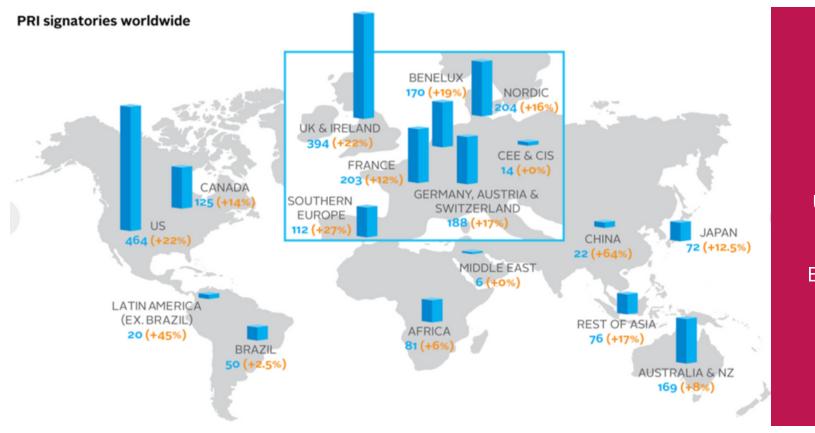
source: *Moody's, 2019, 4 major scenarios, base period 86-05. RCP 8.5 (or 4.1 °C increase), **: Climate Analytics.org





opportunities

ESG AND GLOBAL AUM



Global SRI assets: approx. US\$31Tr

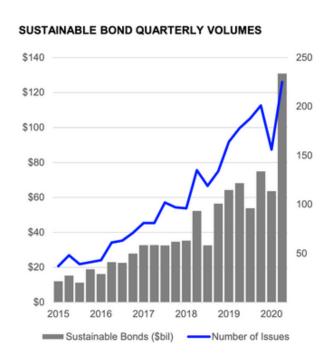
UNPRI signatories: over US\$100Tr of assets (over 3000 signatories)*

ESG ETF assets doubled in 12 months to US\$80bn

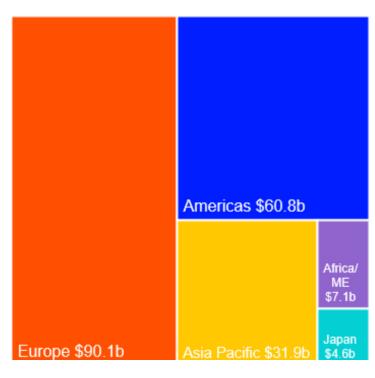


SUSTAINABLE FINANCE 1H20:

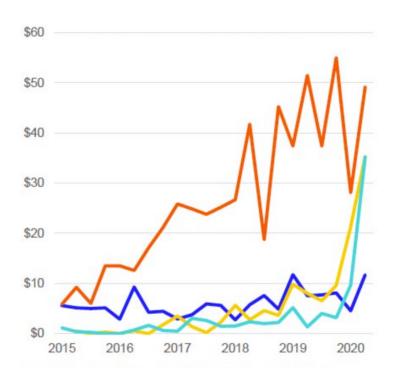
EQUITY -21%, SL -2%, DEBT UP



1H20: SB totaled \$194.5bn +47% yoy



Europe leads



Social Bonds accelerated strongly in Q220

Source: Refitiniv 1H20 report on Sustainable Finance



| Technology/ A |
|------------------------|
| Efficiency and resilie |
| Connectivity |
| |

nce

Food: Crop and management

1.6bn tonnes of wasted food annually = 1/4 of total mount of food produced globally

Energy

90% emissions

Power grid, renewable

New competitive advantage

New Finance

New Consumption

Infrastructure

US\$15-18Tr global gap to 2040 (out of US\$97Tr total)

80% waste water release is untreated

2050: 4bn people under water stress vs 1.2bn today (private sector demand +45%)

Smart cities

80% energy consumption

60-70% of global GDP

Transport, mobility

EV: by 2030 EU+CHina: 18m EV's sold pa.

THE PATH TO NETZERO

Energy transition strategies of upstream oil and gas companies

| Туре | Description | Example | es |
|------------------------------------|--|-------------|--|
| Emissions offsets | Producers seek to offset emissions from existing operations independently from the operations themselves | \triangle | Afforestation and carbon credits |
| Transformation of operations | Producers seek to reduce carbon intensity by transforming existing operations (drilling, flaring, leakage, refining) | ∄ | Electric drilling platforms, CCUS, reduced flaring, increased operational efficiency |
| Transformation of product offering | Producers seek to reduce carbon intensity by offering new, low-carbon products using either (A) the existing resource base or (B) existing delivery channels | 60 | (A) Hydrogen (from natural gas) (B) Biofuels |
| Transformation of business model | Producers seek to reduce carbon intensity by fundamentally transforming their business model seeking out new end users and new delivery channels | , 廿 | EV charging stations, direct power sales |

Shift in strategy for oil majors

Fossil fuels to drop from 45% to 35% in a 2C sensitivity scenario by 2050 (50m b/d of demand destruction)

Road transport and power generation largest

Urgent need to transform business: offsets, technology, transformation

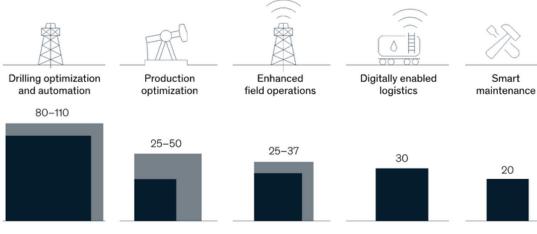
Energy transition: US14Tr new capital spend in low carbon electricity// US\$6Tr drop in upstream oil spending

Regional impact (Canadian oil sands, Russian Arctic)

source: Platts



ENERGY IN THE NEXT NORMAL: CONNECTIVITY



operations productivity by improving drilling speed, while remote or semi-automatic drilling could reduce the number of people required on a rig.

& Company

McKinsey

Advanced analytics

could increase drilling

timely data collection across the production system, this use case creates value by increasing throughput and reducing the energy consumed and emissions produced.

With the help of

- - Connectivity advances, such as "connected worker" solutions and technologies offering virtual enhancements. could help reduce time spent on maintenance and repairs.
- Enhanced connectivity can radically transform end-to-end logistics and the supply chain with improved demand management transparent material tracking, and more efficient logistics operations.
 - A greater density of sensors deliver real-time, highvolume data on equipment status and anomalies to improve prediction of failure and offer remedial actions to operators.

- Over 2/3 of world's oil production has access to connectivity but is making limited use of it
- Connectivity and automation potential for oil and gas could add US\$250bn to upstream by 2030

Drilling optimization, production throughput 2/3 of world's oil production has advanced connectivity but making limited use of it







OUTLOOK 2021:

Asia as an investment destination potential and opportunities