

# A guide to COP25

## Taking the Paris rulebook from Santiago to Madrid

- This year's climate negotiations (2-13 December) must tie up loose ends of the operational guidelines, especially Article 6
- Extreme events are more widespread, intense and frequent, but the response is often clouded by politics and economics
- We believe it is important to remove near-term distractions and allow the focus to shift back to longer-term strategies

The following is a redacted version of a report published on 14 November 2019. Please contact your HSBC representative or email <a href="mailto:Research.Direct@hsbc.com">Research.Direct@hsbc.com</a> for more information on how to access the full report.

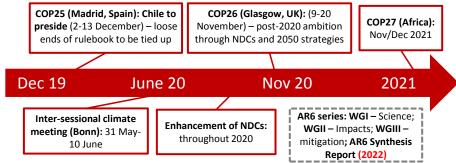
From Chile to Spain: After switching locations twice, the 25<sup>th</sup> Conference of the Parties (COP25) will take place in Madrid, Spain. However, Chile will still preside over the two-week talks which, in our view, is significant because it allows the voice of more vulnerable regions to be heard. Some 25,000 delegates will work to tie up open items from COP24 (2018). The toughest and most important issue will be agreeing how Article 6 on international carbon markets will work. Failure could mean less effort on reducing emissions from certain countries; success could enhance it.

Contrasting momentum: The science is clearer and the devastating impacts of climate change continue across every region in the world. The silver lining is that public awareness has been growing and may raise the pressure to act, however bold and ambitious policies are sparse because of economic and geopolitical events. The divergence is apparent in Russia's formal ratification of the Paris Agreement in October, barely a month before the US formally sent notification of its withdrawal.

The importance of 2020: COP25 marks the beginning of the final year for pre-2020 action.

A stocktake in Madrid will most likely show that implementation of action has been inadequate and falls well short of the trajectory for 2°C, let alone 1.5°C. As some countries and businesses begin to aim for 1.5°C, in our view, if COP25 completes all outstanding rulebook items, then that would allow the focus to return to enhanced pledges, longer-term (mid-century) strategies and bolder policies

## Climate meetings continue despite economic and political distractions



Source: HSBC (based on UN Framework Convention on Climate Change [UNFCCC])



## Did you know?

For more than 30 years, the science has been crystal clear.

... The world is waking up. And change is coming, whether you like it or not.

Greta Thunberg, UN Climate Action Summit, New York, 23 September 2019

## The global climate change process

## COPs and the UNFCCC

- The climate summit taking place in Madrid, Spain is the 25<sup>th</sup> Conference of the Parties to the UNFCCC (COP25). It will be presided over by the Government of Chile.
- The Paris Agreement aims to keep the rise in global average temperatures to well-below 2°C above pre-industrial levels and preferably to 1.5°C in order to significantly reduce the risks and impacts of climate change.

## Rising temperatures and science

- The IPCC estimates that the overall surface temperature has increased by 0.87°C but the average land temperature has increased by 1.53°C.
- The IPCC estimates that 37% of global emissions could come from the overall food system (inclusive of pre- and post-production activities), and that the oceans have taken up "90% of the excess heat in the climate system".

## Ratification and implementation of Paris Agreement

- As of 13 November 2019, 187 Parties, covering 96.9% of global greenhouse gas (GHG) emissions had ratified the Agreement.
- The main task ahead is to complete the outstanding items – essentially Article 6 – of the 'rulebook' that applies to all Parties to the Agreement.

Nationally Determined Contributions – climate pledges

- Some 195 Parties submitted a climate pledge –
   Nationally Determined Contributions' (NDCs) –
   covering emissions reductions as well as preparing
   for the impacts of climate change by building
   up resilience.
- NDCs come in all shapes and sizes some deal with mitigation, some adaptation, others both. They have different targets and timeframes. There is a push to standardise them.

#### Non-state actors

- Non-state actors are entities that are not official UN States or UNFCCC Parties such as provinces, states, cities and also corporations, investors, and civil society.
- According to the Non-State Actor Zone for Climate Action (NAZCA portal), there are over 22,470 climate-related actions from over 278 regions, 9,465 cities, 2,688 corporates, nearly 955 investors and over 977 organisations.



## Nitty gritty issues at COP25

- Article 6 is likely to be one of the most hotly debated issues as delegates try to expand the scope for emissions reduction options
- Common timeframes of NDCs should be determined but we think a range of options on the duration will remain to allow flexibility
- The inadequacy of actions in the 'pre-2020' period and many other important issues will also feature over the two-week negotiations

The Paris rulebook: The Paris Agreement is an international treaty designed to cover all aspects of global efforts to reduce emissions, prepare for the impacts and support others. However, it is worded in such a way that it *implies intention* — in other words, the agreement itself does not tell participants how to implement it, comply with it, or contribute to it. This is why the operational guidelines (the rulebook) is such an important document. It details how things will be done and ensures that all Parties stick to the same rules, and trust others to do the same.

## Article 6 of the Paris Agreement

Most of the operational guidelines (i.e. the rulebook) for the Paris Agreement were agreed last year (at COP24) (see <u>The rulebook of the Paris Agreement</u>). However, "Parties could not reach consensus thereon" [on] Article 6 of the Paris Agreement.

Article 6 essentially covers voluntary cooperation in implementing climate pledges (NDCs) with a view that cooperation allows for higher ambition. It can be broken down into three main parts:

- Cooperative approaches (Article 6.2)
- The mechanism (Article 6.4)
- Non-market approaches (Article 6.8)

## Article 6.2 – Cooperative approaches and ITMOs

The task in one line is to provide "guidance on cooperative approaches referred to in Article 6.2"

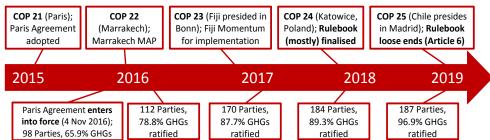
Parties are allowed to use the emissions saved/avoided in other countries (by other Parties) to count towards their own account – especially when it comes to meeting their own NDCs. However, there needs to be an accounting system whereby the mitigated emissions are deducted from one Party and added to the other country. This is to be achieved through (essentially what is) a carbon credit system, known as ITMOs (internationally transferred mitigation outcomes). The key is to ensure integrity and avoid double counting.

If emissions were reduced (resulting in the generation of a carbon credit), then only one Party should be able to say that they reduced emissions, i.e. avoid double counting

Whilst cooperation between Parties is widely accepted and agreed as being useful, the accounting system that would make it happen is fiercely debated and almost derailed last year's talks. The problems arise in ensuring:

- Environmental integrity which means emissions are actually being saved;
- Transparency which means the receiving Party actually knows that they are getting;
- Governance which means everything works smoothly and fairly.

## From an Agreement to a rulebook



Source: HSBC (based on UNFCCC)



There are currently many outstanding issues which need to be agreed and finalised:

- Definitions what counts as an ITMO
- Governance and responsibilities which body will oversee the process
- Transfers what mechanism will be employed to track the transfers
- ◆ Adjustments how and where will these be made
- Timeframes what timeframes would be allowed,
   e.g. single-year or multi-year
- Use what ITMOs can be used for, i.e. will there be a restriction on the activities or even the overall mitigation that can be "offset" using ITMOs

Double counting: Much of the debate last year was over whether old credits from the Kyoto Protocol could be carried forward to the new system – some Parties with lots of credits understandably don't want them to simply expire and go to waste. Other Parties fear double counting of emissions saved, i.e. the transfer of credits which have already been applied against the originating Party's emissions account, are then applied again to the new Party.

If these issues are not appropriately resolved, the risk is that the market could be flooded with "carbon credits" which would undermine the goal of reducing global emissions. On the other hand, if these issues are precisely and accurately worded, they could be a catalyst or a starting point for a consistent global carbon pricing mechanism.

### Article 6.4 - The mechanism

The task in one line is to establish the "rules, modalities and procedures for the mechanism of Article 6.4".

"A mechanism to contribute to the mitigation of GHG emissions and support sustainable development". This mechanism is designed with four aims:

- a. Promote GHG mitigation
- b. Incentivise GHG mitigation by public & private entities
- c. Contribute to emissions reduction (to the host Party)
- d. Deliver on overall global emissions mitigation

The problem is that rules that make sense for one Party (which might have a lot of mitigation activities) may not be acceptable to another Party. Discussions at COP25 should whittle down the various options on matters such as:

- definitions to be used within the mechanism;
- supervision, governance and responsibilities of the mechanism;
- which activities would be included;
- how to ensure there is no double counting of these activities.

## Article 6.8 – Non-market approaches

The task in one line is to figure out a "framework for non-market approaches".

This refers to mitigation outcomes (i.e. emissions reduction strategies) that do not result directly in a carbon credit but are generally considered to be good for enhancing carbon/energy efficiency etc. (e.g. removal of fossil fuel subsidies). This part is designed to ensure that Parties have a plethora of options with which to implement their NDCs and ensure mitigation, adaptation and support, in a way that is beneficial to other aspects of sustainable development such as poverty eradication etc. More technically, the aims of Article 6.8 include:

- a. Promote mitigation and adaptation ambition
- b. Enhance public and private sector participation to implement NDCs
- c. Coordinate across instruments and institutional arrangements

However, frameworks can be simple or complex depending on whether Parties emphasise the *participation* aspects or the *supervision* aspects. One of the main aims of the framework includes assisting the implementation of other Parties' NDCs and recognising that various activities are beneficial to overall mitigation.

We think the discussions are likely to be dominated by the governance aspects, i.e. should there be a permanent governance body to oversee the approaches, and, if so, how will the body be established to ensure that it will be balanced yet effective.

## Common timeframes (for NDCs)

The task in one line is to decide on how long NDCs should last.

The issue of common timeframes for NDCs is half finished. It was agreed last year at COP24 that NDCs implemented from 2031 onwards should apply "common timeframes" – referring to the *period NDCs should cover* – however, the actual *period of duration* was not agreed. We think common timeframes will be a major point of contention at COP25 because it has strong repercussions for ambition levels. Nonetheless they are important because:



- The pre-2020 period (see below) is likely to show inadequacy of implementation, action and ambition;
- Parties have been invited to submit enhanced (existing or new) NDCs in 2020;
- Common timeframes make for easier aggregation and assessment of global ambition levels.

Permutations of 10: There are currently many options on the table, including: 5 years, 10 years, 5 and 10 years, 5+5 years, or 10 years with "an indicative waypoint at" 5 years, and even two NDCs with 2031 and 2036 starting points. We think the final outcome will still allow some flexibility of duration.

The long and the short: The timing matters because longer timeframes give Parties a better chance of implementing policies and hitting targets, but there are less opportunities to formally revise targets upwards (if ambition and progress are shown to be lacking). On the other hand, shorter timeframes are politically challenging to implement but can technically be revised (upwards) more frequently.

## Reporting formats

The task in one line is to decide exactly how 'regular climate information' will be reported.

Given the importance of transparency, there is a lot of debate over exactly how certain information should be disclosed and displayed. For example, should it be submitted electronically which would make it easy to collate, however once uploaded, how should it be presented online for ease of comparison and aggregation.

At present, a lot of reported climate information is in a very general format, i.e. there is little consistency on what and how information is submitted. The discussions at COP25 will try to iron out:

- Common reporting tables which types of information should be subject to common reporting;
- Common tabular formats what information will then be reported and how

The reporting issue cuts across NDCs, finance, technology transfer, and capacity building.

## Pre-2020 (next year)

The task in one line is to take stock of how well implementation of plans has been so far.

At COP25, there will be a stocktake on pre-2020 implementation and ambition. This will gather together all the different parts of climate change activities under the UNFCCC – the mitigation, the adaptation, and the support

(financial, technology, capacity building). The idea is to see whether enough was done (vs what was promised) and also how far off the mark the world is from the 2°C trajectory (in the year 2020). In theory, this should help to shape the implementation and action in the post-2020 period as well as drive up ambition levels because it is widely recognised that not enough was done or achieved in the pre-2020 period.

What does "pre-2020" mean? Before 2015, many were under the impression that the Paris Agreement would enter into force after 2020 (it actually entered into force on 4 November 2016), at the same time, many climate pledges covered the 2020-30 period. There was concern that the years before of 2020 would be a lull period where not much real action happened. More vulnerable Parties were especially concerned by this because the science has consistently found that action *sooner* would be more effective and cost less than actions *later*. Various segments of the global climate debate began to focus on action and implementation "pre-2020". Next year, 31 December 2020 marks the official end of the "pre-2020" period.

## Other issues to be discussed

The above issues are likely to be the most contentious in our view; however, there are clearly many other issues that will be discussed in Madrid. Some are procedural; some are operational; others are administrative; a few are aspirational.

Long-term goal: How the UNFCCC sets its aims is coming up for its second periodic review in 2020-22. The scope of this review should be broadly agreed at COP25. Views are varied on what the review should focus on and whether it should include the latest science.

The adequacy of Article 4 (2a, 2b) of the Convention: This is essentially that Parties should work on a national basis. This has been on the agenda since COP4 (1998) so we do not envisage that anything will be agreed here.

Warsaw International Mechanism for Loss and Damage (WIM): The terms of reference for the 2019 review were largely agreed in Bonn at the inter-sessional meeting (SB50). We expect WIM to move forward (slowly) under CMA. The review will cover the scope, the inputs and information sources, the modalities and the expected output.

There will also be discussions on agriculture, indigenous communities, gender, GHG accounting, international bunkers (aviation and shipping), and more.



## **Understanding COPs**

There is always a lot going on at COPs. There are tens of thousands of delegates representing countries, regions, companies, investors as well as civil society and other organisations striving to make their voices heard; there are multiple work streams convened under various official bodies; there are a myriad of official and unofficial documents which change on a daily basis; there are also a whole host of side and affiliated events that happen during the COP fortnight. We highlight some of the key features to be aware of at COP meetings.

#### Parties involved

The UN Framework Convention on Climate Change (UNFCCC) was adopted in 1992 at the Rio Earth Summit and entered into force in 1994. The main aim of the convention is the "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."

This is implemented through different sub-agreements such as the Kyoto Protocol (adopted 1997, in force 2005) and the Paris Agreement (adopted 2015, in force 2016). However, UNFCCC Parties are not automatically bound by sub-agreements. Each of these has to be ratified by individual Parties.

## Official UN bodies involved

The discussions are organized into different work streams, assigned to different UNFCCC bodies. Tens of thousands of delegates, representing different groups and interests will attend COP25. Many will be a part of various (even multiple) bodies or observers to these (Box 1).

## Box 1: Key Bodies under the UNFCCC

Conference of Parties (COP) is an annual meeting of the 197 Parties to the UNFCCC. Its purpose is to implement the aims of the convention, i.e. stabilization of GHGs at safe levels. This will be the 25th Conference of Parties (COP25).

Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA): All Parties which have formally ratified the Paris Agreement form the CMA, Parties yet to ratify participate as observers. The CMA oversees the implementation of the Paris Agreement and takes decisions to promote its effective implementation. It is convened alongside the COP and this will be the start of the second session of the body (CMA2).

Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol (CMP): All Parties that have ratified the Kyoto Protocol form the CMP. The CMP oversees the implementation of the Kyoto Protocol and takes decisions to promote its effective implementation. It is convened alongside the COP and this will be the fifteenth session of the body (CMP15).

Subsidiary Body for Implementation (SBI): The SBI supports the work of the COP, the CMP and the CMA through the assessment and review of the effective implementation of the Convention, its Kyoto Protocol and the Paris Agreement. This will be the fifty-first session of the body (SBI51).

Subsidiary Body for Scientific and Technological Advice (SBSTA): The SBSTA supports the work of the COP, the CMP and the CMA through the provision of timely information and advice on scientific and technological matters as they relate to the Convention, its Kyoto Protocol and the Paris Agreement. This will be the fifty-first session of the body (SBSTA51).

## Other important groups

Countries often club together into groups for logistical reasons as well as strength in numbers. For example, smaller countries may lack the resources to send delegates to every single work stream and discussion. A banding together on specific or similar issues is often more efficient because there is already a consensus to build upon and it strengthens their individual position (Box 2).

## Box 2: Key negotiating groups in the climate process

The Association of Small Island States (AOSIS): Small island and low-lying coastal countries, e.g. Haiti, Kiribati, Palau, Nauru, Samoa, Suriname and Vanuatu (44 members).

View: Adaptation is a key issue, especially financial support for adaptation by larger countries since AOSIS members are often the most vulnerable to climate impacts such as sea level rises.

Group of 77 and China (G77 & China): Originally a group of 77 developing countries, membership has expanded to 134 as other countries have joined but others have left as they became more developed. China is not an official member but joins the G77 on climate issues. The State of Palestine is the current chair of the G77 and China group.

<u>View:</u> Seeks balance on key issues (mitigation, adaptation, transparency) but often with an element of differentiation between developed and developing economies.

Like Minded Developing Countries (LMDCs): A group of larger developing countries, e.g. Argentina, China, India, Malaysia, Nicaragua, Saudi Arabia and Venezuela.



<u>View:</u> Believes developed or more industrialised nations could do more since they are responsible for the majority of historic emissions, but developing nations should also play their part.

The Small Island Developing States (SIDS): Similar to AOSIS but includes some territories which are not UN member states in their own right (with some overlap), e.g. Cabo Verde, Maldives, Timor-Leste but also Aruba, Curacao, Guadeloupe and Montserrat. (58 members).

<u>View:</u> Believes much more prominence needs to be given to adaptation since SIDS members are very vulnerable to climate impacts such as rising sea-levels and more severe storms.

## Climate pledges

In the run up to the adoption of the Paris Agreement in 2015 (COP 21), parties were invited to present their contribution – a climate pledge – towards the global efforts to combat climate change. These were initially known as 'Intended Nationally Determined Contributions' (INDCs) and became simply 'Nationally Determined Contributions' or NDCs (i.e. without the 'intended) after Parties ratified the Agreement.

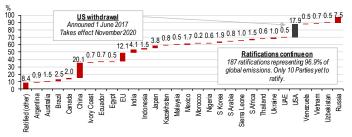
## Signatories, Ratification (and Withdrawal)

Sign: A Party to the UNFCCC which signs the Paris Agreement indicates the intention to be bound by the Agreement at a later date, subject to ratification, acceptance or approval. All 197 Parties are signatories to the Agreement (with some directly ratifying).

Ratify: A Party only becomes legally bound by the Agreement once it has deposited an instrument of ratification, acceptance or approval (which all carry the same legal effect). Parties that have ratified are legally bound by the Agreement and are allowed to take decisions with respect to the Agreement. Parties which have not yet ratified are only allowed to participate as observers in official meetings.

187 Parties have ratified, with Russia (7 October 2019) the latest ratification. There are only 10 Parties which have not yet ratified: Angola, Eritrea, Iran, Iraq, Kyrgyzstan, Lebanon, Libya, South Sudan, Turkey and Yemen.

## Ratification of the Paris Agreement trickles on...



Source: UNFCCC; HSBC

Article 28 of the Agreement allows for withdrawal from the Agreement, essentially four years after it has entered into force (for that Party). In June 2017, the US announced its intention to do so; the formal exit will take place on 4 November 2020. The US formally sent a notification to withdraw on 4 November 2019. We do not expect any other Parties to withdraw from the Agreement.

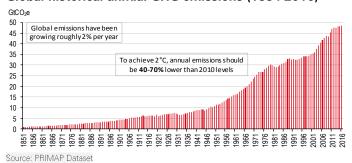
What the US withdrawal means in practice: The US was instrumental in the run up to COP21 in 2015. US diplomats around the world knocked on doors to build consensus around the (then) Paris Agreement. Since the current US Administration took office, there has been no diplomatic consensus building from the US. The US has still been sending delegations to all climate negotiations. These delegates have been relatively quiet – neither taking strong positions nor obstructing the process. We do not expect this to change at COP25.

For now, the US remains an official Party to the Paris Agreement and is eligible to vote in all actions. After 4 November 2020, the US will not be an official Party to the Paris Agreement, however it will still be an official Party to the UNFCCC – which means that it will be eligible to vote on non-Paris Agreement matters but will have observer status.

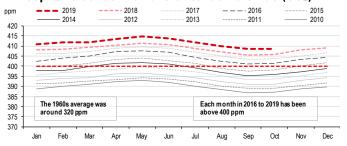


## The state of the climate

#### Global historical annual GHG emissions (1854-2016)

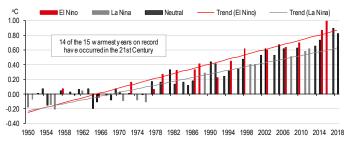


#### Atmospheric concentrations of carbon dioxide (CO<sub>2</sub>)



Source: Earth System Research Laboratory (NOAA). Note: This is the highest that atmospheric CO<sub>2</sub> concentrations have been for at least 800,000 years

### Global land-ocean temperature anomalies (1950-2018)



Source: NASA; NOAA Note: Base year 1951-80; El Niño data starts from the year 1950

## Science matters - 1.5°C, land, oceans

The science of climate change is advancing; however, it is being pushed back by a handful of Parties at climate negotiations. For example, there was heated debate at COP24 (2018) over how to comment on the science; in Bonn after strong debate, there was merely "appreciation and gratitude" for providing science updates.

1.5°C is a more ambitious climate target: The mention of a 1.5°C goal in the Paris Agreement was highly significant because it recognised that the impacts of climate change – even at 2°C – would be significant for many countries, especially least developed countries and small island states. Hence, a lower target would possibly lower the impacts on these vulnerable nations. Some countries and many companies have already begun revising their targets to be more aligned with 1.5°C.

As climate impacts become ever clearer, and with it, public awareness, we think it may become more difficult not to give more prominence to the science at climate discussions. There have been three special reports from the IPCC (Intergovernmental Panel on Climate Change, the UN's climate science body) over 2018-19.

'Special Report on Global Warming of 1.5 °C' (SR1.5): The report makes clear the benefits of aiming for 1.5 °C vs 2 °C. The IPCC finds that "Limiting global warming to 1.5 °C would require rapid, far-reaching and unprecedented changes in all aspects of society."

The threshold of 1.5°C of warming will be reached by 2040 unless global carbon dioxide ( $CO_2$ ) emissions decline by 45% by 2030 and reach 'net zero' by 2050. For reference, the required emissions reductions for the 2°C limit are a 20% decline by 2030 and net zero by 2075. However, all emissions pathways modelled for 1.5°C warming require the removal of  $CO_2$  from the atmosphere to some extent using carbon dioxide removal or negative emission technology. (See <u>Does 1.5°C matter?</u> The difference half a degree can make October 2018).

## Special Report on Climate Change and Land (SRCCL):

The key message of SRCCL is that humanity's reliance on the land for existence is under threat from climate change, yet our activities exacerbate a changing climate – so we must look after the land in better ways.

Land is both an emissions source and sink – however whether the net effect is a source or sink depends on how (well) we use it. There are various effects on other systems through "land-climate interactions", these include food systems, infrastructure, ecosystems, human health, biodiversity and livelihoods. Hence delaying action would be increasingly negative on the land. Food security was a major theme in SRCCL, the IPCC finds that humanity must make substantial changes to land use and, potentially, diets.

The Ocean and Cryosphere in a Changing Climate (SROCC): Warming oceans and a melting cryosphere have wide ranging implications for food security, human health and nutrition as well as marine biodiversity. Key findings of SROCC include: ice sheets are melting at an increasing rate which worsens sea level rises and affects various ecosystems more acutely and disruptively; extreme sea level events could become an annual occurrence by the year 2050 – up from a once-a-century event; the impact on indigenous and coastal communities is large.



A key message is that delaying action could mean reaching the limits on adaptation. Besides the obvious physical effects such as rising sea levels, there are a multitude of less obvious effects such as ocean warming and marine heatwaves, permafrost warming and potential GHG release, oxygen loss and ocean acidification which both have devastating impacts on marine life.

## The global climate calendar: upcoming events

| 2019         | Location                  | Event   |
|--------------|---------------------------|---|
| 12-14 Nov    | Incheon, Rep. of<br>Korea | 24 <sup>th</sup> meeting of GCF Board                                       |
| 02-13 Dec    | Madrid, Spain             | 25 <sup>th</sup> Conference of Parties (COP 25)                             |
| 09-10 Dec    | Madrid, Spain             | Sustainable Innovation Forum 2019   |
| 16-19 Dec    | Washington DC, US         | 57 <sup>th</sup> Meeting of the GEF Council                                 |
| 2020         |                           |   |
| 13-16 Jan    | Abu Dhabi                 | World Future Energy Summit  |
| 21-24 Jan    | Davos, Switzerland        | 2020 World Economic Forum Annual Meeting                                    |
| 29-31 Jan    | Delhi, India              | World Sustainable Development<br>Summit 2020                                |
| 18-20 Feb    | Tokyo, Japan              | 10 <sup>th</sup> International Conference on<br>Renewable and Clean Energy  |
| 22-23 Feb    | San Francisco, US         | 3 <sup>rd</sup> International Conf. on Renewable and Smart Energy Resources |
| 27-28 Feb    | Kuala Lumpur,<br>Malaysia | The 4 <sup>th</sup> International Conference on<br>Climate Change 2020      |
| 06-07 Apr    | Bangkok, Thailand         | 9th World Climate Congress & Expo   |
| 27-30 Apr    | New Delhi, India          | Adaptation Futures 2020   |
| 05-07 May    | Beijing, China            | UN Global Sustainable Transport Conf.                                       |
| 05-09 May    | TBA                       | 52 <sup>nd</sup> Session of the IPCC  |
| 05-10 Oct    | Yunnan, China             | 2020 UN Biodiversity Conference   |
| 12-13 Oct    | Zurich, Switzerland       | 9 <sup>th</sup> World Conf. on Climate Change                               |
| 9-19 Nov     | Glasgow, Scotland         | 26 <sup>th</sup> Conference of Parties (COP 26)                             |
| Source: HSBC |                           |   |



## Disclosure appendix

### **Analyst Certification**

The following analyst(s), economist(s), or strategist(s) who is(are) primarily responsible for this report, including any analyst(s) whose name(s) appear(s) as author of an individual section or sections of the report and any analyst(s) named as the covering analyst(s) of a subsidiary company in a sum-of-the-parts valuation certifies(y) that the opinion(s) on the subject security(ies) or issuer(s), any views or forecasts expressed in the section(s) of which such individual(s) is(are) named as author(s), and any other views or forecasts expressed herein, including any views expressed on the back page of the research report, accurately reflect their personal view(s) and that no part of their compensation was, is or will be directly or indirectly related to the specific recommendation(s) or views contained in this research report: Wai-Shin Chan, CFA, Ashim Paun, Tessie Petion and Lucy Acton, CFA

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## From 23rd March 2015 HSBC has assigned ratings on the following basis:

The target price is based on the analyst's assessment of the stock's actual current value, although we expect it to take six to 12 months for the market price to reflect this. When the target price is more than 20% above the current share price, the stock will be classified as a Buy; when it is between 5% and 20% above the current share price, the stock may be classified as a Buy or a Hold; when it is between 5% above the current share price, the stock will be classified as a Hold; when it is between 5% and 20% below the current share price, the stock may be classified as a Hold or a Reduce; and when it is more than 20% below the current share price, the stock will be classified as a Reduce.

Our ratings are re-calibrated against these bands at the time of any 'material change' (initiation or resumption of coverage, change in target price or estimates).

Upside/Downside is the percentage difference between the target price and the share price.

#### Prior to this date, HSBC's rating structure was applied on the following basis:

For each stock we set a required rate of return calculated from the cost of equity for that stock's domestic or, as appropriate, regional market established by our strategy team. The target price for a stock represented the value the analyst expected the stock to reach over our performance horizon. The performance horizon was 12 months. For a stock to be classified as Overweight, the potential return, which equals the percentage difference between the current share price and the target price, including the forecast dividend yield when indicated, had to exceed the required return by at least 5 percentage points over the succeeding 12 months (or 10 percentage points for a stock classified as Volatile\*). For a stock to be classified as Underweight, the stock was expected to underperform its required return by at least 5 percentage points over the succeeding 12 months (or 10 percentage points for a stock classified as Volatile\*). Stocks between these bands were classified as Neutral.

\*A stock was classified as volatile if its historical volatility had exceeded 40%, if the stock had been listed for less than 12 months (unless it was in an industry or sector where volatility is low) or if the analyst expected significant volatility. However, stocks which we did not consider volatile may in fact also have behaved in such a way. Historical volatility was defined as the past month's average of the daily 365-day moving average volatilities. In order to avoid misleadingly frequent changes in rating, however, volatility had to move 2.5 percentage points past the 40% benchmark in either direction for a stock's status to change.

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|------|-----|--|
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For the purposes of the distribution above the following mapping structure is used during the transition from the previous to current rating models: under our previous model, Overweight = Buy, Neutral = Hold and Underweight = Sell; under our current model Buy = Buy, Hold = Hold and Reduce = Sell. For rating definitions under both models, please see "Stock ratings and basis for financial analysis" above.

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