



State elections – critical test for the CDU and its party leader Laschet

- State ballots in Baden-Württemberg (BW) and Rhineland-Palatinate (RP) on March 14 provide the first electoral test for the parties in the run-up to the federal elections. Apart from the single parties' performance, they are also interesting with regard to forming government coalitions.
- Uncertainty about the polls is higher this time. Rising discontent with the crisis management could negatively affect voter turnout or party preferences. Also, the stronger use of postal voting could differently impact the parties, albeit to a small extent.
- In BW with its large industrial base, the Greens have overtaken the CDU as strongest party a decade ago. The state is governed by a green-black coalition under the Green PM Kretschmann. Current polls indicate that the Greens increased their lead over the CDU compared to the 2016 elections profiting also from the reputation of their PM whereas his CDU challenger is not widely known.
- Parts of the Greens in BW favour a coalition with the SPD and the FDP to broaden the options for the federal elections. To lose the junior role in the coalition in BW would be an even stronger political defeat for the CDU. Still, a remake of the green-black coalition under the incumbent PM seems more likely for now.
- In RP, the SPD which leads a traffic light coalition is set to beat the federal trend and come in as the strongest party. The popularity of the incumbent PM Malu Dreyer is a big asset for the party. The Greens might be the big winner almost doubling their previous results. Indications from party leaders point to another SPD-led traffic light coalition after the ballots.
- In both states the AfD scored extremely well in the last elections which took place at the height of the refugee crisis. Since then, the AfD lost ground because of internal party differences, a pronounced shift to the right, but also as it missed out on its own ambitions to gain ground amidst the backdrop of Covid-19 pandemic.
- Although the new CDU party leader Laschet is not up for election, the performance of the CDU will of course be (partly) attributed to him, especially a poor result in BW where the regional CDU strongly backed his opponent Merz in the party leader contest. Recently, the questionable role of two CDU/CSU Bundestag members in medical masks procurement deals sparked outrage, providing additional headwinds for the CDU/CSU. As long as the CDU is not experiencing a severe setback compared to its 2016 results, though, Laschet's prospect of being nominated as the CDU/CSU chancellor candidate remains intact in our view. We consider the chances for Laschet to be chosen as Merkel's successor in April/ May higher than for the Bavarian PM Söder.

Barbara Boettcher

Senior Economist
+49-69-910-31787

Marion Muehlberger

Senior Economist
+49-69-910-31815



Pandemic discontent might influence elections. Upcoming Sunday, March 14, the regional elections in Baden-Württemberg (BW) and Rhineland-Palatinate (RP) will kick off the super election year. Germany will then be in almost nonstop campaigning mode with a series of important signposts until the federal elections in September (see Figure 1). While political polls tend to be rather reliable in Germany, the fallout from the corona crisis increases uncertainty this time. So far, lockdown skepticism and the slow start of the vaccination campaign are reflected in rising discontent – less than half of the Germans are still backing the current policy decisions signaling a turning of the tide for the executive (see Figure 2). This also concerns state governments as they play an important role in the decision-making and the implementation of the corona measures. Thus, their performance in handling the crisis will be put to a test, too. Still, as on federal level, the regional executives seem to have benefited from the crisis so far: The PMs of the respective states, Malu Dreyer in RP and Winfried Kretschmann in BW, are highly popular (see Figure 3). But BW has been the nucleus for last year's demonstrations of corona critics and deniers which spread to other parts of Germany incl. the capital Berlin and attracted attention beyond Germany. While these groups have become less visible in recent months, anticipating their supporters' electoral behavior is difficult.

Postal voting increasingly popular. The expected increase in postal votes could have some influence on the ballots (FG Nov 13, 2020). In BW, the share of postal votes in the last elections was below 20% but is expected to be much higher this time. In RP, the share of postal voting was higher with over 30% in the last elections and according to officials almost 40% of the electorate have already cast a postal vote. Generally speaking, postal voting is more frequently used by older voters, i.e. supporters of the CDU, and better educated and mobile voters, i.e. voters of the Greens. The Greens explicitly assume that they might profit from an increase in postal voting. As opposed to the US, though, the deadline for the postal votes is the same as for the ballot votes, 6 pm on March 14. Subsequent counting will include the postal votes and will allow for reliable results in the course of the evening.

Baden-Württemberg: The former CDU stronghold that has turned Green

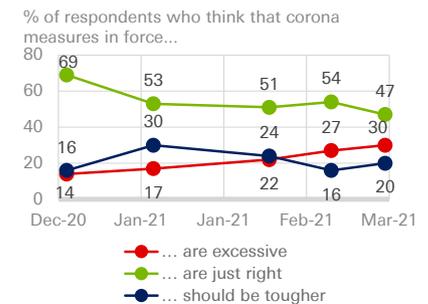
The Green's biggest asset is the popular PM Winfried Kretschmann. BW is the second most wealthy state after Bavaria and home to a broad industrial sector ranging from automotive to mechanical engineering and both DAX companies as well as large family-owned businesses. Thus, the win of the Greens in 2011 was a particular surprise further fueling the party's Germany-wide success and acceptance as ruling party. Kretschmann governed with a Green-SPD coalition in the first term and is currently heading a Green-CDU coalition (a planned Green-SPD-FDP coalition failed because of the latter). He is perceived to be essential in holding the two coalition partners together despite differing views in terms of industrial and climate policy. A vast majority of the electorate is satisfied with his work and even 59% of the CDU supporters prefer him over his little known CDU challenger, minister for education Susanne Eisenmann (Politbarometer). While the Greens participate in 11 state governments, PM Kretschmann is the most prominent figure and a sort of door opener to a conservative electorate giving those voters hopes that a coalition with the Greens could also work on the federal level. According to current polls (see Figure 4), the Greens have increased their lead over the CDU compared to the last elections in 2016 and might thus be in the pole position to continue governing.

Figure 1: Super election year 2021 – important signposts

Date	Key event
March 14	Regional elections in Baden-Württemberg and Rhineland-Palatinate
April/May	CDU/CSU and Greens expected to nominate their candidates for chancellor
April 10-11	AfD party convention
May 9	SPD party convention
May 14-16	FDP party convention
June	The Left's party convention (no fixed date yet)
June 6	Regional election in Saxony-Anhalt
June 11-13	The Green's party convention
Sep 26	Regional elections in Mecklenburg-Vorpommern, Berlin, Thuringia
Sep 26	German federal elections

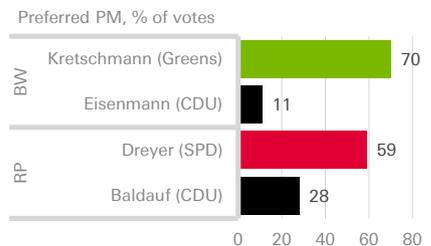
Note: The CDU and CSU have not yet communicated a date for their party conventions.
Source: Wahlrecht.de, press articles and websites of the political parties

Figure 2: Weakening public support for corona politics



Note: Surveys since the start of the 2nd lockdown on December 16.
Source: ARD Deutschlandtrend

Figure 3: Incumbent PMs enjoy high popularity



Source: Politbarometer, March 5



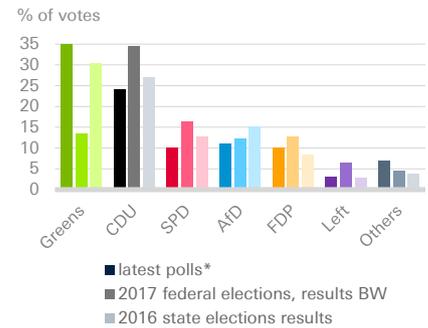
New kids on the block. The Greens are challenged by a climate party start-up, the so-called “*Klimaliste*”. The party of which major figures have been engaged in grass roots movements such as “Fridays for Future” or “Extinction Rebellion” was founded last September and wants to pressure the Greens towards a more far-reaching climate change policy. They claim that many climate change goals fell victim to the compromises in this green-black government. The Greens – meanwhile part of the political establishment and with its participation in different state governments forced to adjust some of their too radical ideas – are in a certain way faced with political competition that the SPD has seen with the Left or the CDU with the AfD. It is unrealistic, though, to expect the new party cross the 5% threshold to enter the parliament.

CDU fighting to remain junior coalition partner. Relegating the CDU to the second place in its former stronghold had been a blow to the party and a number of CDU grandees who come from this region, e.g. former finance minister Schäuble. The party has not really recovered since then. Moreover, the CDU’s candidate challenging PM Kretschmann lacks support in the public and even within her own party ranks. The CDU has lost in the polls since January and might come in even a couple of points below its 2016 results (see Figure 4). Whether this can be attributed to the fact that the regional CDU organization was a decisive supporter of Friedrich Merz and a more conservative reorientation of the CDU is difficult to say. After Merz lost the race for CDU chair against Laschet, Eisenmann called for closing the party ranks and to back Laschet. The most recent political outrage over two members of the CDU/CSU Bundestag faction (see [FT, March 8](#)) is also responsible for the current losses in polls. The CDU’s biggest concern now is that the Greens might reconsider its coalition options and turn towards a traffic light coalition with the SPD and the FDP. Numbers would allow for it with the FDP’s popularity having improved and the SPD hovering around 11%. Greens in favour of such an option argue that it would give the party more leeway for political competition with the CDU and prevent the impression that everything boils down to a black-green coalition after the federal elections. PM Kretschmann, though, has indicated a certain preference for a continuation of the current coalition and in the end the Greens might also decide against changing coalition partners as surveys show a preference of the electorate for green-black in BW as well as for the federal level (Politbarometer).

Right-wing AfD likely to lose out. With 15% in the last elections, the AfD scored its best result in a West German state ever. On the heights of the refugee crisis and Merkel’s contested migration policy, the AfD managed to attract more than 200,000 non-voters in 2016. It became the largest opposition faction in the state parliament. Since then, though, internal party differences and party exits reduced the number of its MPs from 23 to 15. With a lack of motivating issues for its heterogeneous electorate, polls see the party at around 11%. This mirrors the role of the AfD on a Germany-wide base where the AfD is falling back from its previous support levels (see Figure 5) and only holds on to its strong position in the East German states.

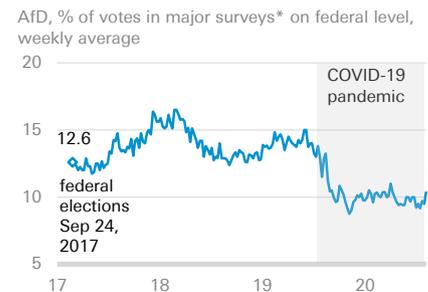
What to watch on elections day: (i) The CDU’s performance compared to the last regional elections. (ii) Whether the SPD manages to stay at least within double digit numbers. (iii) In case of being the strongest party, will the Greens openly reconsider its coalition options.

Figure 4: Baden-Württemberg – previous election results and latest polls



Note: *Politbarometer, March 5
Source: Wahlrecht.de, Bundeswahlleiter, Deutsche Bank

Figure 5: The AfD lost support since COVID-19 outbreak



Note: * major political surveys taken into account: Allensbach, Kantar, Forsa, FG Wahlen, Infratest, INSA.
Source: Wahlrecht.de, Deutsche Bank



Rhineland-Palatinate: The SPD-led traffic light coalition

Regional SPD to beat the party's federal results by a wide margin. While BW will be – not least because of its implications for the federal level – particularly crucial for Greens and the CDU, RP will be the SPD's litmus test. Albeit a smaller state, it is important for the SPD as – apart from the two city states – it just fields one other PM in the western part of Germany (Weil in Lower Saxony). At the start of the year, polls indicated that the CDU might overtake the SPD. Should this happen, it might trigger party-internal debates and add to the frictions between the SPD and the CDU/CSU in the last few months of Merkel government. So far, the fact that the SPD has been the first to nominate a chancellor candidate (FM Scholz) and has unveiled its [draft manifesto](#) in February already has not garnered any additional support from voters. However, the SPD has regained the upper hand in the RP polls over the last couple of weeks: Like in BW, the CDU is scoring lower and even seems to be at risk of falling back below its 2016 results.

Popularity of PM favours continuation of the current coalition. The high reputation of female PM Malu Dreyer (59% of the electorate want her to remain in office; Politbarometer) is a strong asset for the SPD in RP. The 33% currently achieved in polls (see Figure 6) are numbers Dreyer's SPD colleagues in Berlin can only dream of. The SPD as well as its coalition partners seem prepared to continue the current traffic light coalition. Coalition considerations would only change substantially, should the FDP miss the 5% threshold and not stay in the parliament (currently the party scores slightly above 5% in polls). In this case, a two-party coalition would also be able to achieve a majority in the parliament.

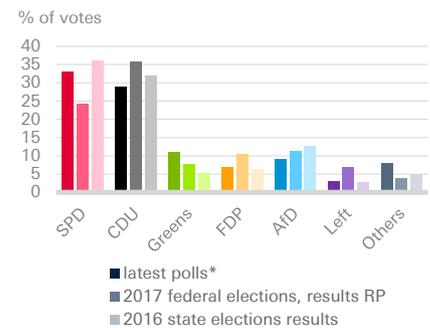
What to watch on elections day: (i) Will the CDU keep its results from the 2016 elections, (ii) parties' signals about coalition options, (iii) positioning of the FDP between support for the SPD and the CDU.

Implications for the federal political landscape – important but not decisive

State elections usually follow their own pattern. Given the strong federal structure in Germany which allocates major policy competences, e.g. education, to the states, regional campaigning has its own agenda. The electorate does not cast its vote with a view on the federal level and regional politicians focus on essential questions for the respective state. However, the federal positioning of the respective parties plays a role when specific positions are presented. One example is the headwind the campaigning regional CDU faced from Merkel's refugee policy in 2015/2016, in particular in Eastern Germany. Not so significant but to a certain extent comparable, the proposal by federal Green MPs on a possible ban of single-family houses has been received critically by its party fellows in BW. Still, state election outcomes can have severe repercussions on the federal level. A recent example are the 2019 elections in Thuringia when the distribution of seats severely complicated the forming of a new government. The AfD's coup to support CDU and FDP in electing a PM ultimately served as the trigger for AKK's demission as the CDU party leader. The two upcoming state elections do not harbor the potential for such upheavals but might still play some role in the nomination process for the CDU/CSU chancellor candidate and the constructive cooperation between the CDU/CSU and the SPD for the rest of the term.

Majorities in the upper house blurred anyway. Another reason why the outcome of even smaller state elections could impact the balance of power in federal

Figure 6: Rhineland-Palatinate – previous election results and latest polls



Note: *Politbarometer, March 5
Source: Wahlrecht.de, Bundeswahlleiter, Deutsche Bank



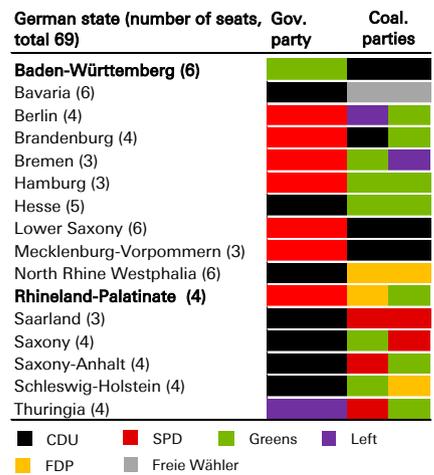
Germany: The majority situation in the Bundesrat, the upper house, where the states co-decide on important topics such as tax policy with the federal government. Up until around two decades ago, the governing established party enjoyed either a majority in the upper house or the opposing established party had the majority in the upper house, i.e. a CDU-led government was faced with a majority of SPD-led states in the upper house. A change of state government could thus lead to a loss or win of a majority in the upper house. Meanwhile, though, in ten of the sixteen German states coalitions of two or three parties prevail, implying that any federal government cannot count on having a majority in the upper house anymore (see Figure 7). Instead, compromises have been sought beforehand and vetoes have not been used anymore. This need to cooperate between the federal government and different state governments regardless of party colours is also a reason why German federal elections hardly ever prompt significant policy shifts.

With the elections out of the way, the debate of Merkel's succession will gain momentum

Positive election surprise boost for Laschet. The new CDU party leader Laschet is not up for elections in the states but the performance of the CDU will of course be (partly) attributed to him. This might be more the case in BW where the regional CDU strongly backed his opponent Merz in the party leader contest. The CDU in BW is traditionally more conservative and market-orientated not least because of the large number of family-owned businesses in the region. A party leader who stands more in the tradition of Merkel's centrist policy course is thus not expected to provide the hoped-for tailwind in the BW state elections. However, as mentioned, the regional CDU organization had closed ranks and Laschet had a number of well-received virtual election events. On the negative side is the recent political outrage over a CDU and a CSU member of the Bundestag on their questionable personal involvement in government pandemic procurement deals that has captured broad public attention and endangers trust in politics. Laschet has taken a clear view on this, demanding the MPs abandon their mandates but the extent of the negative repercussions for the party's reputation remains to be seen. Against this background, already a stabilization of the CDU's scoring could provide a certain boost for Laschet on the federal level.

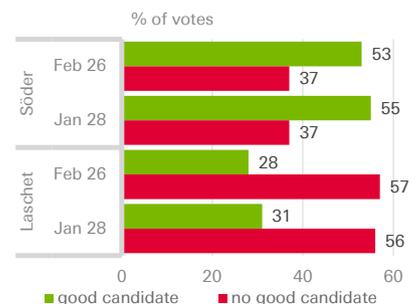
Chancellor-candidate decision not just a popularity contest. In popularity rankings the Bavarian PM Söder still enjoys a comfortable lead but opposing trends have kicked in (see Figure 8). Laschet's support is improving, in particular within his party. In the course of the last few weeks, a number of influential CDU members from the conservative business wing acknowledged Laschet's attempts to incorporate some of their positions and to reconcile the different tendencies within the party. Söder, at the same time, faces increasing criticism even within Bavaria and from his own party on pandemic management. In any case, steering the CDU into the federal elections will be challenging for either of them as 49% of Germans think that without Merkel the CDU will not be as strong as currently (Allensbach, Feb 25). At the same time, only a third would like to see Merkel running again. While media tend to focus on public popularity surveys when looking at the potential chancellor candidates, party considerations will play a probably larger role in the decision of the chancellor-candidate. Bear in mind that the CSU is the much smaller partner in the conservative party family: While it is strong in Bavaria, it scored just some 6% (of all votes) in the last federal elections and by that contributed (just) one-fifth to the Germany-wide CDU/CSU result. Only in case that the much larger CDU massively doubts its own leader's qualities were it to draw the Bavarian card. The

Figure 7: Composition of the Bundesrat – highly fragmented upper house



Source: Bundesrat

Figure 8: Söder tops the chancellor popularity ranking



Source: Politbarometer



last time this happened was back in 2002 when CDU grandees questioned the gravity of their chairwoman Merkel. Such a pushback seems unlikely for Laschet. Also against this background, we expect Laschet to be chosen as Merkel's successor in April/ May.

We thank Ursula Walther for her valuable contribution.



Appendix 1

Important Disclosures

*Other information available upon request

*Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at <https://research.db.com/Research/Disclosures/CompanySearch>. Aside from within this report, important risk and conflict disclosures can also be found at <https://research.db.com/Research/Topics/Equities?topicId=RB0002>. Investors are strongly encouraged to review this information before investing.

Analyst Certification

The views expressed in this report accurately reflect the personal views of the undersigned lead analyst(s). In addition, the undersigned lead analyst(s) has not and will not receive any compensation for providing a specific recommendation or view in this report. Barbara Boettcher, Marion Muehlberger.



Additional Information

The information and opinions in this report were prepared by Deutsche Bank AG or one of its affiliates (collectively 'Deutsche Bank'). Though the information herein is believed to be reliable and has been obtained from public sources believed to be reliable, Deutsche Bank makes no representation as to its accuracy or completeness. Hyperlinks to third-party websites in this report are provided for reader convenience only. Deutsche Bank neither endorses the content nor is responsible for the accuracy or security controls of those websites.

If you use the services of Deutsche Bank in connection with a purchase or sale of a security that is discussed in this report, or is included or discussed in another communication (oral or written) from a Deutsche Bank analyst, Deutsche Bank may act as principal for its own account or as agent for another person.

Deutsche Bank may consider this report in deciding to trade as principal. It may also engage in transactions, for its own account or with customers, in a manner inconsistent with the views taken in this research report. Others within Deutsche Bank, including strategists, sales staff and other analysts, may take views that are inconsistent with those taken in this research report. Deutsche Bank issues a variety of research products, including fundamental analysis, equity-linked analysis, quantitative analysis and trade ideas. Recommendations contained in one type of communication may differ from recommendations contained in others, whether as a result of differing time horizons, methodologies, perspectives or otherwise. Deutsche Bank and/or its affiliates may also be holding debt or equity securities of the issuers it writes on. Analysts are paid in part based on the profitability of Deutsche Bank AG and its affiliates, which includes investment banking, trading and principal trading revenues.

Opinions, estimates and projections constitute the current judgment of the author as of the date of this report. They do not necessarily reflect the opinions of Deutsche Bank and are subject to change without notice. Deutsche Bank provides liquidity for buyers and sellers of securities issued by the companies it covers. Deutsche Bank research analysts sometimes have shorter-term trade ideas that may be inconsistent with Deutsche Bank's existing longer-term ratings. Some trade ideas for equities are listed as Catalyst Calls on the Research Website (<https://research.db.com/Research/>), and can be found on the general coverage list and also on the covered company's page. A Catalyst Call represents a high-conviction belief by an analyst that a stock will outperform or underperform the market and/or a specified sector over a time frame of no less than two weeks and no more than three months. In addition to Catalyst Calls, analysts may occasionally discuss with our clients, and with Deutsche Bank salespersons and traders, trading strategies or ideas that reference catalysts or events that may have a near-term or medium-term impact on the market price of the securities discussed in this report, which impact may be directionally counter to the analysts' current 12-month view of total return or investment return as described herein. Deutsche Bank has no obligation to update, modify or amend this report or to otherwise notify a recipient thereof if an opinion, forecast or estimate changes or becomes inaccurate. Coverage and the frequency of changes in market conditions and in both general and company-specific economic prospects make it difficult to update research at defined intervals. Updates are at the sole discretion of the coverage analyst or of the Research Department Management, and the majority of reports are published at irregular intervals. This report is provided for informational purposes only and does not take into account the particular investment objectives, financial situations, or needs of individual clients. It is not an offer or a solicitation of an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Target prices are inherently imprecise and a product of the analyst's judgment. The financial instruments discussed in this report may not be suitable for all investors, and investors must make their own informed investment decisions. Prices and availability of financial instruments are subject to change without notice, and investment transactions can lead to losses as a result of price fluctuations and other factors. If a financial instrument is denominated in a currency other than an investor's currency, a change in exchange rates may adversely affect the investment. Past performance is not necessarily indicative of future results. Performance calculations exclude transaction costs, unless otherwise indicated. Unless otherwise indicated, prices are current as of the end of the previous trading session and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Data is also sourced from Deutsche Bank, subject companies, and other parties.

The Deutsche Bank Research Department is independent of other business divisions of the Bank. Details regarding our organizational arrangements and information barriers we have to prevent and avoid conflicts of interest with respect to our research are available on our website (<https://research.db.com/Research/>) under Disclaimer.

Macroeconomic fluctuations often account for most of the risks associated with exposures to instruments that promise to pay fixed or variable interest rates. For an investor who is long fixed-rate instruments (thus receiving these cash flows), increases in interest rates naturally lift the discount factors applied to the expected cash flows and thus cause a loss. The longer the maturity of a certain cash flow and the higher the move in the discount factor, the higher will be the loss. Upside surprises in inflation, fiscal funding needs, and FX depreciation rates are among the most common adverse macroeconomic shocks to receivers. But counterparty exposure, issuer creditworthiness, client segmentation, regulation (including changes in assets holding limits for different types of investors), changes in tax policies, currency convertibility (which may constrain currency conversion, repatriation of profits and/or liquidation of positions), and settlement issues related to local clearing houses are also important risk factors. The sensitivity of fixed-income instruments to macroeconomic shocks may be mitigated by indexing the contracted cash flows to inflation, to FX depreciation, or to specified interest rates – these are common in emerging markets. The index fixings may – by construction – lag or mis-measure the actual move in the underlying variables they are intended to track. The choice of the proper fixing (or metric) is particularly important in swaps markets, where floating coupon rates (i.e., coupons indexed to a typically short-dated interest rate reference index) are exchanged for fixed coupons. Funding in a currency that differs from the currency in which coupons are denominated carries FX risk. Options on swaps (swaptions) the risks typical to options in addition to the risks related to rates movements.

Derivative transactions involve numerous risks including market, counterparty default and illiquidity risk. The appropriateness



of these products for use by investors depends on the investors' own circumstances, including their tax position, their regulatory environment and the nature of their other assets and liabilities; as such, investors should take expert legal and financial advice before entering into any transaction similar to or inspired by the contents of this publication. The risk of loss in futures trading and options, foreign or domestic, can be substantial. As a result of the high degree of leverage obtainable in futures and options trading, losses may be incurred that are greater than the amount of funds initially deposited – up to theoretically unlimited losses. Trading in options involves risk and is not suitable for all investors. Prior to buying or selling an option, investors must review the 'Characteristics and Risks of Standardized Options', at <http://www.optionsclearing.com/about/publications/character-risks.jsp>. If you are unable to access the website, please contact your Deutsche Bank representative for a copy of this important document.

Participants in foreign exchange transactions may incur risks arising from several factors, including the following: (i) exchange rates can be volatile and are subject to large fluctuations; (ii) the value of currencies may be affected by numerous market factors, including world and national economic, political and regulatory events, events in equity and debt markets and changes in interest rates; and (iii) currencies may be subject to devaluation or government-imposed exchange controls, which could affect the value of the currency. Investors in securities such as ADRs, whose values are affected by the currency of an underlying security, effectively assume currency risk.

Unless governing law provides otherwise, all transactions should be executed through the Deutsche Bank entity in the investor's home jurisdiction. Aside from within this report, important conflict disclosures can also be found at <https://research.db.com/Research/> on each company's research page. Investors are strongly encouraged to review this information before investing.

Deutsche Bank (which includes Deutsche Bank AG, its branches and affiliated companies) is not acting as a financial adviser, consultant or fiduciary to you or any of your agents (collectively, "You" or "Your") with respect to any information provided in this report. Deutsche Bank does not provide investment, legal, tax or accounting advice, Deutsche Bank is not acting as your impartial adviser, and does not express any opinion or recommendation whatsoever as to any strategies, products or any other information presented in the materials. Information contained herein is being provided solely on the basis that the recipient will make an independent assessment of the merits of any investment decision, and it does not constitute a recommendation of, or express an opinion on, any product or service or any trading strategy.

The information presented is general in nature and is not directed to retirement accounts or any specific person or account type, and is therefore provided to You on the express basis that it is not advice, and You may not rely upon it in making Your decision. The information we provide is being directed only to persons we believe to be financially sophisticated, who are capable of evaluating investment risks independently, both in general and with regard to particular transactions and investment strategies, and who understand that Deutsche Bank has financial interests in the offering of its products and services. If this is not the case, or if You are an IRA or other retail investor receiving this directly from us, we ask that you inform us immediately.

In July 2018, Deutsche Bank revised its rating system for short term ideas whereby the branding has been changed to Catalyst Calls ("CC") from SOLAR ideas; the rating categories for Catalyst Calls originated in the Americas region have been made consistent with the categories used by Analysts globally; and the effective time period for CCs has been reduced from a maximum of 180 days to 90 days.

United States: Approved and/or distributed by Deutsche Bank Securities Incorporated, a member of FINRA, NFA and SIPC. Analysts located outside of the United States are employed by non-US affiliates that are not subject to FINRA regulations.

European Economic Area (exc. United Kingdom): Approved and/or distributed by Deutsche Bank AG, a joint stock corporation with limited liability incorporated in the Federal Republic of Germany with its principal office in Frankfurt am Main. Deutsche Bank AG is authorized under German Banking Law and is subject to supervision by the European Central Bank and by BaFin, Germany's Federal Financial Supervisory Authority.

United Kingdom: Approved and/or distributed by Deutsche Bank AG acting through its London Branch at Winchester House, 1 Great Winchester Street, London EC2N 2DB. Deutsche Bank AG in the United Kingdom is authorised by the Prudential Regulation Authority and is subject to limited regulation by the Prudential Regulation Authority and Financial Conduct Authority. Details about the extent of our authorisation and regulation are available on request.

Hong Kong SAR: Distributed by Deutsche Bank AG, Hong Kong Branch, except for any research content relating to futures contracts within the meaning of the Hong Kong Securities and Futures Ordinance Cap. 571. Research reports on such futures contracts are not intended for access by persons who are located, incorporated, constituted or resident in Hong Kong. The author(s) of a research report may not be licensed to carry on regulated activities in Hong Kong, and if not licensed, do not hold themselves out as being able to do so. The provisions set out above in the 'Additional Information' section shall apply to the fullest extent permissible by local laws and regulations, including without limitation the Code of Conduct for Persons Licensed or Registered with the Securities and Futures Commission. This report is intended for distribution only to 'professional investors' as defined in Part 1 of Schedule of the SFO. This document must not be acted or relied on by persons who are not professional investors. Any investment or investment activity to which this document relates is only available to professional investors and will be engaged only with professional investors.

India: Prepared by Deutsche Equities India Private Limited (DEIPL) having CIN: U65990MH2002PTC137431 and registered office at 14th Floor, The Capital, C-70, G Block, Bandra Kurla Complex Mumbai (India) 400051. Tel: + 91 22 7180 4444. It is registered by the Securities and Exchange Board of India (SEBI) as a Stock broker bearing registration no.: INZ000252437;



Merchant Banker bearing SEBI Registration no.: INM000010833 and Research Analyst bearing SEBI Registration no.: INH000001741. DEIPL may have received administrative warnings from the SEBI for breaches of Indian regulations. Deutsche Bank and/or its affiliate(s) may have debt holdings or positions in the subject company. With regard to information on associates, please refer to the "Shareholdings" section in the Annual Report at: <https://www.db.com/ir/en/annual-reports.htm>.

Japan: Approved and/or distributed by Deutsche Securities Inc.(DSI). Registration number - Registered as a financial instruments dealer by the Head of the Kanto Local Finance Bureau (Kinsho) No. 117. Member of associations: JSDA, Type II Financial Instruments Firms Association and The Financial Futures Association of Japan. Commissions and risks involved in stock transactions - for stock transactions, we charge stock commissions and consumption tax by multiplying the transaction amount by the commission rate agreed with each customer. Stock transactions can lead to losses as a result of share price fluctuations and other factors. Transactions in foreign stocks can lead to additional losses stemming from foreign exchange fluctuations. We may also charge commissions and fees for certain categories of investment advice, products and services. Recommended investment strategies, products and services carry the risk of losses to principal and other losses as a result of changes in market and/or economic trends, and/or fluctuations in market value. Before deciding on the purchase of financial products and/or services, customers should carefully read the relevant disclosures, prospectuses and other documentation. 'Moody's', 'Standard Poor's', and 'Fitch' mentioned in this report are not registered credit rating agencies in Japan unless Japan or 'Nippon' is specifically designated in the name of the entity. Reports on Japanese listed companies not written by analysts of DSI are written by Deutsche Bank Group's analysts with the coverage companies specified by DSI. Some of the foreign securities stated on this report are not disclosed according to the Financial Instruments and Exchange Law of Japan. Target prices set by Deutsche Bank's equity analysts are based on a 12-month forecast period..

Korea: Distributed by Deutsche Securities Korea Co.

South Africa: Deutsche Bank AG Johannesburg is incorporated in the Federal Republic of Germany (Branch Register Number in South Africa: 1998/003298/10).

Singapore: This report is issued by Deutsche Bank AG, Singapore Branch (One Raffles Quay #18-00 South Tower Singapore 048583, 65 6423 8001), which may be contacted in respect of any matters arising from, or in connection with, this report. Where this report is issued or promulgated by Deutsche Bank in Singapore to a person who is not an accredited investor, expert investor or institutional investor (as defined in the applicable Singapore laws and regulations), they accept legal responsibility to such person for its contents.

Taiwan: Information on securities/investments that trade in Taiwan is for your reference only. Readers should independently evaluate investment risks and are solely responsible for their investment decisions. Deutsche Bank research may not be distributed to the Taiwan public media or quoted or used by the Taiwan public media without written consent. Information on securities/instruments that do not trade in Taiwan is for informational purposes only and is not to be construed as a recommendation to trade in such securities/instruments. Deutsche Securities Asia Limited, Taipei Branch may not execute transactions for clients in these securities/instruments.

Qatar: Deutsche Bank AG in the Qatar Financial Centre (registered no. 00032) is regulated by the Qatar Financial Centre Regulatory Authority. Deutsche Bank AG - QFC Branch may undertake only the financial services activities that fall within the scope of its existing QFCRA license. Its principal place of business in the QFC: Qatar Financial Centre, Tower, West Bay, Level 5, PO Box 14928, Doha, Qatar. This information has been distributed by Deutsche Bank AG. Related financial products or services are only available only to Business Customers, as defined by the Qatar Financial Centre Regulatory Authority.

Russia: The information, interpretation and opinions submitted herein are not in the context of, and do not constitute, any appraisal or evaluation activity requiring a license in the Russian Federation.

Kingdom of Saudi Arabia: Deutsche Securities Saudi Arabia LLC Company (registered no. 07073-37) is regulated by the Capital Market Authority. Deutsche Securities Saudi Arabia may undertake only the financial services activities that fall within the scope of its existing CMA license. Its principal place of business in Saudi Arabia: King Fahad Road, Al Olaya District, P.O. Box 301809, Faisaliah Tower - 17th Floor, 11372 Riyadh, Saudi Arabia.

United Arab Emirates: Deutsche Bank AG in the Dubai International Financial Centre (registered no. 00045) is regulated by the Dubai Financial Services Authority. Deutsche Bank AG - DIFC Branch may only undertake the financial services activities that fall within the scope of its existing DFSA license. Principal place of business in the DIFC: Dubai International Financial Centre, The Gate Village, Building 5, PO Box 504902, Dubai, U.A.E. This information has been distributed by Deutsche Bank AG. Related financial products or services are available only to Professional Clients, as defined by the Dubai Financial Services Authority.

Australia and New Zealand: This research is intended only for 'wholesale clients' within the meaning of the Australian Corporations Act and New Zealand Financial Advisors Act, respectively. Please refer to Australia-specific research disclosures and related information at <https://australia.db.com/australia/content/research-information.html> Where research refers to any particular financial product recipients of the research should consider any product disclosure statement, prospectus or other applicable disclosure document before making any decision about whether to acquire the product. In preparing this report, the primary analyst or an individual who assisted in the preparation of this report has likely been in contact with the company that is the subject of this research for confirmation/clarification of data, facts, statements, permission to use company-sourced material in the report, and/or site-visit attendance. Without prior approval from Research Management, analysts may not



accept from current or potential Banking clients the costs of travel, accommodations, or other expenses incurred by analysts attending site visits, conferences, social events, and the like. Similarly, without prior approval from Research Management and Anti-Bribery and Corruption ("ABC") team, analysts may not accept perks or other items of value for their personal use from issuers they cover.

Additional information relative to securities, other financial products or issuers discussed in this report is available upon request. This report may not be reproduced, distributed or published without Deutsche Bank's prior written consent.

Backtested, hypothetical or simulated performance results have inherent limitations. Unlike an actual performance record based on trading actual client portfolios, simulated results are achieved by means of the retroactive application of a backtested model itself designed with the benefit of hindsight. Taking into account historical events the backtesting of performance also differs from actual account performance because an actual investment strategy may be adjusted any time, for any reason, including a response to material, economic or market factors. The backtested performance includes hypothetical results that do not reflect the reinvestment of dividends and other earnings or the deduction of advisory fees, brokerage or other commissions, and any other expenses that a client would have paid or actually paid. No representation is made that any trading strategy or account will or is likely to achieve profits or losses similar to those shown. Alternative modeling techniques or assumptions might produce significantly different results and prove to be more appropriate. Past hypothetical backtest results are neither an indicator nor guarantee of future returns. Actual results will vary, perhaps materially, from the analysis.

The method for computing individual E,S,G and composite ESG scores set forth herein is a novel method developed by the Research department within Deutsche Bank AG, computed using a systematic approach without human intervention. Different data providers, market sectors and geographies approach ESG analysis and incorporate the findings in a variety of ways. As such, the ESG scores referred to herein may differ from equivalent ratings developed and implemented by other ESG data providers in the market and may also differ from equivalent ratings developed and implemented by other divisions within the Deutsche Bank Group. Such ESG scores also differ from other ratings and rankings that have historically been applied in research reports published by Deutsche Bank AG. Further, such ESG scores do not represent a formal or official view of Deutsche Bank AG.

It should be noted that the decision to incorporate ESG factors into any investment strategy may inhibit the ability to participate in certain investment opportunities that otherwise would be consistent with your investment objective and other principal investment strategies. The returns on a portfolio consisting primarily of sustainable investments may be lower or higher than portfolios where ESG factors, exclusions, or other sustainability issues are not considered, and the investment opportunities available to such portfolios may differ. Companies may not necessarily meet high performance standards on all aspects of ESG or sustainable investing issues; there is also no guarantee that any company will meet expectations in connection with corporate responsibility, sustainability, and/or impact performance.

Copyright © 2021 Deutsche Bank AG



David Folkerts-Landau

Group Chief Economist and Global Head of Research

Pam Finelli
Global Chief Operating Officer
Research

Anthony Klarman
Global Head of
Debt Research

Michael Spencer
Head of APAC Research

Steve Pollard
Head of Americas Research
Global Head of Company
Research

Gerry Gallagher
Head of European
Company Research

Andreas Neubauer
Head of Germany Research

Peter Milliken
Head of APAC
Company Research

Jim Reid
Global Head of
Thematic Research

Francis Yared
Global Head of Rates Research

George Saravelos
Global Head of FX Research

Peter Hooper
Global Head of
Economic Research

International Production Locations

Deutsche Bank AG

Deutsche Bank Place
Level 16
Corner of Hunter & Phillip Streets
Sydney, NSW 2000
Australia
Tel: (61) 2 8258 1234

Deutsche Bank AG

Equity Research
Mainzer Landstrasse 11-17
60329 Frankfurt am Main
Germany
Tel: (49) 69 910 00

Deutsche Bank AG

Filiale Hongkong
International Commerce Centre,
1 Austin Road West, Kowloon,
Hong Kong
Tel: (852) 2203 8888

Deutsche Securities Inc.

2-11-1 Nagatacho
Sanno Park Tower
Chiyoda-ku, Tokyo 100-6171
Japan
Tel: (81) 3 5156 6000

Deutsche Bank AG

1 Great Winchester Street
London EC2N 2EQ
United Kingdom
Tel: (44) 20 7545 8000

Deutsche Bank Securities Inc.

60 Wall Street
New York, NY 10005
United States of America
Tel: (1) 212 250 2500
