

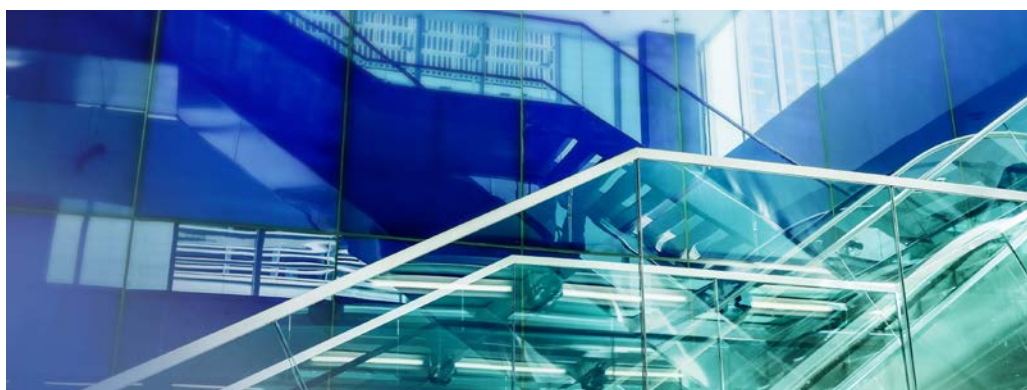
June 2020

Real Estate Strategies

Global real estate in the aftermath of the COVID-19 shock

Welcome to the latest edition of Real Estate Strategies

Severe global economic recession in H1 2020	2
Strong policy responses raise hopes for a rebound	2
Do not expect a repeat of the GFC for global real estate	3
The COVID-19 shock and its impact on real estate markets	3
Office market between structural change and cyclical influences	3
Global value add: 2020/2021 likely to be a strong vintage	4
European core: a defensive strategy to ride out macroeconomic uncertainty	5



- The COVID-19 pandemic is going to pull the global economy into a deep, but hopefully brief recession. Strong policy responses by governments and central banks around the world are likely to lead to an economic rebound as early as H2 2020.
- In contrast to the Global Financial Crisis (GFC), this downturn was not triggered by the burst of a real estate bubble, but rather by a health emergency. We believe commercial real estate assets are generally supported by wide risk premia, limited use of debt, and low supply pipeline.
- However, due to the severity of the economic shock, commercial real estate rents and values will also be impacted on a global scale. We believe that hotel and retail valuations will be most negatively affected. We anticipate substantial value declines.
- On the other end, logistic properties could even benefit mid-term from the wider adoption of online purchases experienced during the shutdown. We recommend further strengthening exposure to this segment. Weaknesses are likely to be temporary and could provide an appealing entry point.
- Office assets are influenced by structural change and cyclical factors:
 - **Structural factors:** The trend toward more flexible working models is likely to continue, even as some co-working providers could fail. Working from home will not bring an end to the office markets, but rather strengthen the differences between modern grade A spaces in well positioned micro and macro locations and obsolete “commodity type” grade B spaces in suburban locations.
 - **Cyclical factors:** Rental markets are likely to respond in different degrees based on the supply/demand balance. We provide a categorization per city.
- 2020/2021 is a great time to deploy assets into value-added strategies, as interesting opportunities have started to arise on a global scale. We expect these two vintages to deliver strong returns going forward. However, this also comes with a higher risk profile. Focus on value-added strategies that limit the use of leverage but target asset repositioning and market rebound stories.
- More risk-averse investors are likely to prefer core European strategies, since these are some of the most defensive alternatives. However, we recommend drastically limiting the exposure to retail properties in these portfolios.

This issue of Real Estate Strategies discusses the perspectives of commercial international real estate markets in the light of the COVID-19 shock to the global economy.

Severe global economic recession in H1 2020

The current situation in which we find ourselves is not only a threat to the health of large segments of our aging societies, but also to the global economy. Both soft and hard economic indicators have confirmed that GDP sharply contracted in Q1 2020 in most parts of the world. While the virus first struck in Wuhan, China, hot spots quickly spread to Europe and the US, prompting lockdowns that varied in severity by country and city. These measures that were implemented in an attempt to slow down the infection rates of the virus have also depressed economic activity in sectors that tend to be stable during recessions, such as retail sales or nontradable services (e.g. hairdressers). In addition to that, international flights were largely grounded from March to May, bringing both business and leisure travel to an abrupt halt.

Unemployment rates, usually only a lagging indicator, have jumped at a speed not seen since the Great Depression. Since mid-March, the number of people claiming unemployment benefits in the US has skyrocketed by 36 million. This corresponds to an increase in the unemployment rate of more than 10%. In parts of Europe, nearly 20%–30% of the workforce was put on a “short-term work” model, which is a social scheme that allows firms to retain employees on their payrolls with fewer working hours.

In light of these economic disruptions, there is no denying that many countries will fall into deep recessions. We believe GDP could drop by more than 10% in several countries globally in H1 2020. We feel that countries in Southern Europe (especially Italy and Spain), Latin America, France, Australia, and the UK will be more negatively affected, while Japan, South Korea, Germany, Central and Eastern Europe, and the US are likely to experience a less negative economic impact.

Strong policy responses raise hopes for a rebound

However, we caution against comparing this recession to historical declines in economic activity, as some portion of the economic decline is not a lasting effect caused by the interplay of market forces, but rather a consequence of government actions. At the same time, governments and central banks in all parts of the world have already enacted support measures that dwarf the actions taken during the GFC. The length and severity of the economic impact will also depend on the rate at which the number of new infections slow.

Table 1: Real GDP growth

Real GDP growth in %	2018	2019	2020E	2021E
Global	3.2	2.7	-3.4	4.6
Americas				
United States	2.9	2.3	-5.6	3.5
Canada	2.0	1.5	-3.0	4.0
Brazil	1.3	1.2	-3.5	5.1
Mexico	2.1	0.0	-9.6	1.2
Europe				
Eurozone	1.9	1.2	-8.5	8.1
France	1.7	1.2	-9.7	9.4
Germany	1.5	0.6	-6.1	5.9
Italy	0.7	0.2	-12.1	11.3
Netherlands	2.6	1.7	-6.8	5.0
Spain	2.4	2.0	-10.5	10.2
Ireland	8.2	5.7	-7.9	6.1
Poland	5.2	4.6	1.0	2.0
UK	1.3	1.4	-9.2	9.1
Switzerland	2.8	0.9	-3.5	3.5
Asia-Pacific				
Japan	0.3	0.7	-3.9	1.0
Australia	2.7	2.0	-6.0	5.0
China	6.6	6.1	3.3	5.6
Hong Kong	3.0	-1.2	-2.7	2.3
South Korea	2.7	2.0	0.3	2.9
Singapore	3.1	0.7	-0.8	2.0

Sources: Credit Suisse, European Commission
Last data point: May 13, 2020

Most countries are likely to reopen their economies in June. A second lockdown would cause a more serious hit to the economic and psychological sentiment. On the other hand, the fiscal measures are expected to provide an impetus to economic activity starting as early as Q3 2020. That is why we think that economies could recoup some of the economic losses from H1 toward the end of the year. In 2021, we expect a broad recovery (see Table 1), but GDP growth is likely to remain limited or even negative over this two-year period.

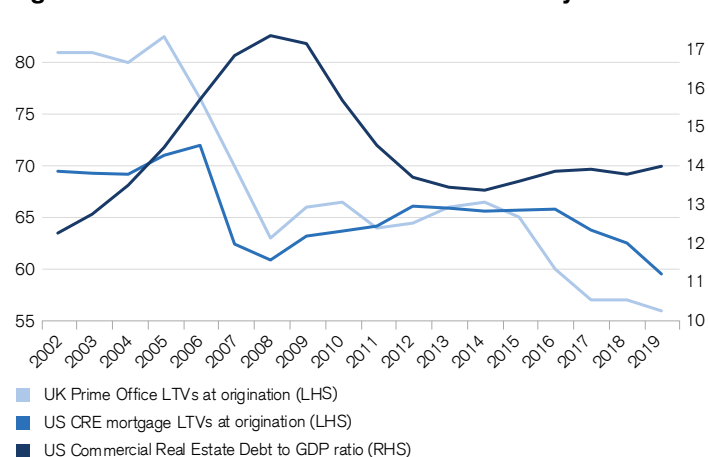
The various pledges from central banks, such as the Fed, to buy sub-investment-grade corporate bonds, commercial mortgage-backed securities, and collateralized loan obligations, or the scale quantitative easing in Europe have successfully calmed money and financial markets for now. However, bank margins for real estate lending have increased between 50 to 200 basis points (bps) from the levels seen pre-COVID-19. Should financial markets improve further, lending rates could edge back down as well. However, we need still to be watchful in terms of potential defaults and insolvencies to come, as this could bring back a risk-off sentiment in lending.

Do not expect a repeat of the GFC for global real estate

While some pundits have been comparing the current situation to the GFC, we believe that it differs largely from those days for the following reasons:

- Supportive relative valuations:** In 2008, a strong overheating of commercial real estate could be seen in the yield differential between prime property and ten-year government bonds. These were even negative in some cities, such as London (around -150 bps). This showed that commercial real estate was in a bubble. Today, those spreads are between 300 to 500 bps in favor of commercial real estate in most global cities. In the historical context, this corresponds to levels substantially above the long-term average and should be supportive of valuations. For London prime offices, the spread today is a striking 550 bps higher than in 2007. Therefore, the downside should also be more limited.
- Limited use of leverage:** In the run-up of prices before the GFC, real estate was characterized by excessive risk-taking behavior. Most investors were using high debt loads, some peak vintage deals were financed by loan-to-value ratios (LTV) over 90%. Figure 1 shows that LTVs at origination have actually fallen in recent years in both the UK and the US as equity has become a more important funding source. LTVs are currently on average 15%–20% lower than in 2008. Also, the commercial mortgage debt to GDP ratio today is much lower in the US. This stands in contrast to the use of debt outside the real estate industry. Corporate, consumer, and government debt burdens have increased substantially since the GFC, while real estate investors generally acted more cautiously after getting burned in the last cycle. However, there were also exceptions, as some will painfully discover.
- Low construction activity and pipeline:** Real estate rental markets have experienced a long recovery period worldwide. Positive demand and low levels of completions have both driven this trend. As Figure 2 highlights, vacancy rates for office properties have declined in recent years and continued to remain on very low levels in Q1 2020 in many cities around the world. In Tokyo, inner-city Paris, and Munich, vacancy rates have even fallen to around 2% or lower. This low level of vacancies is also clearly the result of a tamer development cycle than that experienced in recent years. Current data show that the pipeline in most global cities remains limited.

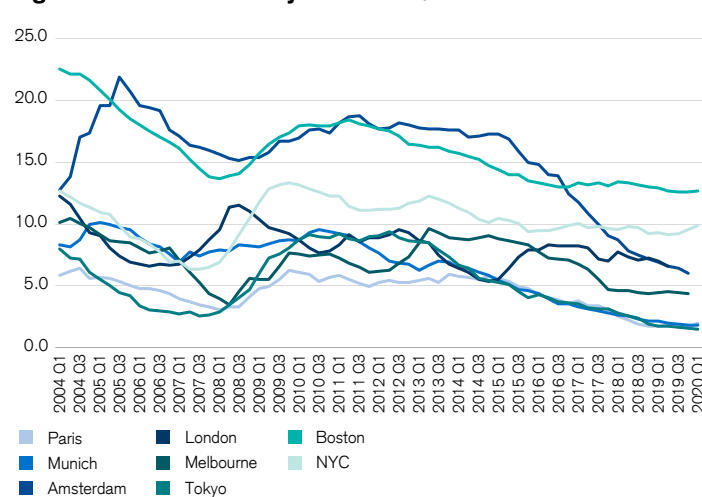
Figure 1: Cautious use of debt in the current cycle



Sources: RCA, Eikon, Credit Suisse

Last data point: Q4 2019

Figure 2: Office vacancy rate as a % of total stock



Sources: PMA, Credit Suisse

Last data point: Q1 2020

The COVID-19 shock and its impact on global real estate markets

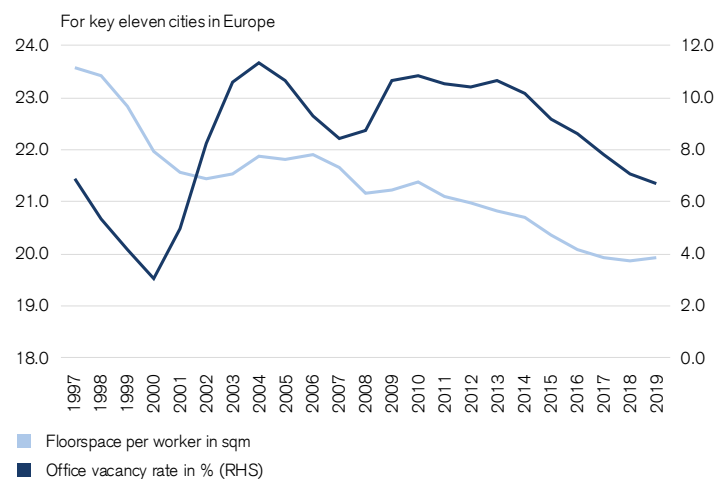
As highlighted above, real estate markets entered the COVID-19 recession in a strong shape, coming from a period of slow, but positive, rental growth. In particular, core assets were financed by rather conservative structures and the ample use of equity. Real estate is, on the one hand, a real asset class, and it reacts to changing economic environments and financial conditions. On the other hand, real estate is a heterogeneous asset class. Every deal is different and is subject to individual circumstances. We believe that a severe economic shock such as the current one will impact real estate transactional markets, rental markets, and financing markets. The demand for rental space typically falls back and capitalization rates tend to rise in these periods. The disruption to international travel will, however, first bring about several quarters of illiquidity before we see any broader evidence on pricing. We anticipate that retail and hotel properties will generally be most negatively affected and are likely to experience substantial value drops. Hotels are impacted due to the short-term nature of rental contracts and are the most volatile real estate segment. They tend to suffer during crises, but typically bounce back quickly once the environment for business and leisure travel improves. Retail properties, on the other hand, have been influenced by a negative structural trend. We expect to continue to see challenges in the coming years. Logistics properties are carried by the structural trend toward online shopping. These trends have accelerated even more during the lockdowns, most particularly in the food segment. We remain optimistic that logistics will remain a positive trend, even if some assets could also suffer due to the economic challenges. We provide detailed comments by segment in Figure 4 on page 5.

Office market between structural change and cyclical influences

For office assets, we expect some negative impact in general, as offices are a cyclical asset segment. However, the downside will be more limited than during the GFC, and markets are anticipated to rebound next year. Our outlook also greatly depends on the macro and micro location, building quality, tenants, and financing structure of the underlying assets or portfolios. We also need to distinguish between structural and cyclical influences. Structural change is the most essential question for long-term investors. Many office buildings have remained largely empty during the lockdowns in cities around the globe,

as working from home became the preferred working model due to the lockdown policies in place. This raises fundamental questions as to whether some employers will more strongly endorse working from home in the future, and whether that will negatively impact demand for office space similar to what we have recently seen for retail properties.

Figure 3: Lower vacancy rates despite lower floorspace usage per worker



Sources: PMA, Credit Suisse

Last data point: Q4 2019

We do not find this question concerning. As you may remember from our past research, we have highlighted an ongoing structural trend toward a more flexible working environment. On the one hand, this includes the adoption of flex space and co-working spaces in addition to traditional corporate office spaces. On the other hand, we have seen the trend of more people working from home and office spaces being remodeled to include more amenities for some time.

While we think that employers will be more likely to support their employees working from home due to the mostly positive experiences with remote working during the lockdowns, Figure 3 highlights the fact that floor space usage per worker has already dropped by 15% over the past 20 years. Investors need to realize that it is all about supply and demand. Due to these structural trends, demand was weaker in the current cycle compared to prior ones. In addition, supply grew at a much slower pace, allowing for a substantial decline of vacancy rates. We believe that lower-quality grade B spaces in the suburbs will suffer, but recently built grade A buildings that are situated along key city infrastructure in inner cities will see further demand in the mid and long term. Buildings with larger floor plans are likely to continue to be favored. Market rents, in general, will be supported by low supply growth. However, we anticipate that we will see more flexible leasing structures, a trend that has started in some co-working models.

Therefore, we believe that supply will continue to adapt to the needs of demand. Office assets are going to remain a sought-after asset class. Over the coming months, we could even see greater office space per worker as governmental regulations (e.g. in Germany and France) go into effect that require companies to have more space per worker due to health reasons. Some companies have already (temporarily) dropped the concept of desk-sharing models and prefer having one fixed desk for each employee.

However, the current supply and demand situation will determine the course of the evolution of rents over the coming 12 to 18 months. Pre-COVID-19, in our annual outlook in January, we assumed office rent prices would slow, but that rental growth in key cities in Asia, the Americas, and Europe would generally remain positive for 2020. Office demand is the result of companies' investment and hiring situations, both of which will decline substantially in 2020. Therefore, we also believe that rents will largely decline in most markets, but could rebound as early as next year. In Table 2, we grouped cities in three types: resilient markets are markets that are likely to see only limited impact in terms of rental downturns. The second group will see some stronger rental falls in 2020, either due to higher supply (CEE, Paris La Défense, and some US cities) or more cyclical demand (Australia and UK). The third group are cities that are more severely economically impacted by COVID-19, such as Spain or Italy, or are structurally negatively impacted like Hong Kong or Houston.

Table 2: Anticipated COVID-19 impact on office rental markets by city

Group characteristics	Anticipated rental path 2020–2021	Cities
Resilient cities due to low supply or stable sectors	Positive or rental declines up to -3%, rebound starting in 2021	Germany's top-7 cities, Paris CBD, Amsterdam, Vienna, Stockholm, Copenhagen, Brussels, Boston, Seattle, Portland, Seoul, Tokyo, Japanese regional cities
Some downside due to weaker demand or higher supply and delayed recovery	Downside rents in 2020 between 3% and 8%, delayed recovery	CEE, Dublin, French regional cities, London, UK regional cities, Helsinki, Oslo, NYC, San Francisco, Washington DC, LA, Chicago, Australian cities
Stronger COVID-19 or structural impact (tourism exposure)	More than 8% downside in 2020 rents, delayed recovery	Hong Kong, China's top-tier cities, Houston, Barcelona, Madrid, Rome, Paris La Défense, Milan, Miami, US suburban offices

Source: Credit Suisse Asset Management

Last data point: May 2020

The key question for investors is: How is this anticipated market evolution going to impact investment themes?

Global value add: 2020/2021 likely to be a strong vintage

We believe the current environment is an optimal situation to deploy assets into value-added funds. This segment also depends on the vintage year. Historically, we have been observing that assets deployed anti-cyclically in weaker economic situations, such as in 2009, also resulted in higher returns. We have highlighted that markets are likely to weaken somewhat. On the asset level, there will probably be even greater opportunities than perceivable on the market level, as there will also be insolvencies and mortgage defaults. In the US, we have already started to see some deals offered at weaker prices. We believe that these opportunities will first present themselves in liquid markets, such as London, San Francisco, and Australian cities. While there are still ample uncertainties, we also recommend diversifying globally. Despite large price falls for retail properties, we would rather focus on office, logistics, or residential properties.

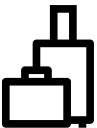



European core: a defensive strategy to ride out macroeconomic uncertainty

Value-added returns¹ apply higher leverage to target double-digit returns. Some investors would rather stay on the defensive side or have the need for open-ended structures. These kinds of strategies try to limit the fluctuations of asset values by investing in properties with longer leases and targeting tenants with better credit. We believe, in that case, that European core real estate strategies check most of the boxes.

Based on our analysis of historical volatilities, European core real estate is one of the least volatile strategies on a global scale. European core strategies employ low leverage and are focused on achieving stable income returns over the cycle. Tenant quality and the exposure to different segments and cities remains crucial. Multi-national companies, tenants from the professional service sectors, or government tenants are likely to be the most resilient source of income also during a sharp recession.

In the past, we have recommended that investors heavily underweight retail properties. Clients who have implemented our underweight retail recommendations will experience relative outperformance over the coming quarters. In terms of the office segment, we believe that some markets in Europe are likely to remain resilient, such as some German or Dutch cities. However, Southern European markets could suffer in 2020 and 2021. Regarding Spain, we would use the current weakness to gain access to core properties, as we believe the economic reforms in Spain will bear fruit in the future. In Spain in particular, access to high-quality real estate is easier during the downturn than during boom periods, when local capital has a competitive advantage.

Figure 4: Anticipated impact on commercial real estate

Hotels	Retail	Office	Logistics
			
<ul style="list-style-type: none">▪ Substantially negatively affected due to disruption to travel▪ Daily nature of rental contracts hurts performance▪ Sharp drop of occupancy, revenue per room, and net operating income (NOI) expected for hotels in 2020▪ Values could fall sharply depending on product and location▪ 2021 should recover slowly	<ul style="list-style-type: none">▪ Retail already in a crisis before COVID-19 disruption▪ CSAM research already negative on this segment for more than two years▪ Substantial immediate negative impact on cash flows, some tenants refuse to pay rent▪ Accelerated increase in cap rates▪ Groceries, pharmacies, discounters still positive	<ul style="list-style-type: none">▪ Limited negative impact anticipated▪ Depends on exposure to industries and tenants▪ Long-term leases to tenants favored▪ Assets with co-working, weak credit tenants negatively affected▪ Rental growth projections revised downwards▪ End of downward yield shift for now	<ul style="list-style-type: none">▪ Positively affected, continued positive trend▪ COVID-19 crisis accelerates online purchases▪ Online retailers, third-party logistics (3PL) to look to grow▪ Food shopping strongly accelerates▪ (Older) assets with weaker tenants exposed to global trade▪ Continued positive rental growth but stable cap rates in 2020

Source: Credit Suisse AM

Source: Credit Suisse Asset Management Global Real Estate

¹ Value added is one of the main four real estate macro strategies (Core, Core+, Value Added, and Opportunistic). So it makes reference to the returns targeted on this strategy.

These forecasts are not reliable indicators of future performance.

Publication details

Copyright:

The publication may be quoted provided the source is identified.

Copyright © 2020 Credit Suisse Group AG and/or associated companies. All rights reserved.

Date of publication:

June 2020

Publisher:

CREDIT SUISSE ASSET MANAGEMENT (Switzerland) Ltd.
Global Real Estate

Author:

Carolina Bocchini

E-mail: carolina.bocchini@credit-suisse.com

Ulrich Braun

E-mail: ulrich.braun@credit-suisse.com



IMPORTANT INFORMATION

**For Switzerland via CREDIT SUISSE ASSET MANAGEMENT (Switzerland) Ltd., CREDIT SUISSE (Switzerland) Ltd. and CREDIT SUISSE AG
For United Kingdom via CREDIT SUISSE ASSET MANAGEMENT (Switzerland) Ltd.**

Source: Credit Suisse, otherwise specified.

Unless noted otherwise, all illustrations in this document were produced by Credit Suisse Group AG and/or its affiliates with the greatest of care and to the best of its knowledge and belief.

The information provided herein constitutes marketing material. It is not investment advice or otherwise based on a consideration of the personal circumstances of the addressee nor is it the result of objective or independent research. The information provided herein is not legally binding and it does not constitute an offer or invitation to enter into any type of financial transaction. The information provided herein was produced by Credit Suisse Group AG and/or its affiliates (hereafter "CS") with the greatest of care and to the best of its knowledge and belief. The information and views expressed herein are those of CS at the time of writing and are subject to change at any time without notice. They are derived from sources believed to be reliable. CS provides no guarantee with regard to the content and completeness of the information and where legally possible does not accept any liability for losses that might arise from making use of the information. If nothing is indicated to the contrary, all figures are unaudited. The information provided herein is for the exclusive use of the recipient. Neither this information nor any copy thereof may be sent, taken into or distributed in the United States or to any U. S. person (within the meaning of Regulation S under the US Securities Act of 1933, as amended). It may not be reproduced, neither in part nor in full, without the written permission of CS. Investment principal on bonds can be eroded depending on sale price, market price or changes in redemption amounts. Care is required when investing in such instruments. The key risks of real estate investments include limited liquidity in the real estate market, changing mortgage interest rates, subjective valuation of real estate, inherent risks with respect to the construction of buildings and environmental risks (e.g., land contamination). Investments in foreign currencies involve the additional risk that the foreign currency might lose value against the investor's reference currency.

This document is approved for distribution offshore via Credit Suisse AG in the following countries: Austria, Argentina, Bahamas, Bahrain, Belgium, Belize, Brazil, Chile, Colombia, Costa Rica, Croatia, Czech Republic, Cyprus, Denmark, DIFC, Dominican Republic, Ecuador, Egypt, El Salvador, Finland, France, Greece, Guatemala, Honduras, Ireland, Italy, Kazakhstan, Kuwait, Lebanon, Liechtenstein, Lithuania, Mexico, Monaco, Netherlands, Nicaragua, Norway, Oman, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Russia, Saudi Arabia, South Africa, Spain, Sweden, Turkey, UAE, Ukraine, Uruguay Venezuela

For Russia via CREDIT SUISSE AG

This communication/document contains information on securities, derivatives and other financial instruments designed for qualified investors recognized as such by operation of law or in accordance with the procedure set by applicable Russian law. This document is provided to you for information purposes only and in Russia it shall be exclusively used by recipients, who are Qualified Investors as defined by the applicable Russian legislation.

For Uruguay via CREDIT SUISSE AG

This is a private offering. The offered securities, if applicable, are not registered with the Superintendence of Financial Services or with the Central Bank of Uruguay.

For Oman via CREDIT SUISSE AG

The information contained in this document neither constitutes a public offer of securities in the Sultanate of Oman as contemplated by the Commercial Companies Law of Oman (Royal Decree 4/74) or the Capital Market Law of Oman (Royal Decree 80/98), nor does it constitute an offer to sell, or the solicitation of any offer to buy Non-Omani securities in the Sultanate of Oman as contemplated by Article 139 of the Executive Regulations to the Capital Market Law (issued by Decision No. 1/2009). Additionally, this private placement memorandum is not intended to lead to the conclusion of any contract of whatsoever nature within the territory of the Sultanate of Oman.

For South Africa via CREDIT SUISSE AG

The legal entities Credit Suisse AG (FSP number 9788) and Credit Suisse UK (FSP number 48779) are registered as financial services providers with the Financial Sector Conduct Authority in South Africa.

For Germany via CS Asset Management (Switzerland) Ltd. and via CREDIT SUISSE AG

For professional investors only.

The information and views expressed herein are those of CS at the time of writing and are subject to change at any time without notice. They are derived from sources believed to be reliable. CS provides no guarantee with regard to the content and completeness of the information. If nothing is indicated to the contrary, all figures are unaudited. The information provided herein is for the exclusive use of the recipient.

For Spain via Credit Suisse AG., Sucursal en Espana

Spain, this marketing material is distributed in Spain by CS AG., Sucursal en Espana, legal entity registered at Comisión Nacional del Mercado de Valores.

For Spain via CS Securities, Sociedad de Valores, S.A

In Spain, this marketing material is distributed in Spain by CS Securities, Sociedad de Valores, S.A, legal entity registered at Comisión Nacional del Mercado de Valores.

For Germany and Austria via CREDIT SUISSE (DEUTSCHLAND) AKTIENGESELLSCHAFT

For professional investors only.

This document was produced by Credit Suisse AG and/or its affiliates (hereafter "CS") with the greatest of care and to the best of its knowledge and belief. The opinions expressed in this document are those of CS at the time of writing and are subject to change at any time without notice. If nothing is indicated to the contrary, all figures are unaudited. This document is provided for information purposes only and is for the exclusive use of the recipient. It does not constitute an offer or a recommendation to buy or sell financial instruments or banking services and does not release the recipient from exercising his/her own judgment. The recipient is in particular recommended to check that the information provided is in line with his/her own circumstances with regard to any legal, regulatory, tax or other consequences, if necessary with the help of a professional advisor. This document may not be reproduced either in part or in full without the written permission of CS. This document applies exclusively to clients in Germany. It is expressly not intended for persons who, due to their nationality or place of residence, are not permitted access to such information under local law. Neither this document nor any copy thereof may be sent, taken into or distributed in the United States or to any U. S. person (within the meaning of Regulation S under the US Securities Act of 1933, as amended). Every investment involves risk, especially with regard to fluctuations in value and return. Investments in foreign currencies involve the additional risk that the foreign currency might lose value against the investor's reference currency. Historical performance indications and financial market scenarios are no reliable indicator for current or future performance. Furthermore, no guarantee can be given that the performance of the benchmark will be reached or outperformed. In connection with the provision of services, Credit Suisse AG and/or its affiliates may pay to third parties, or receive from third parties as part of their compensation or otherwise, one-time or recurring inducements (e.g. sales charges, placement or holding fees). You may request further information from your bank/relationship manager. Potential conflicts of interest cannot be excluded. This document qualifies as marketing material that has been published for advertising purposes. It must not be read as independent research.

CREDIT SUISSE (DEUTSCHLAND) AKTIENGESELLSCHAFT Taanustor 1 D-60310 Frankfurt am Main	Service-Line: Telephone: +49 (0) 69 7538 1111 Telefax: +49 (0) 69 7538 1796 E-Mail: investment.fonds@credit-suisse.com
---	---

For Austria via CS (Luxembourg) S.A. Zweigniederlassung Österreich

For professional investors only.

This document constitutes marketing material within the meaning of WAG 2018 and is not the result of a financial analysis or research. The content of this document does therefore not fulfill the legal requirements for the independence of financial research and there is no restriction on trading prior to publication of financial research. The opinions expressed in this document are those of CS at the time of writing and are subject to change at any time without notice. The information and analyses contained in this publication have been gathered from sources that are generally considered to be reliable (such as specialized financial services providers, regulated markets). However, the Bank makes no representation as to the accuracy or completeness of such information in relation to the products described and does not accept liability for losses arising from uncritical reliance on such information. The Bank advises every investor or potential investor to personally verify the accuracy of such information and to consult all relevant information in order to construe his own independent opinion, if necessary, with the assistance of a specialist, before taking any investment decision, including the decision to enter into transactions with respect to the financial instruments mentioned therein or to choose an applicable investment strategy. The client, and not the Bank, will be solely liable for any damages caused by the transmission to the Bank of false, inaccurate, outdated or incomplete client related data. The client shall inform the Bank of any change in his/her financial situation and/or his/her investment knowledge and experience and, in particular of changes which impact or are likely to impact the suitability of the investment service proposal made herein by the Bank. Outside of the provision of portfolio management services to a client or unless otherwise agreed, the Bank has, in accordance with the General Terms and Conditions of the Bank, no obligation to continuously monitor investments of clients with regard to inter alia price, quality or compliance with their chosen strategy. In such cases, the client makes all investment decisions independently and bears all risks of losses in connection with such decisions. Even if the Bank provides the client with investment advice or proposals, this does not place the Bank under any obligation to do so in future and/or regularly, nor is there any obligation for the Bank to monitor the performance of the investment proposals. Past performance, simulations and forecasts are not a reliable indicator of future results. Currency fluctuations may influence investments in foreign currencies and the return on such investments. The information contained herein is only valid at the time this document has been produced. In particular, the information may be outdated at the time of the recipient's investment decision (including the decision to enter into transactions with respect to the financial instruments mentioned therein or to choose an applicable investment strategy) due to various elements. A change in the economic environment, possible changes in the law, subsequent changes or corrections by the Bank and other events may cause future performance to deviate from that expressed or implied in the present document. When giving advice or expressing opinions regarding the management of assets in this document, the Bank shall use its best endeavors, but shall only be liable for its gross negligence or willful misconduct. The Bank and/or a CREDIT SUISSE GROUP company may, to the extent permitted by law, participate or invest in other financing transactions with the issuer of the financial instruments referred to herein, perform services or solicit business from such issuers, and/or have a position or effect transactions in the financial instruments or options thereof. Further information concerning the conflict of interest policy of the Bank as well as more generally the services offered by the Bank and the investor compensation and deposit guarantee scheme in Luxembourg can be found in the brochure "Your Banking Relationship with CREDIT SUISSE (LUXEMBOURG) S.A. ZWEIGNIEDERLASSUNG ÖSTERREICH - Client Information Booklet", which is available from your relationship manager. Investments in financial instruments may involve a high degree of complexity and risk, or may be subject to financial market fluctuations due to various many factors such as issuers' operational and financial conditions, growth prospects, changes in interest rates, the economical and political situation, or changes in market conditions. Alternative investments, derivatives or structured products are complex instruments that typically involve a high degree of risk, and are intended for sale only to investors who are capable of understanding and assuming the risks involved. Investments in emerging markets are speculative and significantly more volatile than investments in traditional markets. Some of the main risks on such specific markets are of a political, economic, currency or market-related nature. Furthermore, investments in foreign currencies are subject to exchange rate fluctuations. Further information on the risks associated to investment products can be found in the brochure "Investment-Related Information / Disclosure of Risk", which is available upon request from your relationship manager. Investments in the investment products described in this document should be made only after carefully studying and reviewing the product documentation. The opportunities and risks associated with each product can be found in the relevant underlying securities prospectus and any other supplementary documents. All documents will be made available at any time upon request. Before entering into any transaction, investors should independently consider the financial risks as well as the legal, tax, credit and accounting consequences of that transaction. This document is not suitable for tax purposes. This document is not intended for persons who, due to their nationality or place of

residence, are not permitted to receive such information under local law. Neither this document nor any copy may be sent, taken into or distributed in the United States, the United Kingdom, Japan or Australia or given to any US person. This applies equally to other jurisdictions, unless such actions are performed in compliance with the applicable laws of such jurisdiction. This document was produced by CREDIT SUISSE (LUXEMBOURG) S.A. ZWEIGNIEDERLASSUNG ÖSTERREICH (hereinafter referred to as the "Bank"). The Bank is a branch of CREDIT SUISSE (LUXEMBOURG) S.A., a duly authorized credit institution in the Grand Duchy of Luxembourg with address 5, rue Jean Monnet, L-2180 Luxembourg. It is further subject to the prudential supervision of the Luxembourg supervisory authority, the Commission de Surveillance du Secteur Financier (CSSF), 283, route d'Arlon, L-1150 Luxembourg, Grand Duchy of Luxembourg as well as the Austrian financial markets supervisory authority, the Financial Market Authority (FMA), Otto-Wagner Platz 5, A-1090 Vienna. The entire business relationship between the client and the Bank is further governed by the General Terms and Conditions of the Bank as amended from time to time.

Copyright © 2020 CREDIT SUISSE (LUXEMBOURG) S.A. ZWEIGNIEDERLASSUNG ÖSTERREICH, Kärntner Ring 11–13, A-1010 Vienna, Austria, Commercial Register Number 285714v, Commercial Court of Vienna. A branch of CREDIT SUISSE (LUXEMBOURG) S.A., Registered Office in Luxembourg, 5, rue Jean Monnet, L-2180 Luxembourg, Registre de Commerce et des Sociétés Luxembourg no B 11756. All rights reserved.

For United Kingdom via SUISSE ASSET MANAGEMENT Ltd.

For Institutional/qualified investors only.

For United Kingdom via Credit Suisse International

For professional investors only.

When distributed from the United Kingdom, this is distributed by Credit Suisse International ("CSI") which is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

For United Kingdom, Denmark, Finland, Norway and Sweden via Credit Suisse Securities (Europe) Ltd.

For professional investors only.

When distributed from the United Kingdom, this is distributed by Credit Suisse Securities (Europe) Limited which is authorised by the Prudential Regulation Authority and regulated by the Financial Conduct Authority and the Prudential Regulation Authority.

For DIFC, Oman, Qatar, Egypt, Saudi Arabia, Kuwait, United Arab Emirates, Lebanon, Bahrain via Credit Suisse AG (DIFC Branch)

DIFC: This presentation can only be offered to Professional Clients or Market Counterparties. This material is personal to each offeree and may only be used by those persons to whom it has been handed out. This information is being distributed by Credit Suisse AG (DIFC Branch), duly licensed and regulated by the Dubai Financial Services Authority ("DFSA"). Related financial services or products are only made available to Professional Clients or Market Counterparties, as defined by the DFSA, and are not intended for any other persons. Credit Suisse AG (DIFC Branch) is located on Level 9 East, The Gate Building, DIFC, Dubai, United Arab Emirates.

For Residents of the Sultanate of Oman: The information contained in this document neither constitutes a public offer of securities in the Sultanate of Oman as contemplated by the Commercial Companies Law of Oman (Royal Decree 4/74) or the Capital Market Law of Oman (Royal Decree 80/98), nor does it constitute an offer to sell, or the solicitation of any offer to buy Non-Omani securities in the Sultanate of Oman as contemplated by Article 139 of the Executive Regulations to the Capital Market Law (issued by Decision No.1/2009). Additionally, this private placement memorandum is not intended to lead to the conclusion of any contract of whatsoever nature within the territory of the Sultanate of Oman.

For Bahrain via Credit Suisse AG Bahrain Branch

This material is distributed by Credit Suisse AG, Bahrain Branch, authorized and regulated by the Central Bank of Bahrain (CBB) as an Investment Business Firm Category 2. Related financial services or products are only made available to professional clients and Accredited Investors, as defined by the CBB, and are not intended for any other persons. The Central Bank of Bahrain has not reviewed, nor has it approved, this document or the marketing of any investment vehicle referred to herein in the Kingdom of Bahrain and is not responsible for the performance of any such investment vehicle. Credit Suisse AG, Foreign Branch, a branch of Credit Suisse AG, Zurich/Switzerland, is located at Level 21, East Tower, Bahrain World Trade Centre, Manama, Kingdom of Bahrain.

For Luxembourg via Credit Suisse (Luxembourg) S.A.

This document is distributed by CREDIT SUISSE (LUXEMBOURG) S.A., which is authorized as a credit institution in the Grand Duchy of Luxembourg and under the prudential supervision of the Luxembourg supervisory authority of the financial sector, the Commission de Surveillance du Secteur Financier (CSSF), 283, route d'Arlon, L-1150 and part of the Credit Suisse group. CREDIT SUISSE (LUXEMBOURG) S.A. was not involved in the production of this document. CREDIT SUISSE (LUXEMBOURG) S.A. provides no guarantee with regard to its content and completeness and does not accept any liability for losses which might arise from making use of this information. This document constitutes marketing material. It does not constitute an offer or a recommendation to buy or sell financial instruments or banking services and does not release the recipient from exercising his/her own judgment taking into consideration, among others, his/her financial situation, his/her knowledge and experience in banking/investment services, financial instruments and financial markets and his/her investment objectives. This document is addressed to the recipient on the basis of the recipient's explicit request. This document is for the exclusive use of the recipient. Any use of this information by the recipient is under the sole responsibility of the recipient. This document may not be reproduced or disseminated either in part or in full without the written permission of CREDIT SUISSE (LUXEMBOURG) S.A.. This document is not intended for persons who, due to their nationality or place of residence, are not permitted to receive such information under local law. Neither this document nor any copy thereof may be sent, taken into or distributed in the United States or to any US person (within the meaning of Regulation S under the US Securities Act of 1933, as amended) This applies equally to other jurisdictions, unless such actions are performed in compliance with the applicable laws of such jurisdiction. Copyright © 2020 CREDIT SUISSE (LUXEMBOURG) S.A., registered office: 5, rue Jean Monnet, L-2180 Luxembourg, Grand Duchy of Luxembourg, R.C.S. Luxembourg n° B 11756. All rights reserved.

For Belgium via Credit Suisse (Luxembourg) SA, Succursale en France

This document can only be offered to professional clients. This document is distributed by Credit Suisse (Luxembourg) S.A., Succursale en France.

This is distributed by Credit Suisse (Luxembourg) S.A., Succursale en France (the "France branch"), which is a branch of Credit Suisse (Luxembourg) S.A., a duly authorized credit institution in the Grand Duchy of Luxembourg with registered address 5, rue Jean Monnet, L-2180 Luxembourg. The France branch is subject to the prudential supervision of the Luxembourg supervisory authority, the Commission de Surveillance du Secteur Financier (CSSF), 283, route d'Arlon, L-1150 Luxembourg, Grand Duchy of Luxembourg and is further authorized and regulated in France by the Autorité de Contrôle Prudentiel et de Résolution (ACPR) and the Autorité des Marchés Financiers (AMF). The information provided herein constitutes marketing material. It is not investment advice or otherwise based on a consideration of the personal circumstances of the addressee nor is it the result of objective or independent research. The information provided herein is not legally binding and it does not constitute an offer or invitation to enter into any type of financial transaction. The information provided herein was produced by Credit Suisse Group AG and/or its affiliates (hereafter "CS") with the greatest of care and to the best of its knowledge and belief. The information and views expressed herein are those of CS at the time of writing and are subject to change at any time without notice. They are derived from sources believed to be reliable. CS provides no guarantee with regard to the content and completeness of the information and where legally possible does not accept any liability for losses that might arise from making use of the information. If nothing is indicated to the contrary, all figures are unaudited. The information provided herein is for the exclusive use of the recipient. The recipient is in particular recommended to check that the information provided is in line with his/her own circumstances with regard to any legal, regulatory, tax or other consequences, if necessary with the help of an external professional advisor. This document is not intended for person who, due to their nationality or place of residence, are not permitted to receive such information under local law. Neither this information nor any copy thereof may be sent, taken into or distributed in the United States or to any U. S. person (within the meaning of Regulation S under the US Securities Act of 1933, as amended). It may not be reproduced, neither in part nor in full, without the written permission of CS. The key risks of real estate investments include limited liquidity in the real estate market, changing mortgage interest rates, subjective valuation of real estate, inherent risks with respect to the construction of buildings and environmental risks (e.g., land contamination).

For Netherlands via Credit Suisse (Luxembourg) S.A., Netherlands Branch

This document is distributed by CREDIT SUISSE (LUXEMBOURG) S.A., Netherlands Branch, a branch of CREDIT SUISSE (LUXEMBOURG) S.A., a duly authorized credit institution in the Grand Duchy of Luxembourg with address 5, rue Jean Monnet, L-2180 Luxembourg, registered as a bank with the Commission de Surveillance du Secteur Financier, and part of the Credit Suisse group. This document has been prepared by Credit Suisse AG. CREDIT SUISSE (LUXEMBOURG) S.A., Netherlands Branch was not involved in the production of this document. CREDIT SUISSE (LUXEMBOURG) S.A., Netherlands Branch provides no guarantee with regard to its content and completeness and does not accept any liability for losses which might arise from making use of this information. This document constitutes

marketing material. It does not constitute investment research. It has not been prepared in accordance with legal requirements designed to promote the independence of investment research and it is not subject to any prohibition on dealing ahead of the dissemination of investment research. This document is intended only to provide general and preliminary information and shall not be construed as the basis for any investment decision nor as an offer or a solicitation to conclude a transaction in financial instruments or to subscribe to banking services. The liability of CREDIT SUISSE (LUXEMBOURG) S.A., Netherlands Branch may not be engaged as regards any investment, divestment or retention decision taken by an investor/recipient on the basis of this document. Each investor/recipient shall make his/her own appraisal of the tax, legal, accounting and other financial merits and risks of his/her investment regardless of the opinion expressed in the document. The investor bears all the risks of losses in connection with his/her investment. This document shall not be construed as a personal recommendation as regards the financial instruments/ investment strategies mentioned in the material. This document does not constitute an investment advice, it does not take into account the recipient's economic situation, his/her current assets or liabilities, his/her knowledge and experience in financial instruments and markets, his/her investment purposes, investment horizon, risk profile and preferences. This document is addressed to the recipient on the basis of the recipient's explicit request. This document is for the exclusive use of the recipient. Any use of this information by the recipient is under the sole responsibility of the recipient. This document may not be reproduced or disseminated either in part or in full without the written permission of CREDIT SUISSE (LUXEMBOURG) S.A., Netherlands Branch. This document is not intended for persons who, due to their nationality or place of residence, are not permitted to receive such information under local law. Neither this document nor any copy thereof may be sent, taken into or distributed in the United States or to any US person (within the meaning of Regulation S under the US Securities Act of 1933, as amended). This applies equally to other jurisdictions, unless such actions are performed in compliance with the applicable laws of such jurisdiction. Copyright © 2020 CREDIT SUISSE (LUXEMBOURG) S.A., Netherlands Branch registered office: Honthorststraat 19, 1071 DC Amsterdam, the Netherlands. All rights reserved.

For Portugal via CS (Luxembourg) S.A., Sucursal em Portugal

Important information for investors in Portugal: This marketing material is distributed in Portugal by Credit Suisse (Luxembourg) S.A. - Sucursal Portugal, who is an investment service provider authorized and regulated by the Comissão do Mercado dos Valores Mobiliários (the "CMVM"), and relates to the service of discretionary portfolio management to be rendered by Credit Suisse (Luxembourg) S.A., who is an investments service provider authorized and regulated by the Commission de Surveillance du Secteur Financier (the "CSSF"), in Luxembourg.

For Italy via Credit Suisse Italy S.p.A

For Professional Investors only.

This document was produced by Credit Suisse with the greatest of care and to the best of its knowledge and belief. However Credit Suisse provides no guarantee with regard to its content and completeness and does where legally possible not accept any liability for losses which might arise from making use of this information. The opinions expressed in this document are those of Credit Suisse at the time of writing and are subject to change at any time without notice. If nothing is indicated to the contrary, all figures are not audited. This document is provided for information purposes only and is for the exclusive use of the recipient. It does not constitute an offer or a recommendation to buy or sell financial instruments or banking services and does not release the recipient from exercising his/her own judgment. Financial instruments mentioned in this document could be considered complex products and therefore may not be suitable for retail clients. The recipient is in particular recommended to check that the information provided is in line with his/her own circumstances with regard to any legal, regulatory, tax or other consequences, if necessary with the help of a professional advisor. This document may not be reproduced either in part or in full without the written permission of Credit Suisse. It is expressly not intended for persons who, due to their nationality or place of residence, are not permitted access to such information under local law. Every investment involves risk, especially with regard to fluctuations in value and return. Investments in foreign currencies involve the additional risk that the foreign currency might lose value against the investor's reference currency. Historical performance indications and financial market scenarios are no reliable indicators of current or future performance. Performance indications do not consider commissions levied at subscription and/or redemption. Furthermore, no guarantee can be given that the performance of the benchmark will be reached or outperformed.

PERFORMANCE OBTAINED IN THE PAST DOES NOT CONSTITUTE ANY WARRANTY FOR FUTURE. BEFORE THE SUBSCRIPTIONS READ THE PROSPECTUS.

Neither this document nor any copy thereof may be sent, taken into or distributed in the United States or to any U. S. person (within the meaning of Regulation S under the US Securities Act of 1933, as amended).

Copyright © 2020 Credit Suisse Group and/or its affiliates. All rights reserved. CREDIT SUISSE (ITALY) S.P.A. - Via Santa Margherita, 3 - 20121 Milano - Italy. csam@credit-suisse.com - www.credit-suisse.com/it

For Lebanon via Credit Suisse Lebanon

In Lebanon, this material is distributed by Credit Suisse (Lebanon) Finance SAL ("CSLF"), a financial institution incorporated in Lebanon, regulated by the Central Bank of Lebanon ("CBL") and having financial institution license number 42. Credit Suisse (Lebanon) Finance SAL is subject to the CBL laws and circulars as well as the laws and regulations of the Capital Markets Authority of Lebanon ("CMA"). CSLF is a subsidiary of Credit Suisse AG and part of the Credit Suisse Group (CS). The CMA does not accept any responsibility for the content of the information included in this material, including the accuracy or completeness of such information. The liability for the content of this material lies with the issuer, its directors and other persons, such as experts, whose opinions are included in the document with their consent. The CMA has also not assessed the suitability of the investment for any particular investor or type of investor. It is hereby expressly understood and acknowledged that investments in financial markets may involve a high degree of complexity and risk of loss in value and may not be suitable to all investors. The suitability assessment performed by CSLF with respect to this investment will be undertaken based on information that the investor would have provided to CSLF as at the date of such assessment and in accordance with Credit Suisse internal policies and processes. It is understood that the English language will be used in all communication and documentation provided by CS and/or CSLF. By accepting to invest in the product, the investor expressly and irrevocably confirms that he fully understands, and has no objection to the use of, the English language. This material is provided to you solely for informational purposes, is intended for your use only as you may deem appropriate, and does not constitute an offer or commitment, a solicitation of an offer or commitment, or any advice or personal recommendation, by any member of the CS Group of companies to enter into or conclude any transaction (whether on the indicative terms shown or otherwise). This material has been prepared by CS based on assumptions and parameters determined by it in good faith. The assumptions and parameters used are not the only ones that might reasonably have been selected and therefore no guarantee is given as to the accuracy, completeness or reasonableness of any such quotations, or disclosures. A variety of other or additional assumptions or parameters, or other market factors, indicators changes and other considerations, could result in different contemporaneous good faith analyses or assessment of the subject matter of this material. Past performance should not be taken as an indication or guarantee or guide of future performance, and no representation or warranty, express or implied, is made by any member of the CS Group of companies regarding future performance. The information set forth above has been obtained from or based upon sources believed by CS to be reliable, but neither CS nor any member of the CS Group of companies, including CSLF, represent or warrant its accuracy or completeness. This material does not purport to contain all of the information that an interested party may desire or require. In all cases, interested parties should conduct their own investigation and analysis of the transaction(s) subject matter of this material and of the data set forth in it. Each person receiving this material should make an independent assessment of the merits and risks of pursuing a transaction described therein and should consult his own professional financial, legal and tax advisors, and may not in any way whatsoever be released from exercising his/her own judgment. The information and opinions contained in this document were produced as per the date stated thereon and may be subject to change without prior notification. If there is no express written indication to the contrary, please consider all figures provided to be unaudited. Only the provisions, conditions, restrictions and risk warnings contained in the client's current agreement with CS are legally binding. Neither CS, nor CSLF, accepts liability for any loss or damage arising from the use of this document nor from the risks inherent to financial markets. Investment products may involve a high degree of complexity and risk, or may be subject to stock market fluctuations (including losses) and consequently to fluctuations (including loss) in value, price and income, resulting in the investor not getting back the initial amount invested. In connection with the provision of services, CS and CSLF may receive fees, commissions, reimbursements, discounts or other monetary or non-monetary benefits which will form an additional part of CS's and CSLF's compensation set forth for the relevant service. Part of the capital invested may be used to pay any of these amounts. In receiving payments by third parties, Credit Suisse and/or CSLF's interests may be adverse to those of their clients. Detailed information on remunerations and/or potential or actual conflicts of interests will be disclosed to the relevant client and managed appropriately, in accordance with CMA Regulations and CS Internal policies and procedures. This document is not intended for persons who, due to their nationality or place of residence or any other reason, are not permitted to receive such information under local law. The same applies in any other jurisdiction except where compliant with the applicable laws. This document may not be reproduced in part or in full without the prior written consent of Credit Suisse.

For Qatar via CS QATAR LLC

This information has been distributed by Credit Suisse (Qatar) L.L.C., which is duly authorized and regulated by the Qatar Financial Centre Regulatory Authority (QFCRA) under QFC License No. 00005. All related financial products or services will only be available to Eligible Counterparties (as defined by the QFCRA) or Business Customers (as defined by the QFCRA), including individuals, who have opted to be classified as a Business Customer, with net assets in excess of QR 4 million, and who have sufficient financial knowledge, experience and understanding to participate in such products and/or services. Therefore this information must not be delivered to, or relied on by, any other type of individual.

Warning: Past performance is not a reliable guide to future performance. These figures are estimates only. They are not a reliable guide to the future performance of this investment.

For Russia via Credit Suisse Moscow / БАНК КРЕДИТ СВИСС (МОСКВА)

This document is provided to you for information purposes only and in Russia it shall be exclusively used by recipients, who are Qualified Investors as defined by the applicable Russian legislation.

This communication/document was prepared by Joint Stock Company "Bank Credit Suisse (Moscow)" (the "Bank"), a bank and a professional participant of the securities market licensed by the Bank of Russia, and contains or may contain information about offerings and/or services of Credit Suisse AG and/or its affiliates. This communication/document is provided to you for information purposes only and does not constitute advertising, valuation, investment advice or individual investment advice and does not contain a recommendation to buy or sell any securities, derivatives or any other financial instruments, banking or any other services. This communication/document does not constitute an offer, as defined in Article 435 of the Civil Code of the Russian Federation, or commitment of an offer. This communication/document contains information on securities, derivatives and other financial instruments designed for qualified investors recognized as such by operation of law or in accordance with the procedure set by applicable Russian law. This communication/document is only addressed to and directed at qualified investors. In cases stipulated by applicable law, any securities, derivatives or any other financial instruments designed for qualified investors may be purchased by you only if you are recognized as a qualified investor. This communication/document was prepared by the Bank or its affiliates with the greatest of care and to the best of their knowledge and belief. However, the Bank provides no guarantee with regard to the content and completeness of the information and does not accept any liability for losses that might arise from making use of the information. The views expressed herein are those of the Bank or its affiliates at the time of writing and are subject to change at any time without notice. Unless stated otherwise, all figures in this communication/document are unaudited. Any sale or purchase of securities, derivatives or any other financial instruments described herein shall be considered subject to (i) the terms and conditions of the definitive transaction documents, (ii) additional approvals, disclosure and consents required by the Bank and/or applicable law. The securities, derivatives or any other financial instruments, banking or any other services mentioned in this communication/document may be unsuitable for the recipient. Specifically, the recipient should determine if the information provided herein suits his/her particular circumstances in the context of legal, regulatory, tax and other implications (if necessary, with professional advisers). Every investment involves risk, especially with regard to fluctuations in value and return. Historical returns and financial market scenarios are no guarantee of current or future performance. Investments in foreign currencies involve the additional risk that the foreign currency might lose value against the investor's reference currency. Performance indications do not consider commissions levied at subscription and/or redemption. This communication/document is not intended for persons who, due to their nationality, place of registration, residence or stay, are not permitted access to such information under applicable law. Neither this document nor any copy thereof may be sent, taken into or distributed in the United States or to any U. S. person (within the meaning of Regulation S under the US Securities Act of 1933, as amended). The content of this communication/document is protected by copyright. This document may not be reproduced, transmitted (electronically or otherwise), modified or used for public or commercial purposes, either in part or in full, without a prior written consent of the Bank. Copyright © 2020 JSC Bank Credit Suisse (Moscow) and/or affiliates. All rights reserved.

For Mexico via Credit Suisse Asesoría México, S.A. de C.V.

This document represents the vision of the person who provides his/her services to C. Suisse Asesoría México, S.A. de C.V. ("C. Suisse Asesoría") and/or Banco Credit Suisse (México), S.A., Institución de Banca Múltiple, Grupo Financiero Credit Suisse (México) ("Banco CS") so that both C. Suisse Asesoría and Banco CS reserve the right to change their mind at any time not assuming any liability in this regard. This document is distributed for informational purposes only, and does not imply a recommendation or suggestion, nor the invitation to celebrate any operation and does not replace the communication you have with your executive in relation to C. Suisse Asesoría and/or Banco CS prior to taking any investment decision. C. Suisse Asesoría and/or Banco CS does not assume any responsibility for investment decisions based on information contained in the document sent, as the same may not take into account the context of the investment strategy and objectives of particular clients. Prospectus, brochures, investment regimes of investment funds, annual reports or periodic financial information contain all additional useful information for investors. These documents can be obtained free of charge directly from issuers, operators of investment funds, in the Internet page of the stock exchange in which they are listed or through its executive in C. Suisse Asesoría and/or Banco CS. Past performance and the various scenarios of existing markets do not guarantee present or future yields. The data on the performance of products do not consider commissions and fees related to issuance or amortization of values. There is no guarantee that the performance will reach or exceed the reference indexes or rates of products. In the event that the information contained in this document is incomplete, incorrect or unclear, please contact your Executive of C. Suisse Asesoría and/or Banco CS as soon as possible. It is possible that this document may suffer modifications without any responsibility for C. Suisse Asesoría and/or Banco CS. This document is distributed for informational purposes only and is not a substitute for the Operations Reports and/or Account Statements you receive from C. Suisse Asesoría and/or Banco CS in terms of the General Provisions Applicable to Financial Institutions and other Legal Entities that Provide Investment Services issued by the Mexican Banking and Securities Commission ("CNBV"). Given the nature of this document, C. Suisse Asesoría and/or Banco CS does not assume any responsibility derived from the information contained therein. This document is intended for the exclusive use of the addressee and is not directed to the general public. Reproduction in whole or in part of the document sent without the prior written authorization of C. Suisse Asesoría and/or Banco CS is forbidden. Without prejudice to the fact that the information was obtained from or based on sources believed to be reliable by C. Suisse Asesoría and/or Banco CS, there is no guarantee that the information is either accurate or complete. Banco CS and/or C. Suisse Asesoría does not accept any liability arising from any loss arising from the use of the information contained in the document sent to you. Foreign currency investments involve additional risks. It is recommended that investor make sure that the information provided is in accordance to his/her personal circumstances and investment profile, in relation to any particular legal, regulatory or fiscal situation, or to obtain independent professional advice. In the case of Analysis Reports produced by Banco CS's analysis area, it is noted that this document represents the vision of the analyst or of the Analysis Area of Banco CS developed at that time and according to the circumstances of its elaboration, which did not receive any compensation from persons other than Banco CS, for which they work, or any entity of Grupo Financiero Credit Suisse (México), S.A. de C.V. These analysts reserve the right to change their opinion at any time not assuming any responsibility in that regard. Therefore, Banco CS y/o C. Suisse Asesoría and/or its affiliates assume no responsibility or liability in respect of the information contained in this document. In the case of documents containing information of markets or in the case of reporting of investments, please be aware that the document has been produced by the team of Investment Consulting of Banco CS, Private Banking, and it is not the result of an economic analysis or substantial investment, nor it comes from the department of Analysis, nor does it constitute a recommendation or Report of Analysis in terms of the General Provisions Applicable to Financial Institutions and other Legal Entities that Provide Investment Services issued by the Mexican Banking and Securities Commission ("CNBV"). Please be aware that such documents may contain a condensed version of Analysis Reports or the Global Analysis of Private Banking. The information and opinions expressed herein were produced in the date of their preparation and distribution and may be modified without prior notice. In the event that the document sent to you by C. Suisse Asesoría and/or Banco CS contains some extract of public information relating to any public offering of the securities market, be aware that the entire document may be consulted in its complete version, updated and valid in the Internet page of the Mexican Stock Exchange ("BMV"), www.bmv.com.mx. Any query can and should be done in that page in a holistic manner. The information in such document shall supersede and replace the information contained in the document sent to you. Any investor or interested person shall review and read in a comprehensive manner that version updated on the page in question. The document sent to you does not constitute or form part of a public offer for subscription and payment to a public offering, which may only be carried out through the process established in the applicable legal framework. C. Suisse Asesoría México, S.A. de C.V. is an investment adviser created in accordance with the Mexican Securities Market Law ("LMV"), registered with the Mexican Banking and Securities Commission ("CNBV") under the folio number 30070. C. Suisse Asesoría México, S.A. de C.V. is not part of Grupo Financiero Credit Suisse (México), S.A. de C.V., or any other financial group in Mexico. C. Suisse Asesoría México, S.A. de C.V. is not an independent investment adviser as provided by LMV and other applicable regulations due to its direct relationship with Credit Suisse AG, a foreign financial institution, and its indirect relationship with the entities that make up Grupo Financiero Credit Suisse (México), S.A. de C.V. Copyright © 2020 Credit Suisse Group AG and/or its subsidiaries and affiliates. All rights reserved.

For Chile via Credit Suisse Agencia de Valores (Chile) Limitada

This report is distributed by Credit Suisse Agencia de Valores (Chile) Limitada, a branch of Credit Suisse AG incorporated in the Canton of Zurich, regulated by the Chilean Financial Market Commission.

Copyright © 2020 CREDIT SUISSE GROUP AG and/or its affiliates. All rights reserved.