LOMBARD ODIER
LOMBARD ODIER DARIER HENTSCH

CIO Viewpoint

Net-zero targets revolutionise investment opportunities

Investment Solutions

26 April 2021

Last week's US-hosted virtual climate conference saw the world's biggest polluters pledge strengthened cuts to their greenhouse gas emissions on the road to a net-zero economy. This shift in the global economic model is prompting the fastest revolution in investment history, with opportunities for portfolio returns.

Stéphane Monier
Chief Investment Officer, Lombard Odier Private Bank

"We have to step up," create a sustainable economy and "overcome the existential crisis of our time," President Joe Biden said in his opening remarks. One of his first acts in office was to re-join the 2015 Paris accord, and to commit the US to a target of net-zero carbon emissions by 2050. At the conference last week, the US pledged to cut carbon dioxide (CO_2) emissions by between 50% and 52% by 2030, based on 2005 levels.

Others also stepped up their ambition. Japanese Prime Minister Yoshihide Suga for instance told the meeting that his country will cut emissions by 46% by 2030, relative to 2013 levels, and Canada increased its 40% reduction target to 45% by 2030, using 2005 levels.

US emissions have been in decline since 2007, thanks to switching from coal to natural gas, and action by individual states, such as California. In addition, companies have driven market forces to the point where cleaner simply becomes the cheaper option.

However, last week's new pledges require a significant increase in policy support. The Biden administration already has a goal of generating net-zero electricity by 2035 by expanding reliance on renewable sources such as wind and solar energy, and last month unveiled a programme to spend USD 2.25 trillion on overhauling the country's infrastructure, one third of which directly targets climate-related investment.

The two-day virtual summit included Chinese president Xi Jinping, as well as heads of state from India, Germany and Russia. China has expressed doubts about the US commitments, since the US made pledges under the Kyoto protocol that it failed to deliver without Senate ratification. China, the world's largest emitter of CO_2 is responsible for more than one quarter of global greenhouse gas emissions. It plans to be carbon neutral by 2060 and announced it will phase down coal consumption from 2026 onwards.

Key takeaways

- Major economies reinforced pledges to decarbonise at a virtual climate summit
- A lack of common standards and data disclosure complicates sustainable investing. In-house carbon expertise allows us to assess a portfolio's alignment with the Paris accord
- Investing in already-sustainable technologies is not enough: we need to focus on best-in-class firms transitioning to carbon-neutral business models
- The transition to a net-zero economy offers unprecedented opportunities for investors.

Last chance, new chances

Bill Gates has explained the urgency of net zero emissions through the analogy of a running bath that will eventually overflow. Net emissions have to stop – not just be curtailed - as even a trickle of water from the tap will inevitably be disastrous. Last week, a study by Swiss Re found that if no mitigating action is taken, global temperatures could rise by more than 3 degrees Celsius and the world economy could shrink by 18% in the next 30 years.

From a positive perspective, these political targets are technologically and economically achievable, though time is of the essence. We have already warmed our environment by 1.2°C. The Paris Agreement seeks to limit such warming to no more than 2°C, and work to limit global warming to no more than 1.5°C. At current annual emission rates of 52 billion tonnes, we would exceed this target in less than a decade. Meeting the target no later than 2050 means halving emissions every decade.

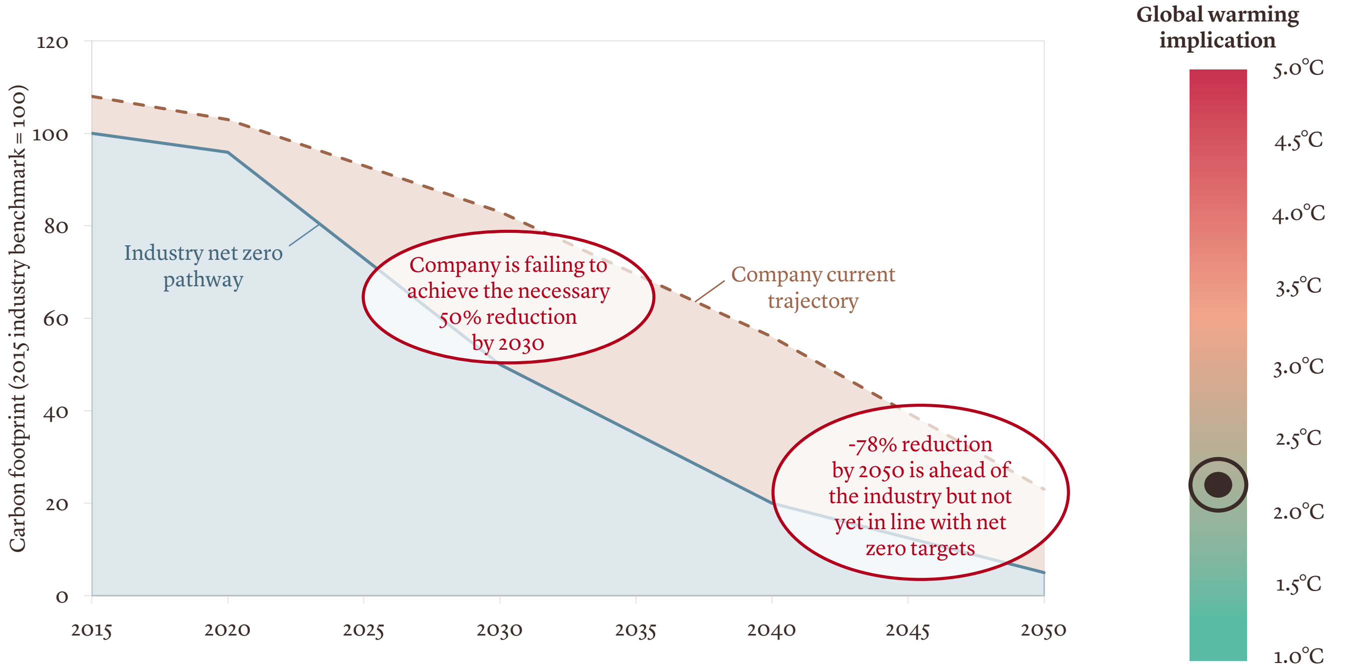
The challenge is vast. Carbon emissions from energy generation, industrial production, transport and farming affect every aspect of our lives. Even the CO_2 pollution from email is quantifiable. At an average 1,652 grams of CO_2 per day, an office worker's 121 emails is equivalent to driving 13.4 kilometres at 2019 levels of new car emissions in the European Union.

Quantifying net-zero fitness

Although the objective is clear, understanding what a net-zero economy might look like and how we might invest in it is more complex. Simplistic approaches that merely seek to shift capital to lower carbon industries have dominated the market. Such strategies fail to recognise that to get to net-zero, we will need to find solutions across all sectors of the economy. Higher-emitting, hard-to-abate sectors are among the most relevant in terms of climate change. This raises the question of how we compare the sustainability of investing in a company in a high-emitting sector, such as steel, to investing in a company that is already lower carbon, but is also of less relevance to the transition ahead.

To address this, we have developed in-house carbon expertise that seeks to understand the specific shape of the transition in each sector, region and industry. We have sought to define the technologies and behavioural changes that may transform more than 160 industries, potentially exposing firms to new risks, as well as new growth opportunities linked to the transition to a net-zero economy. Through this analysis, we have assessed more than 20,000 companies' alignment to the transition ahead, measuring their current carbon footprints, and whether these are falling quickly enough. To meet the Paris accord's objectives, each company's emissions must follow the transition path for their respective industries.

Example: Company X climate trajectory



Source: Lombard Odier Investment Managers

These approaches enable us to identify the companies best positioned to capitalise on investable transition opportunities while identifying specific or systemic risks for businesses that are not taking action. This is fundamental for investors to spot valuable opportunities. An assessment of financial risk has to take account of more than just a firm's carbon footprint and factor in specific costs, market and environmental changes resulting from the transition.

The goal of a carbon-neutral economy set out in political commitments will not be accomplished over the next three decades simply by investing in already-sustainable technologies. It is a mistake to shy away from investing in sectors that are high carbon today, but will remain essential in a net-zero economy. Our economies will continue to depend on the energy, food and infrastructure that they provide. Rather than excluding them from portfolios, investors should focus on solution providers and best-in-class companies who are transitioning and can form a sustainable part of a carbon-neutral future.

Meeting or missing targets

The crucial question then, is not whether an industry is currently polluting, but whether it is positioned to transition to a clean future, and whether a company is on a credible and viable path to decarbonise.

Markets will increasingly drive change as they start to penalise those without a plan in place. Behavioural changes are already underway. Regulatory and legislative changes are slower, and will not in themselves be enough to achieve the results we need, but may catalyse and accelerate transitions. Investors, too, can accelerate the transition as we can encourage companies to set more demanding targets, along with faster implementation.

Change is unlikely to be linear as technological developments render some parts of specific industries redundant, while boosting others. That means industries will experience sudden shifts. Within a decade, every major car manufacturer, for example, has overhauled its business model as stricter CO_2 emission targets force automakers to embrace carbon-free alternative technologies, such as battery electric vehicles. BMW and Volkswagen, for example, plan to have half of their fleets running on batteries by 2030, while Volvo prepares to be fully electric by then.

Overall, analysts expect electric vehicles to account for 35% of the market by 2030, driven by better-than-expected sales and the US infrastructure bill. The Biden administration is planning to multiply its network of charging stations five-fold as part of its eight-year infrastructure spending programme.

Investors' portfolios will need to reflect simultaneously all these evolutions and ambitions while being resilient to shocks that occur over relatively short timeframes, taking advantage of placing capital in public and private opportunities.

A first step is assessing a portfolio's 'value at risk' from climate-related threats and opportunities. Our goal is to align portfolios with the transition to net-zero economies and so benefit from this revolution. That demands an approach that spots where there is progress by paying attention to the engineering and scientific solutions underlying the evolutions. Investors can then choose solutions that place capital with those companies best positioned to make this transition.

As this transition plays out, investment approaches taking account of these revolutionary changes should provide superior risk-adjusted portfolio returns.

Important information

This is a marketing communication issued by Bank Lombard Odier & Co Ltd (hereinafter "Lombard Odier"). It is not intended for distribution, publication, or use in any jurisdiction where such distribution, publication, or use would be unlawful, nor is it aimed at any person or entity to whom it would be unlawful to address such a marketing communication. This marketing communication is provided for information purposes only. It does not constitute an offer or a recommendation to subscribe, purchase, sell or hold any security or financial instrument. It contains the opinions of Lombard Odier, as at the date of issue. These opinions and the information contained herein do not take into account an individual's specific circumstances, objectives, or needs. No representation is made that any investment or strategy is suitable or appropriate to individual circumstances or that any investment or strategy constitutes personalised investment advice to any investor. Each investor must make his/her own independent decisions regarding any securities or financial instruments mentioned herein. Tax treatment depends on the individual circumstances of each person and may be subject to change in the future. Lombard Odier does not provide tax advice. Therefore, you must verify the above and all other information provided in the marketing communication or otherwise review it with your external tax advisors. Some investment products and services, including custody, may be subject to legal restrictions or may not be available worldwide on an unrestricted basis. The information and analysis contained herein are based on sources considered reliable. Lombard Odier uses its best effort to ensure the timeliness, accuracy, and comprehensiveness of the information contained in this marketing communication. Nevertheless, all information and opinions as well as the prices, market valuations and calculations indicated herein may change without notice.

Investments are subject to a variety of risks. Before entering into any transaction, an investor should consult his/her investment advisor and, where necessary, obtain independent professional advice in respect of risks, as well as any legal, regulatory, credit, tax, and accounting consequences. The investments mentioned in this marketing communication may carry risks that are difficult to quantify and integrate into an investment assessment. In general, products such as equities, bonds, securities lending, forex, or money market instruments bear risks, which are higher in the case of derivative, structured, and private equity products; these are aimed solely at investors who are able to understand their nature and characteristics and to bear their associated risks. On request, Lombard Odier will be pleased to provide investors with more detailed information concerning risks associated with given instruments. **Past performance is no guarantee of current or future returns, and the investor may receive back less than he/she invested**. The value of any investment in a currency other than the base currency of a portfolio is subject to the foreign exchange rates. Exchange rates may fluctuate and adversely affect the value of the investment when it is realised and converted back into the investor's base currency. The liquidity of an investment is subject to supply and demand. Some products may not have a well-established secondary market or in extreme market conditions may be difficult to value, resulting in price volatility and making it difficult to obtain a price to dispose of the asset. **This marketing communication is not issued by the organisational unit of the Bank Lombard Odier & Co Ltd responsible for the production of financial research**, as defined under the Swiss Bankers Association Directives on the Independence of Financial Research. Consequently, it is not prepared in accordance with the provisions of the referred Directives or any other legal requirements designed to promote the independence of the production of financial research. Opinions expressed in this marketing communication may differ from the opinions expressed by other divisions of Lombard Odier, including Bank Lombard Odier & Co Ltd's Research Department. Nevertheless, if opinions from financial analysts belonging to the Research Department are contained herein, such analysts attest that all of the opinions expressed accurately reflect their personal views about any given instruments. In order to ensure their independence, financial analysts are expressly prohibited from owning any securities that belong to the research universe they cover. Lombard Odier may hold positions in securities as referred to in this marketing communication for and on behalf of its clients and/or such securities may be included in the portfolios of investment funds as managed by Lombard Odier or affiliated Group companies. Lombard Odier recognises that conflicts of interest may exist as a consequence of the distribution of financial instruments or products issued and/or managed by entities belonging to the Lombard Odier Group. Lombard Odier has a Conflict of Interests policy to identify and manage such conflicts of interest.

European Union Members: This marketing communication has been approved for use by Lombard Odier (Europe) S.A. in Luxembourg and by each of its branches operating in the following territories: **Belgium**: Lombard Odier (Europe) S.A. Luxembourg • Belgium branch; **France**: Lombard Odier (Europe) S.A. • Succursale en France; **Italy**: Lombard Odier (Europe) S.A. • Italian Branch; **Spain**: Lombard Odier (Europe) S.A. • Sucursal en España. Lombard Odier (Europe) S.A. is a credit institution authorised and regulated by the Commission de Surveillance du Secteur Financier (CSSF) in Luxembourg. In addition, this marketing communication has also been approved for use by the following entity domiciled within the European Union: **Spain**: Lombard Odier Gestión (España) S.G.I.I.C., S.A.U., an investment management company authorised and regulated by the Comisión Nacional del Mercado de Valores (CNMV), Spain.

Hong Kong: This marketing communication has been approved for use by Lombard Odier (Hong Kong) Limited, a licensed entity regulated and supervised by the Securities and Futures Commission in Hong Kong for the general information of professional investors and other persons in accordance with the Securities and Futures Ordinance (Chapter 571) of the laws of Hong Kong.

Singapore: This marketing communication has been approved for use by Lombard Odier (Singapore) Ltd for the general information of accredited investors and other persons in accordance with the conditions specified in Sections 275 and 305 of the Securities and Futures Act (Chapter 289). Recipients in Singapore should contact Lombard Odier (Singapore) Ltd, an exempt financial adviser under the Financial Advisers Act (Chapter 110) and a merchant bank regulated and supervised by the Monetary Authority of Singapore, in respect of any matters arising from, or in connection with this marketing communication. The recipients of this marketing communication represent and warrant that they are accredited investors and other persons as defined in the Securities and Futures Act (Chapter 289). This advertisement has not been reviewed by the Monetary Authority of Singapore.
Panama: This marketing communication has been approved for use in Panamá by Lombard Odier (Panamá) Inc., an entity authorised and regulated by the Superintendencia del Mercado de Valores de Panamá. Licensed to operate as an Investment Adviser. Res. SMV No.528-2013.
Israel: This marketing communication has been approved for use in Israel by the Israel Representative Office of Bank Lombard Odier & Co Ltd, an entity not supervised by the Supervisor of Banks in the Bank of Israel, but by the Swiss Financial Market Supervisory Authority, which supervises the activities of Bank Lombard Odier & Co Ltd.
South Africa: This marketing communication has been approved for use in South Africa by the South Africa Representative Office of Bank Lombard Odier & Co Ltd, an authorised financial services provider Registration number 48505.
Switzerland: This marketing communication has been approved for use in Switzerland by Bank Lombard Odier & Co Ltd Geneva, a bank and securities firm authorised and regulated by the Swiss Financial Market Supervisory Authority (FINMA).
United Kingdom: This marketing communication has been approved for use in the United Kingdom by Lombard Odier (Europe) S.A. – UK Branch, a bank authorised and regulated by the Commission de Surveillance du Secteur Financier ("CSSF') in Luxembourg and deemed authorised in the UK by the Prudential Regulation Authority ("PRA"). Subject to regulation by the Financial Conduct Authority ("FCA") and limited regulation by the Prudential Regulation Authority. Financial Services Firm Reference Number 597896. **Details about the extent of our authorisation and regulation by the Prudential Regulation Authority and regulation by the Financial Conduct Authority are available from us on request.**
United States: Neither this document nor any copy thereof may be sent to, taken into, or distributed in the United States of America, any of its territories or possessions or areas subject to its jurisdiction, or to or for the benefit of a United States Person. For this purpose, the term "United States Person" shall mean any citizen, national or resident of the United States of America, partnership organised or existing in any state, territory or possession of the United States of America, a corporation organised under the laws of the United States or of any state, territory or possession thereof, or any estate or trust that is subject to United States Federal income tax regardless of the source of its income.
This marketing communication may not be reproduced (in whole or in part), transmitted, modified, or used for any public or commercial purpose without the prior written permission of Lombard Odier.
Data protection: You may be receiving this communication because you have provided us with your contact details. If this is the case, note that we may process your personal data for direct marketing purposes. If you wish to object to this processing, please address your objection to the Group's Data Protection Officer: Bank Lombard Odier & Co Ltd, Group Data Protection Officer, 11, Rue de la Corraterie, 1204 Geneva, Switzerland. E-Mail: group-dataprotection@lombardodier.com. For more information on Lombard Odier's data protection policy, please refer to www.lombardodier.com/privacy-policy.

SWITZERLAND

GENEVA
Bank Lombard Odier & Co Ltd[1]
Rue de la Corraterie 11 · 1204 Genève · Suisse
geneva@lombardodier.com
Lombard Odier Asset Management (Switzerland) SA
Avenue des Morgines 6 · 1213 Petit-Lancy · Suisse
Support-Client-LOIM@lombardodier.com
Management Company regulated by the FINMA.

FRIBOURG
Banque Lombard Odier & Cie SA · Bureau de Fribourg[1]
Rue de la Banque 3 · 1700 Fribourg · Suisse
fribourg@lombardodier.com

LAUSANNE
Bank Lombard Odier & Co Ltd[1]
Place St-François 11 · 1003 Lausanne · Suisse
lausanne@lombardodier.com

VEVEY
Banque Lombard Odier & Cie SA · Agence de Vevey[1]
Rue Jean-Jacques Rousseau 5 · 1800 Vevey · Suisse
vevey@lombardodier.com

ZURICH
Bank Lombard Odier & Co Ltd[1]
Utoschloss · Utoquai 29-31 · 8008 Zürich · Schweiz
zurich@lombardodier.com

EUROPE

BRUSSELS
Lombard Odier (Europe) S.A. Luxembourg · Belgium branch[2]
Avenue Louise 81 · Box 12 · 1050 Brussels · Belgium
brussels@lombardodier.com
Credit institution supervised in Belgium by the National Bank of Belgium (NBB) and the Financial Services and Markets Authority (FSMA).

LONDON
Lombard Odier (Europe) S.A.· UK Branch[2]
Queensberry House · 3 Old Burlington Street · London W1S 3AB · United Kingdom
london@lombardodier.com
The Bank is deemed authorised in the UK by the Prudential Regulation Authority (PRA). Subject to regulation by the Financial Conduct Authority (FCA) and limited regulation by the Prudential Regulation Authority. Financial Services Firm Reference Number 597896. Details about the extent of our authorisation and regulation by the Prudential Regulation Authority and regulation by the Financial Conduct Authority are available from us on request.
Lombard Odier Asset Management (Europe) Limited
Queensberry House · 3 Old Burlington Street · London W1S 3AB · United Kingdom
london@lombardodier.com
Investment firm authorised and regulated by the Financial Conduct Authority (FCA register No.515393).

LUXEMBOURG
Lombard Odier (Europe) S.A.
291, route d'Arlon · 1150 · Luxembourg · Luxembourg
luxembourg@lombardodier.com
Credit institution authorised and regulated by the Commission de Surveillance du Secteur Financier (CSSF) in Luxembourg.
Lombard Odier Funds (Europe) S.A.
291, route d'Arlon · 1150 · Luxembourg · Luxembourg
luxembourg@lombardodier.com

MADRID
Lombard Odier (Europe) S.A. · Sucursal en España[2]
Paseo de la Castellana 66 · 4ª Pl. · 28046 Madrid · España · madrid@lombardodier.com
Credit institution supervised in Spain, by the Banco de España and the Comisión Nacional del Mercado de Valores (CNMV).
Lombard Odier Gestión (España) S.G.I.I.C, S.A.U.
Paseo de la Castellana 66, 4ª Pl. · 28046 Madrid · España · madrid@lombardodier.com
Management Company supervised by the Comisión Nacional del Mercado de Valores (CNMV).

MILAN
Lombard Odier (Europe) S.A. · Succursale in Italia[2]
Via Santa Margherita 6 · 20121 Milano · Italia
milano-cp@lombardodier.com
Credit institution supervised in Italy by the Commissione Nazionale per le Società e la Borsa (CONSOB) and la Banca d'Italia.

MOSCOW
Bank Lombard Odier & Co Ltd · Representative Office Moscow
Letnikovskaya st. 2, bld. 1 · 115114 Moscow · Russian Federation · moscow@lombardodier.com
Under the supervisory authority of the Central Bank of the Russian Federation.

PARIS
Lombard Odier (Europe) S.A. · Succursale en France[2]
8, rue Royale · 75008 Paris · France. RCS PARIS B 803 905 157 · paris@lombardodier.com
Credit institution supervised in France by the Autorité de contrôle prudentiel et de résolution (ACPR) and by the Autorité des Marchés Financiers (AMF) in respect of its investment services activities. Business permit No.23/12. Registered in Luxembourg · No.B169 907. Insurance intermediary authorised by the Commissariat aux Assurances (CAA) No.2014 CM002. The registration with the CAA can be verified at www.orias.fr.

AFRICA | AMERICAS | MIDDLE EAST

ABU-DHABI
Bank Lombard Odier & Co Ltd · Abu Dhabi Global Market Branch
Al Maryah Island · Abu Dhabi Global Market Square · Al Khatem Tower · 8th floor · P.O. Box 764646 · Abu Dhabi · UAE · abudhabi@lombardodier.com
Arranging Deals in Investments · Advising on Investment or Credit · Arranging Credit. Regulated by the ADGM Financial Services Regulatory Authority.

BERMUDA
Lombard Odier Trust (Bermuda) Limited
3rd Floor, Victoria Place · 31 Victoria Street · Hamilton HM 10 · Bermuda · bermuda@lombardodier.com
Licensed to conduct Trust, Investment and Corporate Service Provider Business by the Bermuda Monetary Authority.

BRASIL
Lombard Odier (Brasil) Consultoria de Valores Mobiliários Ltda.
Avenida Nove de Julho · No. 3624 · 6° andar · Jardim Paulista · CEP 01406-000 · São Paulo · Brasil
sao.paulo.office@lombardodier.com
Supervised by the Comissão de Valores Mobiliários of Brazil.

DUBAI
Bank Lombard Odier & Co Ltd · Representative Office Dubai
Conrad Business Tower · 12th Floor · Sheikh Zayed Road · P.O. Box 212240 · Dubai · UAE
dubai@lombardodier.com
Under the supervisory authority of the Central Bank of the UAE.

ISRAEL
Israel Representative Office · Bank Lombard Odier & Co Ltd
Alrov Tower 11th floor · 46 Rothschild Blvd. · Tel Aviv 6688312 · Israel · telaviv@lombardodier.com
Not supervised by the Supervisor of Banks in the Bank of Israel, but by Swiss Financial Market Supervisory Authority which supervises the activities of Bank Lombard Odier & Co Ltd.

JOHANNESBURG
South Africa Representative Office · Bank Lombard Odier & Co Ltd
4 Sandown Valley Crescent · Sandton · Johannesburg 2196 · South Africa · johannesburg@lombardodier.com
Authorised financial services provider Registration number 48505.

MONTEVIDEO
Lombard Odier (Uruguay) SA
Luis Alberto de Herrera · Torre 2 · Oficina 2305
11300 Montevideo · Uruguay
montevideo@lombardodier.com
Supervised by Banco Central del Uruguay.

NASSAU
Lombard Odier & Cie (Bahamas) Limited
Lyford Cay House · Western Road · P.O. Box N-4938 · Nassau · Bahamas · nassau@lombardodier.com
Supervised by the Central Bank of the Bahamas and the Securities Commission of the Bahamas.

PANAMA
Lombard Odier & Cie (Bahamas) Limited · Representative Office in Panama
Oceania Business Plaza Torre 2000 · Oficina 38-D · Blvd. Pacifica · Urb. Punta Pacifica · Corregimiento de San Francisco · Panamá · panama@lombardodier.com
Supervised by the Central Bank of the Bahamas and the Superintendencia de Bancos de Panamá.
Lombard Odier (Panama) Inc.
Oceania Business Plaza Torre 2000 · Oficina 38-D · Blvd. Pacifica · Urb. Punta Pacifica · Corregimiento de San Francisco · Panamá · panama@lombardodier.com
Supervised by the Superintendencia del Mercado de valores de Panamá. Licensed to operate as an Investment Adviser. Res. SMV No.528-2013.

ASIA - PACIFIC

HONG KONG
Lombard Odier (Hong Kong) Limited
3901, Two Exchange Square · 8 Connaught Place · Central · Hong Kong · hongkong@lombardodier.com
A licensed entity regulated and supervised by the Securities and Futures Commission in Hong Kong.

SINGAPORE
Lombard Odier (Singapore) Ltd.
9 Raffles Place · Republic Plaza #46-02 · Singapore 048619 · singapore@lombardodier.com
A merchant bank regulated and supervised by the Monetary Authority of Singapore.

TOKYO
Lombard Odier Trust (Japan) Limited
Izumi Garden Tower 41F · 1-6-1 Roppongi, Minato-ku · Tokyo 106-6041 · Japan · tokyo@lombardodier.com
Regulated and supervised by the Financial Services Agency (FSA) in Japan. It holds a trust business license (FSA No.208) and is registered with Kanto Local Finance Bureau for Financial Instruments Business Operator (No.470).

1 *Private bank and securities firm authorised and regulated by the Swiss Financial Market Supervisory Authority (FINMA).*

2 *Branch of Lombard Odier (Europe) S.A., a credit institution based in Luxembourg, authorised and regulated by the Commission de Surveillance du Secteur Financier (CSSF) in Luxembourg.*