

Kenneth St-Amand
VP, Client Portfolio Manager

Shreya Viswanathan
Co-op

December 2016

This material is provided for informational purposes only and should not be construed as investment advice. The provision of this material and/or reference to specific securities, sectors, or markets within this material does not constitute investment advice, or a recommendation or an offer to buy or to sell any security, or an offer of services. The analyses, opinions, and certain of the investment themes and processes referenced herein represent the subjective views of the author(s) as of the date indicated. These are subject to change. There can be no assurance that developments will transpire as may be forecasted in this material.

THE HISTORY OF CLIMATE CHANGE

Though emotions and opinions about climate change vary widely, we believe the best approach to understanding the theory behind it all, is to start with its history in the mid-1800s with a woman named Eunice Foote.

Foote was an American scientist looking to solve a problem observed nearly a half century earlier. Given the distance our planet is from the sun, the average surface temperature should be no more than 0°F¹, far too cold for life to survive. What Foote had noticed was that certain gases, namely methane and carbon dioxide, trapped heat. She speculated that energy from the sun, light and heat, would reach the earth and then be trapped by the abundance of these greenhouse gases.²

Her speculations were confirmed some half century later by a Swedish scientist, Svante Arrhenius. He was the first to suggest that the industrial revolution, highly dependent on coal for power, would bring about global warming. Where Foote was the first to observe greenhouse gases, Arrhenius was the first to suggest that there could be a 'feedback loop.' He suggested that as the planet got warmer, its ice coverage would decrease. Ice, being white, reflects a lot of the light; in fact nearly all the light that hits it is directed back into space. So, the warmer our industry made the planet, the faster ice melted. The faster ice melted, the warmer the planet became.³

During the 1900s, the topic of global warming had been brought up several times. As more information was uncovered about the perils of this phenomenon, the conversation shifted from mere curiosity to alarm by mid-century. This resulted in a push to pass legislation in the US. Presidents from both major political parties, including Carter, Nixon, Bush, and Clinton, worked to pass legislation intended to curb the effects of global warming.

Now more commonly referred to as climate change to encapsulate its wide-reaching effects, global warming could drastically affect the entire world, including profound impacts on the US job market. In the Midwest, rising temperatures may render once fertile lands useless, forcing farmers to alter their farming practices. Along the coasts, the results of climate change may manifest themselves as rising water levels with the potential to submerge entire cities. Americans would be forced to adapt their livelihoods to these geographic changes.⁴

At Mirova, in addition to the risks presented by climate change, we see two sources of opportunity. First, the prospect of new businesses and jobs created by the pursuit of a new, low-carbon economy could be a much needed breath of fresh air into parts of the rustbelt, where manufacturing was once the mainstay of every family. Similarly, searching for solutions to global warming's negative effects will again spawn business and new infrastructure. As more and more information about global warming presents itself, we come closer and closer to finding ways to mitigate the effects of the problem that Eunice Foote discovered nearly 200 years ago.

¹http://www.giss.nasa.gov/research/briefs/ma_01/

²http://www.searchanddiscovery.com/documents/2011/70092sorenson/ndx_sorenson.pdf

³<http://history.aip.org/climate/co2.htm>

⁴<http://www.paulsoninstitute.org/economics-environment/climate-sustainable-urbanization/risky-business/>

Legal Information

Natixis Asset Management U.S., LLC

399 Boylston Street, Boston, MA 02116; Tel: 212-632-2800

Natixis Asset Management U.S., LLC (Natixis AM US) is a U.S.-based investment advisor, commodity trading advisor and commodity pool operator that is a wholly-owned entity of Natixis Asset Management (Natixis AM) with \$449 million assets under management as of September 30, 2016. Mirova is operated in the U.S. through Natixis AM US. Natixis AM US and Mirova entered into an agreement whereby Mirova provides Natixis AM US investment and research expertise, which Natixis AM US then combines with its own expertise, and services from the Natixis Asset Management organization when providing advice to clients. The Natixis Asset Management organization includes Natixis AM, a Paris-based asset manager and Natixis AM US, a Boston-based investment adviser wholly owned by Natixis AM.

Mirova-a subsidiary of Natixis Asset Management.

Registered office: 21 quai d'Austerlitz - 75 634 Paris Cedex 13. –

Tel.: +33 (0)1 78 40 80 00

French public limited company with Board of Directors.

Share capital of 7,461,327.50 euros

Regulated by the AMF under n°GP 02014

RCS Number 394 648 216 Paris

Natixis Asset Management

Registered Office: 21 quai d'Austerlitz – 75 634 Paris Cedex 13 – Tel. +33178408000

Limited Liability Company, Share Capital 50 434 604,76 euros

Regulated by AMF under n°GP 90-009

RCS Number 329 450 738 Paris

This information purpose only document is a non-contractual document. It may not be used for any purpose other than that for which it was conceived and may not be copied, distributed or communicated to third parties, in part or in whole, without the prior written consent of Mirova, Natixis AM and Natixis AM US. Mirova, Natixis AM and Natixis AM US reserve the right to modify any information contained in this document at any time without notice, including any reference to management process which does not constitute an undertaking from Mirova, Natixis AM or Natixis AM US.

This document consists of a presentation created and prepared by Mirova based on sources it considers to be reliable. However, Mirova, Natixis AM and Natixis AM US do not guarantee the accuracy, adequacy or completeness of information obtained from external sources included in this document. Mirova, Natixis AM and Natixis AM US will not be held liable for any decision taken or not taken on the basis of the information disclosed in this document, nor for any use that a third party might make of this information.

Under Mirova's investment responsibility policy, and in accordance with the treaties signed by the French government, the strategies directly managed by Mirova do not invest in any company that manufactures, sells or stocks anti-personnel mines and cluster bombs.

Additional notes

The analyses and opinions referenced herein represent the subjective views of the author as referenced and are subject to change. There can be no assurance that developments will transpire as forecasted, and actual results may vary. Other industry analysts and investment personnel may have different views and make different assumptions. Accuracy of data is not guaranteed, but represents best judgment, as derived from a variety of sources. The information is subject to change at any time without notice.

This report may contain references to third party copyrights, indexes, and trademarks, each of which is the property of its respective owner. Such owner is not affiliated with Natixis Global Asset Management or any of its related or affiliated companies (collectively "NGAM") and does not sponsor, endorse or participate in the provision of any NGAM services, funds or other financial products.

Index information contained herein is derived from third parties and is provided on an "as is" basis. The user of this information assumes the entire risk of use of this information. Each of the third party entities involved in compiling, computing or creating index information disclaims all warranties (including, without limitation, any warranties of originality, accuracy, completeness, timeliness, non-infringement, merchantability and fitness for a particular purpose) with respect to such information.

This material may not be redistributed, published, or reproduced, in whole or in part. Although Natixis Global Asset Management believes the information provided in this material to be reliable, it does not guarantee the accuracy, adequacy or completeness of such information.

In the EU (ex UK): This material is provided by NGAM S.A. or one of its branch offices listed below. NGAM S.A. is a Luxembourg management company that is authorized by the Commission de Surveillance du Secteur Financier and is incorporated under Luxembourg laws and registered under n. B 115843. Registered office of NGAM S.A.: 2, rue Jean Monnet, L-2180 Luxembourg, Grand Duchy of Luxembourg. **France:** NGAM Distribution (n.509 471 173 RCS Paris). Registered office: 21 quai d'Austerlitz, 75013 Paris. **Italy:** NGAM S.A., Succursale Italiana (Bank of Italy Register of Italian Asset Management Companies no 23458.3). Registered office: Via Larga, 2 - 20122, Milan, Italy. **Germany:** NGAM S.A., Zweigniederlassung Deutschland (Registration number: HRB 88541). Registered office: Im Trutz Frankfurt 55, Westend Carrée, 7. Floor, Frankfurt am Main 60322, Germany. **Netherlands:** NGAM, Nederlands filiaal (Registration number 50774670). Registered office: World Trade Center Amsterdam, Strawinskylaan 1259, D-Tower, Floor 12, 1077 XX Amsterdam, the Netherlands. **Sweden:** NGAM, Nordics Filial (Registration number 516405-9601 - Swedish Companies Registration Office). Registered office: Kungsgatan 48 5tr, Stockholm 111 35, Sweden. **Spain:** NGAM, Sucursal en España. Registered office: Torre Colon II - Plaza Colon, 2 - 28046 Madrid, Spain. **In Switzerland:** Provided by NGAM, Switzerland Sàrl, Rue du Vieux Collège 10, 1204 Geneva, Switzerland or its representative office in Zurich, Schweizergasse 6, 8001 Zürich. **In the UK:** This material is approved and provided by NGAM UK Limited which is authorised and regulated by the UK Financial Conduct Authority (register no. 190258). This material is intended to be communicated to and/or directed at persons (1) in the United Kingdom, and should not to be regarded as an offer to buy or sell, or the solicitation of any offer to buy or sell securities in any other jurisdiction than the United Kingdom; and (2) who are authorised under the Financial Services and Markets Act 2000 (FSMA 2000); or are high net worth businesses with called up share capital or net assets of at least £5 million or in the case of a trust assets of at least £10 million; or any other person to whom the material may otherwise lawfully be distributed in accordance with the FSMA 2000 (Financial Promotion) Order 2005 or the FSMA 2000 (Promotion of Collective Investment Schemes) (Exemptions) Order 2001 (the "Intended Recipients"). To the extent that this material is issued by NGAM UK Limited, the fund, services or opinions referred to in this material are only available to the Intended Recipients and this material must not be relied nor acted upon by any other persons. Registered Office: NGAM UK Limited, One Carter Lane, London, EC4V 5ER. **In the DIFC:** Distributed in and from the DIFC financial district to Professional Clients only by NGAM Middle East, a branch of NGAM UK Limited, which is regulated by the DFSA. Related financial products or services are only available to persons who have sufficient financial experience and understanding to participate in financial markets within the DIFC, and qualify as Professional Clients as defined by the DFSA. Registered office: Office 603 - Level 6, Currency House Tower 2, PO Box 118257, DIFC, Dubai, United Arab Emirates. **In Singapore:** Provided by NGAM Singapore (name registration no. 53102724D), a division of Natixis Asset Management Asia Limited (company registration no. 199801044D). Natixis Asset Management Asia Limited is authorized by the Monetary Authority of Singapore and holds a Capital Markets Services License to provide investment management services in Singapore. Registered address of NGAM Singapore: 10 Collyer Quay, #14-07/08

Ocean Financial Centre, Singapore 049315. **In Taiwan:** This material is provided by NGAM Securities Investment Consulting Co., Ltd., a Securities Investment Consulting Enterprise regulated by the Financial Supervisory Commission of the R.O.C and a business development unit of Natixis Global Asset Management. Registered address: 16F-1, No. 76, Section 2, Tun Hwa South Road, Taipei, Taiwan, Da-An District, 106 (Ruentex Financial Building I), R.O.C., license number 2012 FSC SICE No. 039, Tel. +886 2 2784 5777. **In Japan:** Provided by Natixis Asset Management Japan Co., Registration No.: Director-General of the Kanto Local Financial Bureau (kinsho) No. 425. Content of Business: The Company conducts discretionary asset management business and investment advisory and agency business as a Financial Instruments Business Operator. Registered address: 2-2-3 Uchisaiwaicho, Chiyoda-ku, Tokyo. **In Hong Kong:** This document is issued by NGAM Hong Kong Limited and is provided solely for general information only and does not constitute a solicitation to buy or an offer to sell any financial products or services. Certain information included in this material is based on information obtained from other sources considered reliable. However, NGAM Hong Kong Limited does not guarantee the accuracy of such information. Please note that the content of the above website has not been reviewed or approved by the HK SFC. It may contain information about funds that are not authorized by the SFC. **In Australia:** This document is issued by NGAM Australia Pty Limited (NGAM Aust) (ABN 60 088 786 289) (AFSL No. 246830) and is intended for the general information of financial advisers and wholesale clients only and does not constitute any offer or solicitation to buy or sell securities and no investment advice or recommendation. Investment involves risks. This document may not be reproduced, distributed or published, in whole or in part, without the prior approval of NGAM Aust. Information herein is based on sources NGAM Aust believe to be accurate and reliable as at the date it was made. NGAM Aust reserve the right to revise any information herein at any time without notice. **In New Zealand:** This document is intended for the general information of New Zealand wholesale investors only and does not constitute financial advice. This is not a regulated offer for the purposes of the Financial Markets Conduct Act 2013 (FMCA) and is only available to New Zealand investors who have certified that they meet the requirements in the FMCA for wholesale investors. NGAM Australia Pty Limited is not a registered financial service provider in New Zealand. **In Latin America:** This material is provided by NGAM S.A. **In Mexico:** This material is provided by NGAM Mexico, S. de R.L. de C.V., which is not a regulated financial entity with the Comisión Nacional Bancaria y de Valores or any other Mexican authority. This material should not be considered an offer of securities or investment advice or any regulated financial activity. Any products, services or investments referred to herein are rendered exclusively outside of Mexico. **In Uruguay:** This material is provided by NGAM Uruguay S.A., a duly registered investment advisor, authorised and supervised by the Central Bank of Uruguay. Registered office: WTC – Luis Alberto de Herrera 1248, Torre 3, Piso 4, Oficina 474, Montevideo, Uruguay, CP 11300. **In Colombia:** This material is provided by NGAM S.A. Oficina de Representación (Colombia) to professional clients for informational purposes only as permitted under Decree 2555 of 2010. Any products, services or investments referred to herein are rendered exclusively outside of Colombia.

The above referenced entities are business development units of Natixis Global Asset Management, S.A., the holding company of a diverse line-up of specialised investment management and distribution entities worldwide. The investment management subsidiaries of Natixis Global Asset Management conduct any regulated activities only in and from the jurisdictions in which they are licensed or authorised. Their services and the products they manage are not available to all investors in all jurisdictions.

In Canada: Furnished by NGAM Distribution, L.P. ("NGAM Distribution"), with its principal office located in Boston, MA, is not registered in Canada and any dealings with prospective clients or clients in Canada is in reliance upon an exemption from the dealer registration requirement in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. There may be difficulty enforcing legal rights against NGAM Distribution because it is resident outside of Canada and all or substantially all of its assets may be situated outside of Canada. The agent for service of process in Alberta is Borden Ladner Gervais LLP (Jonathan Doll), located at Centennial Place, East Tower, 1900, 520 - 3rd Avenue

SW, Calgary, Alberta T2P 0R3. The agent for service of process in British Columbia is Borden Ladner Gervais LLP (Jason Brooks), located at 1200 Waterfront Centre, 200 Burrard Street, P.O. Box 48600, Vancouver, BC V7X 1T2. The agent for service of process in Ontario is Borden Ladner Gervais LLP (John E. Hall), located at Scotia Plaza, 40 King St. W, Toronto, ON M5H 3Y4. The agent for service of process in Quebec is Borden Ladner Gervais LLP (Christian Faribault), located at 1000 de La Gauchetiere St. W, Suite 900, Montreal, QC H3B 5H4. This is not and should not be considered as an offering of securities or services to any person residing in Canada. Nothing contained herein shall constitute an offer or solicitation to any person residing in Canada. Subject to the restrictions of applicable Canadian securities laws.

In the United States: Furnished by NGAM Distribution L.P., 399 Boylston St., Boston, MA 02116. Natixis Global Asset Management consists of Natixis Global Asset Management, S.A., NGAM Distribution, L.P., NGAM Advisors, L.P., NGAM S.A., and NGAM S.A.'s business development units across the globe, each of which is an affiliate of Natixis Global Asset Management, S.A. The affiliated investment managers and distribution companies are each an affiliate of Natixis Global Asset Management, S.A.



Mirova
Responsible Investing

MIROVA

Mirova is a subsidiary of Natixis Asset Management
Limited liability company - Share capital € 7 461 327, 50
Regulated by AMF under n° GP 02-014
RCS Paris n° 394 648 216
Registered Office: 21 quai d'Austerlitz - 75 013 Paris

NATIXIS ASSET MANAGEMENT

Limited Company - Share Capital: €50 434 604,76
Regulated by AMF: GP 90-009
RCS Paris n° 329 450 738
Registered Office: 21 quai d'Austerlitz - 75634 Paris