

Environmental Markets – Center Stage for the Resource Revolution

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A recently published report by the UN Environment Program (UNEP)¹ sheds new light on the speed with which the global economy is depleting Earth's natural resources. The study presents for the first time a detailed and comprehensive look at the 'material intensity' of the world economy.

The picture that emerges is, of course, a central reason for the adoption of the Sustainable Development Goals by more than 190 countries in December 2015 in Paris as part of COP21²: Over the last 40 years, the world's population has almost doubled, the global economy has expanded more than threefold, and so has material extraction. The report warns that "the global economy now needs more materials per unit of gross domestic product (GDP) than it did at the turn of this century... and is already surpassing some environmental thresholds or planetary boundaries."

Resource Optimization

Global consulting firm McKinsey & Associates predicts a new era on the horizon —the 'Resource

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KEY TAKEAWAYS

- Over the last 40 years, the world's population has almost doubled, the global economy has expanded more than threefold, and so has material extraction.
- From an investor's point of view, optimizing the use of resources can make financial as well as environmental sense.
- We believe that environmental challenges and the opportunities to mitigate these challenges are currently the strongest they have been for many decades.

¹ Global Material Flows and Resource Productivity - Assessment Report for the UNEP International Resource, ISBN: 978-92-807-3554-3, 2016, United Nations Environment Programme http://unep.org/documents/irp/16-00169_LW_GlobalMaterialFlowsUNEReport_FINAL_160701.pdf

² COP21 is short for the 21st Conference of the Parties to the United Nations Framework Convention on Climate Change.



Nicola M. Fritz, CAIA, is the Associate Director, Portfolio Specialist at Impax Asset Management (U.S.), sub-adviser to the Pax Global Environmental Markets Fund. Nicola joined the Impax's New York office in 2014. Having started her career in 2002, Nicola brings deep experience in institutional asset management, most recently guiding Business Development and Investor Relations for LIM Advisors,

a Hong Kong based alternative investment firm. Previously she was a member of the liquid markets proprietary capital investment team at Credit Suisse. Nicola began her career at J.P. Morgan, where she worked for 7 years in Global Markets in New York and London. She received a BA in East Asian Studies from Princeton and holds the Chartered Alternative Investments Analyst certification.



David W. Richardson, CFA® is the Managing Director, Global Head of Marketing and Client Services at Impax Asset Management (U.S.), sub-adviser to the Pax Global Environmental Markets Fund. David joined Impax in August 2012 from Global Energy Investors where he was a Managing Partner. He previously co-founded and served for 22 years as Managing Director of Business Development at

Dwight Asset Management Company (later acquired by Goldman Sachs Asset Management). Prior to Dwight, David headed Project Development at Mark Technologies Corporation and successfully developed a number of large scale wind energy projects. David received his BS in Mechanical Engineering from the University of California and is licensed as a Civil Engineer, and is a Chartered Financial Analyst.

Revolution.³ McKinsey believes winning businesses will redesign products and services using approaches such as optimization, circularity and waste elimination. As outlined in the UNEP report, material consumption is a barometer for environmental stress, and waste and pollution represent natural resource inefficiencies. From an investor's point of view, optimizing the use of resources can make financial as well as environmental sense.

Opportunities within the Environmental Markets

At Impax Asset Management, the investment philosophy that we apply to the **Pax Global Environmental Markets Fund (PGRNX)** centers precisely on these urgent themes. We recognize that an unprecedented opportunity lies ahead for innovative companies with a focus on natural resource efficiency. Similar to the benefits of sophisticated information technology, advances in environmental technology are fueling a changing landscape for natural resource efficiency.

We define the opportunities within the environmental markets through four broad categories: Energy, Water, Waste and Food & Agriculture. The list of companies within these categories is varied and deep, and growing fast—1,500 businesses across the globe of varying size, focus and end markets.

Energy

In our view the best opportunities in Energy are not in conventional energy, but in sub-sectors such as Energy Efficiency and Renewable Energy. Examples include a U.S. automotive company that produces components which help vehicles achieve rising fuel efficiency standards and lower CO₂ emissions; and a wind farm developer and operator in Portugal with a global portfolio of installations that generates renewable electricity for millions of households.

Water

Water treatment and pollution control is an urgent need and fast growing sector. Much of the global water infrastructure is old, often leaking, or in some countries, still being built. Investment opportunities include a U.S. company that specializes in 'all things' water, from pumps for flood mitigation to building hybrid auto/water tunnels to smart water meters; and a U.S. manufacturer of water and fluid related engineering equipment for optimized flow and metering.

Waste

Recovering resources is often more profitable than producing new materials. Recycling and reuse is a powerful way to reduce the impact from material use on our planet. Investment opportunities include a Belgian materials technology company which produces automotive catalysts and recycles rare materials from discarded smart phone batteries and other electronic equipment, and a U.S. packaging firm which specializes in corrugated materials and sources 45 percent of its fibers from recycled content.

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³ "Are you ready for the resource revolution?" McKinsey Quarterly, March 2014 <http://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/are-you-ready-for-the-resource-revolution>

Food, Agriculture, and Forestry

Feeding, housing and clothing an increasingly populous planet requires greater efficiency and less waste across the food, agriculture and forestry markets. Investment opportunities include a U.S. packaging company which helps to reduce food spoilage and materials use through innovative packaging; and a fish farm in Norway which has collaborated with the World Wildlife Fund (WWF) since 2008 on sustainable aquaculture practices.

Looking Toward a Sustainable Future

Resource optimization is now firmly on the policy radar for governments globally. We believe that environmental challenges and the opportunities to mitigate these challenges are currently the strongest they have been for many decades. Ian Simm, Chief Executive of Impax, predicts that “an amazing opportunity lies ahead for the private sector to mobilize capital to help address environmental problems and lay the foundation for sustainable development.”

Pax World Management LLC

Pax World Management LLC, investment adviser to Pax World Funds, is a pioneer in the field of sustainable investing. Pax World integrates environmental, social and governance (ESG) research into its investment process to better manage risk and deliver competitive long-term investment performance. For over 45 years, Pax World has made it possible for investors to align their investments with their values and have a positive social and environmental impact. Today, its platform of sustainable investing solutions includes a family of mutual funds, as well as separately managed accounts.

Impax Asset Management Ltd.

Impax Asset Management Ltd, sub adviser to the Pax Global Environmental Markets Fund, is a leading global equity specialist, investing in companies active in the rapidly growing and inefficiently priced resource optimization markets. Impax has been researching and managing portfolios of publicly traded stocks and private equity in these markets for over 18 years. The firm has 30 investment team members with offices in London, New York, Portland Oregon and Hong Kong.

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RISK: Equity investments are subject to market fluctuations, the fund's share price can fall because of weakness in the broad market, a particular industry, or specific holdings. Emerging market and international investments involve risk of capital loss from unfavorable fluctuations in currency values, differences in generally accepted accounting principles, economic or political instability in other nations or increased volatility and lower trading volume.



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