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MITIGATING RISKS IN A FOSSIL FUEL FREE PORTFOLIO

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Over the past few years there have been a record number of studies analyzing the financial impacts of staying invested or avoiding fossil fuels — and the results demonstrate that investors can seek competitive returns while potentially experiencing advantages such as reducing their risk of holding potentially devalued assets. We also know that for a growing number of investors, fossil fuel companies pose distinctive risks that are not manageable to the extent required to make them attractive investments. It is no wonder that with the ethical, political and potential financial advantages, more people are looking for information on how to go fossil fuel free.

Investing in fossil fuel stocks carries inherent risk. Carbon-based energy companies' economic models are being disrupted by increasing climate regulation, a clear trend of rising production costs without corresponding growth in reserves, and increasing competition from cleaner renewable energy technologies. As such, fossil fuel companies may be facing a prolonged decline. Furthermore, health, safety, and environmental hazards and geopolitical instability only amplify the risks of investing in fossil fuel companies.

Not investing in fossil fuel companies also involves risk, as the Energy sector comprises more than 6% of both the S&P 500 and MSCI ACWI Index. The biggest risk to fossil fuel free portfolios is the lack of exposure when energy stocks are outperforming the broader market and the diversification benefits realized with full sector representation. Investors can work to mitigate these risks at the portfolio level by substituting stocks that have a high correlation with the Energy sector, stocks with comparable characteristics to energy producers, and stocks of companies that supply energy via renewable means or provide products/services that reduce energy reliance. An investor can pursue one, two, or a combination of all three alternatives based on the current market environment in order to maintain a risk/return profile similar to, and arguably

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Thinking CapitalSM

MATT PATSKY, CFA, CEO



The gender pay gap issue has finally reached the mainstream. More than 50 years after JFK signed the *Equal Pay Act*, which requires employers to provide equal compensation for equal work — without regard to gender; advocating for workplace equality is finally receiving bipartisan attention. Companies acknowledging the pay gap, and taking steps to correct it, is happening with more regularity, with CEOs recognizing that equal pay is good for business.

It is difficult to comprehend that here in the U.S., women, on average, are still paid only 79% of what men are paid — for the same work. For women of color, the pay gap is even wider. African-American women are reportedly paid, on average, 60 cents, with Latinas earning 55 cents for every dollar paid to white, non-Hispanic men — for the same work. A symbolic "Equal Pay Day" was recognized on April 12th. This date symbolizes how far into the year women must work to earn what men earned in the previous year.

The financial services sector is routinely found to have one of the

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TRILLIUM LEADS INVESTORS SUPPORTING U.S. AND CANADIAN LIMITS ON METHANE EMISSIONS

Led by Trillium Asset Management, a group of widely diversified, long-term investors representing \$3.6 trillion in assets under management has published an open letter of support for U.S. and Canadian efforts to limit methane emissions from the oil and gas sector.

Natural gas plays a significant role in the North American energy mix and has demonstrated the potential to reduce greenhouse gas emissions while supporting economic growth and lower energy prices. Production has been steadily rising over the past several years and that trend is expected to continue, driven in part by demand in the electric power industry as it shifts toward cleaner burning fuels. Continued growth will in part depend on ensuring that methane emissions are effectively kept in check.

The statement and complete list of signatories can be downloaded at www.ceres.org/methanestatement.

Methane, the primary component of natural gas, is 86 times more potent as a greenhouse gas than carbon dioxide over a 20-year period. The oil and gas sector is the largest industrial source of methane emissions in the US, and methane emissions occur throughout the entire oil and gas system, from production wells to distribution lines. Data released by the Environmental Protection Agency earlier this month showed that actual methane emissions from the oil and gas industry are 34 percent higher than previous official estimates. Methane represents a growing risk that does not fluctuate with commodity prices, and the risk can be managed in a shareholder-friendly, cost-effective manner.

The U.S. and Canadian announcement, made on March 10, 2016, commits both nations to reduce oil and gas methane

pollution by 40 to 45 percent over the next decade, and to put forth standards to achieve this goal.

“Common sense standards to reduce methane would be good for the climate, the energy sector and the broader economy,” said Jonas D. Kron, Senior Vice President at

Trillium Asset Management, LLC. “Evidence indicates that proven technologies that can reduce methane emissions by 40-45 percent at an average annual cost of less than one cent per thousand cubic feet of produced natural gas — a very cost effective price point. These technologies are commonsense ways to cut emissions and should be a central element to policy solutions for all countries looking to reduce their climate impact.”

According to Rhodium Group’s 2015 report on global methane emissions from oil and natural gas systems, wasted natural gas escaping into the atmosphere represents approximately \$30 billion of lost revenue. Capturing and reusing the gas represents a significant economic opportunity.

“We believe that the goal announced by the US and Canada is therefore in the long-term interest of the industry, as well as the U.S. economy as a whole” said Andrew Logan, Director of the Oil & Gas Program at Ceres. 

Thinking CapitalSM, continued from page 1

widest gaps in pay by gender relative to other parts of the economy. Despite women making up nearly one third of the financial services workforce, on average women earn significantly less than their male colleagues.

Trillium believes that companies and workers benefit from consistent, corporate-wide efforts to prevent discrimination, ensuring a respectful and supportive atmosphere for all employees. For investors who care about truly impacting women and girls, an investment portfolio should make gender considerations, along with issues such as income inequality, supply chain management, and climate change, core ESG criteria. It is through investments that target the intersection of these issues that the deepest impacts can be made.

As a firm, Trillium strives to achieve the same level of diligence and reporting that we ask of companies with whom we interact. Our Partners recently reviewed employee compensation to determine whether there is a pay imbalance between genders. I am pleased to share that our analysis, which was led by our resident economist, Cheryl I. Smith, Ph.D., CFA, indicates that after controlling for experience, role, training, hours of work and certification, gender has no statistically significant relationship to pay at our company.

Going forward, Trillium will routinely review our employees’ salaries to ensure that women and men in the company continue to be paid equitably. 

Mitigating Risks in a Fossil Fuel Free Portfolio, continued from page 1

better than, a portfolio with direct fossil fuel exposure. A fossil fuel free investor would also avoid some of the volatility associated with oil supply/demand imbalances, much like the one we are witnessing today.

As of year-end 2015, the Materials and Industrials sectors have exhibited the highest degree of correlation with the Energy sector over the past one, ten, and twenty year time periods. In addition, many companies within these sectors provide products/services to traditional

energy companies, even helping to increase efficiencies and reduce environmental impacts for the Energy sector overall. As such, substituting appropriate Materials and Industrials sector stocks can help investors achieve Energy sector-like stock price exposure. For example, Swedish air compressor equipment manufacturer Atlas Copco, has a global service network and innovates for sustainable productivity in the oil and gas industry. The company's energy efficient products are continuously developed and

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Fossil Fuel Free Investing at Trillium

Our **Fossil Fuel Free Core** strategy, which was launched in 2007, is based on an All Cap Core strategy, and excludes all companies that produce fossil fuel-based energy, including oil and gas companies and coal-based utilities. Due to the fossil fuel restrictions, the portfolio is typically underweight in Energy and Utilities stocks.

Trillium's **Sustainable Opportunities** strategy (SO) was started in 2008 with the goal of proactively identifying companies providing solutions to growing global sustainability challenges. From the beginning, there was an acknowledgement that traditional energy companies did not offer such solutions. To be included in Trillium's SO portfolio, a company must demonstrate it is directly creating positive change in one of three core areas: Economic Empowerment, Green Solutions, and Healthy Living.

By design, SO uses a high-conviction approach. Larger position sizes and greater international exposure distinguish it from Trillium's other core strategies. We have shown that we can provide competitive returns over the market cycle while managing a conscious choice to avoid fossil fuel investment exposure.

Stocks will fluctuate in response to factors that may affect a single company, industry, sector, or the market as a whole and may perform worse than the market. Bonds are subject to risks including interest rate, credit, and inflation. The Green Century Balanced Fund's environmental criteria limit the investments available to the Fund compared to mutual funds that do not use environmental criteria.

You should carefully consider the Green Century Balanced Fund's investment objectives, risks, charges and expenses before investing. To obtain a Green Century Funds Prospectus that contains this and other information about the Fund, please visit www.greencentury.com for more information, email info@greencentury.com or call 1-800-93-GREEN. Please read the Prospectus carefully before investing in the Green Century Balanced Fund.

The Green Century Balanced Fund is distributed by UMB Distribution Services, LLC., 235 W. Galena Street, Milwaukee, WI 53212. UMB is the distributor for the Green Century Balanced Fund and not for other investment products mentioned. 5/16

Trillium's **Portfolio 21 Global Equity** strategy is available both as a separate account strategy and as a mutual fund. The strategy has been fossil fuel free since its inception in 1999 and seeks to invest in global companies that demonstrate long-term perspective through environmental leadership. The strategy's rigorous selection criteria integrate financial and environmental, social and governance (ESG) research to seek high quality growth companies at a reasonable price, resulting in an equity portfolio that seeks positive risk-adjusted return.

The **Green Century Balanced Fund** (GCBLX) is an actively managed, no load, mutual fund that is accessible for a minimum investment of \$2,500 for regular accounts and \$1,000 for IRA accounts. It has been Fossil Fuel Free since 2005. The Balanced Fund, which is sub-advised by Trillium, does not invest in the exploration, drilling, refining or production of oil, gas or coal, or other environmentally harmful businesses. Green Century's commitment to environmental advocacy is rooted in its origins — it was founded in 1991 by a group of environmental advocacy organizations, a number of them state PIRGs (Public Interest Research Groups).

TODAY'S "MINIMUM" WAGE IS NOW A "POVERTY" WAGE

JONAS KRON, ESQ

In 1982, the year Trillium was founded, an annual minimum-wage income – after adjusting for inflation – was above the poverty line for a family of two. In 2016, that isn't even remotely true. With the federal minimum wage at just \$7.25 per hour, working 40 hours per week, 52 weeks per year, yields an annual income of only \$15,080, well below the federal poverty line of \$20,090 for a family of three and \$24,250 for a family of four.

It is not just low-paid workers that are struggling. A December 2015 Pew Report found that the middle class is no longer the majority in America.¹ This is concerning not only because the middle class has served as our economic backbone for generations but because this represents a shift of wealth and income away from this core of the American economy.

Investors have recently filed minimum wage-related shareholder proposals at Chipotle, Panera, Staples, TJX, Best Buy, CVS, and Men's Wearhouse.

for economic growth. But beyond avoiding risks, there are studies which suggests a minimum-wage increase could have a small stimulative effect on the economy.^{7,8} This is one reason why more than 600 leading economists, including seven Nobel Prize winners, argue the

U.S. should raise the minimum wage and index it.⁹

For investors, this increasing economic inequality, represents a number of problems. On a purely social basis, research has shown that it leads to more health and social problems; and weakens how well society functions. For example, Bureau of Labor Statistics reports that the higher one's income, the more likely he or she is to receive sick leave from an employer.² Specifically, sick leave benefits are provided to 87% of income-earning Americans in the top 10th percentile of income. In contrast, 20% of the bottom 10th percentile of income-earning Americans are provided the same benefits.³

So it is of little surprise that we have seen so much public attention given to the minimum wage in America. Since 2012 the "Fight for 15" campaign has mobilized tens of thousands of restaurant workers in hundreds of cities across the country attracting widespread public, media and business attention for their call for raises to \$15/hour. And while that has led to progressive political leaders raising their voices in support of increasing the minimum wage, what is surprising is that we are seeing support for a minimum wage increase from the other side of the aisle and from the business community.

Low wages also present problems for individual firms because, as Costco CEO Jelinek wrote regarding the need to pay strong wages, "We know it's a lot more profitable in the long term to minimize employee turnover and maximize employee productivity, commitment and loyalty."⁴

Earlier this year, Mitt Romney, the 2012 Republican Presidential Nominee stated "I think we're nuts not to raise the minimum wage. I think, as a party, to say we're trying to help the middle class of America and the poor and not raise the minimum wage sends exactly the wrong signal."¹⁰ The CEOs of Morgan Stanley, McDonald's, and Panera have all indicated support for minimum wages to be raised. Peter Georgescu, chairman emeritus of Young & Rubicam, wrote in a NY Times op-ed, *Capitalists, Arise: We Need to Deal With Income Inequality*, "Business has the most to gain from a healthy America, and the most to lose by social unrest."¹¹

And for investors exposed to systemic risks and economy wide trends, poverty-level wages may raise risks related to weakening consumer spending and corporate social license. According to a study by the International Monetary Fund, *Causes and Consequences of Income Inequality: A Global Perspective*⁵ and a Morgan Stanley report, *Mind The Inequality Gap*⁶, economic inequality is hurting the potential

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1 <http://www.pewresearch.org/fact-tank/2015/12/10/5-takeaways-about-the-american-middle-class/>

2 <http://www.epi.org/publication/rich-people-have-paid-sick-days-poor-people-do-not/>

3 <http://www.bls.gov/ncs/ebs/benefits/2014/ebbl0055.pdf>

4 http://www.huffingtonpost.com/2013/03/06/costco-ceo-minimum-wage-craig-jelinek_n_2818060.html

5 <https://www.imf.org/external/pubs/ft/sdn/2015/sdn1513.pdf>

6 <http://www.morganstanleyfa.com/public/projectfiles/02386f9f-409c-4cc9-bc6b-13574637ec1d.pdf>

7 <http://www.dol.gov/featured/minimum-wage/mythbuster>

8 <http://www.epi.org/minimum-wage-statement/>

9 *ibid*

10 <http://www.boston.com/news/local/massachusetts/2016/01/13/mitt-romney-gop-nuts-for-not-supporting-minimum-wage-increase/ytG1iO-003D40alo9ZgxRrJ/story.html>

11 <http://www.nytimes.com/2015/08/09/opinion/sunday/capitalists-arise-we-need-to-deal-with-income-inequality.html>



TRILLIUM SUBMITS COMMENTS TO EEOC IN SUPPORT OF SUMMARY PAY DATA BY GENDER, RACE AND ETHNICITY

On behalf of our clients, Trillium Asset Management has written to the Equal Employment Opportunity Commission in support of a proposal to collect summary pay data by gender, race and ethnicity.

Our firm is pleased that the Commission is moving forward with this proposal, as gender pay disparity has become a significant public policy and economic issue which has garnered increased attention not only from lawmakers and civil society, but also from individual and institutional investors, and companies.

We believe the proposed rule represents an effective means by which companies can better measure and manage gender pay disparity. We also believe that a finalized rule will serve to drive greater investment in pay equity initiatives that will benefit companies, investors and the economy as a whole.

While Trillium is a small employee-owned firm with fewer than 50 employees, our Partners recently reviewed employee compensation to determine whether there is a pay imbalance between genders at our firm. Our statistical analysis indicates that after controlling for experience, role, training, hours of work and certification, gender has no statistically significant relationship to pay at our company. Going forward, Trillium will routinely review our employees' salaries to ensure that women and men in the company continue to be paid equitably.

Trillium's letter to the Equal Employment Opportunity Commission can be downloaded at www.trilliuminvest.com. 

TRILLIUM PUBLISHES 2016 PROXY VOTING GUIDELINES

Each year, companies seek votes from shareholders on items that are pending on their annual proxy ballots. The issues that shareholders can vote on range from the approval of boards of directors to social and environmental issues — including proposals that Trillium and other SRI investors file every year.

Regrettably, too many investment managers and traditional mutual funds fail to responsibly vote their clients proxies, either by not voting at all or always voting exclusively with managements' recommended positions.

The U.S. Securities and Exchange Commission requires investment managers to disclose to clients their policies for voting proxies and their voting records. At Trillium, we're proud of the responsibility we've taken to develop and

communicate to clients our proxy voting policies, and we take that voting very seriously.

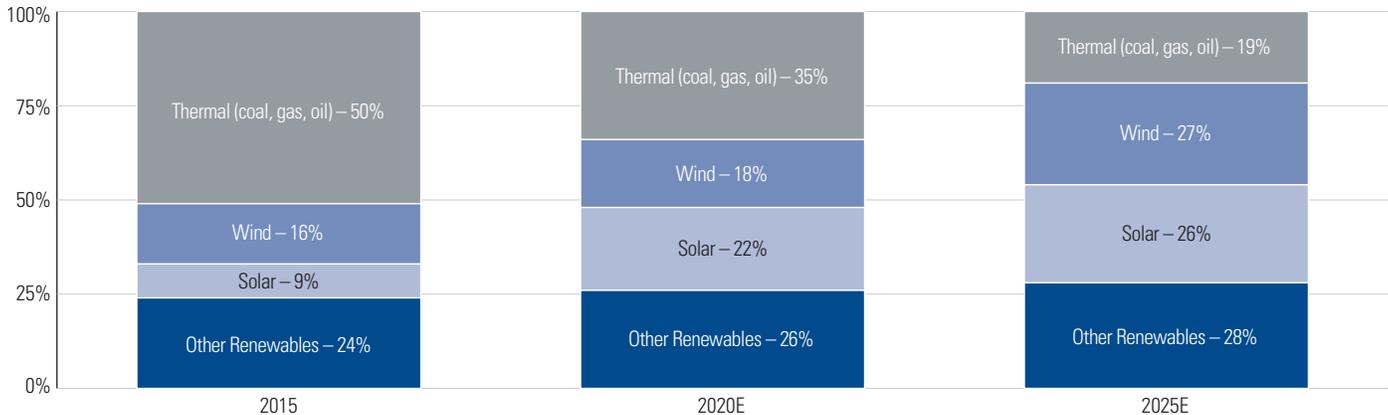
Our proxy voting guidelines are designed to reflect the fiduciary duty of Trillium to vote proxies in the best interest of our clients. Our goal is to ensure that we vote our clients' proxies in accordance with both their financial interests and their values.

Trillium's updated 2016 proxy voting guidelines can be downloaded at www.trilliuminvest.com. 

Mitigating Risks in a Fossil Fuel Free Portfolio, *continued from page 3*

By 2025, solar and wind will account for half of capacity-adjusted gross additions in the power sector.

Market share of solar PV and onshore wind in gross capacity additions (capacity factor adjusted)



Source: Goldman Sachs Global Investment Research.

improved to reduce emissions and increase its customers' competitiveness. Moreover, companies, such as Atlas Copco, are less likely to be negatively impacted should regulation dictate that much of the proven fossil fuel reserves remain in the ground, because their products/services are complimentary to other industries. Fossil fuel companies need to extract proven reserves in order to fund operating expenditures and service debt.

Large cap energy stocks generally trade at low relative price-to-earnings multiples and with above-average dividend yields under normal market conditions. These companies account for the majority of the major indices' energy allocation. The weighted average market cap for the Energy sector within the MSCI ACWI Index was over \$100 billion at the end of 2015, down from over \$120 billion at the end of 2014, and down from around \$140 billion at the end of 2013. The price-to-earnings ratio of the MSCI ACWI Energy sector at the end of 2015 rose to slightly above the overall index, but only because earnings declined significantly.

The energy sector generally trades at lower valuation multiples. The price-to-earnings ratio of the MSCI ACWI Energy sector at the end of 2014 was the lowest among the ten economic sectors and more than 20% below the index overall, which is consistent with historical valuation levels. The dividend yield of the MSCI ACWI Energy sector dwarfs the other ten economic sectors at around 4.5%. At the end of 2014, only the Telecommunication Services sector has a higher yield than the Energy sector. Stocks with these attributes can be found within all of the economic sectors, but are most prevalent in the Technology and Healthcare sectors today. Holding these types of companies which have positive correlation to the energy sector could further the objective of achieving correlation with the Energy sector.

Substituting environmental technology stocks for fossil fuel stocks may also be a viable option given the more attractive growth prospects for clean energy solutions. Research has been published from major securities firms that takes a bearish perspective regarding fossil fuel sectors and bullish position with regard to renewable energy. For example, Goldman Sachs forecasts that the added capacity of renewable energy will surpass fossil fuel capacity additions significantly in coming years. Economic sector analysts at Trillium have long held this view.

There are numerous "alternative" investment opportunities that provide exposure to the world's growing need for additional energy infrastructure. Wind, solar, hydroelectric, and waste-to-energy stocks are top of mind. Emerging renewable technologies, including fuel cell and tidal generated energy, may also become attractive substitutes at some point. Furthermore, many engineering and construction companies are leveraged to the space. Energy efficiency is another way to benefit from rising energy demand. Companies that have business models based around energy efficiency have a tendency to perform well when the economic cycle is in the expansion phase and fossil fuel costs are highest, i.e. when "traditional" energy stocks perform best.

In summary, it is possible to produce risk adjusted returns that are competitive with appropriate broad market benchmarks through a portfolio that does not invest in fossil fuel companies.

Increasingly, investors are choosing to eliminate all traditional energy from their portfolios, and have found that this approach has minimal negative impact on performance over the long-term. In fact, at Trillium, nearly half of our assets under management are managed in a fossil fuel free investment strategy. 

INVESTORS APPLAUD OBAMA ADMINISTRATION PLANS TO REGULATE METHANE EMISSIONS

Investors welcome the White House's announcement that the Administration will move forward with new rules to regulate methane emissions from existing sources in the oil and gas supply chain.

We believe this rule is important because methane that leaks is lost revenue for companies and investors and methane is 86 times more potent as a greenhouse gas than carbon dioxide, over a 20-year period. While fracking is most commonly associated with hazardous impacts to water sources, methane "flares" and leaks are an all too common consequence of oil and gas extraction. The potent climate impact of leaking methane lessens natural gas' ability to play a role in a cleaner energy mix.

For years, investors have pressed companies to reduce their methane emissions with proven, cost effective,

technologies and have supported intelligent policy solutions to cut methane waste.

Trillium applauds the Administration's announcement and following our review of the details, we look forward to encouraging the Administration to move forward with comprehensive and rigorous rules. Now is not the time for industry and its trade associations to fight this initiative — it is time for them to become part of the solution. 

TRILLIUM COMMENDS OREGON LEGISLATURE FOR ITS GROUNDBREAKING REJECTION OF COAL

At Trillium, we believe that climate change is the defining investment issue of our time. We also believe it provides one of the greatest economic opportunities of the 21st century.

In early March, the Oregon legislature passed Senate Bill 1547, which will phase out coal-powered energy generation use in the state and require utilities to meet half of customer demand with renewable energy by 2040. This means that by 2040, 50% of Oregon's power will come from renewable resources such as wind and solar.

When signed into law, the bill — the first major statewide climate policy after the Paris Agreement — would make Oregon the first state to cut ties with coal-fired power plants. Coal-powered electricity plants are the world's largest contributor to climate change. The lack of national climate policy makes state leadership from places like Oregon critical to scaling up climate change solutions.

The bill, which follows an agreement between Pacific Power and Portland General Electric — along with clean energy advocates, now heads to Governor Kate Brown for her signature.

The frequency and severity of extreme weather systems continues to impact the lives of people globally and increasingly in our own communities. Climate change is no



longer solely a threat to future generations. The damage to homes, livelihoods, and lives is happening today.

In February, Trillium, which has an office in Portland, Oregon, strongly urged the Oregon legislature to pass SB 1547 in an Op-Ed which was published by Sustainable Business Oregon. We commend the Oregon legislature for the decisive leadership they have shown on this critical issue. 

SPRING/SUMMER 2016 Trillium Asset Management

Today's "Minimum" Wage is now a "Poverty" Wage, *continued from page 4*

All of this provides a backdrop to a growing number of shareholder proposals that press companies to adopt principles for minimum wage reform and address economic inequality. Building upon the efforts of the Interfaith Center for Corporate Responsibility and others, Trillium Asset Management, Domini Social Investment, Zevin Asset Management, Calvert Investments, and Walden Asset Management have filed these and related shareholder proposals at Chipotle, Panera, Staples, TJX, Best Buy, CVS, and Men's Wearhouse.

By engaging companies on these important issues, we hope to persuade them to become a positive force in the efforts to address economic inequality and to work with them to raise the minimum wage at the national, state and local levels. 

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Randy Rice, *Editor*

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