



# NYC and NYS pension funds should divest coal stocks:

A shrinking industry, weak upside, and wrong on climate change



Photo of the Powder River Basin, 2013 by Gary Braasch



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# Executive Summary

The New York State and City public pension funds, collectively valued at over \$300 billion, should divest their holdings in coal mining companies. The current position of the U.S. coal industry, and increasingly that of coal producers worldwide, is weak. And the worst is yet to come. U.S. coal company leadership has no effective investment rationale for improving stock performance. Each pension fund has limited holdings in the coal sector. Selling the stock would actually put the money to more profitable use and better protect the beneficiaries of the funds.

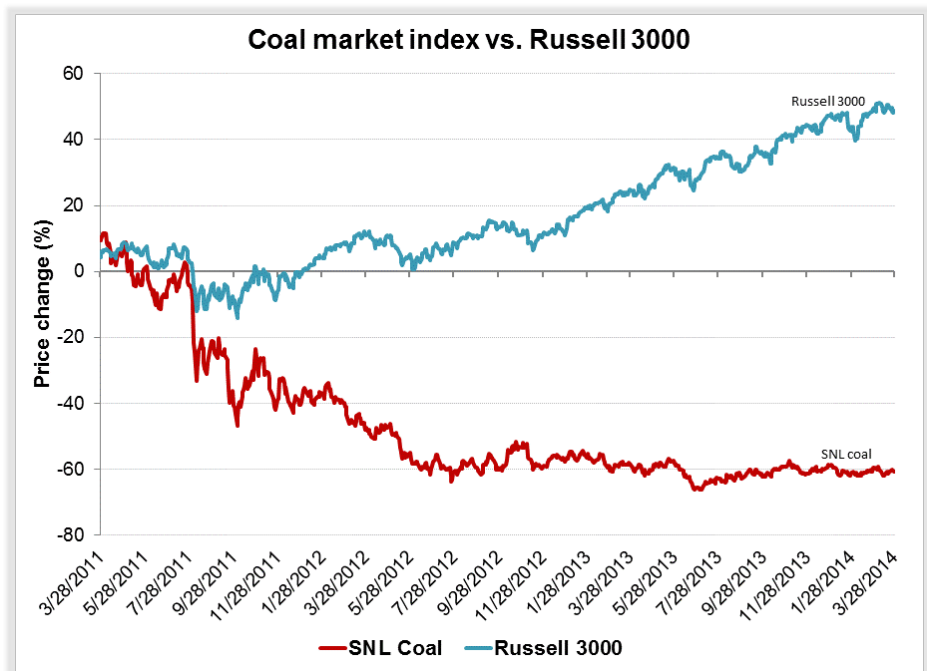
In the past three years, a portfolio of U.S. coal stocks, including the nation's leading companies – Peabody Energy, Alpha Natural Resources, Cloud Peak Energy and Arch Coal – has declined by 61%, at a time when the Russell 3000 Index has increased by 47%. Peabody Energy, the world's largest pure-play private sector coal company, has lost 74% of its value over the last three years. Recently, Goldman Sachs (a company with major holdings in the coal sector) and Bernstein Research have published market research showing that the window for investors on thermal coal (coal for electricity plants) is closing. The metallurgical coal markets (coal for steel production) will be insufficiently robust to offset these losses.

The stock price collapse and lost market share comes as industry profits are down, twenty-six small coal producers have gone bankrupt, mine employment levels are on the decline, and Wall Street analysts are questioning coal's future.

Coal industry leaders are following a plan for recovery that is weak and ineffective.

The industry is hoping for higher natural gas prices in order to allow coal producers to raise prices and profits. Even if natural gas prices rise, the increase will not be sufficient to boost industry profits for new investment in coal. Individual coal companies have embarked on cost-cutting, asset sales and other strategies to confront the worldwide drop in coal

prices. These efforts are having only marginal impact. Efforts by the coal industry to step up coal exports from the U.S. are floundering on a weakened global market as China reduces coal demand and public opposition to air pollution grows. The nation's largest coal producers are deeply in debt and



struggling to maintain liquidity. They are in no position to launch a financial comeback as a major global player.

A careful analysis of industry activities shows that significant time and resources are spent in opposition to environmental and climate law and regulation. The industry's opposition to clean air, clean water, mining health and safety, and efforts to combat climate change has proven profitable in the past. This political strategy no longer works. The cumulative effect of dramatic market changes and public opposition to coal eroded the ability of the industry to improve its financial position by political means only. The industry's most significant recent political victory occurred with the defeat of a federal energy and climate bill in 2010. Despite this victory for the coal industry, stock prices for coal companies have since plummeted – at a time when the nation's economy is recovering and the broader stock market has enjoyed robust growth.

The obligation of public pension fund managers is first and foremost to the beneficiaries of the fund, government employees and their families. Pension fund managers must ensure that monthly pension checks to retirees are paid and the future of the fund secured. Fund managers must be ever alert to companies and industries where financial performance departs significantly from overall market performance and where there is no compelling rationale that leads to improved stock performance. Pension fund managers should have little trouble finding ways to replace investments for their limited holdings in the U.S. coal industry. The New York State Common Retirement Fund holdings in U.S. coal producers, for example, represents just under one and one half hundredth of one percent of the fund's \$161 billion holdings. The portfolio has lost an estimated \$108 million in share value since 2011 on the portfolio of the four largest U.S. coal stocks.

There are three clear benefits to coal divestment. First, the pension funds shed a small basket of losing assets. Second, two large institutional funds divesting at this time are a new financial benchmark that signifies continuation of a shift by investors away from coal. The investment action also highlights the need for a national energy policy and financial strategies that rebuild and reform the power sector. Third, divestment of coal holdings represents a vote of no confidence in coal industry leadership. Institutional investors require solid returns on their investment. In these times this means coal industry leaders must make a positive contribution toward national and international solutions on pollution and climate change. The coal industry has failed to produce in this area.

Coal divestment also raises the broader discussion about how these investment funds should confront the larger issue of fossil fuels – foreign coal producers, utilities that burn fossil fuels, and the oil and gas companies that drill and deliver these resources. Those questions need to be addressed by an active debate among fiduciaries and the people who help manage funds.

# Financial case for divestment of coal

For decades the U.S. coal industry has relied primarily on public utilities and other power generators to consume vast amounts of coal to produce the nation's electricity supply. Annual coal production in the U.S. typically reaches 1 billion tons, most of which is for coal fired plants providing electricity. The coal industry grew as the dominant fuel source for the type and size of Post-World War II economic growth in the United States. Today, there is a change going on. Coal is losing market share to natural gas, renewables, and energy efficiency. The loss of market share has brought with it for the major publicly traded coal producers in the United States: Alpha Natural Resources, Cloud Peak Energy, Arch Coal, and Peabody Energy <sup>1</sup> – a severe downward spiral. Many smaller coal producers face deeper financial trouble and a growing prevalence of bankruptcies.

## Recent past and current profitability – Coal has lost money

Coal industry fails to build 182 new plants, <sup>2</sup> 162 existing plants retired<sup>3</sup>

In 2005, the coal industry and federal government launched an initiative<sup>4</sup> to build 150 new coal plants to replace the nation's aging fleet of power plants. More plants were proposed that were not part of the plan; in total, 182 proposed new plants, valued at \$273 billion, have been canceled at various stages of development. Those new coal plants would have allowed for the retirement of aging coal, nuclear, and hydropower plants. <sup>5</sup> The new coal plants would also have maintained the demand for a steady supply of coal ensuring the investment value of the nation's coal producers, power generators and utilities.



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<sup>1</sup> These are the top four producers of coal in the United States accounting for over half of all production. For a more detailed look at this issue see: <http://www.eia.gov/todayinenergy/detail.cfm?id=13211>. CONSOL Energy has historically contributed a significant amount of coal to national production. As discussed below the company recently sold most of its coal assets and now is principally involved with the production of oil and gas.

<sup>2</sup> <http://content.sierraclub.org/coal/environmentallaw/plant-tracker>

<sup>3</sup> <http://content.sierraclub.org/coal/victories>. The Sierra Club counts as retired those plants where an announcement has been made and a date set for closure.

<sup>4</sup> National Energy Technology Laboratory (NETL), *Tracking New Coal-Fired Power Plants, Coal's Resurgence in Electric Power Generation*, May 1, 2007. NETL's plan would have created 90 GW of electricity and cost approximately \$145 billion. For the purposes of this paper, the cost of construction is assumed to be for a 600 MW coal plant at a cost of \$2500 kw. The full cost for the original portfolio of 150 new plants is estimated at \$225 billion. The 182 plants would conservatively be valued at \$273 billion. Not all plants were sponsored by investor owned utilities. Some were sponsored by public power authorities, others by rural electric cooperatives – all require access to capital markets where return on investments is calculated against risk.

<sup>5</sup> For a discussion of the financial and political issues involved with the plans and ultimate cancellation of these power plants see [http://www.asyousow.org/health\\_safety/coalwp.shtml](http://www.asyousow.org/health_safety/coalwp.shtml)

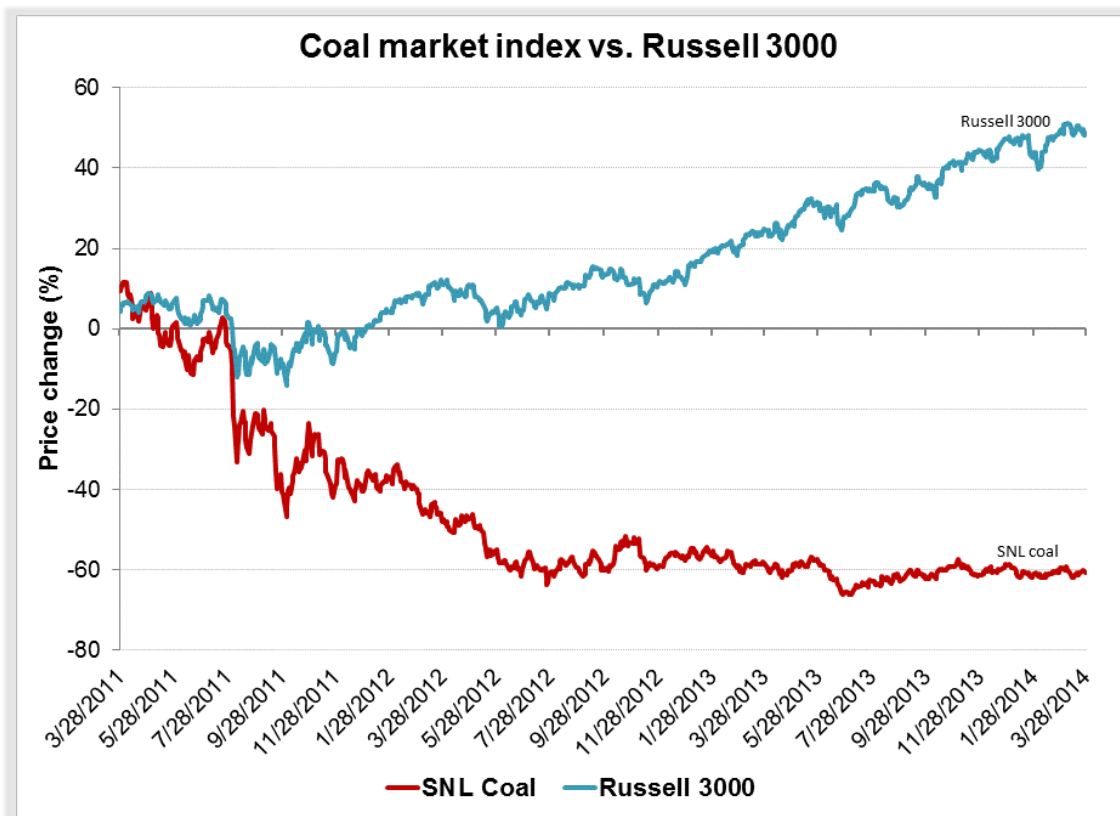
## Market share is down

The inability of coal to compete effectively with alternatives has left utilities and power generators with severely declining revenues and significant value losses on existing coal plants. This has led to the retirement of much of the aging coal fleet. New investment in power generation is now favoring natural gas and renewables.

The coal industry supplied 50% of the nation's electricity as recently as 2003 and for most of the 1990's. Coal's market share dropped to a historic low of 33% in April 2012.<sup>6</sup> The United States Energy Information Administration and some industry observers expect market share to rise slightly and then drop again.<sup>7</sup> Recently Black and Veatch projected that coal's market share in the United States power market would drop to 21% by 2038.<sup>8</sup> Coal production for electricity has also declined from 1 billion tons per year for the last decade to a recent low of 825 million tons in 2012. Some analysts see a near-term, new normal for thermal coal of 800 to 850 tons per year.<sup>9</sup>

## Stock prices collapse

The performance of coal industry stocks individually and collectively have collapsed over the last three years. The stock market has risen dramatically during this period. The Russell 3000 has increased by



<sup>6</sup> [http://www.eia.gov/electricity/monthly/epm\\_table\\_grapher.cfm?t=epmt\\_1\\_1](http://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_1_1)

<sup>7</sup> <http://www.power-eng.com/articles/2013/04/eia-coal-to-recapture-some-of-the-energy-market-lost-to-natural-.html>

<sup>8</sup> Rob Patrylak and Ann Donnelly, 2014 Energy Market Outlook and Industry Trends: Energy Market Perspective, January 21, 2014. (Black and Veatch)

<sup>9</sup> Darren Epps, "New normal" for U.S. thermal coal market said to be 800-850 millions tons, SNL, February 20, 2014.



47%. According to the SNL Coal Index, coal stocks have declined by 61%. Peabody Energy, the world's largest private sector pure-play coal producer lost 74% of value during this period. According to one long-time investor in the coal space, coal is now a last-in-class investment.<sup>10</sup>

A prolonged decline in the coal market at a time of a rising U.S. economy is stark and historically unique. Typically, as the economy heats up so does coal production and prices. What this decoupling suggests is that the U.S. economy is increasingly able to grow while burning less coal.

### Company profits are weak

A review of 2013 year end statements of Arch<sup>11</sup>, Alpha Natural Resources<sup>12</sup>, Peabody Energy<sup>13</sup> and Cloud Peak<sup>14</sup> shows continued weak financial performance. Arch, Peabody, and Alpha posted operating losses. Cloud Peak's profit picture, while positive, deteriorated from 2012 to 2013. And, Peabody Energy's adjusted EBITDA declined by 40%. Only Cloud Peak posted positive net income of \$52 million, down from \$172 million in 2012. Each company is projecting continued stress on 2014 revenue and margins.

### Overleveraged: Legacy debt and lack of capital for the future

Since 2004 coal industry borrowing has risen from \$3 billion to \$20 billion.<sup>15</sup> In 2011 several major acquisitions took place.<sup>16</sup> The assets acquired in those transactions involving the largest coal producers in the country are not producing new value for investors. Cash-strapped companies are looking to sell assets to improve liquidity during a down market.

One recent commentary places the coal industry's overleverage in perspective. "In our opinion, the problem for U.S. coal did not start with the weak natural gas prices of 2012. Rather, we'd argue the problems started with a wave of M&A during the previous year," Jefferies analyst Peter Ward said. "In two decades covering the mining industry, these were some of the most regrettable transactions we had ever seen. And, we said so at the time. Sadly, we have seen too much of a desire to get bigger simply for the sake of getting bigger throughout the mining industry."<sup>17</sup>

U.S. coal producers are weak at precisely the point when they need deep pockets to finance growth. CONSOL Energy's recent divestment of a significant portion of its coal assets represents a clear counterpoint to the general strategy of the coal industry. In late 2013, CONSOL sold five of its longwall mining assets to Murray Energy. The company retained some of its most lucrative mines and

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<sup>10</sup> Kurt Oehlberg, Managing Director, FBR, *U.S. Coal Investment Strategy*, February 7, 2014

<sup>11</sup> Arch Coal, Inc., *Arch Coal Inc. Reports Fourth Quarter and Full Year 2013*, February 4, 2014

<sup>12</sup> Alpha Natural Resources, *Alpha Natural Resources Announcing Results for Fourth Quarter and Full Year 2013*, February 12, 2014.

<sup>13</sup> Peabody Energy, *Peabody Energy Announces Results for the Year Ended December 31, 2013*, January 30, 2014.

<sup>14</sup> Cloud Peak Energy Inc., *Cloud Peak Energy Inc. Announces Results for Fourth Quarter and Full Year 2013*, February 13, 2014.

<sup>15</sup> Everett Wheeler, *Cash strapped coal companies seek relief through coal sales*, SNL, December 13, 2013.

<sup>16</sup> Everett Wheeler, *Cash strapped coal companies seek relief through coal sales*, SNL, December 13, 2013.

<sup>17</sup> Darren Epps, *After met coal market collapse, an uncertain future for the coal industry*, SNL, March 27, 2014.

announced that proceeds from the coal sales would be used for CONSOL's more promising investments in the gas industry.<sup>18</sup> In short, the company's survival strategy is to exit coal.

## Financial stress and bankruptcies

Most of the larger coal companies in the U.S. are facing tough economic times. Patriot Coal, a publicly traded company, underwent one of the largest bankruptcies during 2013. There were at least 26 bankruptcies of mostly small coal producers during 2012-13.<sup>19</sup> These bankruptcies are concentrated in the southeast region of the United States. Many of the mines affected by the bankruptcies are unlikely to return to the market.<sup>20</sup>



via [Fairness at Patriot / Facebook](#)

## Job losses mount

The coal industry is losing jobs. Employment levels during 2013 dropped by about 9.3% nationwide.<sup>21</sup> Job losses occurred in every coal region of the country. Recently the Governor of Kentucky spearheaded a public dialogue on the need for a new economic blueprint for the State that emphasizes greater diversification<sup>22</sup> in the face of the loss of coal mines and employment.<sup>23</sup>



Kentucky Coal by Mario Tamac

<sup>18</sup> T. Kuykendall, *CONSOL CEO: Coal segment sold to Murray 'doesn't fit' growth strategy*, SNL Financial, October 28, 2013.

<sup>19</sup> Darren Epps, *Bankruptcies continue to wreck coal companies in 2013, but hope for the survivors*, SNL, December 5, 2013.

<sup>20</sup> Peabody Energy, Q3 2013 Earnings Call Transcript, October 17, 2013. (Peabody Transcript)

<sup>21</sup> Neil Powell and Taylor Kuykendall, *U.S. coal mine employment continues to plummet with no bottom in sight*, SNL, February 13, 2014.

<sup>22</sup> In addition to job losses in the coal mining sector states are beginning to see lower revenues from various taxes on coal and more generally on state income. Coal severance tax revenues in Kentucky are declining absolutely and relative to all state revenues. State revenues however are generally on the rise. See: Office of State Budget Director, Commonwealth of Kentucky, *Quarterly Economic and Revenue Reports*, Second Quarter FY 2014, January 30, 2014. West Virginia fiscal experts have identified lower coal revenues and rising revenues from natural gas production as a significant trend in forward looking state fiscal plans, <http://www.wvpolicy.org/wp-content/uploads/2012/11/Severance-Tax-Trends-November-26-2012.pdf>

<sup>23</sup> Taylor Kuyendall, *KY governor highlights economic diversification effort for ailing coal region*, SNL, January 22, 2014.



## Analyst consensus: Weak forward-looking financial outlook

Credit rating agencies see continued weak performance from the sector through 2014 and 2015. Moody's Investor Services provides an industry overview. It concludes that even with some improved demand, prices will not improve appreciably. Profit margins remain squeezed.<sup>24</sup> If accurate, these projections would make 20 straight quarters of lagging financial performance (the last three years and the next two forward-looking).

The Moody's industry outlook is reflected in credit challenges faced by most of the companies in the coal space. During 2013 the largest companies in the sector were either on negative outlook or downgraded.<sup>25</sup> The company that appears to have the most promise is Cloud Peak Energy. Cloud Peak has lost less in market value than the other companies over the last three years – approximately 20% of value (see graph in Appendix). Cloud Peak's more favorable rating reflects its lower costs, but the company remains under stress.

A recent spate of commentary and analysis on the coal industry highlight its current troubles and deteriorating outlook. Some of the topics include significant stock price downgrades,<sup>26</sup> ongoing regulatory dilemmas,<sup>27</sup> structural decline of the coal industry,<sup>28</sup> unstable corporate leadership,<sup>29</sup> and a historic failure to innovate.<sup>30</sup>



Cloud Peak Energy gives a tour to a school group. Source: [www.osmre.gov](http://www.osmre.gov)

<sup>24</sup> Moodys Investor Service, *U.S. Coal Industry Faces Steady but Weak 2014*, with no relief in sight, December 11, 2013.

<sup>25</sup> Moody's Investor Services, Moody's Downgrades Peabody to Ba2, outlook stable, August 21, 2013; Fitch Ratings, Fitch Affirms Peabody Energy IDR at BB+, outlook negative, May 9, 2013; Rohan Somanwanshi, Standard and Poors cuts Alpha Natural Resources credit ratings on weak earnings, SNL, December 10, 2013; Darren Epps, S & P lowers Arch Coal's credit rating, expects very weak credit measures, SNL, December 12, 2013; Waqas Azeem, Action Items, December 19, 2013 report on Standard Poors expectations of Arch's weak credit performance.

<sup>26</sup> Kristine Esperacion, *Wednesday's Energy Stocks: Coal sector declines on heels of UBS downgrades*, SNL, March 26, 2014 and Darren Epps, *UBS downgrades trio of US coal companies as met coal markets deteriorate*, SNL, March 26, 2014.

<sup>27</sup> Dan Lowery, *The stark reality facing the US coal industry as it wages a fight for its life*, SNL, March 14, 2014 and Darren Epps, Bernstein's MATS role, renewables to deliver 106 million ton blow to US coal, SNL, March 21, 2014.

<sup>28</sup> Darren Epps, *Secular Decline the likely long-term scenario for US coal, says Barclays*, SNL, March 17, 2014.

<sup>29</sup> Taylor Kuykendall, *New leadership wave sweeps through coal sector amid heightened industry pressure*, SNL, March 27, 2014.

<sup>30</sup> Taylor Kuykendall, *Engineer tells coal industry leaders to innovate, embrace new technology*, SNL, March 18, 2014.

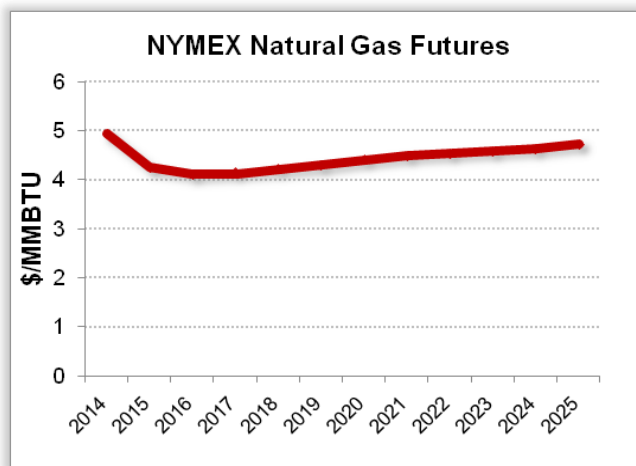
## Recovery plan for shrinking coal industry is weak and ineffective

A decision to divest from one company, and more so from an entire industry, must be based on more than simply three bad years of stock performance and declining financial conditions. The loss of share value over the last three years must be weighed against the likelihood of success of the coal industry's publicly stated recovery initiatives.<sup>31</sup>

The coal industry strategic recovery plan as articulated by its CEOs and various industry stakeholders seeks to gain back market share. There are a number of short and long term components to the overall effort. In addition to hoping for a permanent, long term increase in natural gas prices, the industry is relying on four major initiatives: 1) control costs through efficiency initiatives, capital spending reductions, asset sales, and other actions; 2) oppose efforts to enact or enforce laws and regulations that limit pollution and addresses climate change; 3) participate in a technological renaissance that improves coal burning and the consensus around it; and 4) increase exported coal from the United States.

### Coal's competitive position in the U.S. power industry is weak and expected gains are insufficient to restore market share

The cornerstone of any coal industry recovery requires an extended period of rising natural gas prices and a market consensus that rising prices will continue. According to coal proponents, a rebound in natural gas prices would increase the utilization of existing coal plants and provide confidence in new investment. Domestically, coal's loss of market share in recent years is due to weak power prices caused by low natural gas prices, weak electricity demand, and competition from renewable energy. These factors are not expected to reverse themselves in the near future.<sup>32</sup> The New York Mercantile Exchange's (NYMEX) future prices for natural gas do not show gas prices at the Henry Hub increasing above \$5/MMBTU through 2025, as shown in the graph.<sup>33</sup>



Meanwhile, stagnating electricity demand is a new fact of life, in part due to the de-industrialization of the U.S. economy and in part due to the successful efforts of energy efficiency programs. The growth of renewable energy also continues to exert downward pressure on existing coal power generation. In 2013, coal accounted for only 10% of newly installed capacity (including upgrades to existing

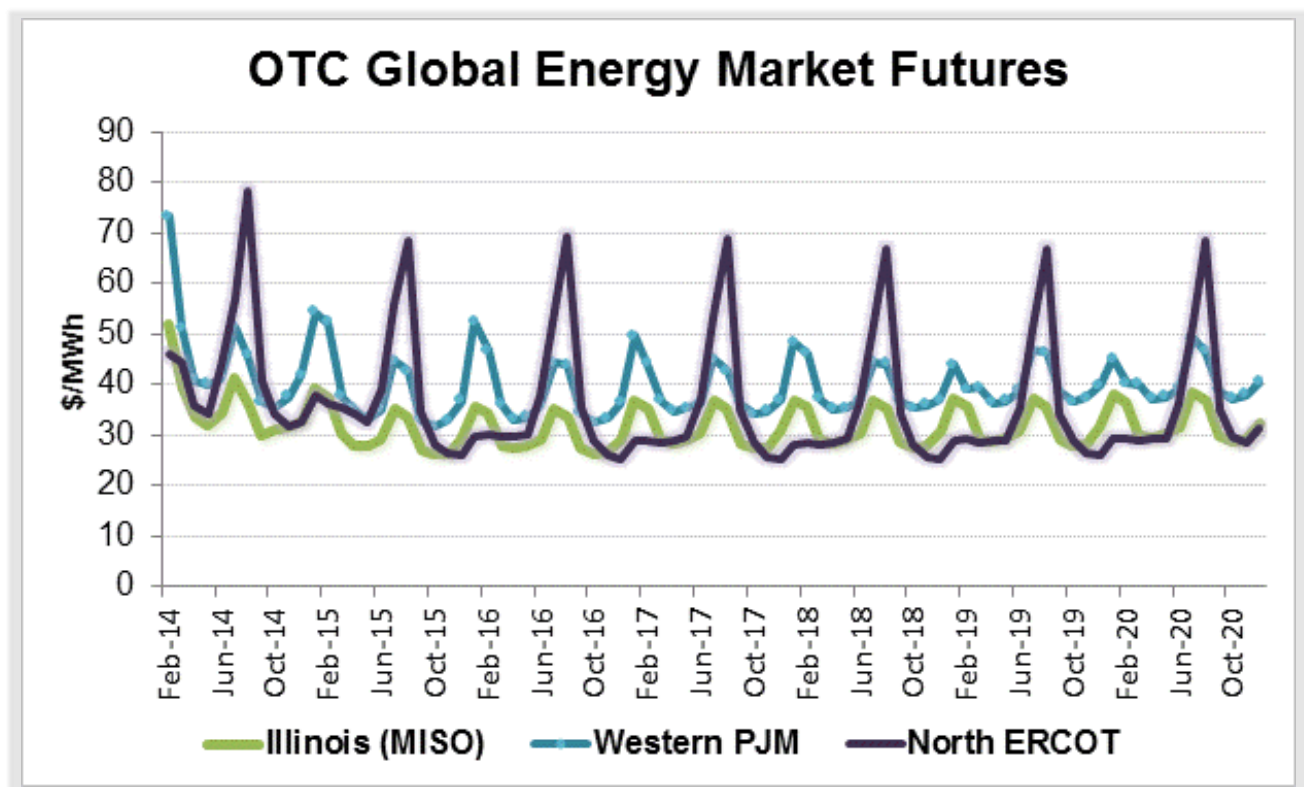
<sup>31</sup> This paper refers to the coal industry response as a "plan." There is no blueprint for recovery published by any industry group, but the plan is actually a series of evolving initiatives launched in press releases, investor disclosures, state houses, Washington and other public and private efforts by various leaders of the coal industry. Unlike the oil and gas industry, where Exxon Mobil and BP regularly publish a comprehensive global energy outlook, the coal industry does not publish its view of national and global energy markets.

<sup>32</sup> For a recent industry overview see: Black and Veatch.

<sup>33</sup> *NYMEX Natural Gas Full Value Future/Forward*, SNL Financial, accessed February 17, 2014.

generation).<sup>34</sup> According to UBS Investment Research, “[w]e see the combination of state-by-state renewable mandates and energy efficiency initiatives as inevitably leading to a supply/demand imbalance that will put further pressure on baseload coal and nuclear retirements over time.”<sup>35</sup>

As a result of these market dynamics – low natural gas prices, weak electricity demand, and increasing competition from renewables – power prices will remain low through at least the end of the decade.<sup>36</sup> The following graph shows future prices for power markets with significant amounts of coal generation – the Midwest (MISO), Mid-Atlantic (PJM) and Texas (ERCOT). These prices reflect investor expectations regarding natural gas prices, electricity demand and competition between generating sources. Utility investors have lost billions in coal plant asset values due to these unfavorable market dynamics.<sup>37</sup> In addition, those utilities with significant exposure to deregulated energy markets, including First Energy and Exelon, are shifting assets back under regulation in order to restore these uneconomic plants to long term regulatory protection.<sup>38</sup>



<sup>34</sup> Federal Energy Regulatory Commission, *Energy Infrastructure Update*, December 2013. <https://www.ferc.gov/legal/staff-reports/2013/dec-energy-infrastructure.pdf>

<sup>35</sup> UBS Investment Research, *Renewables: Threat to traditional gen*, November 15, 2013.

<sup>36</sup> SNL Financial, *OTC Global Holdings futures prices*, accessed February 17, 2014.

<sup>37</sup> Fitch Ratings, *The Erosion in Power Plant Valuations, Special Report*, September 25, 2013. While this paper principally addresses the loss of value in the coal sector, valuation losses from coal fired generation in the utility and merchant power sector are also extraordinary and pose a separate set of risks to institutional investors with utility holdings that are heavily invested in the coal space.

<sup>38</sup> UBS Investment Research, *EEI 2013: Full takeaways*, November 13, 2013.

Even if gas prices go up much more than expected, the coal industry still faces the problem of recapitalizing the nation's aging coal-fired power plants and drawing capital back into new mine investment.<sup>39</sup> By 2020, more than 70% of all existing coal-fired power plants will be over 40 years old, and 36% will be more than 50 years old.<sup>40</sup> Replacing this much capacity with coal is highly unlikely, both for environmental reasons and because of the level of capital investment that would be required.

Coal will continue to be an important piece of the U.S. electricity generation mix. The longer term recovery for equities of U.S. coal producers is however far more problematic. Current challenges are forcing the industry to shrink, and some investors appear to be waiting for the coal industry to regain profitability at a smaller size. But because geological constraints on coal production are driving up mining costs, the coal industry can only stabilize at a higher price level. A higher price level, coupled with relatively flat electricity demand,<sup>41</sup> will put increasing pressure on coal-fired power plants to retire and be replaced by competing generation sources.<sup>42</sup> There also appears to be little to no opportunity for new coal generation. As discussed elsewhere in this paper, export sales from the U.S. are not likely to materialize at expected levels. In other words, even though the coal industry may shake out smaller and somewhat more stable, the large profits and industry resurgence anticipated from significant new domestic and foreign demand appears elusive.

Some coal producers point to the potential for metallurgical coal to offset any negative impacts from diminished thermal coal consumptions. Alpha, Arch and Peabody all have significant metallurgical coal reserves here and abroad. Metallurgical markets are also in a down period.<sup>43</sup> Meanwhile, thermal coal consumption for electricity generation accounts for more than 90% of domestic coal consumption and annual production has declined by 220 million tons from 2007 to 2012.<sup>44</sup> Metallurgical prices and global demand would need to increase significantly to offset thermal coal losses in the United States.

### Cut costs, reduce spending, and sell assets

U.S. coal producers have embarked on a strategy of cost control measures, capital expenditure reductions, asset sales and other actions within their control to prop up profit margins. The theory behind these efforts is to discipline production, position a company for an upcycle and communicate to investors that management is taking actions during a period of financial distress.

Arch, Cloud Peak, Peabody, and Alpha Natural Resources have all announced cost-cutting measures in 2013. In its press statement accompanying its 2013 year end results, Cloud Peak Energy cites cost

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<sup>39</sup> "I think before you are going to see people commit new capital to even get their existing operations backup to their nameplate capacity and then you are going to need a level of pricing well above that before you are going to see any Greenfield capital go in to either thermal coal or met coal. So there is some capacity that will come back, but it's going to come back at much higher prices than it would have previously" Peabody Energy, *Q3 2013 Earnings Call Transcript*, October 17, 2013.

<sup>40</sup> Energy Information Administration, *Age of electric power generators varies widely*, June 16, 2011. <http://www.eia.gov/todayinenergy/detail.cfm?id=1830>

<sup>41</sup> The Energy Information Administration's Annual Energy Outlook projects electricity demand growing at only 0.8% per year through 2040. (EIA, "Electricity supply, disposition, prices, and emissions," Annual Energy Outlook 2014 Early Release Overview, December 16, 2013.)

<sup>42</sup> As discussed previously, natural gas prices are expected to remain low through 2025.

<sup>43</sup> Darren Epps, Xcoal CEO: *Rebound on metallurgical may take until 2016*, SNL, February 10, 2014.

<sup>44</sup> Energy Information Administration, "Quarterly Coal Report," January 2, 2014. <http://www.eia.gov/coal/production/quarterly/>



control as its first financial highlight. Fourth quarter preliminary results for both Alpha and Arch also show margins still under stress because revenues have fallen further and faster than the modest cost cutting measures have offset.<sup>45</sup> Cost control measures by U.S. coal producers<sup>46</sup> are necessary, but likely to have only marginal impact on share value. First, geological conditions are driving much of the rise in costs of production. It is increasingly costly to mine coal in regions where extraction has occurred for over a century. The decline in Central Appalachian coal from its historic high production levels of 300 million tons per year (mtpa) to expected levels below 100 mtpa is due in large measure to depletion of economically minable coal.<sup>47</sup> This has driven some coal companies to adopt the practice of mountaintop removal to reduce the costs of mining hard-to-extract coal seams.



Mountaintop removal and other surface mining have redrawn landscapes in eastern Kentucky and southern West Virginia. Source: Stephen Crowley, *The New York Times*

Even low cost regions like the Powder River Basin are showing signs of stress. According to Cloud Peak's statement accompanying its 2013 year-end results, the average cost of production in the Powder River Basin rose during 2013 from \$9.57 per ton to \$10.23 per ton.<sup>48</sup> During 2013, Peabody Energy concentrated its efforts on its low cost mines in the Powder River Basin.<sup>49</sup> Peabody's year end production totals saw an increase at its lower cost North Antelope mine and decreases at Caballo and Rawhide.<sup>50</sup> More intensive mining of lower cost reserves may assist the company through this period of financial uncertainty, but it accelerates the depletion of a valuable company asset. Coal producers will need to see sustained prices over a long period of time before committing to new investment.<sup>51</sup>

There is a larger issue for investors and coal producers. Persistently low prices, rising costs and depressed margins over the last three years are facts of life and likely to continue as such for at least the next two years. The unanswered question for coal companies and investors is this: are the proven and probable reserve levels identified in company filings at the Securities and Exchange Commission a true and accurate depiction of a company's economically extractable reserves?

<sup>45</sup> SeekingAlpha.com, *Arch Coal, Inc. Reports Fourth Quarter and Full Year 2013 Results*, February 4, 2014. <http://seekingalpha.com/pr/8852581-arch-coal-inc-reports-fourth-quarter-and-full-year-2013-results>. SeekingAlpha.com, *Alpha Natural Resources Announces Results for Fourth Quarter and Full Year 2013*, February 12, 2014. <http://seekingalpha.com/pr/8942111-alpha-natural-resources-announces-results-for-fourth-quarter-and-full-year-2013>

<sup>46</sup> For a discussion of cost increases in each of the nation's coal basins see: Clean Energy Action, *Warning Faulty Reporting on U.S. Coal Reserves*, October 30, 2013. The release of the report was accompanied by two additional technical studies on coal costs and coal production in the top 16 coal producing states. <http://cleanenergyaction.org/research-reports/faulty-reporting-us-coal-reserves/>

<sup>47</sup> R. McIlmoil, E. Hansen, N. Askins, M. Betcher, *The Continuing Decline in Demand for Central Appalachian Coal: Market and Regulatory Influences*, Downstream Strategies, May 14, 2013. [http://downstreamstrategies.com/documents/reports\\_publication/the-continuing-decline-in-demand-for-capp-coal.pdf](http://downstreamstrategies.com/documents/reports_publication/the-continuing-decline-in-demand-for-capp-coal.pdf)

<sup>48</sup> Cloud Peak Energy, *Results for Fourth Quarter and Full Year 2013*, February 13, 2014.

<sup>49</sup> Peabody Energy, *Q3-2013 Earnings Transcript*, October 17, 2013. (Peabody Transcript)

<sup>50</sup> Darren Epps, *Top producing Powder River Basin coal mines in Q3, 2013*, SNL, February 4, 2013.

<sup>51</sup> Transcript, p. 12



Efforts by coal producers to sell assets<sup>52</sup> in order to provide company liquidity until markets turn around underscores the same problem regarding actual levels of economically minable coal. Some U.S. coal producers are discussing the fact that they cannot find buyers for coal reserves with lower quality coal and higher production costs – non-core assets. Other producers express concern that the sale of productive coal assets during a down cycle results in a low cash price for the asset and forecloses future profitability.<sup>53</sup> Each concern raises the specter that some levels of “proven and probable” reserves claimed by U.S. coal producers are not economically extractable assets.<sup>54</sup>

## Oppose environmental and climate change law and regulations

The coal industry opposes most pollution control law and regulation in the United States. This strategy has served to weaken, delay and in some instances defeat environmental regulation designed to protect public health, safety, and the environment. Until recently opposition to pollution regulation has proved financially beneficial to the coal industry – costs were reduced and environmental risks displaced onto public bodies and civil society. In the current economic climate, this strategy no longer works.



Source: Ohio Coal Association

The coal industry faces a set of financial risks, which if taken individually might be quite manageable.



From American Coal Council's Facebook

However these risks take place cumulatively in today's economy, and together create strong price, regulatory, supply and demand-side challenges that cloud the industry's future. The normal process of rising costs due to mining maturation pushes the cost of production upward. Enforcement of existing law and efforts to regulate other pollutants place further upward pressure on coal prices. Natural gas prices and renewable energy entrants into the power markets place downward pressure on energy prices. Against this backdrop the coal industry's disruptive approach to the regulatory process is less effective.

Regulatory delay and intensified public debate, which is increasingly partisan,<sup>55</sup> now serves to create greater investment uncertainty and risk in an environment where these broader economic and fiscal risks are at play. Coal industry leaders appear committed to this strategy of regulatory opposition, which substitutes a symbolic political scenario for a clear path to improved market position and share value. Recent coal industry victories on the Clean Air Interstate Rule<sup>56</sup> and delays on mercury regulation<sup>57</sup> have not had the desired impact of improving coal's position in the face of strong global headwinds. Other market factors have eclipsed in importance the impact of environmental regulations on coal profitability. It now may be the case that where delay had a positive impact on company share

<sup>52</sup> Everett Wheeler, *Cash strapped coal companies seek relief through asset sales*, SNL, December 13, 2013.

<sup>53</sup> Darren Epps, *Some see smaller companies emerging from coal downturn, not consolidation*, SNL, February 14, 2014

<sup>54</sup> For a complete discussion on the issue of unburnable carbon see: Carbon Tracker and Grantham Research Institute, *Unburnable Carbon 2013: Wasted capital and stranded assets*, <http://www.carbontracker.org/wastedcapital>. See particularly the discussion in Chapter 4: Implications for equity valuations and credit ratings.

<sup>55</sup> Darren Epps, *Hard to escape coal industry gloom, even in Miami*, SNL Blog, February 11, 2014.

<sup>56</sup> V. Volcovici, *Court strikes down EPA rule on coal pollution*, Reuters, August 21, 2012.

<sup>57</sup> Jonathan Crawford, *EPA: Power sectors implementation of mercury rule 'so far, so good'*, SNL, June 19, 2013 and Jonathan Crawford, SNL EPA Litigation Tracker: Court battles over mercury, cross state rule drawing near, SNL, November 14, 2013.

value in the past, the contentiousness of the public discourse only makes the industry less attractive in today's marketplace.

Although the U.S. coal industry has steadfastly opposed environmental regulation in the U.S., industry leaders have advocated increased environmental regulation in other countries, presumably to create a more level playing field. In March 2013, Greg Boyce, President and CEO of Peabody Energy addressed a Chinese economic summit.<sup>58</sup> He stressed the need for China to adopt U.S. style strategies to curb air pollution. CEO Boyce gave full support for high standards to protect mine worker health and safety in China. The speech argues that these regulatory structures are integral to China's growth strategy.<sup>59</sup>

The debate over climate change regulation represents the quintessential example of the way in which the coal industry's political strategy has not resulted in improved share value for investors. In 2010, the coal industry and other interested parties were successful in blocking climate legislation.<sup>60</sup> The coal industry mobilized opposition in large measure due to its stated concern that such law would have a profound and deleterious impact on the financial health of coal mining in the United States. The coal industry enjoyed no uptick in investor confidence from the defeat of climate legislation. Since 2010, investors have demonstrated less confidence in the future of the coal industry and its leadership.

In total, the coal industry's political strategy in opposition to environmental regulation is no longer creating value for shareholders. Market response to the coal industry's approach to defeat all environmental legislation is decidedly negative. In an environment where so many critical factors related to profitability are in a state of change a stable and clear regulatory scenario is preferable. Arguably, continued hyper-partisan bickering will only isolate coal industry leadership, minimize the real challenges to mining communities, and mismanage the remaining coal reserves held by each company.



### Strategic failure on new clean coal technology

The coal industry has failed to spearhead an effective strategy for the integration of new "clean coal technology" into the nation's electricity grid.<sup>61</sup> The Kemper plant, sponsored by Southern Company in Mississippi, and the Edwardsport plant by Duke Energy in Indiana, represent two high profile examples of major failures by the coal industry in this area.<sup>62</sup>

Each plant is plagued by cost overruns. Each plant is looking to utility ratepayers and shareholders at investor-owned utilities to absorb cost overruns and future risks from these new technologies.<sup>63</sup>

Overhead view of the Kemper & Liberty Mine site. 2014 Source: <http://www.mississippipower.com>

<sup>58</sup> Greg Boyce, *President and Chief Executive Officer Peabody Energy, 21<sup>st</sup> Century Coal Securing China's Sustainable Energy Future*, China Development Forum Economic Summit: Green Growth with Clean Air and Water, March 23, 2013.

<sup>59</sup> For a discussion of the development choices faced by national governments of varying sizes, growth expectations and political goals see: Michael Spence, *The Next Convergence: The Future of Economic Growth in a Multispeed World*, Farrar, Strauss and Giroux, 2011.

<sup>60</sup> B. Walsh, *Why the Climate Bill Died*, Time Magazine, July 26, 2010.

<sup>61</sup> A recent study by the Congressional Research Service concludes there are no currently viable commercial applications for Carbon Capture and Sequestration <http://www.fas.org/sgp/crs/misc/R42496.pdf>

<sup>62</sup> Matthew Bandyk, *Industry takes skeptical look at IGCC as Edwardsport plant near completion*, SNL, June 4, 2013.

<sup>63</sup> D. Testa, *UPDATE: Southern's Fanning outlines implications of Kemper IGCC cost overruns*, April 24, 2013. And M. Bandyk, *Industry takes skeptical look at IGCC as Edwardsport nears completion*, SNL Financial, June 4, 2013.

The coal industry has a long reputation of failing to invest in innovation:

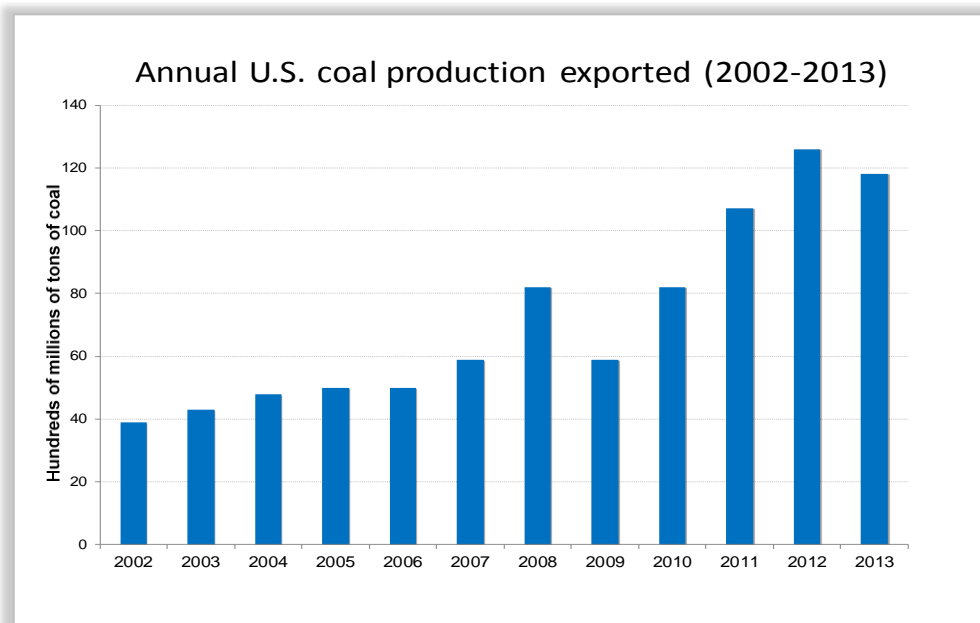
Still looking for more proof of how uninnovative we've been in the energy field? Ask Jeffrey Immelt, chairman and CEO of General Electric, one of the world's premier manufacturers of power systems. He told me the following story: He has worked for General Electric for twenty-six years. In those twenty-six years, he has seen "eight or nine" generations of innovation in medical technology in GE's health care business – in devices like X-ray equipment, MRIs, or CAT scans --- because the government and the health market created prices, incentives, and competition that drove a constant flow of invention. It was very profitable to innovate in this field and fairly easy to jump in. But in power? said Immelt. One --- one generation of real innovation is all that he has seen.

"Today, on the power side," said the GE chairman, "we're still selling the same basic coal-fired power plants we had when I arrived. They're a little cleaner and more efficient now, but basically, the same model." Nine generations of innovation in health care – one in power systems. What does that tell you? It tells you that you have a market that simply has not been shaped to produce clean energy innovation. "You can't look back at the last thirty years," concluded Immelt, "and say that the market in energy has worked" (Thomas Friedman, *Hot Flat and Crowded*, New York: Farrar, Strauss and Giroux, 2008).

The seaborne coal market is insufficiently robust to improve the share value of U.S. coal producers

To the degree that the coal industry has invested in forward-looking transactions it has worked to establish a global platform for export of U.S. coal into what, up until now has been a growing seaborne market.

Buoyed by several decades of aggressive coal build-outs in China and India and faced with declining demand at home U.S. coal producers in the post-2007 period began aggressive plans to export coal to these growing markets. The effort has produced modest results.



For most of the last decade, annual export sales hovered in the 40-60 million ton range with occasional years exceeding 80 million tons. Over the past four years the coal industry has successfully exported over 100 million tons annually. In 2012, exports peaked at over 120 million tons, and decreased in 2013. According to the EIA, exports are expected to decrease over the next two years to 105 million tons per year.

Even setting aside the 2013 decrease and the projections for the next two years, historic increases are far lower than the coal industry had estimated. Arch Coal has consistently placed forward-looking annual coal export estimates in the 200+ million range.<sup>64</sup> One estimate prepared by Wood Mackenzie, a leading coal consultant in the United States, placed the potential for U.S. exports in the 500 million ton per year range.<sup>65</sup> Despite the industry's modest success at exports, the revenue has done little to offset the broader declines of most U.S. coal producers.

Robust growth of global coal markets would be essential for U.S. coal producers to achieve their stated goal of becoming a permanent supplier of coal to the world's markets.

Most analysts viewing U.S. coal producer financials in the last few years pointed to rising levels of exported coal from the U.S. as a benefit for the companies. What emerged, however, during 2013, was a consensus among investment analysts that the demand for coal on the seaborne market would decline, not increase. Principally driven by a reduction in Chinese demand for coal imports, Bernstein Research, Goldman Sachs, and Citi<sup>66</sup> produced compelling analyses that showed worldwide demand for coal shrinking and pricing staying flat.

Currently the combined global market for metallurgical and thermal coal is approximately 1.1 billion tons per year. China has typically been the market for 70% of the world's seaborne trade. Recent financial research indicates much smaller import needs from China in the future. Bernstein Research's analysis also weighed the potential of other sources of demand taking up the slack, and found the next largest potential importer, India, is not in a position to replace these levels of demand despite an aggressive program to import more coal.

In the U.S., financial markets have responded to this shrinking picture of the overall seaborne market in coal. In 2013, five new port proposals were cancelled.<sup>67</sup> In late 2013, Goldman Sachs sold its investment in the proposed Pacific Gateway Terminal coal export terminal in the state of Washington to a Mexican concern.<sup>68</sup> Amber Energy, an Australian based developer had to sell its interests to a private equity concern.<sup>69</sup> Two U.S. coal producers with aggressive plans for exports either canceled or put on hold IPO's during 2013.<sup>70</sup>

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<sup>64</sup> Arch Coal, Inc., *Investor Presentation*, February 2014, Slide 24.

<sup>65</sup> Dan Lowrey, *WoodMac sees half of U.S. coal production exported by 2030*, SNL, March 7, 2012.

<sup>66</sup> Michael Parker and Purdy Ho, *Asian Coal and Power Less, Less, Less....The Beginning of the End of Coal*, Bernstein Research, June 17, 2013; Goldman Sachs, *The window for thermal coal investment is closing*, Rocks and Ores, July 24, 2013; Michael Ide, *Have we hit peak coal in China?*, September 4, 2013, <http://www.valuewalk.com/2013/09/hit-peak-coal-china/>

<sup>67</sup> Olsen, *Kinder Morgan scraps Port Westward coal terminal proposal*. Longview Daily News. May 8, 2013. Retrieved February 19, 2014, from [http://tdn.com/news/local/kinder-morgan-scraps-port-westward-coal-terminal-proposal/article\\_c02584f6-b811-11e2-be99-0019bb2963f4.html](http://tdn.com/news/local/kinder-morgan-scraps-port-westward-coal-terminal-proposal/article_c02584f6-b811-11e2-be99-0019bb2963f4.html)

Williams-Derry, *The coal export bubble*. Sightline Daily. August 6, 2013, Retrieved February 19, 2014, from <http://daily.sightline.org/2013/08/06/the-coal-export-bubble/>

Epps, *Ambre Energy seeks early lease termination for proposed Texas coal terminal*. SNL Financial. December 9 2013. Retrieved February 19, 2014.

*Corpus Christi coal export terminal canceled*. Clean Gulf Commerce Coalition. Retrieved February 18, 2014, from <http://cleangulfcommercecoalition.org/wp>

Epps, *Cline Mining backs out of deal to export coal from Texas port*. SNL Financial. August 20, 2013. Retrieved February 17, 2014.

<sup>68</sup> J. Stark, *Mexican exec replaces Goldman Sachs as investor in coal terminal company*, The Bellingham Herald, January 7, 2014.

<sup>69</sup> A. Klan, *Backer moves on troubled Ambre*, The Australian, October 22, 2013.

<sup>70</sup> *Coal producer Armstrong Energy withdraws IPO*, Nasdaq.com, July 25, 2013. Darren Epps, *Chris Cline owned mines in Illinois Basin see drop in coal production in Q3 '13*, SNL, October 25, 2013.



# The case for NYC and NYS pension fund divestment from coal



Kingston Fossil Plant in Tennessee where the slurry pond's damn busted in 2008. Source: [Businessinsider.com](http://Businessinsider.com)

## Background: NYC and NYS Pension Funds and exposure to coal stocks

### New York City Pension Funds

The New York City pension fund consists of five employee systems: The New York City Employees Retirement System (NYCERS), the Teachers Retirement System (TRS), New York City Police Pension Fund Subchapter 2 (Police), New York City Fire Department Pension Fund Subchapter Two, and the New York City Board of Education Retirement System (BERS).<sup>71</sup> The NYC pension funds had a collective value of \$147.91 billion as of October 31, 2013.<sup>72</sup> The funds seek an annual rate of return of

<sup>71</sup> The information for this paragraph is taken from <http://comptroller.nyc.gov/general-information/pension-funds-asset-allocation/>, New York City Comptroller, Comprehensive Annual Financial Report the Comptroller for the Fiscal Year Ended, June 30, 2013, June 30, 2013 and the NYCERS, Comprehensive Annual Financial Report for fiscal year ended June 30, 2013. (NYCERS CAFR)

<sup>72</sup> <http://comptroller.nyc.gov/general-information/pension-funds-asset-allocation/>



7%. Each fund within the system has a board of trustees. The Mayor of New York City is the chairperson of each board. The New York City Comptroller is a voting member, custodian, and investment advisor of all five funds. Each board sets its own investment policies. The funds as a whole have an active corporate governance program that addresses issues of executive compensation, governance and a range of including issues such as race discrimination and the environment. The employee systems have 715,300 members who rely on the fund for pension security. The average annual payment to a retiree of the NYCERS system, for example is \$38,586.00.<sup>73</sup>

The New York City pension systems, valued at \$147.9 billion, do not publicly disclose a detailed list of all of their equity holdings. It is unlikely that the aggregate holdings are demonstrably different than the state (see next section). The NYCERS Comprehensive Annual Financial Report<sup>74</sup> provides a listing of the Fund's forty largest equity holdings. There are no coal companies in this list.

### New York State Common Retirement Fund

The New York State pension fund consists of two employee systems: the Employee Retirement System (ERS) and the Police and Fire Retirement System (PFRS). The management of these systems is performed under the New York State and Local Retirement System.<sup>75</sup> The assets of the two systems are held together in the Common Retirement Fund (CRF). The CRF is under the responsibility of a sole trustee, the New York State Comptroller.<sup>76</sup> The CRF was valued at \$161 billion as of March 31, 2013.<sup>77</sup> The funds seek an annual rate of return of 7%. The Funds as a whole have an active corporate governance program that addresses issues of executive compensation, governance and a range of topical issues including corporate political contributions, climate change and sexual orientation. The employee systems have 1.06 million members who rely on the fund for pension security. The average annual payment to a retiree in ERS is \$20,766 and for the uniform retirees \$43,444.<sup>78</sup>

The New York State Common Retirement Fund publishes a listing of all of its equity holdings.<sup>79</sup> At the end of March 2013 the CRF held \$31 million in U.S. coal stocks in an overall portfolio valued at \$161 billion. Coal stocks represent one and one half hundredths of one percent of the Funds investment. The value of this portfolio of stocks on April 1, 2011 was worth \$132 million. By April 2014, the value had declined to \$24 million, for an estimated loss in share value of \$108 million.<sup>80</sup>

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<sup>73</sup> NYCERS CAFR, p. 205.

<sup>74</sup> NYCERS CAFR, p. 18

<sup>75</sup> All information provided from this paragraph comes from the New York State and Local Retirement System, Comprehensive Annual Financial Report for Fiscal Year Ended March 31, 2013 (NYSLRS CAFR).

<sup>76</sup> For a description of the practical aspects of the Comptroller's role in the management of the Common Retirement Fund see: <http://www.osc.state.ny.us/pension/fiduciary.htm>

<sup>77</sup> NYSLRS CAFR

<sup>78</sup> NYSLRS CAFR

<sup>79</sup> New York State Common Retirement Fund, *Asset Listing as of March 31, 2013*.

<sup>80</sup> The value of the SNL Index has declined less than these four companies. The Index includes among other stocks CONSOL Energy. During the time period under review CONSOL had both natural gas and oil drilling holdings and coal holdings. In late 2013 the company announced it was selling most of its coal portfolio to Murray Energy. Its performance during this period in the SNL Index offset the larger losses in the pure play coal companies.

## New York State Common Retirement Fund Holdings in United States Based Coal Producers

Company	Shares	Value 4/01/14
Arch Coal	541700	\$2,816,840.00
Alpha Natural Resources	993325	\$4,796,760.00
Cloud Peak Energy	139400	\$3,062,618.00
Peabody Energy	788700	\$12,847,923.00
<b>Total</b>		<b>\$23,524,141.00</b>

## Fiduciary responsibility

A fiduciary is someone charged with the responsibility of acting in the best interest of plan participants and their beneficiaries as they manage plan assets. In the case of public pension funds, fiduciaries must act solely for the interests of plan participants. Trustees or fiduciaries must act prudently as they handle billions in investment decisions, ensure future solvency of the fund, support decisions for timely and accurate payment of members and manage the administrative expenditures of the fund.

When the fiduciary exercise involves direct investment decisions, NYCERS provides a good description of what is meant by prudent considerations: “the level of investment risk should be prudent and not jeopardize the Plan’s fiscal stability. The Plan’s assets must be protected from severe adverse market reactions and wide fluctuations in investment results.”<sup>81</sup>

The purpose of the fiduciary review more generally is to take prudent and reasonable steps to grow the assets of the fund. The fiduciary must balance the demands of asset growth, mission, investment philosophy and the larger community in which the fund acts. The fiduciary directs fund managers who execute the financial policies and strategies adopted by the fiduciary.

The fiduciary responsibility assumes a high level of flexibility and judgment, as the relationship between millions of fund participants and their families and the funds are complex. To make the difficult task of financial management even more difficult, fiduciaries must also formally respond to a wide variety of social and political questions. These issues usually are brought forward to pension trustees because the companies they are invested in are involved a full range of social and political issues through their ongoing business operations. Often issues like labor rights, human rights, environment, corporate political activity, a woman’s right to choose, charitable donations, race, gender and sexual orientation, product liability, corporate governance and executive compensation find their way onto corporate proxies for a shareholder vote.<sup>82</sup>

<sup>81</sup> NYCERS CAFR, p. iii

<sup>82</sup> For a more detailed discussion of the fiduciary obligation and special political obligations of trustees see: Tom Sanzillo, *The Oxford Handbook of New York State Government and Politics*, and Chapter 11: The Comptroller, Oxford University Press, 2013.

Both New York City and New York State pension funds have active programs to monitor and devise policy for these broader issues.<sup>83</sup> Every year both funds must vote on hundreds of shareholder resolutions. This is part of the fiduciary obligation. Sometimes fiduciaries are asked to consider divestment of their holdings from a company or industry.

## A succinct case for divestment of coal holdings

The current position of the U.S. coal industry, and increasingly that of the world coal industry, is weak and the worst is yet to come. In the past three years, a portfolio of U.S. coal stocks, including the nation's leading companies Peabody Energy, Alpha Natural Resources and Arch Coal, has declined by 61%, at a time when the Russell 3000 Index has increased by 47%. Peabody Energy, the nation's largest private sector coal company, has lost 74% of its value over the last three years. Recently, Goldman Sachs (a company with major holdings in the coal sector) and Bernstein Research have published market research that the window for investors on global thermal coal (coal for power plants) is closing.<sup>84</sup> Moreover, the metallurgical coal markets (coal for steel production) will be insufficiently robust to offset these losses. Coal producers as individual companies and in their collective form have no compelling rationale to restore growth. Divestment of current holdings and the foreclosure of future investment in coal equities offers a firm and effective response from institutional investors.

The coal industry is small in comparison to the oil industry, for example. In the United States, Peabody Energy, the world's largest private sector pure-play coal producer has a market capitalization of \$4.59 billion, while Exxon is at \$417 billion.<sup>85</sup> The total coal holdings for funds like New York City pension system and the New York State Common Retirement Fund is small. In a very simple, practical and direct sense, money managers should not find it difficult to replace a coal equity portfolio that has lost over 60% of value over the last three years and has a weak outlook.

The case for divestment is strengthened, not undermined, if investment funds and their boards give serious consideration to reasonable standards of due diligence.

## Practical implications of coal divestment

There are three clear implications to any City and State pension decision to divest from coal:

First, the City and State pension funds in New York will sell a basket of poor performing stocks with limited upside potential. Money managers will be able to find more lucrative returns for the small amount of investment capital freed up by the divestment of coal holdings.

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<sup>83</sup> For the New York City funds see Comptrollers website <http://comptroller.nyc.gov/reports/shareowner-initiatives/>. The New York State Comptroller website contains the Comprehensive Annual Financial Report for the New York State and Local Retirement Systems and describes the Fund shareholder activity.

<sup>84</sup> Goldman Sachs, *Rocks & Ores: The window for thermal coal investments in closing*, July 24, 2013, [http://thinkprogress.org/wp-content/uploads/2013/08/GS\\_Rocks\\_Ores\\_-\\_Thermal\\_Coal\\_July\\_2013.pdf](http://thinkprogress.org/wp-content/uploads/2013/08/GS_Rocks_Ores_-_Thermal_Coal_July_2013.pdf); and Michael Parker and Purdy Ho, *Asian Coal and Power Less, Less, Less....The Beginning of the End of Coal*, Bernstein Research, June 17, 2013

<sup>85</sup> Google Finance, accessed February 21, 2014.

Second, divestment of coal stocks by New York City and New York State represents a market benchmark event. The utility and power generation sector have already diverted billions from the coal sector through a painful process of capital investment failures, revenue shortfalls and value impairments. The stock market has responded to the industry's problems with a resounding vote of no confidence. Large institutional investors represent another step in the realignment of capital markets away from coal. Action by one or two large public pension funds simply continues the investor dialogue about what to do with the coal space and how to seize investment opportunities in this period of changing energy markets.

Third, a decision by New York City and New York State to divest from coal stocks takes place at a time of heightened concern about coal burning and its impact on climate change and air pollution. Coal-fired power plants are the single largest contributor to greenhouse gas emissions. The coal industry has offered no forward looking constructive contribution to the resolutions of these problems. Divestment of coal is a vote of no confidence by institutional investors in the coal industry.

### Investment in fossil fuels broadly

The brief investment exercise undertaken to produce this paper should be applied not only to coal but to all fossil fuel holdings by institutional investors.

Large coal producers around the world are under many of the same stresses outlined in this report.<sup>86</sup> Utility and power generation stocks with significant coal plants in their portfolio require additional analysis and action. This is true for both U.S. domestic and foreign coal holdings.

Institutional investors face a broader concern on the question of gas and oil holdings. The companies in these sectors require a different level of diligence. Prudent fiduciary management would require, among other analytic exercises, the production of investment scenarios with a fossil free portfolio.

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<sup>86</sup> See Oehlberg, 9.

## About the Authors



### **Tom Sanzillo, Director of Finance**

Tom Sanzillo is the Director of Finance for the Institute for Energy Economics and Financial Analysis. He has written several studies on coal plants, rate impacts, credit analyses, and the public and private financial structures for coal. In addition, Tom has testified as an expert witness, taught training sessions, and conducted media interviews. Prior to his work with the Institute for Energy Economics and Financial Analysis and his own consulting practice, Tom spent 17 years with both the City and the State of New York in various senior financial and policy management positions. He was formerly the State of New York's first deputy comptroller, a job that put him in charge of the finances of 1,300 units of local government, the management of 44,000 government contracts annually, oversight of over \$200 billion in state and local municipal bond programs and responsibility for a \$156 billion pension fund. From 1990 to 1993 Tom also served in senior management in the New York City Comptroller's Office.

He recently contributed a chapter to the Oxford Handbook of New York State Government and Politics on the NYS Comptroller's Office.

### **Cathy Kunkel, Fellow**

Cathy Kunkel is an independent consultant focusing on energy efficiency and utility regulation. She has testified on multiple occasions before the West Virginia Public Service Commission, as part of her consulting work for the non-profit coalition Energy Efficient West Virginia. Prior to moving to West Virginia in 2010, she was a graduate student in the Energy and Resources Group at the University of California-Berkeley and a senior research associate at Lawrence Berkeley National Laboratory. She has undergraduate and graduate degrees in physics from Princeton University and Cambridge University. She is a part-time fellow with the Institute for Energy Economics and Financial Analysis.

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## Appendix: Performance of major U.S. coal stocks

The following graph shows the performance of major U.S. coal producers for the past three years compared to the Russell 3000 index. In the same period that the Russell 3000 index has increased 47%, Peabody has declined 74%, Arch has declined 88%, Alpha Natural Resources has declined 92%, Cloud Peak has declined 19%, and CONSOL has declined 21%.

