



WWF

REVIEW

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2015

EXECUTIVE SUMMARY

# GLOBAL COAL: THE ACCELERATION OF MARKET DECLINE





A conveyor belt that takes coal from the Glentaggart open cast coal mine to a road head for onward transport by road in Lanarkshire, Scotland, UK. As well as the disastrous climate change consequences of continuing to mine and burn coal, living close to open cast coal mines has a huge negative affect on people's health. Rates of Chronic Pulmonary Obstructive Disease are up to 5 times the national average as well as vastly increased risk of asthma, hypertension, hypothyroidism and cancer.



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# HIGHLIGHTS

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## **CHINESE COAL CONSUMPTION DROPS BY 2.9 PER CENT IN 2014**

This reduction, which represents more than the annual UK coal consumption, came on the back of structural economic reform and a deliberate choice by the Chinese government to move towards a more sustainable energy mix.

## **THE EU AND USA MOVE TOWARDS THE END OF COAL**

The share of coal in their energy mix is falling quickly, and this trend will continue in light of tighter legislations.

## **COAL MINES ARE ON THE VERGE OF THE ABYSS**

Decreasing demand and low coal prices squeeze the profits of coal mines across the globe. There are no signs of relief ahead, as major emerging economies – most prominently China – start to take steps to limit coal consumption within their boundaries.

## **COAL UTILITIES ARE CAUGHT IN A DEATH SPIRAL**

The global coal plant construction boom is turning to bust. European utilities notably (E.ON, Enel, RWE) are forced to change their business model in light of the fast development of renewable energy.

## **RENEWABLES ARE ON THE RISE**

Investments in solar and wind energy surged in 2014, and renewables represented more than half (59 per cent) of 2014 net additions to global power capacity for the first time ever.

## **COAL DIVESTMENT IS SPREADING TO MAINSTREAM FINANCIAL INSTITUTIONS**

The Norwegian Sovereign Wealth Fund and Axa (amongst others) decided to move their investment out of coal while Credit Agricole and Bank of America ended or reduced their coal lending - giving a clear signal that the trust of the financial institutions in the sector is waning quickly.



Highly polluted smog hanging over the pit head of a coal mine near Tongshuan in Shanxi province, northern China.

# INTRODUCTION

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*‘Coal is not cheap. Governments need to be seriously sceptical about whether coal provides a good deal for their citizens’*

Angel Gurría (Secretary General, OECD)

The quote above shows how coal is now being challenged from several different angles. Coal is the largest single contributor to **climate change**, and the scientific evidence that it cannot continue to be burned at the current pace without creating serious havoc is now abundant. The UN climate summit (UNFCCC COP21) at the end of 2015 is likely to deliver a global climate agreement that will introduce measures to reduce carbon emissions.

The contribution of coal to climate change, further exacerbated by its effects on public health (air pollution) and the environment, raises **ethical** objections. Such concerns now go beyond religious authorities like Pope Francis: the \$900 billion Norwegian Sovereign Wealth Fund, the largest in the world, divested from coal for ethical reasons (see more below).

Climate, public health and ethical considerations have contributed to more stringent government policies with regards to coal, which in turn impact investments in the energy source. The **increasing competitiveness of renewable energy** has further undermined the attractiveness of coal investments, increasingly to a point of no return. Over the last three years, the Bloomberg Global Coal Equity Index has lost half of its value while broad market indices are up over 30 per cent. The number of coal companies going bankrupt is increasing all over the world (see more below).

From an economic and environmental perspective, coal lost its social license to operate and is stagnating globally for the first time in 2014. This literature review does not intend to cover all issues but identifies six main trends: the drop in Chinese coal consumption, the demise of coal in the EU and USA, the crisis in the coal mining sector, the coal utility death spiral, the rise of renewable energy, and the spread of the divestment movement to mainstream institutional investors.

**COP21**  
IS BOUND TO DELIVER  
A GLOBAL CLIMATE  
AGREEMENT THAT  
WILL DRIVE FORWARD  
CLIMATE POLICIES.

## THE GAME CHANGER: CHINESE COAL CONSUMPTION DROPPED IN 2014

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*“In 2014, Chinese coal imports decreased year on year for the first time in many years, and the prognosis is for more of the same”*

Société Générale (Reuters)

Official data from the Chinese government indicate that **coal consumption dropped by 2.9 per cent in 2014** compared to the previous year (this represents more than the total annual UK consumption). While the Chinese economy grew by 7.4 per cent and energy use grew by 2.2 per cent, coal was the only major energy source whose consumption fell. **Chinese coal imports fell by 10.9 per cent in 2014 compared to 2013. This trend continued in the first six months of 2015, with total imports even 38.2 per cent lower compared to the first semester of 2014.**

An analysis by Citibank (November 2014) indicates four main drivers for the slowing coal consumption: structural reform of the economy; energy efficiency targets; renewable energy targets and improved efficiency of coal plants.

**Citibank concludes that ‘policy priorities push coal to generation of last resort’. Government intervention has, indeed, been a driving force.** Between November 2014 and June 2015, the Chinese government announced plans to cap coal consumption by 2020 (4.2 billion tons), ordered several regions to draw up plans to reduce coal consumption, closed more than 1000 mines to reduce oversupply, and formally submitted its pledge to peak CO<sub>2</sub> emissions around 2030 in the context of the forthcoming climate agreement at the UNFCCC COP21 in Paris.

While several organisations (Citibank, Energy Foundation) studied the possibility of a Chinese

coal peak by 2020, the 2014 developments have taken many by surprise. **It is now likely that a coal peak will happen well before 2020 (and possibly happened in 2013).** Given that China is responsible for almost half of global coal consumption, these developments have already – and will continue to have – major downward impacts for the coal market worldwide. In July 2015, Bloomberg reported that shipments from some of China's main coal suppliers (Indonesia, Russia, Mongolia and Australia) had reduced by up to 49 per cent in the first six months of 2015, leaving these coal exporting countries to look for alternative markets (see more below).

## THE EU AND USA TOWARDS THE END OF COAL

*'The coal renaissance in Europe was only a dream'*

International Energy Agency

**Coal is on a downward trajectory in the European Union (EU). Coal consumption fell by almost 20 per cent between 2007 and 2014, and net coal capacity was down with over 24.7 gigawatts (GW) between 2000 and 2014.** According to research from UBS, this trend will accelerate in the coming years. Another 24 GW of coal and gas capacity would be pushed out of the market between 2015 and 2017. UBS mentions renewable energy and decreasing energy demand as the main drivers for the described developments. Notably, wind and solar alone accounted for over 200 GW of net capacity addition between 2000 and 2014, and Eurostat data indicate that EU energy demand in 2013 reached the lowest level in two decades.

European **legislation** adds to the grim outlook for coal: the Industrial Emissions Directive (IED) and the Large Combustion Plants Directive (LCPD) will impose further restrictions on coal fired power plants. Several Member States have, moreover, taken steps to significantly reduce coal in their national energy mix:

- **Germany** adopted measures that will lead to the closure of 4.2 GW of lignite fired power plants, giving a clear signal that the country is moving away from coal;
- In the run-up to the **UK** elections leaders from the three main parties – including David Cameron – signed a joint climate change pledge, in which they committed to 'end the use of unabated coal for power generation'. UK coal consumption in 2014 dropped by 20 per cent compared to 2013, the lowest level since the industrial revolution (1950);
- In **Finland**, the new government committed to rule out coal 'during the 2020s' and **Portugal** plans a coal phase out by 2026.

**In the USA, a structural shift occurred since 2007 as economic growth decoupled from coal use. The coal share fell from 50 per cent in 2008 to 39 per cent in 2013.** This market share was picked up by gas (8.7 per cent), renewable energy (4.1 per cent) and energy efficiency. Bloomberg forecasts that this trend will continue, with the 'the largest wave of coal retirements in US history ahead': 23 GW would go offline in 2015 alone, and 50 GW by 2020.

The shift from coal will be accelerated as a result of the Environment Protection Agency's **Clean Power Plan** that was finalised in August 2015. This plan will reduce CO<sub>2</sub> emissions from the US power sector by 32 per cent on 2005 levels, and requires utilities to source at least 28 per cent of their electricity from renewable sources (wind and solar) by 2030. The Clean Power Plan adds to legislation that was implemented over the last few years:

- Since 2013, all new energy generating capacity is subject to an Emissions Performance Standard (EPS) of 500 grammes of CO<sub>2</sub>/kWh: this excludes the building of unabated coal power plants.
- The detrimental environmental and human health consequences of coal burning have been mitigated by regulations on mercury, lead, ozone, sulphur dioxide, particulate matter and nitrogen.

The risk profile of coal in the USA has been undoubtedly increased by the package of regulations. In combination with global and national energy market economics, this has led to a perfect storm

**20 PER  
CENT  
DROP**  
IN EU COAL  
CONSUMPTION  
BETWEEN  
2007-2014

for the American coal industry. With the same factors prevailing in the coming years, a structural decline of the sector is seen as unavoidable.

# COAL MINES ON THE VERGE OF THE ABYSS

*'The only practical way forward for the [coal] market to rebalance is to cut production. This will need to happen sooner rather than later, as the losses these mines are generating cannot be sustained'*

Wood Mackenzie

UBS estimates that 'the 300 million-tonne seaborne market is currently oversupplied by 5 to 10 per cent'. Prices for thermal and metalurgical coal have been decreasing from a high-point of respectively \$150 and \$300 per tonne in 2010 to \$60 and \$150 per tonne in the first quarter of 2015. Coal companies around the world have been hit hard by what appears as a structural decline:

## USA

- **The Dow Jones total Market Coal Sector Index is down 76 per cent over the last 5 years, compared to the Dow Jones Industrial Average that is up 69 per cent for the same period.** Peabody – the world largest pure play private coal mining company – saw its estimated value decrease from \$18 billion to \$344 million, while its debt increased to over \$5 billion.
- Wood Mackenzie estimates that 17 per cent of US coal production is at risk, and Standard&Poor's notes that it has 'no positive outlook for any covered coal company. About a quarter of the agency's ratings are negative – twice as high as 2014'.
- Over 25 coal companies have gone into bankruptcy in the last few years, with recent filings of major companies like Walter Energy and Alpha Natural Resources.

## AUSTRALIA

- Government data indicate that revenues from coal – mainly for export – have decreased significantly. The response of the coal companies to decreasing profits has been slow however; often because they are bound to 'take or pay' rail contracts.
- 2015 saw restructurings from Glencore (production cut of 15 million tonnes), Rio Tinto (production cut of 3.3 million tonnes), Vale (value of Australian coal assets decreased by 71 per cent) and Yancoal (\$354 million loss). In July, the news broke that Adani had dissolved its 50-strong project team from the much discussed Carmichael mega-mine project: financing for the project is uncertain after both Commonwealth Bank of Australia and Standard Chartered withdrew from the project, and after 11 major international banks have refused to finance the project.

## INDONESIA

- Indonesian coal production will fall in 2015 for the first time in thirty years, according to government's projections.
- The Indonesian Coal Mining Association stated that 'of 14 publicly listed companies whose production makes up around 80 per cent of the national output, only 5 reported net profits last year'. 40 per cent of coal mining companies have stopped their activities according to the association.
- Indonesia is particularly hard hit by the cut in the Chinese coal consumption, with its exports to the country halved during the first half of 2015.

INDUSTRIAL  
AVERAGE **UP 69**  
**PER CENT**  
MARKET COAL  
SECTOR  
**DOWN 76**  
**PER CENT**



IEEFA SEES INDIAN  
THERMAL COAL  
IMPORTS CEASING  
ENTIRELY BY  
**2020-2022**

## CHINA

- In May 2015, the Chinese government ordered the closure of more than 1000 coal mines – with a coal production capacity of 13.9 million tonnes.
- In 2014, the government had already closed mines with a cumulative capacity of 40 million tonnes – nearly 1 per cent of the country's production capacity in that year.

## POLAND

- Europe's largest coal mine (KW) and methalurgical coal producer (JSW) are planned to be bailed out by Polish state-owned companies through a fund that was established by the government.

According to Bloomberg, 'oversupply... would likely persist through 2020 if the entire pipeline of global projects comes to fruition. A total of 290 million tonnes would be competing with an already saturated market'. Goldman Sachs add that 'the combination of fuel mix diversification, slower power demand growth and rising efficiency will moderate the growth rate of thermal coal demand until it eventually matches the rate of demand destruction in the OECD'.

The expectation from the coal industry that decreased imports from China will partly be compensated by increased imports from **India** should be met with caution. The Indian government has presented plans to diversify its energy mix – in particular by developing renewable energy (see below), increasing the efficiency of the electricity grid, and increasing domestic coal production. While the intention of energy minister Goyal to 'stop imports of coal possibly in the next two or three years' is seen as optimistic, analysis from IEEFA sees 'Indian thermal coal imports peaking in 2015-16 and ceasing entirely by 2020-2022'. Price forecasts therefore remain feeble, which has a direct impact on the viability of **future coal developments**:

- Goldman Sachs foresees a long term coal price of \$65 per tonne. It argues that **'past investment is sufficient until coal demand peaks: future demand growth will be met by exploiting existing assets more efficiently and by low cost expansions... The value of greenfield resources requiring major investment in infrastructure is limited'**;
- In an extensive research that looks at coal market developments until 2035, Carbon Tracker Initiative foresees that 'expensive new mines would be surplus to requirements. 61 per cent of greenfield mines are over the thresholds of our low demand/price scenario compared to 30 per cent of brownfield.' The report indicates that \$230 billion in investments could end up stranded, with China (\$44,5 billion) and Australia (\$35 billion) most exposed.

## UTILITY DEATH SPIRAL: THERMAL COAL REACHES RETIREMENT AGE

*'Just as a worker celebrating their 65th anniversary can settle into a more sedate lifestyle while they look back on past achievements, we argue that thermal coal has reached its retirement age'*

Goldman Sachs

Research by CoalSwarm indicates that the worldwide construction boom (2005-2012) of coal fired power plants is turning to bust. Since 2010, two plant projects have been shelved or cancelled worldwide for every plant completed. The report brings to light interesting regional differences:

- In China, net coal capacity additions dropped from 78 GW in 2006 to 36 GW in 2013. In the latter year new solar, wind and hydro capacity surpassed net coal capacity for the first time.
- In India, 6 coal plants are shelved or cancelled for every coal plant built. The amount of coal capacity under construction dropped by 33 per cent between 2012 and 2014.
- In the USA, over 180 proposed coal plant projects were stopped, and from the 523 existing coal fired power stations in the country mid-2014, 200 were already planned to retire.

- Europe has one of the highest ratios of coal plants halted to coal plants completed (7 to 1), and the overall coal fleet is shrinking.

**European utilities** have been particularly affected by changes in the energy market. Research by Carbon Tracker Initiative indicates that the EU's largest 5 power generators (RWE, Enel, GDF Suez, EDF and E.ON) have collectively lost over 100 billion euros in market value from 2008 to 2013 – equivalent to 37 per cent of their total value. The companies continued to bank on coal, while investing significantly less than average in renewable energy. Renewables, however, had an important impact on the energy market: they added capacity to an already saturated market, have priority access to the electricity grid, eroded peak demand, and turned utility customers into competitors ('prosumers'). These factors contributed to a 'utility death spiral', eventually forcing companies to significantly shift their business strategy.

- In November 2014, **E.ON announced that it would spin-off its conventional generation activities (including coal) in a separate company, and focus its activities on clean energy.** This came on the back of the company reporting a 25 per cent drop in profits for the first nine months of that year.
- In March 2015, **Enel announced in a joint press release with Greenpeace a strategic change and a commitment to phase out investment in coal.**
- In August 2015, RWE announced a reorganization of its management structure. The company saw its 2014 earnings decrease by a quarter to 4 billion euros, and anticipates a further drop to 3.6 billion euros for 2015. The news that 23 municipal authorities seek to sell their shares in an RWE coal fired power plant in Hamm for 1 euro each, reducing the initial 2.5 billion stake to 23 euros, further illustrated RWE's precarious position.

The European phenomenon described above is also taking place in other developed countries. Different analyses (CoalSwarm, Energydesk, IEEFA) indicate that similar dynamics are also starting to shape up in major emerging countries:

- **China:** official government data shows that while coal capacity continues to be added, the utilization rate of coal fired power plants decreased from 60 per cent in 2011 to below 50 per cent in the first months of 2015. CoalSwarm states that this leaves the Chinese government with two options: 'curtail further capacity additions or face the prospect of underutilized or stranded assets'.
- **India** has significant coal capacity in the pipeline, partly supported by the Indian government's Ultra Mega Power Project plan. According to IEEFA, should India be able to deliver on its 175GW renewable-energy target, reduce transmission and distribution losses, enhance energy efficiency and double domestic coal production, it is more than conceivable that India's thermal coal imports would decline or cease through the end of this decade (see below).

## RENEWABLES ARE ON THE RISE

*'Fossil fuels just lost the race against renewables... The world is now adding more capacity for renewable power each year than coal, natural gas, and oil combined. And there's no going back.'*

Bloomberg

**Bloomberg, UNEP and the Frankfurt School reported that total investments for renewables energy technologies – excluding hydro of over 50MW – reached \$270.2 billion in 2014, a 17 per cent increase compared to the previous year.** Solar (\$149.6 billion) and wind (\$99.5 billion) were runaway leaders, and the split between developed (\$138.9 billion) and developing countries (\$131.3 billion) was more equal than ever before.

REN21 reported that **renewables represented 59 per cent of net additions to global power capacity in 2014.** Renewables were estimated to provide over 22 per cent of global electricity in 2014.

2014 also marked a further decrease in the cost of renewable energy. IRENA reported that the levelised cost of electricity (LCOE) 'from biomass for power, geothermal, hydropower and onshore wind are all now in the range, or even span a lower range, than estimated fossil

IN THE USA  
**180**  
PROPOSED COAL  
PLANT PROJECTS  
STOPPED

**17**  
PER CENT INCREASE  
IN INVESTMENTS IN  
RENEWABLE ENERGY  
TECHNOLOGIES

**IN SOUTH AFRICA  
RENEWABLE ENERGY  
CAPACITY PROVIDES  
POWER AT  
LOWER RATES  
THAN THE COAL-FIRED  
POWER STATION OF  
MEDUPI**

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fuel-fired electricity generation costs... Solar PV costs also increasingly fall within that range'. If externalities of fossil fuels are fully accounted for and technical barriers for renewables can be overcome, the organisation estimates that 'renewables remain fundamentally competitive'. Studies forecast that the cost of renewables will continue to decrease in the future, further increasing their competitiveness.

The NYSE Bloomberg Global Solar Index gained 65 per cent in 2015, outpacing the 3.4 per cent gains for the S&P 500 Index. Bloomberg foresees that two-thirds (\$8 trillion) of the world's spending on new power capacity over the next 25 years will go to renewables, with solar (\$3.7 trillion) accounting for more than one third of new power capacity worldwide. A Fraunhofer study concludes that solar power will soon be the cheapest form of electricity in many regions around the world.

With renewable energy costs plunging, several analyses (IRENA, Fraunhofer) highlight that other factors - 'such as maintenance, operations and finance costs' - will become more important in the roll-out of these often capital-intensive technologies. Financial and regulatory frameworks are identified as key to driving further renewable energy development. In early 2015 the number of countries with renewable energy targets had increased to 164, and an estimated 145 countries had renewable energy policies in place. Most remarkable developments in individual countries were:

- **In China**, the continued rapid development of renewable energy. Total investments in the country were up 33 per cent in 2014, reaching \$83.3 billion. The country has the highest total renewable capacity in the world (153 GW), and a leading position for total wind power capacity. It ranked second after Germany for total installed solar capacity in 2014, with the Chinese government raising its 2015 target from 12 to 17.8 GW.
- **In Japan**, the solar boom: the country may install as much as 12.7 GW of solar power in 2015, and solar technology is becoming commercially viable without government support.
- **India's** ambition to increase renewable energy capacity from the current 30 GW to 175 GW by 2022 - including targets for a tenfold increase in solar power to 100 GW, trebling of wind power to 60 GW, biomass (10 GW) and small-scale hydro (5 GW). While analysts highlight the challenges that need to be overcome to reach these targets, they see them as catalysts for major renewable energy developments. Deutsche Bank increased its projections for solar development to 34 GW by 2020, adding that in India, 'by 2020, solar power capacity additions and investments could surpass those for coal-based power projects'. IEEFA models a 75 GW solar capacity by 2022.
- **South Africa** adding 4.3 GW of renewable energy in less than four years, notably through a government programme inviting companies to competitive bids around clear criteria. Renewable energy capacity can already provide power at significantly lower rates than the major new coal-fired power station of Medupi.
- **In the USA**, renewable energy investments rebounded to \$38.3 billion in 2014 with, in particular, the addition of 4.7 GW of new wind power. The Energy Information Administration expects that wind (9.8 GW) and solar power (2.2 GW) will account for more than 50 per cent of total new power capacity in 2015. This forecast certainly seems to become reality, with wind and solar accounting for 74 per cent of new power capacity in the first five months of 2015.
- **In the EU** there were record investments of \$18.6 billion in offshore wind. Renewable energy accounted for 79.1 per cent of all new power capacity in 2014.
- **In Australia**, the continuing quick uptake of rooftop solar.



# COAL DIVESTMENT SPREADING TO MAINSTREAM FINANCIAL INSTITUTIONS

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*‘We support divestment as it sends a signal to companies, especially coal companies, that the age of ‘burn what you like, when you like’ cannot continue’*

Nick Nuttal, spokesperson UNFCCC

The **divestment movement** has gained traction over the last few years, gravitating from North-America to Europe and Australia. Almost 350 organisations (mostly foundations, faith-based groups, governmental organisations and colleges/universities/schools) have committed to divest from fossil fuels.

Until recently, the basis for most divestment decisions stemmed from climate and ethical considerations. Several analyses, however, indicate that there is now also an economic and financial incentive to shift investments away from coal:

- **Goldman Sachs** indicates – with a view on an imminent global coal peak – that ‘the value of undeveloped thermal coal resources requiring new infrastructure is limited’.
- **The Economist** reports that ‘the biggest danger for the coal mines is that capital ceases to flow their way. Investors can cope with a cyclical business, but the fear now is of a structural shift, in which China follows the rich world in beginning to phase out coal, India increasingly produces its own, and a plentiful supply of cheap gas keeps prices low everywhere. If so, new coal-mining investments would risk becoming stranded assets, and older deep mines would be even more uneconomic than now.’
- **Oxford University** researched the risk of stranded assets for least-efficient (subcritical) coal fired power plants due to carbon intensity, water stress and air pollution – concluding that ‘there is a strong case for financial institutions to ... evaluate the risk of companies that hold subcritical assets and, where appropriate to then screen, engage, or divest.’

The growing understanding on the risk of **stranded assets** may explain the acceleration of divestment/engagement commitments from mainstream institutional investors:

- **The landmark coal divestment came from the \$900 billion Government Pension Fund Global (GPF), also known as the Norwegian Sovereign Wealth Fund, the world’s largest.** It defined the threshold for divestment as: ‘coal power companies and mining companies who themselves or through other operations they control base 30 per cent or more of their activities on coal, and/or derive 30 per cent of their revenues from coal’. Research brought to light that this criterion would cover 122 companies in the GPF portfolio, representing a divestment of up to \$10 billion.
- On 22 May, **AXA’s** CEO Henri de Castries made the following statement: ‘It is our responsibility, as a long term institutional investor, to consider carbon as a risk and to accompany the global energy transition. For this reason, AXA has decided to divest from the companies most exposed to coal-related activities for the assets managed internally. This initiative represents a divestment of 0.5 billion euros.’ The threshold for exclusion was set at 50 per cent of activities/revenues from coal. AXA also announced it will triple its investment in green infrastructure to 3 billion euros by 2020.
- On 24 July, **Aviva** committed to ‘divest highly carbon-intensive fossil fuel companies where we consider they are not making sufficient progress towards the engagement goals set’. The insurance company has identified 40 relevant companies in portfolio. It added: ‘We will target a £500 million annual investment in low-carbon infrastructure for the next five years’.

Major commercial and investment banks also set new precedents:

- **Bank of America** presented a new coal policy that ‘will continue to reduce our credit exposure to coal extraction companies.’
- **Crédit Agricole** announced its decision to ‘no longer finance coal mining projects or

companies specialized in this field’.

More than the value of cash divested, these commitments have an important signaling effect: coal is losing confidence of mainstream financial institutions.

## CONCLUSION

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The literature review indicates that coal is caught in a perfect storm. Concerns about climate change, the environment and health impacts have increasingly incited governments to impose regulations on its use. Coal is further undermined by the advancement in energy savings and renewable energy technologies. Coal mining companies and utilities see their profits decline – while investors are becoming increasingly aware of the risk of stranded assets, and start to shift their investment strategy accordingly. The market for coal is shrinking fast. Indeed so fast that the coal industry is in terminal decline.

THE MARKET  
**DECLINE  
OF COAL**  
IS ACCELERATING

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### About WWF

WWF's mission is to stop the degradation of the Earth's natural environment and to build a future in which people live in harmony with nature. The Global Climate & Energy Initiative is WWF's global programme addressing climate change through promoting renewable and sustainable energy, scaling up green finance, engaging the private sector and working nationally and internationally on implementing low-carbon, climate-resilient development.

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### Sources for back page

**29 per cent down** source: Chinese government

**Half the value lost** source: Bloomberg

**6:1** source: REN21

**Down for the first time in 30 years**

source: Indonesian government

**59 per cent** source: REN21

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### Cover Photograph

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# GLOBAL COAL: THE ACCELERATION OF MARKET DECLINE

100%  
RECYCLED



WWF

Global Coal: The Acceleration of Market Decline

EU Transparency Register Nr: 1414929419-24 Designed by www.1tighship.co.za Photo: © Kimberly Hall / Shutterstock.com

## HALF THE VALUE LOST

The Bloomberg Global Coal Equity Index lost half of its value while broad market indices are up to 30 per cent over the last three years

## 2.9 PER CENT DOWN

Chinese coal consumption fell by 2.9 per cent in 2014

## 59 PER CENT

Renewables represented 59 per cent of net additions to global power capacity in 2015

## 6:1

In India, 6 coal plants are shelved or cancelled for every coal plant built

## DOWN FOR THE FIRST TIME IN 30 YEARS

2015 coal production from Indonesia – the world largest exporter – will fall for the first time in thirty years



### Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

[wwf.panda.org/climateandenergy](http://wwf.panda.org/climateandenergy)