Investors and global warming

Carbonated?

Markets may be underpricing climate-related risk

AS A citizen, Dave Jones worries that climate change may imperil his two children, and theirs in turn. What exercises him, as California's insurance commissioner, is the way in which a transition to a low-carbon economy might affect the financial health of the state's 1,300-odd insurers. On May 8th he unveiled an examination of how well the portfolios of the 672 insurers with $100m or more in annual premiums align with the Paris climate agreement of 2015, in which world leaders vowed to keep global warming below 2°C relative to pre-industrial times.

The answer is, not very. In the next five years carbon-intensive firms in those portfolios plan to produce more internal-combustion engines and coal-fired power than the maximum the International Energy Agency (IEA) reckons is compatible with meeting the 2°C goal (see chart). Meanwhile, investment plans in renewable energy and electric vehicles lag behind the IEA's projections of what is needed.

The results echo those of a study last year by Swiss authorities of the portfolios of pension funds and underwriters. According to the Two Degrees Investing Initiative, a think-tank that conducted climate stress tests for the Swiss and Californian regulators, global equity and corporate-bond markets also look dangerously exposed to energy-transition risk.

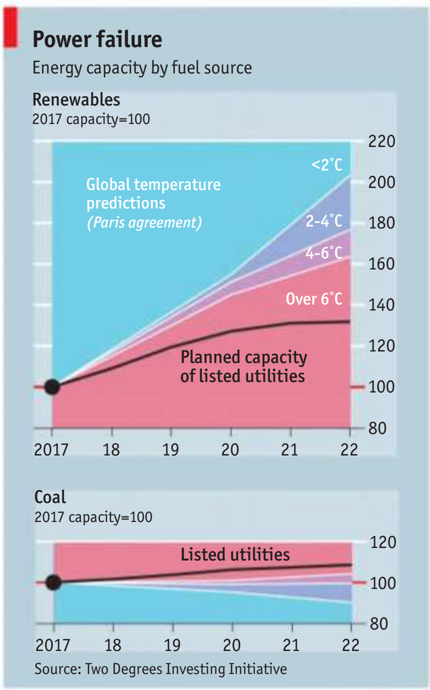
Such findings prompt talk of a "carbon bubble"—overvaluation of businesses that could suffer if the climate threat is tackled resolutely. A study this month in *Environmental Research Letters* by Alexander Pfeiffer of Oxford University and colleagues found that electricity producers would have to retire a fifth of capacity, and cancel all planned projects, if the Paris goals are to be met. Between 2009 and 2015 Moody's cut the average credit rating of European power utilities by three notches, partly because of environmental risk.

Last June the Financial Stability Board, a club of regulators, said companies should assess and own up to the climate-related risks they face. Since last year institutional investors in France have been required to do so by law. In a letter published in the *Financial Times* on May 18th, 60 fund managers with a combined $10.4trn in assets urged the oil and gas industry to be "more transparent and take responsibility for all of its emissions". On May 21st Christopher Hohn, a hedge-fund manager, wrote an open letter to the Bank of England warning that investors lacked the information they needed to assess the "serious climate-related risks" British banks are exposed to through their loan books.

But many investors seem unconcerned. At the annual meeting of Royal Dutch Shell shareholders on May 22nd, activist investors revived a resolution that would oblige the energy giant to align its business with the Paris agreement. As happened last year, the resolution was defeated. Shell contends that its assets are not at risk of being stranded. Other oil and gas companies are equally confident, judging by a report about climate planning by the eight biggest of them by Carbon Tracker, a watchdog. As the authors say, they cannot all be right.

Plenty of shareholders reckon that their companies will not suffer—or that they will be able to get out in time. Asset managers hold a stock or bond for just 1.5 years on average. Neither the signing of the Paris agreement nor its ratification a year later had an impact on global energy stocks, according to a working paper by Thomas Sterner and Samson Mukanjari of Gothenburg University, whether because these events were already priced in or markets never believed the commitments.

If climate action did come to naught, however, risk would return to strike investors in other ways. Assets may by ravaged by rising sea levels or other climate calamities. Or companies may be sued for their role in bringing these about. After *The Economist* went to press on May 24th a federal court in California was due to decide whether to dismiss a case brought by Oakland and San Francisco against oil majors, including Shell, for harm done to the cities by an encroaching ocean. Mr Jones will not be the only one watching closely. ■



Poverty and therapy

Mindful money

How psychotherapy improves depressed mothers' finances

IN 2005 and 2006, in northern Pakistan, some 900 pregnant women took part in an unusual experiment. All were in their third trimester and suffering from depression. Most families in the area rely on subsistence farming. Almost none of the women worked outside the home. This kind of life is hard. Perinatal depression (depression around the time of giving birth) is more common in poor countries than in rich ones.

As part of one of the largest psychotherapy trials ever run, the women were split randomly into two groups. Those in one received weekly visits from a health worker for the month before the birth, and less frequent visits during the ten months after. The rest received the same number of visits, but from health workers who had been trained to deliver cognitive behavioural therapy (CBT) during the visits, too.

CBT is a talking therapy that aims to break the cycle of self-reinforcing negative thoughts. It focuses on the present, rather than trying to uncover the causes of deep-seated neuroses. Subsistence communities are a good place to test it, since no other mental-health services are in place.

The study was a success on its own terms, with the rate of depression falling by 73% for the mothers who received CBT compared with 41% for the rest. But in 2013 a team of researchers returned to measure the long-term impact on the women's finances. It was surprisingly large. The results, currently under review at the journal of the Institute for Labour Economics, show that the women who received CBT in 2005-06 were 17% more likely than the rest to have control over their households' spending. They spent more time with their children and were more likely to send them to private schools.

According to Victoria Baranov of the University of Melbourne, who worked on the study, the reason is probably that those mothers have more bargaining power within their households. "Depression might make you less able to advocate for your own interests," she says. And the effects were stronger in mothers of girls than of boys, suggesting that mentally healthier mothers were able to lessen the harm suffered by daughters in a patriarchal society. She thinks CBT may be a more effective intervention than cash transfers, since it does not disrupt local social norms. It may not give a mother new options, but helps her choose better from those she does have. ■