



## Drumbeat: November 30, 2012

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## Exhaustible resources and economic growth

My view is that with these new fields and new technology, we'll see further increases in U.S. and world production of oil for the next several years. But, unlike many other economists, I do not expect that to continue for much beyond the next decade. We like to think that the reason we enjoy our high standard of living is because we have been so clever at figuring out how to use the world's available resources. But we should not dismiss the possibility that there may also have been a nontrivial contribution of simply having been quite lucky to have found an incredibly valuable raw material that was relatively easy to obtain for about a century and a half.

My view is that stagnant world oil production and doubling in the real price of oil over 2005-2010 put significant burdens on the oil-consuming economies. Optimists may expect the next century and a half to look like the last. But we should also consider the possibility that it will be only the next decade that looks like the last.

#### Shale gas boom in the US ignites a revolution

Brought up in the US chemical industry there were two things you could rely on - the sun would come up in the morning and Gulf coast gas would be a dollar a unit. So there was tremendous build out of infrastructure on the Gulf coast of America because of that. Then the world changed and all of a sudden I found myself hedging gas at US\$12 a unit. Now the world is trying to figure out where it's going to settle.

I don't think it will change the balance of power in the world but it's a nice step in the right direction.

We don't know what the new normal will be yet. I don't think you will see a rush of people building new plants with the possible exception of gas liquification plants. The US needs clarity on longer-term energy policy. I'm not sure we have an energy strategy today that people can believe in. Once that's in place I think you'll see investment.

## Oil Heads for First Monthly Gain Since August on Economy

Oil headed for its first monthly gain since August in New York amid signs of economic growth in the U.S. and China, the world's biggest crude consumers.

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West Texas Intermediate futures were little changed after climbing 1.8 percent yesterday, the most since Nov. 19. Prices will probably be stable next week amid talks in Washington aimed at avoiding more than \$600 billion in spending cuts and tax increases known as the fiscal cliff that are due to kick in next year, according to a Bloomberg survey. The U.S. economy expanded more than previously estimated last quarter, the Commerce Department said in Washington.

## Did China's Oil Consumption Decline 4% in 2011?

That's what the EIA currently says. See the chart above (red line). BP doesn't agree, showing them up by 5.5% over 2010. Although the Chinese economy has undoubtedly been slowing of late, it's hard to believe it was sufficient to cause a fall in oil consumption, which would be unprecedented since the time of the 1980 oil shock.

## India Reliance Oct oil imports up 12.8 pct y/y- trade

NEW DELHI (Reuters) - India's Reliance Industries, owner of the world's biggest refining complex, imported nearly 13 percent more oil in October over a year earlier and made its first ever purchase of Canadian heavy oil. It also bought oil from Ecuador, the first since August 2011, tanker arrival data made available to Reuters showed.

## Natural Gas Pricing in U.K. Is No Libor as Probe Begins

The regulatory investigation into alleged manipulation in the U.K. gas market, Europe's biggest, may fail to undermine a price-setting system that relies on daily conversations between journalists and traders.

## <u>High-tech route is 'the only way' for petrochemicals industry</u>

The head of the world's biggest petrochemicals company yesterday urged his Arabian Gulf-based rivals to spend more on technology to strengthen the industry.

"To sustain [our] level of growth, we need to bring in change.

"The only way is by adopting a technology-driven approach to remain competitive in an ever-changing market place," said Mohamed Al Mady, the chief executive of the Saudi Basic Industries Corporation (Sabic).

## Discounted Saudi Crude Shaped Refiners' Political Contributions, Paper Finds

One would think that, as a global commodity, any particular grade of oil would fetch a similar price regardless of where it was sent, but for a 12-year stretch Saudi Arabia sold crude to U.S. refiners at a substantial discount. To judge from the political contributions

# Lebanese lethargy has sparks flying over power crisis

This is because it was the Turks who earlier this year agreed to eventually supply the two power-generating ships that our government has assured us will ease the chronic and shameful power shortage that has kept the Lebanese in misery, and made the country an investment backwater for more than three decades. I say eventually, because this week, the energy minister Gebran Bassil, who is also the son-in-law of Michel Aoun, the leader of the Free Patriotic Movement (FPM), admitted the ships had yet to dock in Beirut because there had been a problem with payment.

In the meantime, winter approaches and Lebanon's national grid continues to run at only 65 per cent capacity. The joke is that the boats, if and when they arrive, were never meant to make up this shortfall, but to simply maintain the current - oops, there we go again - levels of supply as various power plants undergo routine service.

## India's Apr-Oct imports of Iran oil down 12 pct yr/yr

NEW DELHI (Reuters) - India's oil imports from Iran rose 14 percent in October from September but for the first seven months of the contract year were down 12 percent, data from trade sources showed on Friday, as New Delhi aims to win a renewal of a waiver from U.S. sanctions.

Iran's second biggest client after China, India imported 276,900 barrels per day (bpd) of oil from the OPEC member in the April-October period, tanker arrival data showed.

#### Iran importing gold to evade economic sanctions, Turkish official says

Istanbul (CNN) -- Over the last six months, Iran has evaded U.S. sanctions by importing Turkish gold to pay for billions of dollars worth of energy sales to Turkey.

Turkey's deputy prime minister has described what amounts to a gold-for-oil barter system.

## S.Africa suspends Iran crude imports again in October

JOHANNESBURG (Reuters) - South Africa suspended all imports of crude oil from Iran for a fifth consecutive month in October, data showed on Friday, as Pretoria continued to steer clear of the shipments because of sanctions.

South Africa used to import a quarter of its crude from Iran, but since June has replaced shipments with crude from other suppliers, especially Saudi Arabia.

## Thousands on march ahead of Kuwait elections

Tens of thousands of people marched in Kuwait on Friday calling for a voter boycott, a day before a parliamentary election that looks unlikely to defuse tensions in the US-allied, oil-producing Gulf country.

Egyptian draft constitution passes; protesters vow return to the streets

The constitution, which would replace one scrapped in last year's revolution that led to Hosni Mubarak's ouster, needs to be approved by citizens, many of whom are angry at the government.

Hundreds of protesters gathered Friday around noon at Tahrir Square, where they held prayers after listening to a cleric brand Islamist President Mohamed Morsy a "pharaoh" over what many feel was an overbearing power grab by the head of state last week.

Internet and telephones cut in Syria for second day amid sporadic clashes in the capital

BEIRUT - Activists say Syrian rebels and government troops are clashing south of the capital as Internet and telephones lines remain cut for a second day nationwide.

President Bashar Assad's regime and opposition activists blamed each other for the blackout, which is the first to hit the whole country since Syria's 20-month-old uprising began.

## Libya's main oil refinery resumes operations

Tripoli - Western Libya's main refinery resumed operations on Friday after protesters shut it down for a day, a spokesman said.

Essam al-Muntasir of the Zawiya Oil Refining Company said employees were able to resume work and fuel trucks were able to leave the refinery.

## Abandonment of well hits Falkland Oil stock

Falkland Oil and Gas, which is engaged in a roller coaster ride to find oil in the disputed South Atlantic islands, lost almost half of its value when it announced the abandonment of a well following disappointing results.

The statement wiped 49 per cent off its volatile stock on Tuesday, sending its shares to a historic low of 32 pence, giving it a market value of £103 million. The stock price hit a high of 267 pence in July 2010.

#### ENI CEO says not interested in Conoco's Kashagan stake

(Reuters) - Italy's oil major ENI does not intend to exercise its right of first refusal on ConocoPhillips' stake in Kazakhstan's Kashagan oil field, Chief Executive Paolo Scaroni said on Friday.

ConocoPhillips intends to sell its Kashagan stake to Oil and Natural Gas Corp Videsh for about \$5 billion.

#### Hungary signs preliminary deal to buy E.ON's gas units

BUDAPEST (Reuters) - Hungary has signed a declaration of intent with E.ON to buy the German utility's local gas businesses, which would give the government control over vital gas imports and negotiations with key Russian supplier Gazprom.

Hungary, whose position at the heart of central Europe gives it an important role as a gas-shipping route, gets over 80 percent of its annual gas consumption of 11-12 billion cubic metres through imports, mostly from Russia.

#### Rosneft sees TNK-BP deal with AAR in December

KHABAROVSK, Russia (Reuters) - Rosneft, Russia's biggest oil company, should sign a binding agreement next month to buy half of oil company TNK-BP from the AAR consortium of Soviet-born tycoons for \$28 billion.

"I do not have any doubts. We are working quickly with AAR," Rosneft president Igor Sechin told reporters on Friday after an extraordinary general meeting of Rosneft shareholders. "There are one or two points that need to be worked out."

A deal that could solve one of the biggest headaches in global oil: How India's ONGC might come to Kazakhstan's rescue

Kashagan is one of the largest discoveries in the history of petroleum—and also one of the most troublesome. A monster field containing at least 38 billion barrels of oil (a 1billion-barrel field is regarded as a "supergiant"), Kashagan occupies the extreme end of the industry risk scale—difficult to develop, far over budget, and very late indeed. It's so huge that no less than seven big oil firms have partnered up to exploit it (which is part of the problem.) Discovered in Kazakhstan in 2000, Kashagan was supposed to deliver first oil seven years ago, at a development cost of about \$24 billion. Instead, it is expected to produce only next March, after some \$46 billion has been spent.

Now yet another firm is buying in to Kashagan. Under the terms of all-cash deal, announced Nov. 25, India's state-controlled ONGC will buy the 8.4% stake currently

#### Fluor set to energise its Middle East business

The US engineering giant Fluor is set to double its business from the Middle East within two years as it increases its focus on the energy sector to compensate for a slowdown in mining.

#### Progress Energy Takeover Will Benefit Canada, Petronas Says

Petroliam Nasional Bhd., Malaysia's state energy company, said its proposed \$5.2 billion takeover of Progress Energy Resources Corp. will help Canada develop gas resources and find an alternative market.

#### Australian resources investment hits \$280bn

Investment committed to Australian resource projects has risen to a record US\$280 billion (Dh1.02 trillion), up by almost \$8bn in six months.

The fly in the ointment, however, is the project pipeline is slowing and development costs are rising in an industry that has so far shielded Australia from global economic downturn.

#### <u>Canada blocks Cenovus gas project in Alberta</u>

Cenovus wanted to drill up to 1,275 new shallow gas wells at Canadian Forces Base Suffield National Wildlife Area, but federal Environment Minister Peter Kent told reporters: "The environmental impacts are simply too great."

#### Chevron's \$19 Billion 'Disaster' Gets Hearing

A judge hearing Chevron Corp.'s first test of whether Amazon rainforest-dwellers will collect \$19 billion in environmental damages from the world's fourth- largest oil company said the case should be tried in the U.S.

"You should all be in New York," Ontario Superior Court Justice David Brown said several times during the first day of hearings today in Toronto. "On the issue of jurisdiction, the law is not clear on this at all. Why should the Ontario court stick their nose" into the matter.

BP's U.S. Contract Suspension Seen Aiding Valero to Shell

BP Plc's temporary ban from new U.S. government contracts is an additional stain on the British oil company's record that may give competitors an edge in bidding for future federal work.

"Regardless of how long the suspension is, the government has put a black mark on BP's record as a contractor that will never be erased," said Charles Tiefer, a University of Baltimore law professor who focuses on government contracting.

## <u>Clean up the mess: big oil must always be held accountable</u>

When BP and its drilling partners caused the Deepwater Horizon oil spill in the Gulf of Mexico in 2010, the United States government demanded that BP finance the clean-up, compensate those who suffered damages, and pay criminal penalties for the violations that led to the disaster. BP has already committed more than US\$20 billion (Dh73.5bn) in remediation and penalties. Based on a settlement last week, BP will now pay the largest criminal penalty in US history - \$4.5bn.

New York's Delay on Fracking Decision Surprises Few

A legal expert says that the Cuomo administration's decision to delay a decision on whether to allow hydraulic fracturing in New York for another 90-days makes sense.

When the Cuomo administration announced two months ago that it wanted an additional review of data on potential health effects of fracking, Governor Cuomo said he was going the extra mile to ensure that the state could win anticipated court challenges from environmental groups.

## Fracking Secrets by Thousands Keep Americans Clueless on Wells

(Bloomberg) -- A subsidiary of Nabors Industries Ltd. pumped a mixture of chemicals identified only as "EXP- F0173-11" into a half-dozen oil wells in rural Karnes County, Texas, in July.

Few people outside Nabors, the largest onshore drilling contractor by revenue, know exactly what's in that blend. This much is clear: One ingredient, an unidentified solvent, can cause damage to the kidney and liver, according to safety information about the product that Michigan state regulators have on file.

## Is there enough water for 'fracking' boom?

Critics say that drilling and "fracking" pose a pollution threat to streams and groundwater. Industry officials say the process is safe. As that debate continues, the industry's water consumption has grown into an issue of its own.

The change alone in Carroll County is huge. A *Dispatch* analysis of state water-use records shows that the county's mineral-extraction industry, which includes drilling, used 3.5 million gallons of water in 2010.

#### Plan to lower river levels could mean hike in farm input costs

"This time of year, 78 percent of the water in the Mississippi comes out of the Missouri River, and they're looking to cut off around 80 percent of what's coming out," Stegmann said. "Without additional rainfall, that's going to drop the Mississippi River level to a minus 5. In my time — and I've been involved 53 years with the company — I don't know if I've ever seen it that low."

The plan is scheduled to be put into place because the drought this year lowered water levels in reservoirs in the Northern Plains. That, in turn, will affect recreation opportunities in the Dakotas and - possibly more critically - reduce the source of water necessary for hydraulic fracturing.

## <u>River vs. river: Corps manages Missouri, Mississippi rivers for conflicting goals</u>

North Dakota leaders are eager to tap Missouri River reservoirs for the state's oil fracking boom. Forcing oil from beneath North Dakota requires hundreds of millions of gallons of water. North Dakota Gov. Jack Dalrymple says he will contest any Corps plan to restrict oil companies from using that water.

So the Corps seems willing to manage the Missouri River to the detriment of Mississippi River shippers, even as North Dakota gives away water the Corps believes will be needed for navigation on both rivers.

#### Fort Nelson band's anti-fracking petition draws overwhelming response

When a small native band in British Columbia launched an online petition to oppose increased water use by the gas industry, it was hoping for 500 signatures.

A month later, the Fort Nelson First Nation has nearly 24,000 signatories on the petition and letter to government posted on Change.org under the heading "Don't Give Away Our Fresh Water for Fracking."

Stake in Keystone Pipeline Is Potential Conflict for Susan Rice

Should Susan E. Rice, the United Nations ambassador, be nominated for Secretary of State, one issue likely to arise during confirmation hearings, aside from the lethal attack on the American Mission in Benghazi, Libya, is her large stock holdings in TransCanada, the company seeking an American permit to build the proposed the Keystone XL

#### Ex-Official Is Charged After Deaths at Coal Mine

Federal prosecutors in West Virginia charged the highest-ranking executive to date on Wednesday in a broad investigation stemming from the 2010 explosion at the Upper Big Branch mine that killed 29 miners, a move that suggests more senior executives at Massey Energy, the mine's operator, are likely to be prosecuted.

Ford Fusion named 'Green Car of the Year'

NEW YORK (CNNMoney) -- The Ford Fusion was named Green Car of the Year at this year's Los Angeles Auto Show.

The newly redesigned Fusion has received positive reviews for its styling and performance as well as its fuel economy. The Green Car judges also lauded its accessible price and the fact that it offers buyers a wide choice of options at various prices.

#### <u>Chevy Volt tops most-loved car survey again</u>

General Motors' Chevrolet Volt plug-in hybrid car topped Consumer Reports' annual owner-satisfaction survey for the second straight year.

Ninety-two percent of Volt owners surveyed by the influential consumer magazine said they would definitely buy the Volt again, earning the electric car the top ranking. Last year, 93 percent of respondents said they would buy the car again.

#### Car engines downsized, without sacrificing power

With gasoline prices surging to near-record levels and many experts forecasting a steady climb over the next few years, consumers are looking for ways to cut their fuel bills. There's a clear trend towards downsizing, with compact and subcompact automobiles increasing their market share substantially.

But Americans have traditionally been believers that big is better, and despite expectations, demand for SUVs and CUVs hasn't collapsed. If anything, sales of pickups are, well, picking up again. Yet, these vehicles are getting far more mileage than ever before and downsizing also gets the credit – but unless you peak under the hood, you may not notice.

#### AAA warns E15 gasoline could cause car damage

The AAA says the Environmental Protection Agency and gasoline retailers should halt the sale of E15, a new ethanol blend that could damage millions of vehicles and void car warranties.

AAA, which issued its warning Friday, says just 12 million of more than 240 million cars, trucks and SUVs now in use have manufacturers' approval for E15. Flex-fuel vehicles, 2012 and newer General Motors vehicles, 2013 Fords and 2001 and later model Porsches are the exceptions, according to AAA, the nation's largest motorist group, with 53.5 million members.

## <u>Nearly 15 million households on food stamps</u>

NEW YORK (CNNMoney) -- The number of American households receiving food stamps jumped nearly 10% in 2011.

Nearly 15 million households were on food stamps at some point last year, up from 13.6 million in 2010, newly released Census data shows. That's an increase to 13%, up from 11.9% in 2010.

## Home, squeezed home: Living in a 200-square-foot space

Step into an alleyway in the Northeast Washington neighborhood known as Stronghold, and you will see a vegetable patch, a campfire, a view of the Capitol and a cluster of what neighbors call "those tiny people, building their tiny houses."

The people aren't really tiny, but their homes are -150 to 200 square feet of living space, some with gabled roofs, others with bright cedar walls, compact bathrooms and cozy sleeping lofts that add up to living spaces that are smaller than the walk-in closets in a suburban McMansion.

## 'Granny pods': The future of elderly living?

A Virginia pastor thinks he has the perfect solution for the growing legions of independent-minded boomers too old to live on their own.

## Immigrants lead plunge in U.S. birth rate

The birth rate for U.S.-born women declined 6% between 2007 (when the recession began) and 2010. However, the rate for foreign-born women plunged 14%, more than in the 17 years before the downturn.

Both foreign- and U.S.-born Hispanic women had larger drops in birth rate than any other group, Pew found. That correlates with larger percentage declines in household wealth for Hispanics than in white, black or Asian households.

## Welcome the Negawatt Revolution

Finally, the United States is beginning to take energy efficiency seriously.

## Western Wind Seen Luring Bid Trumping Top Offer

Traders are betting that Western Wind Energy Corp. (WND)'s executives will persuade suitors to top what's already the most expensive valuation for an alternative- energy takeover on record.

Shares of Western Wind, the Vancouver-based operator and developer of wind farms and solar projects that put itself up for sale in July, closed yesterday 11 percent above a C\$2.50-a- share proposal from Brookfield Renewable Energy Partners LP. That's the biggest premium to its offer among pending cash deals in Canada, according to data compiled by Bloomberg, a sign investors project Western Wind will secure a better price.

#### Fracking Companies Embrace Solar to Cut Carbon Emissions

The vast majority of hydraulic fracturing sites in the U.S. are powered by emissionsspewing, noisy diesel engines.

So, Ron Hyden, who's seen a lot during his four decades in the oil patch, is eager to show off something new: a machine used in fracking that relies on gravity and electricity generated from solar panels to send sand into a labyrinth of tubes before it's shot underground to prop open tiny cracks in natural gas- or oil-bearing rock.

#### Bloom Town

One of America's hottest cities and one of its coldest may have more in common than you would guess. In places like Phoenix and Minneapolis, scientists think that cities are starting to look alike in ways that have nothing to do with the proliferation of Starbucks, WalMart or T.G.I Fridays. It has to do with the flowers we plant and the fertilizers we use and the choices we make every spring when we emerge from our apartments and homes and descend on local garden centers.

"Americans just have some certain preferences for the way residential settlements ought to look," Peter Groffman, a microbial ecologist with the Cary Institute of Ecosystem Studies in Millbrook, N.Y., recently told me. Over the course of the last century, we've developed those preferences and started applying them to a wide variety of natural landscapes, shifting all places — whether desert, forest or prairie — closer to the norm. Since the 1950s, for example, Phoenix has been remade into a much wetter place that more closely resembles the pond-dotted ecosystem of the Northeast. Sharon Hall, an associate professor in the School of Life Sciences at Arizona State University, said, "The Phoenix metro area contains on the order of 1,000 lakes today, when previously there were none." Meanwhile, naturally moist Minneapolis is becoming drier as developers fill in wetlands.

## Delhi and Shanghai Aim to Reduce Plastic Trash

HONG KONG — Two recent items of news from Asia appear to show that the region's nations are starting to take seriously the ever-growing amounts of plastic trash they produce.

In India, plastic bags, sheets, films and the like were banned in Delhi beginning last week. The city is attempting to rein in the 250,000 tons of plastic waste it generates every year. My colleagues on the India Ink blog have written about the development here.

## Fight Over Ferry on Lake Michigan Prompts Questions on Definition of Earmarks

To its critics, the S.S. Badger is a relic and a menace, a coal-fired car ferry that dumps tons of raw coal ash into Lake Michigan each year as it plies its four-hour route between Manitowoc, Wis., and Ludington, Mich.

To its friends in the halls of Congress, the Badger is a national historic treasure, a ship from a bygone era worth saving from the bureaucrats of the Environmental Protection Agency, even if it means skirting the line on the Republicans' sacred ban on Congressional earmarks.

## New York City's Plan for Tree Waste: Sell, Reuse or Burn

As cleanup continues, New York City finds itself with a seemingly endless load of debris and no easy place to store it. In the case of the 15,000 trees felled by the storm, at least, the wreckage can be recycled. The city's Environmental Protection Department said that whatever cannot be reused as fuel, mulch or landfill cover would most likely be burned at Floyd Bennett Field.

## Mississippi's Pinnacles of Thebes Should Fall: Shippers

Rock formations have studded the bottom of the Mississippi River for eons. With drought-stressed water levels near record lows, shippers say they must be blasted away now to keep commerce moving on the nation's busiest waterway.

That is setting up a conflict with the U.S. Army Corps of Engineers, which has plans to wait until February to award a contract to remove rocks, known as pinnacles, near the Illinois towns of Thebes and Grand Tower. It's a complicated project involving synchronized dynamite blasts that may cost as much as \$10 million.

## End of the Line for an Oyster Farm

Interior Secretary Ken Salazar on Thursday ended a longstanding and bitter dispute that pitted wilderness advocates against supporters of a Northern California oyster farm, announcing that the farm's lease from Point Reyes National Seashore would end on Friday as originally planned. An estuary known as Drakes Estero, where the oyster operation has existed for the last 40 years, will become a federally designated wilderness area.

## Canada, Denmark a step closer to settling border dispute

An agreement on a decades-old maritime boundary dispute with Denmark could be a sign that Canada is serious about its plan to resolve competing claims in the north, researchers suggest.

How will climate change impact on fresh water security?

Fresh water is crucial to human society – not just for drinking, but also for farming, washing and many other activities. It is expected to become increasingly scarce in the future, and this is partly due to climate change.

## U.K. Energy Reform Bill Casts Aside 2030 Carbon Targets

U.K. reforms to the electricity market boosted plans for low-carbon generators such as wind and nuclear power and offered industry a reprieve from costs, though left environmental groups demanding emissions-cutting targets.

The government plans to exempt energy intensive industries such as steel and cement from costs arising from contracts guaranteeing low-carbon generators a price for power, the Department of Energy and Climate Change said yesterday.

## EU Carbon Fix May Avoid Delays as Parliament Seeks Faster Vote

The European Union's proposal to strengthen the carbon market may avoid delays after a lawmaker overseeing the draft measure said he will seek to bring forward by a month a vote on it in the region's parliament.

## UN Seeks Simplest Process in Six Years for Pollution Cuts

Envoys at United Nations global warming talks are working on streamlining their negotiation process for the first time in at least six years, a step toward drafting a treaty by 2015 mandating more greenhouse-gas limits.

Delegates from more than 190 countries plan to close two parallel strands of talks and concentrate on one track, the biggest change to the process since 2007. The meeting, now in its fifth day in Doha, has avoided the rancor of the past three gatherings to focus on laying the groundwork for a deal limiting fossil-fuel emissions that would take effect by 2020.

<u>Pledges to fight global warming inadequate, U.S. off track - study</u>

DOHA (Reuters) - Major nations' policies are inadequate to limit global warming and the United States is off track even in carrying out its weak pledge to limit greenhouse gas emissions, a scientific scorecard showed on Friday.

The Climate Action Tracker report, issued on the sidelines of talks among almost 200 countries in Doha about climate change, said a toughening of policies was still possible to avert damaging floods, heat waves and rising seas.

## Climate change: Africa is most affected

"Climate change is the biggest challenge to humanity this century," says Fanuel Tolo, the director of programmes of Climate Network Africa.

He observes that African countries, who contribute least to emissions that cause global warming, are most hit.

## Where can investors who worry about climate change put their pension?

"We're going after the fossil fuel industry," Bill McKibben tells about 1,800 cheering fans in a Washington, DC, theatre. "They're trying to wreck the future, so we're going after some of their money."

Al Gore notwithstanding, McKibben – an author, academic and founder of the grassroots climate group 350.org – is America's leading environmental activist. His 21-city Do The Math tour begins a campaign to persuade colleges, churches, foundations and governments to divest their holdings in coal, oil and natural gas companies.

## Polar Ice Loss Accelerating, Study Finds

Ice loss in Antarctica and Greenland has contributed nearly half an inch to the rise in sea levels in the past 20 years, according to an assessment of polar ice sheet melting that researchers are calling the most reliable yet.

What's more, ice loss is rapidly speeding up in the north, while the rate in Antarctica has been fairly constant, the researchers report Friday (Nov. 29) in the journal Science.

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