



DrumBeat: October 6, 2008

Posted by [Leanan](#) on October 6, 2008 - 9:45am

Topic: [Miscellaneous](#)

[Pakistan facing bankruptcy](#): *Pakistan's foreign exchange reserves are so low that the country can only afford one month of imports and faces possible bankruptcy.*

Officially, the central bank holds \$8.14 billion (£4.65 billion) of foreign currency, but if forward liabilities are included, the real reserves may be only \$3 billion - enough to buy about 30 days of imports like oil and food.

Nine months ago, Pakistan had \$16 bn in the coffers.

The government is engulfed by crises left behind by Pervez Musharraf, the military ruler who resigned the presidency in August. High oil prices have combined with endemic corruption and mismanagement to inflict huge damage on the economy.

...The Pakistan rupee has lost more than 21 per cent of its value so far this year and inflation now runs at 25 per cent. The rise in world prices has driven up Pakistan's food and oil bill by a third since 2007.

Efforts to defer payment for 100,000 barrels of oil supplied every day by Saudi Arabia have not yet yielded results, while the government has also failed to raise loans on favourable terms from "friendly countries".

Mr Zardari told the Wall Street Journal that Pakistan needed a bail out worth \$100 billion from the international community.

[Russia feeling the pinch](#)

MOSCOW - NO LONGER quite so flush from vast oil and gas wealth, Russia's economy is feeling the pinch from the global crisis and problems at home, putting investors and small businesspeople on edge.

While economic growth has surged upwards at rates of over seven percent in recent months, plunging stockmarkets and massive central bank intervention have told a different story, denting a feeling of immunity from wider trends.

[Russian shares dive on lower oil, global woes; fears for oil-based growth](#)

MOSCOW (AP) - With the price of crude sliding, oil-rich Russia on Monday saw its stock markets take their most brutal one-day beating ever.

The benchmark RTS index plunged by 19.1 percent to 866.4 points, while the MICEX — where the bulk of trading takes place — fell by 18.7 percent to 752 points, the largest single loss ever for both. In a desperate bid to stop the bleeding, trading was suspended three times on MICEX and twice on the RTS — to little apparent effect.

[Correa threatens to expel oil companies](#)

QUITO • Ecuadorean President Rafael Correa has threatened to expel foreign oil companies if they fail to lift dwindling output in the OPEC nation.

Correa, a leftist former economy minister, issued the warning in a speech over the weekend, only days after he won a referendum to increase his sway in the country's oil and mining sectors.

[Mexico's Coast Under Watch From Tropical Storm Marco](#)

(Bloomberg) -- Parts of Mexico's Gulf Coast may get as much as 6 inches (15 centimeters) of rain from Tropical Storm Marco, which formed today in the Bay of Campeche, home of the nation's largest oil field, U.S. hurricane forecasters said.

[Refinery expansion shelved](#)

The high price of heavy oil and scarce financing means capacity at Montana Refining Co. will not be expanded.

Calgary-based Connacher Oil and Gas, which bought the refinery in 2006, says it's shelving plans to bring the facility from a 9,500 barrels of oil a day operation to 35,000 barrels a day.

[Everybody Into the Ocean](#): *The race is on to turn waves, tides and currents into electrical energy*

Surfers aren't the only ones itching to jump in the water and catch some big waves.

Dozens of companies, from oil giant Chevron Corp. to smaller firms like Ocean Power Technologies Inc., have invested in or are evaluating the potential of technology designed to harness electrical energy from waves, tides and currents.

[Oil tumbles to 10-month low below \\$88](#)

NEW YORK (CNNMoney.com) -- Oil prices tumbled below \$88 a barrel Monday, nearly a 10-month low, as banking turmoil in Europe exacerbated fears that a global economic slowdown will crimp demand for oil and gas.

Crude prices were also pushed lower by a stronger U.S. dollar and weakness in world stock markets.

Light, sweet crude for November delivery fell \$6.07 to settle at \$87.81 a barrel on the New York Mercantile Exchange. The price of crude has not been this low since Dec. 10, 2007 when the front-month contract settled at \$87.86 a barrel.

Oil has fallen 40% since the July contract peaked at \$147.27 a barrel on July 11.

[La. officials fault Entergy for outages](#)

NEW ORLEANS (UPI via COMTEX) -- Officials in Louisiana say so many people there were left without electricity when Hurricane Gustav hit because of a weak power grid.

Public officials say it was the poor condition of Entergy Corp.'s grid that kept power off for so many following the Category 2 hurricane, The (New Orleans) Times-Picayune reported Sunday.

[Ford gets \\$10M federal grant for plug-in hybrids](#)

Ford Motor Co. is receiving a \$10 million grant from the U.S. Energy Department to develop plug-in hybrid vehicles.

The funding being announced Tuesday will help the automaker continue to develop its demonstration fleet of 20 plug-in hybrid vehicles. The project costs \$20 million, so the government is funding half of the program.

[An eco-friendly way to cool big trucks](#)

Webasto hired a trucker named Buck Threehouse to take a BlueCool-equipped truck on a summer publicity tour of truck stops across the country. The tour coincided with spiking fuel prices and appears to have succeeded -- Webasto sold 500 BlueCool units in July, its best month ever.

Threehouse said truckers have showed a lot of interest.

"What really sells the item -- they come and the truck's not idling. And all the trucks

around me are idling," he said. Sometimes, he said, "they wake me up at 3:00 in the morning and ask me for brochures. They can't [wait until daylight], they have to deliver a load. And then they keep apologizing to me for waking me up."

[Ecuador says OPEC to analyze global crisis impact](#)

QUITO, Oct 6 (Reuters) - Ecuadorean Oil Minister Galo Chiriboga said on Monday that OPEC will analyze the impact of the global financial crisis on oil demand and set production levels in accordance.

[The Philippines: Govt to renew talks with Russia on oil supply](#)

The government plans to revive talks with petroleum-rich Russia in a bid to diversify the country's sources of oil, which mainly comes from the Middle East.

[OPEC members worried by oil price fall-Iraq](#)

BAGHDAD (Reuters) - OPEC members are worried by the drop in the price of oil to around \$90 a barrel, Iraq's oil minister told Reuters in an interview on Monday.

Hussain al-Shahristani said that the drop in oil prices to an eight-month low was due to the global economic crisis and not a change in supply. Iraq believes the fair price of oil is about \$100, he added.

"Definitely there is worry. When the prices are so volatile, like rising to \$140 and then dropping to below \$90, it worries everybody," he said.

[BP Falls Most in Six Years, Shell Declines, as Crude Oil Futures Tumble](#)

(Bloomberg) -- BP Plc, Europe's second-largest oil company, slumped the most in almost six years in London trading as crude prices extended their decline. Royal Dutch Shell Plc, the continent's biggest, fell the most since combining its Dutch and U.K. parent companies in 2005.

[Crisis aside, many face other economic woes](#)

Mark Wolfe, executive director of the National Energy Assistance Directors' Association, said he has been heartened by the combination of lower fuel prices and more federal assistance for struggling families who need help with their heating bills. Still, he said, for most Americans salaries have not kept up with heating costs.

Up until a few years ago, Wolfe said, "Energy was just really cheap, and it was wonderful for ordinary people. And, in a relatively short period of time, energy has gone from really cheap to not so cheap to kind of expensive. And that's creating a lot of turmoil."

[Energy's Future in Latin America: New Study by Bracewell & Giuliani and Business News Americas Forecasts Region's Prospects and Challenges](#)

WASHINGTON (BUSINESS WIRE) -- Peak oil in Latin America is less than 10 years away; energy integration, nuclear power plants, and large-scale renewable power generation are necessities to ensure sufficient energy supplies in the future; the region's governments should play a stronger role in their respective energy sectors; and Latin America and the Caribbean are ripe for business. These are the significant findings of Bracewell & Giuliani and Business News Americas' Energy Outlook 2008, which surveyed energy company executives from various countries throughout Latin America.

[Half of mammals are in decline, study finds](#)

BARCELONA, Spain - One in two mammal species on Earth are in decline and at least one in four are at risk of disappearing forever, according to a scientific survey released Monday and whose sponsors described the trend as an "extinction crisis" in the making.

"Mammals are declining faster than we thought," said Jan Schipper, lead author of a companion study being published this week in the journal Science.

[Commodities R.I.P. as Leverage Vanishes, Growth Slows](#)

(Bloomberg) -- Commodities markets are heading for the biggest annual decline since 2001 as investors exit leveraged bets and slowing economic growth erodes demand for raw materials.

The value of the 19 commodities in the Reuters-Jefferies CRB Index fell \$280.6 billion, or 43 percent, from its July 3 peak, a loss larger than their total worth two years ago, data compiled by Bloomberg show. UBS AG, the Zurich-based bank that bought Enron Corp.'s energy unit in 2002, plans to exit most commodity trading. About 15 percent of investors in Boone Pickens's BP Capital LLC hedge fund may want their money back.

The same credit-market seizure that led to last month's bankruptcy of New York-based Lehman Brothers Holdings Inc. and the forced sale of Merrill Lynch & Co. is squeezing speculators who drove commodities to record highs. Slower expansion in the U.S., China and India is also undermining prices of crude oil, which fell 39 percent, and corn, down 46 percent.

[OPEC President Predicts Crude Will Fall Further Next Year](#)

(Bloomberg) -- Crude oil prices will continue to fall next year, OPEC President Chakib Khelil said today.

The Organization of Petroleum Exporting Countries will ``take the appropriate measures at the next meeting to preserve stability in the international market," Khelil, who is also Algeria's energy minister, told reporters today in Algiers.

[Reliant to Review Options After Losing Half Its Value](#)

(Bloomberg) -- Reliant Energy Inc., the owner of power plants in nine U.S. states, said it will explore strategic alternatives after losing more than half of its market value last week.

Morgan Stanley and Goldman, Sachs & Co. will serve as financial advisers for the review, which will look at all options for enhancing stockholder value, Houston-based Reliant said today in a statement. The company's shares plunged 54 percent last week after Reliant cuts its profit projections and arranged \$1 billion in new financing.

[Devon Gulf output returning, cuts output target](#)

NEW YORK (Reuters) - Devon Energy Corp has restored 60 percent of the offshore oil and gas production it had shut down because of hurricanes Gustav and Ike, the independent energy producer said on Monday.

Production shutdowns from the hurricanes, as well as typhoons in the South China Sea and a shutdown at its Azeri field would cut Devon's third-quarter production to about 59 million barrels of oil equivalent, slightly below its previous forecast of 61 million boe.

It also cut its fourth-quarter production estimate to between 61 million to 62 million boe from 64 million boe because of the hurricane damage and shutdown of the Azeri ACG field.

[Shortage leads to impurity in gas](#)

FLETCHER – During the recent gas shortage, with his wife's car sitting near empty in their driveway, Jose Ortiz fetched five gallons from a local convenience store.

Unfortunately, that had to be followed by a tow to the repair shop to fix damage caused by contaminated fuel.

A sample of the gas Ortiz poured into the Honda was collected by a state regulatory agency. "The gas that was inside my vehicle looked like root beer in color," he said.

While such contamination doesn't appear to be widespread, AAA Carolinas says it's more likely when fuel tanks run low.

[Perdue Gas Debacle of 2008](#)

Now that the crisis is easing, who is to blame for the great gasoline shortage of 2008? Well, let's think about that from the economic perspective of basic supply and demand.

Gov. Sonny Perdue signed an executive order on Sept. 12 enacting Georgia's gas-gouging statute. The executive order meant that gasoline stations could only raise their price per gallon to reflect an increase in their costs per gallon; they could not increase their price to make bigger profits. Moreover, the Governor's Office of Consumer Affairs recently subpoenaed sales records from 130 gas stations to determine if they illegally raised prices after Hurricane Ike. What would you have done if you were in the gasoline business? You would not raise your sales price.

[Kenyan orders cuts in electricity tariffs](#)

NAIROBI (Xinhua) -- Kenya's President Mwai Kibaki on Monday ordered the energy and finance ministries to lower electricity tariffs in response to high costs that have been passed on to consumers.

[Uganda: Ban on heavy trucks reduces fuel supply](#)

THE flow of fuel into the country has been interrupted since the Kenyan authorities impounded all four-axle trucks destined for Uganda.

Hundreds of impounded trucks have been parked on the highway between Mariakani, Malaba and Busia border posts following a ban on heavy trucks effective from October 1.

Both Kenya and Uganda decided to slap a ban on four-axle (eight wheels) trucks after engineers argued that they damage the roads and make the governments incur high costs to repair them.

[American Airlines plans à la carte pricing](#)

FORT WORTH, Texas - The idea of paying a single, simple fare to fly on an airliner is becoming as quaint as stewardesses in short skirts.

American Airlines is about to accelerate the trend of breaking the cost of a trip into an airfare plus many smaller fees.

Starting next year, American, which led a stampede by U.S. carriers to charge customers for checking even a single suitcase, plans to imitate the a la carte pricing structure pioneered by Air Canada, airline officials say. There are likely to be a few basic fare plans, and travelers can pick additional services — for a fee.

[Depression may form in Mexico's Bay of Campeche - NHC](#)

NEW YORK (Reuters) - A low pressure system in the oil-rich Bay of Campeche in the southwest Gulf of Mexico has a 20 percent to 50 percent chance of developing over the next 48 hours, the U.S. National Hurricane Center said in a report Monday.

Mexico's biggest oil field, the Cantarell Field, is located in the Bay of Campeche.

The NHC said the low would likely move west during the next 12 to 24 hours and some development was possible before it moved inland over mainland Mexico Monday night or Tuesday.

[Saudi refinery repairs to take 2-3 months - trade](#)

DUBAI (Reuters) - Damage from a fire in late August at a secondary unit at Saudi Arabia's largest oil refinery has cut output of gasoline and distillates and could take two to three more months to repair, industry sources said on Monday.

The sources said they had only recently learned of the fire and it was unclear which unit at the 550,000 barrels per day Ras Tanura plant had been affected.

A gasoline-producing reforming unit at the plant has been shut down, two sources said.

[Africa: Journalists Reflect On Coverage of Food And Fuel Crisis](#)

Journalists covering the Commonwealth Finance Ministers Meeting in Castries, St Lucia reflected on the way the story of the rising food and fuel crises has been covered in their respective countries and newsrooms and resolved to be more comprehensive and complete in future coverage of the story.

[Farmers struggle as costs rise and economy slumps](#)

Farmers say they aren't sure yet how the recent credit crisis will affect them, but they do know the prices of things like fertilizer and fuel have been continuous strains on their budgets. "I didn't fertilize this year, but you can only do that one time," says Baxter. And Harry says, "My input is so much higher than it was, due to fuel and the economy."

They say at this rate, they aren't making much of a profit, and some farmers are getting out while they're still ahead. Dealers we spoke to at the Farmfest, told us business seemed pretty good, so perhaps farmers aren't backing away from spending money. But a common theme we heard is how little farmers are profiting, with such high input costs—due to the energy crisis.

[Four Crises of the Contemporary World Capitalist System](#)

The final and perhaps greatest crisis is that of the availability and distribution of such critical resources as oil, food, and water. The sustainability of human life is simply not consistent with inherently wasteful capitalist growth.

The International Energy Agency's *World Energy Outlook* tells us that 50 percent more energy will be needed in 2030 than in 2005 (after adjusting for efficiency improvements) and that almost three-fourths of this increased demand will come from developing countries, with China and India alone responsible for 45 percent of the increase in demand. After 2015, China is expected to be the planet's biggest carbon dioxide emitter, ahead of the United States, followed by India as the third largest emitter. (Other studies show China is already the biggest contributor of greenhouse gases.)

[McCain's Balancing Act on Energy](#)

Many of Sen. John McCain's answers to the country's energy crisis, however, clash with the views of the GOP's conservative GOP base. But some of the positions that his party stalwarts strongly oppose — including introducing climate legislation and keeping the Arctic National Wildlife Refuge off-limits to drilling — appeal to the independent and moderate Democratic voters whom McCain needs to win in November. Can the Republican nominee continue to run to the left of the GOP base and still hold on to its support?

[Dutch city kept warm by hot-water mines](#)

In an age of rapidly rising fuel bills the discovery of vast supplies of free hot water sounds too good to be true. But that is exactly what one Dutch city has found to run the radiators of hundreds of homes, shops and offices.

Heerlen, in the southern province of Limburg, has created the first geothermal power station in the world using water heated naturally in the deep shafts of old coalmines — which once provided the southern Netherlands with thousands of jobs but have been dormant since the 1970s.

[Oil falls below \\$90 as financial turmoil spreads](#)

Oil prices fell to an eight-month low below \$90 a barrel Monday on speculation that the spreading financial crisis will exacerbate a global economic slowdown and cut demand for crude oil.

Significant gains by the U.S. dollar against the euro also contributed to slumping oil prices.

By midday in Europe, light, sweet crude for November delivery was down \$4.03 to \$89.85 a barrel in electronic trading on the New York Mercantile Exchange. Earlier in the session, the price fell as low as \$89.07 a barrel before recovering slightly.

On Friday, the November contract lost 9 cents to close at \$93.88 a barrel.

In London, November Brent crude fell \$3.64 to \$86.61 a barrel on the ICE Futures exchange.

Oil prices have tumbled nearly 40 percent since peaking in July. The Nymex front-month contract last traded this low in early February.

[Russia's warships head for exercise with Venezuelan navy](#)

Russia displayed its military strength in the Mediterranean yesterday after warships heading to Venezuela passed through the Strait of Gibraltar in the second deployment of Russian naval vessels in the waterway since the Cold War.

The nuclear-powered missile cruiser *Peter the Great*, accompanied by the *Admiral Chabanenko*, an anti-submarine destroyer, as well as a reconnaissance vessel and a support ship, are destined for a maritime exercise with the Venezuelan navy.

En route, however, the aim appears to be to demonstrate to the West and Nato that Russia is once again back in business as a blue-water power.

[UK electricity price four times more than France](#)

British companies are being forced to pay over four times more for their electricity this winter than competitors in France and in excess of 70 per cent more than in Germany.

The discrepancy will increase concerns that Britain's crumbling power infrastructure is a growing threat to the country's competitiveness and comes as Ofgem today announces its report into competition in the energy market.

[UK: Ofgem probe finds some customers are "missing out" but no evidence of cartel](#)

After a seven-month investigation into price rises in the industry, the watchdog set out a number of proposals, including measures to ban price differences between payment methods, in order to help customers who are being failed by the sector.

The proposals will particularly help more than four million customers without gas who currently have no access to the most competitive offers, the watchdog said.

[Russia's oil wealth no vaccine against global crisis](#)

MOSCOW: No longer quite so flush from vast oil and gas wealth, Russia's economy is feeling the pinch from the global crisis and problems at home, putting investors and small businesspeople on edge. While economic growth has surged upwards at rates of over seven percent in recent months, plunging stockmarkets and massive central bank intervention have told a different story, denting a feeling of immunity from wider trends.

...The downbeat mood was expressed last week by Prime Minister Vladimir Putin, who said Russia had picked up an "infection" from the United States. Global financial turbulence has been accompanied by falling world oil prices, a factor particularly likely to concentrate minds in Russia given its position as a top world energy producer.

[BP chief says Russian unit conflict getting resolved](#)

BP Plc Chief Executive Officer Tony Hayward said he expects to complete the legal documents governing Russian venture TNK-BP by Dec. 1, putting a formal end to a shareholder conflict that threatened to paralyze Russia's third- largest oil producer.

The Russian government "indirectly" helped resolve the dispute by bringing the two sides to the negotiating table, Hayward said in an interview with the Kommersant newspaper published today. BP spokesman Vladimir Buyanov confirmed the authenticity of Hayward's comments.

[Russia asks Britain to extradite ex-head of Russneft oil company](#)

MOSCOW (RIA Novosti) - Russia has sent Britain a request for the extradition of Mikhail Gutseriyev, the former head of the oil company RussNeft, wanted in Russia on charges of tax evasion, investigators said Monday.

"He is in England, and a request for his extradition has been forwarded," Igor Tsokolov, department head at the Russian Interior Ministry Investigation Committee, said.

[Charities put ministers in the dock over energy poverty](#)

Help the Aged and Friends of the Earth will launch a high court judicial review today to force the government to stand by promises made in 2000 to eradicate fuel poverty and help millions of households facing a winter of burgeoning gas and electricity bills.

The charities said the government was legally bound by promises it made in legislation passed in 2000, in which it undertook to abolish fuel poverty by 2016 and to eliminate it among the most vulnerable households by 2010. The hearing is scheduled to last two days, with a judgment expected within six weeks.

Households in fuel poverty are defined as those in which more than 10% of income is spent on energy. But far from the numbers falling, the past year has seen a steep increase as gas and electricity bills have rocketed.

[Congress' boost to Amtrak fueled by high gas prices, too much traffic](#)

Highway congestion, high fuel prices, dependence on foreign oil, pollution and global warming are creating perfect conditions for reforming stagnant transportation policies.

Is it any wonder that Americans are cutting back on driving and turning to trains in record numbers?

Congress got the message last week that the status quo, including an overreliance on the airline industry, is no longer acceptable for moving people around the state or across the country.

[Canada: How do the Liberals rate on energy policy?](#)

Canadians seem to want leadership to reduce global warming and to adjust to higher energy prices as peak oil arrives. But is reality different from the perception? The Liberal plan is actually quite modest in comparison to the size of the economy or the government's operating budget. Are Canadians ready to accept real change, however gentle it may be?

[Bartlett has no plans to slow down as a politician](#)

Bartlett speaks often about "peak oil" - a theory that the country's production peaked in 1970 and is declining - and urges the pursuit of alternative forms of energy.

His other main issues include ethical embryonic stem-cell research and preparing the country for an electromagnetic pulse attack.

He describes himself at his Web site as "a conservative who wants to help restore the limited federal government envisioned and established in the Constitution by our

nation's founders."

[Casino economy can't be sustained](#)

Reich is correct, of course. But even his recommendations, as sound as they are, don't go nearly far enough. In effect, they recommend that the monitors watching each gambling table from ceiling booths wake up and start doing their jobs.

He overlooks the fact that the globalized economy based on competition and risk-taking is a relic of the past and fundamentally unsustainable. Peak oil and global warming are seeing to that. Goodbye corporate globalization.

[America's century: is the sun setting on an epoch?](#)

In the same week that the US Treasury Secretary sank to one knee to implore a congressional leader to vote for the \$US700 billion (\$890 billion) package to save the American economy, Colonel Zhai Zhigang became the first Chinese astronaut to walk in space. It was a striking juxtaposition of American vulnerability with Chinese success, of US crisis with Middle Kingdom might. It was heavy with the symbolism of an empire in decline in contrast with one on the rise.

[Chavez will swap gas-guzzlers for clean cars](#)

CARACAS, Venezuela — Give up your gas-guzzler and get a free car. That's President Hugo Chavez's offer to Venezuelans.

Chavez says he plans to start a program next year that will give away cars running on less-polluting natural gas to people who turn in old cars that consume "too much gasoline."

[Unilever comes out against worldwide rush to biofuels](#)

Unilever, the food and consumer goods group, has thrown its weight behind moves to scrap mandatory biofuel targets and subsidies. It is backing recommendations being made today to Commonwealth finance ministers at their annual meeting in St Lucia to improve food security and prevent famine.

Unilever is concerned that subsidies for biofuels are driving up food prices and the cost of its products.

[Another inconvenient truth](#)

At last, many of the world's political leaders have begun to realize that diverting land and food crops to produce biofuels leads to higher food prices. But an equally important consequence of this policy folly is being largely ignored in the public and political debate: Producing biofuels will further deplete the world's already overtaxed water supply.

This is emblematic of a larger and increasingly dangerous disregard for the world's most valuable, irreplaceable and finite natural resource: fresh water.

[Bill McKibben - Meltdown: A global warming travelogue](#)

For a long time -- the first 15 years that we knew about global warming and did nothing -- there were no pictures. That was one of the reasons for inaction.

Climate change was still "theoretical," the word that people in power use to dismiss anything for which pictures do not exist. It is the reason we don't see shots of coffins coming back from Iraq; it's the reason the only prison abuse we really know about was at Abu Ghraib. Without pictures, no uproar; not in a visual age.

But now the pictures have started to come, and they will not cease.

[Shanghai highrises could worsen threat of rising seas](#)

SHANGHAI (Reuters) - Shanghai, China's most populous city and an aspiring global financial center, is also among the world's most vulnerable urban areas to a rise in sea levels as global warming melts polar ice.

Its location on a low-lying alluvial plain near the mouth of Asia's longest river, the Yangtze, had already left it prone, but researchers warn that forests of skyscrapers sprouting across the ambitious metropolis could compound the threat by causing its marshy ground to sink.

[Look out, Oregon, for a global warming land rush](#)

The prediction caused a collective grimace among the mayors, city councilors, engineers and planners in the audience. By 2060, a Metro economist said, the seven-county Portland area could grow to 3.85 million people -- nearly double the number here now.

Then Lorna Stickel, a planner with the Portland Water Bureau, stood to ask a question. Does the population projection, she asked, account for the possibility of climate change refugees?

Brains have been spinning ever since. Because what if?

What if the American Southwest dries up, browns out, and those people now misting their patios in Arizona head to the still-green Pacific Northwest? What if Californians hit the road north in numbers far surpassing the 20,000 who now move to Oregon each year? What if the polar ice melts, oceans rise and millions living along coastal areas -- or ravaged by Katrina-like storms -- have to move?

What happens, Stickel later asks, "as we become more attractive and other places become less attractive?"



This work is licensed under a [Creative Commons Attribution-Share Alike 3.0 United States License](http://creativecommons.org/licenses/by-sa/3.0/).