

The Round-Up: July 30th 2007

Posted by [Stoneleigh](#) on July 30, 2007 - 1:01am in [The Oil Drum: Canada](#)

Topic: [Miscellaneous](#)

Tags: [biofuel](#), [climate change](#), [credit crunch](#), [derivatives](#), [electricity](#), [Ing](#), [margin call](#), [natural gas](#), [oil sands](#), [pipelines](#), [subprime](#), [wind](#) [[list all tags](#)]

[Subprime coming home to roost?](#)

A rash of bankruptcies at subprime lenders prompted a market wobble in February and March but traders swiftly decided the problem was contained. Equity markets across the world continued to rally, while the credit market remained phenomenally high in historical terms, thanks in large part to the growth of credit derivatives. These prompted optimism that it had become easier to spread risk and so it was justifiable that even the riskiest companies could obtain credit cheaply.

That mood of optimism is over. Fear now rules the credit markets, where the effective cost of ensuring against a default, in both Europe and the US, has increased by more than half in barely a month. A steady drip of bad news has prompted fears that the subprime debacle could trigger a credit crunch, raising the cost of financing worldwide as investors are forced to sell healthy investments to make good their losses....

....Rather than an orderly correction, they confront a situation where the market for riskier forms of credit seems to have come to a complete halt. US issuance of high-yield, or low-quality, debt stayed below \$1bn for the third successive week, according to Thomson Financial. The last week of June brought \$9.7bn of high-yield issuance; by last week that had fallen to \$322m. This financing is crucial for private equity deals.

"The cancellation of high-yield deals and the inability of the large banks to syndicate their leveraged loans is causing the credit markets to shut down," says T. J. Marta, strategist at RBC Capital Markets. "Something has to give here: either equities have to give it up or credit is going to implode".

[The Crash of 1929: Are We on the Verge of a Repeat?](#)

Yet this time, it is happening in an information age in which 97 percent of stock transactions are conducted electronically. And this time it is not because of junk bonds, but because of hedge funds, mortgage-backed securities, subprime loans and a bizarre virtual scheme known as naked shorting, which has been around as long as -- and played a role in -- the 1929 crash, and according to some, could trigger the next one any day now.

"We've divorced the system from paper," explained Overstock.com CEO and hedge fund activist Patrick Byrne to me by phone, "and since then it's become easier to divorce it

from reality. But the problem is that so much has been drained out of the system using these tools that the money is not there. If this gets exposed, the money is not there. It's been turned into Ferraris and mansions in the Hamptons. It can't be paid back. The system is going to vapor lock."

[S&P paints a gloomy picture for big banks](#)

S&P says an upturn in defaults "cannot be far away". Banks could – if the situation worsens – see "sizeable losses" relative to earnings and capital. In terms of revenues, they will no longer receive such substantial underwriting fees from leveraged finance activity.

Banks may also face litigation from investors, according to Richard Barnes, author of the S&P report. His comments follow a warning by Peter Wuffli, former chief executive of UBS, that the leveraged finance boom could drag banks into litigation if the cycle turned.

S&P says the leveraged finance market had been "ripe for a correction" with "frothy" underwriting criteria, and new issuance skewed towards higher-risk assets. But the jury is out on whether the correction marks a return to rational pricing or a downturn.

[Wall Street often shelved damaging subprime reports](#)

Investment banks that bundle and sell home mortgages often commissioned reports showing growing risks in subprime loans to less creditworthy borrowers but did not pass much of the information to credit rating agencies or investors, Wall Street sources said.

The mortgage consultants, known as "due-diligence firms", were hired by investment banks to make sure blocks of mortgages conform to the mortgage seller's own standards. The studies provided a first glimpse of loan quality for ratings agencies and investors who do not normally see the full reports.

[The end of the credit party](#)

Dealmakers, investors and home owners in the United States are facing a grim summer as conditions for borrowers get worse.

Until recently, there has been a seemingly unlimited supply of cheap money to fuel leveraged buyouts and other takeovers. There was also an easy flow of mortgage money available before the housing market turned south and the crisis erupted in subprime mortgages made to borrowers with poor credit....

....But now investors are showing a greater disdain for risky debt - and fears about a looming credit crunch have shaken investor confidence worldwide.

[Financial crisis just one 'Bear-like' event away: Economist](#)

A global financial shock is just one "Bear-like" event away, economist Mark Zandi warned Thursday, giving it a one-in-five chance. In the current "high level of angst" following the collapse of two Bear Stearns funds, the uncertainty caused by another hedge-fund failure could cause investors to freeze, he said. Zandi, chief economist for Moody's Economy.com, said he expects significant declines in home sales and prices in coming months to further erode mortgage credit quality. About half of the structured securities owned by hedge funds are in the riskiest tranches of complicated derivatives based on the subprime mortgages that are going sour quickly, he said. If there is a global financial crisis, he said he expected the Federal Reserve would ease, but questioned how effective it would be in restoring confidence in the U.S. financial system.

[Bonds hit by credit market dip](#)

The contraction in the credit markets is spreading to global investment-grade debt, with issuance of highly-rated bonds falling to the lowest levels in years.

The tightening of credit has been most pronounced for lower-rated debt in the US, but figures from Thomson Financial show a significant decline in activity in the global investment-grade market as well.

[How Credit-Market Tremors Have Affected Junk Bonds, LBOs and Hedge Funds](#)

The days of easy credit may be coming to an end. The jitters began with losses at two Bear Stearns hedge funds that invested in subprime-mortgage debt that now are worth almost nothing. And over the past few weeks, a string of companies has delayed or canceled debt offerings, a sign that investors may be less interested in debt deals that don't adequately reward them for potential risk.

[Bear Stearns seizes troubled hedge fund's assets](#)

Bear Stearns Cos (BSC.N: Quote, Profile, Research) has seized control of most assets in a troubled hedge fund, after declines in the value of riskier, subprime home loans caused the fund's value to plummet.

In a statement on Thursday, Bear Stearns said it "assumed possession of the assets" securing a \$1.3 billion credit facility provided to the High-Grade Structured Credit Strategies Fund after the fund was unable to meet a margin call.

The investment bank said it does not expect any "material change" in financial exposure as a result of its action. It said it will continue to pursue an "orderly liquidation" of the assets, and will be in position to establish appropriate hedges to protect against future

price declines.

[Housing Minsky Moment: 3 Factors. Prime Contagion, Record Foreclosures, and Publicity.](#)

This week witnessed the final nail in the housing bubble coffin. We have reached what seems to be the Minsky moment for the housing market. Named after the US economist Hyman Minsky, the idea holds that over long periods of economic stability leverage tends to grow in predictable stages. This economic stability leads to a fertile environment sprouting trunks of easy credit access with little perceived risk. However, as the growth continues there seems to be a movement from moderate lending, risky lending, and finally outright irresponsible Ponzi like lending. With 100+ subprime lenders imploding on their own convoluted mortgages, the housing market is like a fish out of water gasping for life and clearly in the last stage of the lending cycle.

[American Home Mortgage says faces margin calls](#)

American Home Mortgage Investment Corp. said its lenders are demanding it put up more cash after the mortgage lender wrote down the value of its loan and security portfolios significantly.

The company said in a statement released late Friday that as a result of the margin calls from lenders, it has delayed paying dividends on its common stock, and plans to delay payments on its preferred shares.

Margin calls can create severe difficulty for a company that depends on funds from its lenders to finance loans, and can force the company to sell assets or seek other financing.

If the company cannot generate enough money to satisfy its lenders, in the worst case scenario it can be forced to reorganize its debt or file for bankruptcy.

[Will the Leak Ruin the Engine?](#)

The turmoil we're witnessing in global financial markets is nothing less than the popping of an enormous credit bubble that built up over the past five years, artificially inflating the market prices of stocks, bonds and real estate. It created a bonanza for Wall Street investment houses and private-equity funds and fueled the longest and strongest period of global economic growth in modern history.

The only question now is whether the bubble will deflate slowly enough to allow an orderly repricing of those assets, or whether a broad loss of confidence by investors will create a vicious cycle in which selling begets more selling, markets freeze up for lack of buyers, and a credit crunch ensues.

[Another Aussie Hedge Fund Hit By Subprime Mortgage Effect](#)

Another Australian hedge fund has run into trouble as the impact from turmoil in U.S. subprime mortgages spreads across global credit markets.

Absolute Capital Ltd., part owned by Dutch financial-services giant ABN Amro (ABN) , said on Wednesday that it has suspended investor redemptions from its Yield Strategies funds because liquidity has dried up in global structured credit markets.

[Easy Money, Lifeblood Of Economy, Is Drying Up](#)

Easy credit has been the economy's lifeblood in recent years. It gave people who previously couldn't afford homes a crack at the American dream. It fueled multibillion-dollar takeovers of some of corporate America's biggest names. It buoyed the stock market and propped up the prices of many other assets.

But now, the investors who a few months ago were willing to lend money to Wall Street at low interest rates, on loose terms, are balking as they worry about having to pay the price for lax lending standards.

The trouble started in one of the shakiest sectors of finance, home mortgages for people with bad credit, but it is spreading. As easy credit dries up, some huge corporate deals are being delayed and could unravel.

The question now is how far will the pain spread, and how many people will get hurt as it does.

"When people get scared, they tighten up all over," said A. Gary Shilling, president of the investment firm that bears his name. He said he expects housing prices to fall significantly further. "This kills consumer spending," he said of the credit crunch. "We think we'll be in a recession as a result by the end of the year. And that will spread globally because U.S. consumers still are the buyers of first and last resort for the excess goods and services produced around the world."

[Japan sees no end to deflationary pressure](#)

Japan said Friday its consumer prices fell for a fifth straight month in June despite rising energy costs as deflationary pressure kept weighing on the world's second-largest economy.

But the drop came within market expectations and analysts predicted it would not be enough to deter the Bank of Japan from moving soon to lift the nation's super-low interest rates.

[Dollar tumbles vs yen as Japan sees safe-haven flows](#)

The U.S. dollar tumbled against the yen on Thursday, as investors seeking refuge from global concerns about credit markets poured money into the Japanese currency, unwinding the so-called yen carry trade....

....The carry trade refers to investors borrowing currencies at cheap interest rates in one place, in this case in Japan, to invest in higher-yielding currencies -- ie., where interest rates are higher -- in this case the U.S. dollar.

But "this is not a story of broad dollar weakness but manifestation of a sharp reduction in global risk appetite emerging from worldwide concerns with hedge fund losses," said Ashraf Laidi, currency strategist at CMC Markets.

"Unwinding of carry trades is hitting the markets rather than then broad dollar selling as the yen rallies across the board on emerging credit concerns in global credit markets," he said.

[Credit crunch ignores borders](#)

If you are looking for an explanation for the sudden surge in volatility, you'll have to look beyond Canada's borders and gaze upon the credit drama unfolding in the United States, where big-name debt offerings are being yanked.

"We are on the same planet," said Clement Gignac, chief economist and strategist at National Bank Financial, pointing to the fact that the mergers-and-acquisitions boom that has been stoking Canadian stocks this year relies to a large extent on credit conditions elsewhere.

In the United States, cracks began to appear about a month ago, when investors balked at a number of high-yield debt offerings that typically follow private-equity takeovers. (Essentially, private-equity firms finance the buyout of companies by issuing bonds through investment banks.) Debt offerings from U.S. Foodservice, ServiceMaster Co. and Thomson Learning, worth billions of dollars, hit a wall.

Now, investors continue to raise their noses at anything that looks a tad risky, raising the possibility that surging M&A activity could be sputtering. According to Bloomberg, at least 35 different borrowers have either cancelled, postponed or restructured debt sales recently.

[Market turmoil no threat to Bell: Teachers](#)

Despite concerns a volatile debt market may force Ontario Teachers Pension Plan to shelve the debt offering needed to buy Bell Canada Inc., the head of the massive pension says the \$52-billion deal is not in jeopardy.

"We have our financing," Claude Lamoureux, president and CEO of Teachers' said yesterday. "Clearly right now, the spreads have widened but that's why you pay the bank huge fees to take the risks."

He also added the deal is "far from closing, you are looking at another long period before we close," and the debt markets could rebound in that time.

During a terrible week for North American stocks, shares of Bell have been shrinking away from Teachers' \$42.75 a share offer. After a terrible week on the markets -- partly driving lower after other leveraged buyout takeover targets such as DaimlerChrysler AG and Alliance Boots PLC shelved their debt deals -- Bell shares closed at \$40 a piece, a full 6.4% below the Teachers' offer.

As Mr. Lamoureaux said, in leveraged buyouts the banks "take the risks" and right now the investment banks are temporarily swallowing the billions of dollars worth of debt deals for Chrysler and Alliance.

[Stocks set for losing week as investors worry about tightening credit](#)

Stock markets are likely headed for further losses after worries about a tightening of credit conditions cut a wide swath through indexes last week. "What we're seeing is the global re-rating of risk," said John Johnston, chief strategist for the Harbour Group at RBC Dominion Securities.

The Toronto stock market had a horrible week, losing 834 points or 5.72 per cent in a slide that started right after it hit a record high July that had taken the TSX up about-per cent since the start of the year

[The Canada-U.S. housing divide](#)

The contrast between the Canadian and U.S. housing markets has never been starker.

U.S. existing home sales sank to a near five-year low Wednesday while prices continue to slide. In Canada, however, home sales continue to defy all expectations, breaking records for the last three months.

"Such a divergence between the Canadian and U.S. housing markets is unprecedented," said Marc Pinsonneault, an economist at National Bank Financial, in a note to clients.

['Reckoning' begins for prophet of doom](#)

Instead of rocket science, he chose a different vocation: prophet of financial doom. Mr. Narayanan makes Eric Sprott look like a cheerful optimist. The credit squeeze that has put a deep-freeze on leveraged buyouts in July and forced this little stock market correction - this is just the beginning, he says. "I would say we're probably in the second or third inning." The best-case scenario? A replay of the summer of '98, when the Dow lost about 20 per cent in a month-and-a-half. The worst? "More like the Great Depression of this century."

If it gets really ugly, blame Wall Street and its obsession with inventing ever more complicated financial products. Mr. Narayanan is something of an expert on this. His first job out of Yale was for Smith Barney, working on earlier versions of mortgage-backed securities - mortgages that are packaged together and resold to investors.

[Bond risk nears record as investors flee corporate debt](#)

The cost to protect debt of companies from Goldman Sachs Group to Deutsche Bank and Australia's Westpac Banking Corp jumped as investors shunned all but the safest of debt, according to credit-default swap traders.

A risk benchmark in Japan had its biggest one-day increase on record. Risk premiums rose beyond records reached in 2005 when General Motors Corp and Ford Motor Co lost their investment-grade credit ratings.

More than 40 companies worldwide reorganised or abandoned borrowing plans in the past month as investors balked at extending credit. The retreat has forced banks to take on at least \$32bn of debt and threatens to bring an end to a record run of LBOs, which topped \$690bn this year.

"The big risk in the coming weeks and months is that you get forced selling of credit with institutions, both from the hedge fund side and the bank side," said Bob Janjuah, chief credit strategist at Royal Bank of Scotland Group Plc in London. "The global economy is a debt-fueled, confidence-based scheme. All assets are and will be impacted."

[Living the American nightmare](#)

To many people in the affluent Bay Area, losing a home to foreclosure sounds like a Depression-era relic or a Rust Belt phenomenon. Our real estate prices have defied gravity for so long; our job market is so strong; our cachet as a place to live seems so obvious. How could foreclosures happen here?

But in recent months, the Bay Area has proven to be home to numerous victims of the subprime loan debacle. Just like elsewhere in the country, people here with tarnished credit or limited funds bought houses that proved to be beyond their means, often putting little or no money down, and borrowing money through exotic, expensive loans that were virtual time bombs set to soar to unaffordable levels after an introductory period.

Aggressive mortgage brokers and lenders, along with naive consumers combined to create an unstable situation. The tipping point came a year and a half ago when real estate prices started to flatten or fall in some areas. Suddenly home buyers who had planned to refinance saw that door slammed shut because they no longer had equity in their houses and their "introductory rate" mortgages quickly became unaffordable as interest rates -- and their monthly payments -- rose. This year, almost 1 million people nationwide will enter a stage of foreclosure, according to RealtyTrac.com. That great tidal wave is ravaging the already beleaguered real estate market and causing repercussions from Wall Street to Washington, D.C.

[Migrating to new Energy Paradigms](#)

The difference between making money, and building wealth:

Policies of the World's Central Bankers in general and the US Federal Reserve Board in particular are geared to facilitate the making of money. Making money has become a "game". The rules of the game will be explained. Anyone can play. However, one consequence of these policies is that wealth is being destroyed. We are consuming future capital. If our political leaders do not soon come to their senses there is a growing risk that this wealth destruction will become irreversible.

[Environmental Tax Reform: Expanding the Neo-Liberal Agenda](#) (PDF warning)

[Migration west adds \\$2-billion to economy](#)

But as the commodities boom took off in Alberta and British Columbia in the past couple of years, migration picked up, and so did the economic impact, the study shows. Migration boosted the country's gross domestic product by 5.8 per cent in 2006, compared with an average gain of just 2.6 per cent over the decade, the study shows.

The study, Mr. Sharpe said, "puts some numbers to the anecdotes about Alberta."

Part of the economic gains comes from the fact that the migrants are young, well-educated, and are moving to find ways to put their skills to good use, the study says. It points to findings that interprovincial migrants saw their earnings rise by 9.4 per cent over two years, compared with a 4.8-per-cent raise for home-stickers.

All told, the study shows that the oil boom has favoured the Western economy while the Eastern economy flags, but it is not a zero-sum game.

[Flaherty sounds final knell for income trusts](#)

In a final blow to investors and trust executives who held out the faintest hope, the Conservative government has officially rejected making any changes to its tax on income trusts.

The rejection came in a response, tabled last week, to a report from the all-party House of Commons finance committee that urged Jim Flaherty, the Finance Minister, to reduce the trust tax to 10% from 31.5% and extend the transition period under which the tax would take effect.

Mr. Flaherty said the recommendations were "unfair" and "unworkable" and would lead to a loss to the Treasury of up to \$3-billion.

[Canada Natural Gas May Decline as U.S. Inventories Near Record](#)

Natural gas at Canada's largest trading point may drop after U.S. storage levels expanded to a near record and moderate weather is forecast for the weekend in several key markets.

Injections of gas into underground storage facilities in the U.S. last week totaled 71 billion cubic feet. That exceeded the median estimate of 70 billion, based on 21 responses in a Bloomberg survey of analysts, and boosted injection levels 16 percent higher than the five-year.

Stockpiles stand at 2.763 trillion cubic feet, ahead of the same point last year when they eventually reached a record 3.458 trillion in October.

Injections may continue to expand more rapidly than a year ago, when hot weather limited additions, and reduce prices, Credit Suisse analyst Jonathan Wolff said yesterday in a research note.

"We expect short-term prices to continue to weaken as storage becomes stressed," he said. Owners of storage facilities may limit injections once total inventories exceed 3 trillion cubic feet, likely within the next five weeks, Wolff said.

[Cameco's series of unfortunate events](#)

Management at Cameco Corp. took on a firestorm of criticism yesterday, as a triple-whammy of adverse events shook confidence in the Saskatchewan uranium giant, not only among investors but also at Canada's nuclear regulator.

Last Friday, Cameco disclosed it was suspending production at a nuclear fuel conversion plant in Port Hope, Ont., for at least two months, after discovering soil contaminated with uranium.

News of the leak sent Cameco shares down 6.5 per cent yesterday, adding to declines suffered last week when the Saskatoon-based company said annual production from its gold subsidiary would be cut by a third and that delays at its Cigar Lake uranium mine would be at least a year longer than previously thought.

"Management is addressing, as it should, each one of these unfortunate events. Timing makes it look like there is a failing, but I can assure you, people are working overtime on these issues," Cameco president and chief executive officer Jerry Grandey said in an interview.

Print Edition - Section Front

[Polluter will pay for BC oil cleanup, Baird vows](#)

Those responsible for the oil spill in a Vancouver suburb will pay for the cleanup, federal Environment Minister John Baird said after touring the affected area in a chartered boat yesterday.

"I'm a big believer in polluter pays," he said. "There will be an investigation into how this happened ... and how we can stop this from happening in the future."

Workers with Cusano Contracting -- doing sewer work for the city of Burnaby -- punctured a Kinder Morgan Canada pipeline under a residential road on Tuesday, showering a residential neighbourhood with thousands of litres of crude oil.

[Downtown electricity supply stretched thin](#)

The electricity supply in downtown Vancouver is stretched so thin that an equipment breakdown like one that occurred this month could touch off an economic and social disaster, documents filed with the B.C. Utilities Commission suggest. Documents filed last year by the BC Transmission Corporation indicate the Crown corporation is very worried about the consequences for Vancouver's core business district in the event of a breakdown of one of the two gigantic transformer units that coordinate electricity supply for the area.

[LNG terminal go-ahead rests with cost cuts, PetroCan says](#)

Costs of Petro-Canada's proposed liquefied natural-gas terminal on the St. Lawrence River, which have soared 50% to about \$1-billion, must come down before the project can proceed, Ron Brenneman, president and chief executive, warned yesterday.

Mr. Brenneman said the project at the Quebec port village of Gros Cacouna, where gas liquefied overseas and shipped to the proposed plant would be turned back into gas form and sold into North American markets, is undergoing a redesign to pare back a new, inflation-driven cost estimate.

"That cost has gone up like any other LNG project in North America, so we're now looking at numbers more in the \$1-billion range," Mr. Brenneman said on a conference call. "We're still seeing costs that need to come down in order for this project to go ahead. We'd like to see them below where we are today, and we think there are some possibilities, with some alternate pier and jetty arrangements."

[Energy security: Infrastructure is not enough](#)

With limited supplies of indigenous natural gas, proponents are looking to liquefied natural gas (LNG) to meet Nova Scotia's perceived needs. Of the two Nova Scotian projects, one has been mothballed (Anadarko's Bear Head) and the other is still searching for a supplier (4Gas in Guysborough). Irving, in conjunction with Repsol (a Spanish supplier of LNG), is completing construction of an LNG facility in Saint John. Since the natural gas from this facility will be shipped directly to the U.S., it cannot be considered as a potential supply for Nova Scotia.

Whether or not an LNG regasification facility is built in Nova Scotia, the fact remains, LNG is not indigenous energy source. It is expected that the world's major natural gas suppliers will band together to form a cartel, much like OPEC, to control the supply and price of LNG.

If Nova Scotia is to achieve any degree of energy security, it will be necessary to begin with a review of provincial energy demand, and then focus on how this demand can be reduced and ultimately replaced with indigenous supplies of energy. Building infrastructure in the hope that a supply of energy will be available is not the way to improve energy security.

[Is Nova Scotia ready for the oil supply crunch?](#)

Nova Scotia is in the unenviable situation of relying almost exclusively on oil imported from regions that will contribute to the supply crunch: the UK sector of the North Sea (production peaked in 1999 and is now in decline), the Middle East (politically volatile and has a growing internal demand for its own oil products), Venezuela (looking for other markets as part of its war-of-words with the US), and offshore Newfoundland (production is expected to peak within the next few years and then decline).

It is important to remember that although Newfoundland's oil is "Canadian", it is still subject to world oil prices. This has two implications for Nova Scotians, the first being that oil from Newfoundland will not be any less expensive than oil imported from anywhere else in the world. And second, crude oil will be sold to the highest bidder, meaning that there is no guarantee that Nova Scotians will have access to crude oil or oil products.

[Biofuels: Use With Caution](#)

The total from turning virtually all of our food into fuel is 12.8 MBOE/day - only 15% of the current world oil consumption of 84 million barrels per day. To make matters worse, it takes a lot more energy to make biofuels than it does to simply pump oil from the ground and refine it. A rough estimate is that it takes at least twice as much. Accounting for this necessary energy outlay reduces the available net energy of our biofuels to less than 8% of the world's oil consumption.

I'm not saying we should turn all our food into fuel. Nobody is saying that, or claiming that biofuels can replace all petroleum. What people are hoping is that biofuels will be able to replace some useful fraction of petroleum. This calculation shows that to be a forlorn hope. We are being systematically oversold on the potential utility of biofuels, and this is creating unreasonable expectations of the degree to which biofuels will be able to replace petroleum. The hope is that such substitution will address both climate change and dwindling post-peak fuel supplies.

Every percent of petroleum we replace by crop-sourced biofuels implies a 12%+ reduction in the food supply. While this might be acceptable in very small, localized applications, it will not (must not) be part of the global solution set if we begin to see multi-percent declines in fossil fuels. Trying to make it play such a role would amount to

doing what some farmers were forced to do in the depths of the Great Depression: burn their seed corn for heat. We need to be aware that at some point in the deployment of biofuels we might cross the line from "small-scale petroleum extender" to "burning the seed corn". We need to be aware of the issues surrounding biofuels so we can resist crossing that line, because the pressure to cross it will become enormous.

This is one of the reasons why using crop-sourced biofuels for transportation is such a horrifically bad idea. We strip mine our top soil, we deplete our water tables, we starve everyone and we still have only an 8% solution. We all - individuals, countries and our whole civilization - need to be very, very cautious in promoting the use of biofuels, lest our thirst for transportation fuel overrun our common sense.. And we must always remember to crunch the numbers.

[Willow trees new biofuel option for P.E.I. farmers](#)

People call Cheryl Hendrickson the 'Willow lady' because she is in charge of the largest commercial willow supply in Canada, and she wants to spread the word about the benefits of farming willows.

As the president of Land Saga, Hendrickson said farmers on P.E.I should consider willows as biofuel. They benefit the environment and decrease the cost of heating homes, she said during a workshop on bioenergy earlier this year in Charlottetown.

[Where the wind blows](#)

Wind power has two problems. You don't always get it where you want it and you don't always get it when you want it. According to Jürgen Schmid, the head of ISET, an alternative-energy institute at the University of Kassel, in Germany, continent-wide power distribution systems in a place like Europe would deal with both of these points.

The question of where the wind is blowing would no longer matter because it is almost always blowing somewhere. If it were windy in Spain but not in Ireland, current would flow in one direction. On a blustery day in the Emerald Isle it would flow in the other.

Dealing with when the wind blows is a subtler issue. In this context, an important part of Dr Schmid's continental grid is the branch to Norway. It is not that Norway is a huge consumer. Rather, the country is well supplied with hydroelectric plants. These are one of the few ways (but not the only way, see article) that energy from transient sources like the wind can be stored in grid-filling quantities. The power is used to pump water up into the reservoirs that feed the hydroelectric turbines. That way it is on tap when needed. The capacity of Norway's reservoirs is so large, according to Dr Schmid, that should the wind drop all over Europe—which does happen on rare occasions—the hydro plants could spring into action and fill in the gap for up to four weeks.

Put like this, a Europe-wide grid seems an obvious idea. That it has not yet been built is because AC power lines would lose too much power over such large distances. Hence the renewed interest in DC.

[Pipelines may have to ration space by fall: NEB](#)

Canada's crude-oil pipelines may have to ration space as early as this autumn because of a surge of new oil production from the Alberta oilsands, the federal energy regulator said yesterday.

The National Energy Board said the pipeline industry may face a capacity crunch as oil output this year rises to 2.9 million barrels a day, 9% more than in 2006.

Almost all new Canadian oil supply comes from the oilsands region of northern Alberta, where more than \$100-billion worth of projects to exploit reserves second only to Saudi Arabia are planned or underway.

Most of the that production is destined for the huge U.S. market and a number of new pipelines are on the drawing boards to handle the expected flood of oil.

However none of those new lines, which include projects planned by Enbridge Inc. and TransCanada Corp. , is expected be completed before 2009.

[Putting the bite on CO₂](#)

Last month, Cambridge, Mass.-based GreenFuel Technologies, a leading developer of algae-to-biofuel systems, found that a pilot system it had built in Arizona was growing algae so aggressively that it couldn't harvest them fast enough. As a result, the algae began to die.

The company also found out that the cost of its next-generation system was twice as much as it originally calculated, so it was forced to shut down the Arizona pilot and lay off nearly half of its staff.

This doesn't bode well for business. Power utilities, normally a conservative bunch, tend to shy away from any technology that isn't rock solid and risk free. They want to see more trial and less error.

As for a developing such systems for the Canadian market, experts say the cooler weather in Canada would make it difficult to keep the algae farms alive and productive year-round.

But never say never. The federal government announced in March that it was contributing \$100,000 toward the first phase of a project to design microalgae systems with the potential to "capture up to 100 million tonnes of CO₂ from industrial sources," the government said.

Not a huge contribution, but at least it kick-starts some serious research.

It's the first project under the newly created I-CAN Centre for the Conversion of Carbon Dioxide, which will be co-led by government research centres in Alberta, Saskatchewan, Manitoba and Quebec.

[Changing Lake Superior frustrates boaters, mystifies scientists](#)

Something seems amiss with mighty Superior, the deepest and coldest of the Great Lakes, which together hold nearly 20 percent of the world's fresh surface water.

Superior's surface area is roughly the same as South Carolina's, the biggest of any freshwater lake on Earth. It's deep enough to hold all the other Great Lakes plus three additional Lake Eries. Yet over the past year, its level has ebbed to the lowest point in eight decades and will set a record this fall if, as expected, it dips three more inches.

Its average temperature has surged 4.5 degrees Fahrenheit since 1979, significantly above the 2.7-degree rise in the region's air temperature during the same period. That's no small deal for a freshwater sea that was created from glacial melt as the Ice Age ended and remains chilly in all seasons.

A weather buoy on the western side recently recorded an "amazing" 75 degrees, "as warm a surface temperature as we've ever seen in this lake," says Jay Austin, assistant professor at the University of Minnesota at Duluth's Large Lakes Observatory.

Water levels also have receded on the other Great Lakes since the late 1990s. But the suddenness and severity of Superior's changes worry many in the region; it has plunged more than a foot in the past year. Shorelines are dozens of yards wider than usual, giving sunbathers wider beaches but also exposing mucky bottomlands and rotting vegetation.

[Lake Erie is getting warmer and smaller](#)

"The 'So what?' of all this is that warmer, shallower water can allow toxins to survive, can allow invasive species to take off, and more beaches could be covered with algae," said Michael Murray, staff scientist for the National Wildlife Federation.

And what happens in Lake Erie is an indicator of the health of the entire Great Lakes.

"Lake Erie is really the bellwether of the Great Lakes," said Robert Heath, head of the Water Resources Research Institute at Kent State University. "What's happening in the entire system happens here first."

That Great Lakes system includes more than 30 million people who live in the watershed of a basin that holds 98 percent of America's fresh water supply — a full 20 percent of Earth's fresh surface water.

Which makes Great Lakes water attractive to the burgeoning southwestern United States and a world with an increasingly keen thirst for fresh water. Which puts Lake Erie in the center of international intrigue.

[Europe in fire and water onslaught](#)

Billions of dollars in damage has been wreaked by freak weather across Europe in the past week.

The death toll from the heat, fires, floods and storms has mounted to the high hundreds, with many thousands more made homeless or having their lives disrupted by weather conditions that have smashed records in many countries across the continent.

Agriculture and tourism have been particularly badly hit, with crops scorched in some areas, waterlogged in others, and tourists forced to flee fires in the south and storms and torrential downpours in northern countries. Electricity blackouts and water shortages caused by fire and flood and affecting hundreds of thousands of households and businesses have compounded the chaos.

[Weather Wreaks Havoc on Europe's Grain Crop](#)

A mix of blistering heat and heavy rainfall across Europe took its toll on this summer's grain crop on Thursday, propelling wheat prices to new highs and fuelling fears over more food inflation. With temperatures topping 40 degrees Celsius (104 F) in parts of southern and central Europe, farmers in Hungary demanded compensation after sustained drought and the extreme heat ruined 40 percent of the country's maize crop.

[Aegean and Mediterranean coastlines being reduced to ash](#)

The forests along the Mediterranean and Aegean coastlines are being reduced to ash with frequent and intense fires. With global warming on the rise, forest fires have become one of the leading natural disasters on the western and southern coastline of Turkey. Though the authorities are trying to prevent the fires, the number of the fires keeps increasing.

[Ozone cuts plant growth, spurs global warming: study](#)

The affects of greenhouse gas ozone, which has been increasing near Earth's surface since 1850, could seriously cut into crop yields and spur global warming this century, scientists reported on Wednesday.

Ozone in the troposphere -- the lowest level of the atmosphere -- damages plants and affects their ability to absorb carbon dioxide, another global warming gas whose release into the atmosphere accelerates climate change, the researchers wrote in the journal Nature.

[Huge sea level rises are coming – unless we act now](#)

GOODBYE TO THE LOW COUNTRIES

A 5-metre sea-level rise would submerge large parts of north-west Europe



There are glaciologists who anticipate such long response times, because their ice sheet models have been designed to match past climate changes. However, work by my group shows that the typical 6000-year timescale for ice sheet disintegration in the past reflects the gradual changes in Earth's orbit that drove climate changes at the time, rather than any inherent limit for how long it takes ice sheets to disintegrate.

Indeed, the palaeoclimate record contains numerous examples of ice sheets yielding sea level rises of several metres per century when forcings were smaller than that of the business-as-usual scenario. For example, about 14,000 years ago, sea level rose approximately 20 metres in 400 years, or about 1 metre every 20 years.

There is growing evidence that the global warming already under way could bring a comparably rapid rise in sea level. The process begins with human-made greenhouse gases, which cause the atmosphere to be more opaque to infrared radiation, thus decreasing radiation of heat to space. As a result, the Earth is gaining more heat than it is losing: currently 0.5 to 1 watts per square metre. This planetary energy imbalance is sufficient to melt ice corresponding to 1 metre of sea level rise per decade, if the extra energy were used entirely for that purpose - and the energy imbalance could double if emissions keep growing.

So where is the extra energy going? A small part of it is warming the atmosphere and thus contributing to one key feedback on the ice sheets: the "albedo flip" that occurs when snow and ice begin to melt. Snow-covered ice reflects back to space most of the sunlight striking it, but as warming air causes melting on the surface, the darker ice absorbs much more solar energy. This increases the planetary energy imbalance and can lead to more melting. Most of the resulting meltwater burrows through the ice sheet, lubricating its base and speeding up the discharge of icebergs to the ocean.

[More of NASA's James Hansen on Old King Coal](#)

My statement that releasing a coal-CO₂ molecule into the air is more harmful than setting free an oil-CO₂ molecule caused puzzlement. Of course the molecules are identical. What I want people to recognize is a way of framing the climate problem that makes clear what action is required to avert disaster. Only two aspects of the physics must be understood:

(1) **CO₂ "lifetime."** A substantial fraction of the CO₂ released to the air in burning fossil fuels will stay there for a very long time (about one-quarter is still there after 500 years).

(2) **Fossil fuel reservoir sizes.** There is enough CO₂ in readily accessible oil and gas reserves to take atmospheric CO₂ close to, and probably somewhat beyond, the

"dangerous" level. The coal reservoir, not to mention unconventional fossil fuels such as tar shale, can take CO₂ far beyond the dangerous level, producing, indeed, "a different planet".

[Weather set to get wilder, warn UN experts](#)

This year is on track to be the second warmest since records began in the 1860s and floods in Pakistan or a heatwave in Greece may herald worse disruptions in store from global warming, experts say.

"The year 2007 is looking as though it will be the second warmest behind 1998," said Phil Jones, head of the Climatic Research Unit at Britain's University of East Anglia, which provides data to the UN's International Meteorological Organisation.

[It's hot and wet, but is it global warming?](#)

Computer simulations may soon be able to show how likely it is that extreme weather events such as the floods and heat waves that swept Europe this week were caused by climate change, scientists say.

"To say you can't blame one event on global warming isn't true," Oxford University climate scientist Myles Allen said. "We can understand in a lot of detail what's contributing toward the risk of these events."

[A disaster to take everyone's breath away](#)

Deep in the heart of the world's greatest rainforest, a nine-day journey by boat from the sea, Otavio Luz Castello is anxiously watching the soft waters of the Amazon drain away.

Every day they recede further, like water running slowly out of an immense bathtub, threatening a worldwide catastrophe.

Standing on an island in a quiet channel of the giant river, he points out what is happening. A month ago, the island was under water. Now, it juts 5m above it.

It is a sign that severe drought is returning to the Amazon for a second successive year. And that would be ominous. New research suggests that one further dry year beyond that could tip the whole vast forest into a cycle of destruction.

[Environmental costs of desalination](#)

Improvements in technology coupled with the rising costs and decreasing reliability of

traditional water supplies are leading water-short cities to look to the oceans for drinking water. Despite its popularity, the process of removing salt from seawater to make drinking water is so energy intensive, however, that the resulting greenhouse-gas emissions could contribute to regional water scarcity, according to a global survey of desalination plants by environmental group WWF.

[Microbe converts light to energy](#)

Mr. Ward said, the new discovery has "a new kind of photosynthesis. It uses the same kind of machinery, but has the parts in a different arrangement."

The find is going to be important for unravelling the history of photosynthesis, in determining how microbes efficiently harvest energy, he said in a telephone interview.

"We're running out of fossil fuel, so the more efficiently we can harvest light energy the better," he said.

[ACLU: US Constitution in Grave Danger](#)

"Presidents have tried in the past to overreach in claiming executive privilege," said Caroline Fredrickson, director of the ACLU Washington Legislative Office. "However, Congress has long served as a check to such abuses of power, slapping the president's hand when needed and pursuing contempt or enforcement actions that eventually resulted in the release of crucial information. Today's Congress must do the same if it wishes to remain a meaningful and independent branch of government."

The ACLU said it "rejected claims that Congress' responsibility to conduct oversight or investigate executive misconduct was somehow less important than its legislative function and therefore not worthy of compulsory enforcement."

"It's do-or-die time for the separation of powers," Fredrickson said. "Congress is facing a historic moment when it can fight for its rightful place in our Constitution or accept the president's continued and sweeping claims of supremacy."

[U.S. Set to Offer Huge Arms Deal to Saudi Arabia](#)

In his visit with King Abdullah and other Saudi officials next week, Mr. Gates plans to describe "what the administration is willing to go forward with" in the arms package and "what we would recommend to the Hill and others," according to a senior Pentagon official, who conducted a background briefing on the upcoming trip with reporters on Friday.

The official added that Mr. Gates would also reassure the Saudis that "regardless of what happens in the near term in Iraq that our commitment in the region remains firm, remains steadfast and that, in fact, we are looking to enhance and develop it."

The \$20 billion price tag on the package is more than double what officials originally estimated when details became public this spring. Even the higher figure is a rough estimate that could fluctuate depending on the final package, which would be carried out over a number of years, officials said.

Worried about the impression that the United States was starting an arms race in the region, State and Defense Department officials stressed that the arms deal was being proposed largely in response to improvements in Iran's military capabilities and to counter the threat posed by its nuclear program, which the Bush administration contends is aimed at building nuclear weapons.

[Russian expedition sets sail to claim Arctic for the Kremlin](#)

Two weeks after Prime Minister Stephen Harper announced Canada's plans to assert itself more vigorously in the Arctic, a Russian expedition sailed Tuesday for the North Pole, where it plans to send a mini-submarine crew to plant a flag on the seabed and symbolically claim the Arctic for the Kremlin.

The mission is part of a race to assert rights over the Lomonosov Ridge, a barren but energy-rich wasteland that stretches across 11 time zones.

Scientists estimate the glassy icescape is rich with 10 billion tonnes of gas and oil deposits.

The Russians have long claimed that the ridge, which extends into northern Canada, as an extension of their continent.

"The Arctic is Russian," Artur Chilingarov, the expedition leader and deputy leader of the country's parliament, told Russian television.

[Sex for the motherland: Russian youths encouraged to procreate at camp](#)

At the start, it was all too easy to mock....

....How wrong we were. Life for young people in Russia without connections is a mixture of inadequate and corrupt education, and a choice of boring dead-end jobs. Like the Hitler Youth and the Soviet Union's Young Pioneers, Nashi and its allied movements offer not just excitement, friendship and a sense of purpose - but a leg up in life, too.

Nashi's senior officials - known, in an eerie echo of the Soviet era, as "Commissars" - get free places at top universities. Thereafter, they can expect good jobs in politics or business - which in Russia nowadays, under the Kremlin's crony capitalism, are increasingly the same thing.

Nashi and similar outfits are the Kremlin's first line of defence against its greatest fear: real democracy. Like the sheep chanting "Four legs good, two legs bad" in George Orwell's *Animal Farm*, they can intimidate through noise and numbers.

Nashi supporters drown out protests by Russia's feeble and divided democratic

opposition and use violence to drive them off the streets.



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