The Oil Drum: Canada
DISCUSSIONS ABOUT ENERGY AND OUR FUTURE

The Round-Up: August 31st 2007

Posted by Stoneleigh on August 31, 2007 - 8:38am in The Oil Drum: Canada
Topic: Miscellaneous

The Myth of the Slow Crash

Just because it's big, doesn't mean it can't go down fast. In a credit contraction, the extreme rate of change even fools central bankers.

The business press this morning attributed the 280 point DOW rout yesterday afternoon to investors' worries that the ongoing credit crunch and declining housing market may damage the so-called real economy. But the timing says the drop was a reaction to the release of the Fed's meeting minutes.

Second Officer David Blair. Before the Titanic sailed, he left with the key to the locker that contained the pair of binoculars for the designated lookout. Historians believe that if the crew had access to the binoculars the iceberg would have been seen in time to avoid the collision that sank the ship.

The minutes of the early August 2007 closed-door meeting of the Federal Open Market Committee were released late in the afternoon. The markets plunged shortly thereafter.

The Fed's stated hope for a "return to more normal market conditions" without intervention is not what investors wanted to hear. They were hoping to read the words of a Fed expressing worries that justified the move to cut the discount rate and pour tens of billions into the banking system ten days later. The minutes imply that the Fed was surprised.

The heart if not the soul of the Fed's role in the system is as the all-knowing Wizard of Oz. How can the Wizard be surprised and still be the Wizard? Is the Fed really on top of this?

Serious Credit Collapse Could Strengthen Dollar and Hit Gold

In the emerging credit crisis, the corporate paper market is in chaos. This IS a crisis.

What started as flight from sub prime mortgage derivatives, now has spread to flight from many of the largest credit markets in general. The CP market (corporate paper that rolls over every 90 days) is $2.2 trillion in the US alone. Banks, financial institutions, and companies use it to finance daily operations. That market is funded heavily by Money Market funds, who invest in the CP market to get better yields for their depositors than, say, an FDIC insured CD.

The trouble with the CP market developed when, first, investors fled the mortgage derivative market, but then, as revelations of widespread of losses started appearing, lenders started to pull back from rolling over CP to everyone. That is because no one knew who held secret losses in mortgage derivatives, so banks and institutions and investors decided not to roll over their CP when the time came. The entire CP market world wide froze in about a week. This situation continues in the EU and the US and Canada.

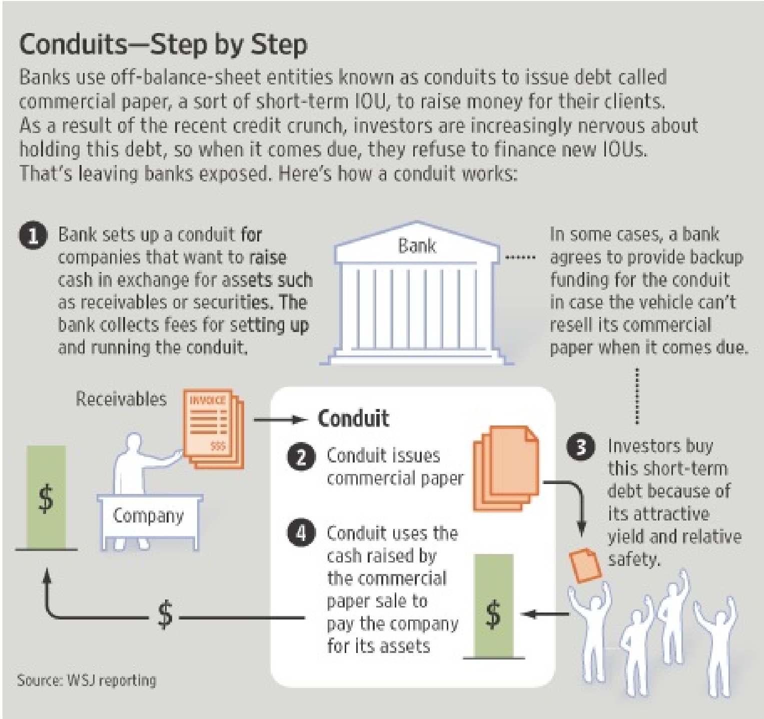
This is forcing banks, institutions, and companies to hoard cash. The initial rise in the USD, in the week after BNP Paribas revealed they were freezing redemptions from two funds they had which had large mortgage derivatives, was due to people madly dashing into cash and getting as much cash as possible so they could operate, because short term money was not available. The USD strengthened significantly the first week. The short term money markets are in a real crisis.

'Conduits' in Need of a Fix
Subprime Hazards Lurk In Special Pipelines Held Off Bank Balance Sheets

The subprime-mortgage downturn keeps showing up in unexpected places in unusual ways. The latest are conduits, which have put some of the world's biggest banks under the spotlight for their lucrative but little-known and poorly disclosed operations. Most recently, State Street Corp., the big Boston bank and money manager, saw its share price fall on fears about its exposure to about $28 billion in off-balance-sheet conduits. State Street said in a statement that the credit quality of the assets in its conduits "is very good," and the conduits are still selling commercial paper.

Overseas, HBOS PLC, the United Kingdom's fourth-largest bank by market value, stepped in when a conduit with $36.7 billion in commercial paper outstanding ran into trouble. Other U.S. banks haven't had problems so far, but investors are anxious, given a dearth of information. "We cannot rule out 'black holes' at certain banks," Merrill Lynch said in a recent report. Conduits are a twist on the age-old banking practice of taking a client's assets such as receivables or securities and turning them into cash.

Banks create conduits that are then filled with an array of assets that could include credit-card receivables, auto loans or mortgages. Using these assets as collateral, the conduit sells commercial paper to big investors, who are seeking generally safe, short-term investments while getting a slightly higher yield than that offered by ultra-safe instruments such as certificates of deposit or Treasury bills. The cash from the sale of the commercial paper goes back to the companies that put their assets into the conduit.



In the past, the assets in a conduit generally came from one bank or company. But in recent years asset-backed commercial-paper conduits that combine debts from different companies, banks and financial firms have become more popular, accounting for about half the commercial-paper market. These notes can include some subprime mortgage securities, which are terrifying investors around the world. Notes issued by these conduits account for just less than half of the nearly $3 trillion global commercial-paper market.

Banks earn fees to set up and run the conduits. They also often agree to provide funding if a conduit can't resell its commercial paper when it matures, which is generally every 90 days. That is where today's problems lie. Conduits are essentially using the sale of short-term debt, commercial paper, to fund the purchase of long-term assets. That creates a mismatch if demand for the short-term paper disappears.

[Odorous alliances in mortgage meltdown]

Favourite quote of the week: "If the rating agencies will downgrade only when we can all see the losses, then why do we need the rating agencies?"

Excellent question, for which we will award 10 points to Jim Chanos, the American short seller who famously went negative on Enron months before the energy trader blew up and who today is excoriating debt-rating agencies for the role they have played in the subprime mortgage mess.

You can see where Chanos is coming from.

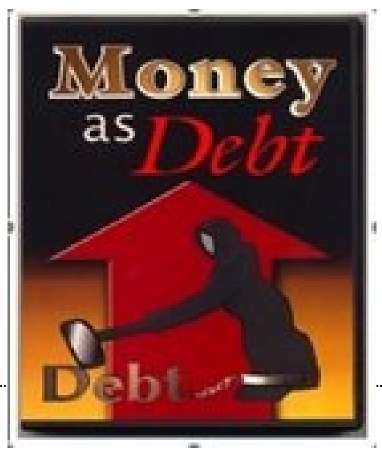
The continuing opacity of the subprime explosion – who is going to blow up next? – has at least revealed a co-dependent relationship between underwriters and rating agencies that recall a similarly fragrant alliance between investment banks and equity analysts.

The latter alliance was made famous by then New York attorney general Eliot Spitzer, who went on a rampage against the collusion between analysts who would externally issue reports rating stocks a "buy" while internally sharing with the team that the stock in question was actually a "piece of s–" or a "piece of c–" or a "piece of junk."

Why would they do that? Because their compensation was tied to investment banking revenues, that's why.

Of course, it was the little-guy investor who was burned.

Daddy, where does money come from?



Anyone who hasn't watched "Money As Debt," an animated DVD by Paul Grignon, should consider purchasing this extraordinary explanation of money's origin in an economy totally dependent on debt. Almost everyone has seen footage of federal printing presses cranking out paper money, and some of us have even visited a government mint or two and have observed the process firsthand. But like so many other illusions with which the U.S. economy is replete, money is not created by government printing presses.

Obama unveils radical mortgage plan

Unscrupulous lenders who deceptively sold subprime mortgages to millions of Americans should be fined and the proceeds used to help bail out borrowers facing a wave of foreclosures, according to Barack Obama, the Democratic senator running to be his party's presidential candidate. The proposal is among the most radical yet from a leading Democrat and comes as Washington tries to respond to a growing wave of foreclosures and a crisis in credit markets.

It also comes amid greater discussion in Washington on whether the mortgage industry including credit rating agencies involved in rating mortgage-related securities should be more tightly regulated to prevent a repeat of the crisis.

Writing in today's Financial Times *(sorry, paywall)*, Mr Obama blamed lobbyists working on behalf of lenders for obstructing tougher regulation of the subprime industry, adding: "Our government failed to provide the regulatory scrutiny that could have prevented this crisis. "While predatory lenders were driving low-income families into financial ruin, 10 of the country's largest mortgage lenders were spending more than $185m (136m, 92m) lobbying Washington to let them get away with it," he wrote, citing figures from the Centre for Responsive Politics.

Wall Street banks have also stepped up their lobbying over the issue of subprime lending as their underwriting practices come under scrutiny. It emerged this week that

Citigroup paid $160,000 in the first half of this year for lobbying services from Ogilvy Government Relations. Mr Obama said the government needed to "stop the unlicensed, unregulated, fly-by-night mortgage brokers who are hoodwinking low-income borrowers into loans they can't afford". He added that "Washington needs to stop acting like an industry advocate and start acting like a public advocate".

Freddie Mac profit drops 45% due to bad loan provision

> Freddie Mac, the second-largest buyer and guarantor of home mortgages in the U.S., said Thursday its second-quarter profit fell 45 per cent as it had to record larger provisions on its books for bad loans.

New mortgage products could help, Bernanke says

> The private sector and Congress should create new, affordable mortgage products that would help some homeowners refinance their mortgages and keep their homes, Federal Reserve Chairman Ben Bernanke suggested in a letter released Wednesday.

Credit Suisse Analyst Predicts Drastic Decline in Mortgage Lending Next Year

> A Credit Suisse analyst said Thursday he expects a drastic decline in mortgage lending next year as the housing market struggles and lenders face a hostile climate.
>
> Credit Suisse analyst Moshe Orenbuch said he expects $1.8 trillion in mortgage loans next year, compared with $3.3 trillion in 2005. He cut his estimate for lending this year to $2.3 trillion from $2.5 trillion.
>
> The mortgage market has fallen into upheaval this year as the Wall Street banks that finance the industry decided the business was too risky and pulled out their money. This left cash-starved mortgage lenders scrambling for money, pushing more than 50 of them into bankruptcy.

Carlyle bails out its $20bn Dutch fund

> *Carlyle Capital takes a $40m loss on fire sale of $900m worth of assets and warns the dividend will not be paid*
>
> Carlyle, the private equity group, has been forced to double the size of a loan to its Dutch-listed investment vehicle after the struggling fund embarked on a string of asset sales and admitted it had been unable to meet recent margin calls.
>
> Carlyle has now provided Carlyle Capital Corporation with credit facilities worth $200

million over just one week. Last Tuesday, Carlyle Capital said it had drawn only $10 million of a $100 million loan offered by the private equity group.

Today, it said that loan was fully drawn and Carlyle had made a further $100 million availablefor one year, at an interest rate of 7 per cent. Carlyle also bought an unspecified amount of debt securities from the fund and released it from a $75 million funding commitment relating to a distressed debt investment fund.

Debt market bailout cast in doubt

National Bank of Canada's CEO cautioned Thursday that a proposal designed to fix problems in a troubled corner of the commercial paper market is an unprecedented undertaking, casting some doubt on whether the plan will salvage all investments in the $35-billion sector.

“As far as I know, there's never been a case of restructuring of one of these vehicles in Canadian legal history,” said chief executive officer Louis Vachon, who took up his job this summer.

“So, you know, we're sort of going forward all in good faith,” he said. “But, you know, exactly what the outcome will be after 60 days, it's too early to say.”

Mr. Vachon was referring to the so-called “Montreal proposal,” a plan to save the portion of the Canadian asset-backed commercial paper (ABCP) market that's not sponsored by banks. It was driven by the Caisse de dépôt et placement du Québec and endorsed by more than 10 financial institutions from Canada and abroad, including National Bank.

Executives at National cautioned Thursday that it's too early to know whether investors in non-bank ABCP will recoup all of their money, and the bank could face a “material charge” to its earnings in the future.

National recently announced that it's buying $2-billion in non-bank ABCP back from its mutual funds and clients, to protect its reputation, after recommending the paper as an investment. But Thursday one of its executives acknowledged the bank isn't sure what assets are behind that ABCP.

Wages Up in China as Young Workers Grow Scarce

Chinese wages are on the rise. No reliable figures for average wages exist; the government’s economic data are notably unreliable. But factory owners and experts who monitor the nation’s labor market say that businesses are having a hard time finding able-bodied workers and are having to pay the workers they can find more money.

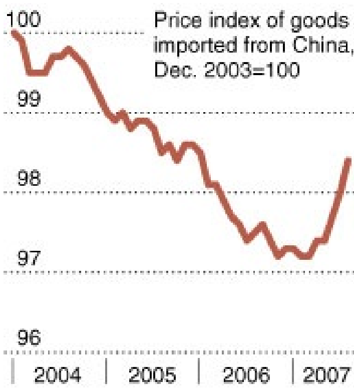
And higher wages in China are likely to lead to higher prices in the United States — at the mall, at the grocery, even at the gas pump.
Chinese companies are already passing along some of their higher costs to overseas customers. Prices for goods from China, after years of gradual decline, have risen 1.2

percent since February, according to the Labor Department. July's increase was the biggest yet: 0.4 percent compared with June. Chinese companies and contractors are also passing on the cost of the rising value of their currency, the yuan, up 8.8 percent against the dollar in the last two years.

For decades, many labor economists said that China's vast population would supply a nearly bottomless pool of workers. So many people would be seeking jobs at any given time, this reasoning went, that wages in this country would be stuck just above subsistence levels. As recently as four years ago, some experts estimated that most of the perhaps 150 million underemployed workers in the countryside would be heading to cities.

Price Surge

After dropping steadily for several years, a price index of goods imported from China has risen sharply this year.



Source: U.S. Bureau of Labor Statistics

THE NEW YORK TIMES

Instead, sporadic labor shortages started to appear in 2003 at factories in the Pearl River delta of southeastern China. In interviews, factory executives across the country complained of being forced to give double-digit raises in order to find and keep young workers at all skill levels. Three or four years ago, said Zhong Yi, vice general manager of a leather-jacket manufacturer in Hangzhou in east-central China, 800 to 1,100 yuan a month ($105 to $145) "was a good salary." "Now," he said, "1,500 is the bottom" ($198).

Chinese officials are quick to say that there is no overall shortage of labor — rather, there is a shortage of young workers willing to accept the low wages that prevailed in the 1990s. Factories in cities like Guangzhou advertise heavily for young workers, even while employment offices consider it a success if someone over 40 can find any job in less than a year.

Plant owners' refusal to hire blue-collar workers over 35 or 40 is colliding with the demographic reality of China's one-child policy. The number of workers in the 20-to-24-year-old range is already shrinking as more of them go to universities instead of entering the work force after high school, and the International Labor Organization projects that workers in this age range will edge slowly downward through at least 2020.

[US Dollar May Continue to Gain as the Dow Plummets, Treasuries Surge]()

The release of the second reading of US GDP for Q2 could prove to be market moving on Thursday, as expansion is anticipated to be revised up to 4.1 percent – the best rate of growth since Q1 2006. This may be encouraging to some as a signal that the US economy will be better equipped to weather the storm of the subprime mortgage industry implosion. However, this indicator clearly looks back at the economy's performance rather than looking ahead, which may limit its impact on the markets (barring a huge unexpected revision).

One of the other factors that traders will be also be looking at is personal consumption for the same quarter, which is estimated to be revised up to 1.5 percent from 1.3 percent. Nevertheless, this still represents the weakest rate since Q4 2005 and a sharp slowdown from the 3.7 percent pace we saw in the first quarter. With consumer confidence dwindling and lending standards tightening, concerns have been brewing that spending will slowdown even further and serve to damage the already-fragile economy in coming quarters.

Calls Grow for Foreigners to Have a Say on U.S. Market Rules

Politicians, regulators and financial specialists outside the United States are seeking a role in the oversight of American markets, banks and rating agencies after recent problems related to subprime mortgages. Their argument is simple: The United States is exporting financial products, but losses to investors in other countries suggest that American regulators are not properly monitoring the products or alerting investors to the risks. “We need an international approach, and the United States needs to be part of it,” said Peter Bofinger, a member of the German government’s economics advisory board and a professor at the University of Würzburg.

While regulators in the United States have not been receptive to the idea in the past, analysts said that Europe and Asia had more leverage now. Washington might have to yield if it wants to succeed in imposing bilateral regulations on government-owned investment funds from emerging economies. “America depends on the rest of the world to finance its debt,” Mr. Bofinger said. “If our institutions stopped buying their financial products, it would hurt.” Half a dozen American banking and financial regulators — including the Securities and Exchange Commission and the Federal Reserve Board — had no comment. Several noted that they were not the sole regulators of the subprime market.

In general, Washington’s reaction has been that it wants “no form of oversight,” said Kenneth Rogoff, an economics professor at Harvard and a former chief economist of the International Monetary Fund. Banks and investment funds from China to France suffered losses after buying mortgage-related securities and complex financial products based on them in the United States. In many cases, investors were caught by surprise because American rating agencies had given the products top ratings, leading buyers to believe there was little risk. International investors are also asking why American lenders were allowed to give mortgages to home buyers who could not repay them.

“In a globalized economy with hedge funds, leveraged buyouts and all these investment funds, we have to ask the question about more transparency,” said Claude Bébéar, the chairman of the supervisory board of the insurance company AXA. In Europe, the credit crisis appears to have emboldened those who have long been pushing for stricter international rules. Washington and London rebuffed the German government earlier when it pushed for an international code of conduct for hedge funds. Now some economic advisers to the German government are going further, suggesting that rating agencies should be nationalized, that large-scale loans be registered publicly and that minimum standards be developed for complex debt securities.

Barrick, agent of the central banks, affects to denounce one of them

Appended is a Reuters story with plenty of cynical posing for you. It quotes Barrick Gold CEO Greg Wilkins as complaining that "the Bank of England tried to put the gold mining industry out of business back in 1999," which is when the central bank sold hundreds of tonnes of its gold reserves at auctions designed to get the lowest possible price.

Wilkins neglects to mention that while the Bank of England was selling its gold, Barrick was borrowing hundreds of tonnes of central bank gold and selling them short into the market, assured that the company need not repay the gold for 15 years or more, if ever. (That is, the central bank gold loaned to Barrick was more of a gift than a loan -- provided that Barrick used the gift to do exactly what its CEO now condemns the Bank of England for doing, destroying the gold mining industry.) In shorting gold Barrick even proclaimed, in a filing in U.S. District Court in New Orleans, that it was the *very agent* of central banks like the Bank of England: (PDF)

This shorting of gold, engineered by the central banks and accomplished in large part through their agent Barrick, enabled that company to acquire two venerable gold mining companies, Homestake Mining and Placer Dome Gold, on the cheap amid depressed gold prices, in anticipation of the gradual unwinding of the gold carry trade. So Barrick is denouncing a central bank? Barrick is a crucial part of central banking -- the company said so itself, even if it doesn't want the investment world to remember.

Subprime inflicts new damage, banks seek cash

New evidence of damage wrought by the U.S. mortgage sector surfaced in the United States and Europe on Wednesday while banks demanded a record amount of cash at a euro zone money market auction. Rating agencies Moody's Investors Service and Standard & Poor's said on Wednesday that banks may suffer double-digit declines in revenue and pretax profits as they write off securities and loans that investors don't want to buy.

Cheyne Finance Plc, a structured investment vehicle (SIV) managed by British hedge fund Cheyne Capital Management, said it was seeking to restructure after being forced to start selling assets to pay down debt. Merrill Lynch, meanwhile, downgraded Bear Stearns, Citigroup Inc and Lehman Brothers Holdings to "neutral" from "buy" and lowered estimates for the banks' earnings, due to credit and mortgage market troubles.

"The only thing that is certain is that more uncertainties in the direction of asset prices and volatility are on their way," Bank Julius Baer said in a report. Standard & Poor's downgraded Cheyne Finance's issuer rating by six notches. Just two weeks ago, the agency said ratings on SIVs -- including the Cheyne vehicles -- were weathering turmoil caused by defaults on U.S. subprime mortgage lending mainly to poor people. British bank Barclays, hit by worries over its exposure to highly leveraged debt vehicles, holds collateral that would limit losses to 75 million pounds ($150.5 million) at most, a source familiar with the matter said.

Home prices: Steepest drop in 20 years; no recovery soon

U.S. home prices fell 3.2% in the second quarter, the steepest rate of decline since Standard & Poor's began its nationwide housing index in 1987, the group said Tuesday. The decline in home prices around the nation shows no evidence of a market recovery anytime soon, one of the architects of the index said.

MacroMarkets Chief Economist Robert Shiller said the declining residential real estate market "shows no signs of slowing down."

The report came a day after the National Association of Realtors said sales of existing homes dropped for a fifth straight month in July while the number of unsold homes shot up to a record level. The S&P/Case-Schiller quarterly index tracks price trends among existing single-family homes across the nation compared with a year earlier.

Banks face more subprime woes

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Euro zone banks bid for a record amount of money at the ECB's regular long-term funding operation today, reflecting ongoing tightness in the interbank lending market. Central banks have poured funds into money markets to tackle a liquidity crisis, stemming from the subprime saga, which has made many banks clam up on normal interbank lending. The European Central Bank lent out 50 billion euros for 91 days but with banks bidding for a total of 119.75 billion euros, strong demand pushed up the cost.

FDIC eyes markets, banks as troubled mortgages up

The Federal Deposit Insurance Corporation, which insures bank deposits, said on Wednesday it is keeping a close eye on the unpaid real estate loans that are piling up at U.S. banks and thrifts.

"We remain vigilant," FDIC Chairman Sheila Bair said at a news conference on U.S. banks' second-quarter rise in noncurrent real estate loans. "We are closely monitoring the situation in the markets as well as individual institutions."

In a sign of distress that borrowers are facing, U.S. banks' noncurrent real estate loans rose for the fifth consecutive quarter to $66.9 billion at the end of the second quarter, the FDIC said. That was up 36 percent from one year ago and up 10.6 percent from the end of the first quarter, according to the FDIC.

Noncurrent loans are those for which payments are overdue by at least 90 days.

CIBC to take $290M hit in U.S. subprime mess

The Canadian Imperial Bank of Commerce says it has about $1.7 billion US at risk in bets on the troubled U.S. mortgage market — as much as $1 billion of it relating to subprime, or junk, mortgages.

In a statement early Monday, the bank sought to minimize the problem. It said it will write off about $290 million of the total in its next quarterly earnings report and still show better profits than analysts had been predicting.

Consumer Credit: The Next Bubble?

The months of May & June saw spikes in the amount of revolving debt carried by consumers, with increases of 12.2% and 8.4% respectively. At the same time, consumer spending was relatively stagnant which seems to indicate that people were using their credit cards to pay their bills rather than fuel consumption. Whilst credit card delinquencies have remained relatively stable, it does seem to indicate that people are going to slowly max out their credit cards and then fall behind on payments. It was recently reported in the *Wall Street Journal* that banks are tightening their standards for credit cards and personal loans. When reading the article, these particular passages jumped out at me:

The FDIC recently reported that late loan payments (of which mortgage payments are merely a portion) grew by 36.2% in a YoY basis, with residential mortgage loans that are 90 days delinquent growing by 12.6%. Loan provisions were also increased on YoY basis of around 75%. The key data point here is that late payments are rising on all types of consumer loans, indicating that consumers are difficulties servicing debt of all types.

In an earlier article, I noted that Capital One saw a nearly 60% YoY decrease in profits within its auto lending business. Back in July, MSN Money published an article detailing a surge in auto loan defaults and car repossessions:

One in three auto-loan borrowers have payments greater than $500 a month, according to consumer credit agency Experian, and 12% have been late at least once. In a survey for the National Automotive Finance Association, BenchMark Consulting International said monthly repossessions by subprime lenders increased 15% last year.
[...]
For the first time in several years, prime lenders increased the number of loans extended to risky consumers. Those with FICO scores below 600 moved from 4% to 8% for used vehicles and 2% to 6% for new vehicles, BenchMark reported. "They're moving downscale, and they're also lending money to the higher-risk players," Cunningham said.
[...]
Subprime lenders also reached down the credit scale, with 54% of deals made to buyers considered a high or superhigh risk, those with FICO scores under 549, up from 34% in

2005. "All of these are kind of pointing to higher delinquencies and higher charge-offs," Cunningham said.

[A Trillion-Dollar Credit Card Charge... or Not?]

To see what real growth in the debt levels looks like, "revolving credit" (also known as credit card debt) is the place to look.

The Fed's records on revolving credit begin in January 1968; the figure for that month totaled $1.4 billion. Jump a little more than five years ahead and you come to the first month when revolving credit exceeded ten billion, $10.2 in June 1973. Barely eleven years later came the one hundred billion threshold, $106.26 in December 1984. The latest release showed that for June 2007, revolving credit stood at $903.9 billion. By next year, or no later than 2009, total revolving credit will exceed $1 trillion -- assuming, of course, that the current rate of growth remains on a linear path...

...Which is not a safe assumption by any stretch. Things could turn non-linear in a matter of days. A large and "unforeseen" disruption could hit the revolving credit industry, just as the subprime disruption struck the mortgage/real estate industry. In turn, the media will say that the unforeseen problem was "unforeseeable" -- which is absolute rubbish.

The subprime blow-up was foreseen by analysts who looked objectively at the data and the trends.

[Eni's fading Caspian dream shows shades of Sakhalin]

The rising tension between Eni, which operates Kashagan on behalf of an international consortium, and the Kazakh authorities was enough to cause Italian Prime Minister Romano Prodi to cut short his summer holiday.

When it was discovered in 2000, it was hailed as the biggest oil find in three decades, on the scale of Brent and Prudhoe Bay. Estimates of its reserves are between nine billion and 13 billion barrels with peak production of more than one million barrels a day.

Eni will have to renegotiate the production-sharing agreement that governs the distribution of Kashagan's spoils. Therein lies the problem, because since its discovery, **Kashagan's honey pot seems to be receding further from view.**

A target of oil production in 2005 was pushed back to 2008 and is now expected in 2010. Costs have ballooned for the project's first phase from $10-billion (U.S.) to $19-billion, leaving the Kazakh government's reasonable expectation of **tax returns disappearing beyond the horizon.**

Like all mammoth energy projects, Kashagan has encountered big technical problems. The oil is at huge depths and high pressures and is heavily contaminated with hydrogen sulphide, a poisonous gas, which requires the work force to live in a state of high alert for the deadly fumes.

To add to Eni's troubles is the collapsing value of the U.S. dollar and soaring procurement costs. The lifetime capital cost of the project has soared to more than $100-billion and the scuttlebutt in Kazakhstan is that Eni's project design was flawed. The Italians will plead for leniency and patience but they will have to curb their expectation of a high return.

The OPA's nuclear vision

Under the plan, largely unchanged from a draft released in December, the government will spend $60 billion between now and 2027, with the lion's share on nuclear-power projects, to assure reliable electricity supply in a province moving to phase out coal power by 2014.

Environmentalists and alternative energy experts were quick to criticize the document for its "big build" bias, arguing the plan relies too heavily on nuclear, underestimates the reach of conservation and fails to embrace the full potential that wind, solar and other "green" energy technologies can economically offer.

"This is really a great plan for 1977, but not for 2007," said Keith Stewart, an energy expert with environmental group WWF-Canada.

Energy plan calls for wind, nuclear

The province's electricity system is expected to be a major issue during the run-up to the Oct. 10 election and the opposition Conservatives and New Democrats were quick to criticize the plan.

"This government is good at making plans," said John Yakabuski, the Tory energy critic. "It's just not very good at carrying them out. For this plan to succeed requires many, many things to fall into place."

Mr. Yakabuski said the power authority's estimates for savings through energy conservation and for power from renewable sources are overly optimistic, and predicted that the price of electricity would rise much higher than the plan expects. "The price has got to go up, but 15 to 20% sounds very, very optimistic to me."

Peter Tabuns, the NDP energy critic, said the plan is at heart "a big nuclear power plan."

"And nuclear power is just not cost-effective," he said. "Nuclear plants cost more to build and take longer to come on line ... they always low-ball the costs and in the end we get hit with much higher costs."

Mr. Stewart, manager of the World Wildlife Fund's climate-change campaign, said the plan could have done more to highlight energy conservation and renewable energy sources and questioned whether the controversial coal-fired generating stations will actually shut down as planned in 2014. "I think they're going to get to 2014 and say: 'Whoops! The only way to keep the lights on is to keep those coal plants running. Sorry.' "

[New energy plan for a new era]

> Specifically, the OPA says that by 2025 some 47 per cent of Ontario's power supply will come from nuclear power, 45 per cent from conservation and renewable sources, and 8 per cent from natural gas.
>
> It recognized that conservation is critical in ensuring Ontarians have the clean power they need over the next 20 years. Not only is it the cleanest way to meet power needs, but it is the one that does not require costly new transmission lines or new generating capacity.
>
> At the same time, the OPA understood that effective conservation isn't cheap. It requires significant investments in energy efficiency as well as incentives to encourage consumers to use less power. Accordingly, it proposes to spend $10 billion out of an overall $60 billion capital plan on conservation initiatives, which it believes can reduce demand for power by 15 per cent by 2025.
>
> The plan's biggest thrust is in renewable energy. Between wind, solar and new hydro facilities, the OPA is planning investments of $17.4 billion, including the cost of the new transmission lines.
>
> But the single biggest expenditure, $26.5 billion, will go to maintaining the contribution of nuclear power at 47 per cent of total supply, either through a refurbishment of the Pickering B facility by 2018 or through the construction of new capacity at a later date.
>
> Gas-fired generation will serve primarily as a contingent source of power that can be brought on stream as needed.

[Silence up north]
[The coming nuclear expansion in Ontario is absent from election debate]

> AECL has a history of huge cost overruns in Canada (ironically, AECL has a better record overseas than it does in it's own homeland), so you might think that plans for a major new nuclear purchase by Canada's most powerful province would be kind of a big thing. But so far at least, no dice. The two parties that stand a chance of forming a government agree on the nuclear expansion -- the only daylight between them is on the issue of a coal phaseout -- and the parties on the left are too small to push the issue. It's going to be tough, in the absence of some external shock, to bring the issue in to the debate.

[Nuclear renaissance will deliver challenges]

> If the "nuclear renaissance" emerges as many energy experts predict, finding the raw materials, components and skills necessary to meet Ontario's nuclear needs could prove tricky, and more expensive than authorities are banking on....

....The issue isn't isolated to the nuclear industry; the entire energy sector is feeling the resources crunch, particularly as China moves aggressively to power its own economic growth. The cost of concrete, steel, copper, nickel and other metals has skyrocketed. Skilled trades workers are harder to find, particularly as a large swath of "boomers" approach retirement. Transportation costs are rising because of increased fuel costs.

This is having an impact on the budgets and schedules of oil sands, refinery, coal plant and even wind-farm projects, which are competing against each other and the revival in nuclear construction. And the nuclear industry has a history of low-balling costs. "Studies of the accuracy of cost estimates for pioneering technologies have found that estimates are consistently low," says a U.S. government report.

Ontario seeks to double 'green' power supply

Industry observers called the directive a positive step, but said many renewable project developers in Ontario have been discouraged by a number of barriers, both infrastructure and policy related, that have delayed their plans or scared away investors.

"There's a significant amount of money that's been invested in the area, and people were encouraged to invest those dollars, but investment doesn't sit forever," said David Timm, Ontario policy manager for the Canadian Wind Energy Association.

Timm said transmission constraints, particularly in a large area of southwestern Ontario, called the "orange zone," have prevented many developers from moving ahead until adequate capacity can be added to the lines.

And even with new capacity, many observers say the government is giving priority to nuclear power, not renewables.

Permitting delays have also played havoc with developers' business plans, an issue that needs to be addressed if the province wants its latest power purchase negotiations to be successful, added Timm.

"Investors need to be able to sell their power somewhere, and they need to know when that will happen."

Ontario reveals 20-year, $60-billion power plan

The Ontario government's commitment to phase out coal-fired electricity will require a Herculean, $60-billion effort to revamp the entire electricity system with a far greater reliance on natural gas, conservation and renewable sources, the province's power planning agency said yesterday.

At the same time, the Liberal government appears to be paving the way for private companies to build transmission lines to compete with its monopoly transmission company, Hydro One.

[Reviving Uranium City's nuclear past]

> And so the hunt is back on, in forgotten corners of the country and around the world, where long-silenced drills are boring into bedrock in search of new or abandoned veins – in Elliot Lake, Ont., which gave up hope as a mining centre decades ago and reinvented itself as a retirement community; in the parched high plains of Mongolia, where Canadian-based Khan Resources is reinvigorating an old Soviet-era claim; in the thick boreal forests of Frontenac County, north of Kingston; in the rich, river-veined Gatineau region of Quebec; in New Brunswick, Nova Scotia, Labrador, Nunavut, the Northwest Territories and, of course, here in Uranium City, where it all began.
>
> "The best place to go looking for new ore is in an old mine," says Zbiegniew Wytrwal, 61. He moved to Uranium City when he was nine years old, and became a geologist at Eldorado, the biggest mine there, through the boom. He left in 1980, just before uranium began its freefall into economic oblivion. Twenty-seven years later, much to his own shock, he's come full circle. "It was a dead industry," he says. "I never thought it would come back."

[Slow Flow]

> "In northeast Alberta, the low-hanging fruit was the gas," says Bill MacFarlane, president of the Canadian Heavy Oil Association. "It wasn't until much later, after much of the gas was produced, that people realized it was likely hydraulically connected to the oil."
>
> So the challenge becomes, MacFarlane says, to recover the bitumen among depleted gas zones that act as "thief zones." When steam is injected into the ground in a SAGD or cyclical steam stimulation operation, the ideal situation is to recover most of the steam along with the bitumen. Steam losses within the formation drive down efficiencies. So more make-up water is needed along with more fresh water, and more energy needs to be put into the equation to make steam—and the running of artificial lift under these conditions becomes more technologically challenging.

[Spokes of a dilemma]

> The Province of Alberta is insistent it wants to keep the value-adding processes of upgrading and refining bitumen at home, but not all oilsands producers are buying in.
>
> Industry has communicated clearly that in order for it to support the integration concept in Alberta, government's long-term vision and political will have to be evident. There must be economic and fiscal incentives in place, as the goal of creating a world-class energy hub in the province would require attractive investment initiatives.
>
> That hub is targeted for the Alberta Industrial Heartland, a 194-square kilometre area spanning the borders of the City of Fort Saskatchewan, and Strathcona, Sturgeon and Lamont counties. It is already one of North America's largest processing centres for the

> petroleum, petrochemical, and chemical industries.

Montebello wasn't enough secrecy for Canada, apparently, more behind-the-curtain deals are in the works. A nuclear reactor with a mystery customer?! Please note how the project is supposed to be financed: with debt. Please note also, that Atomic Energy of Canada Ltd., and its CANDU technology, is largely owned by the Canadian government, which is quite anxious to sell it globally, as well as domestically.

Alberta upstart pitches nuclear power

> An upstart Alberta firm with no experience in nuclear energy has taken its first official step to build the province's first nuclear power plant, saying Tuesday that it has the backing of a large but unnamed company working in the province. **Energy Alberta Corp.,** run by Calgary entrepreneur Wayne Henuset, has filed an application for a licence to prepare a site for its proposed $6.2-billion nuclear power plant with the Canadian Nuclear Safety Commission. It is the first of five licence applications in a process, including construction, that could extend over at least 10 years. **Atomic Energy of Canada Ltd.,** a Crown corporation, would build the plant, and two-year-old Energy Alberta, AECL's partner, would own and operate it. The proposed site is near Peace River in northwestern Alberta, about 500 kilometres from Edmonton.
>
> Mr. Henuset, who has worked in oil drilling, real estate and liquor sales, refused to name its main customer. "They'll come forward at their time," Mr. Henuset said at a press conference in Calgary Tuesday morning. The one unnamed company would take about 70 per cent of the 2,200 megawatts Energy Alberta hopes to produce. Several oil sands companiesthe likeliest customerssaid they are not working with Energy Alberta, including EnCana Corp., Total SA and Husky Energy Inc.
>
> Royal Dutch Shell PLC, which is pursuing new technology in a fringe area of the oil sands, will likely require a huge electricity source but Tuesday said it hasn't decided on its power requirements. "It really is too early to discuss [our] potential commercial project and any of its elements, including power," said Kurt Kadatz, a spokesman for Sure Northern Energy, a special Shell subsidiary. Sure Northern is in charge of land west of Fort McMurray that was acquired by Shell last year for roughly $500-million. It is the closest major oil sands project to Energy Alberta's nuclear plant. Critics of Energy Alberta's plans say the small company is unprepared.
>
> "There was a lot of avoidance of the questions," said Elena Schacherl, a member of the Citizens for the Use of Sustainable Energy, a new group formed this year to oppose Energy Alberta. Jack Century, also a member of the group and a geologist, said the site proposed by Energy Alberta could be prone to earthquakes. Sierra Club of Canada Tuesday called nuclear power an "unnecessary risk" for Alberta, adding it is not economical. Pembina Institute has said nuclear shouldn't be Alberta's priority given that the province has other energy options. The provincial government is open minded on potential future energy sources, said Jason Chance, spokesman for Alberta Energy Minister Mel Knight.
>
> "We need to consider the advantages and the potential challenges of nuclear energy," Mr. Chance said. The oil industry in general has been courted by the nuclear business for years but the power source never made the best sense, according to Greg Stringham, a vice-president at the Canadian Association of Petroleum Producers. "At this point in time, [nuclear] is further out in the future than the planning cycle for oil

sands projects," Mr. Stringham said.

Alberta nuclear reactor isn't a done deal

Alberta Premier Ed Stelmach says the jury is still out on whether a proposed $6.2-billion nuclear plant will be built in oil-rich northwestern Alberta. "We first have to decide whether we're open to nuclear energy," he said Tuesday in Edmonton. "You don't build nuclear reactors over an evening. These are important decisions . . . beyond one person, and we'll structure soon the kind of public discussion that will occur in the province."

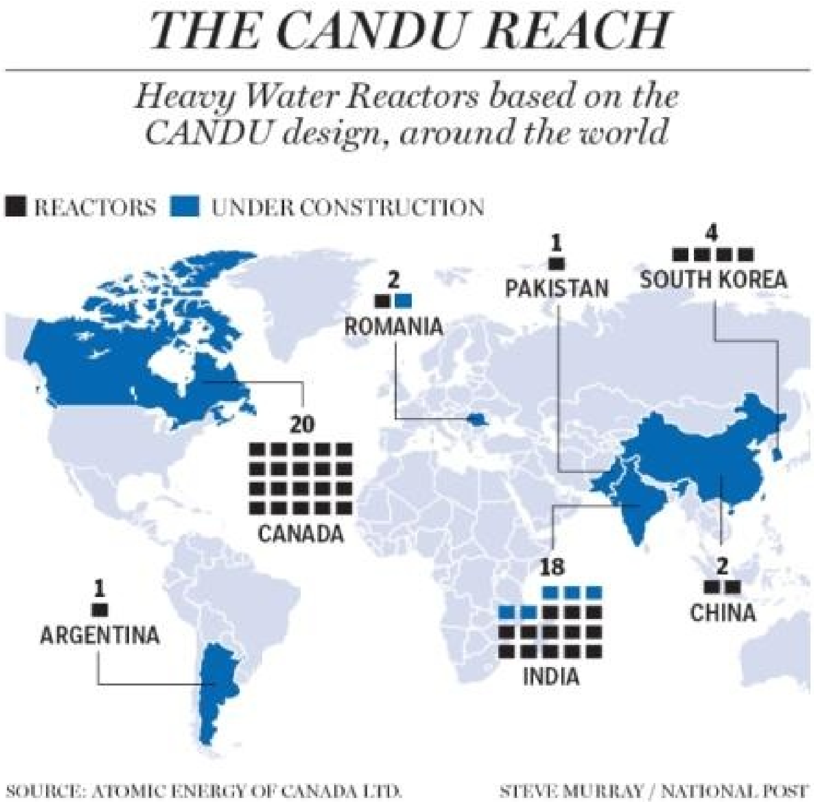
Calgary-based Energy Alberta Corp., a small, privately held firm, says it has filed an application with the Canadian Nuclear Safety Commission for a licence to prepare a site for Canada's first nuclear facility west of Ontario. The plant that would be built by Energy Alberta's partner, Atomic Energy of Canada Ltd., using its Candu technology.

The development, 30 kilometres west of Peace River, a town of 6,300 with an economy recently spurred by oil activity, would churn out 2,200 megawatts of electricity by 2017, with 70 per cent of that power sold to **one mystery customer, a large oilsands operator that Energy Alberta refused to name.** Regulatory approvals are expected to take three years, followed by five years of construction. When complete, the project will create about 900 direct jobs and up to 2,500 spinoff positions.

Mel Knight, energy minister of Alberta - a province that, in the past, flat out rejected overtures from Atomic Energy Canada to get a foothold there - said Alberta will need more power by 2016, and public feedback will inform the decision. He also said the significant step forward by Energy Alberta should not be interpreted as Alberta opening its doors to nuclear power. "We remain, as a government, completely open-minded on the issue, but we've never made a determination on policy in this province of whether we would embrace or deny opportunities for nuclear," Knight said. "That day is approaching. We do have to make a decision. Albertans will want clarity around the issue and that's exactly what we'll do."

During a lively press conference in downtown Calgary, a fledgling anti-nuclear group called Citizens Advocating Use of Sustainable Energy warned the plant's proposed location is in the most seismically active part of the province. At the same conference, Henuset said **confidentiality agreements prevented him from naming the customer he said would purchase 70 per cent of the plant's electricity.**

Nuclear just too hot for Alberta
Why Would Oilsands Court More Controversy?



After at least a decade of trying to gain a foothold in Alberta, Atomic Energy of Canada Ltd. has teamed up with an obscure private company with a mystery customer to launch a gigantic nuclear power plant -- the first one in Western Canada -- to fuel the oilsands. At a press conference yesterday, Wayne Henuset, a former car dealer, wine merchant and oil-services entrepreneur who is now the president and co-chairman of the start-up, Energy Alberta Corp., argued the province is ready to take the leap into nuclear.Smelling, no doubt, a big gamble, the project's main customer has chosen to remain in the background, leaving the small company with no experience at running a nuclear plant to take the lead--and the heat.

Mr. Henuset explained his company has signed confidentiality agreements with the so-called "offtaker" --hardly a satisfactory explanation for a company -- or companies -- that will buy 70% of the plant's electricity, or what will be about a big chunk of the province's power output. Energy Alberta's other backer is Hank Swartout, the maverick best known for building Precision Drilling Corp. The company plans to debt-finance the $6.2-billion plant.

None of the oilsands developers that in the past said they were open to looking at nuclear power -- Royal Dutch Shell PLC, Total SA or Husky Energy Inc. -- said yesterday they are involved in this project. While it's true that the oilsands industry is desperately searching for ways to replace depleting natural gas as its main energy source, nuclear hasn't been a preferred option -- and it's unlikely to become widely embraced.

Oil Sands Blockbuster
In Search of a Trillion Barrels of Oil

You would be surprised if I told you how many people in the U.S. have absolutely no idea where we get our oil.

When I took an informal poll yesterday, not even one person was able to tell me which countries send us the most crude oil. Let's face it, the U.S. is an oil guzzling behemoth, consuming over a quarter of global production.

Nearly everyone thought it was Saudi Arabia. I know the Saudis are the most logical choice....

....Not a single person even put Canada on their list!

Environmental groups warn of dangers of Mackenzie pipeline

The $16-billion pipeline project, proposed by large oil and gas producers such as Imperial Oil, ExxonMobil and Shell Canada, is designed to move 1.2 billion cubic feet of natural gas a day.

However, the three fields to which the 75-centimetre wide pipe would be connected can produce only 800 million cubic feet a day, said Keith Ferguson, a lawyer with Sierra Legal Defence Fund.

As a result, there will be enormous pressure to find more gas to fill the pipeline, meaning more seismic testing, hundreds of exploration wells, and thousands of kilometres of new pipes and roads, he said.

Why did Big Oil cave on Hebron?
Hibernia South Played Key Role In Deal Going Forward

Lost in the debate over whether Danny Williams came out ahead or behind in his fiscal deal on the Hebron Ben Nevis offshore project is a question: Why did Big Oil cave in? Indeed, the consortium, led by Chevron Corp., appears to have backed off on at least three fronts, allowing the Premier of Newfoundland and Labrador to boast he pushed big oil companies to their knees:

- The consortium dropped demands for $500-milion in tax breaks, which Mr. Williams said was the catalyst that broke the impasse;
- It allowed the province to join the offshore heavy oil project as a 4.9% partner, a concession the oil companies were previously reluctant to make; and
- It returned to the table with surprising urgency, contrary to large oil companies' (unofficial) M.O. of shelving projects in areas in which they don't like the politics until there is a change at the top.

The background: The oil consortium, which also includes Exxon Mobil Corp., Hebron's largest owner, Petro-Canada and Norsk Hydro, signed a memorandum of understanding with the province last week to develop Hebron, after pulling out in April, 2006, following a bitter fight over how to divide the benefits. While fiscal terms were tweaked a bit in the second round, analysts and observers say the deal is essentially the same as the one the two sides walked away from.

Clearly, the oil companies, all multinationals, were motivated by the global picture, which has changed a lot in the past 16 months. Mr. Williams's demand for an equity stake -- so small it's a token that gives the province little say over corporate decisions and for which he is paying cash at the market's going price -- is small potatoes next to the nationalization or even expropriation of oil assets that has picked up steam in Venezuela, Ecuador, Russia and now Kazakhstan.

In the new context, Newfoundland must have soared to the top of the companies' to-do list because of its benign location in Canada, next to large markets in the United States.

The darker side of ethanol
As plans pop up for biofuel plants, neighbors argue they aren't so green.

In rural eastern Indiana, where corn-seed markers dot the roadside, a number of homemade white signs with electric-red letters have started popping up offering another message: "No Ethanol."

The signs can be found along a small Delaware County road, easily missed if you blink while driving on Ind. 3 to the bucolic community of Shideler, population 3,000, eight miles north of Muncie.

There, homeowners such as Keith and Michelle Beaty say they face the darker side of the renewable fuel ethanol, one that threatens to upend the kind of life that drew them to their home of 10 years. Concerned about pollution, traffic and, ultimately, declining property values, the Beatys and their neighbors have filed a lawsuit to try to block construction of an ethanol plant in Shideler.

The 100-acre plant would loom over the countryside. Trucks would enter and leave 24 hours a day. Smoke rising from a stack would carry chemicals that pollute the air even as the plant produces a cleaner-burning alternative to gasoline.

"If they build it, I won't live here," said Keith Beaty, 40, twisting a line from the movie "Field of Dreams."

The widespread "unravelling of life on this planet"
Hundreds more British species are placed on 'at risk' register

They were once common sights of the countryside. But animals such as the hedgehog, house sparrows and starlings have joined a new list of hundreds of creatures and plants in danger or in need of protection. The number of species on the official UK Biodiversity Action Plan has doubled since the first attempt to map the problem ten years ago.

In 1997, 577 species needed help, but in a new list to be published today the figure has risen to 1,149. The number of species on the list that are found in Scotland more than doubled from 226 to 532. Experts said the loss of plants and animals - along with the habitats they live in - was continuing as part of the widespread "unravelling of life on this planet". However, they said part of the reason for the rise was that scientists now know more about what is happening to our wildlife, which enables steps to be taken to preserve it.

But life in Britain for at least one species has come to an end. The large copper butterfly, which was on the 1997 list, is now extinct in the UK, with an attempt to reintroduce it having failed and no plans to try again. Professor Colin Galbraith, director of policy and advice at Scottish Natural Heritage, said he was concerned that some species were faring badly. "What's worrying is that once-common species, like the skylark and corn bunting, are probably declining now," he said. "The best example is the common sparrow, which was very common on farmland.

"The work farmers and foresters are doing is critical for the future. It's about working with landowners to make sure they are managing the countryside in a way that allows them to make a living and in which biodiversity can improve." Climate change puts Scotland's wildlife under extra pressure and he said there was a need to "create a system of land-use where species can adapt and move as climate change happens". He added: "It is a key time for a lot of species on the list."

Prairie grasslands could soon fade
Global warming might turn them into woody shrubs: study

The gases that cause global warming threaten to turn the Prairies from grasslands into an area covered by woody shrubs that cattle can't eat, a new study says. But it's not the warmer temperatures that are to blame.

The main greenhouse gas causing global warming is carbon dioxide, and rising carbon dioxide levels favour the growth of woody plants - but not grasses. "Encroachment of shrubs into grasslands is an important problem facing rangeland managers and ranchers," said the study by the U.S. Department of Agriculture. "This process replaces grasses, the preferred forage of domestic livestock, with species that are unsuitable for domestic livestock grazing."

The Department of Agriculture scientists in Colorado got their results by blowing extra CO_2 gas into greenhouses in Colorado, simulating the future atmosphere as we keep burning coal, oil and gas. The scientists knew ranchers have been saying for years tough little shrubs are taking over some grasslands. But they needed proof. They set up six greenhouses on shortgrass typical of large areas in Canada's Prairie provinces. Three greenhouses had normal air. The other three had increased carbon dioxide levels.

The greenhouses with extra CO_2 produced 40 times more than the normal amount of fringed sage, a woody plant that grows from 10 to 60 centimetres high. The change took place over five years. "A 40-fold increase in biomass (amount of the plant material) is huge," said lead researcher Jack Morgan of the USDA.

Elk and antelope will eat this plant, but cattle won't. And other experiments suggest other types of sage and small shrubs might also invade grasslands as the atmosphere changes. This is more than a North American problem, the scientists said. It's likely to affect grasslands used for grazing by all kinds of livestock in many parts of the world. These are mostly lands too dry for most farming, but good for grazing.

Morgan says the slow invasion of woody shrubs has been happening for as much as 100 to 200 years, and has been reported in many parts of the world. "That's one of the major points in this paper. Most people, when they hear climate change discussed, think it's always about the future," he said. "CO2 has been going up for the past couple of hundred years, so this relates to changes that are already under way."

Brazil River Dispute Highlights Larger Issue

Brazil's most hotly contested public conflicts today are often about water. President Luiz Inacio Lula Da Silva says hydro-electric energy is a sine qua non for the development of South America's biggest economy. But environmental and indigenous groups increasingly oppose massive engineering projects. The proposal to divert part of Brazil's mighty Sao Francisco River to the vast drought-prone Northeast epitomizes the debate. No other river, the Amazon included, has such a hold on the imagination of Brazilians.

"Old Chico," as the Sao Francisco River is affectionately, called has been immortalized in folklore and celebrated at Carnival. Now, this legendary river is at the center of one of Brazil's most ambitious infrastructure schemes to divert some of its waters to the impoverished northeast. The rural areas there are Brazil's poorest, according to the World Bank. But critics variously assail the $2.3 billion venture as a boondoggle, an environmental nightmare, and a vanity project.

"All we want is basic sanitation for the general population. It's a fight between David and Goliath."

Attorney Juliana Barros Neves says the planned construction — including two canals hundreds of miles long, pumping stations, and dams — will be especially burdensome for the indigenous groups throughout the region. "The Constitution states that Brazil's environment and cultural patrimony must be protected, but many indigenous territories are going to be adversely affected by this diversion," Neves says. "International conventions protecting indigenous rights, which Brazil has signed, also say projects that affect tribal regions must have the prior consent of that population. And that did not happen here."

Chief Neguinho Truka says the 500-year-old way of life for his Truka tribe is in jeopardy. The chief says diverting the river would harm the cultivation of meadows and growth of natural forests along the river on which his people depend. "We fish, we hunt, and it's passed down to generations," he says.

Drought catastrophe stalks Australia's food bowl

A thin winter green carpets Australia's southeast hills and plains, camouflaging the onset of a drought catastrophe in the nation's food bowl. Sheep and cattle farmer Ian Shippen stands in a dying ankle-high oat crop under a mobile irrigation boom stretching nearly half-a-kilometre, but now useless without water. "I honestly think we're stuffed," he says grimly.

"It's on a knife edge and if it doesn't rain in the next couple of weeks it's going to be very ugly. People will be walking off the land, going broke." Shippen's property "Chah Singh" sits in the heart of Australia's Murray-Darling river basin, a vast plain bigger than France and Germany, home to 2 million people and in good times the source of almost half the nation's fruit and cereal crop.

But years of drought, which some blame on global warming, have savagely depleted the huge dams built 60 years ago to hold the snow melt from the Australian alps and push it hundreds of kilometres inland to the parched west for farm irrigation. The Murray-Darling normally provides 90 percent of Australia's irrigated crops and A$22 billion ($18.1 billion) worth of agricultural exports to Asia and the Middle East.

But with some crops now just 10 days from failure, farmers are to receive no water at all for irrigation through the summer, while others will get a fraction of their regular entitlement to keep alive vital plantings like citrus trees and grapevines. The massive Hume Weir, which can hold enough water to fill seven Sydney Harbours, is so dry that a lakeside holiday village is now half-a-kilometre from the depleted shore and rods to measure water depth stand on bare rock far from the waters' edge.

"It's grim. The water is not there," says Wendy Craik, the head of the Murray-Darling Basin Commission which oversees storage in the country's longest river and dam system.

[Indonesian peatlands seen playing key climate role]

To the average person, they are just ordinary swamps or bogs. But peatlands across the world are more than just simple marsh land: they are one of the largest carbon stores on earth and play a significant role in the regulation of greenhouse gas emissions and global climate change. Not for long, perhaps.

In recent years, experts say peat bogs have been stoking global warming through increasing greenhouse gas emissions because of massive deforestation and conversion into agricultural land and palm oil plantations, especially in Southeast Asia which accounts for a huge chunk of the world's marshes.

"When you clear land, the easiest way is by burning. But that emits sequestered carbon into the atmosphere," Bostang Radjagukguk, an Indonesian peat expert, told Reuters. "In Indonesia, some 5 percent of 20 million hectares (49 million acres) of peatland has already been converted into agricultural land."

Peat is created by dead plant matter compressed over time in wet conditions preventing decay. Peat can hold about 30 times as much carbon as in forests above ground. The world's peatlands -- a rich and fragile ecosystem formed over thousands of years -- are estimated to contain 2 trillion tonnes of sequestered carbon.

When drained, peat starts to decompose on contact with air and carbon is released, often aggravated by fires that can rage for months and add to a choking smog or haze that is an annual health menace to millions of people in the region. Dutch research institute Wetlands International estimates peatlands in Southeast Asia store at least 42 billion tonnes of soil carbon or peat carbon.

Wetlands senior program manager Marcel Silvius estimates about 13 million of 27.1 million hectares of Southeast Asia peatlands have been drained causing severe peat soil degradation. Although degraded peatlands in Southeast Asia cover less than 0.1 percent of the global land surface, they are responsible for about 2 billion tonnes of carbon dioxide a year, or close to 8 percent of global carbon dioxide emissions.

[Polluted China Rivers Threaten "Sixth" of Population]

Polluters along two of China's main rivers have defied a decade-old clean-up effort, leaving much of the water unfit to touch, let alone drink, and a risk to a sixth of the population, state media said on Monday.

Half the check points along the Huai River and its tributaries in central and eastern China showed pollution of "Grade 5" or worse -- the top of the dial in key toxins, meaning that the water was unfit for human contact and may not be fit even for irrigation, national legislators were told.

Years of crackdowns and waste treatment investment have reined in some of the worst damage to the Huai and Liao Rivers, but industrial pollution remained far too high, Mao Rubai, chairman of the National People's Congress environment and resources protection committee, said in a report delivered on Sunday.

The rivers posed a "threat to the water safety of one sixth of the country's 1.3 billion population", the China Daily said. The pollution on the Huai threatened the massive South-North Water Transfer Project to draw water from the Yangtze River through the Huai basin to the country's parched north, Mao said.

[Flooding risk from global warming badly under-estimated: study]

Global warming may carry a higher risk of flooding than previously thought, according to a study released on Wednesday by the British science journal Nature.

It says efforts to calculate flooding risk from climate change do not take into account the effect that carbon dioxide (CO_2) -- the principal greenhouse gas -- has on vegetation.

Plants suck water out of the ground and "breathe" out the excess through tiny pores, called stomata, in their leaves.

Stomata are highly sensitive to CO_2. The higher the level of atmospheric CO_2, the more the pores tighten up or open for shorter periods.

As a result, less water passes through the plant and into the air in the form of evaporation. And, in turn, this means that more water stays on the land, eventually running off into rivers when the soil becomes saturated.

In a paper published in February 2006, British scientists said the CO_2-stomata link explained a long-standing anomaly.

Over the last 100 years the flow of the world's big continental rivers has increased by around four percent, even though global temperatures rose by some 0.8 degrees Celsius (1.35 degrees Fahrenheit) during this period.

[Ireland heating up twice as fast as rest of the world]

> The Irish climate is heating up at almost twice as fast as the rest of the world, an official report launched today warned.
>
> Academics studying weather records over the past century have discovered significant differences between the island's temperature patterns and overall global warming.
>
> It is believed the seas around the island have been acting as a buffer which delays the arrival of global temperature patterns.
>
> "So we're catching up, we're making up for lost time," said the report's co-author Dr John Sweeney, of Irish Climate Analysis and Research Units (ICARUS).

The looming food crisis

> Land that was once used to grow food is increasingly being turned over to biofuels. This may help us to fight global warming - but it is driving up food prices throughout the world and making life increasingly hard in developing countries. Add in water shortages, natural disasters and an ever-rising population, and what you have is a recipe for disaster.

World facing 'arsenic timebomb'

> In order to avoid drinking surface water, which can be contaminated with bacteria causing diarrhoea and other diseases, aid agencies had been promoting the digging of wells, not suspecting that well water would emerge with elevated levels of arsenic.
>
> The metal is present naturally in soil, and leaches into groundwater, with bacteria thought to play a role.
>
> Since then, large-scale contamination has been found in other Asian countries such as China, Cambodia and Vietnam, in South America and Africa.
>
> It is less of a problem in North America and Europe where most water is provided by utilities. However, some private wells in the UK may not be tested and could present a problem, Mr Ravenscroft said.

Person-to-person bird flu transmission detected

> A mathematical analysis has confirmed that H5N1 avian influenza spread from person to person in Indonesia in April, U.S. researchers reported on Tuesday.
>
> They said they had developed a tool to run quick tests on disease outbreaks to see if dangerous epidemics or pandemics may be developing.

U.S. most armed country with 90 guns per 100 people

> The United States has 90 guns for every 100 citizens, making it the most heavily armed society in the world, a report released on Tuesday said.
>
> U.S. citizens own 270 million of the world's 875 million known firearms, according to the Small Arms Survey 2007 by the Geneva-based Graduate Institute of International Studies.