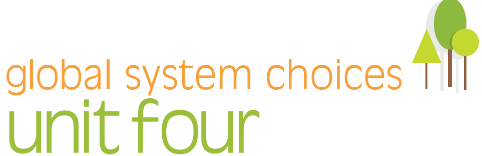


U4L2A3 | Post-oil readiness country comparison

overview

In this activity you will work in a group of three to investigate the post-oil readiness of three petroleum producing countries. Each group member will investigate a different country (Norway, Venezuela, or Canada) and share their findings with the group. Once all findings have been shared, group members will work collaboratively to rank the countries from most to least prepared.

learning goal

- To understand the necessity of post-oil planning and preparation.
- To gain insight as to how different countries are preparing to transition to a world without oil.

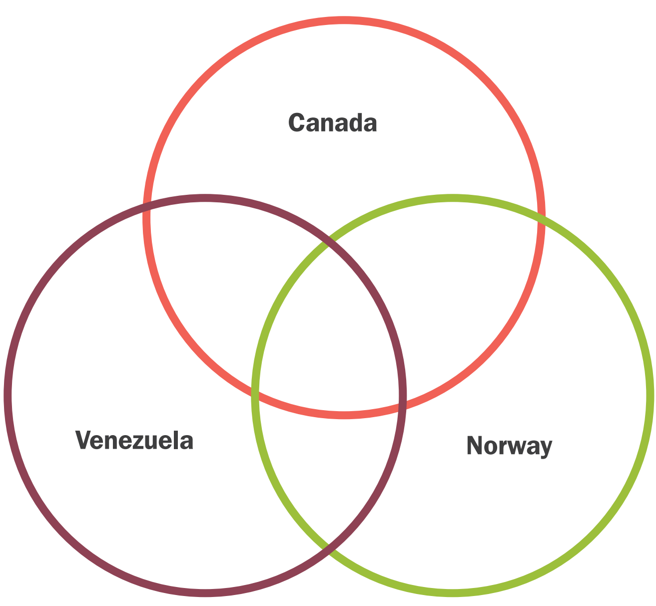
success criteria

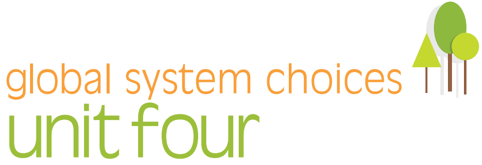
- Comprehensive analysis and sound reasoning used to support ranking of countries.

Inquiry question

- What steps are different countries taking to prepare for the transition to a post-oil world?

Each group member will receive a set of articles to read about their assigned country. You need to find out what your country is doing to prepare for the day its oil runs out (i.e. Norway's oil fund, subsidizing alternative energy, promoting green energy programs etc…). In conclusion, your group will rank the countries from most to least prepared. Be prepared to share your conclusions with the class.





Norway's sovereign wealth holds lessons for Canada

Established in 1990, Norway's heritage fund is now worth $1 trillion

Susan Ormiston, Mar 20, 2015

In Stavanger, a quaint, seaside city on Norway's coast, a local newspaper publishes a series called "The Oil Kids" that reports on the lifestyles of wealthy second-generation beneficiaries of Norway's offshore oil riches.

"If you compare to our parents or grandparents which built this country, I think we're a little bit spoiled," admits Bjorn Knudsen, whose father worked for a large North Sea oil company.

Fifty years ago, Stavanger's biggest industry was canning herring. Now, this city is the country's de facto oil capital.

"We are extremely lucky," says Bjorn's wife, Kristin Alne, a production engineer for Det Norske Olije-selsksap, an offshore oil company. "There are only five million of us [in Norway], and someone several decades ago was really smart to deal with the income from the oil industry to generate the welfare of this country as a whole."

They are lucky and Norway was smart. So smart that decisions made decades ago to bank the taxes from rich oil fields are now paying for their future at a time when oil-rich Alberta faces a multibillion-dollar deficit.

In the middle of Stavanger, a hulking oil museum charts oil's legacy and how it turned Norway from poor to prosperous. A real-time ticker counts up the Krone in the oil fund.

Norway today sits on top of a $1-trillion Cdn pension fund established in 1990 to invest the returns of oil and gas. The capital has been invested in over 9,000 companies worldwide, including over 200 in Canada. It is now the largest sovereign wealth fund in the world.

By contrast, Alberta's Heritage Savings Fund, established in 1976 by premier Peter Lougheed, sits at only $17 billion Cdn and has been raided by governments and starved of contributions for years.

"For the last 10 years, when nothing went into the Alberta fund, and we put a lot of money aside, the profit went out of Canada," says Rolf Wiborg, a petroleum engineer who recently retired from Norway's public service.

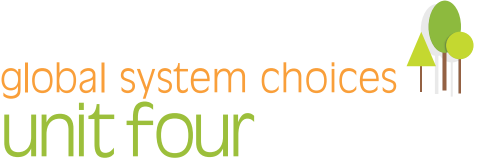
Norway's ethos

Kristin Alne, an engineer with the oil company Det Norske Olijeselskap, admits that Norwegians have been 'extremely lucky' to reap the rewards of their oil resources. (Kristan Alne)

Wiborg, who studied at the University of Alberta and worked for a Norwegian oil company before joining Norway's Petroleum Directorate, says the key to success has been Norway's ethos of sharing and a commitment to never waver from that goal.

"We don't change our policies in Norway, with changes in the oil price – you can't do that," he says. "Lougheed's government in Alberta knew that, they made policies and then they left them behind."

Oil and gas make up 25 per cent of Norway's GDP, so the recent plunge in oil prices should have set off alarm bells in Oslo. Thousands of workers have indeed been laid off, but parliament is not painting a dire forecast for 2015.



“We all agree we’re not facing a crisis,” says Siv Jensen, Norway’s finance minister.

Twenty-five years ago, when Norway set up its oil fund, it demanded high taxes from oil companies – 78 per cent after profits and the costs of research and exploration. One hundred per cent of those taxes were banked.

The government is allowed to tap into the fund, but only up to four per cent. That leaves the principal untouched.

“We have low unemployment, we have growth, we have a huge surplus – that’s a very robust start in the face of declining oil prices”, she says confidently.

The Canadian story

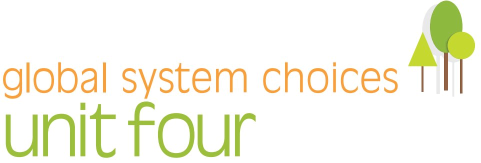
Norway did well by those rules. In contrast, Alberta and Saskatchewan – both endowed with oil and other mineral resources – took different routes with vastly different results.

Alberta and Saskatchewan both set up heritage funds (in 1976 and 1978, respectively), but Alberta, for example, only put in 30 per cent of royalties. The funds were consistently raided by governments of the day, and in Alberta, contributions petered out altogether by 1987. The Saskatchewan fund was terminated in 1992.

Those two provinces reveal important failures in the Canadian experience, says Greg Poelzer, a professor at the University of Saskatchewan and author of a recent paper on lessons from Norway.

“First, the failure to contribute annually means the fund will not grow and one-time earnings from non-renewable resources are lost forever,” he says.

“Second, governments should only use the interest, otherwise governments will overspend, putting programs at risk when the prices fall, as they always do.”



Norway is not immune to oil's fluctuations. Statoil, a Norwegian company that is 67 per cent owned by Norwegians (another fiscally wise decision, according to Rolf Wiborg), has shed eight per cent of its workforce, with more to come.

"This is the lean approach, fundamentally," says Statoil CEO Eldar Saetre, explaining that the big oil companies have to bring down the costs of production, and automate more of it.

Saetre says the industry is in a phase of permanent reduction and downsizing. "This is not about taking down activity and then thinking it will come back," he says.

Diminishing resources

Norway's conventional oil reserves – like those in most of the world – are diminishing. Bente Nyland, head of Norway's Petroleum Directorate, says development will continue on a large, promising new find, Johan Sverdrup, but many of the North Sea fields are maturing.

"The main impact we see is that exploration is put on hold," she says. All the more reason to be vigilant about what comes out of existing fields. "Our goal is to ensure the benefit from the oil activity goes into the Norwegian pension fund."

Like petro-economies around the world, Norway is facing a future where oil is not the golden goose it once was.

"We are facing a turning point where oil and gas will no longer be the engine of growth," warns Finance Minister Jensen. "We need to make sure that we are able to transform our economy towards broader markets."

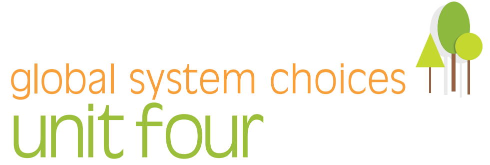
But for now, the country's smart planning is a significant hedge against an uncertain future, says Farouk al Kasim, an Iraqi geologist who emigrated to Norway in 1968.

The Norwegians asked the former senior executive with Iraq's Petroleum Company to evaluate some early seismic data. Convinced Norway would soon become a major oil player, Al Kasim helped design the management of the resource.

"They were very determined that the major share of the profit would have to be to the citizens of the country, and that's how it is today," says al Kasim, who was knighted in 2012 by the Norwegian king for his expertise managing Norway's resource.

But what about today, with the price of oil half of what it was six months ago?

"It is nice to have the fund behind us, because without it, we would have been a very worried nation."



HUFF POST BUSINESS

Norway's Oil Fund Heads For $1 Trillion; So Where Is Alberta's Pot Of Gold?

Daniel Tencer, January 2014

Every man, woman and child in oil-rich Norway became a theoretical millionaire this week.

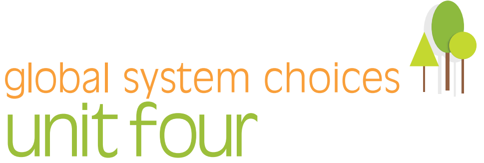
The country's oil fund — which collects taxes from oil profits and invests the money, mostly in stocks — exceeded 5.11 trillion crowns ($905 billion) in value this week, making it worth a million crowns per person, or about $177,000 per Norwegian.

That's right. Norway, the "socialist paradise," is effectively running a surplus of nearly a *trillion* dollars, thanks to oil revenue.

About the same time this happened, the Canadian Taxpayers Federation released calculations showing that the taxpayers of Alberta are on the hook for $7.7 billion in debt, or about $1,925 per person. It expects the debt to spike to $17 billion by the end of the 2015-2016 fiscal year. The CTF is so alarmed by the province's descent into deficits that it has launched a debt clock specifically for Alberta.

What's wrong with this picture? Norway, with an economy and population somewhat larger but on the same scale as Alberta's, has managed to guarantee its citizens' prosperity for decades to come. Norway's oil production is declining, down to one-half what it was in 2001. Alberta, where oil production keeps growing and growing, is writing IOUs.

Norway isn't the only one, though its fund is the largest. The United Arab Emirates' funds are valued in excess of US$800 billion, Kuwait has about US$400 billion, and Russia and Kazakhstan have accumulated about US$180 billion each.



These facts should renew the long-running debate about whether the federal government or the provincial governments of oil-rich provinces should set up the sort of sovereign wealth fund that has made Norway stupendously, incomprehensibly rich.

But are Albertans, or other Canadians, ready for the sort of reforms that would turn Alberta into the new Norway?

In socialist-leaning Norway, oil profits — including from state-run Statoil — are taxed up to a whopping 78 per cent, and that's where the seed money for the fund comes from.

Alberta, meanwhile, never even had a provincial sales tax. Albertans pay far, far lower taxes than

Norwegians, and if conventional economic theory is right, this should give Alberta the advantage.

But does it?

The average total income in Alberta is around $53,000, well below the province's (stunning) economic output of $80,000 per person. Norway's economic output is actually much lower than Alberta's, at $65,000 per person, but its average income is about the same, at $58,000. Norwegians take home a much larger chunk of the economy's wealth than Albertans do.

The Alberta government blames its deficit on the "bitumen bubble." Oilsands product is selling for considerably less than conventional crude, mostly because of the boom in shale oil production in the U.S. It was selling for 22 per cent less than West Texas Intermediate oil as of this week, and this, apparently, is putting pressure on Alberta's finances.

But this is a sad excuse. Norway, too, has had to deal with low oil prices over the decades, but always found the political will to feed its rainy day fund.

Alberta "was just greedy and decided that a drunken, blow-out dance party today was better than a string of candle-lit dinner parties down the road," writes noted economics reporter Eric Reguly in Corporate Knights.

Had Alberta set up a proper sovereign wealth fund decades ago as Norway had — or even if it were simply willing to draw higher royalties — it could use that money to stay out of deficits. It wouldn't have to go begging to the federal government for aid when flooding hits.

This isn't news to policymakers. The IMF, the Canadian International Council (CIC), and a recent University of Saskatchewan report are among those recommending Canadian governments set up sovereign wealth funds.

"The arguments in favour were just so logical," said Melanie Drohan, co-author of a CIC report favouring oil funds, in an interview with iPolitics.

It would insulate the economy from commodity price busts, allow governments to save for future generations, and perhaps best of all, "it would keep government spending within their means," she said. "We wouldn't have these huge surpluses going into huge deficits."

Some parts of the country are listening. British Columbia Premier Christy Clark last year announced the creation of a wealth fund that will collect profits from the proposed development of the liquified natural gas (LNG) industry on the west coast.

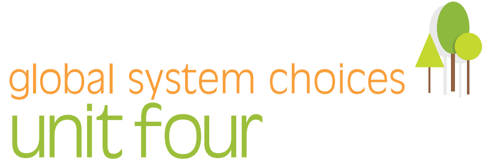
It won't be anywhere near the size of Norway's fund; the B.C. government projects it will collect $100 billion of a projected $1 trillion in LNG wealth generated over the next 30 years. Then again, the LNG business in B.C. isn't expected to be as large as Norway's oil business.

But aside from B.C., there is little interest among elected officials. The Harper government has roundly rejected the creation of a federal sovereign wealth fund.

And in Alberta, the idea of a sovereign wealth fund appears to have come and gone. The province came close when then-Premier Peter Lougheed set up the Heritage Savings Fund back in 1976. But the province didn't take it seriously at all. After a decade in operation, Alberta's government basically stopped paying into it, instead drawing on it as another source of revenue. It stands today at a measly $16.7 billion, a tiny fraction of what Norway has accumulated.

Incidentally, the fund's size is about what Alberta' debt is projected to be in a couple years. The province could just give up the ghost, raid the fund and pay off the debt.

It won't help make Alberta a more fiscally responsible place in the future, but at least it will temporarily eliminate the unforgivable embarrassment of Canada's wealthiest, most economically dynamic province showing the world how to waste its wealth.



THE GLOBE AND MAIL

What Norway did with its oil and we didn't

ESTHER HSIEH, May. 16 2013

When oil was discovered in the Norwegian continental shelf in 1969, Norway was very aware of the finite nature of petroleum, and didn't waste any time legislating policies to manage the new-found resource in a way that would give Norwegians long-term wealth, benefit their entire society and make them competitive beyond just a commodities exporter.

"Norway got the basics right quite early on," says John Calvert, a political science professor at Simon Fraser University. "They understood what this was about and they put in place public policy that they have benefited so much from."

This is in contrast to Canada's free-market approach, he contends, where our government is discouraged from long-term public planning, in favour of allowing the market to determine the pace and scope of development.

"I would argue quite strongly that the Norwegians have done a much better job of managing their [petroleum] resource," Prof. Calvert says.

While No. 15 on the World Economic Forum's global competitiveness rankings, Norway is ranked third out of all countries on its macroeconomic environment (up from fourth last year), "driven by windfall oil revenues combined with prudent fiscal management," according to the Forum.

Before oil was discovered, the Act of 21 June 1963 was already in place for managing the Norwegian continental shelf. This legislation has since been updated several times, most recently in 1996, now considered Norway's Petroleum Act, which includes protection for fisheries, communities and the environment.

In 1972, the government founded the precursor of Statoil ASA, an integrated petroleum company. (In 2012, Statoil dividends from government shares was $2.4-billion). In the same year, the Norwegian Petroleum Directorate was also established, a government administrative body that has the objective of "creating the greatest possible values for society from the oil and gas activities by means of prudent resource management."

In 1990, the precursor of the Government Pension Fund – Global (GPFG), a sovereign wealth fund, was established for surplus oil revenues. Today the GPFG is worth more than $700-billion.

While there's no question that Norway has done well from its oil and gas, unlike many resource-based nations, Norway has invested its petro dollars in such a way as to create and sustain other industries where it is also globally competitive.

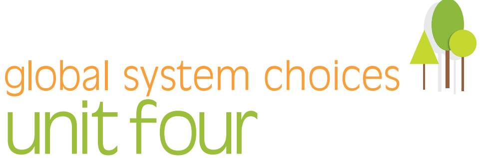
The second largest export of Norway is supplies for the petroleum industry, points out Ole Anders Lindseth, the director general of the Ministry of Petroleum and Energy in Norway.

"So the oil and gas activities have rendered more than just revenue for the benefit of the future generations, but has also rendered employment, workplaces and highly skilled industries," Mr. Lindseth says.

Maximizing the resource is also very important.

Because the government is highly invested, (oil profits are taxed at 78 per cent, and in 2011 tax revenues were $36-billion), it is as interested as oil companies, which want to maximize their profits, in extracting the maximum amount of hydrocarbons from the reservoirs. This has inspired technological advances such as parallel drilling, Mr. Lindseth says.

"The extraction rate in Norway is around 50 per cent, which is extremely high in the world average," he adds.



Norway has also managed to largely avoid so-called Dutch disease (a decline in other exports due to a strong currency) for two reasons, Mr. Lindseth says. The GPFG wealth fund is largely invested outside Norway by legislation, and the annual maximum withdrawal is 4 per cent. Through these two measures, Norway has avoided hyper-inflation, and has been able to sustain its traditional industries.

In Norway, there's no industry more traditional than fishing.

"As far back as the 12th century they were already exporting stock fish to places in Europe," explains Rashid Sumaila, director of the Fisheries Economics Research Unit at the University of British Columbia Fisheries Centre.

Prof. Sumaila spent seven years studying economics in Norway and uses game theory to study fish stocks and ecosystems. Fish don't heed international borders and his research shows how co-operative behaviour is economically beneficial.

"Ninety per cent of the fish stocks that Norway depends on are shared with other countries. It's a country that has more co-operation and collaboration with other countries than any other country I know," Prof. Sumaila says.

"That's [partly] why they still have their cod and we've lost ours," he adds, pointing out that not only are quotas and illegal fishing heavily monitored, policy in Norway is based on scientific evidence and consideration for the sustainability of the ecosystem as a whole.

Prof. Sumaila cites the recent changes to Canada's Fisheries Act, as a counter-example: "To protect the habitat, you have to show a direct link between the habitat, the fish and the economy," he says, adding, "That's the kind of weakening that the Norwegians don't do."

Svein Jentoft is a professor in the faculty of Bioscience, Fisheries and Economics at the University of Tromso. He adds that Norway's co-operative management style, particularly domestically, has been key to the continued success of the fisheries.

“The management system [for fish stock] is an outcome of the positive, constructive and trustful relationship between the industry on the one hand and the government on the other hand,” Prof. Jentoft says. “They have been able to agree on issues that you and many other countries haven’t been able to, largely because the government has listened to the fishermen.”

However, Prof. Jentoft isn’t on board with all of his government’s policies. He’s concerned about how the quota and licensing system is concentrating wealth and the impact that this will have on fishing communities.

He predicts that Norway’s wild stocks will remain healthy in the foreseeable future and that the aquaculture industry (fish farms), where Norwegians are world leaders, will continue to grow.

In 2009, Norway’s total fish and seafood export was $7.1-billion, $3.8-billion was in aquaculture. By 2011, Norwegian aquaculture exports grew to $4.9-billion. In Canada, total fish and seafood exports in 2011 were $3.6-billion, with approximately one-third from aquaculture.

Norway’s forests are another important natural resource, and its pulp-and-paper industry has many parallels to Canada’s. Both nations are heavy exporters of newsprint. With much less demand since the wide adoption of the Internet and competition from modern mills from emerging markets, both nations have suffered through down-sizing and mill closures over the past decade. Both have been looking for ways to adapt.

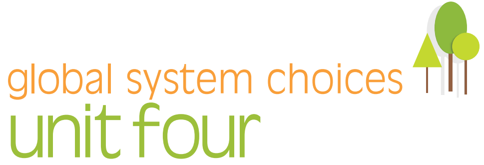
The Borregaard pulp and paper mill in Sarpsborg has become one of the world’s most advanced biorefineries. From wood, it creates four main products: specialty cellulose, lignosuphonates, vanillin and ethanol, along with 200 GWh a year of bioenergy.

“You have a diversified portfolio of products,” explains Karin Oyaas, research manager at the Paper and Fibre Research Institute in Trondheim. “The Borregaard mill uses all parts of the wood and they have a variety of products, so if one of the products is priced low for a few years, then maybe some of the other products are priced high.”

She feels this is a key change in direction for the industry in Norway. She doesn’t want to see the industry putting all of its eggs in one basket, as it did with newsprint.

Dr. Oyaas also thinks that rebranding the industry is key to its survival and success in Norway. The forestry industry doesn't get the same kind of attention as the oil industry, nor does it have the high-tech image. But it is just as high-tech, and it has the bonus of being a renewable resource.

"You can make anything from the forest. You can make the same products that you can make from oil," explains Dr. Oyaas.



The New York Times

Oil Cash Waning, Venezuelan Shelves Lie Bare

WILLIAM NEUMAN, JAN. 29, 2015

CARACAS, Venezuela — Mary Noriega heard there would be chicken.

She hated being herded "like cattle," she said, standing for hours in a line of more than 1,500 people hoping to buy food, as soldiers with side arms checked identification cards to make sure no one tried to buy basic items more than once or twice a week.

But Ms. Noriega, a laboratory assistant with three children, said she had no choice, ticking off the inventory in her depleted refrigerator: coffee and corn flour. Things had gotten so bad, she said, that she had begun bartering with neighbors to put food on the table.

"We always knew that this year would start badly, but I think this is super bad," Ms. Noriega said.

Venezuelans have put up with shortages and long lines for years. But as the price of oil, the country's main export, has plunged, the situation has grown so dire that the government has sent troops to patrol huge lines snaking for blocks. Some states have barred people from waiting outside stores overnight, and government officials are posted near entrances, ready to arrest shoppers who cheat the rationing system.

Because Venezuela is so dependent on oil sales to buy imports of food, medicine and many other basics, the drop in oil prices means that there is even less hard currency to buy what the country needs.

Even before oil prices tumbled, Venezuelawas in the throes of a deep recession, with one of the world's highest inflation rates and chronic shortages of basic items.

One of the nation's most prestigious public hospitals shut down its heart surgery unit for weeks because of shortages of medical supplies. Some drugs have been out of stock for months, and at least one clinic performed heart operations only by smuggling in a vital drug from the United States. Diapers are so coveted that some shoppers carry the birth certificates of their children in case stores demand them.

Now economists predict that shortages will get even more acute and inflation, already 64 percent, will climb further. The price of Venezuelan oil dropped this month to $38 a barrel, down from $96 in September.

“Things are going to be even worse because oil keeps Venezuela going,” said Luis Castro, 42, a nurse, standing in line with hundreds of others at a grocery store. He had arrived with his wife and 6-year-old son at 6 a.m., but by 11:30 a.m., they had still not entered. “We’re getting used to standing on line,” he said, “and when you get used to something, they give you only crumbs.”

The shortages and inflation present another round of political challenges for President Nicolás Maduro, who has vowed to continue the Socialist-inspired revolution begun by his predecessor, the charismatic leftist Hugo Chávez.

“I’ve always been a Chavista,” said Ms. Noriega, using a term for a loyal Chávez supporter. But “the other day, I found a Chávez T-shirt I’d kept, and I threw it on the ground and stamped on it, and then I used it to clean the floor. I was so angry. I don’t know if this is his fault or not, but he died and left us here, and things have been going from bad to worse.”

Thousands waited last week to buy basic goods at subsidized prices in Caracas. Those who cheat on rationing risk arrest. (Meridith Kohut for The New York Times)

Venezuela has the world’s largest estimated petroleum reserves, and when oil prices were high, oil exports made up more than 95 percent of its hard currency income. Mr. Chávez used the oil riches to fund social spending, like increased pensions and subsidized grocery stores. Now that income has been slashed.

“If things are so bad now, I really cannot imagine how they will be in February or March” when some of the lowest oil prices “materialize in terms of cash flow,” said Francisco J. Monaldi, a professor of energy policy at the Harvard Kennedy School of Government.

Mr. Maduro spent 14 straight days in January traveling the globe in an effort to court investment and persuade other oil-producing nations to cut production and push the price back up.

"We have serious economic difficulties regarding the country's revenue," Mr. Maduro said to the legislature during his annual address, which had to be pushed back because of the trip. "But God will always be with us. God will provide. And we will get, and we have gotten, the resources to maintain the country's rhythm."

After months of toying with the politically taboo idea of raising the price of gasoline sold at pumps here, the cheapest in the world, he said that the time had finally come to do so.

And he reiterated his position that the country's economic ills are the fault of an economic war being waged against his government by right-wing enemies.

Many economists argue that government policies are a big part of the problem, including a highly overvalued currency, price controls that dissuade manufacturers and farmers, and government restrictions on access to dollars that have led to a steep drop in imports.

Some investors fear Venezuela will default on billions of dollars in bonds, but Mr. Maduro has said the country will pay its debts.

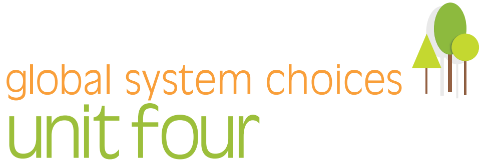
Typically, in an election year like this one, when voters will choose a new legislature, the government showers supporters with goods, like refrigerators and washing machines, or other benefits, like free housing. But now there may not be enough foreign currency to import appliances and construction materials.

In interviews, shoppers did not say they were going hungry. Rather, many said the economic crisis meant eating canned sardines instead of chicken, or boiled food instead of fried because vegetable oil is so hard to get. Many said they ate meat less frequently because it is out of stock or too expensive. Fresh fish can be harder to find, in part, fishermen said, because they find it more profitable to use their boats to sell subsidized Venezuelan diesel on the black market in a high-seas rendezvous instead of hauling in a catch.

But social media in Venezuela is full of urgent pleas from patients trying to find prescription medicine.

Dr. Gastón Silva, the head of cardiovascular surgery at the University Hospital of Caracas, said that because of medical shortages, only about 100 heart operations were performed there last year, down from 300 or more in previous years.

Some patients who had been hospitalized awaiting surgery for a month or more were sent home in November because there were not enough supplies, and the operating rooms remained shut for more than eight weeks, Dr. Silva said, despite a list of hundreds of people awaiting heart operations.



He said the shortages stemmed from the government's foreign exchange controls, which have kept medical importers from getting access to the money they need to make purchases abroad. Now with the low price of oil further restricting the government's supply of hard currency, he worried the crisis would get worse.

"We are getting to a breaking point," Dr. Silva said. "If one thing is lacking, O.K. If there are no automobile parts, we'll see. Food, that's problematic. But health care, that's more problematic. Where will it end?"

Mr. Silva said that a private clinic where he also works had sharply scaled back heart surgeries in the last four months of 2014 because of limited supplies.

A heart surgeon at another private clinic said that a colleague had smuggled an essential drug from the United States to keep the operating room functioning.

Ana Guanipa, 75, a retired government office worker, said that she had searched numerous pharmacies for her hypertension medicine.

"I've been looking all month, and I can't find it," she said, adding that a neighbor who takes the same drug gave her some. "I take it one day on and one day off so that it will last longer."

On a recent morning, hundreds of people stood in line outside a big-box store, similar to Costco. Inside, many shelves were stripped clean. The large appliance and electronics section was empty. One aisle displayed hundreds of boxes of a single brand of toothpaste. There was no fresh meat; a cooler was filled with frozen pigs feet.

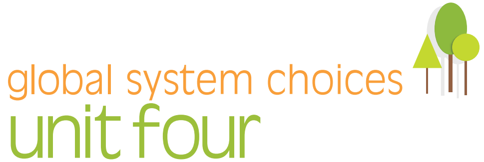
Most people came to buy only three items sold at government-mandated prices: laundry detergent, vegetable oil and corn flour.

Every purchase was entered into a database, ensuring that shoppers did not try to buy the same regulated staples at the chain for at least seven days.

Soldiers patrolled the line outside, police officers were stationed inside and government officials checked identification cards, looking for fake ones that could be used to cheat the rationing system — or for immigrants with expired visas. An official from the immigration and identification service said that offenders would be arrested.

"This is pathetic," said Yenerly Niño, 18, adding that she had waited more than five hours to buy the three subsidized products because she could not afford to buy them at the higher prices charged by street vendors.

"You do what you have to," she said. "If you don't do it, you don't eat."



Venezuela's government is sinking in a sea of oil

Michael Moran, Mar 26, 2014

NEW YORK — Lurking behind the barricades in Venezuela, where pro- and anti-government forces have battled on and off for more than five weeks, one of the biggest contradictions on the planet helps explain what's gone wrong with Hugo Chavez's Bolivarian revolution.

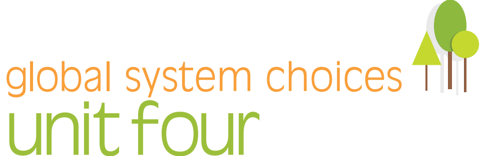
Over the past decade, discoveries of vast quantities of oil have vaulted the South American nation from seventh to first in the world in terms of proven oil reserves — i.e., oil that can be extracted from the ground. The US Energy Information Administration now reckons Venezuela's reserves hold 298 billion barrels (bb) worth. That's like adding the current estimate of total US reserves (26bb) to that of Saudi Arabia (267bb).

And yet, Venezuela's oil production and export revenue during the same period have dropped precipitously.

The country that President Nicolas Maduro, Chavez's successor, inherited has seen oil production sink nearly 25 percent since 2000, most of it due to a lack of investment in new exploration, a massive brain drain and poor maintenance at older fields.

This is particularly apparent in the drop in barrels destined for the United States, whose Gulf Coast refineries are uniquely geared to deal with the heavy, sour crude Venezuela produces.

Venezuelan oil exports to the US peaked in the mid-1990s at over 1.3 million barrels per day (bpd). By 2013 it had fallen below 775,000 bpd.



Oil troubles have helped drain Venezuela's hard currency reserves and exacerbate shortages of basic goods, leading to price gouging and fueling public anger.

The US and Venezuela differ ideologically, and the latter's leaders regularly accuse the former of compounding their country's woes. But Venezuela's economic problems are mostly self-inflicted.

Venezuela uses its oil as a political reward to likeminded governments in the region — hardly a way to close fiscal gaps. And the state takeover of the oil industry has proven a disaster, with production plummeting and investment lagging.

Meanwhile, the US is using less oil overall, and more of what it does use comes from beneath US soil.

Chavez saw some of this coming. Before he died of cancer one year ago, he oversaw efforts to diversify away from the US market and toward China, a somewhat less prickly customer ideologically and one with an insatiable thirst. But that pivot has been excruciatingly slow and clumsily handled. Because of the poor quality of Venezuela's oil, it's not merely a matter of oil tankers plotting a new course. New refineries and ports are needed.

While Venezuela's oil exports to China have risen (to about 60,000 bpd in 2013) and several large joint projects with Chinese state oil firms are underway in Venezuela, that by no means covers the shortfall of lost American business.

What's more, Venezuela is providing over 200,000 bpd more to Beijing at no charge as a down payment on more than $40 billion in Chinese loans extended during the Chavez years, according to the EIA.

Add another 400,000 bpd transferred at below-market prices to regional Bolivarian brethren — including Cuba, Nicaragua and a host of small Caribbean islands — and it's no wonder the Venezuelan currency, the bolivar, fell 73 percent against the dollar in 2013.

Both Chavez and Maduro have taken steps domestically that make the problem even worse. Besides driving away foreign investment and shedding hard-to-replace energy expertise with expropriations of foreign assets, their governments have heavily subsidized domestic fuel prices, resulting in a jump in the amount of the country's production that's consumed internally from 36 percent to 47 percent.

Think about it: A government in the tropics floating on the world's largest sea of oil is consuming nearly half of it domestically and squandering much of the revenue that could be derived from exporting the rest.

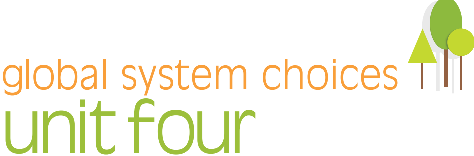
This was not preordained, nor is it all a case of inefficient state monopoly. Norway's Statoil, state-owned for decades, is one of the best-run energy firms in the world.

Nationalized in the 1970s, Venezuela's state-owned oil monopoly, Petroleos de Venezuela SA (PDVSA), managed a highly successful and lucrative sector through the 1990s. But when state workers went on strike in 2002 over plans to politicize the company further, Chavez fired some 180,000 experienced oil workers, leading to a production collapse.

America's Iraq invasion came to his rescue in 2003, spawning historic high-energy prices that helped plug the Venezuelan state's coffers. Emboldened, Chavez spread subsidies around to quell dissent. Then in 2006, he ordered a state takeover of exploration activities from foreign oil companies, driving out additional expertise, and announced a wave of below-market energy supply deals with like-minded regional leaders that continue to this day. (Cuba, for instance, sends state-trained doctors to Venezuela to do community service in exchange for its steep discount).

The same malaise afflicts its natural gas. Venezuela ranks second in the hemisphere behind the US in natural gas reserves, but the South American country uses it all used to support its rickety PDVSA monopoly.

Because Venezuela's oil fields are older and in decline, they require a process known as enhanced oil recovery whereby natural gas is pumped into the oil wells do drive crude out. All of Venezuela's gas production is used this way — an enormous waste of a critical resource.



Indeed, for the past several years, the country has imported natural gas from Colombia to make up for a shortfall.

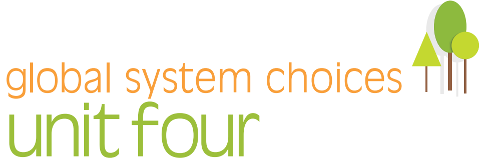
With world oil prices moderating, US shale gas and tight oil increasing and Venezuela's efforts to pivot exports toward China stalled, Venezuela's oil monopoly is showing scant evidence it can convert the massive new reserves into revenue.

This is seriously denting sales of Venezuelan government bonds — which, besides more loans from China, are the only way for the government to support its deficit spending.

The standoff in the streets of Valencia, San Cristobal and Merida continue, and few analysts see Maduro facing a Ukrainian exit any time soon.

But the death of Chavez saddled his successor without a compass, with a broken patronage machine, a rickety oil industry and an exhausted national treasury.

Venezuela's Bolivarians are literally running short on fuel.



Hugo Chavez leaves Venezuela in economic muddle

Robert Plummer, March 2013

One of the most damning verdicts on the late Hugo Chavez's leadership of Venezuela came from a doctor who made a name for himself by claiming to have inside knowledge of the cancer that eventually killed the president.

Dr Jose Rafael Marquina, a Venezuelan based in Miami, repeatedly predicted that Mr Chavez's illness would prove terminal, providing detailed accounts of what he said was the president's course of treatment.

His statements were given extensive coverage by the opposition media in Venezuela, eager to fill the vacuum left by the lack of official information about Mr Chavez's condition.

But whatever the truth of Dr Marquina's medical diagnosis, his broader criticism of the president's record hits home. As he said during an interview with the Tal Cual newspaper in December 2012: "Chavez dealt with his illness the way he dealt with the country - in an improvised fashion."

That habit of impromptu policymaking was integral to Mr Chavez's style, right from the start of his 14 years in power.

Time and again, the president would make major decisions on an ad hoc basis, often during the course of his rambling and unscripted weekly TV broadcast to the nation, known as Alo Presidente.

He was particularly prone to quick-fix solutions in economic policy, resorting to regular currency devaluations, expropriations of private firms and inflation-busting public-sector pay rises rather than tackling the economy's underlying structural problems.

This fire-fighting approach continued even as Mr Chavez lingered on his Cuban sickbed, with Vice-President Nicolas Maduro implementing a 32% devaluation of the bolivar in February.

As a result, Mr Chavez bequeaths a nation beset by crumbling infrastructure, unsustainable public spending and underperforming industry.

Thanks to his social programmes, poorer Venezuelans have certainly benefited from the country's oil wealth more than they did under what he called the rotten elites that used to be in charge.

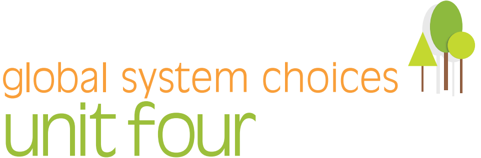
But there are strong suspicions that much money has been wasted - not just through corruption, but also sheer incompetence.

Are you better off than in 1998?

During Hugo Chavez's time in office, from 1999 to the present day, income inequality in Venezuela gradually declined, as it did in most of the region.

The country now boasts the fairest income distribution in Latin America, as measured by the Gini coefficient index.

Brazil's economy has grown faster than Venezuela's



In 2011, Venezuela's Gini coefficient fell to 0.39. By way of comparison, Brazil's was 0.52, in itself a historic low.

So every Venezuelan now has a more equal slice of the cake. The trouble is, that cake has not been getting much bigger.

"Venezuela is the fifth largest economy in Latin America, but during the last decade, it's been the worst performer in GDP per capita growth," says Arturo Franco of the Center for International Development at Harvard University.

As Mr Franco says, it depends on how you measure Venezuela's progress.

If you compare life under Mr Chavez with the previous 20 years, under a now discredited two-party system widely blamed for rampant corruption, the Chavez era is preferable.

But if you look at the superior economic performance of neighbouring Brazil and Colombia during the same period, it suddenly doesn't look so rosy.

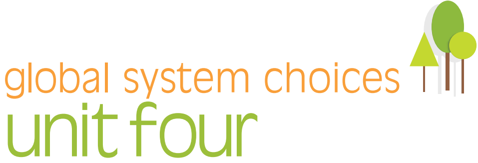
And given that the price of a barrel of oil is now roughly 10 times what it was when Mr Chavez was first elected, his opponents say that he could and should have done more.

Venezuela's economy: Oil takes the strain

Mr Chavez's failure to diversify Venezuela's economy means that oil is still its mainstay. In fact, it accounts for more than 90% of the country's foreign currency inflows.

About 50% of government revenues come from the petroleum industry, mostly from state company PDVSA. Venezuela's oil sector

Mr Chavez's government took firm control of PDVSA in 2003, when it fired 40% of the workforce in the aftermath of a general strike aimed at forcing him from power.



But critics have accused the firm of neglecting maintenance while it funnelled oil revenue into government social programmes, especially after an explosion in August 2012 at the Amuay refinery, the country's largest, in which 42 people were killed.

Instead of investing in PDVSA to increase production, Mr Chavez treated it as a cash cow, milking its funds to finance his social spending on housing, healthcare and transport.

Finding out just how that money has been dispensed is not easy. But the government has become steadily more involved in every sector of the economy, to the detriment of the private sector.

In September 2012, **Reuters news agency published a special report** into a state corporation, Fonden, that now accounts for one-third of all investment in Venezuela.

It found a string of abandoned or half-built facilities, including a paper factory, an aluminium mill and a fleet of unused buses - all of which apparently received money from Fonden.

Fonden has absorbed $100bn of Venezuela's oil revenues since it was founded in 2005.

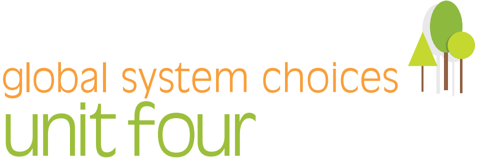
At the end of January, the government cut PDVSA's contribution to Fonden by 19%, a move which seems to presage a round of public spending cuts. But until the post-Chavez political landscape is clearly established, the president's successors can hardly afford to alienate the people with austerity programmes.

Public spending: Can the boom last?

In the run-up to his presidential election victory last October, Mr Chavez made low-income and social housing a priority, launching a plan to build three million homes by 2018.

-building in the run-up to the election

The housing drive fuelled big increases in public spending - and big expectations among those yet to be housed under the programme.



According to Bank of America-Merrill Lynch, government expenditure rose 30% in real terms as a result over the 12 months leading up to the election.

But all that largesse took its toll on the public finances. Capital Economics, a research company, estimates that Venezuela's fiscal deficit widened to 9% of GDP in 2012, while Morgan Stanley reckons it could have reached 12% by now.

According to the World Bank, the Venezuelan economy is estimated to have grown by more than 5% during 2012. However, it forecasts a slowdown in 2013, with just 1.8% growth expected, while many analysts are expecting the country to fall into recession this year.

The latest maxi-devaluation of the Venezuelan currency will help the government's financial position. Since oil is priced in dollars, a weaker bolivar increases the local value of oil revenues, giving the government more cash.

In theory, it should also help Venezuela to export more goods from other sectors of the economy. But observers reckon the country's manufacturing sector is too small to benefit much - another consequence of Venezuela's concentration on oil to the exclusion of all else.

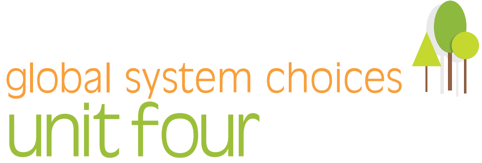
In the words of Michael Henderson at Capital Economics: "The current malaise is the product of years of capital flight and under-investment, which has hollowed out the country's productive base."

Borrowing against oil

So how did the government finance its pre-election spending spree? Foreign private investors have certainly stayed away since Mr Chavez's nationalisation drive began.

High inflation, still nudging 20% a year, doesn't help either.

Will the Venezuelan capital see brighter times ahead?



As survey organisation Consensus Economics says: “Soaring inflation and government spending - coupled with currency and capital controls - have created a widening fiscal deficit.

“The authorities are increasingly reliant on external debt to finance this.”

For “external debt”, read loans from China. According to Bloomberg news agency, the state-run China Development Bank has lent Venezuela $42.5bn over a five-year period.

Oil Minister Rafael Ramirez said in September 2012 that of the 640,000 barrels of oil a day that Venezuela exports to China, 200,000 went towards servicing the country’s debt to Beijing.

Unless PDVSA’s underperformance can be remedied, those debts will remain and will probably grow as the country’s gap between spending and income widens.

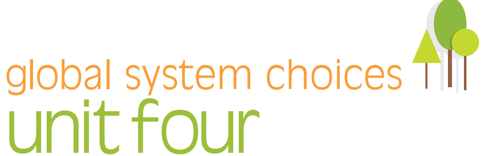
The impact for the region

It certainly doesn’t seem hard to uncover evidence of waste in government expenditure during the Chavez years.

But the overspending doesn’t stop at home. In an effort to spread the influence of his Bolivarian revolution, Mr Chavez allowed Cuba and other countries in the region to benefit from cheap deals and soft loans under the Alba and Petrocaribe programmes.

The next administration will have to decide whether or not to continue funding that extensive network of petro-diplomacy.

In the meantime, most countries in the Caribbean, already suffering from a decline in tourism because of the global economic downturn, will be hoping that Venezuela’s economic lifeline is not about to disappear.



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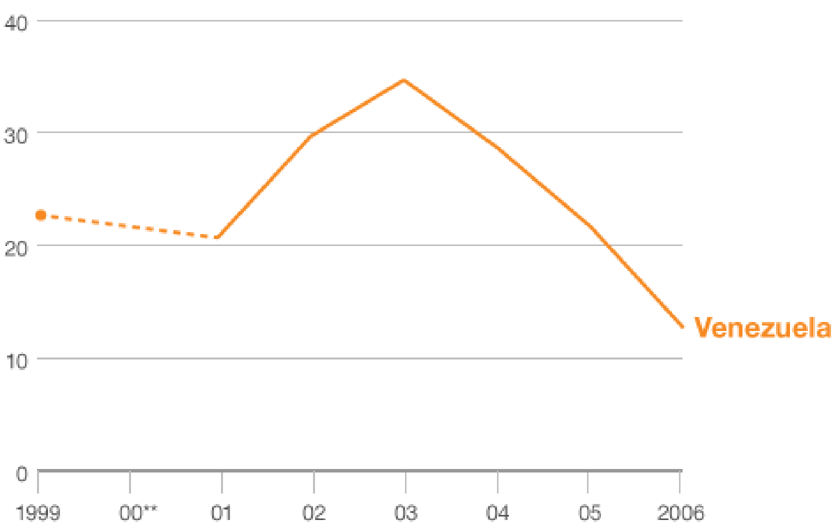
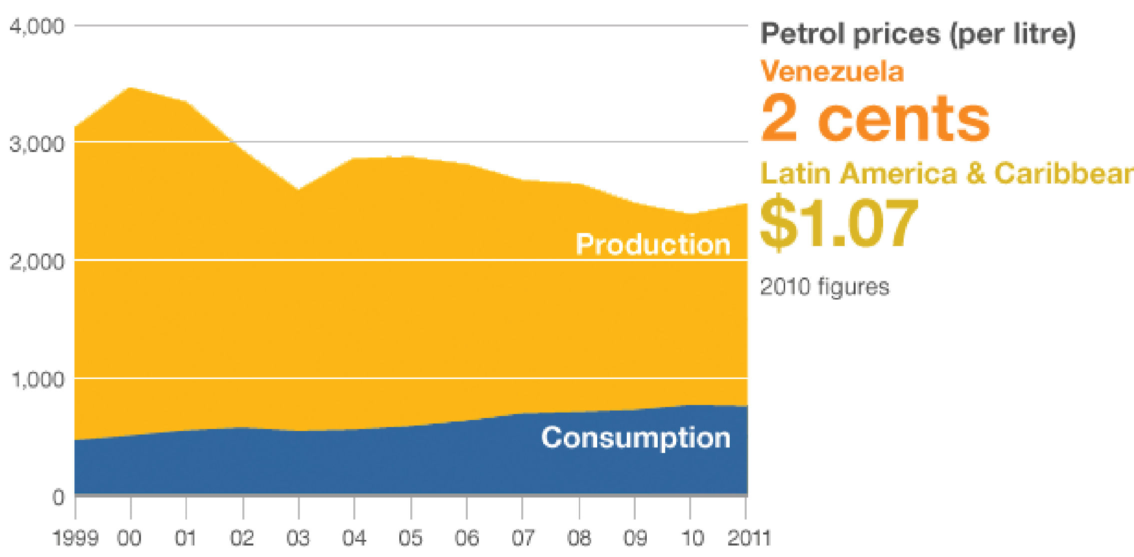
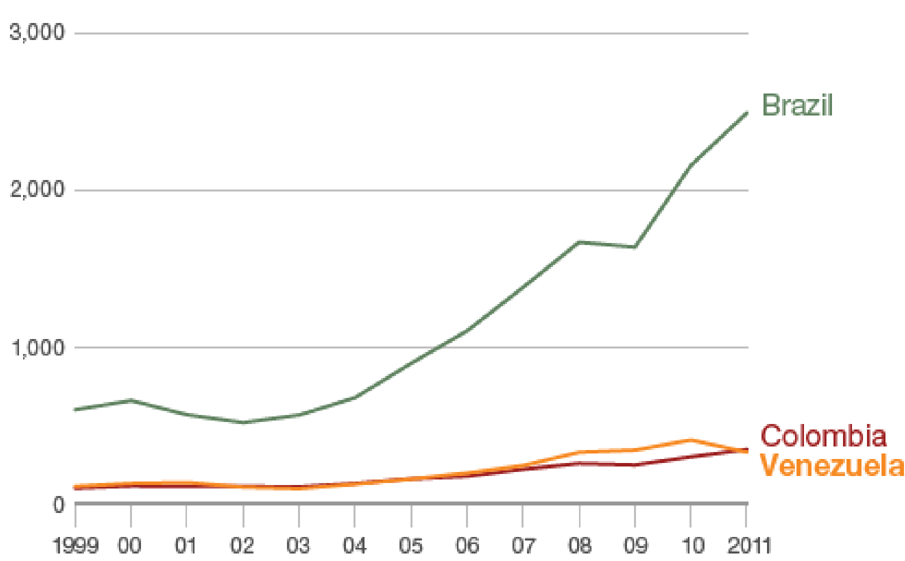


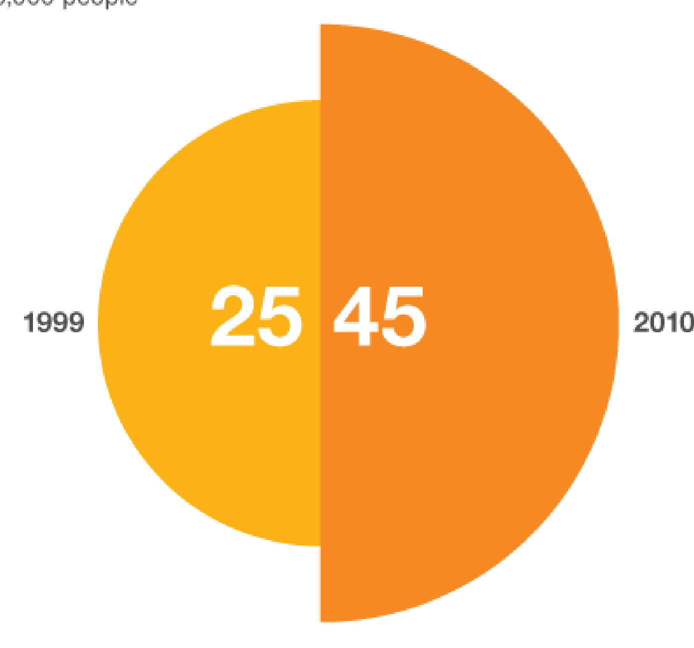


Source: US Energy Information Administration



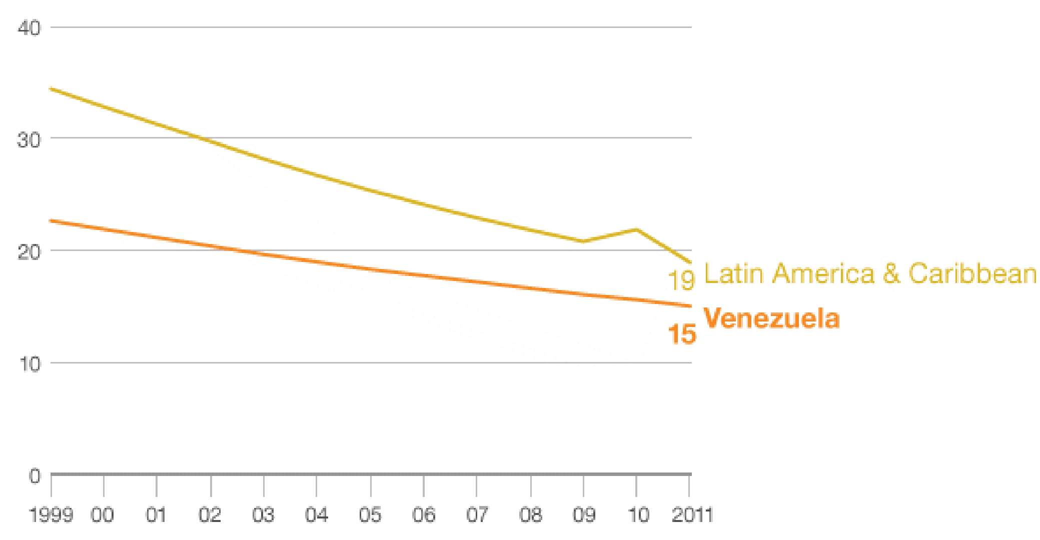
Source: World Bank

Venezuela's rising murder rate
Murder rate per 100,000 people



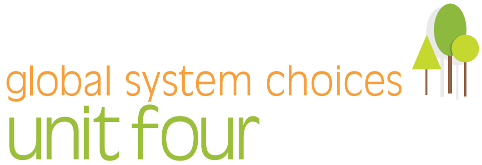
Source: UNODC

Falling child mortality rates
Mortality rates for the under-5s, per 1,000 live births



Source: World Bank

Tackling poverty and increasing access to education and healthcare were avowed aims for wealth



Alberta should learn from Norway on managing oil

Canada and Alberta, its main petro-province, have much to learn from another major petroleum

By: Bruce Campbell Published on Wed Jan 16 2013

Momentum is building across Canada on the need to develop a sustainable national energy strategy.

On this front, Canada and Alberta, its main petro-province, have much to learn from another major petroleum-producing and exporting country, Norway.

Canada and Norway are advanced industrialized countries with highly developed political, bureaucratic and economic institutions.

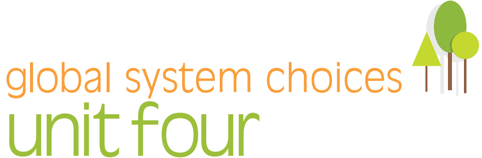
Norway and Alberta have similar population size, similar production profiles, and similar levels of dependence on petroleum exports and government petro-revenues.

During my recent trip to Norway, I found they have taken very different paths, and with very different outcomes.

In Norway, there was from the outset, a societal consensus that the government should play the dominant role in the petroleum industry, both as owner and regulator.

The Norwegian government owns 80 per cent of petroleum production, and retains roughly 85 per cent of the net petroleum revenues mainly through a 78-per-cent company tax and through direct access mechanisms.

In Alberta and Canada, ownership and control have been controversial issues. At present, virtually the entire industry is owned by foreign and domestic private interests, which have taken the lion's share of the petroleum wealth.



According to one estimate, the Alberta government has averaged just 9 per cent of the economic rent from the oilsands over the last 15 years, and the federal government now takes (after tax breaks) a paltry 7 per cent of oil company revenues through the general corporate income tax.

The Norwegian government has been very effective in distributing the benefits of oil wealth both regionally and throughout its population, thanks to a generous social welfare system, an equitable labour relations system and a progressive tax system. It has maintained one of the lowest levels of income inequality in the world.

Inequitable petrodollar recycling mechanisms explain, in large part, why inequality is substantially higher in Alberta than the Canadian average (which in turn is among the highest in the OECD), and why it has grown dramatically over the last decade.

Alberta's richest 1 per cent have a much larger share of the provincial income pie than the one percenters' share of income nationwide. And Canada's super-rich are increasingly concentrated in Alberta.

Norway, which had very high taxes even before the discovery of oil, chose not to reduce them. Norway has maintained a steady 42 per cent of GDP tax level, among the highest in the industrial world.

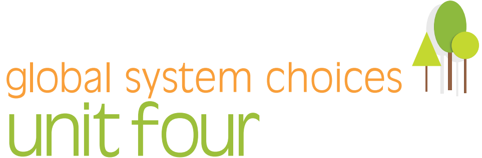
Canada, on the other hand, has lowered overall taxes levels since the late 1990s from 36 per cent to 31 per cent of GDP, placing it in the bottom third of OECD countries.

Alberta has lowered its non-petroleum taxes to the point where they are by far the lowest in Canada.

Interprovincial disparities are growing in the wake of the petro-boom. Alberta's revenue raising, or fiscal capacity, will likely exceed 180 per cent or more of the national average over the next eight years even as federal provincial redistribution measures have been weakened.

Norway's Petroleum Savings Fund has amassed more than $664 billion in assets, all invested abroad, with only the return used for domestic spending. It not only ensures the future of social welfare benefits, but also helps to offset upward pressure on its currency and mitigate potential Dutch Disease effects.

Alberta's Heritage Savings Fund now contains $16 billion, just 2 per cent of Norway's fund, and a minuscule share of the petroleum revenue that has flowed into Alberta over the past 36 years.



Canada has not been able to maintain a stable dollar during the petro-boom. The 60 per cent rise against the U.S. dollar has wreaked havoc with manufacturing and other noncommodity exports, resulting in a huge loss of output and jobs.

As two of the world's largest petroleum producers and exporters, Norway and Canada-Alberta have a major responsibility to reduce greenhouse gas emissions that are threatening the planet.

Norway is a leader in carbon emissions reduction, both at home and internationally. Under the Copenhagen Accord, Norway's carbon reduction targets are the most ambitious in the industrial world.

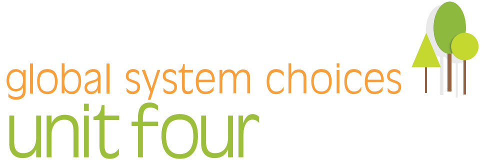
In contrast, Canada's federal government and its counterpart in Alberta are climate skeptics. Their actions show they do not view carbon emissions reduction as a high priority, especially when compared to development of its oilsands. Canada has broken its Kyoto commitments and will likely not even meet its much weaker Copenhagen commitments. It refuses to put a price on carbon and its regulations are weak.

Notwithstanding the differences between the two countries, lessons can be drawn from the Norwegian experience.

First and foremost, the federal government needs to take the lead, collaborating with provincial, territorial and First Nations governments, in building public consensus around a national energy strategy.

One that addresses concerns about economic development, energy security, inequality, interprovincial disparities, and climate change; and outlines a plan for the transition to a low carbon economy.

Failure to do so will only heighten existing tensions within the Canadian federation.



THE GLOBE AND MAIL

Peak Oil? More like Peak Canada

Doug Saunders, November, 2012

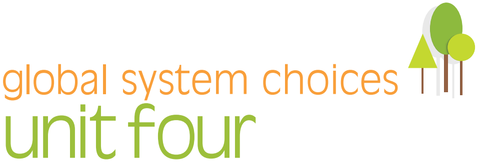
Good morning, students. The results from last week's history test have been transconducted into your NeuroPads. Now, if you'll all please disengage your BrainFeeds and start listening, I'll be talking today about one of the most misunderstood episodes in Canadian history.

This occurred over the first decade and a half of the 21st century. It was Canada's global moment of arrogant pride – the Great Hubris, as it's remembered today – our country's moment of squandered opportunity. In those heady years, Canadian leaders and citizens alike became convinced that their country was an energy superpower possessed of powers unique in the world.

Canada, for a while, went mad. We believed we were above the laws of economics and politics and energy – a country that had magically resisted the First New Depression of 2008, and had an export so desirable that we could ignore ecological warnings and well-established international partnerships and blacken the good name Canada had earned the previous century. Our leaders bossed around the world, believing everyone wanted their controversial oil and would ignore its many serious problems if they simply branded it "ethical."

Ordinary Canadians embraced the hubris, spending far beyond their means, believing that our oil-boosted economy was permanent and invincible. In November of 2012, the peak of the Great Hubris, Canadians reported record levels of personal non-mortgage debt, piling on expensive cars and credit card bills – everyone believed theirs was a rich petro-state and it would last forever.

But Canadians were ignoring the reality outside. "The walls were closing in on us, and we were falling back down to earth," as Prime Minister Bieber used to say. Excessive pride was leading to a harsh fall.



Those Canadians should have seen what was coming. That fateful November, just as their personal debts were red-lining, most Canadians failed to notice the annual World Energy Outlook, published by the Paris-based International Energy Agency.

It predicted what we all know now – that the U.S. would become the world's largest petroleum producer by 2017 and a major world exporter not long afterward, exceeding Saudi Arabia, Libya and Iran and dwarfing Alberta, and that, by 2015, it would overtake Russia as the world's largest producer of natural gas. "An energy renaissance in the United States is redrawing the global energy map, with implications for energy markets and trade," the report concluded.

Indeed, that very month, The Washington Post accurately predicted that the U.S. natural gas boom and the resulting low energy prices and spinoff industries were fuelling an "American industrial revival." It would be aided by a reversal of fortunes in the Great Chinese Stall, triggering the Second American Century.

But Canadian leaders were still working on the assumption that the world would want our Athabasca crude. Little did we know that Canada, along with much of the world, would soon be buying North Dakota's far cleaner and more popular Democracy Gas.

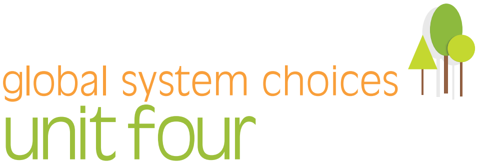
There were victims galore. The politicians in Ottawa and Edmonton squandered a generation's worth of political capital trying to force pipelines on national and provincial governments. A few went ahead, but, by then, the energy picture had shifted so much that it hardly seemed worth it. The Canada of the 2010s was largely remembered for having briefly underwritten Chinese authoritarianism with petroleum deals that didn't do it any good. Our oil proved to be rather unethical.

Of course, the ecological consequences of this were horrendous. That's why we don't talk about that shameful era, or the politicians who turned "Canadian" into a swear word in many countries. Who'd want to be reminded of that when we're getting our January suntans on Churchill Beach?

But the biggest victims were Canadians themselves, who never fully realized that their energy-dominance moment would be so fleeting. They spent exorbitantly but invested little. Alberta got some decent universities and hospitals, but there was never any major national program to become leaders in any sector, educational or industrial. Economists in those days told us that a dollar earned by

hauling raw materials out of the ground was as good as a dollar earned by making things. But, as we learned the hard way, there was more to it than macroeconomics.

Those were days when some people talked about Peak Oil. It never worked out that way, sadly. It was perhaps better to talk about Peak Canada. Next week, we'll learn about the trough that followed. Yes, it will be on the test, so set your RetinaReminders. Class dismissed.



THE GLOBE AND MAIL

Why every Norwegian is a (kroner) millionaire

JOHN DALY Oct. 29 2014

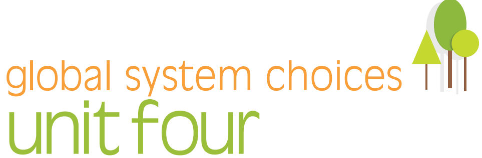
Canada has staked its future on the oil sands. In November, Report on Business magazine together with Thomson Reuters examine what that means both at home and abroad.

Should governments siphon off profits from massive oil and gas reserves and invest them for the long term? Or should they let the free market grip it and rip it, and keep taxes and regulations to a minimum?

Alberta and Norway provide two strikingly different answers to those questions. Norway began extracting oil and gas from the North Sea in 1971, and since then it has produced the equivalent of more than 38 billion barrels of oil. Over the same period, Alberta has produced about 54 billion barrels.

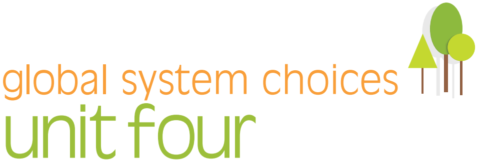
In 1976, under Conservative Premier Peter Lougheed, Alberta created the Heritage Savings Trust Fund, and began depositing 30% of its oil royalties in it. Lougheed wanted to diversify the province's economy; in the early years, he spent much of the money on things like hospitals, education and rail transport for grain. But in the 1980s and 1990s, oil prices sank and provincial revenues were squeezed. In 1987, Alberta stopped adding new royalty money to the Heritage Fund. In the mid-1990s, the province began withdrawing yearly investment income and putting it in general revenue. In 2008, Alberta turned management of the fund over to the new Alberta Investment Management Corp.

In 1972, Norway created Statoil, hoping to build a domestic oil industry. It is now the 10th-largest oil company in the world, and still 67% state-owned. In 1990, Norway created the Petroleum Fund to try to smooth out the impact of fluctuating oil prices and tax receipts. The government began depositing tax and licensing revenues from private oil companies, as well as the interest and dividends from Statoil. In 1998, it gave the fund permission to invest up to 40% of its money in stock markets. In 2006, the fund was renamed the Government Pension Fund Global, and it is now the world's largest sovereign wealth fund. As of January, 2014, every one of Norway's 5.1 million citizens was a millionaire in kroners (worth about 17 Canadian cents each).



Largest oil-and-gas sovereign wealth funds

Map highlights countries where the world's largest funds are located



Rank

Year Launched

Amount saved (Billions of $ U.S.)

1. Norway

Government Pension Fund—Global

1990

893.00

2. UAE

Abu Dhabi Investment Authority

1976

773.00

3. Saudi Arabia

SAMA Foreign Holdings

n/a

737.60

4. Kuwait

Kuwait Investment Authority

1953

410.00

5. Qatar

Qatar Investment Authority

2005

170.00

6. UAE

Abu Dhabi Investment Council

2007

90.00

7. Russia

National Welfare Fund

2008

88.00

8. Russia

Reserve Fund

2008

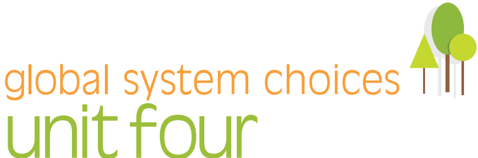
86.40

9. Algeria

Revenue Regulation Fund

2000

77.20



10. Kazakhstan

Kazakhstan National Fund

2000

77.00

11. UAE

Investment Corporation of Dubai

2006

70.00

12. Libya

Libyan Investment Authority

2006

66.00

13. UAE

International Petroleum Investment Company

1984

65.30

14. Iran

National Development Fund of Iran

2011

62.00

15. UAE

Mubadala Development Company

2002

60.90

16. U.S. (Alaska)

Alaska Permanent Fund

1976

51.70

17. Brunei

Brunei Investment Agency

1983

40.00

18. Azerbaijan

State Oil Fund

1999

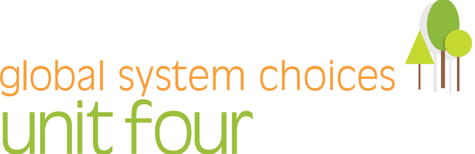
36.60

19. U.S. (Texas)

Texas Permanent School Fund

1854

30.30



20. U.S. (New Mexico)

New Mexico State Investment Council

1958

19.80

21. Iraq

Development Fund for Iraq

2000

18.00

22. East Timor

Timor-Leste Petroleum Fund

2005

16.60

23. Canada

Alberta Heritage Fund

1976

16.40

24. U.S. (Texas)

Permanent University Fund

1876

15.30

25. UAE

Emirates Investment Authority

2007

15.00