

ALSO IN THIS ISSUE:

Dr. Seuss and forestry

Tuition subsidies

The 2012 federal
budget

Energy for Canada's future



STUDENT ESSAY CONTEST

2012 Topic

Are the rich getting richer
and the poor getting poorer?

SUBMISSION DEADLINE: JUNE 30, 2012



1st Prize:	\$1,000
2nd Prize:	\$750
High school category:	\$500



For complete contest details, visit

studentessaycontest.org

For more information call:
1.800.665.3558 Ext. 533



Canadian student review

is published by the Fraser Institute.
The views contained within are strictly
those of the authors.

Editor: Lindsay Mitchell

Art Director: Bill C. Ray

Production Editor: Emma Tarswell

Contributing Editors: Gerry Angevine,
Charles Lammam, and Mike Thomas

Photo credits: Reproduction rights for the cover images and other photos were purchased from Fotolia, iStock Photo, Deposit Photos, and Big Stock Photo. Public domain and shared images provided by Wikimedia Commons and Flickr.

Canadian Student Review is offered free of charge to students across Canada. To receive a subscription, or to write to us about articles you read in this publication, contact us at CANADIAN STUDENT REVIEW, 1770 Burrard Street, 4th Floor, Vancouver, BC V6J 3G7 Tel: 604.688.0221 ext. 595 ; Fax: 604.688.8539

Website: fraserinstitute.org

E-mail address:

lindsay.mitchell@fraserinstitute.org

Copyright © 2012, the Fraser Institute.

Date of Issue: Summer 2012.

ISSN 1707-116X (online edition)

The Fraser Institute's vision is a free and prosperous world where individuals benefit from greater choice, competitive markets, and personal responsibility. Our mission is to measure, study, and communicate the impact of competitive markets and government interventions on the welfare of individuals. Founded in 1974, we are an independent research and educational organization with locations throughout North America, and international partners in over 80 countries. Our work is financed by tax-deductible contributions from thousands of individuals, organizations, and foundations. In order to protect its independence, the Institute does not accept grants from government or contracts for research.

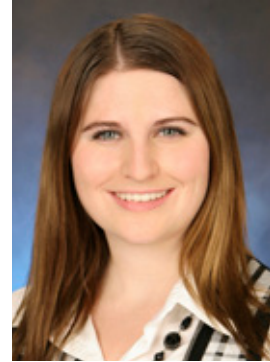


Canadian student review

Welcome!

Dear Readers,

With the tuition hike protests in Quebec causing controversy and making international headlines, it is important to look at the underlying cause. Should education be subsidized by the government, and thus taxpayers, or do these subsidies erode the value of a degree? Natural resources are a key part of Canada's economy, and *What the shale gas revolution means for Canada* looks at how new technological advances could make shale gas an important export to Asian markets. Dr. Seuss' predictions from *The Lorax* are proven wrong in an article on forestry that shows that logging companies are replanting trees and using new technology for the mutual benefit of their businesses and the environment. In *The no-cut federal budget*, Fraser Institute researchers examine the 2012 federal budget and question how a \$27 billion spending increase has been interpreted as a \$5.2 billion spending cut.



This summer issue also has the winning high school entry for our 2011 essay contest, "Is Capitalism Dead?" Don't forget that the deadline for the 2012 Essay Contest, "Are the rich getting richer and the poor getting poorer?" is on June 30th, and it has \$2,250 in prizes. Also, visit our website for updates on the fall seminar season, internship opportunities, and more.

Enjoy the summer!

Best,

Lindsay Mitchell

Editor, *Canadian Student Review*

Contents

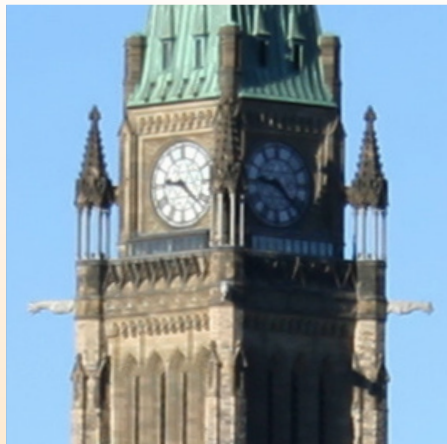
8 The shale gas revolution



21 The Lorax loves forestry



28 Artificially low tuition



40 The no-cut federal budget

8

What the shale gas revolution means for Canada

by Vanadis Iliana Oviedo

Fracking could be a “game changer” in gas markets

21

Why the Lorax loves forestry

by Todd Myers

A common interest in making sure forests grow

28

The impact of artificially low tuition

by Hugh MacIntyre

Eroding the value of education

40

The no-cut federal budget

by Niels Veldhuis, Charles Lammam, and Milagros Palacios

The 2012 federal budget calls for a \$27 billion increase in spending

49

Is capitalism dead?

by Lori Ossip

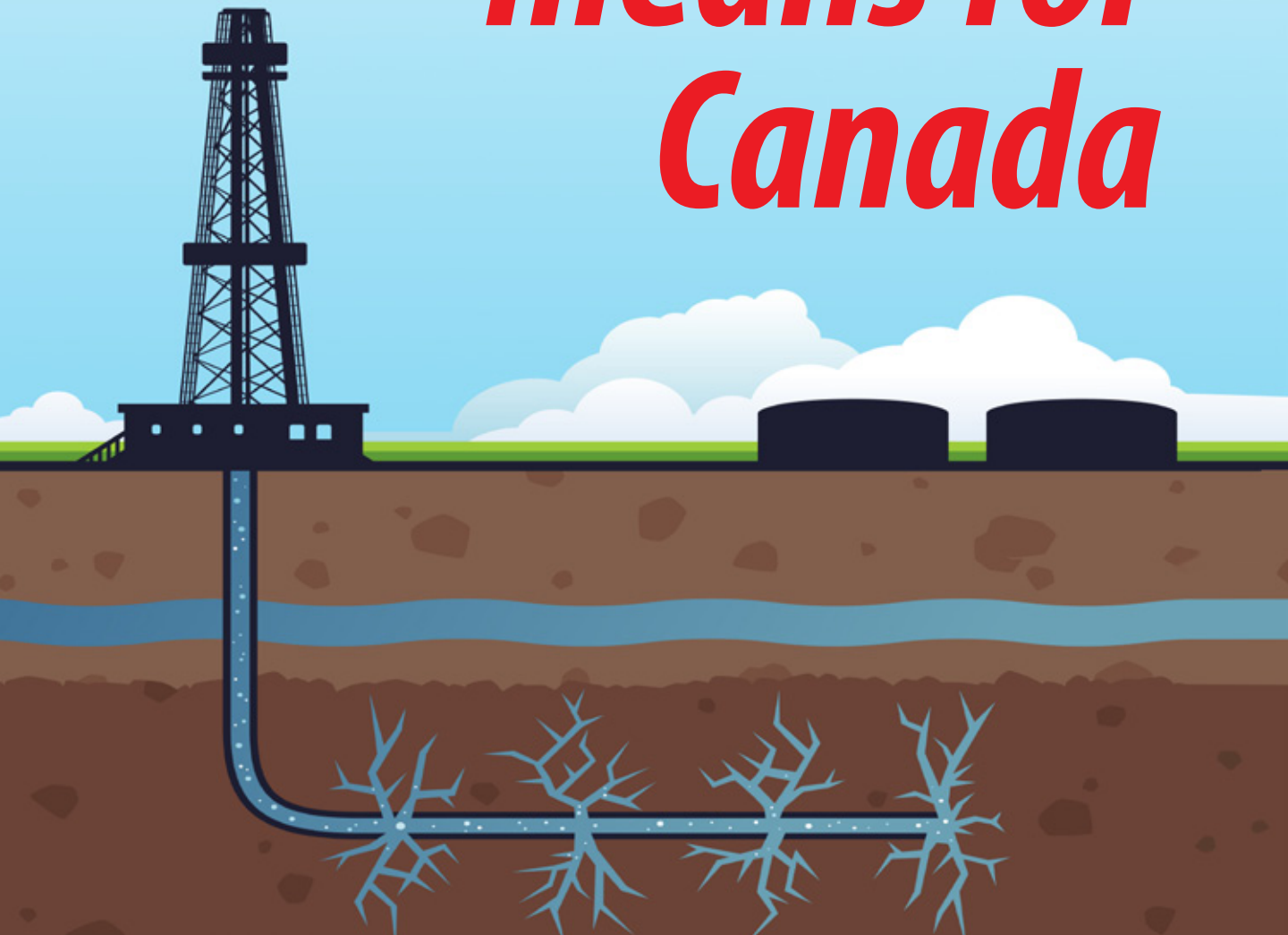
The 2011 Essay Contest high school winning entry

60

Hot topics

What’s new from the Institute

What the shale gas revolution means for Canada



Vanadis Iliana Oviedo



Natural gas has been a key part of the Canadian economy for many years. It has generated strong returns for Canadian industry and governments while providing secure and affordable energy for consumers across the country. Because of recent technological developments, shale gas is emerging as a “game changer” in the Canadian and United States gas markets, with important implications for liquefied natural gas (LNG) exports to Asian markets.

What is shale gas?

The definition of what constitutes conventional and unconventional sources of natural gas is blurred and changes with advances in technology and science. Essentially, unconventional gas is natural gas that cannot be produced at economic flow rates or in economic volumes unless the reservoir is stimulated by hydraulic fracture treatments, a horizontal wellbore,¹ multilateral wellbores, or some other access technique (Kralovic, 2011).

Shale gas is one of a number of “unconventional” sources of natural gas, including coalbed methane² and tight gas.³ Shale gas is natural gas that is embedded in shale, a sedimentary rock that was originally deposited as clay and silt. Due to the low permeability of shale, most shale gas production requires fracture stimulation. This is done by pumping “fracking” mixtures (usually water, chemicals that serve as “lubricants,” and sand or other particles to help hold open fractures in the rock that occur during the process) into a well at high pressure until the subsurface rock has multiple small fractures, releasing the gas (National Energy Board, 2009). This is commonly known as hydraulic fracturing or “fracking” process.

As a result of technological breakthroughs, the emergence of shale gas has transformed the supply and price outlooks for natural gas and the competition among energy options since 2000. For example, shale gas accounted for only 1 percent of US natural gas supply in 2000. Today, it accounts for more than 20 percent and it is estimated to reach 50 percent by 2035 (CERA, 2010).





iStock



An abundant natural gas resource shifts the choices for power generation technologies to meet both growing demand for electricity and the closure of aging power plants. If compared to coal-fired power plants, it may deter greenhouse gas emissions (GHG) and it could also have an effect on transportation fuels [compressed natural gas (CNG) for light and heavy-duty vehicles]. The shale gas revolution has lowered the natural gas price outlook and made gas more competitive

while encouraging higher expectations for security of supply.

Canadian shale gas resource potential

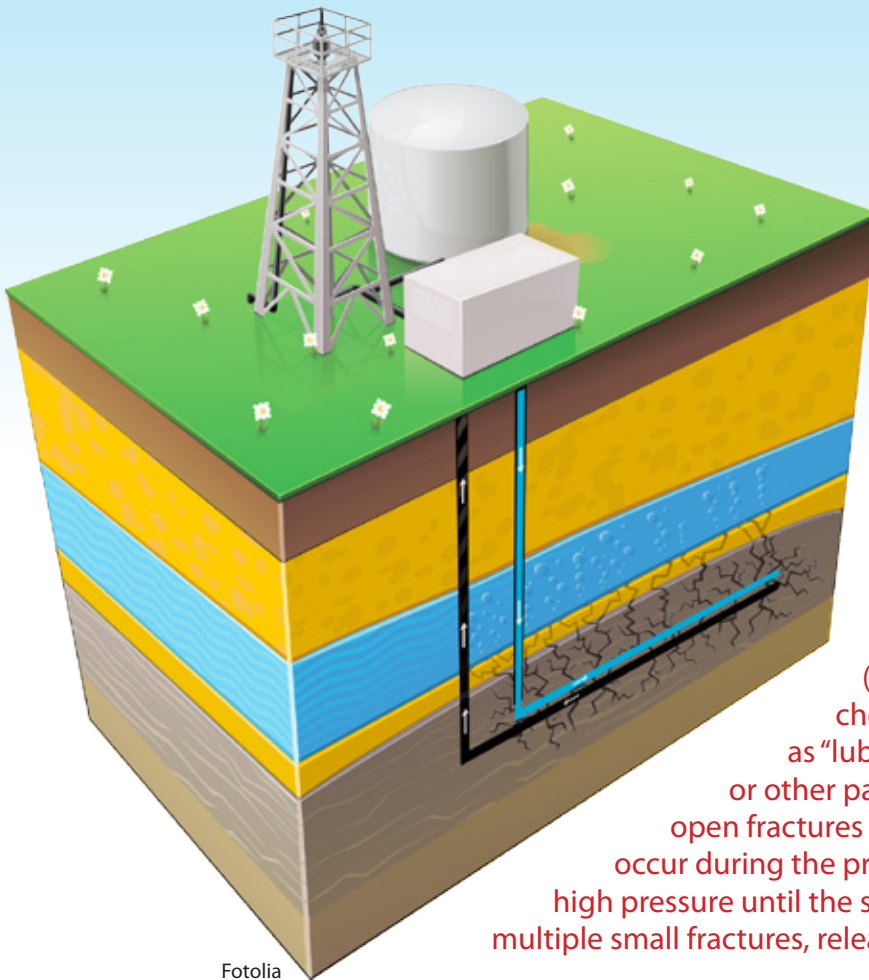
Canadian production of conventional natural gas⁴ has been declining and is expected to continue to decline as production from new wells fails to offset drops in production from mature wells. The National Energy Board⁵ predicts that conventional natural gas production will decrease from 5.9 billion cubic feet a day (Bcfd) in 2011 to 2.5 Bcfd in 2035. In response, the industry has been shifting its exploration focus towards

unconventional natural gas, such as shale gas (National Energy Board, 2009). As a result, shale gas will likely play a large role in mitigating the effects of declining conventional production on total gas production in Canada (Kralovic, 2011).

According to the latest National Energy Board estimates, Canada has some 98 trillion cubic feet (Tcf) of remaining marketable⁶ shale gas resources (National Energy Board, 2011a). Most of this—about 92 percent—lies in the Montney and Horn River basins in northeast British Columbia. Significant volumes are also thought to exist in the Alberta extension of the Montney formation, Quebec's Lower St. Lawrence River basin (part of the Utica formation that extends northwards from New York State), and New Brunswick and Nova Scotia. While there has been some exploratory drilling in Quebec and New Brunswick, to date Canadian commercial shale gas production has only occurred in British Columbia.

However, it appears that there could potentially be as much as 1,000 Tcf of shale gas in place⁷ within Canada, if not more (National Energy Board, 2009). In British Columbia, the BC Oil and Gas Commission estimates that the province has at least 250 Tcf of shale gas potential (BC Oil and Gas Commission, 2010). Because gas shales are still in the initial stages of evaluation across Canada, there is high uncertainty and calculating more rigorous resource estimates is precluded at the current time.

In terms of production, the National Energy Board recently estimated that Canadian shale gas production will increase from 0.47 Bcfd in 2011 to 4.03 Bcfd in 2035, or at



Gas extraction involves pumping "fracking" mixtures (usually water, chemicals that serve as "lubricants," and sand or other particles to help hold open fractures in the rock that occur during the process) into a well at high pressure until the subsurface rock has multiple small fractures, releasing the gas.

a compound annual growth rate of 9 percent. Shale gas is expected to account for up to 24 percent of total Canadian gas production in 2035.

Environmental challenges of shale gas development

There are some legitimate environmental concerns with the specialized techniques used to exploit shale gas. For example, there is potential for a heavy draw on freshwater resources because of the large quantities required for hydraulic fracturing fluid. Also, there is potential for a high



iStock

carbon footprint through emissions of carbon dioxide (CO₂), a natural impurity in some shale gas (National Energy Board, 2009). However, the land-use footprint of shale gas is not expected to be much more than that of producing conventional natural gas as advances in horizontal drilling technology allow for ten or more wells to be drilled from the same wellsite.

Environment Canada contends that further work is needed to assess the risks associated with shale gas development, including quantity of water used, surface and groundwater contamination, and emissions of greenhouse gases and air pollutants from shale gas facilities (Environment Canada, 2011). To address some of these issues, Environment Canada and Natural Resources Canada are reviewing the shale gas regulatory framework, especially requirements pertaining to the storage and disposal of wastewater. At the provincial



Bigstock

Processing and transport systems are essential to ensuring that market demand is met.

level, Quebec is undertaking a strategic environmental assessment of hydraulic fracturing operations and production has been temporarily suspended pending the outcome of the assessment. Fracking has also been the subject of scrutiny in other provinces. For example Nova Scotia, which has no shale gas production yet but significant potential, has been undertaking an environmental review and expects to release a series of recommendations in the near future.

Natural gas companies also recognize that there are several ways to manage the use of fracturing fluids and water usage. In September 2011, the Canadian Association of

Petroleum Producers (CAPP) released the “Guiding Principles for Hydraulic Fracturing,” which obligates members to construct sound wellbores, use fresh water alternatives (including recycling) where possible, report water information voluntarily, disclose fracturing fluid information, and make technical advancements and collaborate. In January 2012, CAPP announced new Canada-wide hydraulic fracturing operating practices designed to improve water management and water and fluids reporting with respect to shale gas and tight gas production (Ewart, 2012). These operating practices support the guiding principles for hydraulic fracturing and strengthen the industry’s focus on continuous performance improvement.

The opportunity cost of shale gas exports

The immense shale gas supply potential in British Columbia, together with the considerable increase in US gas production from the shale gas revolution there, has caused companies with large shale gas resource holdings in BC to turn their attention to the Asian Pacific market (i.e., Japan, South Korea, China, Taiwan) for liquefied natural gas (LNG) instead of US gas markets which are accessible by pipeline. Liquefied natural gas is natural gas (predominantly methane) that has been converted temporarily to liquid form for ease of transportation or storage. Then, it is regasified and distributed as pipeline natural gas. For exports to Asian markets, LNG shipments by tankers are the only available option.

LNG prices in most contracts in Asian Pacific countries are indexed to the Japanese Customs Cleared (JCC) price for crude oil imports. Because LNG prices are approximately 90



percent of the price of oil on an equivalent heating value basis, they have been and continue to be considerably higher than gas prices in North America (Poten and Partners, 2010). Strong growth in the demand for natural gas in the Asian Pacific countries will likely help to sustain LNG prices, mainly as a needed energy source for electric generation but also for distribution to residential, commercial, and industrial consumers (US Energy Information Administration, 2011).

Canadian LNG exports would allow gas producers to capture established price differentials in natural gas pricing between North America and Asia. Recent data show Japanese customers paying over \$US15.45 per thousand cubic feet (Mcf) for liquefied natural gas, while suppliers in western Canada are only getting the equivalent of \$US3.38/Mcf. However, Canadian producers would not realize the full \$12.07/Mcf price differential (Tertzakian, 2011). Among other factors, the cost of transporting gas to the west coast (about 70 cents); converting it to LNG at a facility such as that proposed for Kitimat (about \$3.00); and transporting it to Asia (i.e., Japan) (another 85 cents); would have to be deducted. But the net results are nonetheless likely to be highly attractive.

In 2011, the National Energy Board granted export licenses to the proponents of two BC LNG export projects (Kitimat LNG and BC Export Coop LNG) and construction of the pipeline facilities to transport the gas to liquefaction facilities on the coast will likely start soon. These projects, providing conduits for at least 560 billion cubic feet of gas per year, will be just the beginning.

Conclusion

Canada has benefited enormously from a successful natural gas industry and will continue to do so as long as it sustains a supportive public policy environment. Much of this policy environment should ensure that shale gas can be developed in light of existing supply sources, markets, environmental imperatives, and technology opportunities. In turn, this will ensure that Canadians can enjoy employment benefits from the development of natural gas resources, improved living standards, economic opportunities, and sound sustainable development.

Notes

- 1 A wellbore is a hole that is drilled to aid in the exploration and recovery of natural resources including oil, gas, and water.
- 2 Coalbed methane is a form of natural gas extracted from coal beds.
- 3 Tight gas is natural gas found in reservoirs with low porosity and low permeability.
- 4 Conventional natural gas is extracted from geologic formations that give rise to petroleum deposits and formations with similar characteristics. These formations are generally several thousand feet below the earth's surface. Petroleum is often produced in association with conventional natural gas.
- 5 The National Energy Board is an independent economic regulatory agency that mainly regulates the construction and operation of oil and natural gas pipelines crossing provincial or international borders. The Board approves pipeline traffic, tolls, and tariffs under the authority of the *National Energy Board Act*.



6 Remaining marketable reserves are initial reserves minus cumulative production. Marketable refers to gas volumes that are technically recoverable under current market conditions. The marketable volume is the gas volume that can be inserted into pipelines for sale (National Energy Board, 2011b)

7 Gas in place refers the total volume of natural gas in an underground rock formation.

References

British Columbia Oil and Gas Commission (2010). *British Columbia's Oil and Gas Resources – Quick Reference*. BC Oil and Gas Commission.

Canadian Association of Petroleum Producers (CAPP) (2011). *Guiding Principles for Hydraulic Fracturing*. CAPP. <<http://www.capp.ca/getdoc.aspx?DocId=195096&DT=NTV>>, as of May 4, 2012.

CERA (2010). *Fueling North America's Energy Future: The Unconventional Natural Gas Revolution and the Carbon Agenda*. IHS Cambridge Research Associates. <<http://www.decc.gov.uk/assets/decc/what%20we%20do/global%20climate%20change%20and%20energy/international%20energy/policy/1296-ihc-cera-special-report.pdf>>, as of May 11, 2012.

Environment Canada (2011). *Memorandum to the Minister: Regulation and Environmental Impacts of Shale Gas in Canada (MN-144492)*. Environment Canada. <<http://www.propublica.org/documents/item/279805-environment-canada-shale-gas-memo>>, as of May 4, 2012.

Ewart, Stephen (2012, January 26). CAPP develops operating practices for natural gas fracking. *Calgary Herald*. <<http://blogs.calgaryherald.com/2012/01/26/capp-develops-operating-practices-for-natural-gas-fracking-2/>>, as of May 4, 2012.

Kralovic, Paul (2011). *North American Natural Gas Markets Dynamics: Shale Gas Plays in North America – A Review*. Study No. 123

(February). Canadian Energy Research Institute. <<http://www.ceri.ca/images/stories/Shale%20Gas%20Plays.pdf>>, as of May 4, 2012.

National Energy Board (2009). *A Premier for Understanding Canadian Shale Gas*. Energy Briefing Note (November). National Energy Board. <<http://www.neb.gc.ca/clf-nsi/rnrgynfmtn/nrgyrprt/ntrlgs/prmrndrstndngshlgs2009/prmrndrstndngshlgs2009-eng.pdf>>, as of May 4, 2012.

National Energy Board (2011a). *Canada's Energy Future: Energy Supply and Demand Projections to 2035*. National Energy Board. <<http://www.neb-one.gc.ca/clf-nsi/rnrgynfmtn/nrgyrprt/nrgyftr/2011/nrgsppldmndprjctn2035-eng.pdf>>, as of May 4, 2012.

National Energy Board (2011b). *Ultimate Potential for Unconventional Natural Gas in Northeastern British Columbia's Horn River Basin*. National Energy Board.

Poten and Partners (2010). *2015-2035 LNG Market Assessment Outlook for the Kitimat LNG Terminal*. Poten and Partners.

Tertzakian, Peter (2011, October 17). Load up the LNG Camels. *Calgary Herald*. <<http://blogs.calgaryherald.com/2011/10/17/load-up-the-lng-camels/>>, as of May 4, 2012.

US Energy Information Administration (2011). *International Energy Outlook*. US Energy Information Administration. <<http://www.eia.gov/forecasts/ieo/pdf/0484%282011%29.pdf>>, as of May 4, 2012. ■



Vanadis Oviedo is an intern for the Global Resource Centre at the Fraser Institute. She holds a BA in Economics from Andres Bello Catholic University in Venezuela and completed her MSc in Sustainable Energy Development at the University of Calgary in 2010.



Universal Pictures

WHY THE LORAX LOVES FORESTRY

Todd Myers

“From outside in the fields came a sickening smack of an axe on a tree. Then we heard the tree fall. The very last Truffula tree of them all.”

—From *The Lorax*, by Dr. Seuss

This spring, a motion picture version of Dr. Seuss’s book *The Lorax* hit the big screen with a not-so-subtle environmental message about the threat timber harvesting poses to the

environment. Published in 1971, the book tells the story of a business, led by the “Once-ler,” that cuts down all the trees in the Truffula forest, destroying wildlife habitat, the air, and water in the process.

The Lorax, a friendly, furry creature that “speaks for the trees,” announces what he thinks has caused this catastrophe, scolding the businessman, “Sir, you are crazy with greed.”

Forty years after the book was published, however, a different story has been written in forests across the globe. Rather than being at odds, the Once-ler and the Lorax have found a common interest in making sure forests grow and expand—and many of the world’s forests have benefited.



Universal Pictures

In the industrialized world, instead of the scarcity Seuss predicted, forests are plentiful.

Last year was the International Year of the Forest according to the United Nations and, over the last two decades, total land area covered

by forest in the Northern Hemisphere—where forestry is particularly active—has increased.

Despite the implication that economic growth, or as Seuss has the Once-ler say, “biggering, and biggering, and biggering,” would lead to environmental destruction, the nations where growth has been most steady are the ones enjoying the best environmental outcomes.

Not only are nations in the Northern Hemisphere seeing forestland expand, but wood is increasingly recognized as one of the most environmentally friendly building materials.

At the University of Washington, researchers compared the environmental impact of building with either wood, concrete, or steel. The hands-down winner for lower energy use, less waste and less water use, was wood. While concrete and steel can be mined only once, trees are constantly replacing themselves.

A DIFFERENT STORY HAS BEEN WRITTEN IN FORESTS ACROSS THE GLOBE

**THERE ARE
MORE TREES
IN AMERICAN
FORESTS
TODAY THAN
THERE WERE
JUST A FEW
DECADES AGO**



Universal Pictures

One thing Seuss got right was that once the Once-ler cut all the trees down, his business went down with them. Foresters understand this. Destroying a forest by cutting down every last tree makes no sense, and so there are more trees in American forests today than there were just a few decades ago.

Indeed, the economic value of the trees ensures forests are replanted and available for wildlife and future generations. Even companies not planning on harvesting in 60 years recognize that land with 20-year-old trees is more valuable than land with no trees at all. Replanting isn't just good for the environment, it's good for business.

This is not to say the world's forests are forever safe, or to dismiss the impact deforestation has on the environment. The enemy in these areas, however, is more likely to be

poverty than industry. Few people realize the most common use for trees across the globe is as firewood to heat a home and cook a meal. These trees are not cut down by machines, but by people struggling to meet their daily living needs.

It is true that government regulation of forestry is stricter today than it was forty years ago. It is also true, however, that we are still harvesting a significant amount of wood in the Northern Hemisphere, while preserving vast areas for future generations. Sawmills are making the most of every part of the tree, literally using lasers to measure the best way to saw the log. Technology has made effective regulation possible by using every tree wisely and limiting short-term pressures to overharvest.

Forty years after he sprang from the imagination of Dr. Seuss, the Lorax would be happy to see that, far from disappearing, many forests today are thriving. They are there because the real story of the forests has not been about an unending battle between the fictional Lorax and the hard-hearted Once-ler, but a friendship that understands that both benefit from healthy forests that future generations can enjoy. ■



Todd Myers is the environmental director at the Washington Policy Center. He has more than a decade of experience in environmental policy and is the author of the book Eco-Fads: How the Rise of Trendy Environmentalism Is Harming the Environment.

Past presentations:



The myths and realities of the HST

Charles Lammam

Associate Director, Centre
for Tax and Budgetary Policy,
Centre for Economic Prosperity



Fiscal advice for the new government

Niels Veldhuis

President, Fraser Institute

ASK THE

We are excited to announce **Ask the Expert**—a new live-streaming video and audio broadcast that will be featured on our website every couple of months.

Fraser Institute research staff will give a short presentation on a topic that examines economics, political theory, or philosophical issues. You can then join the discussion by asking questions and having them answered live!

Topics could include:

- **HST**
- **Globalization**
- **Education**
- **Economic stimulus**
- **Health care reform**

Details about upcoming events and previous presentations can be found on our website:

AskTheExpertInfo.org



The impact of artificially low tuition



Hugh MacIntyre

It is a commonly held idea that education is a path to prosperity and there is a great deal of theoretical and empirical evidence to support this idea. As a result, over the past few decades it has become common for governments around the world to implement policies aimed at increasing access to education, with the hope that this will result in greater prosperity. One of the most frequently utilized mechanisms for increasing access is to lower the cost of tuition compared to the market price. This includes subsidies to the students such as government



Shahk

For students interested in a career, protests for lower tuition may be counterproductive



Tina

In Quebec, students pay less tuition than in any other North American jurisdiction

loans or debt relief. It also includes more direct approaches such as setting a maximum amount that can be charged. The goal of these policies is to establish a cost for education that is lower than it otherwise would have been. This has succeeded in increasing the number of students enrolled in higher education, but it has also had a serious adverse effect on the value of that education.

Institutional education traditionally provides students with significant value. There is the inherent value that many individuals place on learning and education but there is also the investment in acquiring new marketable skills. There is an expectation that the skills gained from education will increase the individual's lifetime earning power.

There is also a value for employers who seek skilled and reliable workers. The credentials offered by an educational institution provide the employer with signals of how productive a new employee will be. An employer, for example, would be able to reasonably presume that a potential employee with an engineering degree has a certain level of knowledge in a particular engineering field. This greatly aids employers when selecting their workforce but the value for both students and employers diminishes if the cost of tuition is artificially low.

It is true that in many jurisdictions the price of tuition is increasing but the reality is that the increase has not brought the cost up to market prices. In Quebec, students pay less in tuition than in any other North American jurisdiction. The Quebec government has announced that they will increase post-secondary tuition but the proposed cost will still be significantly less than in other jurisdictions. Therefore, it is certain that Quebec students will continue to pay less than the full market cost of their education. The only way to ensure that students are paying the full market cost is to end all subsidies or price setting in the education market.

Value for students

Many students are finding less value in their education and educators have noted that post-secondary students are increasingly disengaged and uninterested in vigorous academic work (Trout, 1997 and Leef, 2008). At the same time, the return on an individual's investment into education is declining. A Bachelor's Degree is no longer a

guaranteed path to a prosperous career and is of less value to an ambitious individual. Both of these declines in value can be traced to government subsidies and price setting that artificially lower the cost of tuition.

There is an old adage that states that people do not value what they do not pay for. In the case of education, this adage appears to be holding true. According to a study conducted by Sahin, there is a strong relationship between the cost of tuition and the effort that students place on their studies (2004). If tuition is lower, then a greater proportion of the student population will opt to spend more time in leisure activity. Even the students that are more highly motivated show a decreased effort in schoolwork. Sahin found that,

...subsidizing tuition creates two distinct adverse effects on human capital. First a low-tuition, high subsidy strategy causes an increase in the ratio of less able and less highly-motivated students among college graduates (the composition effect of tuition subsidies). Secondly, all students, even the more highly motivated ones, respond to lower tuition levels by decreasing their effort levels (the disincentive effect of tuition subsidies). (Sahin, 2004: 4)

The disincentive effect that Sahin found is not difficult to explain. If a student or a student's parents pay less for education, there is less of a risk if their investment does not pay off. A student is therefore less likely to be concerned with ensuring that the payoff is high and less willing to sacrifice leisure activity. As a result, the relative value of the education for many students falls in comparison to other activities.

There is a strong relationship between the cost of tuition and the effort that students place on their studies



Bigstock

The payoff gained through education in terms of increased earning potential is also on the decline due to below market tuition costs. It is true that statistics consistently show that individuals with more education, as a group, have a higher median income than those with less. Leef challenges the significance of these statistics by pointing out that an increasing number of post-secondary graduates are attaining jobs that do not require their level of education (2008). He further points out that the current median income is not a reliable predictor of future results.

That statistic includes many people who earned their degrees decades ago, before the erosion of standards. Looking at such statistics does not tell us anything about the probable results of putting a marginal student

through college today. Many of them learn little, enter a labor market glutted with others who have low-grade college credentials, and settle into jobs that could be done by an average high school student. (Leef 2008).

The point that Leef makes about the labour market being “glutted” with post-secondary graduates is crucial to explaining the problem. Carneiro, Heckman, and Vytlačil performed a study in the United Kingdom that showed a relationship between the proportion of the population enrolled into higher education and the marginal return on education (2009). They found that the larger the proportion of post-secondary attendees, the smaller the financial payoff on education. This phenomenon is simple to explain: The lower than market tuition cost has caused an oversupply of workers educated in certain fields, which is driving down the price that the workers can sell their skills at. The value of investing in gaining such skills and education is thus reduced.

Value for employers

The primary value of an institutional education system for an employer is that it acts as a signal that aids them in making assumptions about the capabilities and usefulness of the potential employee based on the degree or diploma obtained. It can be as simple as signaling that the individual has specific skills or knowledge. For example, a MD signals that the individual has scientific medical knowledge. It could also be a more general signal of the work ethic and commitment of the individual. In either case the value of the



Bigstock

Employers base hiring on the quality of an applicant's education. Low tuition signals lower educational standards.

signal is reliant on the educational standards established by the institution that the potential employee has attended.

Betts models the relationship between educational standards and the distribution of earnings (2009). He found that the higher the standards, the greater the award to those that completed an institutional education, and, the lower the standards, the worst the consequences for those that did not complete such an education. This relates directly to the issue of signaling. The higher standards lead employers to “correctly perceive the average quality

of [graduates] to be rising, and adjust wages upwards” (Betts, 2009). At the same time if the standards are low, not graduating creates a perception of extremely low quality.

Logically, the reverse of this must also be true. If the standards are low it does not create a strong perception of quality in graduates. For example, if the requirement to graduate does not include a specific standard of literacy, the employer would not be able to discern the level of literacy of the graduate. The usefulness of a degree or diploma as a signal of competence is thus greatly diminished by a lowering of educational standards.

There is also a connection between low educational standards and an artificially low tuition. As demonstrated in the previous section, a low tuition decreases the student’s interest in rigorous academic learning. As a consequence, many students have strong preferences for easier courses and are critical of demanding teachers (Leef, 2008). The educational institutions respond to the preferences of their customers (students) and lower educational standards. The decline of standards is closely related to the student’s lack of interest in academia and thus by extension it is also related to government policies that lower tuition. By enacting policies that lower the cost of tuition below market level, the government is lowering the value of education for students which ultimately leads to the weakening of the value for employers to use education as a signal.

Conclusion

Artificially low tuition diminishes the value of education for both students and employers. For a student, the lower than market price makes even the best students less interested

in a rigorous academic learning and the credential earned does not lead to the same level of financial award as it once did. Related to both of these issues is the decline of employer's value in education as a signal of competence. By creating policies that lower tuition costs below market level, governments are not "investing" in education but are in fact diminishing its worth.

References

- Betts, Julian R. (1998). The Impact of Educational Standards on the Level and Distribution of Earnings. *The American Economic Review*, Vol. 88, No. 1: pp. 266-275
- Carneiro, Pedro, James J Heckman, & Edward J Vytlačil (2009). Estimating Marginal Returns to Education. *American Economic Review*, Vol. 101 No. 773 : 2754-2781.
- Leef, George (2008) *Are Government 'Investments' in Higher Education Worthwhile?* Library of Economics and Liberty, <<http://www.econlib.org/library/Columns/y2008/Leefeducation.html>>.
- Sahin, Ayseguil (2004). *The Incentive Effects of Higher Education Subsidies on Student Effort*. Federal Reserve Bank of New York.
- Trout, Paul (1997). Disengaged Students and the Decline of Academic Standards. *Academic Questions*, Spring. ■



Hugh MacIntyre holds an MSc in Multi-level and Regional Politics from the University of Edinburgh. His opinions have been published by a range of media outlets including National Post Full Comment, Western Standard, and The Volunteer.

CHALLENGE YOURSELF

Take part in a
Fraser Institute
FREE
student seminar
on public policy



View this **You Tube**
video to learn more at:
www.freestudentseminars.org



The no-cut federal budget

**Niels Veldhuis,
Charles Lammam,
and Milagros Palacios**



There it was on the front page of the *Globe and Mail*: “\$5.2 billion [in] total spending cuts” (2012a). The *Toronto Star* screamed, “Tories slash spending in fiscal overhaul” (2012), while CTV.ca proclaimed, “Budget to cut spending nearly \$6 billion” (2012).

Perhaps these headlines were based on a different budget than the one we found on the Department of Finance’s website. The Conservatives’ budget actually stated: “The results of the Government’s review of departmental spending amount to roughly \$5.2 billion in ongoing savings” (Canada, Department of Finance, 2012: 211).

And what will the Conservatives do with the “savings”? Spend them.



Bigstock

That’s savings, folks, not cuts. And what will the Conservatives do with the “savings”? Spend them.

In the coming fiscal year (2012/13), the Conservative government plans to spend \$245 billion (excluding interest charges on the debt).¹ From

there, program spending will increase each year over the budget’s five-year plan. By 2016/17, program spending will be some \$27 billion higher than it is today.

So how then is a \$27 billion increase in spending interpreted as a \$5.2 billion cut? It’s simple really. When the Conservatives slow the growth of spending increases, media and other pundits consider that a cut. When they find savings in one area of their \$245 billion budget and spend it in another area, they’re cutting. When they reduce planned spending some four years into the future (2015/16) from \$266 billion to \$262 billion, they’re cutting—even

though planned spending is still increasing from 2014/15 to 2015/16.

The bottom line is that whether the Conservatives decrease, increase, or keep spending constant, they are seen to be slashing it.

The \$5.2 billion in “savings” comes from departmental spending, which accounts for only about 31% of the total amount that the federal government spends on programs each year.² And even departmental spending will not be cut by the headline figure of \$5.2 billion. Rather, the \$5.2 billion in savings won’t be achieved until 2015/16 and will be a decrease in planned spending not actual year-over-year spending. As figure 1 shows, departmental spending will increase by \$2.4 billion over the next five years. Larger increases are planned for federal spending on transfers to individual Canadians and other levels of government.

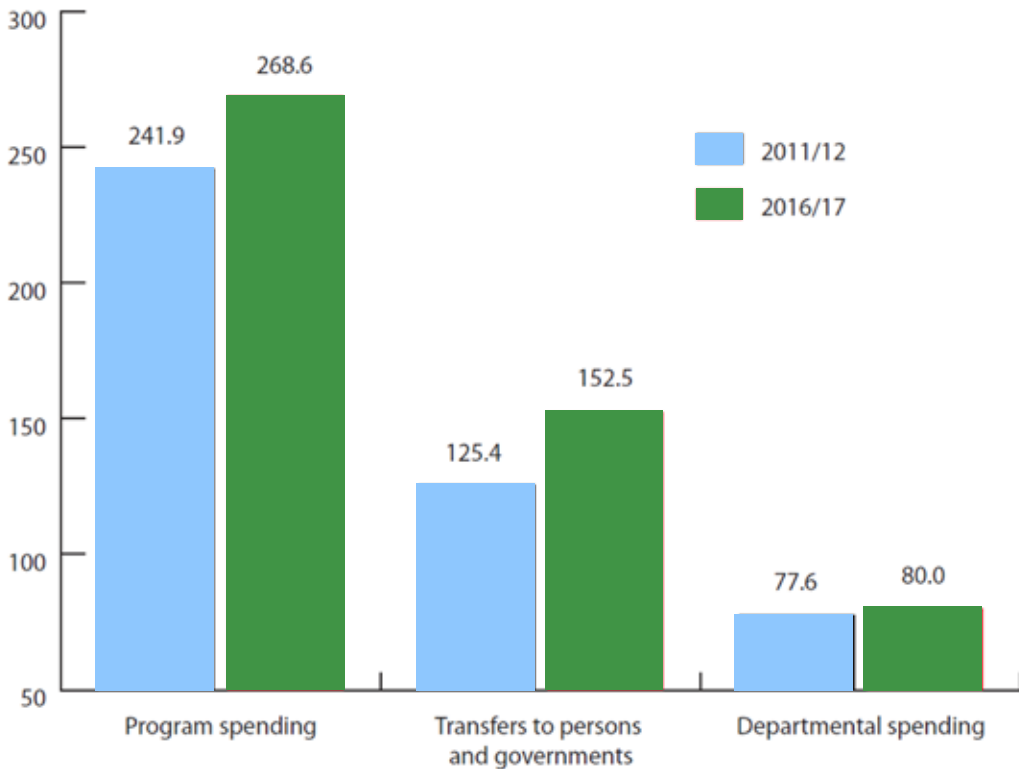
Unfortunately, Canadians are not getting an open and honest discussion about our government’s finances, the potential risks it faces, and what really needs to be done.

Consider that the *Globe and Mail’s* editorial board thought it was “a prudent, conservative budget” (2012b) and the *National Post’s* editorial board said the “budget puts Canada on the right fiscal track” (2012).

But that fiscal track is one that relies on the hope that revenues will eventually catch up to spending in order to balance the books by 2015/16. Over the next four years, the government is assuming revenue growth averaging 4.9% annually.

Even as the Canadian economy was humming along from 2002 to 2007—and outperforming most other countries

Figure 1: Where's the \$5.2 billion cut? Federal spending in 2011/12 and 2016/17



Source: Canada, Department of Finance (2012); calculations by authors.

economically—federal budgets never forecast revenue growth of that magnitude. For instance, Budget 2003 forecast average revenue growth of 4.0%; Budget 2004, 3.3%; Budget 2005, 4.2%; Budget 2006, 3.6%; and Budget 2007, 3.5% (Canada, Department of Finance, 2003-2007).

A plan that relies on overly optimistic, perhaps even unrealistic, revenue projections to grow out of deficit contains significant downside risk and almost no upside potential. If revenues don't increase as expected, the country will be left with larger deficits for a much longer time and significantly more government debt.

One slight bump in the road ahead and the government will likely be unable to meet its 2015/16 balanced budget target...



Should some adverse event occur the government will likely be unable to meet its 2015/16 balanced budget target, which is already one year later than promised in last year's election. Even the government's own estimates show that if economic growth stalls by a percentage point, the deficit will grow by about \$4 billion (Canada, Department of Finance, 2012: 251).

Instead of relying on a risky plan to balance the budget, the Conservatives should have used their majority to enact a bold and aggressive plan to balance the budget more quickly through actual reductions in spending. Doing so would have reduced the tremendous debt burden that is being passed on to the next generation of taxpayers and would have helped set the foundation for future economic growth.

A shorter timeline to a balanced budget would have also mitigated the risks associated with future economic shocks, leaving the Conservatives with the potential for enacting pro-growth economic policies. That is, if revenues rebound robustly, the government would have the fiscal room to implement a much-needed multi-year plan to reduce marginal tax rates on personal income.

While many in the media apparently think that the government delivered an austere, conservative budget, the converse is true. The 2012 balanced budget plan was almost identical to that delivered under a minority Conservative government back in 2011. We noted then that Flaherty's plan was on "shaky ground." We'll stick by that assessment now.

Notes

- 1 Unless otherwise noted, all data contained in this article is sourced from Canada, Department of Finance (2012).
- 2 Departmental spending is calculated by adding the direct program expenses line items “other operating expenses” and “operating expenses subject to freeze.”

References

- Canada, Department of Finance (2003). *The Budget Plan 2003*. Government of Canada. <<http://fin.gc.ca/budget03/pdf/bp2003e.pdf>>, as of April 2, 2012.
- Canada, Department of Finance (2004). *The Budget Plan 2004*. Government of Canada. <<http://fin.gc.ca/budget04/pdf/bp2004e.pdf>>, as of April 2, 2012.
- Canada, Department of Finance (2005). *The Budget Plan 2005*. Government of Canada. <<http://fin.gc.ca/budget05/pdf/bp2005e.pdf>>, as of April 2, 2012.
- Canada, Department of Finance (2006). *The Budget Plan 2006—Focusing on Priorities*. Government of Canada. <<http://fin.gc.ca/budget06/pdf/bp2006e.pdf>>, as of April 2, 2012.
- Canada, Department of Finance (2007). *The Budget Plan 2007—Aspire to a Stronger, Safer, Better Canada*. Government of Canada. <<http://www.budget.gc.ca/2007/pdf/bp2007e.pdf>>, as of April 2, 2012.
- Canada, Department of Finance (2012). *Jobs, Growth, and Long-Term Prosperity—Economic Action Plan 2012*. Government of Canada. <<http://www.budget.gc.ca/2012/plan/pdf/Plan2012-eng.pdf>>, as of April 2, 2012.
- CTV.ca (2012, March 29). *Budget to cut spending nearly \$6B over 3 years*. CTV News. <<http://www.ctv.ca/CTVNews/TopStories/20120329/federal-budget-flaherty-ottawa-20120329/>>, as of April 2, 2012.

Globe and Mail (2012a, March 30). Front Page. *Globe and Mail*.

Globe and Mail (2012b, March 29). A prudent, conservative budget from Harper and Flaherty. *Globe and Mail*. <<http://www.theglobeandmail.com/news/opinions/editorials/a-prudent-conservative-budget-from-harper-and-flaherty/article2386457/>>, as of April 2, 2012.

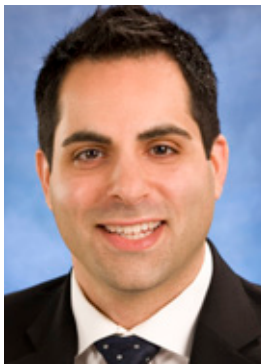
National Post (2012, March 29). Budget puts Canada on the right fiscal track. *National Post*. <<http://fullcomment.nationalpost.com/2012/03/29/national-post-editorial-board-budget-puts-canada-on-the-right-fiscal-track/>>, as of March 30, 2012.

Toronto Star (2012, March 30). Federal budget 2012: Tories pinch penny, slash spending in fiscal overhaul. *Toronto Star*. <<http://www.thestar.com/news/canada/politics/article/1153617--federal-budget-2012-tories-lay-out-canada-s-plan>>, as of March 30, 2012. ■

This article appeared in the Financial Post, March 31, 2012.



Niels Veldhuis



Charles Lammam



Milagros Palacios

Niels Veldhuis is President, Charles Lammam is the Associate Director of Tax Policy, and Milagros Palacios is a Senior Economist at the Fraser Institute.



Is capitalism dead?

The 2011 Essay Contest high school winning entry

Lori Ossip

Capitalism is often blamed for social and economic problems. People may not even know what capitalism is, yet hate it nonetheless. The recent economic recession proved no different as even some of the most highly respected academics

iStock

and institutions declared capitalism a failure (Posner, 2011). Yet it is capitalism that has helped the world reach new heights of innovation and economic progress, and it is capitalism that has turned “scarcity into abundance” (Forbes and Ames, 2009). Arguably, it is precisely the *lack* of pure capitalism which resulted from misguided government interventions that caused the economic crisis of 2008, and it is the strengthening of capitalism that will lead the world into future prosperity.



Many incorrectly assume that capitalism promotes cut-throat business practices and exploits the poor. However, capitalism, in its “recognition of individual rights” (Rand, 1967), has the effect of promoting, rather than limiting, personal and political freedom. Capitalism embraces the individualism of man and acknowledges that the right to govern oneself is a direct by-product of the right to think and function independently. In Ayn Rand’s ideal capitalist society, the government is merely an agent that exists to serve the people and protect them from physical force.

Many also incorrectly believe that the capitalist system is only powered by greed; they fail to recognize that, in reality,



Deposit

When the baker sells his bread, customers receive food necessary for survival.

a capitalist society is based upon trust and mutual benefit (Forbes and Ames, 2009). As Adam Smith pointed out in the 18th century, “[i]t is not from the benevolence of the

butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own self-interest” (Smith, 1776). In other words, a baker will only provide his customers with bread if he receives something in return (payment). But by selling the bread, the customer receives food which is necessary for survival. Capitalism thus allows a person to promote social good without necessarily setting out to do so (Morgenson, 2009). Since some people may attempt to exploit others, the government has a role to serve as a protection agency—similar to Rand’s notion of the ideal role of government—but should otherwise refrain from interfering with individuals who transact voluntarily. With government acting as a mediator, mutually beneficial transactions can be a powerful force of innovation and

entrepreneurship (Forbes and Ames, 2009). Take Henry Ford, for example. Ford took a luxury (and scarce) item—the car—and made it affordable and accessible for everyone. Although this innovation may have been motivated by Ford’s individual gain, it was mutually beneficial for both Ford and the millions of people who were henceforth able to commute and travel more efficiently (Forbes and Ames, 2009). That capitalism fosters creativity is, arguably, one of its most valuable attributes.

Another frequent argument against capitalism is that it encourages a “dog-eat-dog” world which causes unemployment and destruction. As pessimistic as this may sound, “Creative Destruction”—a theory developed by the great economist Joseph Schumpeter in the 20th century—is precisely what makes capitalism a superior economic system. Like the concept of “survival of the fittest,” capitalism attacks the core structure of established companies and products (Schumpeter, 2008). When products do not sell well, they become obsolete and new ones are created; when old companies become complacent and are no longer profitable, they are replaced with new ones. Capitalism thus encourages innovation and economic progress by replacing old models with those that are efficient. Through intense competition and Creative Destruction, people are encouraged to create new products and improve on existing ones in order to survive and prosper (Schumpeter, 2008). In

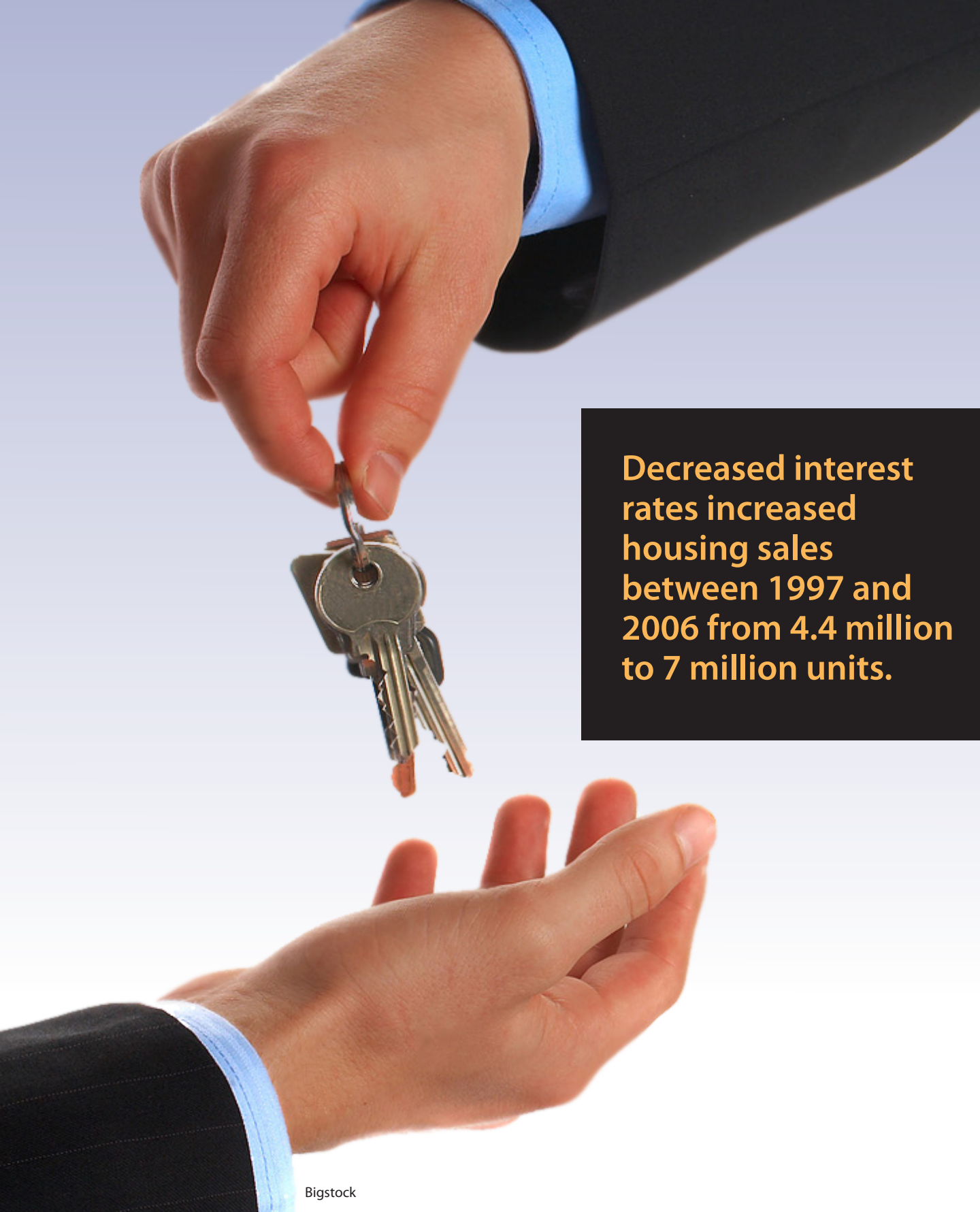
People were quick to blame capitalism for the 2008 global economic collapse.



iStock

the end, consumers benefit tremendously from this engine of economic progress through lower prices, greater choice, access to new technologies, increased efficiencies, and ultimately better living standards.

In light of the misconceptions about capitalism, people were quick to blame it for the 2008 global economic collapse. Specifically, they held “Wall Street greed” responsible and assumed that capitalism had caused the



Decreased interest rates increased housing sales between 1997 and 2006 from 4.4 million to 7 million units.

Bigstock

downward economic spiral (Forbes and Ames, 2009). This view overlooks the fact that capitalism is a natural force and that short periods of “turbulence” are normal in an ever-changing capitalist society (Wesbury, 2010). In fact, short periods of destruction may actually help restructure and improve the economy as a whole.

But to truly understand the collapse, it is necessary to examine the events that led up to the 2008 financial meltdown. In 1997, President Clinton decided that it was desirable to increase homeownership among Americans, so he enacted legislation—the Taxpayer Relief Act of 1997—that would exempt most home sales from capital gains taxation thus making homeownership more lucrative (Wesbury, 2010). Shortly after, the government helped “fuel the fire” by lowering interest rates which made financing a mortgage relatively cheaper due to decreased borrowing costs (Wesbury, 2010). In fact, the Federal Reserve decreased interest rates 13 consecutive times between 2000 and 2003 alone (Veldhuis and Mullins, 2008). There was a significant increase in housing sales between 1997 and 2006 with the number of units sold jumping from 4.4 million to 7 million (Wesbury, 2010).

Clinton also changed the Community Reinvestment Act, a legislation that had been passed by Congress in 1977 to reduce the practice of lenders discriminating against certain types of borrowers. The change required banks to use “flexible lending practices in addressing the needs of low-income neighborhoods” (Wesbury, 2010). Banks that did not comply with the legislation soon learned that the regulators would take this into account if they ever applied for approval to expand, open new branches, or merge



Investors were not warned about the risks of investing in sub-prime loans sold as securities.

iStock

with another bank (Wesbury, 2010). The legislation thus forced banks to give loans to many unqualified borrowers. Government-backed mortgage industry giants Fannie

Mae and Freddie Mac made matters worse by buying up these risky loans from the banks, thereby freeing up more money for the banks to make more loans (Veldhuis and Mullins, 2008). By 2008, Fannie and Freddie owned either directly or through mortgage pools that they sponsored, US\$5.1 trillion in residential mortgages (about half of the total US mortgage market) (Forbes and Ames, 2009). As long as house prices increased, weak lending standards could persist, and the “bubble mentality” of the sub-prime mortgages could be sustained (Forbes and Ames, 2009). Against this backdrop, Alan Greenspan, then chairman of the US Federal Reserve, managed to “create a mirage of cheap and easy money for investors and borrowers alike” —a situation which is antithetical to true capitalism (Wesbury, 2010). It was therefore government intervention—through destructive mechanisms like misguided housing policy, government-backed institutions (Fannie and Freddie), and loose monetary policy — and not capitalism, which gave rise to the financial crisis.

Simply blaming government without attributing responsibility to any other players would be as narrow-minded as simply choosing to blame capitalism. Although government intervention played a large role in causing the financial crisis, there is some merit to the claims that Wall Street shared responsibility: Investors were not warned about the risks of investing in mortgage backed securities (the sub-prime loans that had been packaged by Freddie and Fannie and sold through Wall Street as securities). In their defense, US banks were operating within a system of special rules created solely for them by the government—a system that would not have arisen were it not for misguided public policies. There was simply too much pressure on the banks from government to

issue sub-prime mortgages, and the banks—along with Wall Street—acted accordingly. By implementing policies—such as the promotion of home ownership and mortgages for people who could not really afford them—that did not allow capitalism to function naturally, the government had created a self-destructive system. Ultimate blame, therefore, cannot be diverted from the government (Wesbury, 2010).

Despite the government's role in the financial crisis, some still question the merits of capitalism and seek an alternative economic system. But does a more effective one exist? The failure of communism—once believed to be capitalism's prime alternative—has shown that the free enterprise system is far more conducive to economic progress and the production of wealth. In fact, the only way that the United States will reach new prosperous heights is by continuing to encourage private enterprise and entrepreneurship (Forbes and Ames, 2009).

Capitalism, as explained by Schumpeter, is not a stagnant concept; it will continue to evolve. Although capitalism may encounter natural setbacks, it ultimately promotes democracy, innovation, creativity, and a positive work ethic. People should not lightly forego these benefits. The time has not yet come to lose faith in the free market system. Capitalism is not dead, was never dead, and will hopefully prevail in the years to come.

References

Forbes, Steve and Elizabeth Ames (2009). *How Capitalism Will Save Us*. Crown Publishing.

- Fulcher, James (2004). *Capitalism: A Very Short Introduction*. Oxford University Press.
- Morgenson, Gretchen, Ed. (2009). *The Capitalist's Bible*. HarperCollins.
- Posner, Richard A. (2011). *A Failure of Capitalism: The Crisis of '08 and the Descent into Depression*. Harvard UP.
- Pugh, Peter and Chris Garratt (1997). *Introducing Keynesian Economics*. Icon Books.
- Rand, Ayn (1967). What is Capitalism? *The Ford Hall Forum Lectures*.
- Schumpeter, Joseph A. (2008). *Capitalism, Socialism and Democracy*. Harper Perennial.
- Smith, Adam. *The Wealth of Nations, Book I*, Chapter II, pg.19. 1776.
- Thurow, Lester C. *The Future of Capitalism*. New York: William Morrow, 1996.
- Veldhuis, Niels and Mark Mullins (2008, December). Addressing the Financial Crisis. *Fraser Forum*. <<http://www.fraserinstitute.org/research-news/research/display.aspx?id=10469>>, as of May 17, 2012..
- Wesbury, Brian S. (2010). *It's Not as Bad as You Think: Why Capitalism Trumps Fear and the Economy Will Survive*. John Wiley & Sons. ■

Lori Ossip is currently studying economics and theatre at the University of Chicago. She is actively involved as a mentor in "Moneythink"—a fiscal education program for underprivileged youth—and will be performing as a soloist in a production of "Opera Luminata" in Richmond Hill, Ontario this September.



HOT TOPICS!

Taxes versus the necessities of life: The Canadian Consumer Tax Index

The Canadian tax system is complex and there is no single number that can give us a complete idea of who pays how much tax. That said, the Fraser Institute annually calculates the most comprehensive and easily understood indicator of the overall tax bill of the average Canadian family: Tax Freedom Day. This Alert examines what has happened to the tax bill of the average Canadian family over the past 50 years.

Read the study [HERE](#)



Bigstock

Value for Money from Health Insurance Systems in Canada and the OECD

This paper compares the economic performance of Canada's health insurance system against the health insurance systems of 27 other countries that are members of the Organisation for Economic Co-operation and Development (OECD). Despite being ranked as the sixth most expensive health insurance system among OECD countries in 2009, Canada ranked below the majority of the other 27 OECD countries in almost every indicator of medical resource availability and the output of medical services for which comparable data were available.

Read the study [HERE](#)



Want to add
“published author”
to your résumé
and make a little **cash**?
Send us your writing!



is looking for well-crafted articles on any economic or public policy topic. Articles should be 850-1,500 words in length and can be written in many styles, including academic essays, book reviews, or journalistic commentaries. It is critical that you support your facts with references, and that you submit clean copy, free of spelling or grammatical errors. All writing will be subject to the peer-review process.



Bigstock

Selected authors will receive **\$200**

If you think you've got what it takes,
submit today and submit often!

Questions and article attachments
should be sent to:

lindsay.mitchell@fraserinstitute.org