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Canada-U.S. Relations

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Summary

Relations between the United States and Canada have generally been cordial. Bound together by a common 5,500 mile border—"the longest undefended border in the world"—as well as shared democratic traditions, the two countries are also increasingly integrated economically through the North American Free Trade Agreement (NAFTA).

The two North American countries continue to cooperate widely on international security and political issues, both bilaterally and through numerous international organizations. Canada's foreign and defense policies are usually in harmony with those of the United States. Areas of contention have been relatively few, but sometimes sharp, as was the case with policy toward Iraq. Since September 11, 2001, the United States and Canada have cooperated extensively on efforts to strengthen border security and to combat terrorism, particularly in Afghanistan. Both countries were also active participants in the U.N.-sanctioned North Atlantic Treaty Organization (NATO) mission in Libya and currently are members of the coalition to combat the Islamic State.

The United States and Canada maintain the world's largest bilateral trading relationship, one that has been strengthened over the past three decades by the approval of two major free trade agreements. Although commercial disputes may not be quite as prominent now as they have been in the past, the two countries in recent years have engaged in difficult negotiations over items in several trade sectors, including natural resources, agricultural commodities, and intellectual property rights. These disputes, however, affect a small percentage of the total goods and services exchanged. In recent years, energy has increasingly emerged as a key component of the trade relationship, with the construction of the Keystone XL pipeline emerging as a major source of contention. In addition, the United States and Canada work together closely on environmental matters, including monitoring air quality and solid waste transfers, and protecting and maintaining the quality of border waterways.

Many Members of Congress follow U.S.-Canada environmental, trade, and trans-border issues that affect their states and districts. Since Canada and the United States are similar in many ways, lawmakers in both countries also study solutions proposed across the border on such issues as federal fiscal policy and federal-provincial power sharing.

This report, divided into two major parts, begins with an overview of Canada's political situation, foreign and security policy, and economic and trade policy, focusing particularly on issues that may be relevant to U.S. policymakers. The second part of the report consists of essays on a wide array of current bilateral issues. These include foreign and security policy issues, such as Canada's arctic sovereignty claim, Canada's resettlement of Syrian refugees, border security, and cybersecurity cooperation. The report also examines trade issues such as the Trans-Pacific Partnership, North American cooperation on competitiveness, intellectual property rights, and softwood lumber. Several bilateral issues involving energy, the environment, and natural resource use are also addressed, including the Canadian oil sands, climate change, a proposed radioactive waste repository near Lake Huron, the Columbia River Treaty, and ballast water management. Each of the essays concludes with questions designed as potential inquiries to Canadian officials to promote thought and discussion among policymakers.

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Introduction

History, proximity, commerce, and shared values underpin the relationship between the United States and Canada. Americans and Canadians have fought side-by-side in both World Wars, Korea, and Afghanistan. As a founding member of the North Atlantic Treaty Organization (NATO), Canada contributed substantially to the alliance during the Cold War, and more recently in the Libya and Afghanistan conflicts. The U.S. and Canadian armed forces engage in close cooperation, both in defense of North America and in overseas missions. The countries share "the longest undefended border in the world" although heightened security concerns after 9/11 have led to stricter border controls.

The United States and Canada also share one of the largest commercial relationships in the world with nearly $1.6 billion of trade crossing the border each day and with the two nations maintaining substantial investments in each other's economies. Economic integration has resulted from the North American Auto Pact of 1965, the U.S.-Canada Free Trade Agreement of 1988, and the North American Free Trade Agreement (NAFTA) of 1993.

Canada is a constitutional monarchy with Queen Elizabeth II as sovereign. In Canadian affairs, she is represented by a Governor-General (since 2010, David Johnston), who is appointed on the advice of the prime minister. The Canadian government is a parliamentary democracy with a bi-cameral Westminster-style Parliament: an elected House of Commons and an appointed Senate, with 338 Members of Parliament and 105 Senators. At elections, the party that wins the largest number of seats in the Commons is called upon to form a government. Canada consists of 10 provinces and 3 territories, each governed by a unicameral assembly.

Relations between the two countries are generally cordial, but can be strained from time to time by individual issues, such as with the Keystone XL pipeline recently, or Canada's decision not to participate in the Iraq war in 2003. Unlike many countries, whose bilateral relations are conducted solely through foreign ministries, the governments of the United States and Canada have deep relationships, often extending far down the bureaucracy, to address matters of common interest. Initiatives between the provinces and states are also common, such as the 2013 Pacific Coast Action Plan on Climate and Energy between California, Oregon, Washington, and British Columbia, or various Great Lakes initiatives.

With a population and economy one-tenth the size of the United States, Canada has always been sensitive to being swallowed up by its southern neighbor. Whether by repulsing actual attacks from the United States during the War of 1812, or by resisting free trade with the United States for more than the first century of its history, it has sought to chart its own course in the world, yet maintain its historical and political ties to the British Commonwealth. Some in Canada question whether U.S. investment, regulatory cooperation, border harmonization, or other public policy issues cede too much sovereignty to the United States, while others embrace a more North American approach to its neighborly relationship.

Living next to you is in some ways like sleeping with an elephant. No matter how friendly and even-tempered is the beast, if I can call it that, one is affected by every twitch and grunt.

—Pierre Elliott Trudeau, Prime Minister of Canada, 1969.

Canada's Political and Economic Environment

Current Political Situation

Justin Trudeau was sworn in as Canada's prime minister on November 4, 2015. His Liberal Party won a majority in the House of Commons in October 2015 parliamentary elections, defeating Prime Minister Stephen Harper's Conservative Party, which had held power for nearly a decade. The Liberals have quickly moved forward with their policy agenda, enacting several domestic reforms and reorienting Canadian foreign policy. Trudeau continues to enjoy significant popular support seven months after assuming office. His government will last as long as it can command a parliamentary majority for its policies, for a maximum of four years.

2015 Parliamentary Elections

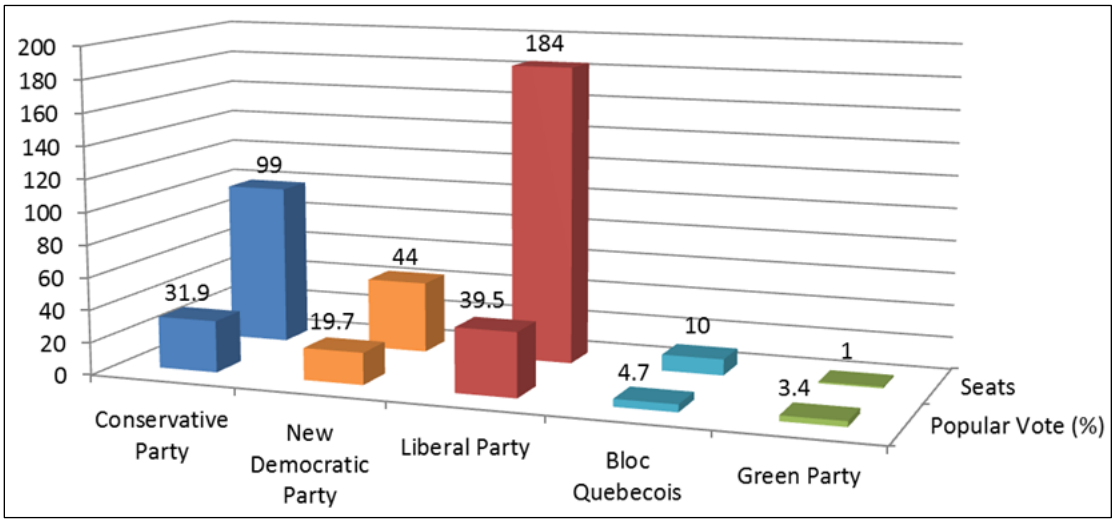
Prime Minister Stephen Harper's Conservative Party entered the 2015 election campaign having governed Canada for nearly a decade. The party first came to power in 2006, just three years after it was established as a result of the unification of the Progressive Conservative party and the Canadian Alliance—a fiscally conservative, western Canadian faction dissatisfied with the eastern tilt of the traditional parties. The Conservatives formed a minority government after the 2006 election, and again after a snap election in 2008, but gained a majority in Parliament in the 2011 election. Harper and the Conservatives campaigned on their management of the economy following the 2008 financial crisis and their enactment of anti-terrorism legislation following the Parliament Hill shootings of October 2014, in which a radicalized individual fatally shot a Canadian soldier and then fired multiple times in the Parliament building before being killed. Many of Harper's initiatives were controversial outside of his political base, however, and the contraction of the Canadian economy during the first half of 2015 as a result of the decline in the price of oil further eroded support for his party.

Given fatigue with Harper and unease about the economy, many voters reportedly based their decision on which party had the best chance to defeat the Conservatives. The anti-Harper vote was divided primarily between Trudeau's Liberal Party and the New Democratic Party (NDP) led by Thomas Mulcair. The Liberal Party—long known as the "natural party of government" due to its dominance in the 20th century—had its worst showing ever in 2011, when it placed a distant third and was supplanted by the NDP as the main left-of-center party in Parliament. Some analysts even suggested the party could disappear as Canadian politics polarized between the Conservatives and the NDP. The election of Trudeau—son of former Prime Minister Pierre Trudeau (1968-1979, 1980-1984)—as party leader helped the Liberals recover some support, but many Canadians perceived the 43-year-old as lacking experience. Mulcair and the NDP, having served as the Official Opposition, started the campaign in a stronger position and held a slight lead in the polls through the first month of the 11-week campaign. Trudeau gained momentum with better-than-expected debate performances, however, and outflanked Mulcair on the left with his signature policy proposal to stimulate the economy with three years of deficit spending on new infrastructure.

In the end, the Liberals won 184 seats, up from 34 in 2011, the largest seat gain in Canadian history. In addition to sweeping all 32 seats in the Atlantic Provinces, the Liberal Party dominated in the Toronto metropolitan area, regained its footing in Quebec, won the most seats in British Colombia since 1968, and won two seats in the Conservative stronghold of Calgary. The Conservatives won 99 seats, down from 166 in 2011, and now serve as the Official Opposition. Following Harper's resignation, Rona Ambrose was named the interim leader of the Conservatives. The NDP won 44 seats, well above its historic average, but a significant decline

from the 103 seats it won in 2011. Mulcair lost his bid to remain the leader of the NDP but retains that role on an interim basis until the party selects a new leader. The separatist Bloc Quebecois won 10 seats and the Green Party retained a single seat.

Figure 1. 2015 Election Results



Source: Elections Canada, "Forty Second General Election 2015: Official Voting Results."

Note: The House of Commons increased from 308 to 338 seats with the 2015 election.

Trudeau Government

Since taking power, Trudeau and the Liberals have advanced several portions of their policy agenda. They have been able to pass legislation relatively easily given their majority status and the weak and divided state of the opposition. The Liberals quickly fulfilled several campaign pledges, enacting a middle-class tax cut, withdrawing Canadian aircraft from combat missions in Iraq, resettling more than 25,000 Syrian refugees, and drafting a budget that includes deficit spending to fund infrastructure and other priorities. They have also banned discrimination against transgender people and established an independent board and a nonpartisan, merit-based process to advise Trudeau on candidates for Canada's appointed Senate. The Liberals are now pushing forward controversial legislation to legalize physician-assisted suicide; the Supreme Court of Canada overturned a ban on assisted suicide in February 2015, but there is currently no legislation in place to regulate it.

The Trudeau government has set up task forces or initiated policy reviews regarding several more far-reaching reforms that were included in the Liberal Party platform, likely delaying government action until at least 2017.[1] An all-party committee is studying alternatives to the country's first-past-the-post voting system, a task force led by the former police chief of Toronto is studying marijuana legalization, and the Liberals reportedly plan to carry out a public review of anti-terrorism legislation enacted by the Harper government. Trudeau has also initiated discussions with Canada's provinces and territories to develop a national plan to reduce carbon emissions and address climate change.

[1] Jeffrey Simpson, "Liberals in Action: Task Force Here, Policy Review There," *Global and Mail*, May 12, 2016.

Seven months after assuming office, Trudeau remains relatively popular. As of May 2016, polls showed that 54% of Canadians approved of the Trudeau government and 27% disapproved. Likewise, the percentage of Canadians reporting they would vote for the Liberal Party increased to 46%, up from 40% in the October 2015 election. Some 26% of Canadians reported they would vote for the Conservatives and 13% reported they would vote for the NDP.[2]

Foreign and Security Policy

Historically, Canadian foreign policy has sought to promote international peace and stability, leveraging Canadian influence through alliance commitments, multilateral diplomacy, and the development and maintenance of international institutions.[3] The Harper government broke with this tradition to a certain extent, placing greater emphasis on forging trade agreements and strengthening the Canadian military while demonstrating more skepticism toward multilateral institutions and a greater willingness to confront nations unilaterally over democracy and human rights concerns.[4] Prime Minster Trudeau has sought to quickly restore Canada's traditional approach to foreign affairs, emphasizing soft power, multilateralism, and engagement.

Economic diplomacy was the central pillar of Canadian foreign policy under Prime Minister Harper, with a focus on trade agreements and the promotion of energy exports. Since the launch of a Global Commerce Strategy in 2007, Canada has concluded or brought into force 10 free trade agreements with 50 countries, most recently the Trans-Pacific Partnership in October 2015. Building on this strategy, the Canadian government produced a Global Markets Action Plan in 2013 to "ensure that all Government of Canada assets are harnessed to support the pursuit of commercial success by Canadian companies and investors in key foreign markets ... ."[5] This emphasis on economic diplomacy also led the Harper government to dismantle the Canadian International Development Agency, placing foreign aid responsibilities under a reorganized Department of Foreign Affairs, Trade and Development,[6] and more closely tying assistance to economic development through trade.[7] While Liberal Party governments have traditionally been strong proponents of trade liberalization, economic diplomacy is likely to play a less central role in the Trudeau government's foreign policy.

During its decade in power, the Harper government sought to develop a more prominent role for the Canadian military. Canada had been one of the first countries to join the U.S. military operation in Afghanistan in 2001, and Harper reiterated his support for the mission following his ascension to prime minister in 2006. For much of the period 2006 to 2011, approximately 2,800 Canadian troops were deployed in the NATO-led International Security Assistance Force (ISAF), the fifth-largest national contingent in ISAF. Many Canadian troops served on the front line in combat operations against al-Qaeda and Taliban fighters, and 158 Canadian Armed Forces personnel were killed in Afghanistan. Canada ended its combat role in Afghanistan in 2011, but a contingent of approximately 950 troops remained until March 2014 to help train Afghan national

[2] Bruce Anderson and David Coletto, "Regrets about the Liberal Win? So Far, Voters have Few," *Abacus Data*, May 24, 2016.

[3] Jane's Sentinel Security Assessment – North America, *Canada: External Affairs*, updated May 9, 2016.

[4] John Ibbitson, *The Big Break: The Conservative Transformation of Canada's Foreign Policy*, Centre for International Governance Innovation, CIGI Papers No. 29, April 2014. (Hereinafter: Ibbitson, 2014).

[5] Foreign Affairs, Trade and Development Canada, *Global Markets Action Plan*, 2013, p. 6.

[6] The "Department of Foreign Affairs, Trade and Development" has been renamed "Global Affairs Canada" by the Trudeau government.

[7] Ibbitson, 2014.

security forces. Canadian forces also participated in the 2011 NATO mission in Libya, and have supported the U.S.-led coalition to confront the Islamic State since September 2014. The Harper government deployed 69 special operations troops to advise Kurdish *peshmerga* forces in Iraq as well as six CF-18 fighter jets, two surveillance aircraft, a refueling aircraft, and 600 personnel to support coalition air operations in Iraq and Syria.[8] In addition to these deployments, the Harper government launched an ambitious new defense strategy in 2008 and increased defense spending, though it was later scaled back (see "Defense Trends").

Prime Minister Trudeau has directed Minister of National Defence Harjit Sajjan "to ensure that the Canadian Armed Forces are equipped and prepared, if called upon, to ... contribute to the security of our allies and to allied coalition operations abroad."[9] He has also called for a renewal of Canada's commitment to international peacekeeping operations. Nevertheless, it appears as though the Trudeau government is likely to place a greater emphasis on diplomacy and humanitarian aid than military engagement.

Following through on a campaign pledge to end Canada's combat mission in Iraq and Syria, Trudeau withdrew Canada's six CF-18s, which had conducted nearly 1,378 sorties resulting in 251 airstrikes between October 2014 and February 2016.[10] Canada has continued to support coalition operations in Iraq with its refueling and surveillance aircraft, however, and recently deployed three helicopters to provide in-theater tactical transport, including medical evacuations. It has also tripled the size of Canada's train, advise, and assist mission, and has opened an all-source intelligence center. As a result of these changes, the total number of Canadian Armed Forces members deployed to the Middle East is expected to increase to 830 by the end of the summer of 2016.[11] At the same time, Canada is participating in the 17-nation International Syria Support Group that is seeking a diplomatic solution to the Syrian conflict and has pledged to provide C$1.1 billion in humanitarian and development assistance over three years to support those affected by the crisis in the region.[12] Canada has also resettled more than 27,000 Syrian refugees since Trudeau took office (see "Canada's Resettlement of Syrian Refugees").

In contrast to Prime Minister Harper's skepticism toward multilateralism, the Trudeau government has wholeheartedly embraced multilateral negotiations and institutions. Under Harper, Canada participated actively in forums such as the G7 and G20, but demonstrated less enthusiasm for the United Nations and withdrew Canada from the Kyoto Protocol on climate change in 2011. Trudeau has called on Minister of Foreign Affairs Stéphane Dion to "reenergize Canadian diplomacy and leadership on key international issues and in multilateral institutions" including international climate change negotiations and U.N. efforts to maintain peace and prevent conflict.[13] Trudeau is a strong supporter of the Paris Agreement on climate change (see "Climate Change"). He also has announced Canada's intention to seek a temporary seat on the

[8] National Defence and the Canadian Armed Forces, "Operation IMPACT – Canada's Military Engagement Against ISIL," March 24, 2015.

[9] Prime Minister of Canada Justin Trudeau, *Minister of National Defence Mandate Letter*, November 13, 2015.

[10] National Defence and the Canadian Armed Forces, "Operation IMPACT – Air Task Force-Iraq Airstrikes," http://www.forces.gc.ca/en/operations-abroad-current/op-impact-airstrikes.page.

[11] Prime Minister of Canada Justin Trudeau, "Canada's New Approach to Addressing the Ongoing Crises in Iraq and Syria and Impacts on the Region: Promoting Security and Stability," February 8, 2016; National Defence and the Canadian Armed Forces, "Canadian Armed Forces Expands Contribution to Global Coalition to Defeat ISIL," May 19, 2016.

[12] Government of Canada, Address by Minister Bibeau to the House of Commons on Canada's Contribution to the Effort to Combat ISIL," February 22, 2016.

[13] Prime Minister of Canada Justin Trudeau, *Minister of Foreign Affairs Mandate Letter*, November 13, 2015.

U.N. Security Council for the 2021-2022 term; the Harper government lost a bid for a rotating U.N. Security Council seat in 2010.

In another break with the previous government, Trudeau has pledged to reengage with nations like Iran and Russia. The Harper government, which was a particularly close and vocal supporter of Israel, was highly critical of the Iranian government's repression of its own people and sponsorship of terrorism outside its borders, and skeptical of Iran's intentions in nuclear negotiations. Canada closed its embassy in Iran, severed diplomatic relations, and imposed sanctions on the country. Canada's relations with Russia also grew increasingly strained under Harper, with the Canadian government refusing to host, or sometimes participate in, meetings that included Russian delegations following Russia's annexation of Crimea and incursion into eastern Ukraine. Current Foreign Affairs Minister Dion argues that Canada's decision to sever ties with those countries had "no positive consequences," failing to alter their behavior while diminishing Canada's influence. He asserts that the Liberal government will be guided by the principle of "responsible conviction," advocating for Canadian values abroad while engaging with governments with which the country has disagreements in order to make progress where possible.[14]

Defense Trends

The Conservative government's Canada First Defence Strategy defined three central roles of the Canadian Armed Forces: defending Canada, defending North America (with the United States), and contributing to international peace and security.[15] During sustained combat operations in Afghanistan, Canadian forces demonstrated the capability of deploying on demanding out-of-area missions for an extended period of time. They also demonstrated an ability to adapt to combat conditions in Afghanistan, including rapid procurement of needed equipment.[16] In 2012, Canada completed a major transformation of its military command structure. The reforms combined the domestic and continental command, expeditionary command, and operations support command into a single Canadian Joint Operations Command (CJOC) responsible for all armed forces operations outside of North American Aerospace Defense Command (NORAD) and special forces.[17] Since taking office, Prime Minister Trudeau has directed his Minister of National Defence to conduct a thorough review of Canada's defense policy and draft a new defense strategy.[18]

Despite some fluctuations, Canada's defense spending has been relatively flat over the past decade. NATO estimates that Canadian defense expenditures in 2015 were about C$20 billion, or 1% of GDP, down from a recent high of C$21.8 billion, or 1.4% of GDP, in 2009.[19] The Trudeau government has budgeted C$18.6 billion for defense this year.[20] NATO has long recommended that member states spend at least 2% of GDP on defense spending, and at the 2014 NATO

[14] "Stéphane Dion: On 'Responsible Conviction' and Liberal Foreign Policy," *Macleans*, March 29, 2016.

[15] The Canada First Defence Strategy is available at http://www.forces.gc.ca/assets/FORCES_Internet/docs/en/about/CFDS-SDCD-eng.pdf

[16] International Institute for Strategic Studies, *Military Balance 2013*, p. 68.

[17] National Defence and the Candian Armed Forces, "Canadian Joint Operations Command," http://www.forces.gc.ca/en/about-org-structure/canadian-joint-operations-command.page.

[18] Prime Minister of Canada Justin Trudeau, *Minister of National Defence Mandate Letter*, November 13, 2015.

[19] NATO Public Diplomacy Division, *Defense Expenditures of NATO Countries (2008-2015)*, January 28, 2016.

[20] National Defence and the Canadian Armed Forces, *Defence Policy Review: Public Consultation Document*, 2016, p.25.

summit, allied heads of state and government pledged to "halt any decline in defence expenditure" and to "aim to move towards the 2% guideline within a decade."[21]

The Canada First Defence Strategy launched a number of ambitious procurement initiatives, including new Arctic-capable patrol vessels, supply ships, and search and rescue aircraft, but many have been delayed as a result of insufficient resources. Canada's current fiscal situation and recent change in government have added further uncertainty to those initiatives.

The change in government also calls into question Canada's potential acquisition of the F-35 Joint Strike Fighter. Canada agreed to participate in the F-35 program in 2002, and the government announced plans in 2010 to acquire 65 F-35s to replace the country's fleet of 78 CF-18s in 2017. The plans became politically controversial, however, amid accusations that the government had misled the public about the cost and performance of the aircraft. In 2012, the Canadian government put the procurement process on hold in order to review the plans and potentially explore alternatives. During the 2015 electoral campaign, Trudeau vowed to pull out of the F-35 program, open a competitive procurement process for "more affordable" fighters, and invest the savings in the Royal Canadian Navy.[22] While the Trudeau government has reopened the bidding process and reportedly missed the deadline for an annual payment required to remain in the Joint Strike Fighter program, it has not ruled out ultimately purchasing the F-35s. Canada's Department of National Defence expects to award a new contract between 2018 and 2020.[23] If it opts not to purchase the Joint Strike Fighter, the price of each F-35 purchased by the U.S. military reportedly would increase by about $1 million.[24]

U.S.-Canada Defense Relations

According to the U.S. State Department, "U.S. defense arrangements with Canada are more extensive than with any other country."[25] There are over 80 U.S.-Canada defense treaties or agreements and an additional 250 bilateral memoranda of understanding pertaining to defense issues.[26] Close U.S.-Canadian defense cooperation has been long-standing. In 1940, President Franklin D. Roosevelt and Prime Minister Mackenzie King established the Permanent Joint Board on Defense, which formalized bilateral consultation on military matters and is still in operation. The two countries were founding members of NATO in 1949, and signed the North American Aerospace Defense Command (NORAD) agreement in 1958. The continental air defense pact monitors U.S. and Canadian airspace and encourages joint efforts in aerospace technologies.

In 2004, Canada and the United States amended NORAD to permit it to share warning information on incoming ballistic missiles with the U.S. missile defense system. In 2006, the two countries expanded the scope of NORAD's activities to encompass nautical surveillance. In 2008, Canada and the United States signed a Civil Assistance Plan allowing the armed forces of each country to assist one another in the event of civil emergencies such as floods, earthquakes, or the

[21] NATO, *Wales Summit Declaration*, September 5, 2014.

[22] Jason Fekete, "Justin Trudeau Vows to Ditch F-35 in Favour of 'More Affordable Fighter Jets and a 'Leaner' Military, *National Post*, September 21, 2015.

[23] Murray Brewster, "Liberals Miss Membership Payment to Stay in F-35 Consortium," *CBC News*, June 7, 2016; "Canada Could Order New Fighter Jets by 2020 – Defense Dept," Reuters, May 26, 2016.

[24] Andrea Shalal, "Pentagon Says F-35 Jet Cost to Rise if Canada, Others Skip Orders," Reuters, October 21, 2015.

[25] United States Department of State, Bureau of Western Hemisphere Affairs, *U.S. Relations with Canada*, August 5, 2015, http://www.state.gov/r/pa/ei/bgn/2089.htm.

[26] Jane's Sentinel Security Assessment – North America, *Canada: External Affairs*, updated May 9, 2016.

effects of a terrorist attack. U.S. and Canadian officials and military commanders have been examining ways to modernize NORAD's surveillance capabilities and expand its role in monitoring Arctic waters in the expectation that ice melt and commercial development in the Arctic are likely to lead to increased activity in the High North region.[27]

Canada long debated whether it should participate in the U.S. ballistic missile defense (BMD) system before deciding against it in 2005 in the face of domestic political opposition and concerns that the system could trigger a new arms race or lead to the militarization of space. Canada, therefore, does not participate in the operation of the U.S. BMD system, but Canadian forces play a supporting role because of the agreement that NORAD is to share information with U.S. BMD commands. The U.S. expansion of the BMD system, however, has raised concerns that NORAD's early warning mission may become increasingly redundant.[28] The Standing Committee on National Defence in Canada's House of Commons reexamined the issue of BMD as part of a series of hearings on "Canada and the Defense of North America," and the Trudeau government may revisit the issue as part of its ongoing defense policy review. Proponents argue that by signing off on NATO's 2010 Strategic Concept and other NATO documents, Canada has already embraced BMD as a means of protecting allied countries. They assert that the incongruities of the relationship between NORAD and the BMD system threaten to undermine the wider relevance of NORAD. Opponents argue that Canadian participation in the BMD system would likely be prohibitively expensive given other priorities and would likely have little impact on U.S.-Canada defense relations.

Border Issues

Even before the September 11, 2001 (9/11), Al Qaeda attacks on New York and Washington, DC, U.S.-Canadian border security was a key issue for both countries. Border security first became a matter of urgent concern in December 1999, when U.S. officials, acting on a tip from Canadian authorities, stopped Ahmed Ressam at the border as he was attempting to smuggle explosives into the United States. It was later discovered that Ressam had planned to bomb the Los Angeles airport, and that he had received terrorist training from Al-Qaeda in Afghanistan. Despite the fact that none of the 9/11 hijackers entered from Canada, the 2001 attacks sparked renewed debate over Canadian laws regarding the treatment of immigrants seeking refugee status or political asylum. The potential radicalization of Islamic youth in Canada continues to be a cause of concern, especially after the Parliament Hill shootings in October 2014.

Skeptics question whether determined terrorists and criminals can reliably be prevented from traversing the two countries' 5,500-mile border. They argue that efforts to strengthen border security must be balanced against competing pressures to facilitate legal travel and trade by preventing long delays at border crossings. About 80% of U.S.-Canada merchandise trade crosses the border by truck; many of these shipments are "just-in-time" deliveries, so that crossing delays can seriously disrupt manufacturing in both countries.[29] International tourism is also a key export for both countries, and each represents the other's number one tourism market.[30] Thus, both sides have strong incentives to strengthen security, and to keep goods and travel flowing.

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[27] David Pugliese, "Canada, US Eye Arctic Responsibilities for NORAD," *DefenseNews*, May 3, 2014.

[28] Joel Sokolsky, *U.S. Ballistic Missile Defense, NORAD, and the Canada Conundrum*, Bridgewater Review, 33(1), May 2014, pp. 8-11.

[29] Canadian Government Fact Sheet: A Unique and Vital Relationship, modified, June 2, 2011, http://www.canadainternational.gc.ca/can-am/offices-bureaux/welcome-bienvenue.aspx?lang=eng&view=d.

[30] U.S. Department of Commerce, International Trade Administration, *Canadian Travel to the United States 2011*, (continued...)

Particularly since the 9/11 attacks, Ottawa and Washington have taken numerous steps to improve border security, including through a series of bilateral agreements. In December 2001, they signed the Smart Border declaration that aimed at improving security and efficiency at border crossings. The agreement laid out a 30-point (since increased to 32-point) list of areas of joint activity covering air, land, and sea crossings, ranging from pre-clearance of goods and people, to biometric identifiers, to infrastructure improvements. In December 2002, the two nations signed the Safe Third Country agreement, intended to permit coordination of refugee and asylum policy. The two countries also cooperate extensively on law-enforcement activities around the border.

In February 2011, President Obama and then-Prime Minister Harper signed the Beyond the Border declaration, which described their shared visions for a common approach to perimeter security and economic competitiveness. The 2011 agreement focuses on information sharing and joint threat assessments to develop a common and early understanding of the threat environment; infrastructure investment to accommodate continued growth in legal commercial and passenger traffic; integrated cross-border law enforcement operations; and integrated steps to strengthen shared cyber-infrastructure.

This vision was fleshed out by the *Beyond the Border Action Plan*, released during a meeting of the two leaders in December 2011. It set out goals and progress metrics related to

- harmonized cargo screening under the "cleared-once, accepted twice" principle;
- joint inventories and gap analysis related to travel and trade threat assessments and border surveillance;
- automated biographic and biometric data sharing;
- an integrated entry-exit system;
- enhanced pre-clearance of goods and travelers; and
- expansion of interoperability among law enforcement and deployment of cross-designated personnel.[31]

Policies related to the Canada-U.S. border also encompass trade and travel facilitation as well as law enforcement activities. For lawful border crossers, the Western Hemisphere Travel Initiative (WHTI) has required since June 2009 that all travelers present a secure travel document. The Department of Homeland Security (DHS) has worked with the Canadian government and with certain U.S. and Canadian states and provinces to develop enhanced driver's licenses that meet WHTI requirements; a March 2011 GAO report found a greater than 95% compliance rate with such requirements.[32] In addition to cooperating on WHTI, the two countries have worked to expand their trusted commercial trucker program (the Free and Secure Trade [FAST] program) and their trusted traveler program (NEXUS, not an acronym).

Joint border-area law enforcement programs consist primarily of Integrated Border Enforcement Teams (IBETs) and the Shiprider Program. The IBETs are binational, multi-agency, intelligence-led enforcement teams focused on identifying, investigating, and interdicting common national

(...continued)

Washington, DC, December 2012; Canadian Tourism Commission, *Delivering Value for Canada's Tourism Businesses Through Innovation and Efficiency,* Vancouver, B.C. 2013.

[31] *United States-Canada Beyond the Border Action Plan*, December 2011, available at http://www.dhs.gov/xlibrary/assets/wh/us-canada-btb-action-plan.pdf.

[32] U.S. Government Accountability Office, *Border Security: DHS Progress and Challenges in securing the US Southwest and Northern Borders*, GAO-11-508T, March 30, 2011, p. 6, http://www.gao.gov/new.items/d11508t.pdf.

security threats and criminal activity at 24 locations at and between U.S.-Canadian ports of entry. The Shiprider program allows fully cross-trained and cross-designated agents from each country to conduct joint enforcement exercises along shared international waterways.

In addition to these programs, Canada's customs service has stepped up the purchase of high-tech X-ray equipment, and U.S. and Canadian customs agents are working together to inspect containers at several Canadian and U.S. seaports. Canada also has set up an Air Transport Security Authority, which, among other activities, is responsible for pre-board screening. In 2004, the Canadian government created a Department of Public Safety and Emergency Preparedness, a counterpart to the U.S. DHS. In addition, in 2015, the U.S. and Canada signed a preclearance agreement, which superseded the existing U.S.-Canada Air Preclearance agreement signed in 2001. (See "See **Border Security**," below.)

Table 1. U.S. and Canada: Selected Comparative Economic Statistics, 2015

Indicator	United States	Canada
GDP		
Nominal PPP (billion US$)	17,947	1,628
Nominal (billion $)	17,947	1,553
Per Capita GDP		
Nominal PPP ($)	55,850	45,305
Real GDP Growth	2.4%	1.2%
Recorded Unemployment Rate	5.3%	6.9%
Exports G&S(%GDP) (2014)	13.4%	31.6%
Imports G&S (%GDP) (2014)	16.5%	31.3%
Sectoral Components of GDP (%)		
Industry	19.4%	28.2%
Services	79.5%	70.2%
Agriculture	1.1%	1.6%
Current Account Balance (% GDP)	-2.7%	-3.2%
Public Debt/GDP	73.6%	95.3%

Sources: Economist Intelligence Unit; U.S. Census Bureau; Bureau of Economic Analysis; Statistics Canada; World Bank.

Economic and Trade Policy

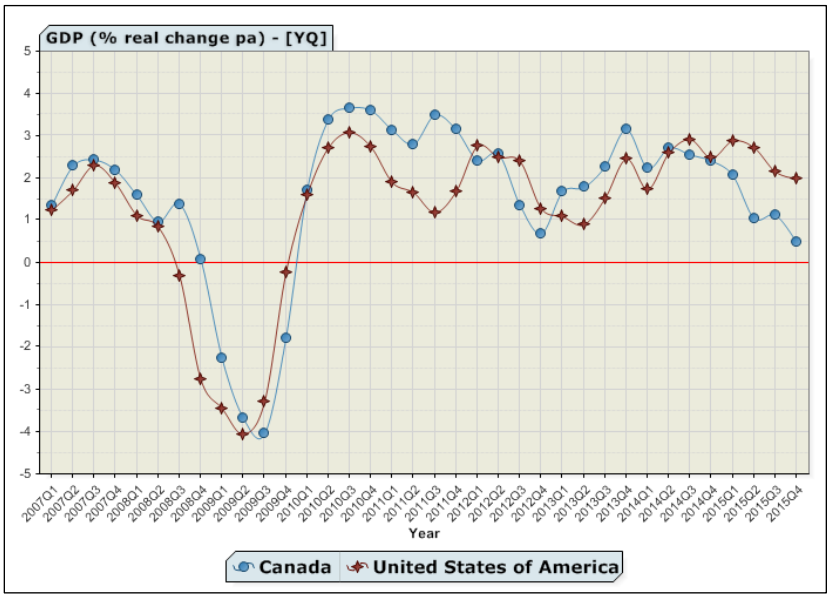
The Canadian economy experienced a shallower recession and initially recovered faster from the 2008 global economic crisis than the United States, but growth in both countries remains sluggish. In 2015, the U.S. economy grew twice as fast as the Canadian economy: 1.2% in Canada and 2.4% in the United States. In 2016, Economist Intelligence Unit and IHS Global Insight forecasters expect Canada's GDP to grow by 1.5% and 1.7%, respectively, and for U.S. GDP to achieve growth of 2.0% and 1.7%.[33] Several factors likely contributed to this slow growth rate, including the end to the boom in commodities on which Canada's economy

[33] Economic data and forecasts are from the Economist Intelligence Unit, IHS Global Insight, Global Trade Atlas, and Statistics Canada.

disproportionately depends, the sluggishness of the U.S. economy, and the retrenchment of government spending. Growth has been dependent on personal consumption, especially in the still-buoyant housing sector, but business investment and export growth remain elusive. In Canada, the unemployment rate, which hit a generational low of 5.8% in January 2008, peaked at 8.7% in August 2009, gradually fell back to a cycle low of 6.6% in October 2014, before increasing to 7.1% in March 2016.

Figure 2. United States and Canada Real Gross Domestic Product (GDP)

2007-2015 quarterly



Source: Economist Intelligence Unit, Country Data Tool.

Budget Policy

After racking up 27 straight years of deficit spending prior to the "austerity" budget of 1995, Canada's public debt reached a peak of 101.6% of GDP, and government sector spending reached 53.6% of GDP in 1993. Realizing this course was unsustainable, the Liberal government of then-Prime Minister Jean Chrétien and his Finance Minister Paul Martin embarked on a financial austerity plan in 1995 using such politically risky measures as cutting federal funding for health and education transfers, applying a means test to those eligible for Seniors Benefits, and cuts in defense. Modest tax increases were also employed, mostly through closing loopholes. Under this budget discipline, the government submitted a balanced budget in 1998 and a political consensus emerged not to resort to deficit spending, at least until 2009. That year, faced with the fallout of the global financial crisis, the Conservative government of Prime Minister Stephen Harper introduced a budget that financed a package of stimulus spending and tax cuts, but that also reintroduced deficit spending to the Canadian polity.

From 2008-2015, the Conservative government ran deficits that reached 5% of GDP in 2010, but through austerity and improved economic conditions were steadily whittled down to 1.9% of GDP by 2015. The Harper government sought to return Canada to fiscal balance by the 2015 election, resorting to certain one-off savings as selling embassies and liquidating (literally) gold

coin found in the Bank of Canada vaults.[34] Ultimately, a sluggish economy thwarted those plans and the last Harper budget in 2015 left a C$3 billion deficit.[35] During the 2015 election, Justin Trudeau upended Canadian political orthodoxy by campaigning on a targeted budget deficit—C$10 billion a year for three years—for infrastructure projects to stimulate a sluggish economy reeling from the commodity and energy collapse. This electoral gambit paid off at the polls, but economists forecast a larger deficit than the amount the government campaigned on.in its election manifesto.

The first budget of the Trudeau government was tabled on March 22, 2016 with the theme of "growing the middle class." It features a pledge to invest C$120 billion over the next ten years, divided into a short-term pledge of C$11.9 billion during the life of the Parliament to upgrade and improve public transport systems, water, wastewater, green infrastructure projects, and affordable housing. The second phase will include broad measures to reduce urban congestion, expand trade corridors, and launch a low-carbon national energy system. It provides additional money for indigenous communities, a consolidation of child and family tax benefits, new cultural and arts funding, and a "revitalization" of the Canadian Broadcasting Corporation (CBC). Money will also be available to fund an "innovation agenda," including increased fundamental research and a "Post-Secondary Institutions Strategic Investment Fund" to promote on-campus research, commercialization opportunities, and training facilities for the nation's universities.[36]As noted above, the government is funding these measures through additional deficits estimated by the government to be C$113.2 billion through FY2021, using a relatively conservative 0.4% annual growth. It also seeks to offset some of this increased spending through a 4% increase in the top tax rate (29%-33%) and a reduction in the annual tax-free savings account (TFSA) contribution from C$10,000 to C$5,500. Partly offsetting this, however, is a reduction of the second lowest tax bracket from 22% to 20.5%.

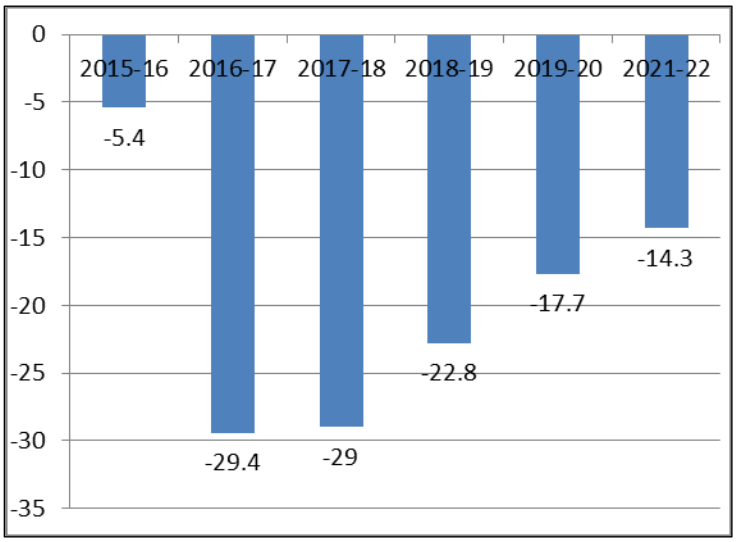
[34] Bill Curry, "Government Defends Foreign Property 'Fire Sale'," *Globe and Mail,* December 4, 2014; Bill Curry, "Bank of Canada's Gold Coins to be Liquidated in Federal Push to Balance Books," *Globe and Mail*, December 31, 2013.

[35] Les Whittington and Tonda MacCharles, "No Surplus After All, Due to Sputtering Economy and Harper Spending, Liberals Say," *Toronto Star,* November 20, 2015.

[36] 2016 Federal Budget, "Growing the Middle Class," http://www.budget.gc.ca/2016/docs/plan/budget2016-en.pdf; "Canada 2016 Federal Budget: Growing the Middle Class," Grant Thornton, LLP, March 31, 2016; "Budget Boosts Funding to Canada Council, CBC," CBC Ottawa, March 22, 2016.

Figure 3. Projected Budget Deficits

2016-2021



Source: Finance Canada.

Note: Figures in billions of Canadian Dollars.

Monetary Policy

Both the United States and Canada have maintained an accommodative monetary policy since the global financial crisis. Early on, however, the Bank of Canada (BOC) raised its benchmark overnight interest rates three times—to a 1% target rate to constrain demand—until September 2010. It kept its rate at 1% until 2015, when it lowered it twice, by 25 basis points in January and July to its current rate of 0.5%. This accommodative stance has been made possible by the virtual absence of inflation, but it has also contributed to housing and personal consumption booms that continues despite the economy's sluggishness and the commodity bust. This, in turn, has led to record Canadian household indebtedness with the debt-to-disposable income ratio reaching 165.4% in 2015.[37]

The value of the Canadian dollar (or loonie, as it is often referred) has varied in terms of the U.S. dollar in recent years (see **Figure 4**). Prior to the financial crisis, the loonie had been nearly at parity, trading at slightly less than the U.S. dollar. During the financial crisis it dropped to a monthly average of C$1.26/US$1. As the economy stabilized and demand for commodities and energy resumed, the loonie appreciated to C$0.96/US$1 in July 2011. As oil prices dropped and the commodity boom ended, the loonie began depreciating, its decline accelerating with the reduction of interest rates from 1.0% to 0.5% in 2015. The loonie hit a low of C$1.42/US$1 in January 2016.

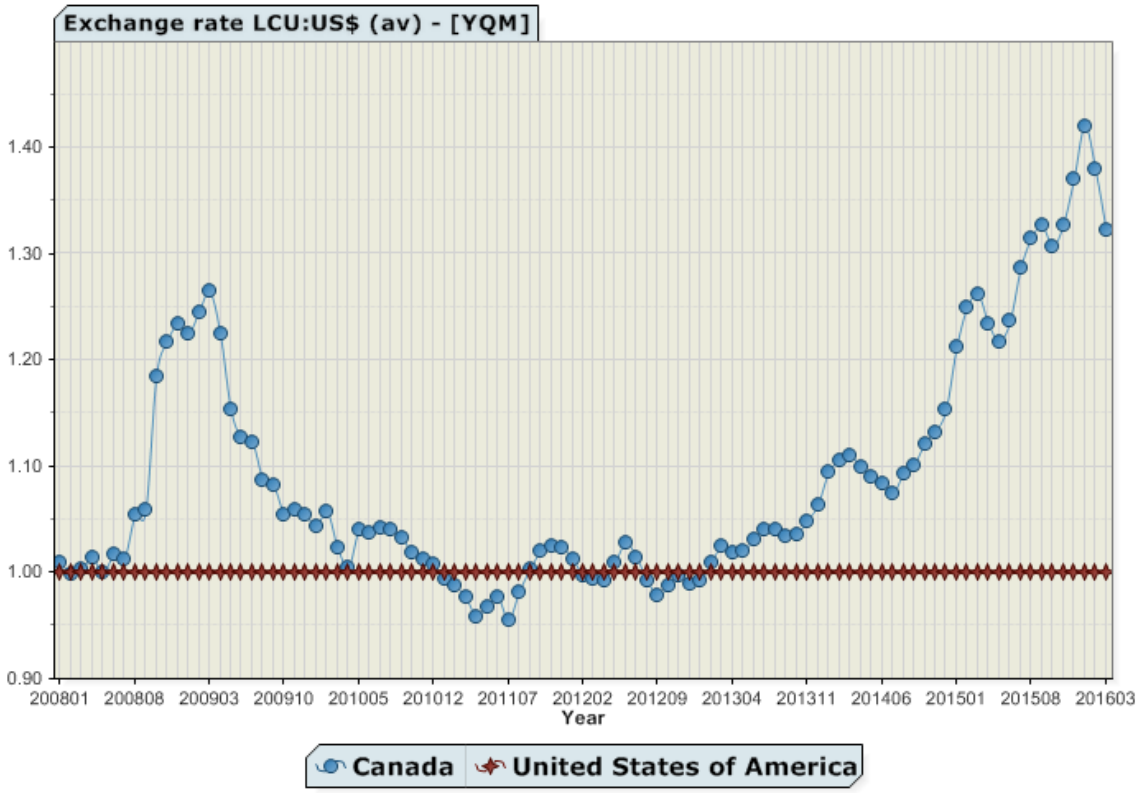
The strength of the Canadian dollar roughly from 2002-2008 and 2010-2013 had a detrimental effect on Canadian manufacturing, as export dependent goods became relatively uncompetitive in world markets. The Canadian auto industry has been especially hard hit as the center of gravity of

[37] "Canadian Household Debt Soars to Another Record," *Globe and Mail*, March 11, 2016.

U.S. production has moved south, and new North American investment has bypassed Canada for the United States and, especially, Mexico.[38]

Figure 4. Exchange Rates: Canadian $ per U.S. dollar

2008-2016



Source: Economist Intelligence Unit, Country Data Tool.

Note: Years are shown followed by numerical months (e.g., January 2008 is shown as 200801).

Energy

Canada is the United States' largest supplier of energy—including oil, uranium, natural gas, and electricity—and, until recently, the energy relationship has been growing. Canada is the world's fifth-largest petroleum producer, and its reserves are believed to be the third largest in the world only after those of Saudi Arabia and Venezuela. Canada's sources of oil include traditional and offshore wells and, increasingly, Alberta's oil sands.[39] In 2013, the value of U.S. petroleum and natural gas imports from Canada reached $109.1 billion, but declined precipitously to $70.5 billion in 2015. This figure largely represents the falling value of crude oil and natural gas. As **Table 2** shows, while the value of imports of crude oil have recently dropped, the volume of trade has continued to increase. Yet, due to the domestic shale gas boom, Canada's exports of natural

[38] "The New Rustbelt," *Economist*, August 29, 2015; "Auto Manufacturing in Canada in Long-Term Decline, Report Warns," *Toronto Star*, April 19, 2013.

[39] U.S. Energy Information Administration (EIA), Country Analysis Brief: Canada, December 2012, http://www.eia.gov/countries/cab.cfm?fips=CA.

gas have been dropping since 2010, although liquified natural gas (LNG) exports to other countries are expected to rise.[40] In 2015, Canada provided 37% of U.S. crude oil imports (up from 22% in 2009) and supplied 87.5% of U.S. natural gas imports (up from 82.6% in 2009).[41] Canada also is a net exporter of electricity to the United States, and the North American electricity grid is closely interconnected. Canada is particularly valued because it is considered a reliable source of energy, as it is not a member of OPEC.

Table 2. U.S. Crude Oil Imports from Canada

2010-2015

	2010	2011	2012	2013	2014	2015
Value (bn$)	48.1	65.4	69.8	74.4	79.2	45.2
Volume (million barrels)	676.4	758.0	821.1	893.5	976.8	1,059.3

Source: U.S. international Trade Commission Dataweb.

On November 6, 2015, the Obama Administration rejected the Keystone XL pipeline after seven years of consideration. Keystone XL would have been the main new pipeline project to bring Canadian oil to the United States, but it was rejected as incompatible with the President's environmental and climate change goals. Following the rejection, Trans-Canada, the pipeline's applicant, launched a NAFTA Chapter 11 investor-state dispute settlement arbitration, seeking $15 billion in compensation by claiming that the delays and the subsequent rejection of the application violated NAFTA provisions on national treatment, most-favored-nation treatment, and minimum standard of treatment.

China has shown interest in Canada's oil sector, and has recently bought stakes in Alberta's oil sands projects. Partly as a result of the Keystone XL impasse, the federal government in Canada has been advocating the construction of a pipeline through British Columbia to export oil to Asia and the Energy East pipeline to transport oil to Canada's eastern provinces. Like the Keystone XL, these routes have drawn opposition from environmentalists, but also from First Nations (indigenous) tribes, over whose land some pipelines may be constructed.

U.S.-Canada Trade Relations

The United States and Canada enjoy one of the largest bilateral commercial relationships in the world. Over the past 20 years, U.S.-Canada trade relations have been governed first by the 1989 U.S.-Canada Free Trade Agreement and, subsequently, by the 1994 North American Free Trade Agreement. These agreements, along with the conclusion of the Uruguay Round of multilateral trade negotiations and the creation of the World Trade Organization, contained mutual concessions on commercial trade and investment barriers, and, more importantly perhaps, established binding dispute settlement mechanisms. While these agreements have resolved some of the sharp differences from the past, questions regarding the effectiveness of dispute resolution mechanisms remain. In addition, both nations are fully engaged in negotiating preferential trade agreements, together in the Trans-Pacific Partnership (TPP) negotiations, and separately with the European Union. (Also see "Canada and the TPP".)

The volume of economic activity across the border underscores the extent of economic integration between the United States and Canada. The two nations continue to have one of the

[40] EIA, "Canada Expects Lower Natural Gas Exports to U.S., Higher LNG Exports to Other Countries," April 26, 2016.

[41] Statistics from Global Trade Atlas.

largest trading relationships in the world, with $1.58 billion per day in goods crossing the border in 2015. However, in 2015, China overtook Canada as the largest trading partner of the United States. (China had replaced Canada as the largest supplier of imports to the United States in 2007.)

The United States recorded a goods trade deficit with Canada of $15.2 billion in 2015, which has steadily declined from a record $76.5 billion in 2005. In 2015, Canada purchased 18.6% of U.S. goods exports and supplied 13.2% of all U.S. imports. The United States supplied 53.3% of Canada's imports of goods that year and purchased 76.8% of Canada's merchandise exports; two-way trade with the United States represented nearly 33% of Canadian GDP.

While some trade issues have recently been resolved—such as country-of-origin-labeling (COOL)—others such as softwood lumber have reemerged and perennial irritants such as Buy American policies for Canada, and perceived shortcomings of intellectual property rights protections in Canada to the United States remain.

Softwood Lumber

Trade in softwood lumber traditionally has been one of the most controversial topics in the U.S.-Canada trading relationship. The dispute revolves around different pricing policies and forest management structures in Canada and the United States. In Canada, most forests are owned by the Canadian provinces as Crown lands, whereas in the United States, most forests are privately held. The provinces allocate timber to producers under long-term tenure agreements, and charge a "stumpage fee," which U.S. producers maintain is not determined by market forces, but rather acts as a subsidy to the logging industry. (See "Softwood Lumber".)

Until October 2015, trade in softwood lumber was governed by a seven-year agreement (SLA)—reached in 2006 and since extended for two years to 2015—restricting Canadian exports to the United States. As part of a complicated formula, the United States allowed unlimited imports of Canadian timber when market prices remain above a specified level; when prices fell below that level, Canada imposed export taxes and/or quotas. In addition, the United States returned to Canada a large majority of the duties it had collected from previous trade remedy cases.

The implementation of the softwood lumber agreement was not without controversy. The United States and Canada resorted to arbitration over the use of adjustment mechanisms to calculate the quotas used for eastern Canadian lumber, provincial forestry assistance programs in Quebec and Ontario, and timber grading practices in British Columbia.

While the 2006 agreement expired in October 2015, the agreement contained a stand-still clause prohibiting litigation for a year following its expiration. In March 2016, President Obama and Prime Minister Trudeau, during the latter's official visit to the United States, agreed to have their trade representatives seek a solution by early summer. However, the two central governments cannot impose a solution; any resulting agreement must be amenable both to the U.S. lumber industry, which can launch trade remedy cases autonomously, and the Canadian provinces, which own the timber.

Country of Origin Labeling

Country-of-origin-labeling (COOL) of meat, fish, fresh fruits, vegetables, and various nuts was repealed on December 18, 2015 in the 2016 Consolidated Appropriations Act (P.L. 114-113) following several challenges to the law from Canada and Mexico were upheld in the WTO dispute settlement system. COOL originated in the 2002 farm bill (P.L. 107-171), as amended by the 2008 farm bill (P.L. 110-246). Rules implementing country-of-origin labeling took effect in

March 2009. These laws were especially controversial in the meat industry as domestic livestock producers and some consumer groups favor the law, while meat processors and livestock exporters from Canada and Mexico oppose the provisions as protectionist.

In 2010, both Canada and Mexico challenged the provisions at the World Trade Organization (WTO). A WTO dispute settlement (DS) panel found COOL to be inconsistent with WTO agreement rules on two grounds: (1) it violates national treatment by treating imported livestock less favorably than domestic livestock, and (2) it fails to meet the legitimate objective of providing information to consumers on the origin of meat products. The United States appealed the ruling to the WTO Appellate Body, which upheld Canada and Mexico's claim on national treatment, but found that COOL did meet a legitimate objective in providing information to consumers. The WTO Dispute Settlement Body adopted the reports in July 2012. In response, the U.S. Department of Agriculture released a new rule that required that labels show the location of each production step and prohibited the mixing of meat products from different origins. After further litigation brought by Canada and Mexico, the WTO Appellate Body again found COOL violated WTO obligations in May 2015. Subsequently, Canada was allowed to levy retaliatory tariffs of $781 million and Mexico was allowed $228 million. Faced with retaliation on U.S. products, Congress decided to repeal the law; regulations implementing the repeal were promulgated on March 2, 2016.

Buy American Provisions

The Buy American Act of 1933 (41 U.S.C. 8301, *et seq.)* and various Buy America and Buy American government procurement provisions in U.S. legislation remain a perennial irritant in bilateral economic relations. Generally, the Buy American Act restricts procurement contracts to the use of U.S. end products and construction materials. Domestic end-products and construction materials have been defined in regulation to be unmanufactured end products or construction materials produced in the United States, or end products or construction materials in which the cost of the components mined, produced, or manufactured, the United States exceeds 50% of the cost of all components.

However, the Trade Agreements Act of 1979 (P.L. 96-39) permits these provisions to be waived for the products of countries with which the United States has an FTA or that have signed the WTO Government Procurement Agreement (GPA). Canada is eligible for this waiver as a signatory to the GPA and under the North American Free Trade Agreement (NAFTA). The GPA is a plurilateral agreement that only binds those WTO members that agreed to undertake obligations under it. Furthermore, the GPA only applies to the sectors and the procurement agencies that the national government (and sub-national government agencies) includes in its schedule of national commitments, as well as above a certainly monetary threshold. NAFTA contains similar commitments on the national level, but excludes sub-national entities.

While Canada is generally covered by the above provisions, federally-funded projects contracted at the state or local level projects (so-called pass through projects) are not covered under the existing agreements. Regulations implementing the original Buy American provision of the American Recovery and Reinvestment Act of 2009 (ARRA, §1605, P.L. 111-5) excluded Canadian firms from bidding on ARRA-financed contracts tendered by the U.S. states because Canadian provinces never signed up to the GPA.[42] In February 2010, the United States agreed to permit Canadian firms to bid on sub-federal ARRA contracts in return for a Canadian

[42] Office of Management and Budget, "Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009, April 3, 2009. pp. 160-166.

commitment to sign its provinces up to the GPA, which it did by notice to the WTO on March 19, 2010. Since then, legislation such as the Water Resources Reform and Development Act (P.L. 113-121) have contained revolving fund projects contracted at the state or local level, which are not eligible for Buy American waivers.

Intellectual Property Rights

In 2016, the U.S. Trade Representative again listed Canada on its Special 301 report on intellectual property rights protections as a "watch list" country for intellectual property rights protection. It was upgraded from the "priority watch list" in 2013, perhaps reflecting Canada's passage of the Copyright Modernization Act in November 2012, which implemented the World Intellectual Property Organization's Copyright treaty.[43] The act is analogous to the U.S. Digital Millennium Copyright Act (DCMA, P.L. 105-304). The act allows for some format shifting and fair-dealing (fair-use) exceptions, but prohibits the circumvention of digital protection measures. It also clarified the rights and responsibilities of Internet service providers for infringement of their subscribers, and provides for a "notice-and-notice system" to warn potential infringers.

Canada has also taken steps to address counterfeit products through enactment of the Combating Counterfeit Products Act and its implementation in January 2015. Among other provisions, it provides Canadian customs officials "*ex officio*" authority to seize pirated and counterfeit goods without a court order. However, it does not provide this authority for goods in transit, about which, the Special 301 report notes, the United States remains "deeply concerned."

The 2016 Special 301 report continued to note Canada's regulatory process with regard to appeals to adverse pharmaceutical products approval decisions and with the Canadian judiciary's interpretation of utility in pharmaceutical patents. U.S. pharmaceutical manufacturer Eli Lilly has sought arbitration through the NAFTA Chapter 11 investor-state dispute settlement mechanism over the Canadian judiciary's use of the promise doctrine in evaluating utility. (See **"Intellectual Property Rights".**)

Selected Issues in Bilateral Relations

Canada's Arctic Sovereignty Claim[44]

Issue Definition

Scientists have forecast that, by 2030 or earlier, global warming will reduce the Arctic ice pack in Canada's northern archipelago sufficiently to create a "northwest passage" that will permit commercial ship traffic through the summer months. If created, a northwest passage would significantly reduce costs and transit distances for commercial ships operating between certain ports. It could also be used by commercial fishing or cruise vessels, ships supporting Arctic scientific research or resource exploration, or military vessels. The presence of ships in the passage could require the establishment and enforcement of shipping lanes and other rules for ensuring safe ship operations, add to existing demands for maritime search and rescue capabilities, and create a risk of environmental damage to the Arctic. The use of the passage by foreign military ships might be viewed as creating potential security risks to Canada (and the

[43] The WIPO Copyright treaty updates existing copyright protections for Internet and other electronic media.

[44] Written by Peter Meyer, Analyst in Latin American Affairs.

United States). Successive Canadian governments have maintained that such a passage would be an inland waterway, and would therefore be sovereign Canadian territory, subject to Ottawa's surveillance and regulation. The United States, the European Union, Japan, and others assert that the passage would constitute an international strait between two high seas.

Background and Analysis

Arctic sovereignty has been an issue for Canada for decades. In 1985, a U.S. icebreaker, the *Polar Sea*, caused uproar in Canada when it traversed the waters of the northern archipelago without first seeking permission. Afterward, Washington and Ottawa came to an agreement in 1988 under which the United States pledged to notify Canada when its ships would transit the region, and Canada agreed to grant its consent. In recent years, however, the question over who, if anyone, would have control over the regional waters has intensified as scientific consensus has grown that the melting of the polar icecap will open up a Northwest Passage during the summer months.

The debate over the Northwest Passage has commercial, environmental, and security considerations. The opening of a channel of water during the summer months through Canada's 36,000-island Arctic archipelago would cut shipping routes between Europe and Asia by 3,000-4,000 miles, saving time and fuel costs. However, many Canadians are concerned that unfettered maritime traffic through the region could result in serious environmental hazards ranging from the catastrophe of an oil spill to more cumulative pollution caused by ocean dumping of ballast and garbage by transiting vessels. In terms of security, the Canadians are concerned that recognition of the passage as international waters would result in free access for naval warships and submarines, including, for example, those of Russia and China.

Canada seeks recognition of its sovereignty over the entire area, among other reasons, because of a strong national identification with its northern regions. Ottawa argues that it has a historical claim based on centuries of Inuit inhabitation—of the islands and of the ice extending from them. From a practical standpoint, Canada wishes to have the ability to enforce protection of the fragile Arctic ecosystem and to ensure sustainable commercial fishing practices. In addition, the Canadians want there to be no doubt that they have rights to the region's abundant natural resources, including oil, natural gas, minerals, and precious metals.

The prospective passage raises jurisdictional questions. Canadians maintain that it would be an internal waterway and would likely require all vessels to register with their coast guard's vessel traffic reporting system. They contend that this would facilitate possible search-and-rescue missions, and would dissuade ships bearing contraband from sailing through the region. There is general agreement that the natural resources in the region are Canadian; the debate concerns free transit rights. Analysts note that the U.N. Convention on the Law of the Seas calls for the right of transit passage "between one part of the high seas ... and another part of the high seas." In addition, some analysts believe that the recognition of the Northwest Passage as a Canadian inland waterway would set an international precedent that might be viewed as applicable elsewhere in the world. Other governments could echo Canada's sovereignty claim and prohibit the passage of U.S. naval ships, as well as of oil tankers bound for the United States; the Straits of Malacca and Hormuz have been cited as examples. Others, however, have argued that it would be in the interests of U.S. national security if Canada were to manage and police shipping through the straits.

Several possible solutions have been put forward. Some analysts argue that Canada could achieve its objectives through regulations approved by the U.N. International Maritime Organization. Also, it has been suggested that NORAD and the Arctic Council might be able to coordinate cooperative patrolling of the passage. Others—though not the United States—have proposed that

the countries bordering the Arctic adopt an agreement prohibiting military, residential, or commercial use of the region, as was done for Antarctica in 1959. Finally, some analysts believe that a renewed and updated version of the 1988 U.S.-Canada agreement would suffice.

Status of the Issue

In January 2009, the outgoing Bush White House issued National Security Presidential Directive 66, entitled "Arctic Region Policy." The document reiterated the Administration's stance regarding Canada's sovereignty claim, stating that "the Northwest Passage is a strait used for international navigation." The Obama Administration has continued to operate under the Bush Administration's policy directive, supplementing it with the 2013 *National Strategy for the Arctic Region* and a 2014 implementation plan. Among other actions, the *National Strategy for the Arctic Region* calls for accession to the U.N. Convention on the Law of the Sea, stating that it "would protect U.S. rights, freedoms, and uses of the sea and airspace throughout the Arctic region, and strengthen our arguments for freedom of navigation and overflight through the Northwest Passage and the Northern Sea Route." The Administration has yet to attain the Senate's advice and consent for accession. Given the ongoing disagreement between the U.S. and Canadian governments, the sovereignty issue will likely continue to be the subject of bilateral discussions.

In April 2015, Canada passed the two-year revolving chairmanship of the Arctic Council to the United States. Created in 1996, the Arctic Council has become the primary intergovernmental "high level forum" for cooperation in the Arctic region. It addresses a wide range of issues, including regional development, the environment, emergency response, climate change, and natural resource extraction. The Council membership consists of the eight countries that have sovereign territory within the Arctic Circle: the United States, Canada, Norway, Denmark (by virtue of its territory Greenland), Russia, Sweden, Finland, and Iceland. Only these countries have voting rights. Six indigenous Arctic peoples' organizations are permanent participants. Permanent observer status is held by France, Germany, the Netherlands, Poland, Spain, the United Kingdom, China, Italy, Japan, South Korea, Singapore, and India. Several intergovernmental and nongovernmental observers are also represented on the Council, including the International Red Cross, the U.N. Development Program, the Nordic Council, and the Worldwide Fund for Nature.

The U.S. program for 2015-2017 focuses on three areas:

- **Improving Economic and Living Conditions in Arctic Communities** by promoting the development of renewable energy technology, providing a better understanding of freshwater security, coordinating an Arctic-wide telecommunications infrastructure assessment, supporting mental wellness, harnessing the expertise of the Arctic Economic Council, mitigating public health risks, and promoting better community sanitation and public health.
- **Improving Arctic Ocean Safety, Security, and Stewardship** by better preparing those responsible for search and rescue, ensuring marine environmental protection, creating a better understanding of Arctic Ocean acidification, and encouraging all parties to take the steps necessary to properly implement the 2013 Agreement on Cooperation on Marine Oil Pollution, Preparedness, and Response in the Arctic.
- **Addressing the Impacts of Climate Change** by targeting short-lived climate pollutants through reductions in black carbon and methane emissions, supporting Arctic climate adaptation and resilience, and creating a Pan-Arctic digital elevation map.

While these priorities are broadly similar to those of the previous Canadian program, the United States has placed more emphasis on climate change while the Canadian government had placed more emphasis on economic development.

Questions

1. Several governments have taken issue with Canada's assertion of sovereignty over the Arctic waters. Do any foreign countries support Canada on this question? Has the Canadian government offered a legal precedent for its claim?
2. If Canada were to win recognition of its sovereignty over the passage, how might it regulate shipping traffic through the straits?
3. What might be the security, economic, and environmental consequences for the United States if Canada's sovereignty claim was to be accepted, or if the passage were to be declared international waters?
4. In April 2015, the United States assumed the rotating, two-year chairmanship of the Arctic Council. To what extent, if at all, has Canada's sovereignty claim affected the ability of the U.S. government to pursue its objectives on the council?

Canada's Resettlement of Syrian Refugees[45]

Issue

The Syrian conflict has caused the displacement of millions of Syrian refugees to neighboring countries and elsewhere. Canada has taken a lead role in the humanitarian response through an accelerated and expanded resettlement program that has resulted in more than 25,000 Syrian refugees arriving in Canada during a four-month period between November 2015 and February 2016. The resettlement response is unusual for Canada, but not without precedent. Between 1975 and 1980, Canada opened its doors when thousands of people were fleeing war in Southeast Asia by boat. More recently, the U.N. High Commissioner for Refugees (UNHCR) has reported that nearly 25% (about 48,000 of 201,000) of all pledges for resettlement and other forms of legal admission for Syrian refugees are by Canada. Many challenges remain in the implementation of the current resettlement initiative.

Background and Analysis

The humanitarian needs of the Syrian population have increased in manifold ways since the start of the conflict in March 2011. According to the U.N. Office for the Coordination of Humanitarian Affairs (UNOCHA), as of May 2016, an estimated 13.5 million people inside Syria, more than half the population, are in need of humanitarian and protection assistance. More than 6.5 million are displaced inside the country, and in addition, 4.8 million Syrians have registered as refugees abroad, with most fleeing to countries in the immediate surrounding region as well as Europe. In 2015, the plight of Syrian refugees was highlighted when Europe was impacted by what many consider to be its worst refugee and migration crisis since World War II, as more than a million people fled conflict and poverty in neighboring regions. UNHCR has asserted that more than 85% were from refugee-producing countries, with many from Syria and Iraq.

[45] Written by Rhoda Margesson, Specialist in International Humanitarian Policy.

Refugee Status Determination

Under the 1951 Convention Relating to the Status of Refugees, to which Canada is a party, a refugee is legally defined as a person fleeing his or her country because of persecution or "owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside of the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country." An asylum-seeker is someone who says he or she is a refugee, but whose claim has not yet been definitively evaluated. Refugee Status Determination is the legal or administrative process by which governments or UNHCR determine whether a person seeking international protection is considered a refugee under international, regional or national law.

International Resettlement

Resettlement is the transfer of refugees from an asylum country to another state that has agreed to admit them and ultimately grant them permanent settlement with legal and physical protection, including access to civil, political, economic, social and cultural rights similar to those enjoyed by nationals. It generally leads to permanent resident status or even citizenship in the resettlement country. In any humanitarian crisis, resettlement is often the solution for only a small percentage (usually less than 1%) of the overall number of displaced persons, but it is an important part of the humanitarian response. A small number of states take part in UNHCR's resettlement program. The United States is the world's top resettlement country; other leading partners include Australia, Canada, and the Nordic countries. While there may be many reasons for resettlement, usually there is no prospect for repatriation or local integration, and the situation in the host country may create particular protection concerns for the individual.

UNHCR has consistently called for resettlement and other admission pathways to be made available as part of the international response to the Syrian refugee crisis. The U.N. agency is encouraging states to offer places for Syrian refugees in addition to their current resettlement quotas to ensure that resettlement opportunities continue to be made available for refugees from other parts of the world. When viewed in the context of the magnitude of the Syrian refugee crisis, the overall global resettlement places to date fall significantly short of the need, but experts see it as an important tool of refugee protection. UNHCR estimates that 10% (480,000) of the 4.8 million registered Syrian refugees are vulnerable and in urgent need of resettlement or humanitarian admission to a third country.

Canada's Resettlement Program

Canada's refugee system has two main components: one for people seeking protection from outside Canada—the Refugee and Humanitarian Resettlement Program—and one for those seeking protection from within Canada—the In-Canada Asylum Program. Syrian refugees have entered Canada through the Refugee and Humanitarian Resettlement Program, which has three separate elements: government-supported refugees; privately sponsored refugees (which allows individuals and community groups to sponsor refugees); and a combination of the two through the Blended Visa Office-Referred Program, which matches refugees identified for resettlement by UNHCR with private sponsors in Canada. Immigration, Refugees, and Citizenship Canada coordinates with a number of federal departments, provincial and territorial governments, and key partners across the country to resettle Syrian refugees, including the Canada Border Services Agency, the Department of National Defence/Canadian Armed Forces, Global Affairs Canada, Public Health Agency of Canada, Public Services and Procurement Canada, and the Royal Canadian Mounted Police.

The Canadian government works closely with UNHCR in the resettlement process of government-assisted refugees and some who may be matched with private sponsors. UNHCR identifies those refugees who may be eligible for resettlement and who typically fall into specific categories of urgent need or vulnerability. Canada has extensive security measures, checks against its own databases and intelligence information once a case has been submitted for resettlement. Specifically, it screens all resettlement cases overseas and interviews each individual to ensure that there are no issues related to security, criminality, or health. Syrian refugees accepted for resettlement in Canada (usually within three to six months of their interview) are issued a permanent resident visa and transport to Canada is organized by the International Organization for Migration. Refugees are being resettled in communities across the country where either government programs or private sponsors are located and are provided with immediate and essential services as well as income support for six months to a year.

Canada's Resettlement of Syrian Refugees

As the Syrian refugee crisis expanded into Europe in 2015, Canada's pace of resettlement became a domestic political focal point and the ruling Conservative Party came under fire for not accepting more Syrian refugees. This became a critical issue during Canada's 2015 electoral campaign. The Liberal Party and its leader, Justin Trudeau, pledged to resettle 25,000 Syrian refugees, mainly through government support, by the end of 2015. Following the election, although the timetable was later revised, the Trudeau government fulfilled this goal by the end of February 2016.

The Canadian government resettled 27,190 Syrian refugees between November 4, 2015 and February 29, 2016, of which 15,355 are government-assisted refugees, 2,341 are blended-visa-office referred refugees; and 9,494 are privately sponsored refugees. Various media and other reports indicate that the Trudeau government hopes to settle between 35,000 and 50,000 in 2016. As of mid-May 2016, according to the Canadian government a further 17,268 refugee resettlement applications are in process, and 2,837 refugee applications have been finalized, but the refugees have not yet traveled to Canada. Canada has committed to finalize a number (as yet undetermined) of privately sponsored refugees by early 2017. Beginning in May 2016, in order to increase the capacity to process refugee resettlement applications overseas, more than 40 additional Canadian staff are joining colleagues and partner organizations working in visa offices in the Middle East.

Status of the Issue

Canada's humanitarian support to refugees is well established over many decades, and Canada has been praised for its recent generosity and response to the Syrian refugee crisis. U.S. policymakers, including some Members of Congress, have expressed concern about the Canadian government's security and vetting process of Syrian refugees resettled in Canada. Specifically, they raised questions about the potential risk that terrorists might enter the United States as refugees or that Syrian refugees resettled in Canada might pose a threat across the border. Many of these concerns were heightened following the terrorist attacks in Paris in November 2015. In addition, although it is still early in the process, the pace of implementation of the resettlement program has caused some observers to question the capacity of communities to meet the needs of refugees in transition, such as the provision of health services and other requirements, and to enable refugees to properly integrate into society. Some experts working in communities say too much responsibility is falling on private sponsors too quickly and that they cannot keep up with the demand. More broadly, there are also worries that the Syrian refugee resettlement plan has

eclipsed global refugee needs and that other refugee populations are not being made a priority for resettlement in Canada.

Questions

1. When Canada increased its resettlement of Syrian refugees in 2015, what, if any, was the impact on resettlement opportunities in Canada for refugees from other parts of the world?
2. How many, if any, Syrian refugees sought resettlement through the In-Canada Asylum Program?
3. What are the main cross border concerns with the United States with regard to Syrian refugees and how are these being addressed?
4. Does Canada plan to sustain the current level of resettlement pledges for Syrian refugees on an annual basis? Why or why not?
5. Would temporary resettlement be a sustainable option for Canada in responding to the Syrian crisis in the future? Why or why not?
6. What challenges, if any, have so far emerged once Syrian refugees have arrived in Canada and begun the transition to permanent resettlement? Have there been any concerns that were not initially anticipated, and if so, how are these being addressed?
7. What impact, if any, would a significant increase by the United States on resettlement of Syrian refugees have on the potential willingness of Canada and other countries to further increase their number of resettlement places for Syrian refugees?

Border Security[46]

Issue Definition

U.S.-Canadian border security has emerged as an area of public concern, particularly since the 9/11 terrorist attacks. The United States and Canada attempt to balance adequate border security with the facilitation of legitimate cross-border travel and commerce. Generally, the countries have worked to strike this balance collaboratively, through a series of agreements governing bilateral border issues; and they continue to work together on core border issues including the management of border flows and travel documents, joint law enforcement, and a new integrated entry-exit system. Within the United States, some people remain concerned about the potential for terrorists and criminals to exploit the border and about the adequacy of infrastructure and personnel at the U.S.-Canadian border and ports of entry.

Background and Analysis

The U.S.-Canadian border between Washington State and Maine spans about 4,000 miles, includes vastly different types of terrain, and is the site of about 150 ports of entry, including 20 major land ports. (The border between Canada and Alaska spans an additional 1,500 miles.) According to the U.S. Bureau of Transportation Statistics, in 2015, northern border ports admitted about 5.8 million trucks, 31,000 trains, 96,000 buses, 28.5 million passenger vehicles, and

[46] Written by Carla Argueta, Analyst in Immigration Policy.

428,000 pedestrians—numbers which exceed analogous data for the U.S.-Mexican border for trucks and trains, while passenger vehicle and pedestrian traffic is higher on the southern border.

Western Hemisphere Travel Initiative

The Intelligence Reform and Terrorism Prevention Act of 2004 (IRTPA, P.L. 108-458) required the Secretary of Homeland Security, in consultation with the Secretary of State, to develop and implement a plan to require all travelers (i.e., including American and Canadian citizens) to use a passport or other secure document when entering the United States. (Prior to that time, U.S. and Canadian citizens were permitted to use driver's licenses and birth certificates to prove their citizenship, and certain travelers were admitted based on an attestation of citizenship.) Under the so-called Western Hemisphere Travel Initiative (WHTI), in effect since June 1, 2009, travelers must present an approved secure document, including a passport book, passport card, trusted traveler card (i.e., a NEXUS (not an acronym) or Free and Secure Trade (FAST) card), or certain other documents for military personnel and certain other special groups. Four states (Michigan, New York, Vermont, and Washington) and four Canadian provinces (British Columbia, Manitoba, Ontario, and Québec) issue enhanced driver's licenses that are also valid for WHTI purposes.

U.S.-Canada Border Agreements

The United States and Canada have a long history of collaboration around border security. Such efforts date to February 24, 1995, when the two countries signed a joint accord, *Our Shared Border*, followed by the 1999 *Canada-U.S. Partnership Forum* (CUSP). Shortly after the 9/11 attacks, the United States and Canada signed a joint statement of cooperation on border security and migration that focused on the detection and prosecution of security threats, the disruption of illegal migration, and the efficient management of legitimate travel. The agreement produced a 30-point plan (later updated to 32 points) commonly referred to as the "Smart Border Accord," signed on December 12, 2001. The points include coordinated law enforcement, intelligence sharing, infrastructure improvements, compatible immigration databases, visa policy coordination, biometric identifiers in travel documents, prescreening of air passengers, joint screening for high risk travelers, and improved processing of refugee and asylum claims, among others. In July 2010, the countries signed an Action Plan for Critical Infrastructure intended to strengthen the safety, security, and resilience of critical shared infrastructure.

On February 4, 2011, President Obama and Prime Minister Harper signed a joint declaration describing their shared visions for a common approach to perimeter security and economic competitiveness: the *Beyond the Border* agreement. The agreement describes four key areas of cooperation: efforts to identify and address threats before they reach the U.S.-Canadian perimeter, trade facilitation, integrated cross-border law enforcement, and critical infrastructure and cybersecurity.

On December 7, 2011, President Obama and Prime Minister Harper released the *Beyond the Border Action Plan*, which includes concrete steps to be taken within each of these areas, along with deadlines and metrics for measuring progress toward each goal. The plan is most ambitious with respect to trade facilitation, calling for a harmonized approach to cargo screening under the principle of "cleared once, accepted twice." Additional provisions related to border security include, among others, plans for joint inventories and gap analyses for intelligence work related to travel and trade threat assessments and border surveillance; automated biographic and biometric data sharing to verify traveler identities and to share risk assessments and watchlist information; an integrated entry-exit system so that the record of an entry at a land port of entry into one country can be used to establish an exit record from the other; broader pre-clearance programs for goods and travelers; and the expansion of integrated law enforcement efforts

including interoperable radio systems and the deployment of cross-designated law enforcement officers. Since 2012, the two countries have published three *Beyond the Border* implementation reports. The reports describe the progress made in several areas related to border security, discussed in the remainder of this section.

Border Management

In the post-9/11 period, border "thickening" arguably has added to border delays, raised transportation costs, and depressed bilateral flows of people and goods. Several elements of the *Beyond the Border Agreement* seek to counter these trends. Under the agreement, the countries conducted a joint intelligence inventory and gap analysis and a joint risk assessment in 2012, and they issued common standards for the collection and use of biometric data. These steps build on a program, in place since 2004, to share passenger information on high-risk travelers en route to either country through a joint risk-scoring scheme and shared "lookout" data.

With respect to trade facilitation, the countries expanded benefits for NEXUS and FAST trusted travelers and commercial truckers. During the first year of the agreement, the programs were expanded to 19 border crossing locations, 33 marine reporting locations, and 8 Canadian pre-clearance airports. As of 2014, expedited screening for NEXUS members had further expanded and was available at more than 120 airports in the United States and 16 Canadian airports. Since the announcement of the *Beyond the Border Action Plan*, membership in the NEXUS program increased by approximately 80% (to approximately 1.1 million).

The countries have also made progress in the cargo pre-inspection area. Phase I of the initiative began in 2013, which included a five-month truck cargo pre-inspection pilot at the Pacific Highway crossing adjacent to Surrey, British Columbia. Phase II was implemented in 2014 with a pilot at the Peace Bridge crossing between Fort Erie, Ontario and Buffalo, New York. Additionally, through the Integrated Cargo Security Strategy (ICSS), the countries have further facilitated the movement of secure cargo under the principle of "cleared once, accepted twice." ICSS includes four pilots launched in 2012 and 2013: the Montreal Pilot, the Prince Rupert Pilot, the Tamper Evident Technology Pilot, and the Pre-Load Air Cargo Targeting Pilot.

Joint Law Enforcement

Three collaborative law enforcement programs exist along the U.S.-Canadian border. As part of the Smart Border Accord, the countries have established 15 Integrated Border Enforcement Teams (IBET), operating at 24 locations along the border. The IBETs are binational, multi-agency, enforcement teams including representatives from U.S. Customs and Immigration Enforcement (ICE), U.S. Customs and Border Protection (CBP), the U.S. Coast Guard, Canada Border Services Agency (CBSA), and the Royal Canadian Mounted Police (RCMP), along with municipal, state, and provincial governments and law enforcement agencies. IBETs share intelligence to identify, investigate, and interdict common national security threats and transnational criminal activity.

Second, beginning in 2007, ICE expanded its Border Enforcement Security Task Force (BEST) program to the U.S.-Canada border. The BEST program also emphasizes information sharing to combat cross-border crime, and brings in a larger number of federal, state, provincial, local, and tribal stakeholders from both sides of the border, all under ICE leadership. U.S.-Canadian BEST task forces currently operate in Blaine, WA; Seattle, WA; Detroit, MI; Buffalo, NY; and Massena, NY.

Third, since 2005, the countries have operated the Shiprider program, which places fully cross-trained, cross-designated RCMP and U.S. Coast Guard agents and officers on law enforcement

vessels operating along certain international waterways. The agents conduct joint enforcement activities on both sides of the border, under the command of a U.S. or Canadian officer (based on the ship's location south of north of the border). The Obama and Harper Administrations signed an agreement in 2009 to extend and expand Shiprider, which had previously operated as a pilot program; and expansion of the program was identified as a point in the *Beyond the Border Action Plan*. The Canadian parliament passed legislation permanently authorizing the Shiprider program in June 2012, and the U.S. Coast Guard and RCMP signed a finalized Shiprider agreement in June 2013. Since 2013, Shiprider operations have been conducted full-time in British Columbia/Washington State and Ontario/Michigan.

In addition to these programs, the U.S.-Canada Cross Border Crime Forum, which includes the Secretary of Homeland Security, the Attorney General, and the Canadian Ministers of Public Safety and Justice, provides a regular meeting place for the top law enforcement officials from both countries to discuss cross-border criminal activity and to coordinate their responses. In 2014, Canada and the United States developed the Cross Border Law Enforcement Advisory Committee to support cross-border law enforcement initiatives at the operational level.

Integrated Entry-Exit System

One notable result of the Beyond the Border agreement has been the integrated entry-exit system pilot program. The purpose of the program is to permit the United States and Canada each to track people *exiting* through border ports by sharing data—which each country already collects—on people *entering* the other country (i.e., the United States uses Canadian entry data to track exits, and vice versa). For the United States, the collection of such exit data fulfills part of the Department of Homeland Security's (DHS's) requirement, pursuant to Section 110 of the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA, P.L. 104-208, Div. C), as amended, to complete an *automated* entry and exit control system that collects records of all alien arrivals and departures.

The first phase of the pilot program ran from September 2012 to January 2013, and consisted of the exchange of biographic travel records (i.e., names, birthdates, and other travel document information) for third country nationals and permanent residents (i.e., for persons other than U.S. or Canadian citizens) at four designated ports of entry. According to the Canadian-U.S. report on the program, Canada was able to reconcile 94.5% of U.S. entries (i.e., Canadian exits) with Canadian immigration databases, and the United States was able to reconcile 97.4% of Canadian entries (i.e., U.S. exits). Based on these results, the countries initiated Phase II of the pilot program in June 2013, during which biographic information is being exchanged for third country nationals and permanent residents at all automated POEs on the U.S.-Canada border. During Phase III biographic information also will be exchanged for U.S. and Canadian citizens traveling between the two countries and during Phase IV Canada committed to establishing the collection of exit records in air mode. Current plans do not call for the program to collect and share *biometric* traveler data (e.g., fingerprints, digital photographs).

Border Infrastructure and Personnel

A series of U.S. laws since 2001 have increased the number of enforcement personnel at the U.S.-Canadian border and strengthened border screening technology The most recent has been the FY2014 appropriations for the Department of Homeland Security (Division F of P.L. 113-76), which included $256 million to increase CBP officers at ports of entry by no fewer than 2,000 by the end of FY2015.

A total of 2,051 border patrol agents were posted in northern border sectors in FY2015, up from 340 in FY2001, along with 3,714 U.S. Customs and Border Protection (CBP) officers at ports of entry, up from 1,550 in FY2001. These increased deployments represent substantial growth in border enforcement personnel, but lag slightly behind the goals established by the USA-PATRIOT Act and the IRTPA.

A second issue is the ability of the transportation infrastructure to cope with increased security measures. The *Beyond the Border Action Plan,* called for the countries to make significant investments in physical infrastructure and coordinate these investments at a binational level. To complete this goal, the countries established a binational five-year *Border Infrastructure Investment Plan* (BIIP) that is to be renewed annually (the first edition was released in 2013).

The aging condition and limited capacity of the land border infrastructure preceded the 9/11 terrorist attacks. For example, the Ambassador Bridge and the Detroit-Windsor Tunnel, which together carry 25% of total U.S.-Canada cross-border traffic, both opened in 1930. Approaches to the crossings, often city streets, have been criticized as inadequate to the commercial needs of the 21st century. This issue affects the efficient implementation of security measures. The FAST system provides for dedicated lanes at land border ports for expedited preclearance. However, these lanes will not save time if the FAST participant cannot access this lane due to congestion or delays at the points of access. While attempts have been made to speed up border crossing times, the aging and adequacy of the border infrastructure may affect whether such improvements are sustainable.

Different plans were proposed to build additional bridge capacity over the Detroit River to ease truck congestion on the Ambassador Bridge. In the end, , the New International Trade Crossing (NITC) proposal was adopted. The proposed bridge—the Gordie Howe International Bridge—sets out to build a crossing approximately 2 miles south of the Ambassador between Zug Island in Detroit and the Brighton Beach area of Windsor. The NITC proposal is supported by the Canadian government, which believes a new span should not be privately held. To this end, then-Canadian Transport Minister John Baird offered to loan the state of Michigan $550 million to fund its share of the new bridge, the total cost of which is expected to be $5.3 billion. Michigan Governor Rick Synder endorsed the construction of the bridge in January 2011, but a bill creating a bridge authority was rejected by a Michigan state Senate committee in October 2011.

In June 2012, Prime Minister Harper and Governor Synder announced an agreement to build the bridge using solely Canadian funds with a Canadian entity responsible for the design, construction, and operation of the bridge. Three consortia are vying for the contracts to build the bridge. Under the arrangement, Canada would be paid back using tolls from the bridge. On April 12, 2013, the U.S. State Department approved a permit to build the bridge allowing construction to proceed and the Canadian government reportedly has allocated C$25 million to acquire land on the Detroit side for the customs plaza. On February 2, 2015, the United States and Canada agreed that a public-private partnership will be used to pay for the construction of the customs plazas on both the American and Canadian sides of the bridge and the United States will pay to staff, operate, and maintain the customs plaza in Detroit.

Status of the Issue

The *Beyond the Border Action Plan* lays out an ambitious agenda for deeper cooperation under the “cleared-once, accepted twice” principle. The plan’s implementation reports concrete examples of the progress made within each area related to border security. Moreover, the implementation reports also provide plans for pending and future projects and activities.

While the Beyond the Border plan responds to long-standing concerns about inefficiency at the border, CBP and other observers still consider the U.S.-Canadian border to be the locus of a wide range of security threats. A 2010 joint assessment by CBP, Canada Border Services Agency, and the Royal Canadian Mounted Police highlighted threats associated with transnational terrorist entities present along both sides of the U.S.-Canadian border; criminal enterprises focused on illegal drugs, firearms, tobacco, intellectual property, and currency; and vulnerabilities related to migration, agriculture, and transnational health issues. A 2013 study by the Canadian Macdonald-Laurier Institute found particular problems associated with illegal tobacco smuggling, and a nexus between tobacco smuggling and other organized crime concerning illegal drugs, weapons, and human trafficking.

Security concerns regarding the Northern border were renewed in 2016 with Canada's plan to resettle 25,000 Syrian refugees. In a hearing held by the Senate Committee on Homeland Security and Governmental Affairs in February 2016 members of Congress expressed concern over Canada's screening of refugees for possible terrorist connections. Members feared that terrorists may pose as refugees, be resettled in Canada, and then exploit the allegedly porous border to gain entrance to the United States.

Questions

1. Is the integrated *biographic* program a workable building block for satisfying the *biometric* entry-exit system mandate in U.S. law? How will Canada and the United States address privacy concerns during Phase III of the program, when all travelers' records (i.e., including those of U.S. and Canadian citizens) will be shared between the two countries?
2. Does the successful implementation of the Shiprider program argue in favor of cross-designation of certain land-based law enforcement officers? Some Members of Congress have raised concerns about staffing levels at the northern border, which remain slightly behind statutory goals; would cross-designation be an appropriate strategy for meeting these requirements?
3. As the *Beyond the Border* agreement continues to be implemented, how are the United States and Canada measuring the performance of different activities and programs? Also, what steps are the United States and Canadian governments taking to engage stakeholders in the decision-making process? How are the governments disseminating information and educating stakeholders on the plan's developments?

North American Cybersecurity Cooperation[47]

Issue Definition

Both the United States and Canada rely on information technology as a strategic national asset that reaps many economic and societal benefits. However, increasing reliance on Internet-based systems has created new sets of vulnerabilities. Theft of digitally stored information, either for military or economic competitive advantage, has long been an area of concern for both countries. Internet-based commerce systems fall victim to identity theft and exploitation, leading to fraudulent transactions that rob individuals and companies of millions of dollars. Credit card

[47] Written by Catherine Theohary, Specialist in National Security Policy and Information Operations.

companies and banks, automated clearing houses and market trading systems, have all been listed by the FBI as having seen dramatic increases in online attack. In addition, a computer-based attack on shared critical infrastructures could have devastating consequences. An attack of this nature, from both a security and an economic standpoint, could not only result in the loss of data, but could also degrade or damage physical assets and potentially lead to loss of life.

Background and Analysis

Recent discoveries of vulnerabilities in the computer systems that control many utilities delivery systems have been cause for alarm in the United States and Canada. Reports of probes, possibly state-sponsored, attempting to map the North American electrical grid are of particular concern to both countries due to the interconnected, shared nature of bulk power critical infrastructure. In 2007, a U.S. Department of Energy test at Idaho Labs demonstrated the ability of a cyber-attack to shut down parts of the electrical grid. In the test, known as the Aurora Experiment, a cyber-attack on a replica of a power plant's generator caused it to self-destruct. As electrical systems become increasingly reliant on sophisticated information technology, such as with the more efficient "smart grid," some observers worry that security concerns have been left by the wayside.

Neither the United States nor Canada has yet experienced a cyber-attack on critical infrastructure that has risen to a level of a national crisis. However, many security experts warn of such a possibility as nation states and extra-territorial hacker networks appear to have an interest in developing a large-scale attack capability. In March 2016, the U.S. Department of Homeland Security and the Canadian Cyber Incident Response Centre issued a joint cyber alert warning against a recent surge in extortion attacks that infect computers with viruses known as "ransomware," which encrypt data and demand payments for it to be unlocked.

Status of the Issue

U.S.-Canada investment and cooperation in cyber defense is notable. In February 2014, the government of Canada launched a five-year, $1.5 million initiative to improve the security of its networks. The program was developed in support of Canada's overall Cyber Security Strategy. The United States and Canada have signed a Memorandum of Agreement on "Cooperation in Science and Technology for Critical Infrastructure Protection and Border Security and related Cooperative Activity arrangements." Both countries are signatories to the Council of Europe Convention on Cybercrime, a document intended to harmonize national laws on information security in order to create a broader set of international norms in cyberspace. The United States ratified the convention in August 2006, while Canada ratified it in July 2015. Neither China, nor Russia, two countries from which many cyber threats appear to stem, are signatories to the Convention. The Council of Europe Convention defines cybercrime as a range of malicious activities that fall into four broad categories of computer-related crimes: (1) security breaches such as hacking, illegal data interception, and system interferences that compromise network integrity and availability; (2) fraud and forgery; (3) child pornography; and (4) copyright infringements. On cybercrime, the US DOJ does not have a definition of cybercrime but tends to focus on real-world crimes that are committed via cyber means. Canada defines cybercrime as activity where a computer is a target (hacking, phishing, spamming), or where the computer is used as a tool to commit the offence (child pornography, hate crimes, computer fraud). An area where Canada's and the USG's views may differ could be with respect to spam, which the U.S. does not necessarily define as criminal, but Canada does.

Questions

1. Given that a large portion of critical infrastructure is owned and operated by the private sector, both countries have recognized a need to cooperate not only on a bilateral level but to effectively share information and resources with relevant companies and stakeholders. How effective have these outreach programs been, and what are areas for improvement?
2. How can the United States and Canada work to improve resiliency in the event of an attack, and to cooperate with hardening potential targets and developing cybersecurity tools while still protecting trade secrets and intellectual property? How can we share cyber threat information while still complying with privacy and civil liberties laws in each country? What are some barriers to effective information sharing?
3. In addition to strengthening defenses and categorizing attack thresholds, the rise of nonstate actors operating in cyberspace and the difficulty of attributing attacks presents a significant challenge for the Alliance. How can the United States and Canada work within NATO to develop common standards for attributing attacks in order to formulate an appropriate response?

Canada and the TPP[48]

Issue Definition

The Trans-Pacific Partnership (TPP) is a potential free trade agreement (FTA) among 12 Asia-Pacific countries—including Canada and the United States—that would reduce and eliminate tariff and non-tariff barriers on goods, services, and agriculture. It would establish trade rules and disciplines that expand on commitments at the World Trade Organization (WTO) and address new issues. It has both economic and foreign policy implications for the United States, and raises potential strategic issues regarding U.S. trade policy and broader U.S. engagement in the region.

Canada, along with Mexico, joined the TPP negotiations in December 2012 after several months of discussions on conditions of entry. Negotiations were concluded in October 2015, and the 12 countries signed the agreement on February 4, 2016. However, as the TPP was negotiated by the outgoing Conservative government, the new Liberal government of Prime Minister Justin Trudeau has yet to endorse the agreement, undertaking a series of nationwide "consultations with Canadians" before taking a formal stance on the accord. Each of the 12 countries must ratify TPP pursuant to their own domestic procedures (e.g., implementing legislation in the United States), before the FTA can enter into force.

Background and Analysis

The North American Free Trade Agreement (NAFTA), among the United States, Canada, and Mexico, has already eliminated nearly all tariffs in U.S.-Canada trade. Primary concerns for both countries in the context of TPP negotiations, then, was gaining access to other TPP markets, and addressing the few products on which post-NAFTA tariffs remain as well TPP rules commitments that differ from NAFTA.

[48] Written by Ian F. Fergusson, Specialist in International Trade and Finance.

Agriculture. Canada, like the United States, viewed access to the highly-protected agricultural market of Japan as a key goal for the negotiations. However, Canada also sought to protect its supply management system for dairy, poultry, and eggs. The gains from tariff elimination and improved market access for Canadian agriculture—as well as for the United States—primarily would occur in the markets of Japan, Malaysia and Vietnam. The average agricultural tariff in these countries is 17.3% in Japan, 17% in Vietnam and 10.9% in Malaysia. Neither Canada nor the United States has an existing FTA with these countries and therefore does not currently benefit from preferential access to these markets. Some market outcomes include

- The reduction of Japanese tariffs on beef, from 38.5% to 9% once the agreement is fully enforced, gives the Canadian, as well as United States and Australian beef producers greater market access in Japan. Vietnamese tariffs of 31-34% on beef products would be eliminated within 2 to 7 years.
- Tariffs on U.S. beef and beef products—some as high as 26.4%—would be eliminated in no more than 15 years.
- Japanese pork product tariffs would be cut from 4.3% to 2.2% immediately, and subsequently phased out over 9 years. The separate Japanese "gate price," a minimum import price would immediately be lowered from 482 yen/kilo to 125 yen/kilo, and subsequently to 50 yen/kilo by year ten. A U.S. specific safeguard would not apply to Canada. Vietnamese tariffs of 27-31% on pork products would also be eliminated over 9 years.
- Canada has also highlighted increased access for its wheat, barley, canola oil, wine and distilled spirit, forestry and seafood sectors.

Dairy Access. The United States sought greater market access for dairy products in Canada, potentially disrupting Canada's restrictive supply management system for dairy, poultry, and eggs. Canada's aim was to keep the program as intact as possible. Under the agreement, Canada would allow additional access of 3.25% of its 2016 dairy production open to all TPP countries. Tariff rate quotas (TRQs) would be established for milk, butter, cheese, and yogurt and phased in over 14-19 years. Canada would also provide TPP-wide TRQ equivalent to 2.3% of domestic production for eggs, 2.1% for chicken, 2.0% for turkey and 1.5% for broiler hatching eggs. In the end, the negotiations did not result in the dismantling of supply-management, although the Harper government did announce a C$4.3 billion aid package to compensate producers of supply-managed products.

Vehicles. Canada, which negotiated a common tariff schedule with all 11 TPP parties, will phase out automobile tariffs with all TPP countries over 5 years. The United States negotiated tariffs on a bilateral basis, with auto tariffs eliminated on imports from most TPP countries over 8 years, but remaining on Japanese autos for 25 years. NAFTA has a rule of origin requiring that 62.5% of a vehicle's content, or 60% for parts, must be manufactured in the region. Under the TPP, vehicles would have a lower threshold: 45% for vehicles and 35% to 45% for parts. Therefore, as compared to NAFTA, TPP would allow for a greater share of automobile inputs to come from outside the TPP region and still qualify for preferential tariff treatment.

Intellectual Property Rights (IPR). The IPR chapter provides a number of WTO "Trade-Related Aspects of Intellectual Property Rights (TRIPS)-plus" provisions that also were not contained in the NAFTA IPR chapter. Some of the differences were rectified in its passage of legislation on copyright modernization and counterfeiting, while others would be addressed in implementing legislation for its Comprehensive Economic and Trade Agreement, an FTA with the European Union. Among the outcomes in the negotiations, Canada would:

- Grant an exception for its "notice and notice" system of Internet service provider (ISP) liability.
- Lengthen its copyright term from 50 years following the death of the creator to 70 years. Canada did this in 2015 for performers and musicians and sound recording.
- Provide patent term extension to compensate for unreasonable delays in marketing approval.
- Extend the right of appeal to federal court of pharmaceutical marketing regulatory decisions to brand-name producers. Currently, only generic manufacturers can appeal an adverse decision.
- fulfill the enforcement requirement of providing *ex officio* authority to customs agent to seize counterfeit goods with 2014 legislation, although neither that legislation nor the TPP included transshipment of goods in that authority, which was sought by the United States.
- Provide 8 years of data exclusivity in the marketing approval process for biologic drugs, its current practice, although the United States had sought 12 years. (See "Intellectual Property Rights".)

Labor and Environment. The TPP includes chapters on labor and environment, which provide the opportunity for enforceable dispute settlement—i.e., withdrawal of trade concessions—in case of violations. NAFTA provided side agreements which had labor and environmental provisions with limited enforcement capabilities. Canada continued this policy in its FTAs with subsequent parties, including Chile and Peru. The first Canadian FTA that includes labor and environment in the body of the text is with South Korea, which came into force in January 2015. However, these provisions are not fully enforceable through the agreement's dispute settlement mechanism as they are in the TPP.

Government Procurement. Canada sought additional government procurement access from the United States, especially waivers from Buy America projects and sub-federal procurement. It did not achieve these goals in negotiations, although Canadian firms will now be able to bid on procurement from the 6 major regional power authorities, such as the Tennessee Valley Authority. The TPP also replaces the NAFTA schedule of commitments with those of the revised Government Procurement Agreement.

The C.D. Howe Institute, a respected Canadian think-tank, finds that "the TPP generates a relatively small trade impact for Canada, and a commensurately small impact on GDP and economic welfare." Furthermore, "Canada makes modest gains from participating and would forego these gains and experience additional modest losses from not participating." Participating in the TPP in order not to lose ground with NAFTA partners or other agricultural exporters has been on the mind of some policymakers as a reason for Canada to participate in the agreement. (C.D. Howe Institute, *Better In than Out? Canada and the Trans-Pacific Partnership*, April 21, 2016)

Status of the Issue

Given that, the Trudeau government has not formally endorsed the agreement, and is engaging in "consultations with Canadians" taking place throughout Canada this summer, a final decision on the TPP is not likely before the fall. If the government declares its support, the agreement would be approved by the Governor in Council (in effect, the Cabinet) and need not be approved by Parliament. All international agreements are presented to Parliament for review and questions

from Members of Parliament as a voluntary transparency effort by the executive, but is not constitutionally required. In practice, however, trade agreements require amendments to Canadian law before they are ratified and enter into force in Canada. Thus, implementing legislation is put forward by the government, and the normal parliamentary procedures are followed to pass this legislation. This legislation does not contain the text of the agreement, but traditionally contains the phrase "The Agreement is approved" or equivalent, even though this approval is technically not required.

In the United States, legislation to implement the TPP is eligible for congressional consideration under the provisions of the Comprehensive Bipartisan Trade Priorities and Accountability Act of 2015 (P.L. 114-26) (TPA). TPA provides various notification and consultation requirements before introduction as well as a 90-day maximum legislative day period for consideration following introduction, although congressional consideration of previous agreements has taken much less time. With the submission of the U.S. International Trade Commission report on the economic effects of the agreement on May 18, 2016, the President has only to provide Congress with the final text of the implementing legislation, a Statement of Administrative Action (a description of the regulatory changes needed to implement the legislation) and give a 30-day notice that he intends to submit the legislation before it can be introduced. It is considered unlikely that the agreement would be introduced prior to the election or the lame-duck session of Congress; indeed, consideration of the TPP may fall to the next Congress. No country has ratified the TPP to date.

Questions

1. What is the prevailing view of the TPP in Canada? Do you foresee ratification of the agreement as controversial in Canada?
2. The United States and Canada already have free trade relations through the U.S.-Canada FTA and NAFTA. What new features of the agreement are appealing, or potentially burdensome?
3. Canada sought greater procurement access to sub-federal government contracts in the TPP. How would you characterize the outcome on government procurement? Has Canada gained reciprocal procurement market access in other markets?
4. Canada recently concluded the Comprehensive Economic and Trade Agreement (CETA) with the European Union. Between CETA and TPP, which agreement do you believe is more significant to Canada, and why?

North American Cooperation[49]

Issue Definition

How can the United States improve cooperation with its North American neighbors on issues related to economic competitiveness, trade, transportation, and security? How are the United States, Canada, and Mexico currently cooperating on improving industry competitiveness, promoting economic growth, and enhancing border security in North America? Should the three countries focus more on trilateral cooperation or are separate, bilateral U.S. cooperation efforts

[49] Written by Angeles Villarreal, Specialist in International Trade and Finance.

with Canada and Mexico potentially more effective due to the different issues facing each country?

Background and Analysis

The United States, Canada, and Mexico have been partners in the North American Free Trade Agreement (NAFTA) since 1994 and benefit from a broad and expanding trade relationship. Since 2005, the three countries have made additional efforts to increase cooperation on economic and security issues through various endeavors, most notably by participating in trilateral summits known as the North American Leaders' Summits (NALS). The first NALS took place in March 2005, in Waco, Texas, and has been followed by numerous trilateral summits in Mexico, Canada, and the United States. The most recent summit took place in February 2014, in Toluca, Mexico, with an agenda focused on immigration, energy, and commerce. The next NALS is scheduled for June 2016 in which Canadian Prime Minister Justin Trudeau will host President Barack Obama and Mexican President Enrique Peña Nieto in Canada. Canada was expected to host this meeting in 2015, but former Prime Minister Stephen Harper reportedly canceled it because of issues related to the Keystone XL pipeline and tensions with Mexico over Canada's former visa requirements for Mexican visitors.

Current bilateral efforts pursed by the Obama Administration with Canada and Mexico have built upon the accomplishments of the working groups formed under previous NALSs. These efforts include the North American Competitiveness Workplan (NACW) and the North American Competitiveness and Innovation Conference (NACIC). The NACW was endorsed in 2014 by the three governments and includes trilateral investment initiatives, tourism collaboration, strengthening the North American production platform, and promotion of skills for a 21st century workforce. The NACIC is a forum for business and government leaders to address economic issues and is closely tied to the NALS.

Proponents of North American competitiveness and security cooperation view the initiatives as constructive to addressing issues of mutual interest and benefit for all three countries especially in the areas of North American regionalism, inclusive and shared prosperity; innovation and education; energy and climate change; citizen security; and region, global, and stakeholder outreach to Central America and other countries in the Western Hemisphere. Some critics believe that the summits are not substantive enough and that North American leaders should consolidate the summits into more consequential meetings with follow-up mechanisms that are more action oriented. Others contend that the efforts do not include human rights issues or discussions on drug-related violence in Mexico.

Trilateral Cooperation

During the February 2014 summit in Mexico, President Barack Obama, Canadian Prime Minister Stephen Harper, and Mexican President Enrique Peña Nieto announced various trilateral initiatives. The leaders discussed numerous economic and security initiatives for North America in the 21st century with the goal of setting new global standards for trade, education, sustainable growth, and innovation. In the areas of economic cooperation, discussions included developing a North American Transportation Plan; streamlining procedures and harmonizing customs data requirements; facilitating the movement of people through the establishment in 2014 of a North American Trusted Traveler Program, which will recognize and build upon existing programs; promoting trilateral exchanges on logistics corridors and regional development; and continuing prior initiatives such as protecting and enforcing intellectual property rights. In energy cooperation, the leaders continued their commitment to developing and securing affordable, clean, and reliable energy supplies to help drive economic growth and support sustainable

development. The leaders committed to continuing cooperation on climate change and environmental cooperation; security; and effective information exchanges and coordination among law-enforcement authorities to counter drug trafficking, arms trafficking, money laundering, and other illicit activities. The three governments also stated that they share a commitment to combating human trafficking in all its forms and agreed to work toward improving services for the victims of this crime.

Most efforts to increase cooperation, either through trilateral or bilateral endeavors, generally have followed the recommendations of special working groups created after the first North American Leaders' Summit. These recommendations included (1) increasing the competitiveness of North American businesses and economies through more compatible regulations; (2) making borders more efficient and secure secure by coordinating long-term infrastructure plans, enhancing services, and reducing bottlenecks and congestion at major border crossings; (3) strengthening energy security and protecting the environment by developing a framework for harmonization of energy efficiency standards and sharing technical information; (4) improving access to safe food and health and consumer products by increasing cooperation and information sharing on the safety of food and products; and (5) improving the North American response to emergencies by updating bilateral agreements to enable government authorities from the three countries to help each other more quickly and efficiently during times of crisis.

Bilateral Cooperation

The Obama Administration has engaged in bilateral efforts, both with Canada and Mexico, to increase regulatory cooperation, enhance border security, promote economic competitiveness, and pursue energy integration. For example, in February 2011, President Obama and Canadian Prime Minister Harper announced the Beyond the Border Action Plan: A Shared Vision for Perimeter Security and Economic Competitiveness declaration, establishing a new long-term framework to address threats within, at, and away from the U.S.-Canada border, while expediting lawful trade and travel. The two governments also created a U.S.-Canada Regulatory Cooperation Council to improve alignment of regulatory approaches.

The United States and Mexico have a comparable U.S.-Mexico High Level Economic Dialogue (HLED) to advance economic and commercial priorities through annual meetings at the cabinet level that also include leaders from the public and private sectors. Other bilateral efforts with Mexico include the High-Level Regulatory Cooperation Council (HLRCC) to help align regulatory principles, an effort similar to the U.S.-Canada Regulatory Cooperation Council. In addition, the two countries have a bilateral initiative for border management under the Declaration Concerning Twenty-first Center Border Management that was launched in 2010.

Status of the Issue

The United States, Canada, and Mexico have made progress in addressing issues related to North American competitiveness and security. The Obama Administration has affirmed its commitment on North American cooperation and build upon the work accomplished under previous frameworks. The 2016 North American Leaders Summit may continue to provide opportunities to enhance trilateral cooperation on issues of mutual interest, but because there are no binding agreements, their role in improving prosperity and security has been limited.

Questions

1. How effectively has the United States pursued North American cooperation in the border initiatives with Canada and Mexico or in the regulatory initiatives? What

other steps can be taken by the three countries to improve competitiveness of industries in the region? Are bilateral initiatives more effective than trilateral initiatives?

2. How successful has North American cooperation been in improving safety, security, and the flow of goods and services among NAFTA partners? What have been the actual results of the numerous initiatives launched? To what extent has the emphasis on border security caused delays in border crossings or transportation of merchandise? How have recent efforts to facilitate trade affected the trade relationships with Canada and Mexico?

Intellectual Property Rights[50]

Issue Definition

The United States remains concerned about Canada's protection and enforcement of intellectual property rights (IPR)—legal rights in various forms (e.g., copyrights, trademarks, and patents) to protect innovations and encourage creative output. The treatment of intellectual property (IP) is important to U.S.-Canada relations because of its role in the two national economies, as well as the high levels of bilateral trade and integration. The two countries address IPR issues through a number of fora, including trade negotiations and bilateral dialogues.

Background and Analysis

Canada and the United States have entered into a range of IPR commitments. Multilaterally, they are signatories to the 1995 World Trade Organization (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights ("TRIPS Agreement"), which sets minimum standards for the protection and enforcement of various types of IP. In 1997, both countries signed the World Intellectual Property Organization (WIPO) Copyright Treaty and Performance and Phonograms Treaty ("WIPO Internet Treaties"), which focus on IPR rules for the digital environment. In 1998, the United States passed implementing legislation for the WIPO Internet Treaties through the Digital Millennium Copyright Act (DMCA) (P.L. 105-304), and the treaties then entered into force for it in 2002. In contrast, Canada was a latecomer to these treaties, a source of friction in bilateral relations. Canada did not pass its Copyright Modernization Act until 2012 to implement its obligations under the WIPO Internet Treaties, which then entered into force for it in 2014. This was preceded by multiple attempts by the Canadian government to overhaul its copyright regime. At the regional level, IPR commitments for the two countries exist in the North American Free Trade Agreement (NAFTA), the first trade agreement to have IPR obligations.

Canada and the United States also participate in other trade agreements and negotiations involving IPR issues. They are among the 12 signatories to the Trans-Pacific Partnership (TPP) free trade agreement (FTA), which has "TRIPS-plus" provisions in areas such as digital copyright enforcement, criminal penalties for trade secret theft (including through cyber means), and pharmaceutical patent and data protection. Canada asserts that a number of TPP provisions mirror its existing regime, including its "notice-and-notice" system to address the role of Internet service providers (ISPs) in responding to online copyright piracy. Notably, Canada currently provides eight years of data exclusivity for biologics—medical treatments based on large molecules

[50] Written by Shayerah Ilias Akhtar, Specialist in International Trade and Finance. For more information, see CRS Report RL34292, *Intellectual Property Rights and International Trade*, by Shayerah Ilias Akhtar and Ian F. Fergusson.

developed in a living system (e.g., animal cells). The period of protection for biologics negotiated in TPP (eight years or, alternatively, five years with "additional measures" to reach a "comparable outcome") is a major topic of debate in Congress (the United States currently provides twelve years of data exclusivity). (Also see "Canada and the TPP".)

Canada also may wish to join the U.S.-EU negotiations of a Transatlantic Trade and Investment Partnership (T-TIP) FTA, expected to address a range of IPR issues as well, though T-TIP's prospects for expanded membership are unclear. In addition, the Canada-EU Comprehensive Economic and Trade Agreement (CETA), concluded in 2014, may raise bilateral IPR issues. A focal point is CETA provisions on geographical indications (GIs)—geographical names that protect the quality and reputation of a distinctive product originating in a certain region. For instance, Canada agreed to recognize GIs on certain cheeses generally viewed as common food names in the United States, leading to concerns about U.S. market access in Canada.

In 2016, as in the past few years, the United States Trade Representative (USTR) designated Canada on the Special 301 report "Watch List" (a category of criticism for a country's inadequate IPR protection and enforcement). In the 2016 report, USTR noted some areas of progress, such as an amendment to Canada's Copyright Act enhancing copyright protection. In other areas, however, USTR identified key concerns, including continued U.S. interest in Canada "fully implement[ing]" its commitments in the WIPO Internet Treaties. Canada, meanwhile, views its IPR regime as compliant with these treaties. The report also pressed for Canada to provide its customs officials with full *ex officio* authority to seize and detain pirated and counterfeit goods at the border, noting the lack of such authority for goods in transit or transshipment. Canada's Combating Counterfeit Products Act, which entered into force in January 2015, provides Canadian customs officials with certain *ex-officio authority* to seize IPR-infringing goods at the border, but carves out in-transit goods. According to Canada, this law complements its existing laws preventing the transshipment of dangerous, fraudulent, or otherwise illegal products. Nevertheless, Canada's IPR border enforcement remains a U.S. concern. TPP includes obligations for parties to provide *ex officio* authority for border measures.

In addition, the Special 301 report noted continued U.S. concerns with Canada's patent regime, a chief one being Canadian courts' use of a heightened "utility" requirement for pharmaceutical patents (the so-called "promise doctrine"). U.S. pharmaceutical companies argue that the use of the doctrine, which can lead to an invalidation of patents on utility grounds years after the patent has been granted, has contributed to an uncertain business environment in Canada. Some Members of Congress echo these concerns, while Canada contends that its practices are consistent with its international IPR obligations. According to the 2016 Special 301 report, the United States urges Canada to "engage meaningfully with affected stakeholders and the United States on the patent utility issues." Eli Lilly, a U.S. pharmaceutical company, has taken Canada to arbitration under NAFTA's Chapter 11 investor-state dispute settlement (ISDS) mechanism, stemming from the invalidation of patents for two of its drugs under the promise doctrine; the case remains ongoing. The patent utility issue also could come before Canada's Supreme Court later this year.

Status of the Issue

The United States has welcomed the passage of legislation in Canada, such as on copyright protection and border enforcement, as positive developments in its IPR regime. Yet, U.S. concerns remain regarding Canada's compliance with its international copyright obligations, border enforcement, and standards for pharmaceutical patent protection, among other issues. Given the importance of IP to bilateral trade, the two sides remain engaged on IPR issues. Canada and other TPP parties have committed to strengthening their IPR regimes in many of the areas

identified as U.S. concerns in the 2016 Special 301 Report. Thus, should TPP enter into force, TPP could be a major platform for addressing IPR issues in U.S.-Canada relations.

Questions

1. How has Canada implemented the WIPO Internet Treaties? Are there any areas where implementation has fallen short or differed from the DMCA?
2. What are Canada's IPR priorities in trade negotiations? What is Canada's position on the TPP's outcomes on IPR, such as provisions on enforcement in the digital environment, criminal penalties for trade secret theft, and the period of protection for biologics? How do TPP and CETA compare?
3. What measures are being taken by Canada to address trade and transshipment of pirated and counterfeit goods? What steps can Canada take to improve IPR enforcement, and how can the United States provide support?
4. How does Canada's patent law regime, including its utility requirements, track with international IPR norms? To what extent is Canada consulting with the United States on the patent utility issue?

Softwood Lumber[51]

Issue Definition

Softwood lumber production is a significant industry in both the United States and Canada, and tension between the two countries over softwood lumber trading has been persistent and may be inevitable. U.S. lumber producers are concerned they are at an unfair competitive disadvantage in the domestic market against Canadian lumber producers because of Canada's timber pricing policies. This has resulted in four major disputes (so-called "lumber wars") between the United States and Canada since the 1980s. The last major dispute was resolved when the 2006 Softwood Lumber Agreement (SLA) was signed. Under the agreement, Canadian softwood lumber shipped to the United States was subject to export charges and quota limitations when the price of U.S. softwood products fell below a certain level. After being extended for two years, the 2006 SLA expired on October 12, 2015, nine years after it entered into force, although both countries are prohibited from filing for trade protections until October 12, 2016.

Background and Analysis

The dispute between the United States and Canada regarding softwood lumber trade dates back to the 1930s, but the so-called lumber wars began in the 1980s when the United States first considered trade protection measures. Since then, the four major lumber wars have been characterized by domestic and international legal challenges and the United States collecting dumping and countervailing duties on Canadian imports of softwood lumber. The disputes have each generally been resolved, albeit temporarily, by the signing of three different softwood lumber trade agreements (1986-1991, 1996-2001, and 2006-2015). The 2006 SLA ended the fourth major lumber war and trade dispute. Among other things, the nine-year agreement provided for the settlement of pending litigation and established Canadian export charges, varying by weighted average lumber prices and lower if the Canadian exporting regions also accepts volume restraints. The United States revoked the existing antidumping and countervailing

[51] Written by Katie Hoover, Specialist in Natural Resources Policy.

duty orders, with at least 80% of the duty deposits being returned to the importers of record. The remaining 20% was used to fund lumber-related entities and initiatives provided for in the agreement.

U.S. lumber producers assert they have been injured by Canadian subsidies that have given Canadian lumber producers an unfair advantage in selling lumber in the U.S. market. These two conditions—subsidies and injury—are prerequisites for a countervailing duty under U.S. trade law. One alleged subsidy is Canadian provincial stumpage fees (fees for the right to harvest trees) which may be less than the value of the timber in a competitive market. In the ten Canadian provinces, 90% of the timberland is owned by the provinces. The majority of provincial timber is allocated to lumber producers under long-term area tenure agreements, which specify harvest levels, management requirements, and stumpage fees. The stumpage fees are generally set administratively, and adjusted periodically to reflect changes in lumber markets. This contrasts with the situation in the United States, where most timberlands are privately owned, and timber from federal and state lands is typically offered for sale at competitive auctions. Administered fees are not likely to match market values, but could be higher or lower, depending on the purpose and methods by which they are established; critics have claimed that the fees are set low to assure profitable production, regardless of market conditions. Several studies have shown significantly lower Canadian stumpage fees, but other studies have found comparable cross-border prices. These contradictory results may be explained by the adjustments made to account for differences in timber measurement systems (one cubic meter of Canadian logs yields 125–275 board feet of U.S. lumber, depending on the logs' diameters); in tree species, sizes, and grades; and in requirements imposed on the timber purchaser (e.g., reforestation and road construction); among other factors. Analyses of the differences are difficult and generally problematic.

Injury to the U.S. lumber industry remains a complex issue. The Canadian share of the U.S. softwood lumber market grew substantially over the past 60 years, from less than 7% in 1952 to more than 35% in 1996. During that period, U.S. lumber production for domestic consumption grew slowly (from nearly 30 billion board feet (BBF) in the early 1950s to 35 BBF in 1999), while imports of Canadian lumber rose substantially (from less than 3 BBF in the early 1950s to more than 18 BBF in 1999). Under the 1996 agreement, imports remained at a relatively stable rate, fluctuating around 33%-34%. Under the 2006 SLA, Canadian imports declined to around 28%. This decline is likely attributable—at least in part—to the SLA and a drastically decreased demand for softwood lumber due to the crisis in the U.S. housing market.

Other factors might also be important in the dispute over lumber imports from Canada. Some believe the persistence of the dispute is due, at least in part, to the conflict between a U.S. trade policy focused on the removal of trade barriers and the process for obtaining industry protection under U.S. trade law. Others contend that the dispute is fueled by interest-group politics, and that the U.S. lumber industry is better organized and more influential than U.S. lumber consumers, who mostly feel the cost impacts of the trade protection measures. In addition, environmental laws and policies probably differ, and the impact of those laws and policies for lumber production costs complicate any cross-border analyses. Finally, the dispute may be alleviated in part due to increasing cross-border firm integration. In other words, lumber producers may increasingly become globalized, with holdings in both the United States and Canada, and as such may begin to question these border protection measures.

The 2006 SLA appears to have appeased Canadian interests, but U.S. lumber producers mostly signaled displeasure with the agreement. Given the complexity of the issues at play in the dispute—different land ownership patterns, pricing and management policies, and measuring systems—the approach of export taxes and quota limitations when lumber is priced below a

specified trigger level does not appear to be achieving satisfactory results for all sides of the issue.

Status of the Issue

The United States and Canada had been operating under a softwood lumber trade agreement since 2006. The agreement expired after nine years, on October 12, 2015, although both countries are prohibited from filing for trade protections until October 12, 2016.

With the expiration of the agreement and pending expiration of the one-year period before trade protections may be filed, the softwood lumber trade relationship between the United States and Canada might be of interest to Congress. On March 10, 2016, President Obama and Prime Minister Trudeau charged their trade representatives with identifying the key features necessary to address the dispute within 100 days (by June 18, 2016). The U.S. lumber industry is in favor of applying quotas on Canadian imports, among other potential measures. U.S. lumber consumers, however, would prefer the free trade of softwood lumber, although consumers do not have standing under U.S. trade laws.

Congress may seek to examine several issues relating to a potential future agreement. For example, Congress may examine the current arbitration provisions and the evidentiary standards that U.S. lumber producers allege have resulted in a decision unfavorable to its side in the third SLA decision (see above). Likewise, Congress might seek the removal of export log restrictions on any future agreement with Canada. Congress might also consider the extent to which U.S. lumber consumers are affected by the removal of the agreement and the possibility of renewed anti-dumping and countervailing duties being placed on softwood lumber.

Questions

1. Given the persistence of this dispute, what is the prospect for developing a long-term solution that would satisfy both countries?
2. What impact, if any, might the increasing integration of lumber producers, both within and across borders, have on the prospects for or makeup of a new agreement?
3. How has the emergence of Asian markets impacted both U.S. and Canadian softwood lumber production and the trade relationship between the two countries?

U.S. Energy Security and Canadian Oil Sands[52]

Issue Definition

Canada ranks as the United States' number one source of imported crude oil and thus plays an important role in U.S. energy security. Canada's oil sands make up an increasing proportion of its petroleum resources, and Canada's oil sands producers continue to look primarily to the United States as the major market for their oil exports. Of the approximately 3.2 million barrels per day (mbd) of crude oil (3.8 mbd including petroleum products) Canada exported to the United States during 2015, almost 70% is delivered to the Midwest. This region's capacity to process increasing volumes of Canadian crude oil is limited in the near term. However, planned refinery expansion

[52] By Robert Pirog, Specialist in Energy Economics.

coupled with new refinery and infrastructure construction may place the region in a position to receive increased oil exports from Canada in the longer term. Another possibility for processing additional Canadian oil is expanded access to refineries along the U.S. Gulf coast, which is likely to require expanded pipeline capacity.

U.S. refinery capacity is forecast to increase from about 18.0 mbd in 2016 to nearly 19.0 mbd in 2030—a 1.0 mbd increase; however, the changing economics and crude oil availabilities facing the refining industry may bring even this relatively low rate of expansion into question. Since 2009, the U.S. refining industry has experienced cyclic conditions, with periods of high profitability as well as periods characterized by plant closures and divestiture. That said, total U.S. refining capacity has slowly but steadily increased since the mid-1990s. Actual, as well as projected, capacity expansion may not be enough to keep up with Canada's projected increase in oil sand production, especially if oil prices quickly recover.

Canada is also pursuing additional refinery capacity for its heavier oil. Refinery expansions to accommodate heavy oils are likely to have environmental effects, and Congress may continue to face controversy over the balance between energy, economic, and environmental goals. In addition, investment and production plans are likely to be altered by the slower growth of demand for petroleum products in the United States, associated with tightening fuel economy standards and changing driving habits.

Another possible impediment to expanded Canadian oil use is Section 526 of the Energy Independence and Security Act of 2007 (P.L. 110-140), which prohibits federal procurement of an alternative or synthetic fuel "unless the contract specifies that the lifecycle GHG emissions are less than or equal to such emissions from the equivalent conventional fuel produced from conventional petroleum sources." The provision is intended to ensure that federal agencies are not spending taxpayer dollars to promote new fuel sources that will exacerbate global warming, and would apply to fuels derived from "oil sands," that some associate with the production of higher levels of greenhouse gas emissions than fuels derived from conventional, lighter crude oils.

Background and Analysis

When it comes to future oil supplies, production from Canada's oil sands will likely make up a large share of U.S. oil imports. Oil sands account for well over 50% of Canada's total oil production, and oil sand production is increasing as conventional oil production declines. Since 2004, when production from a substantial portion of Canada's oil sands was deemed economic, Canada has been ranked third behind Saudi Arabia and Venezuela in proved oil reserves. Canada has about 175 billion barrels of proved reserves and a total of over 300 billion barrels of potentially recoverable oil sands (an attractive investment under high oil price conditions, but the sustained period of low oil prices have caused capital expenditures to decline). Canadian crude oil and petroleum product exports (from oil sands and conventional petroleum sources) were over 3.8 mbd during 2015, of which 99% was directed to the United States. Canadian crude oil accounts for about 37% of U.S. crude oil imports, and about 20% of all U.S. crude oil and petroleum products supplied during 2015. U.S.-based oil companies are heavily involved in Canadian oil sands development. The infrastructure to produce, upgrade, refine, and transport oil from Canadian oil sand reserves to the United States is already in place although additional pipeline capacity is planned, and may be needed. Oil sands production is expected to rise to over 3.6 mbd by 2030.

Greenhouse gas "emissions intensity" (CO_2/barrel) from oil sands has been identified as being higher than that from conventional oil production. Canada's federal government classifies the oil sands industry as a large industrial air pollution emitter and expected it to produce half of

Canada's growth in greenhouse gas (GHG) emissions in 2010. Reducing air emissions is one of the most serious estimated challenges facing the oil sands industry. Between 1995 and 2004, it has been reported that the oil sands industry reduced its emission intensity by 29% while oil production rose. Overall, CO_2 emissions have declined from 0.14 tons/barrel (bbl) to about 0.08 tons/bbl since 1990. However, Alberta's GHG goals of 238 megatons of CO_2 in 2010 was not met, and its goal of 218 megatons CO_2 in 2020 is not expected to be fulfilled.

Status of the Issue

New refinery capacity that would accommodate heavier crude from Canadian oil sands is being planned, or opened in Indiana, Michigan, South Dakota, and elsewhere. Some of these expansions, or new refineries, are several years away from operation. The multi-billion-dollar BP refinery upgrade and expansion in Whiting, IN, originally with an initial expected completion in 2011, is now complete and the new facilities opened in December 2013. A new $10 billion refinery in Union County, SD, being planned to process heavy crude from oil sands, continues to face legal challenges. Environmental groups continue to promote standards for low-carbon emission fuel and oppose the permitting of these refinery projects on the basis that processing heavy crude from Canadian oil sands would generate much higher greenhouse gas emissions than from conventional petroleum sources.

Another factor important in determining Canada's ability to export increased volumes to the United States concerns recent reforms in Mexico. Mexico's oil production has contracted over the past years, but recent reforms undertaken by the government promise to reverse the downward production trend. Mexico is opening its oil industry, dominated by PEMEX, the state oil company, to investment by international oil companies. Any increased output by Mexico will likely be sent to the U.S. market where it will compete with rising U.S. production, as well as potentially rising Canadian imports. This competition for a place in the U.S. market may provide an incentive for Canada to diversify its exports in the future.

Questions

1. What changes are necessary to significantly reduce the environmental footprint of heavy oil from Canadian oil sands?
2. How much capital investment in pipeline and refinery infrastructure, and in what timeframe, is required to support increased crude oil imports from Canada?
3. What would be the impact on U.S. federal and defense fuel procurements if Section 526 restrictions remain in place on fuel produced from Canadian oil sands?
4. As a result of supply bottlenecks and resultant price discounts on Canadian crude oil, how likely is it that Canadian oil sands development will be slowed because of revised investment strategies by the major oil companies?
5. In light of increasing U.S. oil production and the likelihood of increased Mexican oil production how, and should, Canada diversify its oil export strategy?
6. What infrastructure improvements will Canada need to allow its oil to compete in the broader world market?
7. Should low oil prices continue, how, and in what timeframe is the Canadian oil sands likely to be affected?

Climate Change[53]

Issue Definition

Canada and the United States have weathered similar political debates over whether and how to address greenhouse gas-induced climate change. While public opinions in both countries broadly agree that climate change is occurring and that their governments should address it, views are strongly correlated with where people live (region and urban/rural) and political orientation, resulting often in strong disagreements over appropriate policies. Both populations emit among the highest levels of greenhouse gases (GHG) per person due to a number of factors, including high income and consumption levels, dependence on personal vehicles, long travel distances, and cold winters. Further, national infrastructures were constructed in the context of inexpensive and generally abundant fossil fuels, which are responsible for the majority of GHG emissions. Both countries have regions strongly dependent on producing and processing fossil fuels. Other regions depend on importing energy from other provinces or countries, or use hydropower for electricity generation. Regulation of energy is primarily a provincial or state authority in both Canada and the United States. Environmental protection authorities are shared by the federal and sub-federal levels in both countries.

Trade between Canada and the United States, including trade in energy commodities, is important to both economies. Addressing transboundary pollution has been a point mostly of cooperation for several decades. Canada has typically sought policies compatible with those of the United States with the understanding that there could be significant benefits in harmonizing aspects of GHG and other pollution control strategies in order to facilitate trade and make compliance easier for transnational businesses. In 2008-2009, the national governments explored compatible GHG emission cap-and-trade systems that would allow cross-boundary trading to help minimize compliance costs. While neither national government enacted such cap-and-trade systems, the sub-federal governments of California and Quebec have adopted and established trading between their GHG cap-and-trade systems.

Both governments also perceive certain vulnerabilities to climate change, including increasing forest losses and fires, effects on public health of heat episodes and expanding disease vectors, increasing costs of cooling, and risks to coastal communities due to more intense storms and sea level rise. Shrinking sea ice extent in the Arctic brings opportunities and concerns for both countries, due to impacts on indigenous populations, increased commercial activity, shipping, tourism, and risks of associated accidents, as well as dramatically changing ecosystems.

On March 10, 2016, President Barack Obama and Prime Minister Justin Trudeau issued a Joint Statement on Climate, Energy, and Arctic Leadership. The statement emphasized implementing their respective commitments under the recently adopted Paris Agreement, including "robust implementation of the carbon markets-related provisions of the Paris Agreement." They committed to leadership toward low carbon economies, including improving data on and regulating methane emissions from the oil and gas sector. They pledged to protect the Arctic and its peoples. They also emphasized working trilaterally with Mexico on climate and energy actions.

[53] Written by Jane Leggett, Specialist in Energy and Environmental Policy.

Further elements of cooperation between the countries could (and in many cases do) include

- collaborative research on GHG reduction technologies, such as "carbon capture and storage," and advanced on-road vehicles and aircraft;
- advanced, "smart" electric grids to facilitate integration of renewable energy technologies, and enhance electricity trade and reliability;
- shared science and experience in enhancing adaptation and resilience to climate changes, especially in the Arctic; and,
- collaboration on standards for safe and environmentally benign commercial activities in an increasing accessible Arctic.

One element of tension has been the high carbon dioxide emissions associated with development in Canada of extensive oil sands resources. A main focus of the tension has been the decision of the U.S. Department of State not to permit the proposed transboundary pipeline. The pipeline would have moved the Canadian product to U.S. refineries and ports.

Background and Analysis

According to the U.S. National Research Council,

> A strong, credible body of scientific evidence shows that climate change is occurring, is caused largely by human activities, and poses significant risks for a broad range of human and natural systems.

The United States and Canada both ratified the 1992 United Nations Framework Convention on Climate Change (UNFCCC). Both also signed to the 1997 Kyoto Protocol to the UNFCCC. (The Kyoto Protocol is a subsidiary agreement under the UNFCCC. It included commitments from the developed countries to abate their GHG emissions below 1990 levels by the period 2008-2012. The United States committed to 7% below its 1990 level, while Canada committed to 6% below 1990 emissions level.) However, President Clinton never submitted the protocol to the Senate for consent to ratification, and in 2001, President Bush announced that the United States did not intend to ratify the Kyoto Protocol. In contrast, the Canadian government ratified the protocol in 2002. However, government policies did not put Canada on a track to meet its GHG target of 6% below 1990 levels in 2008-2012. In 2008, the Canadian National Round Table on the Environment and Economy concluded:

> Canada is not pursuing a policy objective of meeting the Kyoto Protocol emissions reductions targets. [...] [The] projected emissions profile described in the 2008 [government plan] would leave Canada in non-compliance with the Kyoto Protocol.

In 2008, Canadian GHG emissions were about 24% above 1990 levels. In December 2009, then-Prime Minister Harper pledged in the nonbinding Copenhagen Accord among many Parties to the UNFCCC, that Canada would reduce its GHG emissions to 17% below 2005 levels by 2020 –the same target as President Obama pledged for the United States.

In 2011, the environment minister in the Harper government announced Canada's intent to withdraw from the Kyoto Protocol, stating that Canada did not intend to meet its Kyoto Protocol commitments. The Canadian government's withdrawal from the protocol took effect on December 15, 2012.

The government of Prime Minister Stephen Harper, in 2015, pledged that that Canada intended to achieve an economy-wide target of reducing its GHG emissions by 30% below 2005 levels by 2030. This pledge supported negotiation under the UNFCCC of the December 2015 Paris Agreement to address climate change globally, including setting a common goal to avoid an

increase of global average temperature well below 2° Celsius and aiming at net zero carbon emissions in the second half of this century. The Canadian government of Prime Minister Trudeau signed the Paris Agreement on April 22, 2016.

Status of the Issue

Prime Minister Trudeau's Climate Change Policies

The Canadian government has indicated that it intends to reduce GHG emissions over time, consistent with Canada's commitment to the Paris Agreement. (See above.) Prime Minister Trudeau recently stated that "as a result of provincial and territorial actions, more than 85% of Canadians will soon live in jurisdictions with an existing or planned carbon pricing."

Prime Minister Trudeau's budget in May 2016 included

- C$2 billion over two years, starting in 2017–18, to establish the Low Carbon Economy Fund.
- More than C$1 billion over four years to support future clean technology investments, including in the forestry, fisheries, mining, energy, and agriculture sectors. In addition, over C$130 million over five years to support clean technology research, development, and demonstration activities.

Prime Minister Trudeau announced in November 2015, at the Paris negotiations, that Canada would contribute C$2.65 billion (US$2.02 billion) over five years as its financial contribution to developing countries to address climate change. (In comparison, the Obama Administration pledged US$3 billion over four years in November 2014.)

Canadian Intergovernmental Arrangements

On March 3, 2016, Canadian First Ministers of the provinces and territories issued the Vancouver Declaration on clean growth and climate change. First Ministers committed to implement GHG emissions abatement policies in support of meeting or exceeding Canada's target to reduce emissions by 30% below 2005 levels by 2030, including establishment of provincial and territorial targets. One element of the Declaration was to develop by the Fall of 2016, and to implement by 2017, a pan-Canadian framework that would include "carbon pricing mechanisms adapted to each province's and territory's specific circumstances"—though how "carbon pricing" may be interpreted varies substantially across provinces. Another proposed element is a federal Low Carbon Economy Fund to achieve incremental GHG emission reductions to fulfill Canada's commitment to support commercialization of low-GHG technologies, including electrification of motor vehicles and investment to reduce the use of diesel fuels by indigenous, remote, and northern communities.

First Ministers also committed to increase the ambition of their policies over time in order to drive greater GHG emission reductions and to better coordinate their reporting to "accurately and transparently" assess progress. They further committed to "transition to a low carbon economy by adopting a broad range of domestic measures, including enhancement of carbon sinks in agriculture and forestry."

Selected Provincial Policies

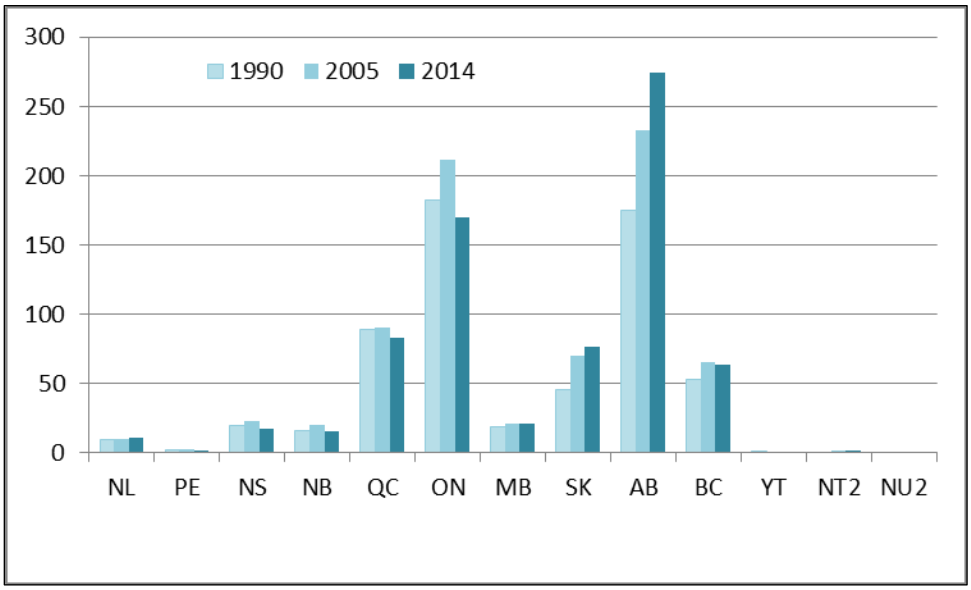
As noted above, public opinions regarding the human influence on climate change and related public policies vary by province, as do GHG emissions (**Figure 5**). Many of Canada's provinces

have policies to mitigate GHG emissions. Examples from three of the largest emitting provinces include the following:

- **Alberta**: A phase-out of emissions from coal-generated electricity and development of more renewable energy; implementation of a new, highest-in-Canada carbon price covering about 78-90% of the province's GHG emissions to help pay for a more diversified economy; a legislated oil sands emission limit; and a new methane emission reduction plan.
- **Ontario** (update expected in June 2016): A 2007 plan to reduce GHG emissions to 6% below 1990 levels by 2014; closure of provincial coal-fired electric generating units; support for electric plug-in and hybrid electric vehicles; an announced GHG emissions trading system to link with Quebec, California, and later Manitoba.
- **Quebec**: Establishment of a carbon emissions trading system in 2013 that linked with California's in 2014; carbon permit auctions raising revenue that, in part, finances a Green Fund supporting the 2013-2020 Climate Change Action Plan; an Energy 2030 Plan intended to eliminate thermal coal use, reduce petroleum use by 40%, and increase renewable energy output by 30% and bioenergy production by 50% by 2030.

Figure 5. Canada's GHG Emissions by Province

In gigatons of carbon dioxide-equivalent emissions



Source: Environment and Climate Change Canada. *National Inventory Report 1990-2014: Greenhouse Gas Sources and Sinks in Canada*. 2016.

Notes: Abbreviations for provinces and territories are: Newfoundland and Labrador (NL); Prince Edward Island (PE); Nova Scotia (NS); Quebec (QC); Ontario (ON); Manitoba (MB); Saskatchewan (SK); Alberta (AB); British Columbia (BC); Yukon (YT); Northwest Territories (NT2); Nunavut (NU2).

Questions

1. Canadian First Ministers recently agreed to work toward "carbon pricing mechanisms adapted to each province's and territory's specific circumstances." Additionally, Prime Minister Trudeau and President Obama jointly stated an intention to implement carbon

markets-related provisions of the 2015 Paris Agreement on climate change. What are the pricing mechanisms that provinces, territories, and national government may have adopted or intend to adopt—cap-and-trade, fee-based carbon pricing, or a mix of these or other policy measures? How might different approaches in different areas affect the potential for transboundary trade and cost-effectiveness in addressing greenhouse gas emissions? What may be the opportunities and risks of cross-border carbon markets?

2. What is the degree of confidence among Canadian legislators and the public that humans are largely responsible for observed climate warming of recent decades?
3. In the 2015 Paris Agreement, national leaders agreed to achieve a balance between emissions by sources and removals of greenhouse gas emissions by land use or other sinks in the second half of this century, effectively aiming at net zero emissions. Development of oil sands in western Canada is an important component of the provincial and national economies. How do you foresee reconciling the economic potential of those resources, the dependence of jobs on the fossil energy economy, and international commitments?
4. Which might be the most promising technologies and practices for collaboration between our countries, such as incentives to improve energy productivity, and private sector partnerships to invest in low-greenhouse gas energy systems?

Proposed Canadian Radioactive Waste Repository Near Lake Huron[54]

Issue Definition

Ontario Power Generation (OPG), an electric power producer wholly owned by the Province of Ontario, has proposed to construct a Deep Geologic Repository for low- and intermediate-level radioactive waste about one kilometer from Lake Huron in Kincardine, Ontario. Some Members of the U.S. Congress and the Obama Administration have expressed concern about the project's potential for contaminating the Great Lakes with radioactivity. OPG contends that the repository would pose no threat to the Great Lakes, because it would be located more than 2,000 feet below the surface in low-permeability rock formations that will remain stable for millions of years.

Background and Analysis

OPG submitted a letter of intent in 2005 to apply for a license for the Kincardine repository from the Canadian Nuclear Safety Commission (CNSC). According to OPG, the repository is needed for permanent disposal of low- and intermediate-level radioactive waste produced by 20 nuclear reactors owned by the company at three sites, including the Bruce site near the proposed repository. This waste is currently stored at or near the surface at the Western Waste Management Facility (WWMF) on the Bruce site. According to OPG, 2.6 million cubic feet of low-level waste is currently stored in warehouse-like buildings at WWMF, while 350,000 cubic feet of intermediate-level waste is stored in "a variety of shielded structures."

OPG says the planned repository would be designed to hold a total of seven million cubic feet of low- and intermediate-level waste (200,000 cubic meters) from the operation and maintenance of existing reactors during their planned lifetimes. An additional 4.8 million cubic feet of waste from

[54] Written by Mark Holt, Specialist in Energy Policy.

decommissioning those reactors at the end of their operating lives is not currently planned for disposal in the repository, according to OPG. Also excluded from the repository would be the highly radioactive spent nuclear fuel that is regularly discharged from operating reactors.

The International Atomic Energy Agency (IAEA) defines low-level waste as radioactive waste that does not require radiation shielding and consists mostly of radioactive isotopes that decay relatively quickly. However, long-lived radioactive isotopes may be present within specified concentration limits. Intermediate-level waste contains greater concentrations of long-lived radioactive isotopes. IAEA has declared low-level waste to be suitable for disposal in shallow trenches or engineered structures, while intermediate-level waste is to be emplaced in facilities up to a few hundred meters deep. In addition to radioactive constituents, low- and intermediate-level waste may include industrial chemical contaminants that are subject to non-nuclear environmental requirements.

The proposed Kincardine repository would be located in a limestone formation 2,230 feet below the surface. OPG contends that multiple layers of thick, low-permeability bedrock would prevent any movement of radioactive materials into Lake Huron far above. Moreover, according to OPG, the region around the proposed repository is tectonically stable, experiencing no earthquakes with a magnitude greater than five (less than the 5.8 magnitude East Coast earthquake of 2011) during the past 180 years.

However, public comments on the Draft Environmental Impact Statement for the project submitted in 2008 expressed substantial environmental and safety concerns. Some comments questioned the level of scientific knowledge about the reliance on sedimentary rock to prevent movement of radioactive material from the repository. Raising another issue, the Coalition for a Nuclear-Free Great Lakes asserted, “The unique hydrology of Lake Michigan and Lake Huron with potential for reverse flow must be considered.”

A 2013 letter to U.S. Secretary of State Kerry from U.S. Senators Stabenow and Levin urged that the United States play a role in reviewing the proposed repository through the International Joint Commission established by the 1909 Boundary Waters Treaty. The State Department responded that the U.S. Environmental Protection Agency had recently raised concerns about the repository with the Canadian Environmental Assessment Agency (CEAA), which issued the Draft Environmental Impact Statement. The State Department told the senators, “We agree that the decision to proceed with a project such as this repository is a matter that both Canada and the United States should consider carefully.”

Status of Issue

Canada’s nuclear regulatory body, CNSC, is responsible for licensing the operation of deep geologic repositories such as the proposed OPG repository in Kincardine. A Joint Review Panel appointed by CNSC and the Canadian Minister of the Environment submitted its Environmental Assessment Report to the Minister of the Environment on May 6, 2015. The Minister of the Environment, on February 18, 2016, requested additional information about the project from OPG, according to a CEAA public notice: “alternate locations for the project, cumulative environmental effects of the project, and an updated list of mitigation commitments for each identified adverse effect under the Canadian Environmental Assessment Act.” If the Minister of the Environment is satisfied with OPG’s additional analysis, then the Joint Review Panel could issue a license to prepare the site and construct the repository, according to CNSC. An operating license would be required from CNSC before waste disposal could begin.

Questions

1. Article IV of the U.S.-Canadian Boundary Waters Treaty of 1909 states that "waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other." Is the proposed Kincardine repository affected by this provision?
2. The U.S. government in 1986 considered several possible nuclear repository sites near the U.S.-Canandian border. According to contemporary media reports, the Canadian Government insisted that no repository be constructed within 25 miles of the border or within drainage basins flowing into Canada. Should these criteria also apply to Canadian repositories?
3. IAEA guidelines allow low-level radioactive waste to be disposed of in shallow trenches. Does OPG's proposal to bury this material more than 2,000 feet underground add a sufficient margin of safety? Is most of the concern focused on intermediate-level waste, which IAEA says must be buried in a deep repository?
4. The U.S. Department of Energy's Waste Isolation Pilot Plant (WIPP) in New Mexico is a deep underground repository for defense-related transuranic waste, which is a type of intermediate-level waste. Are recent accidents at WIPP relevant to the proposed Kincardine repository?

Columbia River Treaty Review[55]

Issue Definition

The Columbia River Treaty (CRT) is an international agreement between the United States and Canada for the cooperative development and operation of the water resources of the Columbia River Basin. It became effective in 1964. The CRT has no specific end date, and most of its provisions would continue indefinitely without action by the United States or Canada. However, beginning in September 2024, either nation can terminate the majority of the Treaty's provisions with at least 10 years written notice (i.e., starting as early as 2014). As of mid-2016, both countries were reviewing their positions on the Treaty. The State Department expects negotiations to begin in 2016, although no formal date has been set.

Background and Analysis

The CRT was precipitated by several flooding events in the Columbia River Basin. It resulted from more than 20 years of negotiations between the two countries. It was ratified in 1961, and implementation began in 1964.

The Treaty provided for the construction and operation of 15.5 million acre-feet of additional storage on the Columbia River and its tributaries, including three dams in Canada and one dam in the United States whose reservoir extends into Canada. Together, these dams more than doubled the amount of reservoir storage available in the basin and provided significant flood protection benefits throughout the basin. The CRT also requires that the United States and Canada prepare "Assured Operating Plans," to allow for more predictable operations for flood control and power objectives in the United States, among other things. In exchange for these benefits, the United States agreed to provide Canada with lump sum cash payments as well as a portion of

[55] Written by Charles Stern, Specialist in Natural Resource Policy.

downstream hydropower benefits that are attributable to Canadian operations under the CRT, commonly known as the "Canadian Entitlement." The Canadian Entitlement has been estimated by some to be worth as much as $335 million annually.

Since the CRT has no specific end date, its provisions would continue indefinitely without action by the United States or Canada. However, beginning in September 2024, either nation can terminate most provisions of the Treaty with at least 10 years written notice (i.e., starting as early as September 2014). Under the original Treaty, the only provisions scheduled to change in 2024 involve flood control by Canadian CRT projects, which are scheduled to transition to "called-upon" operations at that time. This means that the United States would request and compensate Canada for flood control operations as necessary.

The United States and the Canadian governments are both reviewing their positions on the CRT. The U.S. Army Corps of Engineers (Corps) and the Bonneville Power Administration (BPA), in their joint designated role as the "U.S. Entity," undertook a review of the Treaty from 2011 to 2013. Based on studies and stakeholder input, a final "Regional Recommendation" was coordinated by the U.S. Entity and provided to the State Department in December 2013. The Regional Recommendation was to continue the Treaty with certain modifications, including a rebalancing of the Treaty's hydropower benefits, further delineation of called-upon flood control operations after 2024, and incorporation into the Treaty of flows to benefit the Columbia River fisheries.

Separately, the Province of British Columbia (BC) initiated its own studies beginning in 2011, which resulted in a recommendation to continue the Treaty while "seeking improvements within the existing Treaty framework." The principles outlined by BC include broad requirements for called-upon flood control operations, acknowledge the potential ecosystem based improvements "inside and outside the treaty," and state the province's belief that the Canadian Entitlement does not account for the full "range" of benefits in the United States and the impacts on British Columbia.

U.S. stakeholder perspectives on the CRT and its review vary. Some believe that the Treaty should continue but be modified to include stronger provisions related to tribal resources and flows for fisheries that were not included in the original Treaty. Others disagree with some or all proposed changes of this type. Some focus on other potential changes, such as the perceived need to adjust the Canadian Entitlement to more equitably share actual hydropower benefits. For its part, BC has disputed several U.S. assumptions and recommendations during the Treaty review process.

The State Department is responsible for conducting negotiations with Canada related to the future of the CRT, and is coordinating efforts to make the final determination on whether changes to the Treaty are in the national interest. To date, the State Department's public announcements on expected U.S. negotiating positions have been consistent with the Regional Recommendation.

The Constitution gives the Senate the power to approve, by a two-thirds vote, treaties negotiated by the executive branch. If the executive branch comes to an agreement regarding modification of the CRT, the Senate may be asked to weigh in on future versions of the Treaty pursuant to its advice and consent role. In addition, both houses of Congress have weighed in on Treaty review activities through their oversight roles and may continue to do so going forward.

Status of the Issue

The "Regional Recommendation" coordinated by the U.S. Entity was provided to the State Department in December 2013. Since early 2014, the U.S. approach to CRT negotiations with

Canada has been under review by a federal Interagency Policy Committee, coordinated by the State Department. Both the U.S. and Canada have been able to provide notice of their intent to terminate Treaty provisions since September 2014, thus negotiations could theoretically begin at any time. To date, there has been no official U.S. position or timeline announced, but the State Department has stated its expectation that negotiations will begin sometime in 2016.

Questions

1. Assuming Treaty negotiations will take place, what are the most contentious components of upcoming Treaty negotiations from the Canadian point of view? On what issues is there agreement?
2. Assuming there will be Treaty negotiations, what issues are most important to Canadian stakeholders?
3. How has Treaty review thus far been received from the Canadian perspective? Have Canadian interests been satisfied with the U.S. approach to Treaty Review?

Ballast Water Management[56]

Issue Definition

Regulatory regimes at the international, national, and state levels are in place to manage and require treatment of ballast water discharges from vessels. The impact of nonnative aquatic nuisance species (ANS, also known as invasive species) has been a concern for several decades. Until recently, these regimes have required minimal ballast water controls (i.e., ballast water exchange and saltwater flushing) for oceangoing vessels entering the Great Lakes-St. Lawrence River system and other U.S. waters. Regulatory agencies now are adopting numeric standards for ballast water discharge that will require installation of treatment technology on most vessels in the near future. Many vessel owners and operators are concerned about the feasibility of achieving ballast water discharge performance standards and also about the need to harmonize requirements.

Background and Analysis

Ballast water discharge has been identified as a major pathway for the introduction of nonnative ANS. Ships use large amounts of ballast water for stability during transport. Ballast water is often taken on in the coastal waters in one region after ships discharge wastewater or unload cargo, and then discharged at the next port of call, wherever more cargo is loaded, which reduces the need for compensating ballast. Thus, the practice of taking on and discharging ballast water is essential to the proper functioning of ships, because the water that is taken in or discharged compensates for changes in the ship's weight as cargo is loaded or unloaded, and as fuel and supplies are consumed. However, ballast water discharge typically contains a variety of biological materials, including nonnative ANS that can alter aquatic ecosystems. The spread of nonnative ANS, such as the zebra mussel, has had a significant impact on the Great Lakes, including economic impacts such as impairment on cooling water systems at power plants.

In 2013 the U.S. Environmental Protection Agency (EPA) issued a permit called the Vessel General Permit (VGP) under provisions of the Clean Water Act (CWA, 33 U.S.C. 1251 et seq.) to regulate certain types of discharges from vessels, including discharges of ballast water, into U.S.

[56] Written by Claudia Copeland, Specialist in Resources and Environmental Policy.

waters. The EPA permit applies to seven categories of vessels operating in a capacity of transportation: commercial fishing including fish processing, freight barge, freight ship, passenger vessel, tank barge, tank ship, and utility vessel. The permit includes numeric performance standards to limit the concentration of living organisms in ballast water discharges. The numeric standards are identical to standards specified in the International Maritime Organization's (IMO's) 2004 International Convention for the Control and Management of Ships' Ballast Water and Sediment.[57] They also are the same as standards finalized by the U.S. Coast Guard in 2012 under 33 CFR Part 151 and 46 CFR Part 162.[58]

The EPA permit acknowledges unique vulnerabilities of the Great Lakes system to ANS invasion through ballast water discharges, and it includes additional protection for these waters. It requires all vessels that operate outside the Exclusive Economic Zone (EEZ) and more than 200 nautical miles from any shore to conduct saltwater flushing of ballast tanks before entering Great Lakes waters through the Saint Lawrence Seaway System. Also, all vessels that are equipped to carry ballast water and that enter the Great Lakes must conduct open ocean ballast water exchange.

Vessels may comply with the concentration-based numeric treatment limits in the VGP in one of four ways, one of which is to discharge ballast water that meets the applicable numeric limits (i.e., by using treatment technology). EPA estimates that approximately 2,880 domestic and 5,270 foreign vessels are potentially subject to the permit's ballast water standards, because they operate with on-board ballast water tanks, and the agency anticipates that about 40% of covered vessels will comply by installing a ballast water treatment system. EPA has concluded that several treatment technologies capable of meeting the permit's numeric limits are commercially and economically available now for shipboard installation. New vessels constructed after December 1, 2013, must comply with the permit's numeric limits upon delivery, while existing vessels constructed before that date were to comply under a staggered schedule between January 1, 2014, and January 1, 2016.

Certain vessel classes are not subject to the ballast water numeric limits in the EPA permit. These include vessels engaged in short-distance voyages (e.g., they travel no more than 10 nautical miles), unmanned and unpowered barges, small inland and seagoing vessels (less than 3,000 gross tons), and existing bulk carrier vessels built before January 1, 2009, that operate solely within the Great Lakes (commonly known as "Lakers"). In general, according to EPA, these vessels face a number of challenges for managing ballast water, and in the case of existing Lakers there currently are no available treatment systems. Thus EPA concluded that it is more appropriate to require these vessels to use best management practices (BMPs) such as avoiding discharge of ballast water in environmentally sensitive areas, but not require compliance with numeric limits.

Environmental advocates believe that the performance standards in the VGP are not stringent enough to address the ANS problem, and they challenged the permit in federal court. In October 2015, the court ruled on the environmentalists' challenge and found that EPA acted arbitrarily and

[57] The IMO, a body of the United Nations, sets international maritime vessel safety and marine pollution standards. Numeric discharge limits in the IMO ballast water convention, referred to as the D-2 standards, will enter into force 12 months after ratification by 30 nations, representing 35% of the world merchant shipping tonnage. As of May 2016, this convention had been ratified by 49 nations, representing 34.79% of the world merchant shipping tonnage. Canada ratified the convention in 2010. The United States has not ratified the convention.

[58] U.S. Department of Homeland Security, Coast Guard, "Standards for Living Organisms in Ships' Ballast Water Discharged in U.S. Waters; Final rule," 77 *Federal Register* 17254-17320, March 23, 2012. The Coast Guard's authority for these rules is the Nonindigenous Aquatic Nuisance Prevention and Control Act, as amended by the National Invasive Species Act (16 U.S.C. 4701 et seq.).

capriciously in issuing parts of the 2013 VGP.[59] The court also agreed with environmentalists that EPA's decision to exempt Lakers built before 2009 from numeric effluent limits of the VGP was arbitrary and capricious. The court said that EPA's belief that there is a lack of supply of updated shipboard systems for Lakers to meet numeric standards was not a legitimate reason to exempt pre-2009 Lakers from the 2013 VGP. The court remanded the permit to EPA for proceedings consistent with the opinion, but allowed the 2013 permit to remain in place until EPA issues a new VGP.

The Canadian Shipowners Association (CSA) also challenged the 2013 VGP, asking the federal court to review the January 1, 2014, deadline for implementing best available technology for ballast water management systems. At issue is the fact that the Coast Guard has been granting compliance extensions to its ballast water rules because of unavailability of certified technologies.[60] The association argued that the deadline in the VGP, which does not provide for similar extensions, was not realistic—a point that EPA has conceded. CSA also has raised concerns about problems that could result from requiring Lakers to comply with numeric effluent limits for ballast water discharges. For now, the CSA's challenge to the 2013 VGP is in abeyance until EPA issues its response to the October 2015 remand order.

A number of U.S. states also have ballast water discharge regulations, including several in the Great Lakes region. Some establish separate permit requirements (e.g., Michigan, Wisconsin, and Minnesota), and a few include numeric discharge standards more stringent than those in the EPA permit (e.g., New York and California). Shipping and other industry groups argue that separate state permits and rules create a patchwork of inconsistent requirements that are economically inefficient and cumbersome to implement. States that have adopted additional requirements strongly oppose proposals to preempt this authority.

In 1989, Canada issued guidelines for voluntary ballast water exchange (BWE) outside the Exclusive Economic Zone (EEZ) for vessels entering the Great Lakes, and in 2000, these guidelines were expanded to cover all Canadian waters. In 2006, all vessels entering the Great Lakes were required to manage their ballast water through BWE and saltwater flushing for vessels. Canada's regulations call for meeting the IMO D-2 performance standard for ballast water treatment when the Convention enters into force, but not before then. The Canadian regulatory agency, Transport Canada, issued a discussion paper outlining regulatory changes that would be needed to implement the Convention. The proposed regulatory changes would also apply to Laker vessels, which would be required to meet the IMO D-2 standard. However, Transport Canada proposes granting an extension in the timeline for treatment systems to be installed on Laker vessels.

Status of the Issue

Many Canadian and U.S. owners and operators of vessels are concerned about overlap and inconsistency among international, national, and state ballast water discharge requirements and have sought better harmonization. For example, although the IMO D-2 standards, Coast Guard rules, and EPA permits detail the same numeric standards, they differ in some aspects, such as compliance deadlines, technology certification, and exemptions or exclusions.[61] The Lake

[59] Natural Resources Defense Council et al. v. EPA, No. 13-1745, 2nd Cir., Oct. 5, 2015.

[60] Coast Guard rules require owners and operators of vessels to install treatment technologies that have been certified by two Coast Guard-approved, third-party laboratories. Because no technological system has yet attained approval, the Coast Guard has granted two-year extensions to nearly 350 vessels.

[61] For example, Lakers are exempt from the numeric discharge standard in the Coast Guard rule, but are not exempt (continued...)

Carriers Association, representing commercial shipping operators, unsuccessfully challenged separate state ballast water rules, which they contend subject shippers to multiple state requirements. Vessel owners and operators also are concerned about the availability of technology to meet ballast water discharge performance standards and compliance deadlines. At the same time, some states and environmental advocacy groups favor more stringent numeric standards in order to eliminate invasions of aquatic invasive species.

Congressional interest in these issues has been evident for some time. In the 114th Congress, bills have been introduced that would harmonize ballast water management requirements in a single authority to be implemented by the Coast Guard (S. 373, H.R. 980, S. 1611, and S. 2829). Under these bills, states would generally be preempted from adopting separate or more stringent ballast water discharge rules or requirements.

Questions

1. Does Canada see a need to harmonize the international, national, and other regulatory regimes that govern ballast water discharges from vessels? If so, how might this occur?
2. If the IMO Convention is not ratified by a sufficient number of countries in the near future for it to go into effect, will Canada pursue the proposed regulatory changes outlined in Transport Canada's discussion paper, including adoption of the IMO D-2 standard?
3. What are Canada's views on the availability of technology to meet current or more stringent numeric effluent limitations on ballast water discharges?

(...continued)

from the IMO D-2 numeric performance standard. Under the EPA permit, lakers are required to utilize best management practices to control ballast water discharges.

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