This primer is designed to offer some important background on the issue and includes Senate testimony from Frank Harvey, CDFAI Fellow and Professor with Dalhousie University, Colin Robertson, CDFAI Vice President, and James Fergusson, Director of the Centre for Defence and Security Studies at the University of Manitoba.

**Senate Testimony: Frank Harvey**

My objective today is to highlight what I regard as a significant and puzzling inconsistency in Canada's policy on ballistic missile defence. A more detailed paper outlining the potential dangers associated with this inconsistency can be found on the CDFAI website.¹

In November 2010, 28 NATO members met in Lisbon to sign NATO’s updated Strategic Concept, a document outlining alliance members’ obligations and commitments to enhance “collective” security.

The 2010 document includes a crystal clear commitment by all NATO members to: “Develop the capability to defend our populations and territories against ballistic missile attack as a core element of our collective defence, which contributes to the indivisible security of the Alliance.” As President Obama stated in his closing remarks, “we’ve agreed to develop missile defense capability that is strong enough to cover all NATO European territory and populations, as well as the United States.”

At NATO’s 2012 Summit in Chicago, alliance members reinforced their collective commitment to BMD:²

“We continue to be concerned by the increasing threats to our Alliance posed by the proliferation of ballistic missiles.... The aim of this capability (as stipulated in Lisbon) is to provide full coverage and protection for all NATO European populations, territory and forces against the increasing threats posed by the proliferation of ballistic missiles, based on the principles of indivisibility of Allied security and NATO solidarity, equitable sharing of risks and burdens...taking into account the level of threat, affordability and technical feasibility and in accordance with the latest common threat assessments agreed by the Alliance.”

NATO’s 2012 Deterrence and Defence Posture Review added additional weight to the alliance’s (and Canada’s) missile defence commitments:³

“The proliferation of ballistic missiles is a growing concern for the Alliance and constitutes an increasing threat to Alliance security. NATO’s ballistic missile defence capacity will be an important addition to the Alliance’s capabilities for deterrence and defence.”

As a NATO member, there is no question any longer that Canada officially endorses the logic, strategic utility, and security imperatives underpinning BMD. In essence, the Government of Canada (GoC) now fully embraces the merits of multinational cooperation on missile defence as part of Canada’s treaty obligations and alliance commitments.

The debate in Ottawa over the merits of BMD is essentially over, except when it comes to the government’s obligation to protect Canadian territory and populations from the very same threats. Why?

The most perplexing aspect of Canada’s official endorsement of BMD is the ongoing reluctance (or refusal) by the GoC to engage in bilateral talks with our most important ally on BMD architecture and interceptor algorithms to protect Canadians.

Keep in mind, Canada’s signatures on each one of these documents confirm Ottawa’s support for BMD, but these signatures also clearly imply that the GoC has rejected the various opinions put forward by BMD critics. And there are very sound reasons why these considerably out-dated opinions have been dismissed.

For instance, critics were absolutely convinced that US BMD would compel Russia to launch a new arms race (committee members can easily find examples of these dire warnings from previous House and Senate hearings on BMD). Consider Steven Staples’ conclusions:4

“For our standpoint in Canada, neither the high cost of missile defense nor its functionality was our chief concern. Our arguments against missile defense focused mainly on the risk of provoking another nuclear arms race and the weaponization of space, in addition to the broader abandonment of Canada’s traditional support for arms control and peacekeeping.” (2006: 140)

In direct contrast to Staples’ mistaken predictions, we have witnessed some of the most sweeping bilateral disarmament agreements in history. The most recent US-Russia agreement lowered the number of deployed strategic warheads from 2,200 to 1,550 -- 74% lower than the 1991 START Treaty and 30% lower than the 2002 Moscow Treaty.5 These are significant steps in the right direction, and critics could not have been more mistaken.

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4 http://www.amazon.ca/Missile-Defence-Round-Steven-Staples/dp/1550289292
5 http://www.state.gov/t/avc/newstart/index.htm
How do we explain the fundamental errors underpinning the critics’ erroneous projections (and fear mongering) about another arms race and the inevitable deterioration of US-Russia relations? Essentially, BMD critics misunderstood (and continue to ignore) the fundamental transformations in international politics that took shape after the Cold War – the balance of nuclear forces (numbers) became far less relevant to strategic stability because US-Russia relations improved. US-Russia security was always about the health and stability of the relationship; it was never really about the balance of nuclear weapons.

US BMD has also become far less destabilizing after the Cold War because Russian officials understand that the system is designed to address new and emerging nuclear threats from North Korea and Iran; BMD does not undermine Moscow’s second-strike capability.

Critics also continue to dismiss BMD technology as worthless, despite compelling evidence from testing records showing measurable progress over time.6 According to recent updates provided by the congressionally monitored US Missile Defence Agency (MDA), the sea-based Aegis BMD platform (to address missile threats during the boost and ascent phases) has generated 28 intercepts in 34 at-sea attempts since 2002. The Ground-Based (Midcourse) program produced 8 successes out of 16 attempts, and 3 of 5 successful intercepts using “operationally configured interceptors” since 1999. With respect to the Terminal High Altitude Area Defense (to address a missile threats at the final stage), the MDA reports 11 out of 11 interceptions since 2006. Not a bad record for worthless technology.

- 64 of 80 (80%) hit-to-kill intercept attempts have been successful across all programs since the integrated system began development in 2001.
- 43 of 55 (78%) hit-to-kill intercept attempts have been achieved for THAAD, Aegis BMD, and GMD test programs since 2001.

BMD cynics are correct to point out that the current US/NATO BMD systems are technologically incapable of protecting against a full-blown attack by Russia or China, but this is a stabilizing

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feature of BMD limitations - the system is obviously not designed to threaten the deterrent capabilities of Russia or China, and that’s a good thing.

Critics also mistakenly predicted US BMD would lead to massive increases in China’s defence expenditures and nuclear program, yet no such proliferation (e.g., military spending as a percentage of GDP) has occurred, for two straightforward reasons: China remains comfortably committed to a strategy of minimum deterrence (not massive proliferation), and, once again, officials in Beijing understand that US BMD is not designed to undermine the credibility of their deterrent capability.

What we are witnessing instead is unprecedented cooperation between the US and China, including tacit acceptance by China of accelerated US BMD deployments to Guam and South Korea (in March 2013) to address an increasingly antagonistic and nuclearized North Korea. Beijing officials are growing increasingly weary of supporting a regime that does nothing to contribute to China’s efforts to build a reputation as a responsible global leader.

In fact, Chinese President Xi Jinping issued an unprecedented rebuke of North Korean leaders following the March 2013 crisis with South Korea: “no country should be allowed to throw a region and even the whole world into chaos for selfish gain.” North Korea’s nuclear test in January 2013 was the tipping point for Chinese leaders, pushing them to endorse a US sponsored, unanimous UN resolution imposing harsh economic sanctions against Pyongyang.

The Canadian government’s official assessment of the nuclear and ballistic missile proliferation risks and threats from North Korea is also very clear:

North and South (Korea) technically remain at war, as hostilities were concluded with an armistice, not a peace treaty. Canada remains gravely concerned about North Korea’s provocative and destabilizing actions, such as nuclear and missile tests and related proliferation, as well as egregious human rights abuses.

Canadian officials clearly acknowledge that the regime in North Korea poses a serious threat to global security, particularly after the launch in December 2012 of the Unha-3 rocket - a three-stage, intercontinental ballistic missile (ICBM) with an estimated range of 10,000 kilometers.

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When combined with North Korea’s latest underground nuclear test in January 2013, these moves represent a concerted effort by the regime to develop and deploy an offensive nuclear capability that will:

a) Pose a direct threat to the United States, Canada, and our allies in Asia and Europe;
b) Diminish our coercive leverage in subsequent military security crises involving North and South Korea;
c) Weaken the credibility of our commitment to protect South Korea;
d) Seriously undermine our ongoing commitment and obligation to contribute to peace and stability on the Korean peninsula; and
e) Increase the probability of nuclear proliferation in the region.

Consider the following responses in recent polls conducted by the Assan Institute for Policy Studies – “Fallout from North Korea Nuclear Test, January 2013”.

American and Canadian officials understand the importance of strengthening security guarantees to South Korea and Japan as a way of controlling proliferation, and BMD is a vital part of that overall strategy. Jonathan Trexel (2013) provides an excellent summary of the benefits of missile defence and its effects on North Korea’s strategic calculations - BMD will:

- enhance the credibility of US commitments to allies by protecting Washington’s freedom of action;
- increases the credibility of US deterrence by punishment - extended nuclear deterrence is less credible;

• adversaries are more likely to view US as willing to take risks (intervene) if protected by BMD;
• BMD increases adversary uncertainties and complicates the probability of achieving their goals;
• denies or confounds military and political benefits sought by the adversary;
• creates a more formidable and resolute coalition;
• prevents South Korea and Japan from contemplating deployment of their own nuclear deterrent.
• In 2013, 66% of South Koreans support domestic nuclear program (2013); it was 48% in 2012
• In 2012, 48% trusted the US nuclear deterrent commitment; it was 55% in 2011

These benefits largely explain why NATO allies (including Canada) have concluded that deployment of BMD technologies is among the only defensive options available to reinforce the West’s commitment, resolve and capability to protect key allies against nuclear blackmail. Consider the emerging and overwhelming consensus on this issue:
In sum, there is absolutely no daylight between the positions adopted by the US, NATO and Canada on BMD in the context of global security, and security in Europe, Asia and the Middle East.

But therein lies the puzzling contradiction.

Why would any Canadian government support BMD to protect European, American and Asian allies, territories and populations yet continue to shy away from embracing the utility of bilateral negotiations with the US to protect Canada? This serious (and potentially dangerous) inconsistency demands some logical explanation.

Perhaps Canadian officials are perfectly secure in the belief (hope) that US officials will fulfill their obligation to protect their closest NATO ally from any and all incoming missiles. So why rock the boat - we’re quietly participating in BMD without having to engage in another public debate on the subject.

But what if there are no clearly articulated US guarantees to protect all Canadian territory and populations from ballistic missiles? If these security guarantees exist only in the minds of Canadian officials, then the absence of any and all discussions with Washington on North American BMD constitutes a serious error in judgement. It also represents a very risky abrogation of the government’s core obligation to proactively protect Canadians from “grave” ballistic missile threats the government (and our allies) have already acknowledged are real and getting worse.

Ottawa should engage in high-level consultations with Washington on BMD architecture, precisely because the government has already embraced the strategic imperatives tied to BMD. Drawing imaginary distinctions between American, European and Asia security on the one hand, and Canadian security on the other, makes no sense.

The onus is no longer on BMD proponents to make the case for Canada-US cooperation on BMD. The onus now is on the few remaining holdouts in the Canadian government to explain why Canadians do not deserve the same security guarantees and protections everyone else is getting.

**Senate Testimony: Colin Robertson**

Je voudrais dire un mot sur mes antécédents. J’ai travaillé pendant presque 33 ans au Service extérieur canadien. Par après, j’ai occupé les fonctions de vice-président du Canadian Defence and Foreign Affairs Institute, un groupe de réflexion non partisan dont le siège est à Calgary. Il

À titre bénévole, je suis fier d’être capitaine honoraire de la Marine royale canadienne au sein de la Direction des communications stratégiques.

Voilà qui vous donne une idée de mon parcours. Cependant, mes observations ne représentent aucunement les points de vue des différents organismes où je travaille.

It is time for Canada to join the rest of the western Alliance - our 27 partners in NATO – and our friends and allies in the Indo-Pacific - Australia, Japan, South Korea - under the umbrellas of ballistic missile defence.

We need to be prepared for the threat of missile attacks.

Continental defence has been integral to Canadian national security since MacKenzie King and Franklin Roosevelt parleyed at Kingston in 1938.

Led by Louis St. Laurent we were architects of NATO because of our belief in collective security. A decade later we would create NORAD, our bi-national aerospace defence agreement that now includes aspects of maritime warning.

Today, our security is again threatened.

North Korea has conducted several ballistic missile tests under the guise of peaceful satellite launches, it has stated its long-range missiles will target the US, and it has developed a road-mobile ballistic missile capability.

Iran has a large arsenal of ballistic missiles. We hope that the current Geneva discussions will stop Iranian nuclear development but their outcome is uncertain. The Six Party talks with North Korea broke down in 2009 after North Korea repeatedly broke its commitments.

As John Baird observed, before we trust we need to verify. While Iran does not have the capacity today to strike Canada with missiles, the evidence is that that they are trying to build that capacity.

We don’t know what new threats are coming down the pike. What happens if Pakistan goes rogue?

Risk assessments forecast more bad actors with access to warheads, intercontinental missiles and weapons of mass destruction – nuclear, chemical and biological.

Despite our best efforts, the genie is out of the bottle on proliferation.

Participation in BMD is both insurance policy for our homeland and a renewed commitment to contemporary collective defence.
Through NORAD, we currently share information in early warning and attack assessment with the USA.

But when it comes time to make the critical launch decisions, our officials literally have to leave the room.

The algorithms that US Northern Command has developed to protect the US homeland do not include Canadian cities like Calgary, Edmonton, Toronto or Montreal.

Membership brings the privilege of being in the room, part of the conversation on how to protect Canadians.

Canada has a conflicted history when it comes to nuclear weapons and domestic air defence. Though we were present at the creation – nuclear-energy research during the Second World War in Canada was vital – we eschewed the development of nuclear arms for ourselves.

Instead, we opted to develop nuclear power for peaceful purposes through the CANDU reactor. We sold it around the world on condition of non-proliferation.

We would be deceived by India.

It developed its own nuclear weaponry using plutonium derived from a research reactor provided by Canada. The Indians argued that in a nuclear neighbourhood they had to be prepared.

Placement of nuclear warheads on Canadian soil, as part of our alliance commitment, tormented John Diefenbaker. The resulting BOMARC controversy contributed to his government’s undoing and the election of Lester B. Pearson.

Lester Pearson, who had won the Nobel Peace Prize over the Suez crisis, concluded that our obligations to NORAD and NATO required participation.

The decision was controversial. A young Pierre Trudeau called Pearson the ‘defrocked prince of peace’. Two decades later, now Prime Minister Pierre Trudeau faced similar divisions within his own cabinet over testing of cruise missiles on Canadian soil.

Trudeau agreed to the testing, arguing that “it is hardly fair to rely on the Americans to protect the West, but to refuse to lend them a hand when the going gets rough.”

Notwithstanding his friendship with Ronald Reagan, Brian Mulroney joined with Australia, France and other allies in rejecting participation in the U.S. “Star Wars” missile-defence program because Canada “would not be able to call the shots.”

When a new and much more modest Ballistic Missile Defence was developed under George W. Bush, Paul Martin dithered, then opted out, to the confusion of his new Chief of Defence Staff and ambassador to the United States.
Advised that newly-elected Prime Minister Stephen Harper would not welcome a renewed request, Mr. Bush found this puzzling. He reportedly asked Mr. Harper what would happen if a North Korean missile, aimed at Los Angeles or Seattle, wound up heading towards Vancouver or Calgary.

Criticism of BMD boils down to the following: First, according to critics, it doesn’t work and it weaponizes space. It’s a latter-day Maginot Line –costly, unreliable, and provocative. NORAD, they argue, provides sufficient defence but they forget that, at the critical moment, we must leave the room.

BMD is not Star Wars with its improbable futuristic weapons and enormous cost. The current system has no space-based weapons. Instead it uses kinetic energy to stop warheads.

With the system essentially in place, participation does not come with an admission charge. Any future costs can be scaled and shared within the Alliance.

Technology, research and constant testing have made BMD a reasonable shield. The Israelis’ Iron Dome demonstrates the defensive worth of anti-missile technology.

The second criticism of BMD is that it makes us too reliant on the USA.

This tiresome argument is also applied to trade and commerce but who would argue that freer trade has not benefited Canada?

In terms of defence, the whole point of collective security is to contribute according to our capacity for mutual security and protection.

Protecting Canadians (and Americans) was the logic of the original DEW line and NORAD. Shouldn’t Canada have a say in the development of the North American BMD architecture in advance of the actual emergence of a combined ICBM/nuclear threat?

Moreover, is it logical to have a say in the establishment of that architecture in Europe but to exclude ourselves from having that say in North America?

At what point is the Canadian national interest put in jeopardy by not having a say?

During the cruise missile debate, Prime Minister Pierre Trudeau remarked that some Canadians, “are eager to take refuge under the U.S. umbrella, but don’t want to help hold it.”

The rest of NATO has signed onto missile defence. So have Australia, Japan and South Korea.

While the USA has a general invitation to its Allies to join the shield it has not put any pressure on Canada.

The third criticism is that BMD is morally wrong.

But we live in the real world, not Elysium.
We can’t be sure whether something aimed at the United States isn’t going to strike Canada. A Senate report from this committee in 2006 concluded that an effective BMD “could save hundreds of thousands of Canadian lives.”

The moral argument should be reframed to ask why the Government of Canada does not have a voice in how BMD may be used?

One could argue that it is a moral imperative for the Government to have such a say when the potential target is a Canadian city.

By being part of the defensive shield we strengthen the deterrent effect of BMD. Taking part in surveillance for BMD is part of the continuum of capabilities that contributes to the Alliance. This could include missile defence capacity in our new warships and using our submarines to track potentially hostile attack submarines.

Participation in BMD is both insurance policy for our homeland and a renewed commitment to contemporary collective defence. By being part of the defensive shield we strengthen the deterrent effect of BMD.

In putting these remarks together I sought the advice of friends and colleagues.

British defence scholar Professor Julian Lindley-French pointed out that BMD should be seen as part of the modernisation of NATO’s Article 5 and thus part of the need to create 21st century collective defence. As Lindley-French observed:

“In that light BMD sits at the crux of two axes of future defence. The first axis links NORAD to a ‘NATO’ Advance Defence as part of an evolving umbrella, even if the Russians do not like that. The second axis concerns the development of complementary advanced deployable forces and cyber-defence, amongst other efforts.

As part of this effort, which is reflected in the 2010 NATO Strategic Concept, BMD would be part of a defence ‘cornerstone’ which would underpin collective defence, crisis management and, of course, co-operative security. Indeed, the ability to project civil-military influence to stabilise societies can only take place if the home base is secure - BMD is thus part of a new balance between protection and projection. Russia should be invited to be part of this effort because BMD is counter-technology rather than counter-state. “

This is good advice.

Collective security means preparation and commitment. “Only when our arms are sufficient beyond doubt,” observed John F. Kennedy, “can we be certain beyond doubt that they will never be employed.”

Collective security through NATO and our alliance with the USA has guaranteed the peace since 1945, contributing to the greatest growth in commerce and development in world history. Canada has been a beneficiary, with marginal premiums.
Changed circumstances, Alliance solidarity, and self-preservation oblige us to update our security policy. BMD must now be incorporated within our ‘Canada First’ defence strategy.

**Senate Testimony: James Fergusson**

Axiom in Canadian defence thinking that in order for the United States to defend itself, it must also defend Canada.

- Underlies the premise that the U.S. forward deployed and ground-based mid-course phase missile defence systems must defend Canada in order to defend the lower 48 states.
- Assumes that the emerging layered system will seek to shoot as early as possible against the ballistic missile warhead, prior to the systems tracking elements being able to identify the specific North American target.
- In so doing, the earlier the system can shoot, the more intercept attempts can be undertaken, under a shoot-look-shoot operational strategy.
- Related to intercept point, the preference is post-apogee (furthest point from the earth, or the halfway point) in order to limit impact of debris to orbiting satellites (debris pulled back to earth and burn up on re-entry).
- Given the current location of the Fort Greely site, (6800 miles from North Korea to Washington D.C,) Alaska (3700 miles) is roughly just beyond the hallway point – hence first shot will occur somewhat forward of the site. Timing to second shot?
- Importantly, once the warhead begins its descent, target id is likely to occur.
- Thus, the US may have no choice with the first shot, but by the time of the second it may now know target, and have to decide whether to assign a second interceptor.

Regardless, the key consideration is when the US is able to identify the specific target, and then the choices the US command must make relative to the number of North Korean ICBMS, the number of warheads in flight, the possible attack battle plan (a wave to overwhelm and/or confuse the system, intervals between launches etc, number of ICBM in reserve...), the number of interceptors available, the number of intercept opportunities, and the probability of success per intercept attempt.

All this intelligence on enemy capabilities, missile defence system specifications and capabilities and the US battle plan is essential to answer the question of whether the system will defend Canada and Canadian cities.

It is this key information that is unavailable to Canadian defence planners and the government, which is vital for Canadian decision-makers to make a decision on what it might want or need to do to ensure the defence of Canada.

In other words, should Canadian defence rest upon a hope and belief that the US will defend Canada to defend itself, or on access to real information.

One might suggest that such information is unnecessary. As a function of geography, the economic integration of CAN-US, and the devastation of a nuclear attack (radiation), the destruction of a major Canadian city would have a devastating effect on the US. Moreover, morally the US would also be impelled to defend a Canadian city.
• What may apply to Vancouver – Seattle, Detroit-Windsor, Toronto-Ottawa-Montreal and the US northeast (partially a function of prevailing winds), does not apply the same to Edmonton, Calgary, Winnipeg, and Newfoundland, or the US south, even Washington D.C.

• Moral considerations are one thing, but US officers are legally bound to defend the US, not North America or Canada. Moreover, why would Canadians want to put the US commander in such a difficult situation

• Finally, if this applies to the US, does it not also apply to Canada. ie. In order for Canada to defend itself, it must also defend the US.

Second consideration is the issue of ballistic missile/nuclear weapons proliferation in the Middle East (Iran)

• Fort Greely site not optimized for a middle east track intercept

• Ability of European (NATO) system to provide a forward deployed layer for an ICBM attack against North America (pre-apogee intercept)

• Key BMEWS radar (Thule) is oriented northward, only two southern radars for tracking – Cape Cod and Cavalier. Is there a tracking and cueing gap?

• US environmental assessment of five possible Northeast US intercept sites
  o Portsmouth, Maine, Vermont, Fort Drum NY, Ohio, Michigan

• Issue of location of forward deployed tracking and cueing radar
  o Sea-based? Whose waters?
  o Goose Bay (Raytheon queried following the 2005 Martin decision on whether it would include a possible radar site at this location)

Key point, in 2005, Canada not relevant to deal with the N. Korean threat. What Canada did or didn’t do had no direct impact on defence of the US.

• Thus, no negative impact on the relationship – all US needed then was NORAD ITWAA (which is now redundant) and Canada had agreed in August 2004

• Third site relative to Iran and Middle East makes Canada relevant and strategically important. What are the political implications of Canada not supporting a key US defence requirement?
About the Authors

Frank Harvey was appointed Eric Dennis Memorial Chair of Government and Politics in 2013 (Dalhousie University), and held the position of University Research Professor of International Relations from 2008-2013. He served as Associate Dean of Research in the Faculty of Arts and Social Sciences (2011-2013), held the 2007 J. William Fulbright Visiting Research Chair in Canadian Studies, served as Director of the Centre for Foreign Policy Studies, and is currently a Senior Research Fellow with the Canadian Defence and Foreign Affairs Institute.

Colin Robertson is Senior Strategic Advisor for the US-based law firm of McKenna, Long and Aldridge. He writes on international affairs and is a frequent contributor and commentator on CTV, CBC and CPAC.

He is current President of the Canadian International Council’s National Capital Branch. Mr. Robertson sits on the board of the Conference of Defence Associations Institute, Canada World Youth and he is honorary chair of the Canada Arizona Business Council. He is a Distinguished Senior Fellow at the Norman Paterson School of International Affairs.

James Fergusson is a Professor in the Department of Political Studies and Director of the Centre for Defence and Security Studies at the University of Manitoba. He teaches and researches in the fields of strategic studies, Canada-U.S. defence relations and Canadian Defence Policy.

In addition to his publications, he is a member of the Defence Science Advisory Board and the Honorary Colonel of the Canadian Forces School of Aerospace Studies.
Canadian Defence & Foreign Affairs Institute

CDFAI is the only think tank focused on Canada's international engagement in all its forms - diplomacy, the military, aid and trade security. Established in 2001, CDFAI's vision is for Canada to have a respected, influential voice in the international arena based on a comprehensive foreign policy, which expresses our national interests, political and social values, military capabilities, economic strength and willingness to be engaged with action that is timely and credible.

CDFAI was created to address the ongoing discrepancy between what Canadians need to know about Canadian international activities and what they do know. Historically, Canadians tend to think of foreign policy – if they think of it at all – as a matter of trade and markets. They are largely unaware of the importance of Canada engaging diplomatically, militarily, and with international aid in the ongoing struggle to maintain a world that is friendly to the free flow of goods, services, people and ideas across borders and the spread of human rights. They are largely unaware of the connection between a prosperous and free Canada and a world of globalization and liberal internationalism.

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