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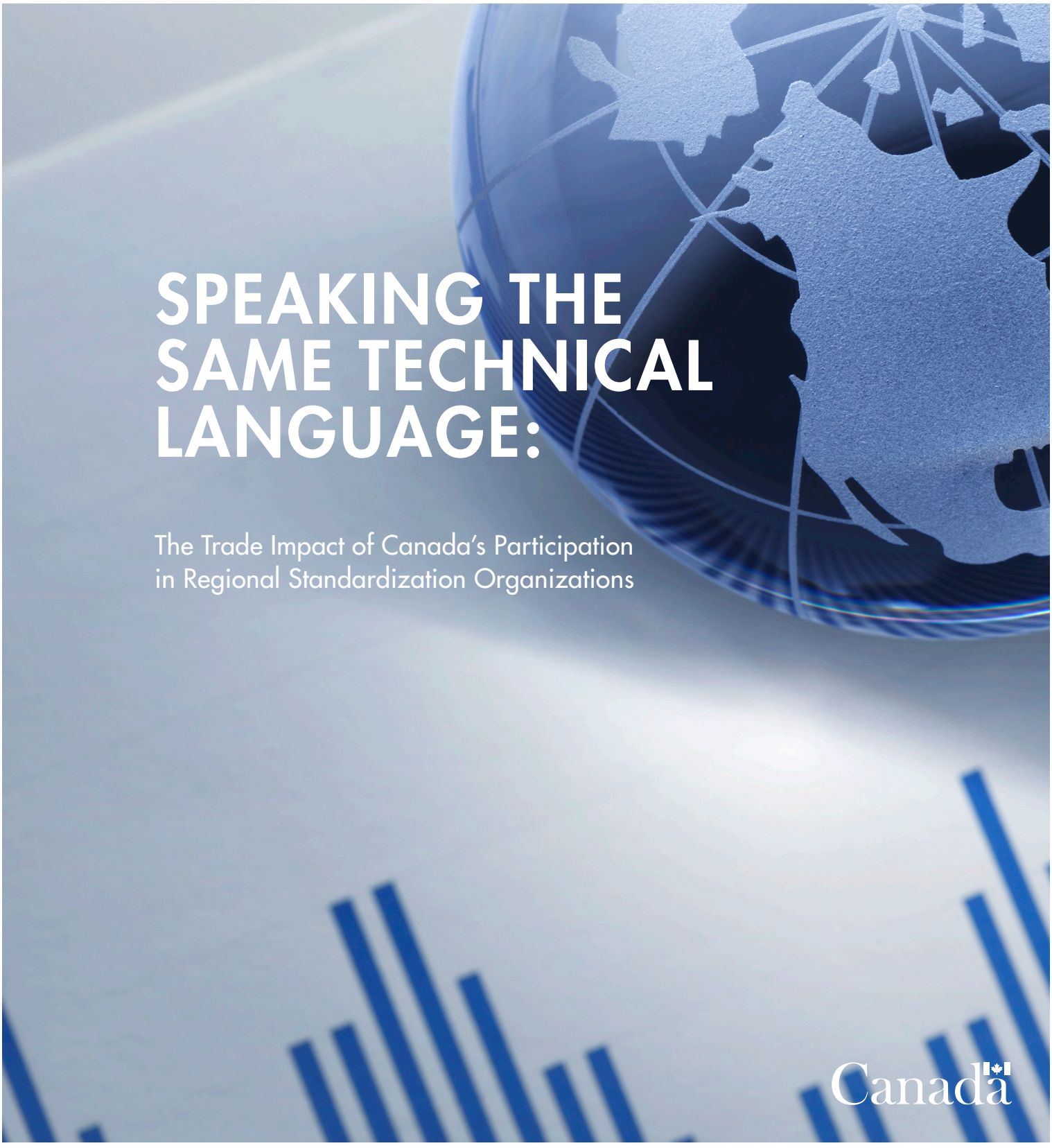

SPEAKING THE SAME TECHNICAL LANGUAGE:

The Trade Impact of Canada's Participation in Regional Standardization Organizations

Canada

This report has been produced by the Standards Council of Canada. The report was authored by Michelle Parkouda, Ph.D., Manager, Research, and Inbal Marcovitch, M.Ed., M.A., Project Manager, Economic Research. This research is intended for information only; neither SCC nor the report's authors are accountable for loss or damages due to the use of this report.

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Standards serve as one of the foundational pillars of the national and international economy. Standards are carefully designed specifications for virtually all products, services, and processes that shape how we live, work, and play. They help to ensure better, safer, and more efficient methods and products, and are an essential element of technology, innovation, and trade.

Because they are easy to recognize and reference, standards are key tools that can establish trust, reduce risk, ensure compatibility of products, reduce transaction costs, codify knowledge, and encourage technological advancements.[1] In other words, standards are essential to foster well-being and prosperity within countries and trade across countries.[2] Not surprisingly, it has been estimated that standards have an influence on up to 80 per cent of global trade.[3]

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1 Swann, G.M. P., (2010). "International Standards and Trade: A Review of the Empirical Literature". *OECD Trade Policy Working Papers*, No. 97, p. 39. OECD Publishing. http://www.oecd-ilibrary.org/trade/international-standards-and-trade_5kmdbg9xktwg-en (accessed August 4, 2016).

2 Swann, G.M. P., (2010). "The Economics of Standardization: An Update". *Innovative Economics Limited*. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/461419/The_Economics_of_Standardization_-_an_update_.pdf (accessed August 4, 2016).
Swann, G.M. P., (2010). "International Standards and Trade: A Review of the Empirical Literature". *OECD Trade Policy Working Papers*, No. 97, p. 39. OECD Publishing. http://www.oecd-ilibrary.org/trade/international-standards-and-trade_5kmdbg9xktwg-en (accessed August 4, 2016).

3 Okun-Kozlowicki, J. (2016). *Standards and Regulations: Measuring the Link to Goods Trade*. United States Department of Commerce (DOC). p. 3. http://ita.doc.gov/td/standards/pdf%20files/Standards%20and%20Competitiveness.pdf (accessed July 12, 2016).

In Canada, international trade accounted for 65 per cent of GDP in 2015.[4] The increasingly important role that standardization plays in recent trade agreements demonstrates the strategic role that standardization policy can play in facilitating market access and competitiveness for Canadian businesses, while ensuring the health, safety, and prosperity of Canadians.[5] Canada's standardization policy has a strategic link to its trade and economic agenda. The purpose of the current research is to examine the relationship between Canada's participation in a regional standardization organization and Canada's trade flows. Specifically, we examine whether participation in the Pan American Standards Commission (COPANT) increased Canada's trade with member countries.

Canada's Trade Flows

Canada's trade portfolio has been concentrated on its neighbour to the south for many years. The United States remains Canada's leading trade partner by a wide margin. Exports of merchandise from Canada to the US were valued at $366.5 billion and imports were $285.2 billion in 2015.[6] In 2015, top exports to the US included mineral products ($96.2 billion); vehicles, aircraft, vessels and associated transport equipment ($81.5 billion); and machinery and mechanical appliances, electrical equipment, and parts thereof ($34.3 billion).[7] The geographic proximity and long shared border, common language, and market size of the United States create many opportunities for both Canadian and American businesses. Therefore, Canada's trade strategy does involve further deepening border cooperation and harmonization of infrastructure (which includes the harmonization of regulations and standards) with the United States[8] through such mechanisms

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4 Global Affairs Canada. Annual Economic Indicators. http://www.international.gc.ca/economist-economiste/statistics-statistiques/data-indicators-indicateurs/Annual_Ec_Indicators.aspx?lang=eng (accessed April 24, 2017).

5 The Canadian Chamber of Commerce (2016). *Canada's Next Top Trade Barrier: Taking International Regulatory Cooperation Seriously*. http://www.chamber.ca/download.aspx?t=0&pid=35943b7b-da00-e611-a280-005056a00b05 (accessed July 11, 2016).

6 Statistics Canada. (2016). Merchandise imports and exports between *Canada* and *United States*, by Harmonized System section, customs basis, year-to-date 2015. *Canadian International Merchandise Trade Database*. http://www5.statcan.gc.ca/cimtcicm/home-accueil?lang=eng (accessed August 4, 2016).

7 Statistics Canada. (2016). Merchandise imports and exports between *Canada* and *United States*, by Harmonized System section, customs basis, year-to-date 2015. *Canadian International Merchandise Trade Database*. http://www5.statcan.gc.ca/cimtcicm/home-accueil?lang=eng (accessed August 4, 2016).

8 The Council of the Federation (2011). *Canada in the Global Economy*. http://www.canadaspremiers.ca/phocadownload/publications/cof_canada_global_economy_eng_final.pdf (accessed July 11, 2016). http://www.pmprovincesterritoires.ca/phocadownload/publications/cof_canada_global_economy_eng_final.pdf

as the Canada-US Regulatory Cooperation Council (RCC),[9] the North American Competitiveness Work Plan (NACWP),[10] and working with industry partners on both sides of the border.

While Canada's export portfolio is highly dependent on the American market, there have been efforts to diversify.[11] Diversifying Canada's trade portfolio requires identifying competitive advantages as well as opportunities and new markets. Evidence of diversification is reflected in the various free-trade agreements that have been signed in recent years.[12] However, in order to reap the maximum benefits from trade cooperation, thought must be given to the compatibility and operability of an agreement. At times, the full benefits from free trade agreements do not materialize due to different regulatory regimes of signatory partners or due to non-tariff measures (NTMs).[13] NTMs include standards and conformity assessment requirements incorporated in the regulations of the partner countries.[14] Since the 1980s, through the World Trade Organization's (WTO) Technical Barriers to Trade (TBT) agreement, there have been efforts to encourage member states to adopt international standards to level the playing field between national and foreign firms and to reduce trade barriers.

Standards and International Trade

The close link between standards and trade is well documented. Numerous studies have confirmed a positive association between standards and trade.[15] In particular, the adoption of international standards has been found to play an important role in increasing exports. There is also a positive association between adopting international

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9 Government of Canada. (Date Modified: July 25, 2016). Canada-United States Regulatory Cooperation Council's (RCC). http://www.tbs-sct.gc.ca/ip-pi/trans/ar-lr/rccccmr/index-eng.asp. (accessed April 25, 2017).

10 Government of Canada. (Date Modified: June 16, 2016). North American Competitiveness Work Plan (NACW). *Canada and the United States*. http://www.canam.gc.ca/relations/NACW-PTCNA.aspx?lang=eng (accessed August 2, 2016).

11 Jean-Jacobs, F. (2009). Diversification of Canada's Exports—What and Whereto. Office of the Chief Economist, Global Affairs Canada. http://www.international.gc.ca/economist-economiste/analysis-analyse/brief-precis/brief-precis-04.aspx?lang=eng (accessed August 4, 2016).
Palladini, J. (2015). *Raising Our Game Across the Pacific. Changing Nature of Canada's Trade with Asia*. Conference Board of Canada.

12 Global Affairs. (2016). *Canada's Free Trade Agreements*. http://www.international.gc.ca/trade-agreements-accords-commerciaux/agr-acc/fta-ale.aspx?lang=eng Last updated February 11, 2016. (accessed July 11, 2016).

13 Chen, M. X., and Mattoo, A. (2008). Regionalism in standards: Good or bad for trade? Canadian Journal of Economics, Vol. 41, No. 3, pp. 839–863.

14 United Nations Conference on Trade and Development. (2015). *International Classification of Non-Tariff Measures, 2012 Version*. United Nations. http://unctad.org/en/PublicationsLibrary/ditctab20122_en.pdf (accessed August 3, 2016).

15 Swann, G. P. (2010). International Standards and Trade: A Review of the Empirical Literature. OECD Trade Policy Working Papers, No. 97, OECD Publishing. p.6–8. doi: 10.1787/5kmdbg9xktwg-en (accessed July 21, 2016).

standards and imports. While the general impact tends to be positive, it is also important to note that there are specific sectors where trade has been constrained by the lack of international standards.[16]

Despite the largely positive effects of international standards, there are scenarios where the benefits of using international standards to facilitate trade may not arise. It is important to understand the circumstances that limit the influence of international standards on trade to circumvent these barriers. Inequality in the development of trading partners could limit the trade promoting effects of international standards. Standards can have a high adoption cost, and countries with little influence on the development of international standards may be disadvantaged when it comes to applying those standards.[17] Additionally, the use of international standards can be further impeded by a lack of technical knowledge that may be more prevalent in some developing countries.[18] When there is a disparity in the development of the partner countries, efforts to harmonize standards may need to be accompanied with technical assistance to ensure the agreements are mutually beneficial. As Canada deepens trade with diverse markets, consideration will need to be given to the capacity of its trading partners. Reaping the full benefits of trade agreements could require some capacity-development work on the part of Canada and its trading partners.

Another challenge to the positive association between trade and the adoption of international standards occurs at the microeconomic level and relates to the capacity of firms to confirm and implement more advanced standards. Some micro- and small enterprises may not have the personnel, technical, or financial capacity or appetite to purchase and comply with an international standard. Aligning regulations with international standards can benefit large enterprises, while putting micro-, small, and

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[16] Swann, G. P. (2010). International Standards and Trade: A Review of the Empirical Literature. OECD Trade Policy Working Papers, No. 97, OECD Publishing. doi: 10.1787/5kmdbg9xktwg-en (accessed July 21, 2016).
Czubala, W., Shepherd, B. and Wilson, J.S. (2007). Help or Hindrance? The Impact of Harmonized Standards on African Exports. Policy Research Working Papers, No. 4400, World Bank, Washington, DC. http://elibrary.worldbank.org/doi/abs/10.1596/1813-9450-4400 (accessed July 21, 2016).

[17] Matutes, C. and Regibeau, P. (1996) A selective view of the economics of standardization: entry deterrence, technological progress, and international competition, European Journal of Political Economy, 12, 183–206.

[18] Blind, K. and Jungmittag, A. (2005) "Trade and the impact of innovations and standards: The case of Germany and the UK."

medium enterprises at a disadvantage.[19] In Canada, 97.9 per cent of businesses are defined as small (1-99 employees).[20] Only 11.5 per cent of these small businesses export goods and services, compared to 28 per cent of medium enterprises.[21] Engaging more small businesses in standardization could better position these companies to engage in international trade.[22] Small Canadian businesses represent a largely untapped resource for Canada to expand its exports.

At times, international standards are eschewed in favour of regional solutions. Regional standardization agreements, which can take the form of harmonization or mutual recognition agreements, tend "to increase trade between participating countries, but not necessarily with the rest of the world."[23] While this could pose a challenge, it also creates an opportunity for using regional agreements as a strategic trade policy tool.[24] By aligning interests of signatory countries, and having a tangible positive impact on trade among those countries, such agreements may lead to more cooperation at the international level and potentially increase the influence and bargaining power of a group of countries. Strategically engaging in regional agreements should act to diversify Canada's trade portfolio.

Regional Standardization Bodies & Canada's Role

Participation and leadership in regional standardization organizations is a critical part of SCC's strategic priority to be an international leader in standardization. SCC's leadership is manifested differently in key organizations: The Pan American Standards Commission (COPANT), the

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[19] Clougherty, J. A., and Grajek M. (2011) International Standards and International Trade: Empirical Evidence from ISO 9000 Diffusion. NBER Working Paper. http://www.nber.org/papers/w18132.pdf (accessed July 12, 2016)
Ferrantino, M. J. (2012). Using Supply Chain Analysis to Examine the Costs of Non-Tariff Measures (NTMs) and the Benefits of Trade Facilitation, In Staff Working Paper ERSD-2012–02: World Trade Organization, Economic Research and Statistics Division. Geneva, Switzerland. https://www.wto.org/english/res_e/reser_e/ersd201202_e.pdf (accessed July 12, 2016).

[20] Innovation, Science and Economic Development Canada. Key Small Business Statistics—June 2016. http://www.ic.gc.ca/eic/site/061.nsf/eng/h_03018.html (accessed April 25, 2017).

[21] Innovation, Science and Economic Development Canada. Key Small Business Statistics—June 2016. http://www.ic.gc.ca/eic/site/061.nsf/eng/h_03018.html (accessed April 25, 2017).

[22] See for example, BSI. The small business guide to standards, http://www.bsigroup.com/Documents/standards/smes/bsi-small-business-guide-to-standards-en-gb.pdf (accessed November 22, 2016).

[23] Chen, M. X., and Mattoo, A. (2008). Regionalism in standards: Good or bad for trade? Canadian Journal of Economics, Vol. 41, No. 3, pp. 839–863.

[24] Swann, P. G. M. (2000). *The Economics of Standardization: Final Report for Standards and Technical Regulation Directorate, Department of Trade and Industry*, p. 48. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/461417/The_Economics_of_Standardization_-_in_English.pdf (accessed August 4, 2016).

Pacific Area Standards Congress (PASC), and the Réseau Normalisation et Francophonie (RNF). This paper explores the impact of SCC's participation with COPANT on Canada's trade performance with member countries.

COPANT is a non-profit association whose members are 34 National Standards Bodies from across the Americas and 10 adherent members.[25] One aspect of COPANT's vision is "to facilitate trade among the American countries and between them and other regions."[26] Exports of merchandise among COPANT members accounted for $1.6 trillion USD in 2012, representing 54.2 per cent of global merchandise trade.[27]

Canada has been investing in developing trade relationships with many countries in the Americas. In 1994, Canada entered into the North American Free Trade Agreement (NAFTA) with the United States and Mexico. Canada has more bilateral free trade agreements (FTAs) in the Americas than in any other region, including agreements with Honduras, Panama, Colombia, Peru, Costa Rica, and Chile. Furthermore, there are ongoing negotiations with the Dominican Republic, the Caribbean Community (CARICOM), and a multilateral negotiation with Guatemala, Nicaragua, and El Salvador.[28]

Factors Influencing International Trade

Participating in regional standardization organizations involves a commitment from the involved countries. The purpose of this research was to quantify the value of Canada's membership in COPANT. Specifically, the research will evaluate whether Canada's membership in COPANT is having the desired effect of increasing trade with member countries. It is worth noting that COPANT members do account for a significant proportion of Canada's trade. Between 2011 and 2015, COPANT member countries accounted for 78 per cent of Canada's exports, and 62 per cent of Canada's imports, largely driven by the US which single-handedly accounted for 75 per cent of exports and 52 per cent of imports.

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[25] Pan American Standards Commission (COPANT) (N/A). Members. http://www.copant.org/index.php/en/copant/members (accessed August 2, 2016).

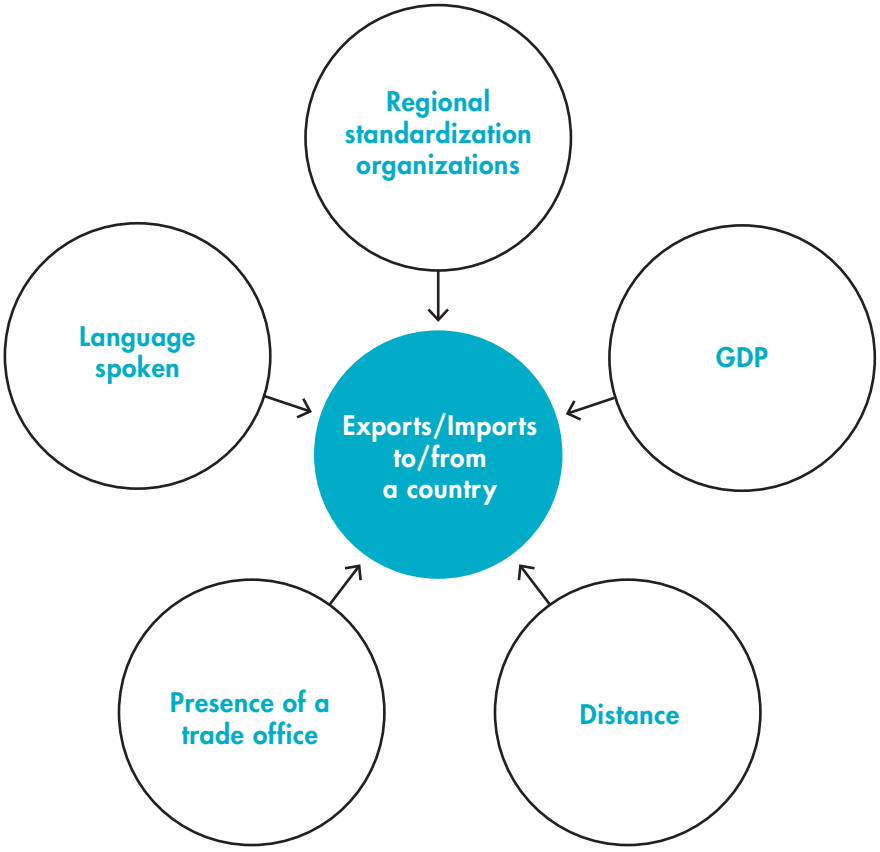
[26] Pan American Standards Commission (COPANT) (N/A). COPANT. http://www.copant.org/index.php/en/copant (accessed August 2, 2016).

[27] SCC. (2014). *COPANT Strategic Planning Exercise: Country Profiles, Trade & Standardization Analysis*. Internal Report. Data in the report was obtained from the United Nations Commodity Trade Statistics Database http://comtrade.un.org.

[28] Global Affairs. (Date Modified: February 11, 2016). *Canada's Free Trade Agreements*. http://www.international.gc.ca/trade-agreements-accords-commerciaux/agr-acc/fta-ale.aspx?lang=eng (accessed August 2, 2016).

Trade flows are often analysed using a *gravity model*. A gravity model specifies that bilateral trade flows are a function of economic size (i.e. GDP) and the distance between two countries. Generally, countries are more likely to trade with wealthier countries and countries that are in close geographical proximity. These two factors increase the efficiency and ultimately profitability of trade. Previous research has demonstrated that there are other factors that also play a role in influencing trade flows. Specifically, countries are more likely to trade with other countries that share a common language, suggesting that easier communication translates into easier trade relations.[29] The presence of a Canadian trade office in the partner country also facilitates trade.[30] To determine if COPANT is increasing trade flows for Canada it is essential to account for the factors that have previously been found to influence trade (see Figure 1: Factors Influencing Trade).

FIGURE 1: FACTORS INFLUENCING TRADE



[29] Egger, P. and Lassman, A. (2011). The Language Effect in International Trade: A Meta-Analysis. CESifo working paper: Trade Policy, No. 3682, CESifo working paper: Trade Policy, No. 3682 https://www.econstor.eu/bitstream/10419/54919/1/682035068.pdf (accessed April 25, 2017).

[30] Burt, M. (2009). Barriers at the Border: The Costs of Impediments to Business Mobility. http://www.conferenceboard.ca/e-library/abstract.aspx?did=2857.

The Influence of COPANT on Canada's Trade Flows

The current analyses extend the typical gravity models to consider the additional impact of membership in COPANT on Canada's trade flows (for a detailed description of the methodology and results please see Appendix A: Technical Results). In line with previous research findings, the results demonstrate that Canada trades more with countries in close geographical proximity, wealthier countries, those that share a common language with Canada, and those that have a Canadian trade office. In addition, Canada trades more with countries that are members of COPANT. Importantly, membership in COPANT is positively and significantly related to trade, even after the other factors were accounted for in the analyses.[31] These results indicate that membership in a regional standardization organization is associated with trade promotion, presumably by reducing some technical barriers to trade amongst the member countries. Membership in COPANT was associated with a 10 per cent increase in annual exports from Canada to the partner country during the 2011 to 2015 time frame. For example, if the Bahamas was not a member of COPANT, annual exports to the Bahamas could have *decreased* by an average of $20 million. Alternatively, if Venezuela was a member of COPANT, Canada's average annual exports to the country could have *increased* by $67 million.

For imports, membership in COPANT was associated with a 17 per cent increase in annual imports to Canada from the partner country between 2011 and 2015. In the case of the Bahamas, annual imports could have *decreased* by $10 million if they were not a member of COPANT. For Venezuela, average annual imports could have *increased* by $51 million if Venezuela was a member of COPANT. Clearly, engaging in regional standardization organizations is positively related to Canada's bilateral trade flows, and is one means to promote targeted trade diversification.

Final Thoughts

Canada recognizes that trade within the Americas is important for the country's economic development. Canada has signed more free trade agreements with countries in North and South America than any other region in the world. Part of the rationale is undoubtedly economic expediency; geographic proximity increases the efficiency of trading with the Americas. However, free trade agreements alone are not sufficient

[31] When examining the impact of COPANT membership on trade flows, one concern that arises is that since the US is a member of COPANT and Canada's largest trading partner by a wide margin it may be driving the COPANT results. We repeated the analyses excluding the US and the results remained significant for exports ($\beta = 0.09$, $t = 2.66$, $p < 0.01$) and imports ($\beta = 0.16$, $t = 3.38$, $p = 0.001$).

to increase trade flows. Increasingly in the era of free trade, non-tariff measures—such as standards—are playing a prominent role.

Similar to tariffs, non-tariff measures can act as a deterrent to trade. However, unilaterally eliminating non-tariff measures is not the solution. Non-tariff measures like standards play an important role in society. Not only do they ensure quality and compatibility of products, processes and services, they are also designed to improve quality of life by protecting the health and safety of citizens and the environment.

Countries can take a multi-pronged approach to addressing the trade barriers potentially posed by standards. The use of international standards is one best practice endorsed by the World Trade Organization to reduce technical barriers to trade. Additionally, trade agreements are placing greater emphasis on regulatory reconciliation (e.g. CETA). And finally, this research demonstrates that regional standardization organizations are another effective way for countries to foster international trade.

SCC represents Canada at COPANT, a regional standardization organization designed to promote technical standardization and development of member countries. By working strategically with partner countries to address mutually relevant standardization issues countries can have a positive impact on trade flows. For Canada, SCC's participation in COPANT has been associated with increased exports and imports from other member countries.[32] Importantly, the effect of COPANT membership on trade is evident even when other factors that have previously been shown to influence trade are taken into account.

While this analysis examined the impact of Canada's trade with member countries, the goal of COPANT is to also increase trade between the Americas and other regions. By collaborating, COPANT members can speak with a more united voice to have greater influence on standardization issues globally, including proposing new international standards and ensuring regional representation in governance positions. Leveraging regional cooperation will increase opportunities for member countries on the global stage.

Standards will continue to differ across regions to some extent. Differentiation is necessary to respond to the unique challenges faced in various contexts. For example, building standards in British Columbia need to consider the impact of earthquakes, while those in the North need to be mindful of permafrost. Despite the need for differentiation in

[32] It is important to note that the type of analysis used for this research does not prove causation. Additional longitudinal research is needed to unequivocally demonstrate the direction of the relationship between COPANT membership and trade.

some contexts, there are also many opportunities for cooperation and collaboration across borders. Common standards, and mutual recognition for inspections, tests, and certifications, facilitate integrated, interoperable, and safe global supply chains. By reducing technical barriers to trade global supply chains reduce costs for importers and ultimately consumers while increasing choice. By strategically engaging in regional standardization activities, SCC can facilitate reductions in trade barriers for Canada. Reducing trade barriers without sacrificing our standards will help to promote the well-being and prosperity of Canadians and Canada.

APPENDIX A

TECHNICAL RESULTS

Methodology

To determine whether participation in a regional standardization organization, specifically the Pan American Standards Commission (COPANT), is having an impact on Canada's trade, we used a gravity model. Gravity models specify that bilateral trade flows are a function of economic size (i.e. GDP) and the distance between two countries. This research extends the traditional gravity model to determine whether Canada's membership in COPANT is positively associated with increased trade flows. Based on previous research the model includes:

- The size of the trading partner's economy,
- The distance between Canada and the trading partner,
- Variables accounting for whether English or French is a common language for the trading partner,
- A variable accounting for the presence of a Canadian trade office in the partner country,
- A variable accounting for whether the trading partner is a member of COPANT.

The model for imports and exports is expressed as:

$$\text{Ln(IMPORTS}_i \text{ or EXPORTS}_i) = \text{CONSTANT} + B_1 * \text{Ln(GDP}_i) + B_2 * \text{Ln(DISTANCE}_i) + B_3 * \text{TRADE OFFICE DUMMY VARIABLE}_i + B_4 * \text{ENGLISH DUMMY VARIABLE}_i + B_5 * \text{FRENCH DUMMY VARIABLE}_i + B_6 * \text{COPANT DUMMY}_i$$

The analyses were based on data from 189 countries ("i"). The values for trade and GDP were in current dollars and they were averaged over a five-year span (2011–2015). This provided a more stable estimate, particularly for trade which can vary significantly from year to year.

In the analysis, the dependent variables, Canadian exports or imports, are a function of six independent variables. The variables and their sources are described below:

Imports/exports by country—Values are from Innovation, Science and Economic Development Canada's website. Data is available for over 200 countries and can be broken down by industry or product. The total value of Canadian imports and exports was used.

GDP by country—Data is from the World Bank's website. The site provides key development statistics for over 200 countries.

Trade office—The Global Affairs website provided information on which countries have Canadian trade offices.

Distance—The distance between Canada and the other countries was calculated using the "Distance Calculator" found at www.timeanddate.com. For the purposes of these analyses, distance refers to Ottawa (the capital of Canada) and the capitals of the partner countries. Timeanddate.com calculates the air distance between two locations.

English Language—The dummy variable for the English language came from the *CIA World Fact Book*. Countries are designated as English-speaking if a large share of the population speaks English or if English is listed as an official language for the country.

French Language—The dummy variable for the French language came from the *CIA World Fact Book*. Countries are designated as French-speaking if a large share of the population speaks French or if French is listed as an official language for the country.

COPANT Membership—The dummy variable for COPANT membership comes from www.copant.org, membership was limited to active members.

The independent variables were entered into the equation in two steps. In this hierarchical regression analysis, the variables that have previously been found to influence trade were entered first (i.e. GDP, language, distance, and trade office). COPANT membership was entered in the second step. A hierarchical regression provides a more stringent test of the relationship between COPANT membership and trade flows. The impact of COPANT membership is assessed after controlling for the variables that are already known to have an influence on trade flows.

Results

To interpret the results in the table, the coefficient specifies the magnitude of the impact of the corresponding variable on the outcome variable. A negative value indicates that as that variable increases, the dependent variable decreases. For example, as the distance between Canada and a trading partner increase, the value of imports and exports decreases. A positive value indicates that increases in the independent variable correspond to increases in the dependent variable. Specifically, as the wealth of a country increases so too does the value of imports and exports.

The adjusted R-squared for the export analysis was 0.88. For the import analysis, the adjusted R-squared was 0.78. In other words, both models accounted for a significant amount of variance in the value of exports (88 per cent) and imports (78 per cent).

When interpreting the results it is important to recognize the limits of regression analysis. Regression analyses do not prove causation. Further analysis with time series data is necessary to unequivocally determine whether COPANT membership *causes* increased trade flows. Based on these results, we can confidently state that there is a positive association between COPANT membership and trade flows.

STATISTICAL RESULTS FOR 189 COUNTRIES

	Exports		Imports	
	Coefficient	**Std. Error**	**Coefficient**	**Std. Error**
STEP 1				
Constant	1.60	1.58	-3.09	2.86
Geographical Distance	-0.19***	0.14	-0.14***	0.26
GDP	0.90***	0.04	0.80***	0.08
Trade Office	0.08*	0.19	0.12*	0.34
English Dummy	0.19***	0.16	0.07	0.29
French Dummy	0.07**	0.19	0.02	0.34
STEP 2				
COPANT Dummy	0.09**	0.23	0.16***	0.41

*Significant at the 5 per cent level **Significant at the 1 per cent level ***Significant at the 0.1 per cent level

About the Standards Council of Canada:

SCC is a Crown corporation that leads Canada's standardization network. SCC facilitates the development and use of national and international standards and accreditation services in order to enhance Canada's competitiveness and well-being. SCC is part of the Innovation, Science and Economic Development Canada portfolio. For additional information on SCC, visit www.scc.ca.

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