Advertisement

The World Economy / Volume 42, Issue 12 / pp. 3488-3514

ORIGINAL ARTICLE

Putting Canada in the penalty box: Trade and welfare effects of eliminating North American Free Trade Agreement

Scott L. Baier, Jeffrey H. Bergstrand, John P. Bruno

First published: 03 October 2019

https://doi.org/10.1111/twec.12870

PDF

Abstract

Three years ago, very few economists would have imagined that one of the newest and fastest growing research areas in international trade is the use of quantitative trade models to estimate the economic welfare losses from *dissolutions* of major countries' economic integration agreements (EIAs). In 2016, "Brexit" was passed in a UK referendum. Moreover, in 2019, the existence of the entire North American Free Trade Agreement (NAFTA) is at risk if the US withdraws—a threat President Trump has made if the proposed US–Mexico–Canada Agreement is not passed by the US Congress. We use state-of-the-art econometric methodology to estimate the partial (average treatment) effects on international trade flows of the six major types of EIAs. Armed with precise estimates of the average treatment effect for a free trade agreement, we examine the general equilibrium trade and welfare effects of the elimination of NAFTA (and for robustness US withdrawal only). Although all the member countries' standards of living fall, surprisingly the smallest economy, Mexico, is not the biggest loser; Canada is the biggest loser. Canada's welfare (per capita income) loss of 2.11% is nearly *two times* that of Mexico's loss of 1.15% and is nearly *eight times* the US' loss of 0.27%. The simulations will illustrate the important influence of trade costs—international *and intranational*—in contributing to the gains (or losses) from an EIA's formation (or elimination)

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. Privacy Policy

Manage Preferences

Accept All

Reject Non-Essential

Arkolakis, C., Costinot, A., & Rodriguez-Clare, A. (2012). New trade models, same old gains? *American Economic Review*, **102**(1), 94–130.

Web of Science® | Google Scholar

Baier, S., & Bergstrand, J. (2001). The growth of world trade: Tariffs, transport costs, and income similarity. *Journal of International Economics*, **53**(1), 1–27.

Web of Science® | Google Scholar

Baier, S., & Bergstrand, J. (2007). Do free trade agreements actually increase members' international trade? *Journal of International Economics*, **71**(1), 72–95.

Web of Science® | Google Scholar

Baier, S., & Bergstrand, J. (2009). *Bonus vetus* OLS: A simple method for approximating international trade-cost effects using the gravity equation. *Journal of International Economics*, **77**(1), 77–85.

Web of Science® | Google Scholar

Baier, S., Bergstrand, J., & Clance, M. (2018). Heterogeneous effects of economic integration agreements. *Journal of Development Economics*, **135**, 587–608.

Web of Science® | Google Scholar

Baier, S., Bergstrand, J., Egger, P., & McLaughlin, P. (2008). Do economic integration agreements actually work? Issues in understanding the causes and consequences of the growth of regionalism. *The World Economy*, **31**(4), 461–497.

Web of Science® | Google Scholar

Baier, S., Bergstrand, J., & Feng, M. (2014). Economic integration agreements and the margins of international trade. *Journal of International Economics*, **93**(2), 339–350.

Web of Science® | Google Scholar

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. Privacy Policy

Manage Preferences

Accept All

Reject Non-Essential

Bergstrand, J., & Egger, P. (2011). Gravity equations and economic frictions in the world economy. In D. Bernhofen, R. Falvey, D. Greenaway, & U. Kreickemeier (Eds.), *Palgrave handbook of international trade* (pp. 532–570). London, UK: Palgrave Macmillan.

Web of Science® | Google Scholar

Bergstrand, J., Larch, M., & Yotov, Y. (2015). Economic integration agreements, border effects, and distance elasticities in the gravity equation. *European Economic Review*, **78**, 307–327. https://doi.org/10.1016/j.euroecorev.2015.06.003

Web of Science® | Google Scholar

Brakman, S., Garretsen, H., & Kohl, T. (2017). *Consequences of Brexit and options for a global Britain* (Cesifo Working Papers). Retrieved from https://www.cesifo.org/en/publikationen/2017/workingpaper/consequences-brexit-and-options-global-britain

Google Scholar

Chaney, T. (2008). Distorted gravity: The intensive and extensive margins of international trade. *American Economic Review*, **98**(4), 1707–1721. https://doi.org/10.1257/aer.98.4.1707

Web of Science® | Google Scholar

Cheng, I., & Wall, H. (2005). Controlling for heterogeneity in gravity models of trade and integration. *Federal Reserve Bank of St. Louis Review*, **87**(1), 49–63. https://doi.org/10.20955/r.87.49-64

Web of Science® | Google Scholar

Costinot, A., & Rodriguez-Clare, A. (2014). Trade theory with numbers. In G. Gopinath, E. Helpman, & K. Rogoff (Eds.), *Handbook of interantional economics* (pp. 197–261, Vol. **4**). Amsterdam, the Netherlands: Elsevier.

Google Scholar

Eaton, J., & Kortum, S. (2002). Technology, geography and trade. *Econometrica*, **70**(5), 1741–1779. https://doi.or

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. Privacy Policy

Manage Preferences

Accept All

Reject Non-Essential

Head, K., & Mayer, T. (2014). Gravity equations: Workhorse, toolkit, and cookbook. In G. Gopinath, E. Helpman, & K. Rogoff (Eds.), *Handbook of international economics* (pp. 131–195, Vol. **4**). Amsterdam, the Netherlands: Elsevier.

Google Scholar

Helpman, E., Melitz, M., & Rubinstein, Y. (2008). Trading partners and trading volumes. *Quarterly Journal of Economics*, **123**(2), 441–487.

Web of Science® Google Scholar

Mayer, T., Vicard, V., & Zignago, S. (2018). *The cost of non-Europe revisited* (Banque de France Working Papers). Retrieved from https://publications.banque-france.fr/en/cost-non-europe-revisited

Google Scholar

Oberhofer, H., & Pfaffermayr, M. (2017). *Estimating the trade and welfare effects of Brexit: A panel data structural gravity approach* (CESifo. Working Papers). Retrieved from https://www.cesifo.org/en/publikationen/2017/working-paper/estimating-trade-and-welfare-effectsbrexit-panel-data-structural

Google Scholar

Tinbergen, J. (1962). *Shaping the world economy: Suggestions for an international economic policy*. New York, NY: The Twentieth Century Fund.

Google Scholar

Trefler, D. (2004). The long and short of the Canada-US Free Trade Agreement. *American Economic Review*, **94**(4), 870–895. https://doi.org/10.1257/0002828042002633

Web of Science® Google Scholar

Wooldridge, J. (2000). *Introductory econometrics*. Chicago, IL: South-Western.

Google Scholar

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. Privacy Policy

Manage Preferences

Accept All

Reject Non-Essential

ABOUT WILEY ONLINE LIBRARY

Privacy Policy
Terms of Use
About Cookies
Manage Cookies
Accessibility
Wiley Research DE&I Statement and Publishing Policies

HELP & SUPPORT

Contact Us
Training and Support
DMCA & Reporting Piracy
Sitemap

OPPORTUNITIES

Subscription Agents
Advertisers & Corporate Partners

CONNECT WITH WILEY

The Wiley Network
Wiley Press Room

Copyright © 1999-2026 John Wiley & Sons, Inc or related companies. All rights reserved, including rights for text and data mining and training of artificial intelligence technologies or similar technologies.

WILEY

This website utilizes technologies such as cookies to enable essential site functionality, as well as for analytics, personalization, and targeted advertising. You may change your settings at any time or accept the default settings. You may close this banner to continue with only essential cookies. Privacy Policy

Manage Preferences
Accept All
Reject Non-Essential