European Economic Review 68 (2014) 31–47

Contents lists available at ScienceDirect

European Economic Review

journal homepage: www.elsevier.com/locate/eer

Who benefits from regional trade agreements? The view from the stock market

Christoph Moser [a,b,*], Andrew K. Rose [c,d,e]

[a] ETH Zurich, KOF Swiss Economic Institute, Weinbergstrasse 35, 8092 Zurich, Switzerland
[b] CESifo, Germany
[c] Haas School of Business, University of California, Berkeley, CA 94720-1900, USA
[d] CEPR, London, UK
[e] NBER, Cambridge, MA, USA

ARTICLE INFO

Article history:
Received 5 April 2013
Accepted 14 January 2014
Available online 20 February 2014

JEL classification:
F10
F13
G14
F30

Keywords:
Trade agreements
Event study
Natural partners
Low income
International finance

ABSTRACT

The consequences of regional trade agreements (RTAs) on countries' welfare are disputed. In this paper, we assess these effects using stock returns from a recent data set that spans over 200 RTA announcements, 80 economies, and 20 years. We measure the effects of news concerning RTAs on the returns of national stock markets, after adjusting these returns for international stock market movements. We then link these abnormal returns to features of the RTA members and the agreements themselves. We find strong evidence of the natural trading partner hypothesis; stock markets rise more when RTAs are signed between countries that already engage in high volumes of trade. Stock markets also rise more when poorer countries sign RTAs, and when RTAs are signed with smaller partners. We also find no evidence that capital markets expect significant trade diversion effects.

1. Introduction and motivation

The consequences of regional trade agreements (RTAs) on countries' welfare are disputed. In this empirical paper, we take a fresh look at the issue and assess RTAs using the lens of the stock market.

Almost all economists favor trade liberalization; they disagree on how to get there. Multilateral liberalization is better in principle, but more difficult in practice, especially lately. The alternative is regional liberalization; worse in theory, but at least feasible. Over the last 15 years, there has been an unprecedented rise in the number of Regional Trade Agreements (hereafter RTAs). However, the consequences of RTAs on countries' welfare are controversial. Are RTAs indeed a viable and desirable alternative to multilateral trade liberalization?[1]

A large literature on RTAs has emerged; Freund and Ornelas (2009), Baldwin (2008) and Panagariya (2000) provide surveys. Some stylized facts emerge from the recent literature. RTAs tend to boost trade between their members, with small

* Corresponding author at: ETH Zuerich, KOF Swiss Economic Institute, Weinbergstrasse 35, 8092 Zuerich, Switzerland.
E-mail addresses: moser@kof.ethz.ch (C. Moser), arose@haas.berkeley.edu (A.K. Rose).

[1] By "regional trade agreements" (RTAs), we include customs unions (CUs), free trade agreements (FTAs) and preferential trade agreements (PTAs). We do not distinguish between these forms; it is not easy to do so in practice, and all are allowed within the GATT/WTO framework.

http://dx.doi.org/10.1016/j.euroecorev.2014.01.012
0014-2921

trade-diverting effects for non-members. RTA formation is not random, but depends systematically on economic and political factors. Further, there is evidence of considerable heterogeneity in the overall trade effect of RTAs.[2]

The "natural trading partner hypothesis" suggests that positive welfare effects stem from RTAs between countries with high trade volumes prior to the agreement. The strength of the theory is a matter of controversy. Baier and Bergstrand (2004), Magee (2008) and Egger and Larch (2008) find support for the hypothesis. In contrast, Krishna (2003) uses a general equilibrium model to argue that the welfare effects from potential RTAs with 24 trading partners of the United States are associated with neither trade volume between nor distance to RTA partners.

A few empirical studies go beyond the trade effects of RTAs. The welfare effects of the Canada-U.S. FTA and NAFTA on member and non-member countries have been assessed to be small and positive or close to zero, according to Trefler (2004) and Romalis (2007). Based on a structural model, Egger and Larch (2011) find that positive welfare effects of the so-called Europe Agreements are more pronounced for Central and Eastern European countries than for the 15 older members of the EU.

The theoretical impact of a RTA on the returns to capital (as measured by the stock market) depends crucially on the degree of capital mobility across sectors. Grossman (1983) offers a theoretical framework, where the Heckscher–Ohlin model and the specific-factor model emerge as two polar cases. With perfect capital mobility, overall stock market returns depend on a country's capital endowment relative to its RTA partners. However, Grossman and Levinsohn (1989) provide evidence in favor of limited short-run capital mobility (and a specific-factor model).[3] In this case, some industries (and the owners of their capital) might profit from a new RTA, while others potentially suffer. Finally, a recent Melitz-type trade model with heterogeneous firms as extended to stock market returns by Breinlich (2011) predicts that, even within the same industry, more productive exporting (rather than non-exporting) firms profit from trade liberalization, although Breinlich is silent on the impact of increased import competition.

Firm profits and RTAs can be generally related in different ways. On the one hand, profits may rise due to (1) productivity gains within the firm or industry due to trade liberalization (e.g., Pavcnik, 2002; Melitz, 2003; Trefler, 2004; Lileeva and Trefler, 2010); (2) economies of scale and love of variety that can be exploited in a bigger market (e.g., Baier and Bergstrand, 2004); and/or (3) trade creation within the RTA (for given markups). On the other hand, RTAs can enable costly trade diversion (which is on average usually small, e.g., Magee, 2008), and profits for some industries might fall due to increased import competition (e.g., Baggs and Brander, 2006).[4]

In this paper, we are interested in the effect of important news about RTAs on the *overall* stock market. We examine national stock market reactions to RTAs for a number of reasons. First, stock prices should react quickly to news that changes the expected stream of discounted future dividends. Given that some firms might be expected to profit and others to suffer from lowering trade barriers, a country's stock market index captures the net effect on expected future profits of listed firms due to a RTA. Second, in case of trade liberalizations, short-term adjustments costs have to be weighed against long-term gains (e.g., Trefler, 2004). Both effects are hard to measure individually, but the stock market represents a natural way to measure the net present value of these counteracting effects. Third, there is little empirical evidence on the effects of trade liberalization on capital owners; the effects of trade on labor outcomes have attracted most of the profession's attention. Fourth, profits are arguably the most important firm performance variable, crucial for a firm's innovation, employment and survival. Nevertheless, there are only a small number of studies on profitability, as Wagner (2012) concludes in his survey. Baggs and Brander (2006) are a notable exception showing that falling tariffs due to the Canada-US free trade agreement increased (decreased) profits for export-oriented (import competing) Canadian firms. Finally, our study relates to recent trade models stressing firm dynamics in response to news on trade liberalization (e.g., Bergin and Lin, 2012; Burstein and Melitz, 2013).

We provide the first systematic evidence on the effects of RTAs on stock market returns. Our data set encompasses a large number of RTAs, countries, and years. Since we have a relatively large number of observations, we are able to differentiate across the countries that sign RTAs and the RTAs themselves, enabling us to link the impact of RTA news on the stock market with the characteristics of both RTAs and countries. This enables us, for example, to examine whether poorer countries profit from RTAs. This is a matter of controversy to economists like Joseph Stiglitz, who are concerned that poorer countries face a "take-it-or-leave-it" attitude in negotiations with partners like the United States.[5] We can also check the natural trading partner hypothesis, since our data set includes variation in trade links across trading partners. The data confirm this hypothesis; indeed, this is our single strongest result.

[2] Among others, Magee (2003, 2008), Baier and Bergstrand (2004, 2007, 2009), Carrère (2006), Eicher et al. (2012) and Egger et al. (2011) document the endogenous nature of regional trade agreements and their heterogeneous effects. Egger and Larch (2008) and Baldwin and Jaimovich (2012) emphasize the "spatial dimension" of trade agreements; if geographically close countries or important trading partners strike a deal with another country, the incentives for non-members to pursue a regional trade agreement increase.

[3] For evidence of limited capital mobility across sectors for the United States, Canada and (partly) Mexico see Grossman and Levinsohn (1989), Thompson (1994) and Rodriguez (2003). In Table A3, we proxy relative factor endowment by differences in real GDP per capita between RTA partners (see Egger et al., 2011), but cannot find any significant effects.

[4] For instance, Singapore's share prices initially dropped following the announcement of a RTA with the United States due to concerns about increased competition in the financial sector.

[5] Joseph Stiglitz raises this concern for instance in the following newspaper articles: "New Trade Pacts Betray the Poorest Partners," Wall Street Journal, July 10, 2004; "Nobel Laureate Criticizes FTA, U.S. Unilateralism," The Korea Herald, November 16, 2007.