

Who Benefits from Regional Trade Agreements? The View from the Stock Market

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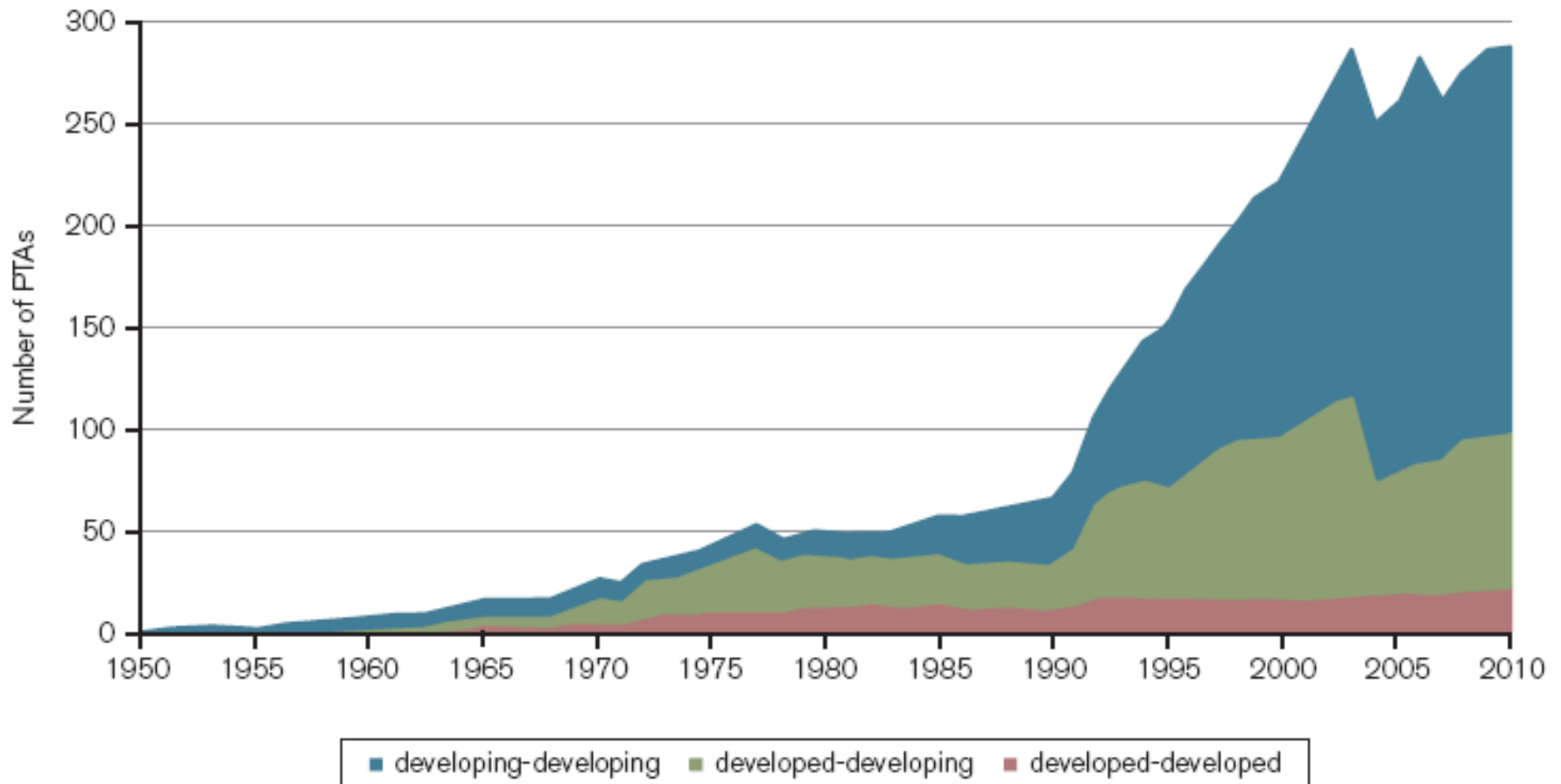
Trade Liberalization

- International trade potential key driver of economic development:
 - Other candidates include institutions, geography, ...
- Multilateral trade liberalization preferable ...
... but more and more difficult to achieve (Doha round dragging on).
- Regional Trade Agreements (RTAs) viable alternative?

RTA Effects on Trade and Welfare

- Effects of RTAs on income and welfare disputed.
 - Trade: Beneficially “created” or harmfully “diverted”?
 - Few empirical studies go beyond pure trade effects.
 - Welfare effects for Canada-U.S. FTA and NAFTA small and positive or close to zero (Trefler, 2004; Romalis, 2007); Egger and Larch (2011) find stronger positive welfare effects of the European Agreements.
- Estimates of RTAs on trade well established, but heterogeneous and RTAs not random but *endogenous*.
 - RTAs deliberately chosen by those likely to trade anyway.
 - Baier and Bergstrand (2004, 2007, 2009), Carrere (2006), Eicher et al. (2011), Egger et al. (2011) and Magee (2003, 2008); Egger and Larch (2008) and Baldwin and Jaimovich (2012).
- Evidence for “natural trading partner hypothesis”?
 - One prominent opponent: Krishna (2003)

RTAs Are Proliferating



Cumulative number of PTAs in force, 1950-2010, notified and non-notified, by country group (Source: World Trade Report 2011).

Do Poor Countries Benefit from RTAs?

“Joseph Stiglitz [...] The United States and Morocco last month signed a new bilateral trade treaty [...] But regrettably, in negotiating the trade agreements with Morocco, Chile and other countries [...] economic policy dictated more by special interests than by a concern for the well-being of our poorer trading partners.”

(Wall Street Journal, July 10, 2004)

“Trade negotiators I met in other countries point out that you don’t negotiate with the United States; it’s ‘take it or leave it,’” Stiglitz said.

(Korea Herald, Nov. 16, 2007)

What Does the Stock Market Say?

- Our approach relies on the view from financial markets:
 - Stock markets' reaction to important news on RTAs → „Event-study“.
 - Discounted expected profits (short-term costs vs. long-term gains).
 - Little empirical evidence on capital owners and firm profits.
 - Recent theory on firm dynamics (e.g., Bergin and Lin, 2012).
- Our dataset spans many RTAs and countries:
 - Distinct from other studies: Exploit stock market reactions of individual firms for one specific RTA (e.g., Thompson, 1994; Rodriguez, 2003; Breinlich, 2011).
 - Which features lead to biggest (expected) gains?

Trade Theory and Stock Market Returns

- Theoretical impact of a RTA on stock returns:
 - Grossman and Levinsohn (1989) provide evidence in favor of a (against) specific-factor model (the Heckscher-Ohlin model).
 - Breinlich (2011) provides evidence for Melitz-model (but is silent on impact of import competition).
- How are firm profits and RTAs related?
 - Increased import competition.
 - Non RTA-members' firms could lose market share.
 - Economies of scale.
 - Productivity gains within firm.
 - Trade creation within RTA.

Stock Markets Care about RTAs

“Mexican stocks closed higher Wednesday as news that Mexico and the European Union has reached a long-awaited agreement on a free trade pact buoyed market activity ... market’s key IPC index closed up 71.29 points or 1.2 percent.”

(Associated Press, Nov 24, 1999)

Sign of Effect not Guaranteed

“Singapore share prices fell 0.8 percent Wednesday as bank stocks fell on concerns about increased competition from US institutions when a bilateral trade pact takes effect, deals said.”

(Agence France Press, Nov 20, 2002)

Main Findings and Contributions

- Rich data set on developing and developed countries, covering 1002 country-RTA-events for 82 countries and 122 regional trade agreements from 1988 to 2009.
- Measure for (expected) changes in profits of firms listed in stock markets of new RTA-member countries.
- Stock market returns higher for „natural trading partners.“
- Stock market returns *inversely* linked to income per capita and size of RTA-partners.
- BUT this is no welfare analysis.

Data Set and Empirical Strategy

Data Set (I)

- Four major building blocks for data set:
 - Regional Trade Agreements
 - Stock market data
 - Important news on individual RTAs
 - Macroeconomic and trade determinants

- Comprehensive data set on RTAs from 1988 to 2009:
 - RTA notified to *WTO and*
 - Daily financial market data available for
 - both RTA-members in the case of bilateral trade agreement, or
 - at least one RTA-member country in the case of a multilateral RTA.

Data Set (II)

- Central component of our data set and identification strategy consists of a *unique set of important news on individual RTAs*. Two important dates considered:
 - Day when it was announced that negotiations on a RTA will be started („Start“) and
 - Day that agreement on the RTA was actually been reached („Deal“).
 - Full-text research via LexisNexis to identify event dates.

Appendix (excerpt): Announcements on Regional Trade Agreements (RTAs), RTA-members, date, name, and other characteristics (1988 - 2009).

Name of RTA	Event date (LexisNexis)	Event Type	RTA-members in dataset	Description of Announcement	Signature date (WTO)
Global System of Trade Preferences among Developing Countries (GSTP)	13 Apr. 1988	Deal	Argentina, Chile, Peru, Sri Lanka, India, Indonesia, Malaysia, Philippines, Singapore, Thailand	Ministers of nearly 50 developing nations have agreed in the "Belgrade Declaration" to grant one another tariff concessions and trade preferences.	13 Apr. 1988
North American Free Trade Agreement (NAFTA)	24 Sept. 1990	Start	Canada, Mexico, United States	Canadian government announced Monday it would plunge into trade talks underway between the United States and Mexico.	---
North American Free Trade Agreement (NAFTA)	12. Aug. 1992	Deal	Canada, Mexico, United States	U.S. President Bush announced that the US, Canada and Mexico have reached a free-trade agreement to create the world's largest trading bloc.	17 Dec. 1992
Canada – Israel	23 Nov. 1994	Start	Canada, Israel	Canada and Israel are to negotiate a FTA, leaders of the two countries announced Wednesday.	---
Canada – Israel	22 July 1996	Deal	Canada, Israel	Israel and Canada are to sign a free-trade agreement in Canada on July 31, a spokesman for Israel's Ministry of Industry and Trade said yesterday in Jerusalem.	31 July 1996
South Korea – Chile	16 Nov. 1998	Start	Chile, South Korea	Korean President Dae-jung and Chilean President Frei agreed here Tuesday to start negotiations on a FTA between their two countries.	---
South Korea – Chile	24 Oct. 2002	Deal	Chile, South Korea	South Korea and Chile concluded a FTA Thursday to boost trade in South Korean industrial goods and Chilean farm products, officials said.	1 Feb. 2003
EC (25) Enlargement	10 Oct. 2002	Deal	Austria, Belgium, Czech Republic, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, United Kingdom	The European Commission gave its green light Wednesday for 10 countries to join the EU in 2004, in a historic enlargement [...] recommended that Malta, Cyprus, Estonia, Hungary, Poland, the Czech Republic, Slovenia, Latvia, Lithuania and Slovakia be invited to join in 2004.	16 April 2003
Pakistan – Malaysia	11 June 2007	Deal	Malaysia, Pakistan	Pakistan, Malaysia to sign FTA [...] mutual consent was expressed during a telephonic conversation between the two prime ministers this afternoon.	8 Nov. 2007

Empirical Strategy (I)

■ Creating Abnormal National Returns:

- *Regression for estimation window:*

$$R_{it} = \alpha_i + \beta_i \cdot R_{MSCIt} + \varepsilon_{it} \quad \text{over } t=T-395 \dots T-29$$

- *One-day Abnormal Returns (AR_{it}) during event window:*

$$AR_{it} = R_{it} - \hat{\alpha}_i - \hat{\beta}_i \cdot R_{MSCIt}$$

- *Abnormal Returns (AR_{iT}) accumulated over different windows of time around RTA-events (CAR_{iT}).*
 - From $[-1,+1]$, over $[-1,+3]$, $[-1,+5]$, $[-1,+7]$ to $[-1,+10]$.

Empirical Strategy (II)

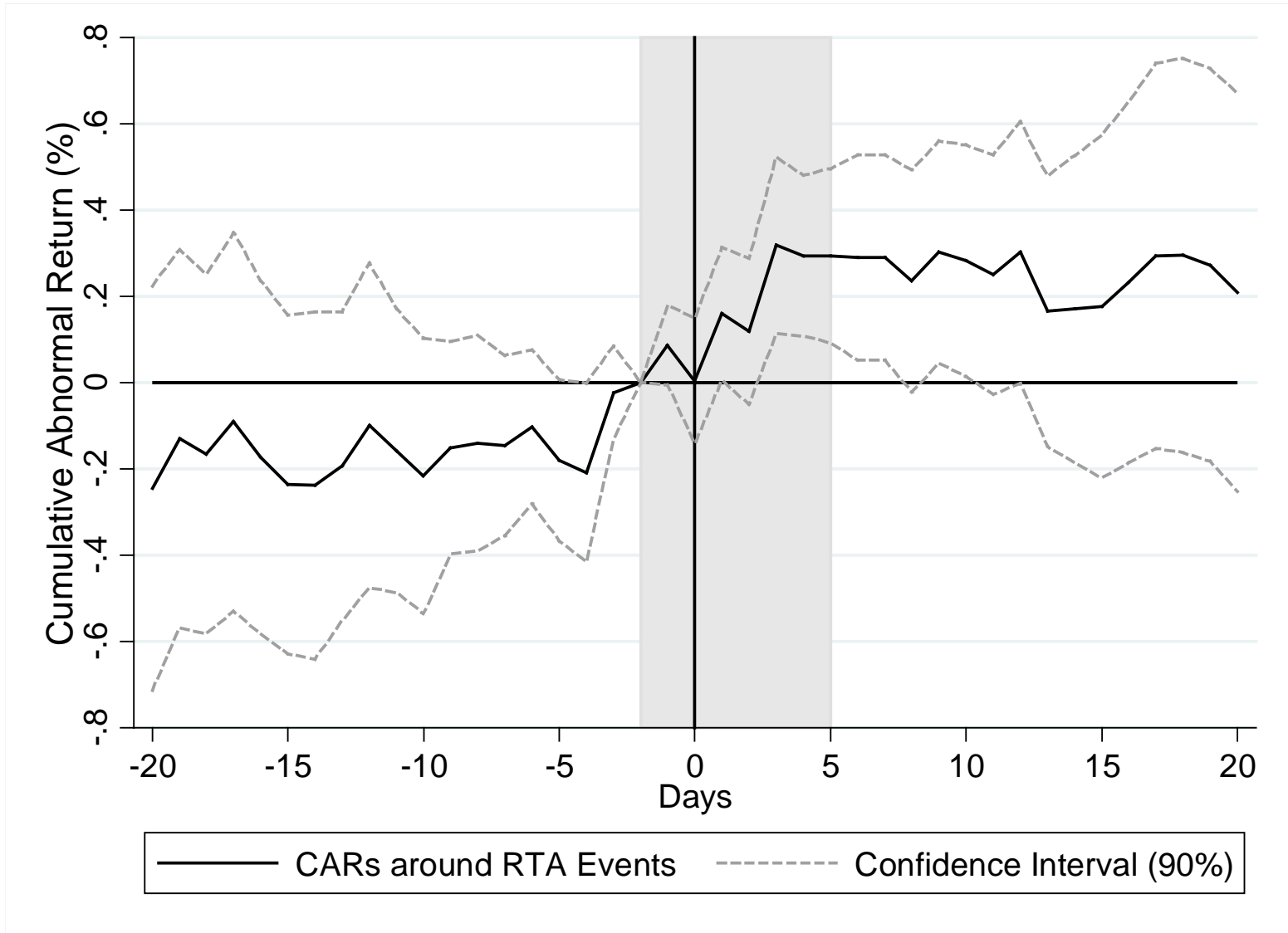
■ Linking National Returns to Fundamentals:

$$CAR_{iT} = \delta \cdot RTA_{iT} + \gamma \cdot X_{iT} + u_{iT}$$

- where X_{iT} denotes a set of characteristics of a country at time T , RTA_{iT} is a set of characteristics describing the nature of the RTA signed by the country at the time.
- Dummy variable for RTAs covering goods and services (rather than simply goods), time-fixed effects and intercept included.
- Coefficients of interest: γ and δ .
- Standard errors are clustered at the country-level.

Main Results

First Stage of Event Study



Second Stage of Event Study

Table 1: Default - Stock Market Returns in Local Currency

Event window	(t-1, t+1)	(t-1, t+3)	(t-1, t+5)	(t-1, t+7)	(t-1, t+10)
<i>Exports to RTA partners/GDP</i>	1.653** (0.59)	1.960** (0.71)	2.786** (0.92)	2.813* (1.14)	3.765** (1.27)
<i>Log distance to RTA partners</i>	0.084 (0.07)	0.160° (0.09)	0.051 (0.10)	0.155 (0.12)	0.208 (0.13)
<i>Log real GDP of RTA partners</i>	-0.083° (0.04)	-0.118* (0.06)	-0.166* (0.07)	-0.229* (0.09)	-0.228* (0.10)
<i>Log real GDP</i>	0.017 (0.04)	0.017 (0.05)	0.039 (0.08)	0.080 (0.10)	0.157 (0.12)
<i>Log real GDP p/c of RTA partners</i>	-0.069 (0.07)	0.010 (0.08)	0.052 (0.10)	0.146 (0.12)	0.105 (0.13)
<i>Log real GDP p/c</i>	-0.175* (0.08)	-0.208* (0.10)	-0.255* (0.12)	-0.339* (0.14)	-0.349° (0.18)
<i>Log Trade/GDP</i>	-0.101 (0.09)	-0.077 (0.10)	-0.104 (0.16)	0.195 (0.20)	0.243 (0.24)
<i>Log National Stocks/GDP</i>	0.051 (0.05)	0.064 (0.06)	0.058 (0.08)	0.021 (0.10)	-0.015 (0.13)
R-squared	0.05	0.06	0.04	0.05	0.06
Number of observations	1002	1002	1002	1002	1002

Note: Each column is estimated via OLS. Estimates based on 1002 observations, covering 82 developing and developed countries and 122 RTAs from 1988 to 2009. Event date defined as announcement of the start of negotiations of RTA or announcement of a successful conclusion of such an agreement. Coefficients with standard errors clustered at country-level in parentheses. Coefficients significantly different from zero at [0.10] 0.05 (0.01) marked with [one circle] one (two) asterisk(s). Regressand: National Stock Market return in local currency, adjusted for MSCI movement. Time-fixed effects, intercepts and Goods/Goods&Services dummy included but not reported.

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And the Winners Are ...

- Emerging markets and developing countries in sample:
 - Argentina, Bangladesh, Botswana, Bulgaria, Brazil, Chile, China, Cote d'Ivoire, Colombia, Costa Rica, Czech Republic, Egypt, Estonia, Croatia, Hungary, Indonesia, India, Jamaica, Jordan, Lebanon, Sri Lanka, Lithuania, Latvia, Malta, Malaysia, Mexico, Morocco, Namibia, Nepal, Oman, Pakistan, Panama, Peru, Philippines, Poland, Portugal, Romania, Russia, Saudi Arabia, Slovak Republic, Slovenia, South Africa, Swaziland, Thailand, Tunisia, Turkey, Ukraine and Vietnam.
- Effects are also economically large:
 - One standard deviation from the average level of real GDP per capita → annualized return varies by 10% (for default event window [t-1, t+5]) and up to 20% in short-run.
 - Comparison of 10th to 90th percentile of income distribution: 23% for default window (up to 44% [t-1, t+1])

Sensitivity Analyses

Table 2: Different Measures of Stock Market Returns (in LC)

Model	Default	Beta in (-1,1) (MSCI)	No beta adj. (MSCI)	Beta adj. (MSCI ex US)	Beta adj. (EAFE)
<i>Exports to RTA partners/GDP</i>	2.786** (0.92)	3.191** (0.97)	2.072° (1.24)	2.505** (0.93)	2.610** (0.94)
<i>Log distance to RTA partners</i>	0.051 (0.10)	0.105 (0.11)	-0.284° (0.16)	0.048 (0.11)	0.071 (0.11)
<i>Log real GDP of RTA partners</i>	-0.166* (0.07)	-0.178* (0.08)	-0.134 (0.08)	-0.164* (0.07)	-0.188* (0.07)
<i>Log real GDP</i>	0.052 (0.10)	0.036 (0.11)	0.060 (0.12)	0.046 (0.10)	0.037 (0.11)
<i>Log real GDP p/c of RTA partners</i>	0.039 (0.08)	0.068 (0.09)	0.028 (0.09)	0.027 (0.07)	0.017 (0.08)
<i>Log real GDP p/c</i>	-0.255* (0.12)	-0.282* (0.13)	-0.434** (0.12)	-0.292* (0.11)	-0.292* (0.12)
<i>Log Trade/GDP</i>	-0.104 (0.16)	-0.092 (0.17)	-0.095 (0.22)	-0.075 (0.16)	-0.078 (0.16)
<i>Log National Stocks/GDP</i>	0.058 (0.08)	0.053 (0.09)	0.144 (0.10)	0.064 (0.08)	0.063 (0.08)
R-squared	0.04	0.05	0.09	0.05	0.05
Number of observations	1002	880	1003	1002	1002

Note: (t-1, t+5) event window. Estimates in Column (1) show the baseline results from Table 1 for comparability. In Column (2), sample is restricted to observations with betas between -1 and +1 (MSCI). Column (3) reports results for local returns without beta-adjustment. Columns (4) and (5) display results for national stock market returns adjusted for MSCI World (without the United States stock market) and EAFE (without developed countries) movement.

Table 3: Different Adjustments of Stock Market Returns for Exchange Rates

Model	Default	Stock returns in LC	No beta adj. (USD)	Beta adj. (USD)	Adjusted for MSCI and FX
<i>Exports to RTA partners/GDP</i>	2.786** (0.92)	2.961** (0.95)	1.843 (1.44)	1.919 (1.39)	2.099° (1.18)
<i>Log distance to RTA partners</i>	0.051 (0.10)	0.081 (0.10)	-0.427** (0.16)	-0.317* (0.15)	-0.142 (0.14)
<i>Log real GDP of RTA partners</i>	-0.166* (0.07)	-0.176* (0.08)	-0.093 (0.09)	-0.119 (0.10)	-0.164° (0.08)
<i>Log real GDP</i>	0.039 (0.08)	0.050 (0.08)	0.044 (0.09)	0.014 (0.09)	0.079 (0.10)
<i>Log real GDP p/c of RTA partners</i>	0.052 (0.10)	0.048 (0.11)	-0.020 (0.14)	-0.013 (0.14)	0.046 (0.12)
<i>Log real GDP p/c</i>	-0.255* (0.12)	-0.234° (0.13)	-0.317* (0.12)	-0.266° (0.15)	-0.345* (0.13)
<i>Log Trade/GDP</i>	-0.104 (0.16)	-0.203 (0.15)	-0.339 (0.25)	-0.508° (0.26)	-0.126 (0.19)
<i>Log National Stocks/GDP</i>	0.058 (0.08)	0.055 (0.08)	0.187° (0.10)	0.164° (0.10)	0.100 (0.10)
R-squared	0.04	0.04	0.12	0.12	0.09
Number of observations	1002	929	929	929	929

Note: (t-1, t+5) event window. Estimates in Column (1) show the baseline results from Table 1 for comparability. In Column (2), sample is restricted to observations, where national stock market returns are available in local currency and U.S. dollar. Columns (3) and (4) report results for U.S. dollar returns without and with adjustment, respectively. Column (5) displays results for national stock market returns adjusted for MSCI and exchange rate movement.

Table 4: Various Fixed Effects

Model	Default	Without time-fixed effects	RTA-type dummies	RTA-fixed effects	Country-fixed effects
<i>Exports to RTA partners/GDP</i>	2.786** (0.92)	2.862** (0.83)	2.253* (0.97)	2.003* (0.93)	2.759** (1.02)
<i>Log distance to RTA partners</i>	0.051 (0.10)	0.143 (0.10)	0.117 (0.14)	0.437 (0.40)	0.037 (0.13)
<i>Log real GDP of RTA partners</i>	-0.166* (0.07)	-0.111 (0.08)	-0.171° (0.09)	-0.174 (0.11)	-0.142 (0.10)
<i>Log real GDP</i>	0.039 (0.08)	0.036 (0.08)	0.026 (0.08)	0.107 (0.08)	-2.642 (4.83)
<i>Log real GDP p/c of RTA partners</i>	0.052 (0.10)	0.017 (0.11)	0.090 (0.12)	0.495° (0.26)	0.036 (0.12)
<i>Log real GDP p/c</i>	-0.255* (0.12)	-0.197° (0.11)	-0.203° (0.12)	0.061 (0.23)	4.009 (5.70)
<i>Log Trade/GDP</i>	-0.104 (0.16)	-0.083 (0.17)	-0.174 (0.16)	0.038 (0.16)	0.354 (0.78)
<i>Log National Stocks/GDP</i>	0.058 (0.08)	0.030 (0.08)	0.034 (0.08)	0.035 (0.09)	0.023 (0.20)
R-squared	0.04	0.01	0.05	0.18	0.11
Number of observations	1002	1002	961	1002	1002

Note: (t-1, t+5) event window. Estimates in Column (1) show the baseline results from Table 1 for comparability. Column (2) drops time-fixed effects to baseline. In Column (3), the dummy variables Currency Union, Free Trade Agreement and Preferential Trade Agreement and their interaction with the Goods/Goods&Services dummy variable are included, but not reported (with Preferential Trade Agreement being the leave-out category). Columns (4) and (5) employ RTA-fixed effects and country-fixed effects.

Table 5: Do Tariffs Matter?

Event window	(t-1, t+1)	(t-1, t+3)	(t-1, t+5)	(t-1, t+7)	(t-1, t+10)
<i>Exports to RTA partners/GDP</i>	1.582**	1.980**	2.484**	2.658*	3.842**
	(0.59)	(0.69)	(0.90)	(1.12)	(1.24)
<i>Log distance to RTA partners</i>	0.088	0.135	0.053	0.127	0.150
	(0.08)	(0.10)	(0.11)	(0.12)	(0.13)
<i>Log real GDP of RTA partners</i>	-0.079	-0.122°	-0.130	-0.235*	-0.238*
	(0.05)	(0.07)	(0.08)	(0.09)	(0.11)
<i>Log real GDP</i>	-0.058	0.093	0.055	0.231°	0.234
	(0.09)	(0.11)	(0.13)	(0.13)	(0.15)
<i>Log real GDP p/c of RTA partners</i>	0.026	0.010	0.010	0.052	0.119
	(0.05)	(0.06)	(0.09)	(0.11)	(0.12)
<i>Log real GDP p/c</i>	-0.185*	-0.251*	-0.332*	-0.412**	-0.335°
	(0.08)	(0.10)	(0.15)	(0.15)	(0.19)
<i>Log Trade/GDP</i>	-0.006	-0.018	-0.050	0.220	0.296
	(0.10)	(0.10)	(0.18)	(0.22)	(0.25)
<i>Log National Stocks/GDP</i>	0.054	0.080	0.084	0.021	-0.001
	(0.05)	(0.07)	(0.09)	(0.11)	(0.13)
<i>Tariffs (in percent)</i>	0.007	-0.005	-0.019	-0.023	-0.003
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
<i>Tariffs (in percent) of RTA partners</i>	0.007	0.026°	0.009	0.018	0.024
	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)
R-squared	0.05	0.06	0.04	0.05	0.05
Number of observations	960	960	960	960	960

Note: Tariffs and Tariffs of RTA partners refer to the average applied tariff rate (in percent).

Summary of Sensitivity Analyses

- Main results are not sensitive to
 - Definition of world stock market, beta-adjustment or exchange rate effects.
 - Financial crises or influential observations.
 - Alternative measure for natural trading partner.
 - Further control variables like relative factor endowments, tariffs, number of listed firms, ICRG.
- Pooling test for announcements of „Deals“ and „Starts“.

Evidence for Channel?

Table 6: Non-RTA Members Stock Market Returns - Expected Trade Diversion?

Modell	Member	Non-Member			
	Default	Top 10 Export	Top 5 Export Destination	Top 3 Export Destination	Top 1 Export Destination
<i>Exports to RTA partners/GDP</i>	2.786** (0.92)	-0.062 (0.85)	-0.773 (0.98)	-0.918 (1.09)	-0.392 (1.24)
<i>Log distance to RTA partners</i>	0.051 (0.10)	0.136° (0.07)	0.134° (0.08)	0.062 (0.09)	-0.012 (0.18)
<i>Log real GDP of RTA partners</i>	-0.166* (0.07)	0.005 (0.05)	-0.019 (0.06)	0.081 (0.09)	-0.138 (0.16)
<i>Log real GDP</i>	0.052 (0.10)	0.040 (0.07)	0.105 (0.08)	0.050 (0.13)	0.025 (0.19)
<i>Log real GDP p/c of RTA partners</i>	0.039 (0.08)	0.098° (0.05)	0.143* (0.07)	0.076 (0.06)	0.058 (0.06)
<i>Log real GDP p/c</i>	-0.255* (0.12)	0.041 (0.06)	-0.000 (0.06)	-0.064 (0.08)	-0.201 (0.13)
<i>Log Trade/GDP</i>	-0.104 (0.16)	0.107 (0.12)	0.253 (0.16)	0.309 (0.22)	0.152 (0.26)
<i>Log National Stocks/GDP</i>	0.058 (0.08)	-0.152** (0.06)	-0.165* (0.07)	-0.098 (0.06)	-0.036 (0.09)
R-squared	0.04	0.04	0.04	0.05	0.08
Number of observations	1002	4246	2953	2100	853

Note: (t-1, t+5) event window. Estimates in Column (1) show the baseline results from Table 1 for comparability. Columns (2) to (5) display results for stock market returns of countries that are not part of a new RTA. For these non-RTA members (at least one) RTA-member country constitutes an important export destination (Top 10, 5, 3 or 1).

Table 6: Non-RTA Members Stock Market Returns - Expected Trade Diversion?

Modell	Member	Non-Member			
	Default	Top 10 Export	Top 5 Export Destination	Top 3 Export Destination	Top 1 Export Destination
<i>Exports to RTA partners/GDP</i>	2.786** (0.92)	-0.062 (0.85)	-0.773 (0.98)	-0.918 (1.09)	-0.392 (1.24)
<i>Log distance to RTA partners</i>	0.051 (0.10)	0.136° (0.07)	0.134° (0.08)	0.062 (0.09)	-0.012 (0.18)
<i>Log real GDP of RTA partners</i>	-0.166* (0.07)	0.005 (0.05)	-0.019 (0.06)	0.081 (0.09)	-0.138 (0.16)
<i>Log real GDP</i>	0.052 (0.10)	0.040 (0.07)	0.105 (0.08)	0.050 (0.13)	0.025 (0.19)
<i>Log real GDP p/c of RTA partners</i>	0.039 (0.08)	0.098° (0.05)	0.143* (0.07)	0.076 (0.06)	0.058 (0.06)
<i>Log real GDP p/c</i>	-0.255* (0.12)	0.041 (0.06)	-0.000 (0.06)	-0.064 (0.08)	-0.201 (0.13)
<i>Log Trade/GDP</i>	-0.104 (0.16)	0.107 (0.12)	0.253 (0.16)	0.309 (0.22)	0.152 (0.26)
<i>Log National Stocks/GDP</i>	0.058 (0.08)	-0.152** (0.06)	-0.165* (0.07)	-0.098 (0.06)	-0.036 (0.09)
R-squared	0.04	0.04	0.04	0.05	0.08
Number of observations	1002	4246	2953	2100	853

Note: (t-1, t+5) event window. Estimates in Column (1) show the baseline results from Table 1 for comparability. Columns (2) to (5) display results for stock market returns of countries that are not part of a new RTA. For these non-RTA members (at least one) RTA-member country constitutes an important export destination (Top 10, 5, 3 or 1).

Potential Channels

- How are firm profits and RTAs related?
 - Channel 1: Import competition increases → not dominant channel.
 - Channel 2: Firms in non-member countries lose market share → no evidence for this channel.
 - Channel 3: Economies of scale increase → Size of RTA-partners tends to depress (not increase) market returns.
 - Channel 4: Productivity gains within the firm.
 - Channel 5: Trade creation within the RTA.

Conclusions

- Rich data set on developing and developed countries, covering 1002 country-RTA-events for 82 countries and 122 regional trade agreements from 1988 to 2009.
- Measure for (expected) changes in profits of firms listed in stock markets of new RTA-member countries.
- Complement to existing empirical work.
- Main results:
 - Stock market returns higher for „natural trading partners.“
 - Stock market returns *inversely* linked to income per capita and size of RTA-partners.
 - Effects are also economically relevant.

Thank you for your attention.

**Are We *Really* Measuring Expected
Trade Effects on the Stock Market?**

Empirical Strategy (III)

■ Linking National Returns to Fundamentals:

$$CAR_{iT} = \pi \cdot GravityEffect_k + u_{iT}$$

- where *Gravity-Effect (fe)* represents a k-th RTA-specific coefficient estimated from a bilateral trade gravity model from 1988 to 2009 with time-varying importer- and exporter-fixed effects (2-years) and time-fixed effects.

■ Bilateral Gravity Model:

$$\begin{aligned} \ln(X_{ijt}) = & \beta_0 + \beta_1 \cdot \ln(D_{ij}) + \beta_2 \cdot \ln(Pop_{it}) + \beta_3 \cdot \ln(Pop_{jt}) + \\ & + \beta_4 \cdot \ln(GDPpc_{it}) + \beta_5 \cdot \ln(GDPpc_{jt}) + \beta_6 \cdot W_t + \\ & + \beta_7 \cdot RTA_{ijkt} + \varepsilon_{ijt}. \end{aligned}$$

Table OA9: Financial Market Expectations and Conditional Export Effects

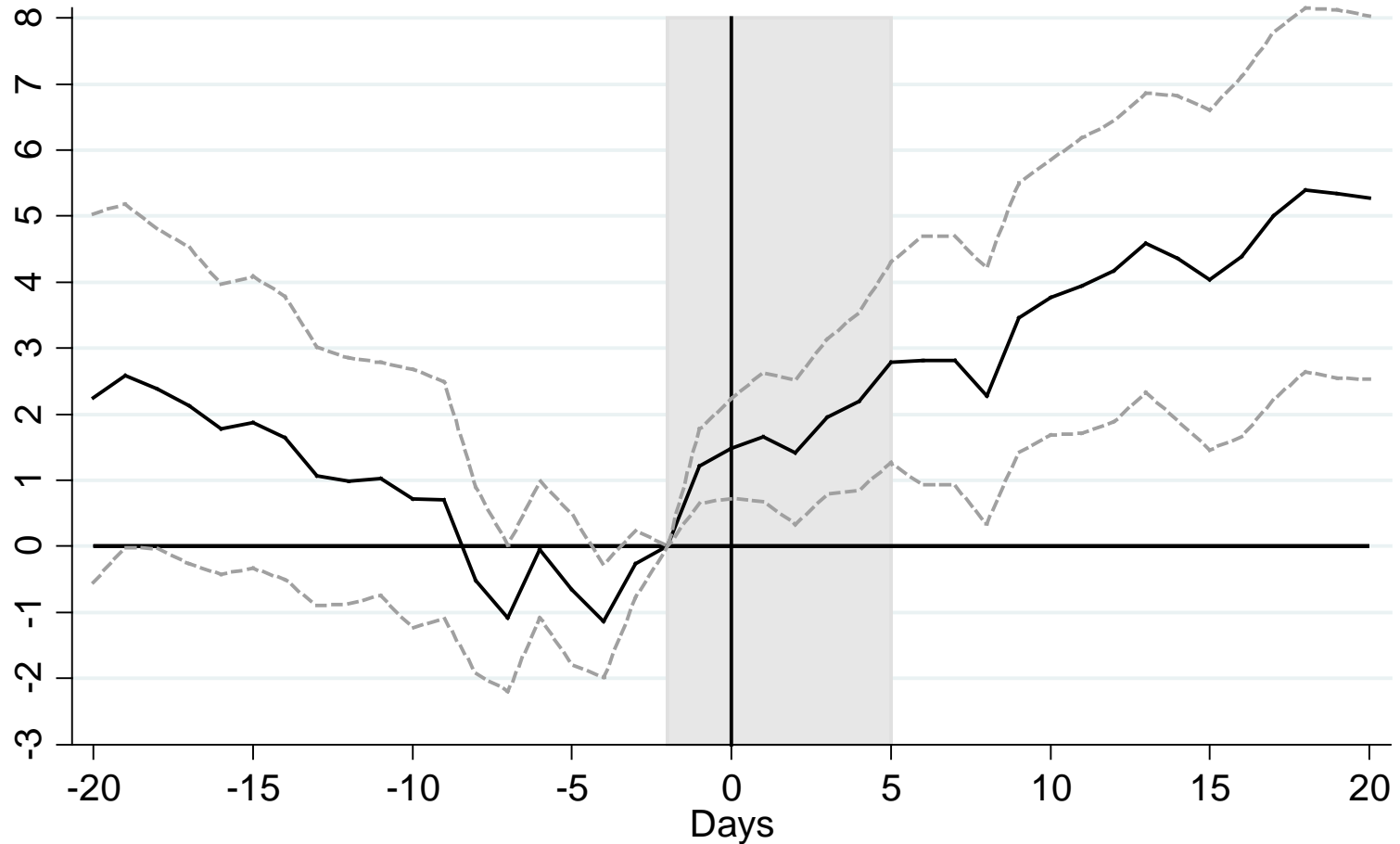
Event window	(t-1, t+1)	(t-1, t+5)	(t-1, t+7)	(t-1, t+10)	(t-1, t+15)
<i>Gravity effect (fe)</i>	0.151	0.324*	0.451**	0.522**	0.469°
	(0.12)	(0.14)	(0.16)	(0.19)	(0.24)

Note: Each column is estimated via OLS. Estimates based on 970 observations, covering 80 developing and developed countries and 100 RTAs from 1988 to 2009. Event date defined as announcement of the start of negotiations of RTA or announcement of a successful conclusion of such an agreement. Coefficients with standard errors clustered at country-level in parentheses. Coefficients significantly different from zero at [0.10] 0.05 (0.01) marked with [one circle] one (two) asterisk(s). Regressand: National Stock Market return in local currency, beta-adjusted for MSCI movement. The variable Gravity effect (fe) captures estimated RTA-specific coefficients from a bilateral trade model from 1988 to 2009 for all countries and all RTAs notified to WTO being in force (with time-varying importer and exporter fixed effects (2-years) and time-fixed effects).

Further Results and Sensitivity Analyses

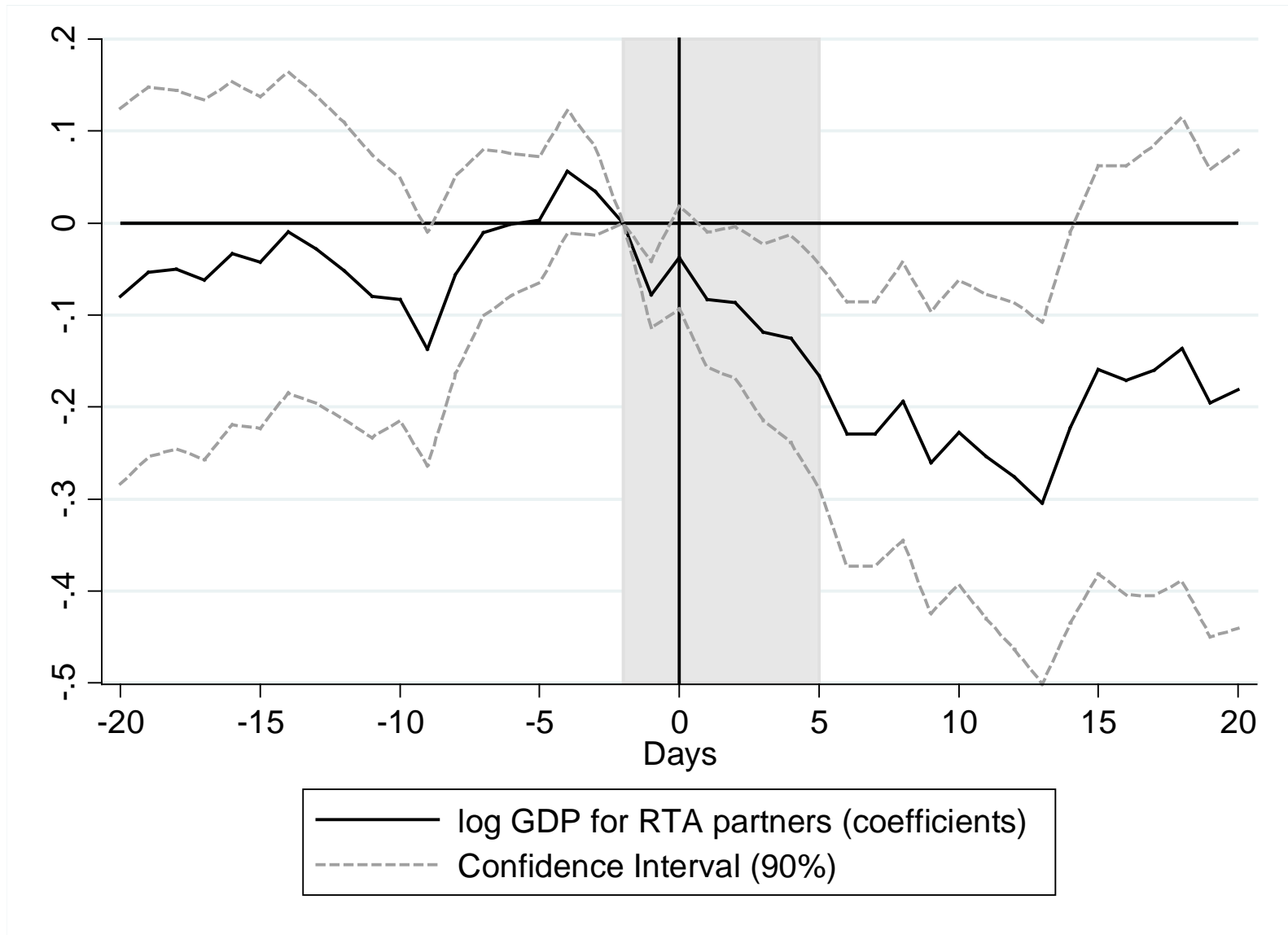
- No evidence for Heckscher-Ohlin model.
- No evidence for „smoking gun“: RTAs with EU or US do not depress abnormal stock returns.
- Main effects quite stable over time.
- Further control variables for RTA partners.
- Exclusion of relatively illiquid stock markets.

Second stage, Effect of Exports to RTA Partners

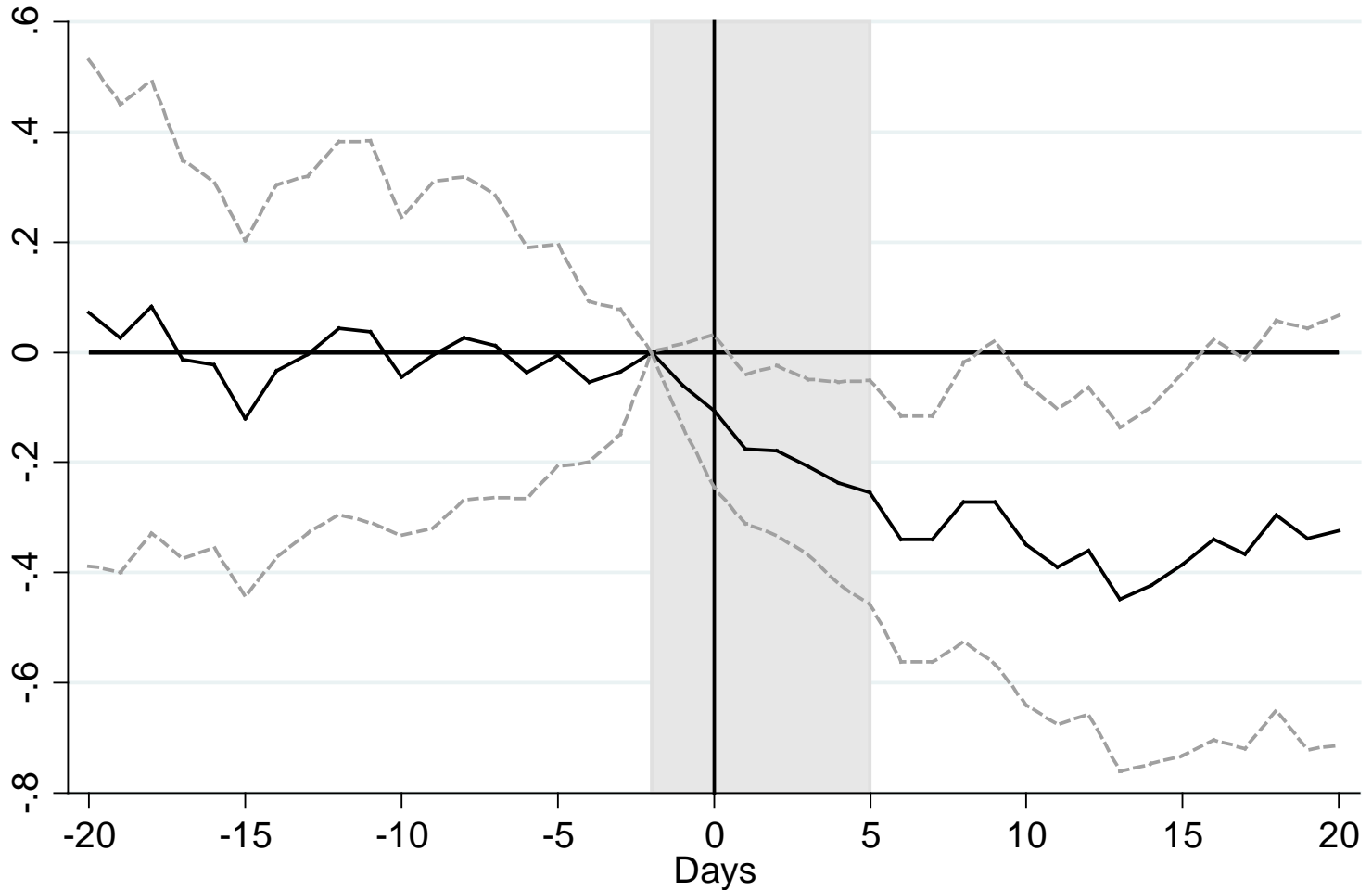


— Exports to RTA partners/GDP (coefficients)
- - - Confidence Interval (90%)

Second stage, Effect of log real GDP for RTA Partners



Second stage, Effect of log real GDP p/c



— Log GDP p.c. (coefficients) - - - - - Confidence Interval (90%)

Table A1: Alternative Measure for Natural Trading Partners

Event window	(t-1, t+1)	(t-1, t+3)	(t-1, t+5)	(t-1, t+7)	(t-1, t+10)
<i>Exports to and Imports from</i>	0.966*	1.123*	1.428*	1.766*	2.243*
<i>RTA partners/GDP</i>	(0.41)	(0.51)	(0.67)	(0.80)	(0.89)
<i>Log distance to RTA partners</i>	0.085	0.155°	0.019	0.154	0.207
	(0.07)	(0.09)	(0.11)	(0.13)	(0.14)
<i>Log real GDP of RTA partners</i>	-0.097°	-0.131*	-0.170*	-0.257**	-0.259*
	(0.05)	(0.07)	(0.08)	(0.10)	(0.11)
<i>Log real GDP</i>	0.017	0.012	0.040	0.079	0.150
	(0.05)	(0.06)	(0.08)	(0.10)	(0.12)
<i>Log real GDP p/c of RTA partners</i>	-0.069	0.016	0.044	0.143	0.112
	(0.07)	(0.09)	(0.10)	(0.12)	(0.13)
<i>Log real GDP p/c</i>	-0.178*	-0.207*	-0.255*	-0.350*	-0.356°
	(0.08)	(0.10)	(0.13)	(0.14)	(0.18)
<i>Log Trade/GDP</i>	-0.104	-0.084	-0.098	0.178	0.225
	(0.10)	(0.10)	(0.17)	(0.21)	(0.25)
<i>Log National Stocks/GDP</i>	0.054	0.059	0.068	0.025	-0.014
	(0.06)	(0.07)	(0.09)	(0.11)	(0.14)
R-squared	0.05	0.06	0.04	0.05	0.05
Number of Observations	991	991	991	991	991

Note: Each column is estimated via OLS. Estimates based on 991 observations, covering 82 developing and developed countries and 122 RTAs from 1988 to 2009.

Table A2: Financial Crises and Extreme Stock Market Returns (in LC)

Model	Default	No financial crises	Trimmed sample (1%)	Trimmed sample (2%)	Trimmed sample (5%)
<i>Exports to RTA partners/GDP</i>	2.786** (0.92)	2.904** (0.91)	2.600** (0.94)	2.521** (0.93)	2.113* (0.80)
<i>Log distance to RTA partners</i>	0.051 (0.10)	0.059 (0.11)	0.082 (0.09)	0.047 (0.09)	0.053 (0.09)
<i>Log real GDP of RTA partners</i>	-0.166* (0.07)	-0.187* (0.08)	-0.119 (0.07)	-0.138* (0.07)	-0.143* (0.06)
<i>Log real GDP</i>	0.039 (0.08)	0.060 (0.07)	0.057 (0.08)	0.042 (0.08)	0.084 (0.07)
<i>Log real GDP p/c of RTA partners</i>	0.052 (0.10)	0.021 (0.10)	0.032 (0.10)	0.019 (0.08)	0.028 (0.07)
<i>Log real GDP p/c</i>	-0.255* (0.12)	-0.285** (0.10)	-0.243* (0.10)	-0.226* (0.10)	-0.159° (0.09)
<i>Log Trade/GDP</i>	-0.104 (0.16)	-0.143 (0.15)	-0.129 (0.17)	-0.132 (0.16)	-0.015 (0.13)
<i>Log National Stocks/GDP</i>	0.058 (0.08)	0.043 (0.08)	0.084 (0.08)	0.076 (0.07)	-0.003 (0.06)
R-squared	0.04	0.05	0.05	0.06	0.05
Number of Observations	1002	953	993	984	954

Note: (t-1, t+5) event window. Estimates in Column (1) show the baseline results from Table 1 for comparability. In Column (2), sample is restricted to observations with no major financial crisis (see endnote details). Columns (3), (4) and (5) report results for local returns, where top and bottom 0.5%, 1% and 2.5% is dropped, respectively.

Table A3: Extra Variables on RTA Partner

Model	Default	RTA-partner Size	Rel. Capital Endowment	Similarity	All three Controls
Event window	(t-1, t+5)	(t-1, t+5)	(t-1, t+5)	(t-1, t+5)	(t-1, t+5)
<i>Exports to RTA partners/GDP</i>	2.786** (0.92)	2.821** (0.93)	2.828** (0.93)	2.865** (0.95)	2.967** (0.96)
<i>Log distance to RTA partners</i>	0.051 (0.10)	0.044 (0.10)	0.057 (0.10)	0.067 (0.10)	0.066 (0.10)
<i>Log real GDP of RTA partners</i>	-0.166* (0.07)	-0.154* (0.07)	-0.166* (0.07)	-0.171* (0.07)	-0.155* (0.07)
<i>Log real GDP</i>	0.039 (0.08)	0.054 (0.09)	0.042 (0.08)	0.056 (0.08)	0.082 (0.09)
<i>Log real GDP p/c of RTA partners</i>	0.052 (0.10)	0.026 (0.12)	0.041 (0.11)	0.046 (0.10)	-0.000 (0.12)
<i>Log real GDP p/c</i>	-0.255* (0.12)	-0.265* (0.13)	-0.246° (0.12)	-0.253* (0.12)	-0.257° (0.13)
<i>Log Trade/GDP</i>	-0.104 (0.16)	-0.092 (0.17)	-0.105 (0.16)	-0.114 (0.17)	-0.103 (0.18)
<i>Log National Stocks/GDP</i>	0.058 (0.08)	0.053 (0.09)	0.054 (0.08)	0.061 (0.09)	0.051 (0.09)
<i>RTA-partner's log Population</i>		-0.046 (0.012)			-0.061 (0.012)
<i>Proxy relative capital endowment</i>			-0.055 (0.11)		-0.059 (0.012)
<i>Proxy similarity</i>				0.084 (0.10)	0.096 (0.09)
R-squared	0.04	0.04	0.04	0.04	0.04
Number of Observations	1002	1002	1002	994	994

Table A4: Extra Variables on Country i or RTA Partner

Model	Default	Number of Listed Firms	Corruption Index	Imports to RTA-partners	All three Controls
Event window	(t-1, t+5)	(t-1, t+5)	(t-1, t+5)	(t-1, t+5)	(t-1, t+5)
<i>Exports to RTA partners/GDP</i>	2.786** (0.92)	2.695** (0.93)	2.458** (0.92)	3.099* (1.30)	3.413* (1.32)
<i>Log distance to RTA partners</i>	0.051 (0.10)	0.030 (0.10)	0.025 (0.11)	0.023 (0.11)	-0.025 (0.11)
<i>Log real GDP of RTA partners</i>	-0.166* (0.07)	-0.158* (0.07)	-0.163* (0.07)	-0.144° (0.09)	-0.113 (0.08)
<i>Log real GDP</i>	0.052 (0.10)	0.058 (0.10)	0.059 (0.10)	0.040 (0.10)	0.044 (0.10)
<i>Log real GDP p/c of RTA partners</i>	0.039 (0.08)	-0.010 (0.10)	0.120 (0.08)	0.038 (0.08)	0.076 (0.10)
<i>Log real GDP p/c</i>	-0.255* (0.12)	-0.229° (0.13)	-0.445** (0.13)	-0.254* (0.13)	-0.424** (0.13)
<i>Log Trade/GDP</i>	-0.104 (0.16)	-0.131 (0.17)	-0.055 (0.16)	-0.100 (0.16)	-0.059 (0.17)
<i>Log National Stocks/GDP</i>	0.058 (0.08)	0.064 (0.09)	-0.009 (0.09)	0.067 (0.09)	0.007 (0.09)
<i>Log Number of Listed Firms</i>		0.044 (0.11)			0.038 (0.11)
<i>Corruption Index (ICRG)</i>			0.274** (0.08)		0.278** (0.08)
<i>Imports from RTA partners/GDP</i>				-0.691 (2.18)	-2.060 (2.08)
R-squared	0.04	0.04	0.05	0.04	0.05
Number of Observations	1002	998	966	991	954

Note: The variables (log) Number of Listed Firms and the Corruption Index (ICRG) refer to country i.

Table A5: Evidence for Anticipation Effects?

Model	Default (t-1, t+5)	(t-3, t-1)	(t-5, t-1)	(t-7, t-1)	(t-10, t-1)
<i>Exports to RTA partners/GDP</i>	2.786** (0.92)	-1.134* (0.52)	-0.046 (0.63)	-0.519 (0.86)	1.022 (1.07)
<i>Log distance to RTA partners</i>	0.051 (0.10)	-0.015 (0.06)	0.056 (0.09)	0.038 (0.12)	0.117 (0.17)
<i>Log real GDP of RTA partners</i>	-0.166* (0.07)	0.056 (0.04)	-0.001 (0.05)	-0.056 (0.07)	-0.080 (0.09)
<i>Log real GDP</i>	0.039 (0.08)	0.074 (0.06)	-0.046 (0.08)	0.009 (0.10)	0.082 (0.13)
<i>Log real GDP p/c of RTA partners</i>	0.052 (0.10)	-0.019 (0.06)	-0.008 (0.08)	-0.071 (0.11)	-0.043 (0.13)
<i>Log real GDP p/c</i>	-0.255* (0.12)	-0.054 (0.09)	-0.038 (0.14)	0.026 (0.18)	0.037 (0.21)
<i>Log Trade/GDP</i>	-0.104 (0.16)	0.135 (0.12)	0.015 (0.12)	0.008 (0.17)	-0.042 (0.23)
<i>Log National Stocks/GDP</i>	0.058 (0.08)	0.000 (0.05)	-0.038 (0.06)	-0.012 (0.09)	-0.040 (0.12)
R-squared	0.04	0.13	0.07	0.08	0.08
Number of Observations	1002	1002	1002	1002	1002

Note: Estimates in Column (1) show the baseline results from Table 1 for comparability. In Column (2) to (5), we report the results for different event windows prior to the announcement date. dummy included but not reported.

Table A6: Expected Trade Diversion - Do Tariffs Matter?

Model	RTA-members	Non-RTA-members			
	Default	Top 10 Export Destination	Top 5 Export Destination	Top 3 Export Destination	Top 1 Export Destination
<i>Exports to RTA partners/GDP</i>	2.484** (0.90)	0.058 (0.87)	-0.573 (0.99)	-0.516 (0.99)	-0.523 (1.14)
<i>Log distance to RTA partners</i>	0.053 (0.11)	0.149* (0.07)	0.155° (0.09)	0.108 (0.09)	-0.158 (0.18)
<i>Log real GDP of RTA partners</i>	-0.130 (0.08)	0.002 (0.06)	-0.005 (0.06)	0.078 (0.08)	-0.175 (0.15)
<i>Log real GDP</i>	0.055 (0.13)	0.038 (0.11)	0.009 (0.14)	0.025 (0.18)	0.429 (0.31)
<i>Log real GDP p/c of RTA partners</i>	0.010 (0.09)	0.130** (0.04)	0.184** (0.06)	0.124* (0.06)	0.124* (0.06)
<i>Log real GDP p/c</i>	-0.332* (0.15)	0.079 (0.06)	0.054 (0.07)	0.013 (0.08)	-0.093 (0.11)
<i>Log Trade/GDP</i>	-0.050 (0.18)	0.136 (0.11)	0.269° (0.15)	0.329° (0.18)	0.354 (0.24)
<i>Log National Stocks/GDP</i>	0.084 (0.09)	-0.178** (0.06)	-0.198** (0.07)	-0.139* (0.06)	-0.066 (0.08)
<i>Tariffs (in percent)</i>	-0.019 (0.02)	0.007 (0.01)	0.009 (0.01)	0.014° (0.01)	0.026 (0.02)
<i>Tariffs (in percent) of RTA partners</i>	0.009 (0.02)	-0.002 (0.03)	-0.044 (0.04)	-0.037 (0.07)	0.098 (0.13)
R-squared	0.04	0.04	0.05	0.06	0.07
Number of Observations	960	4061	2814	1988	819

Note: (t-1, t+5) event window. Estimates in Column (1) show the baseline results from Table 1 for comparability. Columns (2) to (5) display results for stock market returns of countries that are not part of a new RTA. For these non-RTA members (at least one) RTA-member country constitutes an important export destination (Top 10, 5, 3 or 1).

Online Appendix

Table OA2: Pooling Test for First Stage of Event Study

Event window	(t-1, t+1)	(t-1, t+3)	(t-1, t+5)	(t-1, t+7)	(t-1, t+10)
<i>Event dummy</i>	-0.039	0.192	-0.172	-0.154	-0.094
	(0.15)	(0.16)	(0.18)	(0.22)	(0.24)

Note: The dependent variable is the average cumulative abnormal returns (in local currency) for the main sample of 1002 observations. The dummy variable event is one if the announcement marks the start of RTA negotiations and zero, if the announcement of a new trade agreement is made. Standard errors in brackets are computed using the cross-section standard deviation of the returns and account for variance inflation and clustering at the announcement day. Returns significantly different from zero at [0.10] 0.05 (0.01) marked with [one circle] one (two) asterisk(s).

Table OA3: Pooling Test for Second Stage of Event Study

Event window	(t-1, t+1)	(t-1, t+3)	(t-1, t+5)	(t-1, t+7)	(t-1, t+10)
<i>Exports to RTA partners/GDP</i>	1.171° (0.63)	1.411* (0.68)	2.106° (1.13)	2.165 (1.39)	3.356* (1.44)
<i>Exports to RTA partners/GDP * Event</i>	1.459 (2.33)	1.794 (2.71)	2.524 (3.21)	2.528 (3.57)	2.687 (3.69)
<i>Log distance to RTA partners</i>	-0.080 (0.10)	0.002 (0.11)	-0.141 (0.15)	-0.007 (0.18)	0.186 (0.20)
<i>Log distance to RTA partners * Event</i>	0.396* (0.19)	0.371 (0.24)	0.465 (0.29)	0.417 (0.36)	0.077 (0.41)
<i>Log real GDP of RTA partners</i>	-0.066 (0.05)	-0.049 (0.07)	-0.066 (0.09)	-0.167 (0.11)	-0.242* (0.12)
<i>Log real GDP of RTA partners * Event</i>	-0.061 (0.11)	-0.184 (0.14)	-0.259 (0.18)	-0.160 (0.19)	0.007 (0.21)
<i>Log real GDP</i>	0.059 (0.07)	-0.007 (0.07)	0.026 (0.09)	0.019 (0.11)	0.074 (0.13)
<i>Log real GDP * Event</i>	-0.095 (0.12)	0.039 (0.13)	0.033 (0.15)	0.146 (0.18)	0.190 (0.16)
<i>Log real GDP p/c of RTA partners</i>	-0.113 (0.10)	-0.206° (0.11)	-0.030 (0.16)	0.076 (0.17)	0.085 (0.18)
<i>Log real GDP p/c of RTA partners * Event</i>	0.084 (0.13)	0.473** (0.16)	0.180 (0.21)	0.165 (0.22)	0.067 (0.25)
<i>Log real GDP p/c</i>	-0.338* (0.14)	-0.334* (0.14)	-0.362* (0.17)	-0.436* (0.19)	-0.418° (0.24)
<i>Log real GDP p/c * Event</i>	0.402° (0.21)	0.305 (0.21)	0.265 (0.24)	0.225 (0.23)	0.175 (0.25)
<i>Log Trade/GDP</i>	-0.030 (0.15)	-0.079 (0.15)	-0.115 (0.21)	0.127 (0.27)	0.078 (0.35)
<i>Log Trade/GDP * Event</i>	-0.119 (0.23)	0.033 (0.25)	0.054 (0.30)	0.141 (0.38)	0.313 (0.45)
<i>Log National Stocks/GDP</i>	0.119 (0.08)	0.129 (0.08)	0.109 (0.12)	0.006 (0.14)	0.004 (0.16)
<i>Log National Stocks/GDP * Event</i>	-0.183° (0.11)	-0.157 (0.13)	-0.134 (0.16)	0.038 (0.18)	-0.049 (0.20)

Note: Each column is estimated via OLS. Estimates based on 1002 observations. Dummy variable *Event* is one if the announcement marks the start of RTA negotiations and zero, if the announcement a new trade agreement is made. For further details see default Table 1.

Table OA4: Raw Stock Market Returns of MSCI-World

Type of stock market return	(t-1, t+1)	(t-1, t+3)	(t-1, t+5)	(t-1, t+7)	(t-1, t+10)
<i>Raw Returns of MSCI-World</i>	-0.031	-0.044	-0.003	0.177	0.268
	(0.11)	(0.15)	(0.19)	(0.22)	(0.25)

Note: We report here the average raw returns for the market (MSCI-World) over the 197 event dates considered in this study. Event date defined as announcement of the start of negotiations of RTA or announcement of a successful conclusion of such an agreement. Standard errors in brackets are computed using the cross-section standard deviation of the returns and account for variance inflation and clustering at the announcement day. Returns significantly different from zero at [0.10] 0.05 (0.01) marked with [one circle] one (two) asterisk(s).

Table OA5: Exports to and Imports from RTA Partner(s)

Event window	(t-1, t+1)	(t-1, t+3)	(t-1, t+5)	(t-1, t+7)	(t-1, t+10)
<i>Exports to RTA partners/GDP</i>	1.520° (0.88)	1.918° (1.03)	3.099* (1.30)	2.102 (1.52)	3.377* (1.43)
<i>Imports from RTA partners/GDP</i>	0.265 (1.36)	0.115 (1.66)	-0.691 (2.18)	1.341 (2.38)	0.805 (2.24)
<i>Log distance to RTA partners</i>	0.087 (0.07)	0.157° (0.09)	0.023 (0.11)	0.155 (0.13)	0.210 (0.14)
<i>Log real GDP of RTA partners</i>	-0.089° (0.05)	-0.119° (0.07)	-0.144° (0.09)	-0.252* (0.10)	-0.241* (0.12)
<i>Log real GDP</i>	-0.071 (0.07)	0.014 (0.09)	0.040 (0.10)	0.143 (0.12)	0.109 (0.13)
<i>Log real GDP p/c of RTA partners</i>	0.016 (0.04)	0.011 (0.05)	0.038 (0.08)	0.078 (0.10)	0.148 (0.12)
<i>Log real GDP p/c</i>	-0.178* (0.08)	-0.206* (0.10)	-0.254* (0.13)	-0.350* (0.14)	-0.356° (0.18)
<i>Log Trade/GDP</i>	-0.104 (0.10)	-0.085 (0.10)	-0.100 (0.16)	0.177 (0.21)	0.223 (0.25)
<i>Log National Stocks/GDP</i>	0.053 (0.06)	0.058 (0.07)	0.067 (0.09)	0.025 (0.11)	-0.015 (0.14)
R-squared	0.05	0.06	0.04	0.05	0.05
Number of Observations	991	991	991	991	991

Note: Each column is estimated via OLS. Estimates based on 991 observations, covering 82 developing and developed countries and 122 RTAs from 1988 to 2009. Event date defined as announcement of the start of negotiations of RTA or announcement of a successful conclusion of such an agreement. Coefficients with standard errors clustered at country-level in parentheses. Coefficients significantly different from zero at [0.10] 0.05 (0.01) marked with [one circle] one (two) asterisk(s). Regressand: National Stock Market return in local currency, adjusted for MSCI movement. Time-fixed effects, intercepts and Goods/Goods&Services dummy included but not reported.

Table OA6: Sample of Non-European Member Countries

Event window	(t-1, t+1)	(t-1, t+3)	(t-1, t+5)	(t-1, t+7)	(t-1, t+10)
<i>Exports to RTA partners/GDP</i>	1.369 (1.03)	1.232 (1.14)	3.989** (1.41)	5.136** (1.87)	6.455** (2.16)
<i>Log distance to RTA partners</i>	0.065 (0.09)	0.133 (0.12)	0.174 (0.15)	0.355° (0.19)	0.405* (0.19)
<i>Log real GDP of RTA partners</i>	-0.091 (0.06)	-0.102 (0.08)	-0.215* (0.11)	-0.298* (0.11)	-0.324* (0.13)
<i>Log real GDP</i>	-0.052 (0.09)	0.048 (0.10)	0.053 (0.13)	0.139 (0.15)	0.198 (0.14)
<i>Log real GDP p/c of RTA partners</i>	-0.069 (0.06)	-0.043 (0.08)	-0.115 (0.14)	-0.027 (0.15)	0.015 (0.15)
<i>Log real GDP p/c</i>	-0.191* (0.10)	-0.210° (0.11)	-0.299* (0.14)	-0.398* (0.15)	-0.408* (0.19)
<i>Log Trade/GDP</i>	-0.312* (0.14)	-0.249 (0.18)	-0.512* (0.24)	-0.195 (0.31)	-0.180 (0.36)
<i>Log National Stocks/GDP</i>	0.103 (0.07)	0.128 (0.09)	0.139 (0.12)	0.091 (0.13)	0.049 (0.16)
R-squared	0.07	0.05	0.06	0.08	0.09
Number of Observations	573	573	573	573	573

Note: Each column is estimated via OLS. Estimates based on 573 observations, covering 70 developing and developed countries and 117 RTAs from 1988 to 2008. The sample is restricted to country-observations, where countries have not been member of the European Economic Community or the European Union at the time of the announcement, Event date defined as announcement of the start of negotiations of RTA or announcement of a successful conclusion of such an agreement. Coefficients with standard errors clustered at country-level in parentheses. Coefficients significantly different from zero at [0.10] 0.05 (0.01) marked with [one circle] one (two) asterisk(s). Regressand: National Stock Market return in local currency, adjusted for MSCI movement. Time-fixed effects, intercepts and Goods/Goods&Services dummy included but not reported.

Table OA7: Stock Market Returns in U.S. Dollar

Event window	(t-1, t+1)	(t-1, t+3)	(t-1, t+5)	(t-1, t+7)	(t-1, t+10)
<i>Exports to RTA partners/GDP</i>	1.134 (0.82)	0.911 (1.09)	1.919 (1.39)	3.362* (1.37)	5.838** (1.47)
<i>Log distance to RTA partners</i>	-0.124 (0.10)	-0.391** (0.14)	-0.317* (0.15)	-0.420* (0.20)	-0.290 (0.22)
<i>Log real GDP of RTA partners</i>	-0.005 (0.05)	0.022 (0.08)	-0.119 (0.10)	-0.103 (0.14)	-0.277° (0.15)
<i>Log real GDP</i>	-0.047 (0.06)	0.022 (0.08)	0.014 (0.09)	0.094 (0.11)	0.188 (0.14)
<i>Log real GDP p/c of RTA partners</i>	-0.339** (0.10)	-0.172 (0.12)	-0.013 (0.14)	0.232 (0.18)	0.195 (0.19)
<i>Log real GDP p/c</i>	-0.107 (0.10)	-0.141 (0.11)	-0.266° (0.15)	-0.286° (0.17)	-0.183 (0.23)
<i>Log Trade/GDP</i>	-0.301* (0.12)	-0.396* (0.18)	-0.508° (0.26)	-0.245 (0.28)	-0.053 (0.28)
<i>Log National Stocks/GDP</i>	0.122° (0.06)	0.172* (0.08)	0.164° (0.10)	0.137 (0.11)	0.072 (0.14)
R-squared	0.11	0.13	0.12	0.12	0.10
Number of Observations	929	929	929	929	929

Note: Each column is estimated via OLS. Estimates based on 929 observations, covering 80 developing and developed countries and 122 RTAs from 1988 to 2009. Event date defined as announcement of the start of negotiations of RTA or announcement of a successful conclusion of such an agreement. Coefficients with standard errors clustered at country-level in parentheses. Coefficients significantly different from zero at [0.10] 0.05 (0.01) marked with [one circle] one (two) asterisk(s). Regressand: National Stock Market return in U.S. dollar, adjusted for MSCI movement. Time-fixed effects, intercepts and Goods/Goods&Services dummy included but not reported.

Table OA8: Changes in National Exchange Rate relative to U.S. Dollar

Event window	(t-1, t+1)	(t-1, t+3)	(t-1, t+5)	(t-1, t+7)	(t-1, t+10)
<i>Exports to RTA partners/GDP</i>	0.292 (0.32)	0.493 (0.36)	0.297 (0.38)	-0.673* (0.29)	-1.493** (0.39)
<i>Log distance to RTA partners</i>	0.101* (0.05)	0.282** (0.05)	0.066 (0.05)	0.113* (0.05)	0.047 (0.07)
<i>Log real GDP of RTA partners</i>	-0.054** (0.02)	-0.053 (0.03)	-0.040 (0.04)	-0.043 (0.05)	-0.004 (0.05)
<i>Log real GDP</i>	0.102** (0.03)	0.112* (0.05)	0.079 (0.05)	0.006 (0.07)	-0.027 (0.07)
<i>Log real GDP p/c of RTA partners</i>	0.065** (0.02)	0.049 (0.03)	0.066* (0.03)	0.057 (0.04)	0.062 (0.03)
<i>Log real GDP p/c</i>	-0.032 (0.03)	-0.044 (0.04)	-0.025 (0.04)	-0.074 (0.04)	-0.115 (0.06)
<i>Log Trade/GDP</i>	0.106* (0.04)	0.165* (0.08)	0.210* (0.09)	0.187 (0.11)	0.080 (0.16)
<i>Log National Stocks/GDP</i>	-0.060** (0.02)	-0.081** (0.03)	-0.105** (0.04)	-0.078* (0.04)	-0.069 (0.04)
R-squared	0.13	0.17	0.16	0.17	0.19
Number of Observations	929	929	929	929	929

Estimates based on 929 observations, covering 80 developing and developed countries and 122 RTAs from 1988 to 2009. Event date defined as announcement of the start of negotiations of RTA or announcement of a successful conclusion of such an agreement. Coefficients with standard errors clustered at country-level in parentheses. Coefficients significantly different from zero at [0.10] 0.05 (0.01) marked with [one circle] one (two) asterisk(s). Regressand: Change in National Exchange Rate relative to U.S. dollar. Positive (negative) sign equivalent to depreciation (appreciation) of exchange rate relative to U.S. dollar. Time-fixed effects, intercepts and Goods/Goods&Services dummy included but not reported.