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ABSTRACT

On the occasion of the 25th anniversary of the WTO, this paper re-estimates the impact of WTO accession on growth. Joining the multilateral trading system not only expands access to international markets but also requires commitment to domestic reforms. Tang and Wei (2009) showed that there is in fact a positive effect of WTO on growth also during the period of accession when these commitments are undertaken. In this paper, we extend Tang and Wei's analysis to the sample of 32 newly acceded countries. We find that WTO accession is associated with a significant positive increase in GDP growth. This effect is larger than previously estimated. We find that five years after accession an economy is 30% larger, and that the impact of WTO entry on growth persists beyond the first five years.

Keywords: Dynamic gains from trade, economic growth, trade liberalization, newly acceded countries, Article XII countries.

JEL classification: F1

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1 INTRODUCTION

Since its establishment in 1995, 36 states or customs territories have acceded to the WTO. These accessions have been negotiated under Article XII of the Marrakesh Agreement, which requires the terms of accession to be agreed between the acceding country and the WTO, and that the accession apply to all WTO agreements (the so-called single undertaking). This process has often been associated with significant domestic reforms. Acceding governments have reported economic reforms and transition to a market economy as among the reasons why they have sought WTO membership. Almost all LDCs also cited poverty reduction, reflecting their desire to use WTO specifically as an instrument for economic development (WTO, 2016). We therefore wish to answer the question: Does joining the WTO foster growth?

There are several economic arguments that support the view that entry to the WTO fosters economic growth. One is that accession to WTO is designed to reduce barriers to trade and increases the flow of overseas commerce. WTO boosts trade and trade boosts growth.¹ Another argument is that WTO can foster growth because it promotes good governance. Countries often undertake extensive domestic economic reforms as part of their membership negotiations and make legally binding commitments in a wide range of policy areas. They may use WTO commitments to lock in reforms that are beneficial to the business environment, and to signal to other nations their commitment to reform, demonstrating a desire for global cooperation (Cattaneo and Primo Braga, 2009). Furthermore, WTO can promote growth because it promotes a more predictable trading environment. Uncertainty is detrimental to investment. It slows down capital accumulation (Leahy and Whited, 1996; Guiso and Parigi, 1999) and hence growth. Evidence pointing to the relevance of this channel can be found in Mansfield and Reinhardt (2008) who find that WTO and PTA membership can decrease the volatility of trade flows. They attribute this result to the role of trade agreements in enhancing the rule of law, for example, by enforcing market-access commitments, deterring new protectionist barriers, fostering transparency and policy convergence among member states.

While there is robust empirical evidence to support a causal link between trade and economic growth (Frankel and Romer, 1999; Feyrer, 2019); and there is robust empirical evidence linking trade policy, specifically WTO membership, to an increase in trade (Subramanian and Wei, 2007; Tomz et al., 2007; Larch et al., 2019); the direct impact of WTO membership on growth has been much less studied. A noticeable exception is Tang and Wei (2009). They find that GATT/WTO membership promotes growth, but only for those members that undertake commitments. While the increase in growth rates is typically sustained only during the first five years after accession, the economy of a country joining the GATT/WTO is on average permanently larger by 20% if it undertook commitments as part of the accession process. Countries that were not required to make commitments – mostly former colonies or overseas territories of GATT members that acceded under Article XXVI 5(c) of the GATT – did not benefit. These effects are stronger for countries that start off with lower levels of institutional indicators, and when the number of commitments is higher.

Analysis of the effects of WTO on growth is particularly challenging because it needs to address the issue of endogeneity bias. In particular, there is a potential selection bias stemming from mainly pro-growth, open-trade policy supporting governments being more likely to apply for WTO membership. Tang and Wei (2009) address this selection issue in several ways. First, they distinguish between accessions with and without extensive reforms. Certain countries had acceded between 1990-1994 under Article XXVI 5(c) by simply sending a notification to the GATT without having to undertake any reforms. This contrasts with the other accessions, in particular under Article XII, that were the outcome of rigorous negotiations with existing members. Second, they highlight that while application for membership may indeed be subject to a selection effect due to reform-minded governments being more likely to apply, the typical long lag between application and accession dates guarantees that the timing of the accession *per se* does not suffer from a selection problem.

Our paper extends Tang and Wei's (2009) analysis by including a further 17 accessions under Article XII, bringing the analysis up to date for 2020. This year marks the 25th anniversary of the founding of WTO, amidst unprecedented trade tensions and a precarious global macroeconomic environment

¹ Both these effects are sizable. For example, Larch et al (2019) find that joining GATT/WTO increases trade by 171%. Frankel and Romer (1999) find that a rise of one percentage point in the ratio of trade to GDP increases income per capita by between one-half and two percent. Feyrer (2019) estimates that trade can explain 17 percent of the variation in growth rates across countries between 1960 and 1995.

in the wake of the coronavirus pandemic. It is therefore timely to reflect on the positive impact that a predictable global trading system guaranteed by the WTO has had on economic development and growth, since trade will have a key role in stabilising the global economy and speeding up a nascent economic recovery.

With our expanded sample of new members, we find that, on average, joining the WTO through Article XII resulted in a 30% permanent increase in GDP. When expanding our treatment to include all non-Article XXVI accessions, we find a 25% increase. These increases are larger than Tang and Wei (2009) find using a smaller sample covering only earlier Article XII accessions: for GATT/WTO accessions from 1990-2001 and excluding Article XXVI they find a 20% increase. These results suggest that more recent Article XII accessions have performed better.²

The remainder of the paper is organized as follows: Section 2 presents a descriptive analysis of the data, Section 3 presents the econometric results, and Section 4 concludes.

2 DATA

In order to study the effects of recent WTO accession on growth, we put together a large country-level panel dataset, which covers the period 1981-2017 for 146 developing countries. As in Tang and Wei (2009), we do not include developed countries (at the time of accession) in our sample, since we want the control group to closely match the treatment group. Table A1 in the Appendix lists the countries in our sample and indicates whether it enter GATT/WTO under Article XII of the Marrakesh Agreement, GATT Article XXVI, or GATT Article XXXIII.³

Data on GDP per capita was extracted from the Penn World Tables (PWT), which offers two different measures of GDP: output side and expenditure side. We adopt the use of expenditure side GDP in PPP (2011 USD, millions), which allows to compare relative living standards across countries at a given point in time. Exports and imports data for goods and services also come from the PWT. We define trade openness as the sum of the share from exports and imports to GDP. Data on private investment (proxied with gross fixed capital formation) is sourced from the World Bank's Development Indicators (WDI) dataset. Dates of accession are obtained from WTO. Table 1 shows summary statistics of our main variables.

Table 1 - Summary statistics of macroeconomic variables

Variable	Mean	Median	sd	Min	Max
GDP per capita (at chained PPPs (in mil. 2011US\$))	13480.5	7183.3	16935.8	223.1	215721.0
Trade Openness (share of GDP)	45.4	33.1	43.0	0.0	524.5
Gross Fixed Capital Formation (share of GDP)	22.4	21.7	7.8	0.0	89.4

We extended the analysis of Tang and Wei (2009) by analysing 17 additional accessions⁴: Armenia, Cabo Verde, Cambodia, Chinese Taipei, Kazakhstan, Lao PDR, Liberia, Montenegro, Nepal, North Macedonia, Russia, Saudi Arabia, Seychelles, Tajikistan, Ukraine, Viet Nam and Yemen. These accessions occurred after the period covered in Tang and Wei (2009). We expect to find an even greater impact considering the improvements in the WTO accession process over the last decades. The number of commitments undertaken by newly acceded countries as well as the length of the

² See Section 3 below for calculations.

³ Under the GATT, non-contracting parties could accede through Article XXXIII, which was the equivalent of Article XII under WTO, i.e. a process where applicants need to negotiate their terms to join. However, as described by Patterson (1992), "while each of the protocols differs in detail, those of developing countries [that entered under Article XXXIII] often call for little more than the binding of most of their existing tariffs, frequently at rates of 50% or more, as well as pledges to reduce their tariffs in the future along with import surcharges, import licensing requirements and import quotas." On the other hand, commitments undertaken by Article XII members are broader, comprising aspects of the applicants' economy that cannot be directly linked to trade such as investment-related measures, fiscal and monetary policies or even privatization plans.

⁴ Afghanistan, Samoa, Tonga and Vanuatu also joined WTO during this period. However, due to the lack of data, they are not included in our estimations.

accession documents (Working Party Reports, Rules-specific Action Plans, etc.) increased substantially. For example, Kazakhstan's accession documents (2016) were as many as 30,760 pages whereas Bulgaria's (1996) only 1,700 pages.

Table 2 – Comparison of Growth Rates

	I	II	III	IV	V
<i>Group:</i>	Article XII	Article XII	Article XXVI	Non-Article XXVI	All Developing Members
<i>Period of Accession:</i>	1995-2017	1995-2001	1990-1994	1980-2017	1980-2017
Pre-Accession Avg. 5y (%)	3.82%	0.89%	1.60%	3.15%	2.62%
Post-Accession Avg. 5y (%)	5.19%	6.13%	2.90%	4.08%	3.95%
Avg. change in growth (p.p)	1.37	5.24	1.30	0.93	1.33
#countries in the sample	32	15	16	44	75

WTO accession is not only associated with an increase in trade, but also with significant increases in the growth rate of GDP. Summary statistics on growth rates for five different groups of countries before and after GATT/WTO entry are reported at Table 2. Differences in average growth between pre-accession and post-accession stages are substantial for every group, highlighting a positive correlation between accession and growth, and suggesting a possible causal effect. Note, however, that for the sample of 15 countries that acceded WTO and that were included in the sample of Tang and Wei's (2009) study (Column II) the increase in growth was particularly high (5.24 percentage point difference between the pre- and post-accession growth rate is the highest figure across all groupings). Looking merely to descriptive statistics we get the impression that the impact of WTO accession on growth may have been lower on average for most recent years. In fact, the difference between the pre- and post-accession growth rates for the full set of Article XII countries in our sample (Column I) is a mere 1.37 percentage points. This is particularly worrying if we also consider that on average, the earlier group of Article XII members analysed in Tang and Wei (2009) undertook 29 commitments on average whereas the recent accessions undertook 52 commitments.⁵ Given these counterintuitive descriptive statistics, we next turn to econometric analysis to determine the impact of accessions.

3 ECONOMETRIC ANALYSIS

3.1 Empirical Specification

We employ an event study design – as used by Tang and Wei (2009) – to answer the question of how GATT/WTO accession has affected the growth rate of GDP. Our principal set of regressions takes the following form:

$$G_{it} = \alpha \log(\text{GDP per capita})_{it-1} + \sum_s \beta_s D_{it}^s + \gamma X_{it} + \delta_i + \delta_t + \varepsilon_{it}$$

G_{it} is the annual GDP per capita growth rate for country i at year t . In order to avoid autocorrelation in the residual terms, the log of the first GDP lag is included in every regression. For the purpose of capturing the accession impacts, we replicate Tang and Wei (2009) by including dummy variables D_{it}^s that assume a value of 1 only for the treated units i (that is, if we want to assess, for example, the impact of WTO accession for the countries that acceded under Article XII, the dummy can take the value 1 for the countries in this group) and only in years $t=a_i+s$, where s represents the number of years from the accession year a_i .⁶ Therefore, each coefficient β_s represents the additional treatment effect of WTO accession for the countries in the group under examination (for example Article XII countries) s years before or after accession. In other words, the coefficient β_s is the difference in the average growth rates between control and treatment group in the year a_i+s . Like

⁵ For further information on commitments as well as other important information on WTO accessions one might visit the Accessions Commitment Database at acdb.wto.org.

⁶ Our treatment group will vary depending on the exact specification we consider. Please refer to Table A1, in the Annex, for the detailed list of countries included in each of the groups. For every specification the control group contains every developing country not included in the treatment group, i.e. both members and non-members.

Tang and Wei (2009), we analyse the impact of WTO entry during an eight-year interval, starting two years prior to accession and finishing five years after. Moreover, we also introduce an $s=beyond$ dummy (which is 1 for treated countries whenever $t>a_i+5$) in order to capture long run effects. δ_i and δ_t are country and year fixed effects, respectively. Standard errors are clustered at the country level. In addition, our benchmark specification includes X_{it} , which is a vector of time varying control variables, including trade openness (the sum of exports and imports over GDP), and private investment.

3.2 Results

Table 3 below shows the results of our regressions for the three different groups of acceding countries.

Table 3 – WTO Impacts by accession mode

	(1)	(2)	(3)	(4)	(5)	
	Article XII	Article XXVI	Non-Article XXVI	Article XII except China	+Article XII Application's Time Profile	
L1(log(GDP pc))	-0.0728*** (0.00895)	-0.0687*** (0.00610)	-0.0709*** (0.00609)	-0.0728*** (0.00899)	-0.0712*** (0.00617)	
Trade Openness/GDP	-0.00689 (0.00891)	-0.00402 (0.00971)	-0.00631 (0.0101)	-0.00690 (0.00891)	-0.00644 (0.0100)	
GFCF/GDP	0.000248 (0.000455)			0.000235 (0.000457)	0.0330 (0.0310)	
Time Profile	<i>Accession</i>	<i>Accession</i>	<i>Accession</i>	<i>Accession</i>	<i>Accession</i>	<i>Application</i>
-2	0.0361*** (0.0134)	0.0228 (0.0231)	0.0218* (0.0118)	0.0365*** (0.0139)	0.0287** (0.0138)	-0.0287* (0.0167)
-1	0.0280** (0.0136)	0.0290 (0.0278)	0.0220** (0.0103)	0.0285** (0.0141)	0.0148 (0.0135)	-0.0244 (0.0244)
0	0.0216 (0.0153)	0.00780 (0.0208)	0.0227* (0.0119)	0.0204 (0.0158)	0.0103 (0.0156)	-0.0142 (0.0182)
1	0.0286** (0.0129)	0.00622 (0.0157)	0.0269** (0.0121)	0.0277** (0.0133)	0.0117 (0.0157)	-0.00489 (0.0172)
2	0.0387*** (0.00955)	0.0397* (0.0233)	0.0308*** (0.0108)	0.0395*** (0.00984)	0.0246* (0.0125)	-0.000727 (0.0171)
3	0.0560*** (0.0141)	-0.00460 (0.0265)	0.0383*** (0.0128)	0.0570*** (0.0146)	0.0393** (0.0173)	0.000691 (0.0143)
4	0.0430*** (0.0141)	-0.0131 (0.0205)	0.0398*** (0.0107)	0.0425*** (0.0145)	0.0347** (0.0150)	0.0219 (0.0163)
5	0.0461*** (0.0110)	0.0355 (0.0225)	0.0329*** (0.0100)	0.0465*** (0.0114)	0.0390*** (0.0115)	0.0137 (0.0187)
Beyond	0.0517*** (0.0109)	-0.0168 (0.0162)	0.0349*** (0.00962)	0.0517*** (0.0112)	0.0461*** (0.0115)	
Constant	0.638*** (0.0750)	0.606*** (0.0533)	0.616*** (0.0529)	0.638*** (0.0755)	0.625*** (0.0539)	
Country and Year F.E.	Yes	Yes	Yes	Yes	Yes	
Observations	5163	5163	5136	5163	5163	
R²	19.5%	17.5%	17.7%	19.4%	18.0%	

Standard errors in parentheses:*** p<0.01, ** p<0.05, * p<0.1

In order to visually interpret the significance of these results, we present figures that graph the significance of the coefficients of the time profile dummy variables for each specification. The light blue shaded area represents the 90% confidence interval of the estimates, derived from standard errors clustered by country.

In Figure 1 we plot the coefficients in Column (1), where we consider only Article XII accessions as treatment and all prior GATT accessions as well as some non-members as the control group. We consider this the most relevant treatment group, as it captures the effects of how accessions are presently conducted, and excludes earlier accession under GATT, in particular those under Article XXVI where no commitments were made.

All coefficients are positive, and apart from the accession year itself, all are highly significant. The highest increase observed is in the third year post-accession, in which growth rates are more than 5 percentage points greater for countries that acceded under Article XII than for the rest of the sample. The accession effect seems long lasting since the coefficient of the dummy for "Beyond 5 years" is also positive and significant at the 1% level. Furthermore, controls are all significant and have the expected signs.

The coefficients reported here are also quantitatively larger than those in Tables 3A and 5 of Tang and Wei (2009), reinforcing the idea that the newest Article XII members (that are not in their sample) experienced a greater impact on economic growth. If the effect of all significant coefficients is taken into account up to five years after accession, Article XII economies are permanently larger by approximately 30% due to their WTO accession. Tang and Wei (2009) do not analyse Article XII countries separately from GATT accessions given the small number of observations, but they find only a 20% increase based on GATT/WTO accessions excluding Article XXVI.⁷

Figure 1

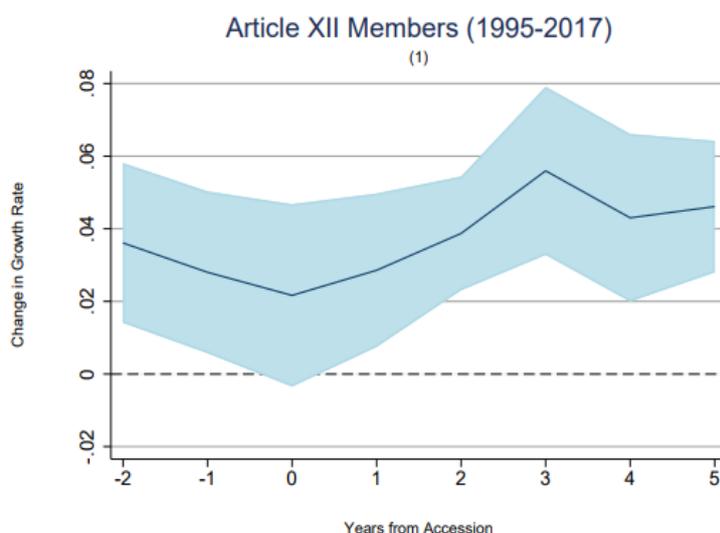


Figure 2 shows the results of the same exercise except we define the treatment group as a selected sample of Article XXVI members, as described below, and the control group as every other developing country. The lack of commitments required to accede is associated with a much smaller

⁷ We compare the level of GDP of a country 5 years after accession, $Y_5 = Y_{-3} \prod_{t=-2}^5 (1 + g_t + \beta_t)$, to a counterfactual where the country did not accede, $Y_5 = Y_{-3} \prod_{t=-2}^5 (1 + g_t)$. We incorporate the estimated effects of accession β_t from $t = -2$ to $t = 5$ when the coefficient is significant and set the baseline growth rate g_t equal to the pre-accession average, in our sample this is 0.0382 and in the sample of Tang and Wei (2009) Table 5 Column 1 this is -0.007. The coefficient of the variable *Beyond* is not taken into account.

effect on post-accession growth. As Tang and Wei (2009), we only consider the 16 countries that acceded between 1990 and 1994. Selecting only the last countries that acceded before the establishment of WTO allows us to compare the performance of this group with the Article XII members shown above.⁸ Since 1950, 63 countries acceded by invoking Article XXVI, most of them from Africa (high incidence of former colonies).

The figure below demonstrates that only one of the coefficients is significant under a 10% confidence level. Moreover, some point estimates take negative values, which gives more support to the hypothesis that average growth paths between these groups as a result of GATT/WTO accessions are indeed very different.

Figure 2

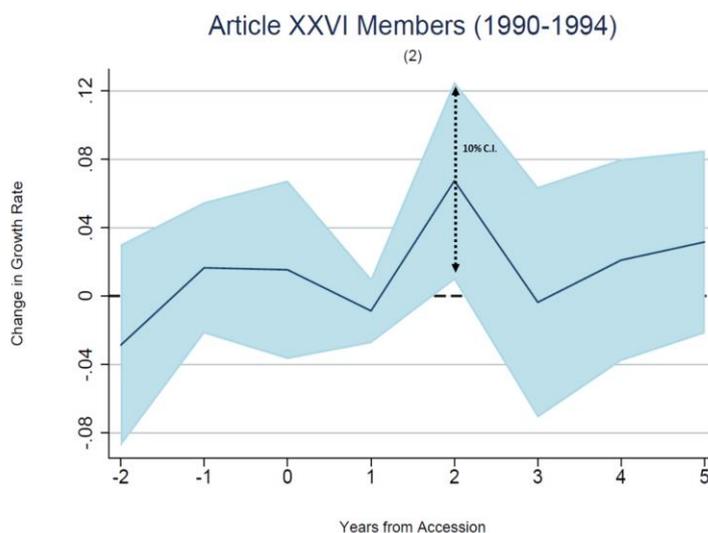
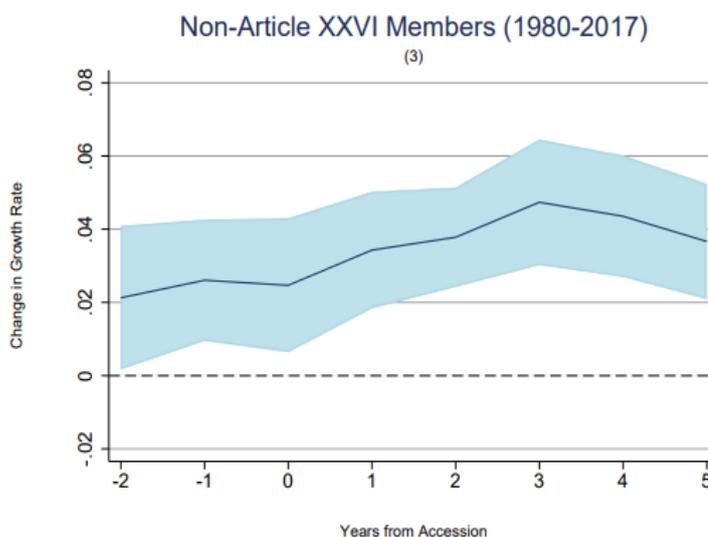


Figure 3 shows that on average GATT/WTO accession positively affected growth for all acceding members who joined under any protocol different from Article XXVI (Column III of Table 3), that is, those who were required to undertake some commitments. These include the 32 Article XII members analysed above and 12 other members (see Table A1) that acceded by Article XXXIII of the GATT.

Figure 3



⁸ Our results change only slightly if we consider the other Article XXVI that acceded during the period covered in our data.

Compared with Table 5 of Tang and Wei (2009), most of our coefficients are larger, which is consistent with the hypothesis that the more recent Article XII accessions included in our sample have larger impacts on growth than GATT Article XXXIII accession. If the effect of all significant coefficients is taken into account up to five years after accession, non-Article XXVI economies are permanently larger by approximately 25% due to their accession, compared to 20% estimated by Tang and Wei (2009), whose sample omits the more recent Article XII countries.⁹

Finally, Column IV uses Article XII again as a treatment group, but excludes China from the sample. The exceptional growth of the Chinese economy in the last decades stands as an outlier among WTO accessions, as shown in Figure 1. However, our benchmark results remain robust to excluding China from the sample.

One may also wonder whether the time profile of accession could suffer from omitted variable bias since it could potentially capture the effects of a reform-minded government that simultaneously implements pro-growth policies and self-selects into the treatment group of accessions, given that countries apply to join GATT/WTO and are not randomly selected. In fact, endogeneity bias should be considered when analysing earlier, faster accessions. In contrast, recent accessions are characterized by lengthy negotiations, and the interval between application and accession dates is often long, on average 9.3 years. Hence, it is often the case that the applicant governments or policy makers are not the same as those in government in the post-accession period. Given this, we find it likely that the pro-growth government impact would be only correlated with the time of application but not with the time of accession.

Although this assumption would be enough to address this endogeneity source, we test in Column (5) the existence of the government effect in a robustness exercise by including two sets of time profile dummies: one for the accession date and one for the application date, in the regression used for Figure 2 above. As expected, the effects of accession remained significant. These findings point to the accession event having an independent contribution to growth distinct from the policies of the applicant government.

4 CONCLUSION

In this paper, we investigate whether and by how much recent WTO accessions have boosted economic growth of newly acceded members. We follow the methodology of earlier research by Tang and Wei (2009), who estimated the impact on growth of earlier accessions to the GATT and 15 accessions, up until 2001, to the WTO. We update their analysis by including a further 17 more recent accessions and focus our attention on the effects of accessions to WTO concluded under Article XII. We find a resounding link between accession and the acceding countries' growth paths.

Compared to Tang and Wei (2009), the effect of WTO accession on growth that we estimate is larger: five years after accession economies that acceded WTO are 30% larger than had they not acceded to the WTO. We also find that the effect of WTO accession on growth is long-lasting and not just a temporary increase around the accession year. Like Tang and Wei, we do not find a significant effect on growth for the countries that acceded the GATT without negotiating entry (those that acceded under Article XXVI by a simple notification to GATT).

These results are consistent with the hypothesis that taking up more commitments during the process of accession has a positive impact on growth. In fact, the accessions events we analyse are all WTO accessions, while the sample of accession events analysed by Tang and Wei included countries that acceded GATT (with a more limited range of commitments than WTO) and only some of the early WTO accessions. The value of external commitments may stem from new members undertaking economic and trade policy reforms, increased price stability, as well as a signalling effect that reduces perceived policy uncertainty and boosts investment and capital accumulation. In future research, we aim at disentangling the nature and the timing of the various commitments that

⁹ We compare the level of GDP of a country 5 years after accession, $Y_5 = Y_{-3} \prod_{t=-2}^5 (1 + g_t + \beta_t)$, to a counterfactual where the country did not accede, $Y_5 = Y_{-3} \prod_{t=-2}^5 (1 + g_t)$. We incorporate the estimated effects of accession β_t from $t = -2$ to $t = 5$ when the coefficient is significant and set the baseline growth rate g_t equal to the pre-accession average, in our sample this is 0.0315 and in the sample of Tang and Wei (2009) Table 5 Column 1 this is -0.007. The coefficient of the variable *Beyond* is not taken into account.

countries undertake during their Article XII accession process, in order to better understand which commitments are the most conducive to economic growth.

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APPENDIX

Table A1 – Countries in the sample

Albania ¹	Gabon	Oman ¹
Algeria	Georgia ¹	Pakistan
Angola ²	Ghana	Panama ¹
Antigua and Barbuda	Grenada ²	Paraguay ³
Argentina	Guatemala ³	Peru
Armenia ¹	Guinea ²	Philippines
Aruba	Guinea-Bissau ²	Poland
Azerbaijan	Haiti	Qatar
Bahrain ²	Honduras ³	Republic of Congo
Bangladesh	Hong Kong SAR	Romania
Barbados	Hungary	Russia ¹
Belarus	India	Rwanda
Belize	Indonesia	Saudi Arabia ¹
Benin	Iraq	Senegal
Bhutan	Islamic Republic of Iran	Serbia
Bolivia ³	Israel	Seychelles ¹
Bosnia and Herzegovina	Jamaica	Sierra Leone
Botswana	Jordan ¹	Slovak Republic
Brazil	Kazakhstan ¹	Slovenia
Brunei Darussalam	Kenya	South Africa
Bulgaria ¹	Korea	Sri Lanka
Burkina Faso	Kuwait	St. Kitts and Nevis ²
Burundi	Kyrgyz Republic ¹	St. Lucia ²
Cabo Verde ¹	Lao P.D.R. ¹	St. Vincent and the Grenadines ²
Cambodia ¹	Latvia ¹	Sudan
Cameroon	Lebanon	Suriname
Central African Republic	Lesotho	Syria
Chad	Liberia ¹	São Tomé and Príncipe
Chile	Lithuania ¹	Tajikistan ¹
China ¹	Madagascar	Tanzania
Chinese Taipei ¹	Malawi	Thailand ³
Colombia ³	Malaysia	The Bahamas
Comoros	Maldives	The Gambia
Costa Rica ³	Mali ²	Togo
Croatia ¹	Mauritania	Trinidad and Tobago
Czech Republic	Mauritius	Tunisia ³
Côte d'Ivoire	Mexico ³	Turkey
DR Congo	Moldova ¹	Turkmenistan
Djibouti ²	Mongolia	Uganda
Dominica ²	Montenegro ¹	Ukraine ¹
Dominican Republic	Morocco ³	United Arab Emirates ²
Ecuador ¹	Mozambique ²	Uruguay
Egypt	Myanmar	Uzbekistan
El Salvador ³	Namibia ²	Venezuela ³
Equatorial Guinea	Nepal ¹	Viet Nam ¹
Estonia ¹	Nicaragua	Yemen ¹
Eswatini ²	Niger	Zambia
Ethiopia	Nigeria	Zimbabwe
Fiji ²	North Macedonia ¹	

¹Article XII Members

²Article XXVI Members included in Figure 3

³Other Non-Article XXVI Members included in Figure 4