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When the East goes West: The impact of GATT on socialist countries

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Abstract

There is a growing body of literature on the economic history of Eastern Europe during the Cold War, thereby mainly trying to explain the demise of the Eastern bloc by discussing a range of different aspects. Trade has been largely excluded so far, even though Socialist countries were participating in international trade. This paper aims to discuss the impact of one of the most remarkable events in this period, the accession of four Socialist countries into the General Agreement on Tariffs and Trade (GATT), which is an explicitly Capitalist trade treaty, between 1966 and 1973. The results suggest that the signing of GATT is associated with a 48–56 per cent increase in export volume, depending on the type of specification. However, the paper finds modest welfare gains for these countries, which can be explained by their comparatively closed economies and other barriers to trade beyond tariffs. Given the methodological limitations, the results should be understood as the lower boundary of the actual impact of GATT on Socialist countries, thereby suggesting that trade deals between countries with different economic and political structures can be beneficial.

Introduction

The common picture of Eastern European countries during the Cold War is heavily influenced by the idea that these states were highly isolated.[1] Episodes like the building of the Iron Curtain certainly do confirm this impression, but it would be misleading to believe that this is the complete story. Even though people were not allowed to move freely and governments aimed to achieve autarchy, goods did cross borders. Curiously, however,

[1] John Cole, "Problems of Socialism In Eastern Europe", *Dialectical Anthropology* 9, no. 1–4 (1985): 233–256, doi:10.1007/bf00245132.

Socialist countries were exporting their goods not only to their political allies, but a significant share of their trade was pursued with Western Capitalist states, thereby generating a worldwide network of trade partners. A climax of this development was reached in the 1960s and 1970s when four Socialist countries – Yugoslavia (1966), Poland (1967), Romania (1971) and Hungary (1973) – signed the General Agreement on Tariffs and Trade (GATT), thereby creating the unusual case of planned economies joining a free market treaty. [2] This is surprising, given that one of the major points of this trade agreement is that it acknowledges the importance of free markets and capitalism, which makes it not only a purely technical treaty but a document with an ideological dimension.[3] Effectively, however, did it not stop centrally-planned economies from joining GATT. Interestingly, this remarkable event and its economic implications have been relatively little discussed in the literature.[4,5] Therefore, this essay tries to close this gap by assessing the economic impact on those four Socialist countries of signing GATT. Moreover, it will also try to estimate the welfare gains which were achieved through the treaty.

Apart from its contribution to the economic literature, this case study offers a range of interesting points for historical studies. To the best of my knowledge, this is the first piece of research that discusses the economic impacts of GATT on Socialist countries. Although there is a limited amount of literature on Socialist trade policies, most papers are usually limited to case studies for individual countries. [6] Therefore, this essay aims to close the gap and give some insights into the trade of Socialist countries, showing that

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[2] "WTO Members and Observers", *WTO*, 2021, https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm.

[3] Petros Mavroidis, *The Regulation of International Trade, Volume 1* (Cambridge, MA: MIT Press, 2016).

[4] Harriet Matejka, "The Foreign Trade System", in *The Economic History of Eastern Europe 1919–1975 – Volume III: Institutional Change Within a Planned Economy* (Oxford: Clarendon Press, 1986), 250–288. Note: This chapter describes general developments in Socialist trade without explicitly discussing the implications of GATT.

[5] Karl-Hermann Fink, *Sozialistisches Internationales Wirtschaftsrecht : Rechtsintegration Und Wirtschaftsreformen Im Rat Für Gegenseitige Wirtschaftshilfe* (Berlin: Berlin Verlag, 1974).

[6] See, for example, James Gapinski, Borislav Škegro and Thomas Zuehlke, *Modeling the Economic Performance of Yugoslavia* (New York: Praeger, 1989), 85–114.

even centrally planned states can benefit from trade, too. Thus far, the methodology, in particular the use of exact-hat-algebra – a term that summarises the idea of using easily accessible macroeconomic data to assess changes in trade flows – has never been used to cover Socialist economies. [7] One of the main benefits of this approach is that it also gives insights into the welfare gains from trade. So far, its use has been mainly restricted to more recent periods and developed countries. For example, the benefits from the EU single market have been recently assessed using similar methods.[8,9,10] This approach has a couple of advantages over classic macroeconomic equilibrium models because it demands a more limited amount of data. Naturally, as these models have not been created for such an environment, a range of necessary adaptations and simplifications will be pursued.

However, there are also potential lessons for the present. The accession happened in light of a huge economic and political transformation process that started in the 1970s and finally led to the EU Eastern Enlargement, in which all these countries, to some extent, participate today. Therefore, the signing of the GATT can be seen as the first step on a long road towards economic integration of Eastern Europe with the West. Of course, this was not the original intention of these countries when they joined the agreement, but it was a small step in this direction. Also, the results indicate that countries with very different political structures can benefit from one trade deal. Further, the outcomes contrast with claims that economically weaker

[7] Arnaud Costinot and Andrés Rodríguez-Clare, "Trade Theory with Numbers: Quantifying the Consequences of Globalization", in *Handbook of International Economics, Volume 4* (Elsevier, 2014), 197–199, https://www.sciencedirect.com/handbook/handbook-of-international-economics/vol/4/suppl/C.
[8] Thierry Mayer, Vincent Vicard and Soledad Zignago, "The Cost of Non-Europe, Revisited", *Economic Policy* 34, no. 98 (2019): 145–199, doi:10.1093/epolic/eiz002.
[9] Gabriel Felbermayr, Jasmin Gröschl and Inga Heiland, "Undoing Europe in a New Quantitative Trade Model", *Ifo Working Paper*, no. 250 (2018).
[10] Nicholas Bloom et al., "The Economic Impact of Brexit", *NBER Working Paper*, no. 34559 (2025).

countries benefit less from large-scale trade agreements with developed countries. [11]

The results suggest that GATT was associated with an increase in trade of 48–56 per cent, depending on the specification. Moreover, these results remain robust when considering only data on different types of goods. Interestingly, the trade elasticities for Socialist countries seem to be very low, a phenomenon that can be partially explained by the inflexible structure of central planning. After applying exact-hat-algebra, trade liberalisation had a small but measurable impact on welfare of up to 3.18 per cent for three countries, even though in most cases it is significantly smaller. The only exception is Poland, where the change in trade barriers had no positive effect, which can be explained by the Most Favoured Nation (MFN) status Poland would have with multiple Western countries. However, given that this model does not account for different sectors, it can be expected that the actual gains might have been even larger. All in all, the results seem to agree with Kukić (2018) that foreign trade played a role in the economic development of Eastern Europe. [12]

The structure of this essay can be summarised as follows: Section 1 discusses the economic policy of Socialist countries during the Cold War. In particular, it focuses on the development of trade policy during this period, including a description of East–East trade which differed significantly from the trading system that can currently be observed in most parts of the world. Section 2 covers multiple aspects of GATT, including its history as well as the implementation of its guidelines. Moreover, this section gives a brief introduction to the theoretical and empirical economics literature on GATT. Section 3 briefly describes the data-gathering process as well as the

[11] Arvind Subramanian and Shang-Jin Wei, "The WTO Promotes Trade, Strongly But Unevenly", *Journal Of International Economics* 72, no. 1 (2007): 151–175, doi:http://dx.doi.org/10.1016/j.jinteco.2006.07.007.
[12] Leonard Kukić, "Socialist Growth Revisited: Insights From Yugoslavia", *European Review Of Economic History* 22, no. 4 (2018): 415, doi:10.1093/ereh/hey001.

methodology. It also focuses on potential data issues in Socialist countries, the economic theory behind the approach of this essay and how this theory can be used empirically. Section 4 presents all the empirical results of the essay. This includes an assessment of the impact of GATT using an OLS regression framework, the estimation of representative trade elasticities and the calculation of the gains from trade for the four countries by borrowing a result from Arkolakis et al. (2012).[13] Section 5 aims to interpret the results and their relationship with the relevant literature. Finally, a conclusion summarises the main findings.

Economic Policy and Trade in Eastern Europe, 1945–1989

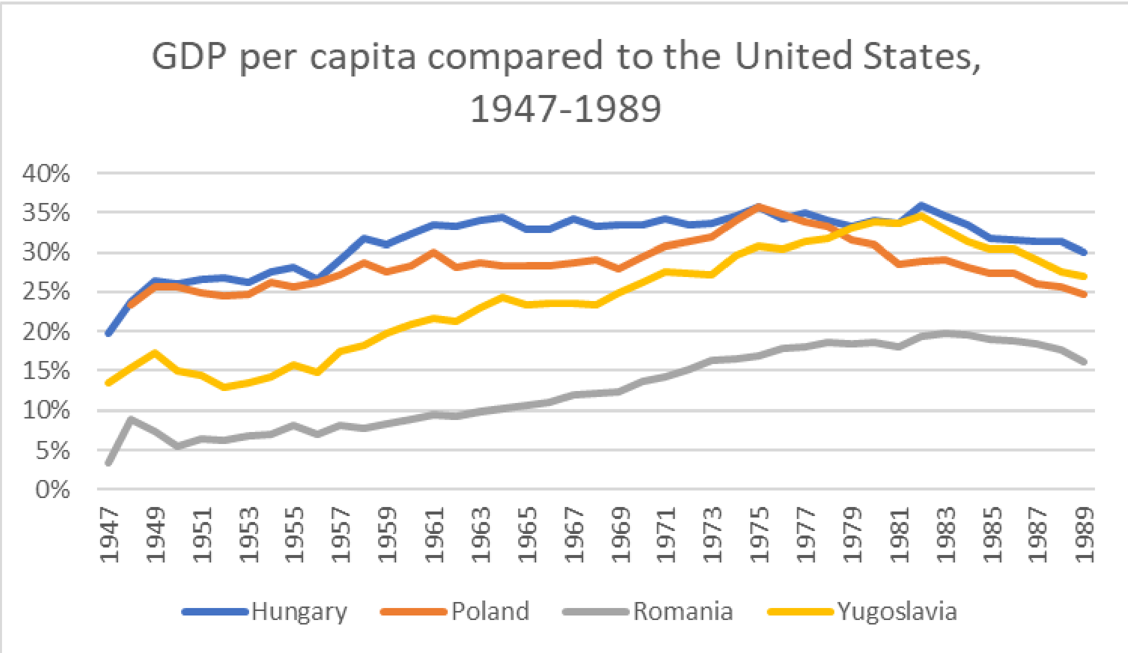
Economic policy

After World War II, Central and Eastern Europe could be described as an economic backwater. The combination of huge war damage, political instability and economic backwardness resulted in very low living standards that can be also seen in the data. As Figure 1 shows, GDP per capita in those countries in 1950 was 75 per cent lower than in the United States at that time, with Romania's numbers being exceptionally low. [14,15] This might be explained by the fact that Romania was one of the few areas that did not industrialise until 1945.[16] When the Socialists came to power in the 1940s, they aimed to replicate the success of the Soviet Union which managed to industrialise very rapidly and had a larger per capita GDP in 1950 than most Central and Eastern European states.[17] This meant the introduction of five-

[13] Costas Arkolakis, Arnaud Costinot and Andrés Rodríguez-Clare, "New Trade Models, Same Old Gains?", *American Economic Review* 102, no. 1 (2012): 94–130, doi:10.1257/aer.102.1.94.
[14] Jutta Bolt and Jan Luiten van Zanden, "Maddison Style Estimates of the Evolution of the World Economy. A New 2020 Update", *Maddison-Project Working Paper*, no. 15 (2020).
[15] Victor Axenciuc, *Produsul Intern Brut Al României* (Bucureşti: Editura Economică, 2012).
[16] Matthias Morys, "South-Eastern European Growth Experience in European Perspective, 19th and 20th Centuries", in *Monetary and Fiscal Policies in South-Eastern Europe: Historical and Comparative Perspectives* (Sofia: Bulgarian National Bank, 2006), 35.
[17] Bolt and van Zanden, "Maddison Style Estimates of the Evolution of the World Economy".

or six-year plans, the mass-collectivisation of agriculture – with the notable exceptions of Yugoslavia and Poland – and the building of a heavy industry sector.[18] Consumption was largely neglected by the planners, which led to stagnating living standards and regular food rationing until the second half of the 1950s.[19] Despite all the inefficiencies which were inherent to central planning, Central and Eastern European economies were growing. Romania's GDP per capita increased by more than 500 per cent between 1950 and 1975. Other countries were also remarkably successful at generating growth, although at a slower rate than Western and Southern European countries.[20] According to Vonyó (2017), the inefficiencies of socialist planning were not affecting Eastern Europe until the oil crisis, but the lower growth rates were rather caused by the negative demographic consequences of World War II. [21]

Figure 1: GDP per capita compared to the United States, 1947–1989 (%)



Source: Bolt and van Zanden, "Maddison Style Estimates of the Evolution of the World Economy".

[18] Barry Eichengreen, *The European Economy Since 1945* (Princeton: Princeton University Press, 2008), 135–137.
[19] Ibid., 142.
[20] Bolt and van Zanden, " Maddison Style Estimates of the Evolution of the World Economy".
[21] Tamás Vonyó, "War and Socialism: Why Eastern Europe Fell Behind Between 1950 and 1989", *The Economic History Review* 70, no. 1 (2016): 248–274, doi:10.1111/ehr.12336.

Still, planning strategies met their limit because capital accumulation, which is crucial to growth in Socialist systems, became successively more difficult with higher levels of already invested capital.[22] Therefore, planners started to liberalise the economies very slowly. This typically involved a higher focus on consumer goods and less restrictive pricing policies which allowed for some price convergence towards international levels.[23] However, governments were hesitant or unable to pursue thorough reforms.[24] The problem itself, the lack of incentives to innovate, still existed and became apparent after the oil shock in 1973 because most of the industrial production was highly energy-intensive and the Soviet Union was increasingly unwilling to cross-finance the inefficiency of Central and Eastern European factories.[25] As a result, these countries started to stagnate and decline even though they were still subsidised by the Soviet Union.[26] Several countries were forced to resort to the International Monetary Fund for loans which were bound to austerity policies that decreased living standards and industrial output, most extremely in Romania.[27] In 1989, the year when the Eastern bloc collapsed, Hungary, Poland, Romania and Yugoslavia ended a decade of stagnation which widened the gap between them and the West in terms of output and living standards and certainly contributed to the events of that year.[28]

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[22] Robert Solow, "A Contribution to the Theory of Economic Growth", *The Quarterly Journal of Economics* 70, no. 1 (1956): 65–94, doi:10.2307/1884513.

[23] Eichengreen, *The European Economy Since 1945,* 146–154.

[24] Iván Berend, *From the Soviet Bloc to the European Union: The Economic and Social Transformation of Central and Eastern Europe Since 1973* (Cambridge: Cambridge University Press, 2011), 22–23.

[25] Randall Stone, *Satellites and Commissars: Strategy and Conflict in the Politics of Soviet-Bloc Trade* (Princeton: Princeton University Press, 1996), 86.

[26] Stone, *Satellites and Commissars,* 85–87.

[27] Cornel Ban, "Sovereign Debt, Austerity, And Regime Change", *East European Politics and Societies: And Cultures* 26, no. 4 (2012): 743–776, doi:10.1177/0888325412465513.

[28] Vonyó, "War and Socialism", 249.

Trade policy

Different to the economic development of Central and Eastern Europe, which has been reviewed thoroughly by several scholars,[29,30] the literature on trade policies in Socialist countries is relatively limited and usually only discusses case studies, even though Kukić (2018) notes that trade potentially played a relevant role for TFP growth in Yugoslavia and that an increase in trade with Western European countries can be associated with GATT.[31] Notable exceptions can be found in Ellman (2014) and Matejka (1986).[32,33] However, there are a couple of general patterns that can be found. Figure 2 demonstrates that exports rose significantly between 1960 and 1980. Within these 20 years, they increased by a factor of between 8.9 (Hungary) and 17.5 (Yugoslavia). Interestingly, the pace of this growth has been remarkably similar in all four countries, except for Hungary, which saw a drop in 1975 from which it was unable to catch up to the others. To aid clarity, the following section will be split into trade with socialist and capitalist states.

[29] Stephen Broadberry and Alexander Klein, "When and Why did Eastern European Economies Begin to Fail? Lessons From a Czechoslovak/UK Productivity Comparison, 1921–1991", *Explorations In Economic History* 48, no. 1 (2011): 37-52, doi:10.1016/j.eeh.2010.09.001.

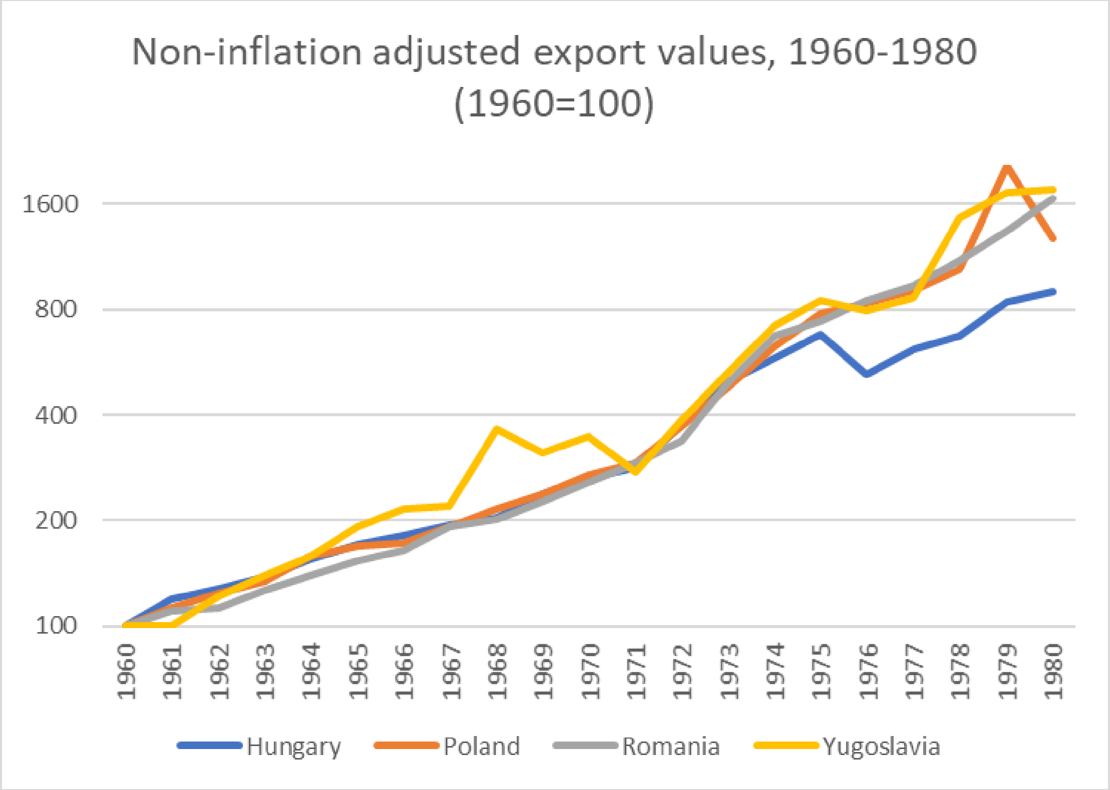
[30] Vonyó, "War and Socialism", 248–274.

[31] Kukić, "Socialist Growth Revisited", 405–415.

[32] Michael Ellman, *Socialist Planning* , 3rd ed. (Cambridge: Cambridge University Press, 2014), 329–359.

[33] Matejka, "The Foreign Trade System", 250–288. Note: The analysis in this chapter stops in 1975.

Figure 2: Non-inflation adjusted export values in local currencies, 1960–1980



Sources: Statistical Yearbook of Hungary (multiple years), Statistical Yearbook of Poland (multiple years), Romanian Statistical Yearbook (multiple years), Statistical Yearbook of Yugoslavia (multiple years).

East–East trade

Trade within the Eastern bloc had a very different structure compared with the frameworks that can be usually seen when Capitalist states trade with each other. Most of it was organised within the Council for Mutual Economic Assistance (COMECON), which was introduced in 1949.[34] The complete motivation behind its foundation has never been fully resolved, although the likeliest version sees it as a response to the Marshall Plan to promote the industrialisation of Eastern European, and in later periods, non-European allies under Soviet patronage.[35] Different from other projects such as the European Economic Community (EEC), COMECON was not created to

[34] Robert Bideleux and Ian Jeffries, *A History of Eastern Europe: Crisis and Change* (London: Routledge, 2007), 480–481.
[35] Ibid., 480.

achieve any sort of economic or political integration between the states.[36] Instead, it should foster loose cooperation between individual Socialist states. The Soviet rationale was to create a buffer zone between itself and Western Europe with individual Socialist countries, but COMECON played a minor role in these plans.[37] However, the initial lack of ambition created problems in the long term because, as contemporaries noted, it became very difficult to achieve mutually beneficial cooperation.[38] Governments introduced heavy industry in their countries and created inefficient and highly autarchic economies.[39] The lack of trust between member states did not allow to reap all potential gains from trade that could have been achieved through specialisation.[40] In that sense, the idea of mutual assistance has never been fully exploited. When countries were trading within the COMECON, they did this mostly with the Soviet Union to receive highly subsidised resources, especially oil and gas, in exchange for steel or other heavy industry outputs.[41]

Trade within the COMECON network looked very different to a common trade bloc. Instead of allowing an indefinite amount of trade streams between countries and charging custom duties, inner-Socialist trade was mainly centred around quotas and price equalisation mechanisms, which meant that the price of goods was usually artificially created to achieve an equilibrium in export and import values.[42] Effectively, this led to a sort of barter trade. The main cause for this approach was that socialist currencies were frequently unconvertible which forced most countries to look for alternative solutions.[43] Further, the artificial price-setting allowed some countries to

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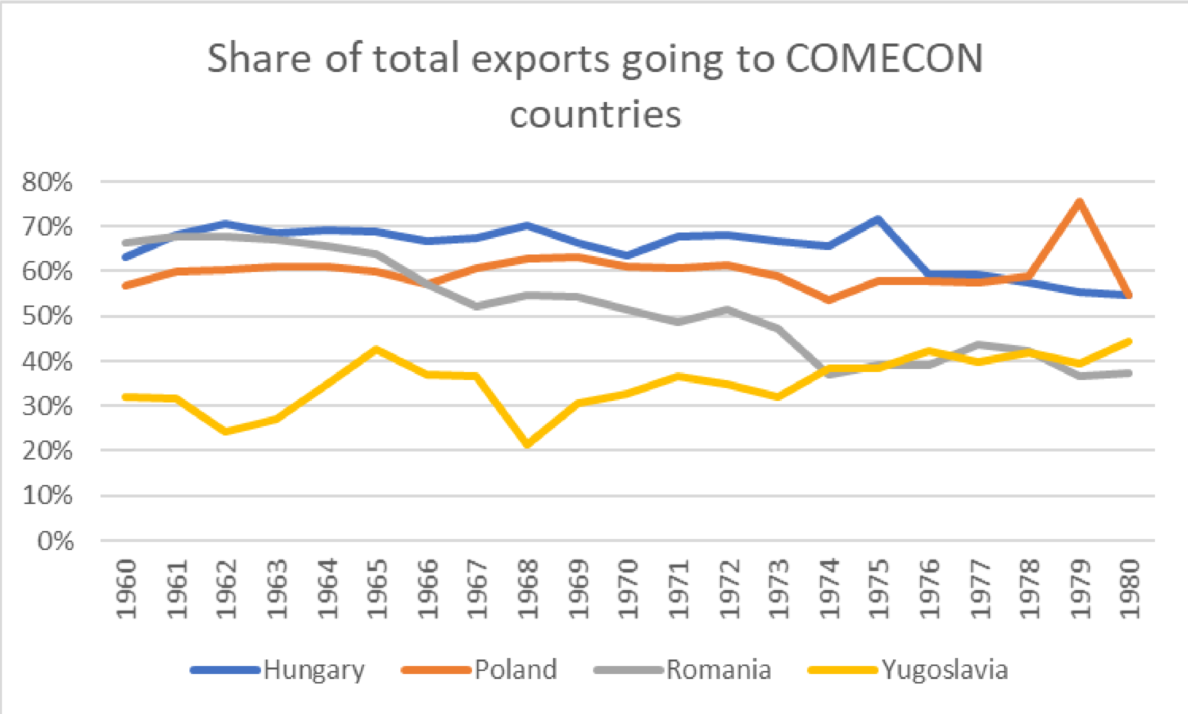
[36] Wlodzimierz Brus, "1966 to 1975: Normalization and Conflict", in *The Economic History of Eastern Europe 1919–1975 – Volume III: Institutional Change Within a Planned Economy* (Oxford: Clarendon Press, 1986), 231–245.
[37] Wlodzimierz Brus, "1950 to 1953: The Peak of Stalinism", in *The Economic History of Eastern Europe 1919–1975 – Volume III: Institutional Change Within A Planned Economy* (Oxford: Clarendon Press, 1986), 16.
[38] Zbigniew Fallenbuchl, *East European Integration: Comecon* (Washington, 1974), 134.
[39] Bideleux and Jeffries, *A History of Eastern Europe*, 484.
[40] Ibid.
[41] Stone, *Satellites and Commissars,* 5–6.
[42] Turnock, *The Economy of East Central Europe, 1815–1989* (London: Routledge, 2006), 310.
[43] Brus, "1966 to 1975: Normalization and Conflict", 240.

import at more favourable terms than others. Because this meant in practice that raw materials from the Soviet Union were constantly under-priced, Socialist countries were receiving subsidies throughout the period and were incentivised to build an energy-intensive industry due to lower input prices.[44] Apart from trading with the Soviet Union, trade between other Eastern European countries was relatively small, partially because of the lack of specialisation between them.[45] Due to its scarcity, trade with convertible Western currencies was uncommon in East–East trade.[46]

Figure 3: Share of total exports to COMECON countries, 1960–1980



Sources: Statistical Yearbook of Hungary (multiple years), Statistical Yearbook of Poland (multiple years), Romanian Statistical Yearbook (multiple years), Statistical Yearbook of Yugoslavia (multiple years).

A couple of interesting observations become apparent when looking at Figure 3, which presents the export share of the four countries with other

[44] Stone, *Satellites and Commissars,* 7.
[45] Turnock, *The Economy of East Central Europe, 1815–1989* (London: Routledge, 2006), 311.
[46] André Steiner, *The Plans That Failed–The Economic History Of The GDR* (Oxford: Berghahn Books, 2010), 161–164. Note: The author discusses the situation of the German Democratic Republic but the experience was very similar for other countries in the Eastern Bloc.

COMECON members. First, the three countries that were themselves members of the COMECON – Hungary, Poland and Romania – were trading significantly more than Yugoslavia, which likely resembles the fact that these countries were more integrated into the Eastern bloc. Second, and probably more interesting, is the divergence in the trends which can be split into three groups. Whereas Yugoslavia's development will be explained later, this part focuses on the other three countries. Hungary and Poland's exports developed similarly throughout this period. In both cases, the trade share with other COMECON countries stagnated throughout the 1960s and fell in the following decade, although this decline is more pronounced in Hungary. This might be considered an indicator that the liberalisation efforts in the 1970s had a gradual effect on the trade partner structure.[47] Romania, on the other hand, had a steady and sharp decline between 1960 and 1974, when the COMECON trade share fell from more than two-thirds to less than 40 per cent. The outcome is not surprising as Romania's leader, Nicolae Ceaușescu, turned increasingly nationalist and started to emancipate his country from its allies.[48] As a result, Romanian leadership, which became increasingly isolated within the Eastern bloc, began to "diversify" its export partners and started trading with developing countries in Asia and Africa, particularly those that had a Socialist or Communist leadership.[49] Although, despite China, none of them alone was of significant size, the sheer number of partners can explain the decline. Finally, it is worth noting that this does not mean that trade with COMECON was declining in total numbers. Total trade volumes were rising constantly throughout the period towards the East but at a slower pace than with the West.

[47] Harriet Matejka, "The Foreign Trade System", in *The Economic History of Eastern Europe 1919–1975 – Volume III: Institutional Change Within a Planned Economy* (Oxford: Clarendon Press, 1986), 265–279.
[48] Bideleux and Jeffries, *A History of Eastern Europe*, 495–496.
[49] Ronald Linden, "Socialist Patrimonialism and The Global Economy: The Case Of Romania", *International Organization* 40, no. 2 (1986): 358–360, doi:10.1017/s002081830002717x.

East–West trade

Very different was the case of the East–West trade. Whereas trade within the East was focused on one large player, the list of potential trading partners from the West was longer. Still, because Eastern European countries were more dependent on Western machinery and consumer goods than vice versa, Western countries were able to dictate the terms of trade.[50] In particular, Eastern European countries were forced to pay all goods in Western currency, which should lead to increasingly desperate attempts to generate dollars, pounds and marks over the decades.[51] Therefore, Socialist countries were trying everything to keep their industrial sector as competitive as possible. In the earlier phases, firms had to give all revenues to their home central bank which would then allot a certain amount of local currency, so that the state had full control over Western currencies.[52] Moreover, a set of multiple exchange rates, which should incentivise the export of some goods, was created.[53] Over the decades, economic reforms allowed firms to keep some of the foreign currency and to autonomously buy input materials and machinery from the West.[54] Trade with the capitalist world increased subsequently over the decades. Generally, the Soviet Union granted most Eastern European countries a surprisingly high degree of autonomy over their economic and trade policies.[55] This is sometimes considered to be part of an implicit deal that Eastern European countries would remain loyal to the Soviet Union in all political issues in exchange for economic autonomy.[56] Therefore, most Eastern European countries were experimenting with a range of economic tools and policies with Hungary and Yugoslavia being particularly creative.[57]

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[50] Turnock, *The Economy of East Central Europe, 1815–1989* (London: Routledge, 2006), 316.
[51] Steiner, *The Plans That Failed,* 161.
[52] Diane Flaherty, "Economic Reform and Foreign Trade in Yugoslavia", *Cambridge Journal of Economics* 6, no. 2 (1982): 110, doi:10.1093/oxfordjournals.cje.a035504. Note: Flaherty describes the situation in Yugoslavia. Other countries were less liberal, but the general development was relatively similar.
[53] Ibid., 110.
[54] Ibid., 116.
[55] Stone, *Satellites and Commissars,* 112.
[56] Ibid., 72–73.
[57] Brus, "1966 to 1975: Normalization and Conflict", 165–185.

Most remarkably, the Hungarian government introduced the *New Economic Reform* in 1968 which, among several other liberalisation measures, permitted small private businesses in some sectors.[58] However, Eastern European countries needed to be cautious because the Soviet Union was dissatisfied by the fact that their Eastern European allies were trading with the "class enemy" thereby using resources that were subsidised by the Soviet Union.[59] Technically, they could have halted production in Eastern Europe by increasing prices for their raw materials. However, according to Hungarian bureaucrats, the Soviet Union never seriously considered punishing them for their economic liberalisation efforts through this channel.[60] When the Soviet Union itself got into fiscal troubles following the oil shock in 1973, it was forced to adapt the prices of its exports towards world market prices which should lead to serious problems for its Eastern European allies.[61] Because the highly energy-intensive machinery was outdated but prices for raw materials were soaring, socialist countries were not able to compensate for the comparatively low quality through cheap prices so that their products lost their competitiveness.

Yugoslavia – a special case?

It is worth noting that one of the four observed countries in this case study, Yugoslavia, differed significantly from the rest in multiple ways, including its economic structure and trade policy. Instead of the state owning all larger firms directly, many enterprises in Yugoslavia were socially managed in a structure that can be compared to cooperatives where workers councils had considerable control over production processes.[62] This unique interpretation of socialism and a range of other political events resulted in the *Informbiro* period from 1948 until 1955 where all other Eastern bloc countries broke ties

[58] Bela Balassa, "The Economic Reform in Hungary", *Economica* 37, no. 145 (1970): 1–22, doi:10.2307/2551998.
[59] Stone, *Satellites and Commissars,* 36–37.
[60] Ibid., 98.
[61] Michael Marrese and Jan Vanous, *Soviet Subsidization of Trade with Eastern Europe* (Berkeley: Institute of International Studies, University of California, 1983).
[62] Duncan Wilson, "Self-Management in Yugoslavia", *International Affairs* 54, no. 2 (1978): 253–263, doi:10.2307/2615650.

with Yugoslavia.[63] Trade was not spared from it so that Yugoslav products were boycotted in the East.[64] As a consequence, Yugoslavia started to improve its relationship with Western powers which were happy and willing to help Yugoslavia and thereby undermine Soviet desires to topple Tito from power.[65] In 1955, when the Soviet Union recognised that its efforts are failing, it feared that Yugoslavia would turn fully towards the West and therefore lifted all the sanctions to bring the country back into the Soviet sphere of influence. However, Yugoslavia neither sought membership in the Warsaw pact nor did it enter the COMECON. Instead, it became a bloc-free state that aimed to have a stable relationship with all sides.[66] This benefitted the Yugoslav economy in two ways. From a trade perspective, this gave Yugoslavia broader access to Western markets. Moreover, it allowed the country to take cheap loans from both blocs, thereby increasing the country's bargaining power when new state loans were needed.[67] The creation of the non-aligned movement went hand in hand with this development.[68] Also, the ideological orientation remained more nuanced than in other Eastern European countries. Several economic policies that were pursued between 1961 and 1976 aimed at creating a more competitive and liberal economic structure.[69] Most extremely, in 1967, Yugoslavia was the first socialist country to introduce joint ventures with Western companies to attract investments from Western Europe and the United States.[70]

Interestingly, the development of Yugoslavia's export share towards to COMECON members in Figure 3 is contrary to all other countries in this sample. Ignoring the spike in 1968, it remains relatively similar between

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[63] John Lampe, *Yugoslavia as History: Twice There was a Country* (Cambridge: Cambridge University Press, 1996), 241–250.
[64] Svetozar Rajak, "Yugoslav-Soviet Relations, 1953–1957: Normalization, Comradeship, Confrontation" (Ph.D., London School of Economics and Political Science, 2004), 4–5.
[65] Lampe, *Yugoslavia as History*, 253–256.
[66] Rajak, "Yugoslav–Soviet Relations, 1953–1957", 136.
[67] Rajak, "Yugoslav–Soviet Relations, 1953–1957", 215, provides a case study.
[68] Ibid., 138–139, 339.
[69] Diane Flaherty, "Economic Reform and Foreign Trade in Yugoslavia", *Cambridge Journal Of Economics* 6, no. 2 (1982): 105, doi:10.1093/oxfordjournals.cje.a035504.
[70] Ibid., 105–106.

1960 and 1973, before exports start to be more focused towards the East, in particular the Soviet Union. In 1974, the value of exports to COMECON countries overtook the export value with members of the European Community and the United States. The main cause for this observation can be found in the oil shock when Yugoslavia started to increasingly import oil from the Soviet Union.[71] As trade with the Soviet Union was based on barter, this meant that exports were automatically increasing. Moreover, the increasingly outdated machinery did not allow to produce according to Western standards. Therefore, the possibility to trade with COMECON countries, where consumers had a restricted set of options, was certainly helpful.

Initially, the economic approach was successful with relatively high growth rates throughout the 1950s and 1960s. Moreover, Neubert (2025) finds that Yugoslav firms near the Italian border performed very similarly to their Capitalist counterparts in Northeastern Italy after considering demographic differences.[72] Despite a more liberal economic and political system, it had similar economic problems which were further aggravated by comparatively high inflation rates and large fiscal debt, leading to economic stagnation in the 1980s.[73] According to Kukić (2021), this episode of stagnation can be explained by a fall in capital efficiency, that can also be observed in the Soviet Union.[74,75] In this sense, Yugoslavia might be an exception from a historical perspective, but the anomalies did not lead to a different outcome.

[71] Statistički Godišnjak Jugoslavije = Statistical Yearbook of Yugoslavia (Belgrade: Savezni zavod za statistiku, multiple years).
[72] Magnus Neubert, "Did Socialism Work? Economic Development under Labour-Managed Socialism in Yugoslavia" (2025), 7.
[73] Kukić, "Socialist Growth Revisited ", 417–419.
[74] Leonard Kukić, "The Nature of Technological Failure: Patterns of Biased Technical Change in Socialist Europe," *Journal of Economic Surveys* 35, no. 3 (2021): 895–925, doi:10.1111/joes.12355.
[75] Leonard Kukić, "Technical change and the postwar slowdown in Soviet economic growth in a long run perspective, 1885–2019," *The Economic History Review* 77, no.2 (2024): 644-674, doi: 10.1111/ehr.13284.

The General Agreement on Tariffs and Trade (GATT)

The history and purpose of GATT

The history of GATT is insofar unusual as it starts with a failure. After the end of World War II, the United States aimed to create the International Trade Organization (ITO).[76] The ITO should institutionalise trade relations in such a way that the protectionist measures, which occurred during the Great Depression and World War II, could not happen again.[77] Therefore, the United States and the United Kingdom tried to draft a range of different legal documents which culminated in the initial GATT trade round in 1947 when 23 countries signed a range of agreements including over 40,000 concessions on tariffs.[78] Ironically, the ITO never came into existence because the US government, despite being the main driver for this agreement, could not gain a majority in Congress thereby making a worldwide implementation impossible.[79] Still, the other parts of the drafts could be introduced because of a special act that gave the US administration authority for all its trade legislation until mid-1948.[80] As a result, the originally planned organisation could not be founded but the general framework of tariff reductions was still put in place.[81]

A couple of points are worth noting with regards to the processes that took place regarding this agreement. Most importantly, different to other trade unions such as today's EU single market, member states do not have to give the same concessions.[82] Each country signs a unique set of documents with specific details and exceptions. Still, there are a couple of general rules. Most importantly, countries that signed GATT were not allowed to increase tariffs

76 Douglas Irwin, "The GATT In Historical Perspective", in *The Hundredth and Seventh Annual Meeting of the American Economic Association* (Washington: American Economic Association, 1995), 324–325.
77 Mavroidis, *The Regulation of International Trade,* 20–23.
78 Douglas Irwin, Petros Mavroidis and Alan Sykes, *The Genesis of the GATT* (Cambridge: Cambridge University Press, 2009), 98–103.
79 Peter van den Bossche and Werner Zdouc, *The Law and Policy of the World Trade Organization*, 4th ed. (Cambridge: Cambridge University Press, 2017), 80–83.
80 Ibid., 83.
81 Irwin, "The GATT in Historical Perspective", 325.
82 Mavroidis, *The Regulation of International Trade,* 49–52.

towards other members or increase the barriers for trade in any other way above a pre-defined benchmark as long as it does not damage the home economy.[83] The individuality of GATT allowed for a lot of flexibility which would, for example, enable local trade treaties.[84]

Reaching a consensus became incredibly difficult and could take years because every change needed to be bargained at an individual level. [85] New concessions within the GATT were usually achieved at the end of a process called "round". The procedure can be summarised as follows: A group of countries would agree that it is time to increase the degree of market integration and would organise a summit with all member countries. After a general meeting where leading politicians would agree on some key points, negotiating teams cover all details in subsequent meetings. Each country would submit a proposal with its bids. All other countries could review the proposal and either accept or ask to bargain for an improved offer. Only if all countries were to agree on every other country's offer, the trade deal was sealed.[86] As this process needed to be pursued by every country, these rounds could take years, and the implementation could also vary significantly so that usually the end of a trade round coincided with the start of the next.[87]

Over the decades, these concessions were further expanded in new trade rounds, and the number of countries rose significantly. Whereas the earlier rounds were only focused on tariff reductions, the Kennedy round in 1964 was the starting point of a new approach.[88] Different to earlier rounds, the United States feared that it might lose its economic influence over Western Europe which was growing at a high rate.[89] Further, the rise of the EEC generated

[83] Ibid., 37–38.
[84] Ibid., 293.
[85] van den Bossche and Zdouc, *The Law and Policy of the World Trade Organization*, 146–156.
[86] Ibid., 152. Note: In practice, this procedure was simplified over the decades, but the underlying idea remained the same.
[87] van den Bossche and Zdouc, *The Law and Policy of the World Trade Organization*, 153.
[88] Harry Johnson, "The Kennedy Round", *The World Today* 23, no. 8 (1967): 326–333.
[89] Donna Lee, *Middle Powers and Commercial Diplomacy* (Houndmills: Macmillan, 1999), 33–34.

concerns that Western European countries might create a separate economic and political bloc without the United States.[90] Tariffs, in particular on industrial goods, were further reduced but as average tariffs converged towards less than 10 per cent, the focus switched towards non-tariff barriers such as bureaucratic hurdles that should ideally have a similar effect.[91] Starting from the Kennedy round, non-tariff barriers received an increasing role.[92] But as the four countries of interest entered between 1966 and 1973, the impact of these policies can be expected to be tiny as only a few policies, such as some anti-dumping measures, had been introduced by then.[93]

Despite the general commitment of GATT to free markets and capitalism, some nonmarket economies were members of GATT. These countries can be separated into two groups: Countries that signed GATT before they turned to socialism (Czechoslovakia and Cuba) or countries that entered the agreement when already being socialist (Hungary, Poland, Romania and Yugoslavia). Whereas an analysis of the development in trade relations for the former group would certainly be an interesting point for further research, this essay will focus on the latter group where the other members deliberately decided to allow socialist countries to sign GATT.

A legal and political perspective on socialist countries within GATT

Interestingly, at that time, the most thorough reviews on this subject have been created by legal scholars.[94] For them, the most interesting question was to explain how centrally planned economies and their set of institutions can be fit into a trade agreement that has not been geared towards such a political system. The major problem was that, as mentioned earlier, trade with Eastern European countries was based on quotas instead of tariffs. This made compulsory tariff reductions virtually meaningless. To include socialist

[90] Lee, *Middle Powers and Commercial Diplomacy,* 34–36.
[91] Johnson, "The Kennedy Round", 328.
[92] Mavroidis, *The Regulation of International Trade,* 52.
[93] Johnson, "The Kennedy Round", 326–331.
[94] See, for example, Fink, *Sozialistisches Internationales Wirtschaftsrecht*.

economies into GATT, a range of legal concessions were planned.[95] First, the introduction of minimum import quotas for Socialist countries should guarantee for an increasing degree of market integration.[96,97,98] Second, to achieve compliance, the Most Favoured Nations (MFN) Clause (which means that a member of GATT cannot have worse exporting conditions than any other state) needed to be renewed every three years by Western nations.[99] Third, the so-called Commercial Considerations Clause should enforce that Socialist countries act only according to business logic.[100] In exchange, Eastern bloc countries received full access to the benefits of GATT. The impact of this policy is not fully clear. Jarząbek (2014) argues that it became increasingly difficult for Poland to keep pace with the increasing import requirements because of bad harvests and protectionist measures by the EC as well as mistakes in domestic policies.[101] However, she also admits that there were no retaliation measures by European states when Poland stopped fulfilling the quota because they were running out of foreign currency.[102] Among legal scholars, on the other hand, there is a consensus that the Socialist countries reaped the benefits from GATT by using the lower tariffs to export their goods without fully complying with the rules.[103] The Commercial Considerations Clause was practically useless because it had no sanction tools in case of wrongdoing and nobody ever wanted to seriously enforce all the details that should have been provided by Socialist countries.[104]

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[95] Fink, *Sozialistisches Internationales Wirtschaftsrecht*, 195–198.
[96] Martin Domke and John Hazard, "State Trading and the Most-Favored-Nation Clause", *American Journal Of International Law* 52, no. 1 (1958): 60, doi:10.2307/2195669.
[97] Fink, *Sozialistisches Internationales Wirtschaftsrecht,* 198–199.
[98] Béla Csikós-Nagy, "Die Aussenhandelspolitische Bedeutung Der Ungarischen Wirtschaftsreform", *OEW* 4 (1970): 221 ff.
[99] *East–West-Trade Relations Act 1966* (Washington: Department of State, 1966), 843–844.
[100] Wolfgang Friedmann, "Changing Social Arrangements in State-Trading States and Their Effect on International Law", *Law And Contemporary Problems* 24, no. 2 (1959): 350–366, doi:10.2307/1190342.
[101] Wanda Jarząbek, "Polish Economic Policy at the Time of Détente, 1966–78", *European Review of History: Revue Européenne D'histoire* 21, no. 2 (2014): 300–303, doi:10.1080/13507486.2014.888707.
[102] Ibid., 303.
[103] Mavroidis, *The Regulation of International Trade,* 41.
[104] Fink, *Sozialistisches Internationales Wirtschaftsrecht,* 197.

An important question that needs to be asked in this context is: How come those socialist countries were allowed to enter the treaty and why did nobody ever impose sanctions when they never were fully compliant? Here, some strategic thoughts need to be considered. For the West, the introduction of socialist states into GATT was not only economically interesting but also politically attractive as it would automatically increase its influence in these countries.[105] Therefore, they probably were willing to give up on some regulatory issues and economic gains to achieve other political goals. Moreover, the economic damages were not huge as the import share for Western countries was constantly way less than 10 per cent.[106] From the perspective of Eastern European countries, the benefits were obvious as this was a chance to increase exports and thereby earn foreign exchange which would in return allow the import of modern Western machinery and consumer goods.[107] Still, because GATT during this period mainly focused on economic incentives without addressing transparency or other issues, political scientists never put much attention to the impact of GATT on Eastern European politics.

The impact of trade agreements in the economic literature

The body on the economic impacts of trade agreements such as GATT on different economies is huge and comprises both theoretical and empirical work.[108,109,110,111] However, there is no academic consensus on whether

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105 Lucia Coppolaro, "East–West Trade, The General Agreement on Tariffs and Trade (GATT), and the Cold War: Poland's Accession To GATT, 1957–1967", in *East–West Trade and the Cold War* (Jyväskylä: Jyväskylä University Printing House, 2005), 77–92.
106 See, for example, *The Databank of the Austrian Central Statistical Office*. Wien: Austrian Central Statistical Office, 1980.
107 Csikós-Nagy, "Die Aussenhandelspolitische Bedeutung Der Ungarischen Wirtschaftsreform", 221 ff.
108 Kyle Bagwell and Robert Staiger, "An Economic Theory Of GATT", *American Economic Review* 89, no. 1 (1999): 215–248, doi:10.1257/aer.89.1.215.
109 Robert Staiger and Guido Tabellini, "Do Gatt Rules Help Governments Make Domestic Commitments?", *Economics and Politics* 11, no. 2 (1999): 109–144, doi:10.1111/1468-0343.00055.
110 Pao-Li Chang and Myoung-Jae Lee, "The WTO Trade Effect", *Journal Of International Economics* 85, no. 1 (2011): 53–71, doi:10.1016/j.jinteco.2011.05.011.
111 Mario Larch et al., "On the Effects Of GATT/WTO Membership on Trade: They are Positive and Large After All", *World Trade Organization – Staff Working Paper*, 2019.

countries that entered these agreements traded more. From a theoretical standpoint, naturally, it is expected that volumes rise when tariffs fall.[112] The reduction of other non-tariff barriers should achieve similar results, whereas increased transparency can be expected to raise the ability to implement different policies.[113] But multilateral trade agreements only work if all sides commit to these rules.[114] Otherwise, those who do not act can reap the benefits whilst at the same time support local industries that compete with imports.[115] The empirical evidence on the effect of trade deals is rather inconclusive. Instead of the impact of GATT, modern economic papers focus more on its successor, the WTO. Larch et al. (2019) estimate that GATT/WTO led to a 171 per cent increase in trade between member states and that overall trade increased by 72 per cent compared to domestic sales.[116] However, these numbers sometimes diverge extremely. Chang and Lee (2011) estimate that the impact of WTO lies between 74 and 277 per cent, depending on the type of specification. Even more, some papers cannot find any impact at all.[117] Roy (2011) and Rose (2004) cannot reject the hypothesis that the impact of WTO membership on trade is significantly different from zero.[118,119] Finally, a more nuanced answer to the question has been given by Subramanian and Wei (2007).[120] They agree that there are positive effects of WTO membership on trade but that the benefits were unevenly distributed in favour of developed countries that were able to increase trade by 65 per cent, whereas the trade volume of developing countries increased by only 32 per cent.

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[112] Bagwell and Staiger, "An Economic Theory of GATT", 216.
[113] *Looking Beyond Tariffs* (Paris: Organisation for Economic Co-operation and Development, 2005), 13.
[114] Staiger and Tabellini, "Do Gatt Rules Help Governments Make Domestic Commitments?", 113.
[115] Bagwell and Staiger, "An Economic Theory of GATT", 215-216.
[116] Larch et al., "On the Effects of GATT/WTO Membership on Trade”. Note: The authors use the terms GATT and WTO interchangeably.
[117] Chang and Lee, "The WTO Trade Effect".
[118] Jayjit Roy, "Is the WTO Mystery Really Solved?", *Economics Letters* 113, no. 2 (2011): 127–130, doi:10.1016/j.econlet.2011.06.010.
[119] Andrew Rose, "Do We Really Know that the WTO Increases Trade?", *American Economic Review* 94, no. 1 (2004): 98–114, doi:10.1257/000282804322970724.
[120] Subramanian and Wei, "The WTO Promotes Trade, Strongly but Unevenly”, 151–175.

An interesting alternative in the trade literature on the impact of trade agreements has occurred in light of the debate on the impact of Brexit. Recent research by Felbermayr et al. (2018), Mayer et al. (2019), or Bloom et al. (2025) shows that trade agreements do have a large and significant impact on trade shares and the welfare of a country. [121,122,123] Specifically, Mayer et al. (2019) calculate that the EU single market more than doubled the amount of trade in goods and increased the trade in services by 58 per cent.[124] The welfare gains for the average EU country are estimated to be 4.4 per cent, despite significant local differences. These papers are particularly interesting as they use a similar, albeit more complex, approach which is based on Armington (1969).[125] Extensions by Anderson and van Wincoop (2003) allow both papers to extend the approach to a more realistic multi-sector model whilst still keeping the relative simplicity of the original idea.[126]

To the best of my knowledge, there are no papers that explicitly discuss the impacts of trade agreements on Socialist states. This is unsurprising for several reasons: First, East–East trade worked under a completely different framework which makes an assessment using standard approaches very difficult. Second, classic macro-trade models need a range of different statistics.[127] But as accounting practices were completely different and the availability as well as the quality of data was (and still is) a serious concern for Socialist countries, general equilibrium models are not promising.[128]

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[121] Mayer, Vicard and Zignago, "The Cost of Non-Europe, Revisited", 145–199.
[122] Felbermayr, Gröschl and Heiland, "Undoing Europe in a New Quantitative Trade Model".
[123] Bloom et al., “The Economic Impact of Brexit”.
[124] Mayer, Vicard and Zignago, "The Cost of Non-Europe, Revisited", 149.
[125] Paul Armington, "A Theory of Demand for Products Distinguished by Place of Production", *Staff Papers – International Monetary Fund* 16, no. 1 (1969): 159–178, doi:10.2307/3866403.
[126] James Anderson and Eric van Wincoop, "Trade Costs", *Journal of Economic Literature* 42, no. 3 (2004): 691–751, doi:10.1257/0022051042177649.
[127] Costinot and Rodríguez-Clare, "Trade Theory With Numbers: Quantifying the Consequences of Globalization", 198–199.
[128] Matejka, "The Foreign Trade System", 283.

During the Cold War, there have been several attempts to give the foreign trade of centrally planned economies a theoretical foundation.[129] However, empirical analyses hardly exist. The most complete approach in this regard has been created by Gapinski et al. (1989) who tried to model a wide range of aspects of the Yugoslav economy, including the foreign sector, using a range of econometric tools.[130] Still, they neither consider trade agreements such as GATT nor do they try to evaluate the gains from trade.

Data and Methodology

Data

The data for this dissertation has been mainly drawn from either the statistical yearbook or specific trade yearbooks of the four countries between 1960 and 1980.[131,132,133,134] Among a wide range of statistics on demographics, geography, politics and the economy, they also include the size of exports to the most important trading partners. As trading partners changed over time, several countries were added or removed to the list during the observation period. Values for a country get dropped when they are missing. It is realistic to assume that these values were very close to zero because the lists included the largest trade partners from all continents and the smallest values in a year were frequently very close or equal to zero. Following standard practice in the trade literature, one gets added to all export values before log transformation to handle near-zero trade flows.

129 See, for example, Jozef van Brabant, *Socialist Economic Integration: Aspects of Contemporary Economic Problems in Eastern Europe* (New York: Cambridge University Press, 1980).
130 Gapinski, Škegro and Zuehlke, *Modeling the Economic Performance of Yugoslavia.*
131 *Magyar Statisztikai Évkönyv = Statistical Yearbook of Hungary* (Budapest: Központi Statisztikai Hivatal, multiple years).
132 *Rocznik Statystyczny = Statistical Yearbook*, (Warsaw: Główny Urząd Statystyczny, multiple years).
133 *Anuarul Statistic Al României = Romanian Statistical Yearbook*, (Bucharest: Comisa Nationala Pentru Statistica, multiple years).
134 *Statistički Godišnjak Jugoslavije= Statistical Yearbook of Yugoslavia* (Belgrade: Savezni zavod za statistiku, multiple years).

Unfortunately, it is not possible to identify exactly the type of goods that were exported to a certain country, because this data usually remained undisclosed. The exception is Yugoslavia, which breaks the data into such small classification units that a meaningful analysis would go beyond the scope of this project. As an alternative robustness check, I use data on overall exports for three countries – Hungary, Yugoslavia and Romania – which in the case of the former two are categorised according to the Standard International Trade Classification (SITC), a trade classification system introduced by the United Nations, whereas Romania uses an alternative approach.

Naturally, the main question with regards to data from Eastern Europe is if the given numbers are trustworthy. Manipulations were frequent and could occur for a couple of reasons. First, accounting practices were very different. Most extremely, the Romanian statistical office used a range of indices to show the growth of the economy but there is no data on the GDP in the 1960s and 1970s, thereby making an assessment very difficult. Second, Socialist politicians were eager to present their countries as improving and innovating even though they understood that this was not the case because they were aware that their legitimacy depended on constantly increasing living standards.[135] Therefore, governments were keen to manipulate numbers that were related to growth.[136] Third, mere incompetence regarding data-collection and -analysis led to frequent mistakes. To give an example, Lampland (2010) reports that Hungary lacked a competent class of accountants that was able to generate useful data on agricultural output in Hungary in the 1950s.[137]

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[135] Gianfranco Poggi, *The State: Its Nature, Development and Prospects* (Cambridge: Polity Press, 1990), 168.
[136] Zbigniew Fallenbuchl, "Poland: The Anatomy of Stagnation", in *Pressures for Reform in the East European Economies: Study Papers, Volume 2* (Washington: Joint Economic Committee, Congress of the United States, 1989), 102–136.
[137] Martha Lampland, "False Numbers as Formalizing Practices", *Social Studies of Science* 40, no. 3 (2010): 392, doi:10.1177/0306312709359963.

Fortunately, it is unlikely that these potential error sources generated an upward bias of the trade shares. Accounting problems are not a huge issue because each country reported the size of its imports and exports in the value of its home currency. Moreover, data on consumption shares, which are needed to calculate welfare gains, can be extrapolated either directly from the statistical yearbooks or, in the case of Romania, from secondary sources.[138] Regarding the second potential source of concern, it should be noted that the Soviet leadership felt exploited by its Eastern European allies which used Soviet resources to generate Western currency.[139] Because Eastern European countries were afraid of potential consequences, they had no incentives to boast with their trade shares with Western countries but would rather try to keep it as silent as possible.[140] The third issue, a lacking ability to collect numbers, seems relatively unlikely because by 1960 a new class of accountants has been raised.[141] As most of the trade was pursued by large state-owned companies with an accounting department, the statistical offices should have had no struggles any longer to generate these numbers. Of course, a couple of points remain uncertain. First, several sectors such as the armament industry were likely to not disclose their numbers completely for political reasons. Second, East–East trade is very difficult to quantify correctly because the artificial prices in the market might lead to incorrect estimates of the actual sales value. For example, it remains unclear if differences in export prices in the East–East and East–West trade for a specific product class occurred due to different product qualities or if they were just the easiest solution to "clear the accounts" in the East–East trade. Fortunately, as most exports towards the East consisted of lower quality goods which are assumed to be constantly overpriced, this should rather lead to a downward bias.[142] A more micro-based approach that considers

[138] Axenciuc, *Produsul Intern Brut Al Romaniei.*
[139] Stone, *Satellites and Commissars,* 8, 36–37.
[140] Ibid., 94–102. Note: This case study discusses how Hungarian politicians tried to give the impression that they were not too closely linked towards the West.
[141] Lampland, "False Numbers as Formalizing Practices", 390–393.
[142] Stone, *Satellites and Commissars,* 8.

differences in product quality might give new insights into this issue and could be an avenue for further research.

Another challenge is to elaborate an adequate exchange rate for every country. One of the major problems is that most Socialist countries, including Hungary, Poland and Romania, had multiple exchange rates, which could sometimes lead to more than a dozen different conversion rates.[143] Moreover, each country had an individual exchange rate system. Poland in the 1970s, for example, introduced an official exchange rate, two different commercial exchange rates that would be applied depending on the firm and an additional tourist exchange rate. In the Polish case, however, a range of surrogate exchange rates led in fact to a highly complex system with dozens of different rates.[144] Because it is impossible to elaborate on the exchange rate under which the average exporting firms were trading, this essay will use the official exchange rates as reported in van Brabant (1985) and Stojanović (2007) although these numbers can be expected to overestimate the strength of the currency.[145,146] Fortunately, except for Poland, the de- and re-valuations were usually similar in size and direction independent of the exchange rate used so the bias should not change dramatically throughout time.[147] Hungary is another interesting case, as it used de facto two different types of exchange rates to present its export data during the observation period. Until 1975, the statistical office denoted trade volumes in *valuta forint*, which had the sole purpose of accounting. From 1976, they switched to the standard exchange rate. To avoid sudden jumps, the values have been transformed using the growth rate between 1975 and 1976.

[143] Joszef van Brabant, "Exchange Rates in Eastern Europe: Types, Derivation, and Application", *World Bank Staff Working Papers*, no. 778 (1985).
[144] Brigitte Granville, "Convertibility and Exchange Rates in Poland, 1957–1990", *Soviet and Eastern European Foreign Trade* 27, no. 4 (1991): 78–80.
[145] van Brabant, "Exchange Rates in Eastern Europe", 61.
[146] Biljana Stojanovic, "Exchange Rate Regimes of the Dinar 1945–1990: An Assessment of Appropriateness and Efficiency", in *Second Conference of The South-Eastern European Monetary History Network* (Vienna: Oesterreichische Nationalbank, 2007), 198–243.
[147] van Brabant, "Exchange Rates in Eastern Europe", 60–63.

Methodology

The first two parts of this sub-section discuss different aspects of the theory behind the framework of this text. This is followed by a description of the empirical setup. The mathematical derivations behind the concepts can be found in Anderson and van Wincoop (2003) and Arkolakis, Costinot and Rodriguez-Clare (2012).[148,149]

The Armington model of trade and structural gravity

The empirical analysis of this text is based on a trade model which was developed by Armington (1969) and gained popularity over the last 20 years because of its relative simplicity.[150,151] It is based on two assumptions. First, each country produces one good, such as France producing a "French" good whereas Poland produces a "Polish" good. Second, it assumes that all consumers in a country are the same which consequently leads to the same preferences for goods within a country. Of course, consumers' tastes differ in reality but it suffices to assume that the consumer in this model represents the average consumer. The representative consumer tries to maximise utility (C), which can be modelled with a constant elasticity of substitution utility function subject to its budget constraint:

$$C = \sum_i (a_i^{\frac{1}{\sigma}} q_i^{\frac{\sigma-1}{\sigma}})^{\sigma/(\sigma-1)} \quad (1)$$

Here, q shows all goods in the market, a is the individual parameter that determines the preference for each good and σ is the elasticity of substitution. It is important to note that different goods are imperfect substitutes so that it is possible to a certain extent to exchange different goods and achieve the same level of utility but that consumers prefer to have as many different goods as possible. The substitutability of a good depends on the elasticity of substitution. Socialist countries work very differently as they usually try to

148 Anderson and van Wincoop, "Trade Costs", 691–751.
149 Arkolakis, Costinot and Rodríguez-Clare, "New Trade Models, Same Old Gains?", 94–130.
150 Armington, "A Theory of Demand for Products Distinguished by Place of Production", 159–178.
151 See, for example, Anderson and van Wincoop, "Trade Costs", 706–729.

maximise a *social-welfare-function*, which frequently involves a direct intervention into the prices and quantities which are available in the market.[152] However, there are two good reasons to use this framework. First, one of the longer-term goals of these welfare functions was to maximise the standards of living for all citizens so that the *social-welfare-function* should mimic the true preferences of citizens.[153] Second, during this period, pricing policies were liberalised, and markets were opened which should have decreased the level of distortion in these markets.[154]

Using expression (i) and some algebra, which can be found in Anderson and van Wincoop (2003), it is possible to define the price index P of a country which states the amount of income needed to "buy" one unit of utility.[155] Finally, the demand for goods from country i in country j can be defined as:

$$X_{ij} = a_i(\frac{p_{ij}}{P_j})^{1-\sigma}E_j \quad and \quad P_j^{1-\sigma} = \sum_i a_i p_{ij}^{1-\sigma} \quad (2)$$

Where E_j is the total expenditure of country j and $P_j^{1-\sigma}$ is the price index of the importing country. The market will be in equilibrium when the overall output, $Y_i = Q_i * p_i$, equals the quantity of the sold goods. However, it is important to note that trade is costly. The expression *iceberg trade costs*, τ_{ij}, denotes the number of units of good i need to be shipped to country j for every unit solved. This includes distance as well as tariff- and non-tariff barriers. Combining all these equations, the following expression is reached:

$$Y_i = \sum_j a_i(\frac{p_i \tau_{ij}}{P_j})^{1-\sigma}E_j \quad (3)$$

Finally, to receive the number of exports from country i to country j, (2) and (3) are combined.

$$X_{ij} = (\frac{\tau_{ij}}{\Pi_i P_j})^{1-\sigma}\frac{Y_i Y_j}{Y_W} \quad (4)$$

[152] John Bennett, *The Economic Theory of Central Planning* (Oxford: Basil Blackwell, 1989), 9.
[153] Péter Földvári, Bas van Leeuwen and Dmitry Didenko, "Capital Formation and Economic Growth Under Central Planning and Transition: A Theoretical and Empirical Analysis, Ca. 1920–2008", *Acta Oeconomica* 65, no. 1 (2015): 27–50.
[154] Brus, "1969 to 1975: Normalization and Conflict", 160.
[155] Anderson and van Wincoop, "Trade Costs", 707.

Expression (4) is called the *structural gravity equation* which differs slightly from classic gravity equations but has the advantage of being a result of economic theory which is frequently absent from more standard definitions.[156] Π_i measures how easy it is for an exporter to access the market, whereas P_j measures the importers ease to market access. Despite the slightly more complex structure, the implications of the equation remain similar: Larger countries trade more with each other and lower trade barriers should increase trade.

Exact-hat-algebra

In the past, most estimates of benefits from trade have been based on relatively complex general equilibrium models which would typically include many variables and were relatively restrictive in their assumptions.[157] An alternative is the so-called exact-hat-algebra which is an alternative method to empirically find the size of the gains from trade. Arkolakis, Costinot and Rodriguez-Clare (2012) argue that the change in welfare, in other words, the gains from trade (G_j), can be calculated using a simple formula:

$$G_j = \frac{C_j'}{C_j} = 1 - \lambda_{jj}^{1/\varepsilon} \quad (5)$$

Where C_j is the consumption of country j before the change and C_j' is the consumption of country j after the shock. λ_{jj} is the change in size of the domestic share in consumption after the shock whereas ε equals the trade elasticity.[158] The great advantage of this method is that it allows the calculation of the benefits from trade with the use of just two variables which are both measurable. Moreover, it allows for several adaptions such as the inclusion of multiple sectors like Krugman (1980) or Melitz (2003).[159,160]

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[156] Ibid., 692.
[157] Costinot and Rodríguez-Clare, "Trade Theory with Numbers: Quantifying the Consequences of Globalization", 198.
[158] Arkolakis, Costinot and Rodríguez-Clare, "New Trade Models, Same Old Gains?", 98–99.
[159] Paul Krugman, "Scale Economies, Product Differentiation, and the Pattern of Trade", *American Economic Review* 70, no. 5 (1980): 950–959.
[160] Marc Melitz, "The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity", *Econometrica* 71, no. 6 (2003): 1695–1725, doi:10.1111/1468-0262.00467.

Bringing the theory into practice

As a first step, to estimate empirically the impact of the GATT treaty, the following OLS regression framework, which is similar to Mayer et al. (2019), is set up:

$$lnX_{ijt} = \alpha_{ij} + \beta_j * Other_{ijt} + \gamma * GATT_{ijt} + u_{ijt} \quad (6)$$

lnX_{ijt}, the outcome variable, is the log value of exports in domestic currency plus one from one of the four countries of interest to another country in a given year, thereby resembling the left-hand side of the structural gravity equation. Taking logs allows the creation of a linear regression model. α_{ij} all time-invariant bilateral characteristics of each country pair. The variable β adds a couple of additional controls, which includes the exporter's log GDP per capita, an indicator for whether the importer was a COMECON member, and an indicator for IMF membership of the exporting country. This should ideally capture different components of trade costs that are caused by political or other differences. The most interesting coefficient is $\delta * GATT_{ijt}$ which is a dummy variable that equals one if both exporter and importer are members of GATT in year t and remains zero otherwise. In the structural gravity model, this could be considered as capturing the part of $\varepsilon * \ln \tau_j$ that is caused by GATT.

The general idea of introducing fixed effects for exporters and importers is relatively straightforward. One of the main problems for empirical trade models is the range of underlying factors such as distance between countries that might influence bilateral trade. To solve this, the fixed effects aim to account for how much these countries are trading in general so that the remaining changes can be attributed to GATT.[161] Crucially, this method only works if countries' decisions in the years just before GATT are not influenced by the anticipated signing of this treaty. Historical evidence supports such a view as Eastern European countries were trading with Western countries

[161] Mayer, Vicard and Zignago, "The Cost of Non-Europe, Revisited", 154–155.

using a quota system and only a limited number of changes were pursued in advance.[162]

The framework has been mainly borrowed from Mayer et al. (2019) who use it to discuss the impact of the EU Single Market on EU economies. However, this analysis differs in two important points. First, Mayer et al. (2019) can track the trade for different types of goods.[163] Unfortunately, as mentioned earlier, the data from the statistical yearbooks do not allow for this type of analysis.

In the next step, it is important to remember that the change in trade is a result of the change in the trade costs and the trade elasticity of the exporter. The simplest approach is to apply the following formula:

$$\Delta\tau * \varepsilon = change\ in\ trade\ relative\ to\ no\ GATT \quad (7)$$

Because the coefficient δ in (7) measures the change in trade and it is possible to estimate the change in trade caused by GATT, the trade elasticity can be calculated. Of course, trade elasticities should be taken with a lot of caution as price distortions would affect the incentives to trade. Considering, however, that most of these countries liberalised their pricing policies significantly and were seeking inflows of hard currency from the West, it is likely that they: (i) had some Western characteristics; and (ii) started to move away from import-substitution to export-promotion policies.[164]

Despite the mathematical simplicity, there are two reasons why finding the trade elasticity is, in practice, one of the most challenging tasks. First, Socialist countries do not have a single trade elasticity. As the East–East trade was a quota-based system where countries could exchange goods freely up to a certain limit, it could be argued that trade was infinitely inelastic beyond the quota. Also, the artificial pricing policies that were required to

[162] Fink, *Sozialistisches Internationales Wirtschaftsrecht,* 202.
[163] Mayer, Vicard and Zignago, "The Cost of Non-Europe, Revisited", 154.
[164] Flaherty, "Economic Reform and Foreign Trade in Yugoslavia", 106.

settle accounts make trade elasticities difficult to define. Keeping this conceptual issue aside, there is a second, more practical, problem: There is only very fragmented data on average tariffs, in particular, for countries that were not one of the MFNs. Instead, an alternative approach will be pursued. The US Department of Commerce calculated in 1971 the average tariffs for Romania and Hungary as well as for all MFNs.[165] I will apply these numbers to the trade shock, thereby elaborating the specific trade elasticity for Romania and Hungary and use these numbers for further calculations. This method assumes that the change in import tariffs was similar throughout all GATT members. According to Bown and Irwin (2015), EEC countries had lower import tariffs than the United States but the tariff reductions in every trade round would be relatively similar so that the difference would remain roughly the same throughout the period.[166] Therefore, this assumption might hold to a certain extent. Alternatively, I will also calculate the numbers considering only the change in exports towards the United States. As an additional check, I will also use the recommended trade elasticities by Yilmazkuday (2019) for further calculations.[167]

The received estimate for the trade elasticity allows the estimation of the welfare gains from trade for the four countries using formula (5) by Arkolakis, Costinot and Rodriguez-Clare (2012). From a technical perspective, the counterfactual assumed is the scenario that countries would not have entered GATT but instead remained in the earlier state. Instead of using two subsequent years, it is more appropriate to take the last year before and the first year after signing the treaty because all four countries were entering GATT during a calendar year. Mayer et al. (2019) use a more sophisticated three-sector model including goods as well as tradable and non-tradable

[165] Francis Gabor, "The Trade Act Of 1974—Title IV: Considerations Involved in Granting Most-Favored-Nation Status to the Nonmarket Economy Countries", *The International Lawyer* 11, no. 3 (1977): 523.
[166] Chad Bown and Douglas Irwin, "The GATT's Starting Point : Tariff Levels Circa 1947", *World Bank – Policy Research Working Paper*, no. 7649 (2016).
[167] Hakan Yilmazkuday, "Estimating the Trade Elasticity Over Time", *Economics Letters* 183 (2019), doi:10.1016/j.econlet.2019.108579.

services. [168] They also specify their production function and allow for intermediate inputs. Due to a lack of data, this analysis is restricted to the finished goods sector only. Therefore, the results can be considered as a lower boundary for the welfare gains through this channel. The great advantage of this method is that the two variables needed – the domestic share of consumption and the trade elasticity – can be elaborated either directly from the statistical yearbooks or by using secondary sources.[169]

Results

Summary statistics

The data set consists of 5,784 observations. The number of observations fluctuates over time and usually depends on the number of African and Asian countries included. Generally speaking, the number of entries per year tends to increase. The largest trade partner is the Soviet Union whereas the largest Western trading partners were the Federal Republic of Germany (FRG) and Italy. Some countries had comparatively strong trade links with their neighbours, such as Hungary or Yugoslavia with Austria. Moreover, most countries had relevant export shares with traditional oil exporters such as Iraq or Libya which was a way to counteract a persistent trade deficit with these countries that arose due to oil imports. Also, it is possible to observe political changes: Several developing countries like Afghanistan or Angola increasingly import goods from Eastern Europe after Socialist or Communist movements took power.

Step 1: Estimating the impact of GATT on exports

The results indicate that mutual GATT membership generated substantial trade creation effects during the period under study. The baseline specification in Column 1, which includes home-foreign fixed effects, reveals that bilateral GATT membership increased trade flows by approximately 49

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[168] Mayer, Vicard and Zignago, "The Cost of Non-Europe, Revisited", 173–178.
[169] Axenciuc, *Produsul Intern Brut Al României*.

per cent. This estimate remains remarkably stable across most specifications (Columns 1, 3, and 4), ranging between 49 and 55 per cent. Column 4, the specification with the highest explanatory power according to the R^2, indicates a 55 per cent increase in bilateral trade from mutual GATT membership, even after controlling for economic development, socialist trade bloc participation, and IMF membership. The robustness of the GATT coefficient to these additional controls suggests that the trade-enhancing effects operated through lower tariff or non-tariff trade barriers rather than simply reflecting income convergence or institutional correlates of GATT accession.

The critical role of controls in trade becomes particularly striking when examining Column 2, which drops GDP per capita. Here, the GATT coefficient inflates dramatically to 2.37, implying an implausible 972 per cent increase in trade, while the model fit deteriorates sharply. This severe upward bias demonstrates that the impacts of GATT membership also depended strongly on economic fundamentals. Such extreme fluctuations after minor changes in specification are not uncommon for this methodology, as can be seen in Mayer et al.[170] Moreover, it follows the standard interpretation in gravity models that more developed economies tend to trade more.

The COMECON coefficient remains positive and significant across specifications but declines substantially once we introduce GDP per capita and IMF controls, which shows that trade between these countries was further enhanced by the unique trading mechanism mentioned earlier. The negative coefficient on the IMF Membership of the exporter can be explained relatively simply by the fact that entrance to the IMF coincided with the rise of severe austerity packages in Eastern Europe.

[170] Mayer, Vicard and Zignago, "The Cost of Non-Europe, Revisited", 161. Note: The authors find that the impact of a common currency is particularly affected by the structure, but the results do indicate similar issues for Regional Trade Agreements, too.

Table 1: OLS estimates for regression (6).

	1)	2)	3)	4)
InterGATT	0.3965***	2.3722***	0.3972***	0.4391***
	(0.0573)	(0.0579)	(0.0572)	(0.0532)
GDP per capita	4.4565***		4.3708***	5.4651***
	(0.0750)		(0.0761)	(0.0802)
COMECON		1.9047***	0.6917***	0.5582***
		(0.1419)	(0.1139)	(0.1061)
IMF Home				-2.3197***
				(0.0798)
Observations	5784	5784	5784	5784
R2	0.545	0.274	0.549	0.609
Exp(GATT) - 1	0.4866	9.721	0.4877	0.5513

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Steps 2 and 3: Calculating trade elasticities and estimating welfare gains

Table 2 presents the outcomes for the estimated trade elasticities. According to these estimates, the trade elasticities are somewhere between 1.25 and 2.54, depending on the calculation method. A few things are worth noting. First, the given trade elasticities are relatively low when comparing them to the suggestion by Yilmazkuday (2019) who estimates that, as a rule of thumb, trade elasticities are about one after one quarter, five after one year and seven after four years.[171] On the other hand, the results are relatively similar to the long-run estimates for industrial goods by Gallaway et al. (2003).[172] In a very simplified way, a low trade elasticity could suggest that Socialist countries react less to changes in trade costs than Capitalist countries. This would not be surprising given that Socialist countries are generally less flexible because they were constrained in many decisions by their planning policies. Second, the estimations differ far less for Hungary than for Romania, which might indicate that the tariff regime in the United States was more similar to European countries for Hungarian than for Romanian goods. An alternative explanation can be taken from Berend (2009).[173] One important

[171] Hakan Yilmazkuday, "Estimating the Trade Elasticity Over Time".
[172] Michael Gallaway, Christine McDaniel and Sandra Rivera, "Short-Run and Long-Run Industry-Level Estimates of U.S. Armington Elasticities", *The North American Journal of Economics and Finance* 14, no. 1 (2003): 57–65, doi:10.1016/s1062-9408(02)00101-8.
[173] Berend, *From the Soviet Bloc to the European Union*, 28–33.

hurdle for trade with Western countries was that the Coordinating Committee for Multilateral Export Controls (CoCom) and other policies led by the United States banned the trade with a range of goods, in particular dual-use goods. However, these lists were changing regularly, depending on the current diplomatic situation. Hence, it is possible that the lifting of some bans gave Romanian exports to the United States an additional boost. To allow for both explanations, further calculations will include the use of both trade elasticity estimates.

Table 2: Trade elasticity estimates for Hungary and Poland, calculated following from the coefficient in Column 4) or using the change in exports to the US.

	$\Delta\tau$ = InterGATT, Column 4)	$\Delta\tau$ = Change in US exports
Hungary	0.7050 (1)	1.3227 (2)
Romania	0.7619 (3)	2.7396 (4)

Table 3 shows the estimated welfare gains for the given countries. Columns 1 to 4 represent the four estimated trade elasticities, whilst Columns 5 to 7 show the outcome for the recommended trade elasticities by Yilmazkuday (2019). Whereas the welfare gains for Poland seem to be very close to zero independent of the trade elasticity, it is possible to report small but sizeable welfare gains for Hungary, Romania and Yugoslavia. According to columns 1 to 4, the expected welfare gains lie in the range between 0.51 and 1.06 per cent for Hungary and 0.46 and 0.94 for Yugoslavia respectively. Romania's welfare gains are significantly smaller, with the expected gains being estimated to be between 0.14 and 0.30 per cent. As expected, given that the trade elasticity is in the denominator of the exponent, lower trade elasticities are identified with higher welfare gains and vice versa. Therefore, the comparatively large "control elasticities" in Columns 6 and 7 lead to significantly smaller welfare gains. However, as the recommended trade elasticities are geared towards free-market economies, the main focus will be on Columns 1 to 4.

Table 3: The estimated welfare gains from GATT

	1)	2)	3)	4)	5)	6)	7)
Hungary	3.1788%	1.7072%	2.9453%	0.8279%	2.2518%	0.4545%	0.3248%
Poland	-0.0315%	-0.0168%	-0.0292%	-0.0081%	-0.0222%	-0.0044%	-0.0032%
Romania	0.5187%	0.2768%	0.4801%	0.1338%	0.3660%	0.0733%	0.0524%
Yugoslavia	0.5406%	0.2885%	0.5004%	0.1394%	0.3815%	0.0764%	0.0546%

Note: Columns 1) to 4) follow from Table 2, whereas columns 5) to 7) are standard trade elasticties of 1, 5 and 7, respectively.

Discussion

Several points are worth noting from the results. First, it is interesting to compare the results from Table 1 with the earlier-mentioned trade literature. The results in columns 1, 3, and 4 suggest that the GATT treaty is associated with a 48 to 56 per cent increase in exports, which in absolute numbers is not very large given the relatively high degree of autarchy – apart from Yugoslavia, import shares were below 11 per cent of total consumption – but the growth is remarkable. As expected, the positive results indicate that multilateral trade deals such as GATT have a positive impact on trade volumes. Moreover, the concern by Subramanian and Wei (2007) that developing economies do not enjoy large gains from free trade with developed countries does not seem to hold for Eastern European nations under Socialism.[174] Although they were more developed than other areas in Asia and Africa, the GDP data from Figure 1 indicate that these countries were significantly poorer than Western European countries. Even the Soviet Union had a higher GDP per capita than its Warsaw Pact allies.[175] Combined with the estimated welfare gains, this might indicate that multilateral trade deals can be favourable to the economic development of a country.

[174] Subramanian and Wei, "The WTO Promotes Trade, Strongly but Unevenly", 151.
[175] Bolt and van Zanden, "Maddison Style Estimates of The Evolution of the World Economy".

Still, the effects are significantly smaller than the 171 per cent increase estimated by Larch et al. (2019).[176] Several reasons might explain the sizeable difference. Eastern Europe was hardly integrated with other GATT members at that time.[177] Within Eastern Europe, governments were very keen to keep their countries self-sufficient, thereby making large-scale cooperation with other countries very unlikely.[178] Moreover, it is unlikely that the Soviet Union would have approved that a member of the Warsaw Pact, which also included Hungary, Poland and Romania, would create a close relationship with the West.[179] Further, Eastern European countries struggled to import Western goods because they lacked the much-needed Western currency.[180] On the other hand, Western European countries were sceptical towards their counterparts in the East, too. Their main fear was that technology transfer could foster Eastern European military capacity.[181] Strategic concerns were again apparent when it came to Eastern European products, which were, as mentioned earlier, sometimes banned outright.[182] Even though trade embargoes did not exist throughout the period, the relative disadvantage should not be ignored. Another issue is that this analysis ignores changes for specific industries. Most importantly, Western European countries had numerous protective measures to protect their agricultural sector.[183] This was a problem for countries like Romania, which had a substantial share of agricultural products in its exports.[184] As with the issue of lower quality goods being sent to COMECON countries, a solution to this problem could be to track the type of goods exported into each country and introduce exporter–good fixed effects that would account for the impact

[176] Larch et al., "On the Effects of GATT/WTO Membership on Trade".
[177] Matejka, "The Foreign Trade System", 265.
[178] Stone, *Satellites and Commissars,* 5–9.
[179] Ibid.*,* 112.
[180] Vonyó, "War and Socialism", 267.
[181] Ellen Frost and Angela Stent, "NATO's Troubles with East–West Trade", *International Security* 8, no. 1 (1983): 180, doi:10.2307/2538491.
[182] Berend, *From the Soviet Bloc to the European Union*, 29.
[183] Antonio Piccinini and Margaret Loseby, *Agricultural Policies in Europe and the USA* (London: Palgrave, 2001).
[184] *Romanian Statistical Yearbook*, multiple years.

of sector-specific barriers. Given these limitations, the results could be even seen as relatively large.

One of the remaining questions is trustworthiness of the results. From a conceptual standpoint, it is very clear that Socialist states are not free-market economies in which firms adapt swiftly to changing circumstances, especially as pricing works very differently. Special pricing boards would either determine prices outright or create price floors and ceilings for every good that is sold in this country.[185] These prices would then remain stable until the next revision, which would normally take place after several years. Therefore, strictly speaking, the gravity equation should not hold. However, this does not mean that the results are of little use. Prices of Eastern European exports were essentially determined by market forces as these goods were not unique high-technology products and were substitutable.[186] Of course, state interventions into businesses and subsidies for exporting firms were crucial to the production process. This is not necessarily a purely Socialist phenomenon, but a common method to foster industrialisation that can be seen in many developing countries around the world.[187] Additionally, the decisions of these pricing committees were, even with some delays, driven by production costs and demand, thereby mimicking some aspects of a free market.[188] This was further enhanced by local practices where actual prices, sometimes unintentionally, would not fully resemble the centrally determined prices but were influenced by production and input costs.[189] Finally, economic realities forced Socialist countries to assimilate their prices to world standards and reduce the degree of their interventions. Probably the best example that central planning and market forces do not have to

[185] Morris Bornstein, "The Administration of the Soviet Price System", *Soviet Studies* 30, no. 4 (1978): 466–490, doi:10.1080/09668137808411206. Note: Bornstein (1978) describes the pricing system in the Soviet Union, but the practices have been relatively similar, although less restrictive, in other Eastern European countries.
[186] Turnock, *The Economy of East Central Europe, 1815–1989* (London: Routledge, 2006), 314–315.
[187] Ha-Joon Chang, "Industrial Policy: Can we go Beyond an Unproductive Confrontation?", in *Annual World Bank Conference on Development Economics* (Seoul, 2009), 3–4.
[188] Bornstein, "The Administration of The Soviet Price System", 467.
[189] Ibid., 482–485.

necessarily exclude each other is the oil crisis, when prices for commodity imports started to converge to prices on the free market, which, however, were never fully reached.[190] Even though the concerns are valid that these results might not show the entire story, they do indicate an important aspect.

More problematic, on the other hand, are the estimates regarding trade elasticities. In particular, two questions on its validity may arise. First, is the trade with the United States representative for all other Western countries? The answer is likely to be positive. Foreign trade was and still is a highly political undertaking, and the United States would frequently pressure its allies in Western Europe to follow suit in its trade decisions.[191,192] Hence, if the United States were willing to open up trade with a particular country, other European countries were likely to act similarly. Moreover, the United States were one of the largest trading partners from the West for all those countries, which makes fluctuations due to a small number of individual deliveries less likely. The second question is whether the results for Hungary and Romania can be applied to Poland and Yugoslavia. In the case of Poland, it does not matter because the gains from trade are virtually zero, independent of the assumed trade elasticities. The answer for Yugoslavia might be a bit more difficult. On the one hand, Yugoslavia's economy had similar characteristics compared to Hungary, including a larger secondary sector and a generally higher degree of development.[193,194] On the other hand, Yugoslavia and Romania shared a relatively high degree of foreign debt, which raised the importance of rising exports to repay loans.[195] Unlike Romania, Yugoslavia did not plan to fully repay its foreign debt but to reschedule it, thereby avoiding the catastrophic effects that austerity policies

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[190] Stone, *Satellites and Commissars,* 85–87.
[191] Turnock, *The Economy of East Central Europe, 1815–1989* (London: Routledge, 2006), 315–316.
[192] Francine McKenzie, "GATT and the Cold War: Accession Debates, Institutional Development, and the Western Alliance, 1947–1959", *Journal of Cold War Studies* 10, no. 3 (2008): 92–93, doi:10.1162/jcws.2008.10.3.78.
[193] Axenciuc, *Produsul Intern Brut Al Românei.*
[194] Bolt and van Zanden, "Maddison Style Estimates of the Evolution of the World Economy".
[195] David Dyker, *Yugoslavia: Socialism, Development and Debt* (London: Routledge, 1990).

brought to Romania.[196,197] Therefore, the results using Hungarian trade elasticities might be more appropriate, which implies larger benefits from GATT.

The most interesting point about the trade elasticities, however, is that they are relatively low compared to calculations for Western Europe. Three reasons might explain where this difference comes from. First, as mentioned earlier, decision-making within firms is extremely inflexible in centrally planned countries.[198] This also includes decisions on the quantity that needs to be produced and, consequently, on the quantity that can be traded.[199] Hence, there was not much space to suddenly change the quantity produced until the next plan. Second, managers within these firms had relatively little interest in increasing their output for foreign trade for multiple reasons. Usually, the output targets were often impossible to achieve, thereby creating a general tendency to misreport.[200] Even when ignoring this issue, the rewards for the firm in the form of foreign exchange were regularly limited. Multiple exchange rates and retainment policies would lead to the situation that firms could only reinvest a share of their revenues.[201] Even though these rules were relaxed over time, incentives to export remained distorted.[202] However, it was often not true that managers were not incentivised to fulfil their plans, as they were receiving significant bonuses for achieving goals.[203] The third potential explanation for the low trade elasticities is foreign politics. One of the most important tools of the Cold War was economic

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[196] Milan Cvikl and Momir Mrak, *Former Yugoslavia's Debt Apportionment*, Internal Discussion Paper (The World Bank, 1996).
[197] Berend, *From the Soviet Bloc to the European Union*, 33.
[198] Bennett, *The Economic Theory of Central Planning,* 66–68.
[199] Ibid.
[200] Mark Harrison, "Forging Success: Soviet Managers and Accounting Fraud, 1943–1962", *Journal Of Comparative Economics* 39, no. 1 (2011): 43–64, doi:10.1016/j.jce.2010.12.002. Note: Harrison (2011) shows this empirically for the Soviet Union.
[201] Wlodzimierz Brus, "1957 to 1965: In Search of Balanced Development", in *The Economic History of Eastern Europe 1919–1975 – Volume III: Institutional Change Within a Planned Economy* (Oxford: Clarendon Press, 1986), 112.
[202] Matejka, "The Foreign Trade System", 262.
[203] Joseph Berliner, *Factory and Manager in the USSR* (Cambridge, MA: Harvard University Press, 1957), 30–32.

warfare. Economic sanctions and trade wars were applied by both sides to achieve their strategic goals.[204] On both sides of the Iron Curtain, this meant that the decision with whom to trade and to what extent was based on both economic and political considerations.[205] As the political situation regularly changed, the building of trust – one of the most crucial factors for trade deals – was hardly possible.[206] Instead, both sides were hesitant to cooperate and backdoors, such as the option to withdraw the MFN status, remained prevalent.[207] So, the low estimates might be a result of strategic hesitation. Finally, technical constraints limit the ability to increase exports immediately. When factories are already close to full capacity before signing and five-year plans require specific production targets for the home market, it is virtually impossible to increase exports quickly, even if it were possible to sell more. Production capacities can be increased within a few years, but this option does not exist in the short run. In the long run, increases in production capacities to export did take place. One example of this is the Yugoslav car manufacturer *Zastava* that expanded its production to increase its exports.[208] As was the case with many Eastern European products, the production was highly subsidised which would enable *Zastava* to sell its cars for 3,990 dollars despite a better configuration than the locally sold cars.[209] However, the ambitious plans failed because of low quality standards.[210]

As the calculation of the trade elasticities is based on the short term, the long-run trade elasticity is likely to be significantly larger. However, the counterfactual analysis in step 3 focuses on changes immediately after signing the treaty, so short-run trade elasticities are more appropriate.

[204] Eloranta, Jari and Jari Ojala, "Introduction: East–West Trade and the Cold War as a Research Topic", in *East–West Trade and the Cold War* (Jyväskylä: Jyväskylä University Printing House, 2005), 12–15.
[205] Ellen Frost and Angela Stent, "NATO's Troubles with East–West Trade", 180.
[206] Béla Kádár, "East–West Trade and the New Epoch in the World Economy", *Acta Oeconomica* 29, no. 3 (1982): 334–337.
[207] Fink, *Sozialistisches Internationales Wirtschaftsrecht,* 195–196.
[208] Michael Palairet, "Mismanaging Innovation: The Yugo Car Enterprise (1962–1992)", *Technovation* 13, no. 3 (1993): 117–132, doi:10.1016/0166-4972(93)90035-t.
[209] Ibid., 124–125.
[210] Ibid.

Moreover, a long-run view would become problematic because it would be difficult to distinguish between changes in trade costs, effects of the general liberalisation efforts and improvements in production techniques. Therefore, the low trade elasticities might not be underestimates but are simply a result of the applied methodology.

But what can be said about the welfare gains? Here, it is sensible to compare the results with other case studies. Because of its methodological similarity, Mayer et al.'s (2019) analysis on the impact of the EU single market compared to a standard regional trade agreement is particularly interesting.[211] The estimated welfare gains for every country are considerably larger than the results here, with estimated gains between 4.4 per cent for Romania and over 14 per cent for Hungary.[212] Generally speaking, the reasons for this divergence can be explained in two ways: (i) methodological differences; and (ii) economic differences. From a methodological perspective, Mayer et al. (2019) work with heterogeneous goods, so they can track not only overall trade streams but also classify them according to goods classes.[213] As mentioned earlier, this leads to higher estimates of the impact of trade treaties, so the estimated coefficient will be larger in step 1. However, it is also helpful in step 3 as they can estimate the change in import shares not only on an overall basis but also track changes for specific good types, which should boost the estimates again. Second, the differences between GATT and the EU single market are severe. Whereas the latter is a trade treaty that aims to reduce barriers between states, the former goes far beyond this. It not only involves the eradication of licensing and other methods to reduce competition in home markets but also leads to the harmonisation of production and work standards.[214] Further, it extends beyond goods to services, capital and labour.[215] Therefore, the iceberg trade costs within the

[211] Mayer, Vicard and Zignago, "The Cost of Non-Europe, Revisited", 173–180.
[212] Ibid, 178.
[213] Ibid.
[214] Simon Hix and Bjørn Høyland, *The Political System of the European Union* (London: Palgrave Macmillan, 2011), 216–217.
[215] Hix and Høyland, *The Political System of the European Union,* 216.

single market should reduce to a minimum, thereby increasing the incentive to export. As a result, it would be natural to expect a larger impact on welfare.

Another issue is the increased market integration that has preceded the EU Single Market. Eastern European countries in the 1990s have opened their markets not only for exports but also for Foreign Direct Investment (FDI), and everything that reduced the relatively high costs of FDI was welcome.[216] Car manufacturers, for example, opened factories to assemble their products in several Eastern European countries, sometimes by taking over parts of the old infrastructure.[217] As equation (5) shows, a higher dependence on foreign trade, meaning a smaller domestic share in consumption, leads to larger welfare gains when the import share is larger for an equal rise in trade. Hence, a generally higher degree of integration in the world market further boosts the impact of new treaties. An empirical indication for this pattern can be found in Dhingra et al. (2023), which finds particularly strong gains for Eastern European countries from EU accession.[218]

Still, some patterns can be found in both models. First, small countries gain more from trade than large countries. This occurs because the size of the new potential market is relatively larger for economies with small home markets. Second, even this relatively small sample proves that more open countries benefit more from trade deals. The welfare gains for Yugoslavia and Hungary – the two countries that were economically more liberal and interested in trading with the West – are by far larger than for Romania and Poland. In other words, the impact of a trade treaty depends crucially on the willingness to open the economy towards foreign markets. Third, the link between wealth, as measured by GDP, and welfare gains is less pronounced than someone might expect. Poland did not benefit substantially from GATT

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[216] Kenneth Froot, Jeffrey Sachs and Olivier Blanchard, *The Transition in Eastern Europe* (Chicago: University of Chicago Press, 1994), 17.

[217] Note: Examples for this would be the acquisitions of Dacia by Renault and Zastava by FIAT.

[218] Swati Dhingra, Rebecca Freeman and Hanwei Huang, "The Impact of Non-tariff Barriers on Trade and Welfare", *Economica* 90 (2023): 140–177, doi: 10.1111/ecca.12450.

compared to Yugoslavia and Romania, which had a lower GDP at the time of accession, or Hungary, which was wealthier.[219] Mayer et al. (2019) find a negative correlation between total production and welfare gains, which is, however, substantially weaker than the correlation between trade openness and welfare gains and can be explained by differences in country size.[220] The ten largest profiteers of the single market include Eastern European countries like the Czech Republic or Estonia as well as small and highly developed nations, like Belgium and Luxembourg. Moreover, the results ignore one of the reasons why these four countries were so keen to import goods. This was one of the easiest solutions to receive technology that should increase output. The economic impact of technology import can be expected to be sizeable given that a large part of the imports was machinery. Finally, the lack of foreign currency, which was essential to buy machinery and consumer goods, should not be underestimated. All Socialist countries started to look for different solutions to this problem. Yugoslavia realised that it could "export" its citizens as guest-workers to Western Europe where they could work and regularly send remittances to family and friends.[221,222] Other Eastern European countries did not have this option available due to their isolationist policies.[223] Instead, they tried to export everything they could. Most extremely, the German Democratic Republic (GDR) exported blood donations of its citizens to the FRG.[224] The lack of foreign exchange also had consequences for welfare gains when a trade deal is signed. Because they could not afford Western imports, Eastern European countries were not able to enjoy all the benefits that would have been possible if this were not the

[219] Bolt and van Zanden, "Maddison Style Estimates of the Evolution of the World Economy".
[220] Mayer, Vicard and Zignago, "The Cost of Non-Europe, Revisited", 177.
[221] Dyker, *Yugoslavia: Socialism, Development and Debt,* 95–96.
[222] Ulrich Herbert, *A History of Foreign Labor in Germany, 1880–1990* (Ann Arbor: University of Michigan Press, 1990), 202–203.
[223] György Enyedi and Viktória Szirmai, *Budapest: A Central European Capital* (London: Belhaven Press, 1992).
[224] Rainer Erices, "The East–West Blood Trade: How the German Democratic Republic Obtained Foreign Currency With Blood Products (1983–1990)", *Wiener Medizinische Wochenschrift* 168, no. 15–16 (2018): 384–390, doi:10.1007/s10354-018-0643-1.

case.[225] Hence, given the methodological limitations, institutional differences and lack of foreign currency, the estimated welfare gains might not be large, but they are substantial. Moreover, it might be again sensible to think of these results as lower bounds of the actual impact.

When it comes to the impact of GATT on the demise of the Eastern bloc in the following years, the evidence is rather inconclusive. On the one hand, more trade improved the welfare of those countries and new technology enhanced the potential of local production. On the other hand, increasing import requirements and the lack of competitiveness of their industries led to negative trade balances, which fuelled the spiral of increasing debt and recession.[226] Still, it needs to be clear that GATT made imports significantly cheaper. So, given that these countries wanted Western goods, the treaty should have taken at least some pressure off, especially when considering that Western countries were not particularly committed to punishing Eastern European countries if they did not fulfil all aspects of the treaty.[227] Moreover, the GATT accession did enhance economic reforms. Bićanić (1973) describes how the abolishment of multiple exchange rates in 1961 was mainly motivated by the prospect of entering GATT.[228] Hence, it is important not only to consider GATT itself as a shock to the economy. The impact of the trade treaty incentivised and partially even forced Socialist countries to adapt and pursue economic reforms, which were assumed to be economically beneficial. In this sense, the overall impact of GATT can be seen in a more favourable light. Even though it was not a solution to the trade balance and debt problems of the 1980s, it would be too simple to blame the treaty for them.

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[225] Brus, "1957 to 1965: In Search of Balanced Development", 117.
[226] Jarząbek, "Polish Economic Policy at the Time of Détente", 303–305.
[227] Fink, *Sozialistisches Internationales Wirtschaftsrecht,* 195–196.
[228] Rudolf Bićanić, *Economic Policy in Socialist Yugoslavia* (Cambridge: Cambridge University Press, 1973), 161.

However, there are good reasons to believe that GATT helped the economic development, at least to a limited extent, in the following years. When the privatisation process started, a higher degree of market integration had two benefits. The value of all assets including firms and factories should have been higher given that it was easier to export goods abroad because of lower trade barriers and there was no need to quickly set up a new deal for foreign trade, thereby easing the work for new governments. Also, new investments into these countries should have been more attractive. In addition to that, it was a small step towards integration into the European market. Today, all areas that were included in this accession process are members of the EU single market or the Central European Free Trade Agreement (CEFTA). It might be a bit far-fetched to assume that this was considered in any form during the accession period by any of the parties. Fink (1976) is relatively clear that the goal was to find common ground in both countries, but there is never a mention of a process that can be compared to the events after 1989.[229] However, GATT certainly was helpful as: (i) Eastern European law-makers had gained some important experience in international law-making within a Capitalist framework, something these countries were seriously lacking during the transition period; and (ii) all Eastern European countries had to join the WTO before entering the EU. As the WTO admission process would consume time and resources, it is only sensible to believe that saving a step would allow for greater dedication and speed in other parts of the EU accession talks. Moreover, assuming that GATT had an impact on trade with members of the EU, it did increase the potential gains of accession because of the higher degree of trade integration. In this sense, it might be a bit too much to say that it laid a basis for the EU accession, but it certainly simplified some important issues in economic policy and set some additional incentives.

Also, the results from this analysis indicate the importance of cooperation in foreign trade, even in times of diplomatic distress. GATT is a good example of how trade treaties affect economies well beyond tariffs and other barriers

[229] Fink, *Sozialistisches Internationales Wirtschaftsrecht.*

without enforcing these measures. Yugoslavia's decision to change its exchange rate regime was an internal decision that aimed to cater to the needs of local exporters.[230] It was neither theoretically nor practically compulsory, as the other three countries did not abolish their multiple exchange rates during the accession process.[231] This is an interesting lesson for countries that aim to enter the EU single market or another trade agreement. The impact of an agreement goes beyond the direct and indirect impacts that are required. On the other hand, it might not be necessary to create requirements for every necessary economic reform. Sometimes, the benefits automatically incentivise reforms that assimilate a country to the other parties and it is important to acknowledge that these processes take place in practice.

Conclusion

After the end of World War II, Eastern Europe was in economic crisis. The carnage wiped out significant parts of the population as well as the small industry that existed.[232] In the second half of the 1980s, Eastern Europe was again in economic trouble, which led to the end of the Eastern bloc, but the differences between these two crises could not be more different. Despite all its episodes of inefficiency and failure, Socialist countries did manage to develop and grow considerably until the second half of the 1970s, when the problems of central planning in combination with increasing foreign debt and oil prices made the energy-dependent economies increasingly uncompetitive.[233] One of the contributors to the impressive catch-up growth of these periods was foreign trade, which allowed Eastern European countries to specialise and sell some of their goods abroad. Arguably the largest milestone in this context since the foundation of COMECON was when four Socialist countries joined GATT in the 1960s and 1970s. In this light, it is

[230] Bićanić, *Economic Policy in Socialist Yugoslavia*, 161.
[231] van Brabant, "Exchange Rates in Eastern Europe", 60–63.
[232] Vonyó, "War and Socialism", 268.
[233] Ibid., 269–270.

interesting how little is known about this episode of Cold War history. This study shows that GATT is associated with a considerable impact on the export volume of Hungary, Poland, Romania and Yugoslavia between 1960 and 1980. Further, exact-hat-algebra allowed the calculation of welfare gains of these countries which are small but relevant. Given the nature of this approach, it is likely that the actual effects were even larger than estimated.

There are multiple avenues for further research. First, the inclusion of good-specific details would allow a more complete picture of the overall effect and is expected to increase the estimates so far. Here, the most promising approach would be to take data for Yugoslavia, which is comparable to Western countries in its level of detail and look for changes over time. Second, individual case studies on specific industries could provide an additional view into the implementation process of GATT. Given the peculiarity of policymaking in centrally planned economies, this could provide an insight into the impact of specific policy changes, overcome some of the issues with the empirical assessment of Socialist economies and allow for a better understanding of additional reforms that were pursued because of GATT. Finally, it would be interesting to see if there is also an impact on Western economies when Eastern European countries entered GATT. Although the trade volume was not particularly large in most cases, areas that were geographically close and industrialised, such as Friuli (Italy) or Styria (Austria) could have gained from the slow but steady opening of new markets. This would also be further evidence for the fact that borders were more permeable in the later phase of the Cold War, thereby adding another facet explaining the fall of the Eastern Bloc. After more than 30 years since the end of the Cold War, it might be time to revise some aspects of the relationship between West and East.

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