# The BRICS+ in the Global Political Economy



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<u>Abstract</u>: The coming of a more multipolar world-system is largely driven by the economic and political rise of a set of semiperipheral national societies that are vociferously challenging the hegemony of the United States and its European allies. We discuss the nature of this challenge and present the results of a formal network analysis that examines the changing positions of the BRICS+ member states and the BRICS+ as a bloc in international economic and political matrices since 2010. We find that the import trade connections of BRICS countries with a set of international organizations formed a bridge between the core countries and the countries in the Global South. Using egocentric network import trade values, we also found that China is the only BRICS country that is strongly connected with the core, the other BRICS members and the Global South. Between 2010 (when South Africa entered the BRICS bloc) and 2022 the BRICS bloc became more integrated into the core and the connectedness of BRICS+ members with one another decreased somewhat during this period. Using a full network import trade matrix, we find that the

network structural equivalence of the BRICS+ member states is higher than that of the structural equivalence of both the core and the non-core, but that there are still important differences among the network connection structures of the individual BRICS members. China's connections with both the core and the non-core are greater because it became the world's workshop. We conclude that the rise of the BRICS portends a more multipolar world-system but does not yet pose a huge challenge to capitalism as a systemic logic and does not, as yet, promise much regarding greatly reducing global inequalities or moving toward a global green new deal despite the hopeful enthusiasm of a rather large group of scholars and the desire of a long list of Global South countries to join the bloc.

World-systems can be understood in comparative perspective as systemic interpolity and crosspolity interaction networks. Defined in this way it is possible to compare older and smaller Stone Age multiple-polity networks with more recent larger ones and with the global systemic networks of today. Inter polity interactions have always been important for social change but interpolity hierarchies were minimal in most small world-systems. Interpolity exploitation and domination emerged and became more hierarchical as systemic networks got larger and more complex. Core/periphery hierarchies emerged along with, and linked to, the emergence of class structures within polities. But there were many "times of troubles" in which inequality within and between polities partially collapsed. The waves of decolonization of the European colonial empires and the rise of within-polity democracies and welfare states in the 20<sup>th</sup> century have been important evolutionary developments in the long-run rise of complexity and hierarchy that was produced by the rise of empires.

Studies of the rise and fall of core polities reveal that a cycle that is well-known from the study of empires and modern hegemons also existed in systems in which the largest and most complex polities were paramount chiefdoms (Anderson 1994). And studies of core/periphery hierarchies have shown evidence of a process of uneven and combined development in which upwardly mobile non-core polities have been important agents in the rise of larger polities and in the long-term emergence of trade networks and capitalism. This phenomenon has been called non-core development (Chase-Dunn and Erin 2024). The question we are asking in this paper is about whether the emergent BRICS bloc is another instance of non-core development and what kind of global social changes are likely to be wrought by the BRICS?

#### What is/are the BRICS?

The BRICS bloc was formed in 2006 as an alliance among Brazil, Russia, India and China with South Africa joining in 2010. These are all relatively large semiperipheral countries with a balance of core-like and periphery-like economic and political institutions but they are geographically dispersed and have important structural differences between them. India and China have an on-going and occasionally violent border dispute. Nevertheless, these countries have agreed to work together to advocate a mulitpolar world order that is less under the control of the United States and its allies. They resent the power that came with the status of the U.S. dollar as world money and the ability of the U.S. to weaponize its power in global finance to impose sanctions on countries with whom it disagrees. And they support the original focus of the United Narions charter on support for national sovereignty against the Western-led so-called "rule-based world order" that favors human rights and electoral democracy. The BRICS bloc also voices support for the independence of the Global South, though critics of the behavior of some of the BRICS members point out instances that cast doubt on these claims. Critics also note that the BRICS countries, and especially some of the countries added to the BRICS+ in 2023, are not strong supporters of a transition to a carbon zero world economy that is deemed necessary by climate scientists.

### **The BRICS+ Expansion**

In January of 2024, the BRICS organization invited Iran, Saudi Arabia, Argentina the United Arab Emirates, Egypt, and Ethiopia to join. Brazil had demanded the inclusion of Argentina into BRICs as a precondition to approving the expansion of the bloc, but Argentina will not join the BRICS+ because of the election of a rightist libertarian populist president who wants to peg the Argentine peso to the U.S. dollar. Argentina has formally withdrawn its application to join the BRICS+ bloc. Saudi Arabia said it had joined in January and then its foreign minister said it was still considering the invitation.<sup>1</sup> The expanded 10-member BRICS+ organization contains 46% of the global population, encompasses 34% of the global land surface, and generates 29% of the world's exchange-rate (FX) GDP.

The following countries have either expressed interest in joining BRICS or have already applied for membership: Algeria, Angola, Cameroon, Central African Republic, Congo-DR, Congo, Ghana, Sudan, Tunisia, Uganda, Zimbabwe, Bolivia, Colombia, Cuba, Nicaragua, Peru, Venezuela, Afghanistan, Azerbaijan, Bahrain, Bangladesh, Indonesia, Iraq, Kazakhstan, Kuwait, Laos, Malaysia, Myanmar, Pakistan, Palestine, Saudi Arabia, Sri-Lanka, Syria, Turkey, Thailand, Vietnam, and Belarus.

Patrick Bond (2015,2016,2018,2023) and many other scholars have pointed out that a dozen of the candidate countries of the BRICS+ expansion as well as Russia, India, and China, are heavy fossil-fuel producers that are politically dominated by their fossil fuel industries and have autocratic regime forms. Regarding regime forms, South Africa and Brazil are electoral democracies but see below. Most of these countries are not only going full throttle with fossil fuels, but also with deforestation. Brazil has slown cutting its own forests since the re-election of President Luis Ignacio da Silva but is still deforesting at a rapid rate. Indonesia (a BRICS+ candidate) is the worst deforester in the world. India recently removed protections on about half its forests. Only China has been seriously reforesting, but it imports huge quantities of wood from other countries that are stripping their forests.



## ,The BRICS Dedollarization Campaign and World Money

The original expressed intention of the BRICS was to make changes in the global financial system that would make

it less stacked against them and the Global South. This was the continuation of a critical discourse about "dollar imperialism" that had emerged at the Asian Relations Conference held in New Delhi in March of 1947 (Prashad 2007). Dedollarization refers to the reduction of reliance on the U.S. dollar as a reserve currency, medium of exchange and as a unit of account.

The use of state-based currencies as reserve currencies, media of exchange and units of account has a long history in the evolution of economic institutions and in the Western-centered capitalist world-system. As with financial centrality, the use of a current or former hegemon's currency as world money arises during the period in which the issuing country had a leading position

<sup>&</sup>lt;sup>1</sup> We have not been able to find any official confirmation that Saudia Arabia has formally joined, but other researchers are assuming that it has and so we follow them. The dithering apparently has to do with on-going negotiations with the U.S. over deal in which the Saudi/BRICS tie is being used as a bargaining chip.

in the production and export of consumer and capital goods, and it lasts long after these comparative advantages have declined. The Dutch guilder was still a major reserve currency in the late 18<sup>th</sup> century, and in 2022 the pound sterling issued by the Bank of England was still the fourth most-traded currency in the foreign exchange markets after the U.S. dollar, the Euro, and the Japanese Yen. Economic deglobalization and geopolitical multipolarity are likely to eventually result in the rise of competing reserve currencies, but this may be a long and drawn-out process. The efforts of the BRICS to move in the direction of dedollarization have not had much success so far and the BRICS countries themselves remain dependent on the markets and institutions that rely on the U.S. dollar for savings, international trade and foreign investments.

The unilateral and multilateral use of the financial sanctions, including restricting access to the SWIFT (Society for Worldwide Interbank Financial Telecommunication) messaging network, has troubled the countries that have been subjected to these sanctions and to others that resent this use of global financial institutions. Some observers claim that the geopolitical use of financial sanctions by core countries undermines the trust of investors and bankers in these institutions and in the U.S. dollar as world money (DeZayas 2023).

#### **BRICS+ Shares of Global GDP<sup>2</sup>**

The V-Dem Institute (Varieties of Democracy) was founded in 2014 at the department of political science at the University of Gothenburg to study the qualities of national governments. V-Dem produces an annual Democracy Report and the 2024 report looked at the BRICS regarding recent trends in relative economic growth and regarding V-Dem's democracy index (V-Dem 2024).

Figure 1 compares BRICS+ shares of world GDP with that of the G7 countries<sup>3</sup> and uses both exchange rates (FX -- exchange rate conversion into US dollars) "real" GDP figures and Purchasing Power Parity (PPP) GDP estimates from 1993 to 2023.<sup>4</sup> The BRICS+ and G7 FX GDP shares converged during the period of study with the BRICS+ countries still having a smaller share of world GDP than the G7 countries in 2022, but the PPP trends show that, in terms of purchasing power for the domestic populations, the share of the BRICS+ countries rose above that of the G7 countries since 2013. These figures confirm the claim that the BRICS+ alliance is a rising force in the global political economy. V-Dem says: "The expansion of BRICS+ sends a message about a shifting balance of global power and an emergence of a multipolar world." (2024 p, 29).

<sup>&</sup>lt;sup>2</sup> Thanks to Patrick Manning (2024) for summarizing the 2024 V-Dem Democracy Report in his <u>Contending Voices</u>: blog.

<sup>&</sup>lt;sup>3</sup> The G7 Group of Seven is an intergovernmental political and economic forum of core countries. The current members are Canada, France, Germany, Italy, Japan, the United Kingdom and the United States and the European Union .

<sup>&</sup>lt;sup>4</sup> The PPP adjusted figures are better for comparative the availability of a basket of goods to the population of a country. The FX exchange rate figures are a better reflection of the economic power of a country compared with other countries.

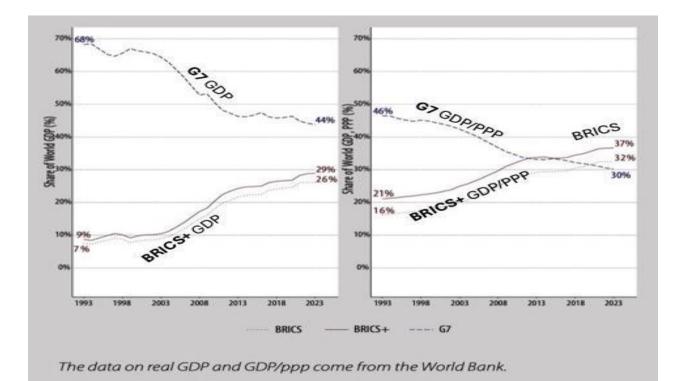


Figure 1. Share of World GDP for BRICS+ vs. G7, 1993–2023 (Source : V-Dem 2024, P. 29.)

Figure 1 shows that the BRICS+'s total share of global FX "real" GDP more than tripled between 1993 and 2023 from 9% up to 29% in 2023 (left panel). And during this same period the G7's share of world real GDP declined from 68% to 44%.

Even before adding new members, the original founding BRICS countries exceeded the G7 group when measured by share of global GDP based on purchasing power parity (Figure 1, right panel). By this measure the BRICS+ countries now account for 37% of global GDP in PPP terms, while the share of G7 countries has decreased to 30%.

#### **BRICS+** and Democracy

The 2024 V-Dem Democracy Report uses the V-Dem coding of regimes to study changes over time in the strength of national democratic institutions. The V-Dem coding sorts types of political behavior and regulation into two categories: *democracy* (mutual consultation and majority rule) and *autocracy* (a small elite makes social decisions regardless of the majority). A panel of experts score regimes into two levels of democracy, two levels of autocracy, and two "grey zones" of uncertainty and they study how regimes have changed since 1970 using this scheme. In the 1970s and 1980s there was a general trend toward greater democracy. But since 2012 V-Dem's codes show a democratic backslide. The average global level of national democracy has returned to levels like those of 1985.

In the context of the backsliding of regimes toward autocracy since the 1980s the V-Dem 2024 report compared the regime scores of the BRICS and BRICS+ groups with the G7 core countries. V-Dem also noted that the BRICS despite that quite different from one another regarding regime form. The member countries have managed to work together with still democratic Brazil and South Africa for many years. They also note that some level of cooperation has continued

despite the on-going Sino-Indian border dispute. Figure 2 shows the V-Dem regime form scores of the G7 countries (left panel) and of the BRICS and BRICS+ countries in 2023 (right panel).

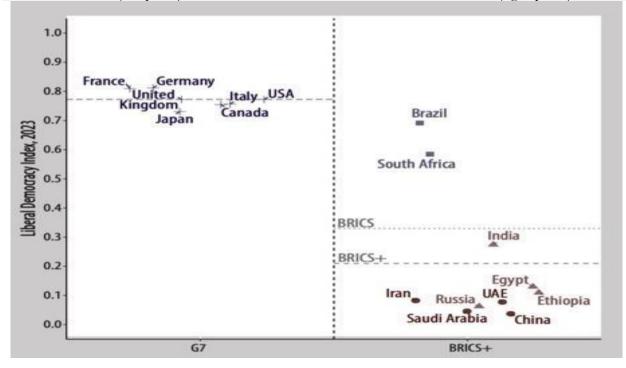


Figure 2. Liberal Democracy Index for BRICS+ vs. G7, 2023 (Source : V-Dem 2024, p. 29)

V-Dem reports that the BRICS bloc:

is now firmly established as a club where nations that respect human rights, democratic freedoms, and the rule of law are in a clear minority. Obviously, civil liberties, democratic norms, and human rights are not among the entry criteria in the BRICS assembly. Three of the five new members – Egypt, Iran, and Saudi Arabia – are some of the worst human rights abusers in the world. The UAE also routinely ranks near the bottom on many measures for human rights, freedom of speech and freedom of the media, while situation in Ethiopia has deteriorated seriously since the outbreak of conflict in the Tigray region. Among the original founding members of BRICS, China and Russia have become increasingly more repressive in recent years. China has tightened control over all aspects of private life and has increased the use of media surveillance and censorship apparatus. Russia has virtually eradicated political opposition and independent media, while political repression is so harsh that it is leaving virtually no corner of the society untouched. Indian authorities have also intensified their crackdowns on journalists, activists, and critics of the regime. BRICS' two remaining democracies - South Africa and Brazil - are now a small minority in the expanded bloc. Additionally, they have problems with democracy of their own. South Africa is now experiencing a democratic decline caused by endemic corruption and violation of human rights ..., while Brazil – despite being a recent Uturn democratizer ... still struggles with the legacy of polarization in the society left by ex-President Jair Bolsonaro. With the expansion, BRICS+ is not only consolidating its status as the voice of the Global South but is also bringing more weight to bear on international politics. Given the blighted autocratic records of

BRICS+ members, the expansion of the bloc now also raises fundamental questions about the future of global democracy (V-DEM 2024:29).

#### Formal Network Studies of the BRICS Member Countries

Formal network studies use interaction matrices to examine the positions of nodes (countries) in a larger network. In an earlier article we utilized egocentric import and export trade data based on lists of the top 20 trading partners of each of the BRICS member countries to examine the position of the BRICS in the international trade matrix (Chase-Dunn and Erin 2024). In this paper we present summarize some of those results, and we present a second study that uses the whole international trade network that contains both direct and indirect links to take another look at the changing positions of the BRICS member countries and the BRICS+ group as a whole between 2010 and 2022.

#### Network Positions of the BRICS Countries in the Structures of Global Governance

Figure 3 shows the results of a social network analysis of the recent positions of countries in the structure of global governance composed of memberships in international organizations.

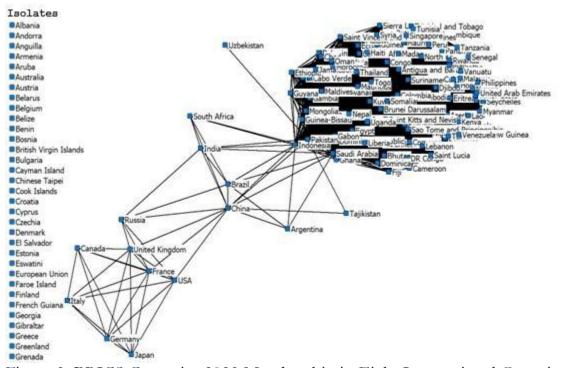


Figure 3. BRICS Countries 2023 Membership in Eight International Organizations The data represent each country's 2023 membership in eight international organizations (IOs). The eight IOs are : the BRICS+ bloc, the United Nations Security Council (UNSC), the Organization for Economic Cooperation and Development (OECD), the G7, the G20, the Shanghai Cooperation Organization (SCO), the Non-Aligned Movement (NAM) and the G77. The lines in Figure 3 represent co-membership in two or more of these global organizations. The list on the left in Figure 3 are 33 of the 93 "isolate" countries that have less than two memberships with other countries in the eight IOs.<sup>5</sup>

<sup>&</sup>lt;sup>5</sup>A country is an isolate if it has less than two ties to other nodes. There are 93 isolates. The list on the left side in Figure 3 are the first 33 isolates in alphabetical order. The 60 isolates not shown in Figure 3 are Guernsey, Hong Kong, Hungary, Ireland, Isle of Man, Israel, Jersey, Kazakhstan, Kiribati, Korea, Kyrgyzstan, Latvia, Libya, Liechtenstein, Lithuania, Luxembourg, Macau, Malta, Marshall Island, Mayotte, Mexico, Micronesia, Moldova, Montenegro,

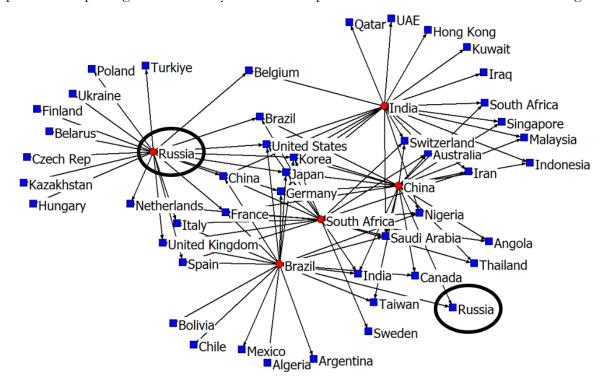
This analysis examines the extent to which BRICS countries have developed a separate global governance structure that could rival U.S-led governance. The results indicate that the BRICS coalition is developing a political network configuration that is somewhat separate from the current main core countries (United States, United Kingdom, France, Canada, Italy, Germany, and Japan) and that it constitutes a bridge between the core countries and the rest of the countries in the Global South.<sup>6</sup> Despite the emergence of a partially independent BRICS network, it is still well connected to the core through Russia and China, but also to the periphery countries located on the right side of the network.

**Ego-centric Network Positions of the BRICS Countries in the Structure of Global Commodity Trade** To examine changes in the BRICS network position in global trade from 2010 to 2022, we ran network degree centrality scores<sup>7</sup> for 2010 and 2022 import trade connections between BRICS and their twenty largest import trading partners. This required creation of a network in which a tie

Montserrat, Nauru, Netherlands, New Zealand, Norway, Paraguay, Poland, Portugal, Puerto Rico, RN Macedonia, Romania, Saint Helena, Samoa, Serbia, Slovak Republic, Slovenia, Solomon Islands, South Sudan, Sri Lanka, State of Palestine, Sudan Sweden, Switzerland, The African Union, Tonga, Turkiye, Turks and Caicos Islands, Tuvalu, U.S. Virgin Islands, Ukraine, Uruguay, Vietnam, Wallis and Futuna, Yemen, Zambia and Zimbabwe.

<sup>&</sup>lt;sup>6</sup> These are the countries shown in the clumpy circle on the right side of the network, including Afghanistan, Albania, Algeria, Angola, Anguilla, Antigua and Barbuda, Argentina, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Bhutan Bolivia, Botswana, Burkina Faso, Burundi, Cabo Verde, Cambodia, Cameroon, Central African Republic, Chad, Chile, Chinese Taipei, Colombia, Comoros, Congo, Costa Rica, Cote d'Ivoire, Cuba, Djibouti, Dominican Republic, DR Congo, Ecuador, Egypt, Equatorial Guinea, Eritrea, Gabon, Gambia, Ghana, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Indonesia, Iran, Iraq, Jamaica, Jordan, Kazakhstan, Kenya, Kuwait, Lao, Madagascar, Malawi, Malaysia, Maldives, Mali, Mauritania, Mauritius, Mongolia, Morocco, Mozambique, Myanmar, Namibia, Nepal, Nicaragua, Niger, Nigeria, North Korea, Oman, Pakistan, Panama, Papa New Guinea, Peru, The Philippines, Qatar, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and The Grenadines, Sao Tome and Principe, Saudi Arabia, Senegal, Seychelles, Sierra Leone, Singapore, Somalia, South Sudan, Suriname, Syria, Tajikistan, Tanzania, Thailand, Timor Leste, Togo, Trinidad and Tobago, Tunisia, Turkmenistan, Uganda, United Arab Emirates, Uzbekistan, Vanuatu and Venezuela.

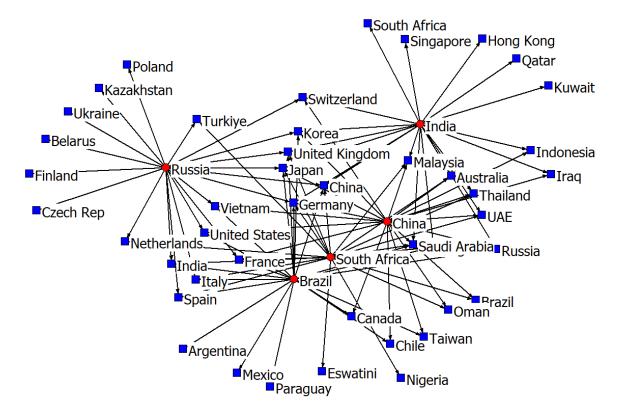
<sup>&</sup>lt;sup>7</sup>Centrality is a measure used to designate power or influence in a network (Hanneman 2005). There are several forms of centrality measures that serve different purposes. Our research focuses on degree centrality. Freeman's degree centrality measure produces two types of calculations: individual country centrality and whole group centralization. A degree is a link between two actors in a network. Degree centrality is ranked by the number of degrees (connections) an actor has with the rest of the network. Since we are working with import trade data, which is a directed network, we used indegree centrality, which calculates as the sums of the column in adjacency matrices (Borgatti *et al.* 2018). Freeman's degree centrality, as well as the density measure, can be interpreted as connectedness because the calculations focus on the number of ties within a network. The density measure only analyzes the links in an entire network while degree centrality analyzes links of individual actors as well as the whole network. Freeman's degree centrality can be used to create a connectedness index of a single country, or group of countries, in the trade networks.



represents "importing from a country." The 2010 import trade relation network is shown in Figure 4.

#### Figure 4. BRICS 2010: Top 20 Importing Countries Including Other BRICS

**Note:** When BRICS countries appear in circles it means that they are importing from other countries, but when they are squares it means other BRICS members are importing from them. The example of Russia in the big circles is shown in Figure 4.



#### Figure 5. BRICS 2022 Top 20 Importing Countries Including Other BRICS.

**Note:** When BRICS countries appear in circles it means that they are importing from other countries, but when they are squares it means other BRICS members are importing from them.

Both 2010 and 2022 import trade networks show that not all BRICS countries are equally connected with other countries by imports. China is the most central BRICS country, as all other BRICS members import from it. China reciprocates this relation by importing from all other BRICS members and it is the only country who's top 20 trading partners include core countries, BRICS members and and periphery countries. Other BRICS members tend to have import trade relations mainly with geographically neighboring countries.

We also calculated the 2010 and 2022 network in-degree centrality scores for the top twenty countries from which BRICS member states imported goods and services (See Table 1 below). Then, we categorized these trading partners as core<sup>8</sup>, periphery, and BRICS (a BRICS country can import from another BRICS member) and calculated the average in-degree centrality score for each bloc to investigate the direction of BRICS connectedness and changes in this over the studied period. The results of in-degree centrality calculations indicate that the BRICS group in both 2010 and 2022 was more connected to the core than to the periphery. The average indegree centrality for the core in 2010 was 3, while it was 1.3 for the periphery (See Table 1). This means that core countries exported more goods and services to BRICS nations than periphery countries did. The average indegree centrality for BRICS in 2010 was 2.80, showing that BRICS countries were more

<sup>&</sup>lt;sup>8</sup> World-Systen Positions: We categorized the United States, the United Kingdom, Australia, Belgium, Canada, Finland, France, Germany, Italy, Japan, Netherlands, Spain, Sweden and Switzerland as core, Brazil, Russia, India, China, and South Africa as BRICS, while the rest of other countries from which BRICS imports as other non-core (semiperiphery and periphery).

connected to other BRICS countries than they were to periphery countries but less connected to each other than they were to the core. Over time, from 2010 to 2022, the BRICS bloc became more integrated into the core because the Core's average indegree centrality increased from 3 to 3.15. What is remarkable is that BRICS connectedness to other BRICS members decreased slightly during this period from an average score of 2.80 to 2.60.

Position	Average Indegree 2010	Average Indegree 2022	Change (Indegree 2022-Indegree 2010)
Core	3	3.15	0.15
BRICS	2.80	2.60	20
Periphery	1.3	1.77	.47

Table 1. Egocentric Degree Centrality Levels and Changes in the Import Network over the Period 2010 to 2022

To further investigate change in BRICS trade relations, we ran degree centrality on exports for the same period and found similar results, showing that BRICS group is the most connected to the core even though its average connectedness to the core slightly decreased during the 2010 to 2022 period from an average of indegree of 3.50 to 3.07, while BRICS connectedness to the periphery and other BRICS members increased by an average indegree of 0.01.

Next, we looked at individual in-degree centrality scores for each BRICS member state. China proved to be the most central member in BRICS import trade relations at both time points with an in-degree score of 4, meaning that four other BRICS countries were among China's top 20 import trading partners. Russia's connection to the other BRICS countries grew by an indegree of 1 point, meaning Russia began to import more goods and services from one other BRICS country during this period. In contrast, Brazil and South Africa decreased their trade relations with other BRICS countries. In 2010, Brazil had 3 other BRICS members among its top 20 trading partners, while this number decreased to 2 in 2022. Similarly, in 2010 South Africa had two BRICS countries as their top 20 trading partners, while it had only one BRICS country among its top 20 trading partners in 2022. Finally, Germany, Japan, China, France and South Korea were the top five most connected countries to the BRICS group in 2022.

Finally, we ran an ANOVA test to investigate the statistical significance of BRICS's trade connections (indegree centrality) to different blocs including the BRICS. The results demonstrate that there is statistically significant variation among the three blocs with respect to their connectedness to BRICS countries for both 2010 and 2022<sup>9</sup>. It is especially noteworthy that there was a significant difference between the average in-degree scores of the core and that of the periphery, showing that over time BRICS grew more connected to the core through importing goods and services than to the peripheral countries.

2010 (N=46)		df	Mean	F	Sig
	Sum of		Square		
	Squares				

<sup>&</sup>lt;sup>9</sup> For the export relations, the variation among the three blocs in terms of their connectedness to BRICS was also significant for 2022, but not 2010.

Between Groups	19.512	2	9.756	7.614	.001*
Within Groups	55.096	43	1.28		
Total	74.609	45			
2022 (N=46)					
Between Groups	17.220	2	8.610	7.757	.001*
Within Groups	45.508	41	1.110		
Total	62.727	43			

\* p = 0.05.

Table 2. Import ANOVA Results of Indegree Centrality for Core, Periphery and BRICS

#### Full Import Matrix Analyses of the BRICS+ Position in World Trade

To further investigate BRICS+ positions in the world-system and track changes in their positions since 2010 we also have obtained a full matrix of imports for 163 countries. Full matrix network studies are preferred to ego-centric studies because they include those indirect links that are occluded in ego-centric networks. How important this is depends on the structure of networks and so differences between ego-centric and full-network approaches should be compared when possible to see how much the indirect connections are affecting the characteristics being examined.

Like other network studies (Clark and Beckfield 2009; Mahutga 2006; Snyder and Kick 1979; Nemeth and Smith 1985), we ran a structural equivalence procedure on import links covering the years 2010 through 2022. Again, we start in 2010 because that was the year the BRICS alliance was formalized and 2022 is the most recent year for which we were able to obtain complete import data for the 163 countries we are studying. The data come from the *Direction of Trade Statistics* (International Monetary Fund 2024). We use import data because historically it has been more reliable and accurate than export estimates (Kim and Shin 2020). We base our structural equivalency procedure on valued data to accurately reflect the structural positions of BRICS+ countries in the import matrix. Each link is the value of the goods and services imported by a country from each of the other countries in the data. It is measured in million U.S. dollars. The whole network consists of 163 countries which have a population of 1 million or more.<sup>10</sup>

Network studies measuring the structure of the international trading system (Footnote x) use a range of structural equivalence methods. The earliest network studies apply CONCOR (Nemeth and Smith 1985; Synder and Kick 1979), which considers actors structurally equivalent if they send and receive ties from all other actors in the network (Wassermand and Faust 1994). Later studies used other methods such as role or regular equivalence (Mahutga 2006; Smith and White 1992),

<sup>&</sup>lt;sup>10</sup> We dropped those formally sovereign entities that had less than 1 million residents because these small nation-states are not serious players in the global political economy and their inclusion adds mostly noise and clutter to meaningful cross-national comparisons.

which do not require actors to be connected to the same actors to be structurally equivalent (Borgatti et al. 2018). We use UCINet's profile similarity to examine the extent to which BRICS+ members are structurally equivalent not only to themselves but also to core, other non-core (peripheral and semiperipheral) countries. The profile of an actor *i* is calculated by concatenating the *i*th row and *i*th column of an adjacency matrix (Borgatti et al. 2018). Brazil and Russia would have the same linkage profile if they imported from the same set of countries.<sup>11</sup>

To measure profile similarity (structural equivalence), we calculated correlation coefficient scores of import trade relations covering 2010 through 2022 for all 163 countries. If two countries have an identical connection profile their correlation, which can range from 0 to 1, is high and they are structurally equivalent. Similarly, if they have a different profile, their correlation score is low. The results shown in Table 3 are average correlation coefficient scores covering 2010 through 2022 import trade relations. The first row of Table 3 shows that, as a bloc, BRICS+ is the most structurally equivalent to itself compared to the core<sup>12</sup>, other non-core (periphery and semiperiphery)<sup>13</sup>. The average correlation comparing the profile of all BRICS+ countries with other BRICS+ countries is 0.55. This shows that member states of BRICS+ tend to trade with a higher number of the same countries compared to core and the rest of the non-core. The BRICS+ bloc is structurally more similar to the core, as indicated by a correlation of 0.42 than to the non-core which has a correlation of 0.37. This structural equivalence finding is similar to what we reported above in Table 1 regarding in-degree centrality.

<sup>&</sup>lt;sup>11</sup> International trade has increasingly involved global value chains in which the production of goods and services by economic organizations (firms) involves inputs from many countries e.g. the world car in which parts are manufactured in several different countries and brought together for assembly within (Mahutga 2019). Understanding where value-added is produced and differences in the production of raw materials versus highly technical and high labor cost goods are important for comprehending the hierarchical dimensions of global division of labor but the study of global value chains has not yet produced reliable and complete estimates of where these differences are located.

<sup>&</sup>lt;sup>12</sup> Following Kim (2021), we identify the following countries as core: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom and United States.

<sup>&</sup>lt;sup>13</sup> All non-core countries are grouped together as periphery and semiperiphery to make it easier to compare their profiles with the BRICS+ bloc and the core.

	BRICS+	Core	Periphery & Semiperiphery	
BRICS+	0.55	0.42	0.37	
Brazil	0.62	0.48	0.43	
China	0.36	0.39	0.25	
Egypt	0.54	0.48	0.41	
Ethiopia	0.51	0.36	0.38	
India	0.58	0.44	0.39	
Iran	0.56	0.31	0.35	
Russia	0.56	0.54	0.39	
Saudi Arabia	0.61	0.41	0.38	
South Africa	0.62	0.51	0.42	
UAE	0.56	0.34	0.34	

#### Table 3. BRICS+ Average Profile Structural Equivalence 2010-2022

When we compare the profile of individual BRICS+ member states to that of the whole BRICS+ bloc and the core and non-core groups, we find that individual BRICS+ member states occupy rather different structural positions in the international import trade network. Over the 12 years that this study covers, Brazil, South Africa and Saudi Arabia are the most structurally equivalent to the BRICS+ bloc. The average correlation between Brazil and all other BRICS+ and South Africa and BRICS+ is 0.62, which is the highest correlation. The correlation between Saudi Arabia and BRICS+ is 0.61. The member state whose structural equivalency is the most dissimilar to that of BRICS+ bloc is China. The correlation between China and BRICS+ is 0.36. This indicates that BRICS+ membership has more influence on the trade relations of Brazil, South Africa, and Saudi Arabia because they are more likely to trade with the same third parties. This membership, however, does not seem to have much bearing on China's import trade relations.

The results of profile similarity of BRICS+ and the core yield surprising findings. The import profile of Russia, which is fighting a hot proxy war with many of the core (Ukraine), is the most like the profile of the core countries. In other words, Russia and the core countries are structurally more equivalent than other BRICS+ and the core. The average correlation between Russia and the core is 0.54. South Africa is second highest of the BRICS+ members that is more structurally equivalent to the core than most other BRICS+ members. Iran and the United Arab Emirates are the least structurally equivalent to the core with an average correlation score of 0.31 and 0.34, respectively.

Brazil and South Africa are the most structurally equivalent to the rest of the non-core countries. The average correlation between Brazil and the non-core is 0.43, while the average correlation between South Africa and the non-core group is 0.42. China is least structurally equivalent to the non-core.

China is most dissimilar to the other BRICS because it became the workshop of the world, producing useful manufactured goods with relatively cheap labor and so outcompeting most of the other countries that have tried to occupy this niche.

#### Changes in Structural Equivalence between 2010 and 2022

To investigate changes in the structural position of the BRICS+ bloc in the international import matrix, we plotted the average profile structural equivalency correlations for each year over

the twelve-year-time period from 2010 to 2022. Figure 6 shows the changes of the average structural equivalence scores for the BRICS+ bloc, the core and non-core. The core and the non-core are rather stable with wobbles but no big trend. But the BRICS+ has sharper ups and downs. During the first four years after South Africa joined the BRIC in 2010 (2010 to 2013 the BRICS line is straight like the lines of the core and non-core but higher.

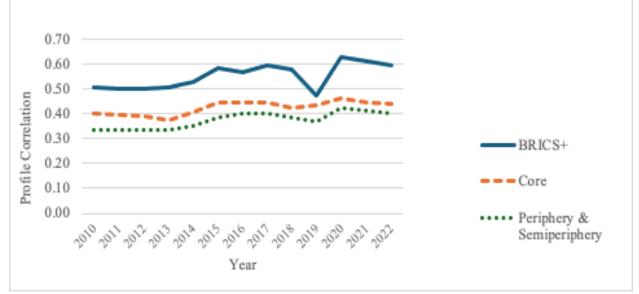


Figure 6. Changes in BRICS+ Profile Structural Equivalence from 2010 through 2022.

Starting from 2014 to 2018, BRICS+ countries developed a similar structural position as other BRICS+, but this similarity dipped sharply in 2019 and then shot back up to reach its highest point only a year later. This downturn is likely to have been an effect of the COVID-2019 pandemic. Similarly, in this brief period the BRICS+ appear to have increased their similarity to the core and the non-core. This is likely to have been the result of BRICS+ member countries importing from different s countries during this period. Some BRICS+ member states tend to have a similar structural position as that of the core, whereas other BRICS+ member states had a similar structural position as that of the non-core. The other factor that may explain this discrepancy in profile similarity of BRICS+ is the tendency to trade with neighboring countries. For example, Russia's top 20 import trading partners overwhelmingly consist of European countries that are geographically close to Russia and Brazil's top 20 import trading partners mostly consist of neighboring South American countries.

#### What We Will Do Next

We have studied the total value of trade goods and services imports, but this mixes important differences among countries regarding the composition of imports and exports. Future network research on the BRICS should examine both imports and exports and should distinguish between high tech goods versus raw materials and cheap labor goods.

We also will do whole network analyses of foreign direct and portfolio investment flows and stocks to see where the BRICS are located in these matrices and how their locations have changed. We will also review quantitative studies that have tried to compare BRICS projects in the Global South with those of the U.S and its allies and see if there is a way to examine this issue with network measures.

## What Differences Does the BRICS Bloc Make?

The processes of globalization that expanded the global labor market by more completely and directly including the workers from India and China have had a huge impact on global development and the power structures of the world-system. It is in this context that we want to examine the consequences of the BRICS bloc.

The rise of the BRICS is often claimed to be a serious challenge to the world order that emerged after World War II that portends another major transformation in the structure of the world-system. But we agree with Patrick Bond and other scholars that the record of the BRICS so far implies that this bloc is not a challenge to the logic of global capitalism but rather a shift toward a more multipolar distribution of economic and political power that could eventually result in a more multipolar distribution of military power. A multipolar military structure has, in the past, been less stable than a unipolar structure because it increases the likelihood of another hot world war among very powerful states. When the hegemon and its allies have overwhelming military capability world wars are less likely. Military challengers must be able to believe that they have some chance of success.

The BRICS Bloc could also be (or could become):

- 1. agents of a more democratic and less unequal world-system if they would seriously champion and lead the Global South in challenging global inequalities and
- 2. if they would play a more active and effective role in the effort to deal with the catastrophes brought about by human-caused climate change.

The likelihood of moving toward global equality is undercut by the desires of the BRICS countries to become as wealthy as the core countries because this encourages them to get all they can from non-core countries. The BRICS critics from below point to many instances in which Chinese projects in Africa and elsewhere have not been less exploitative than those coming from the U.S. and its allies. And, inspired by the writings of Brazilian economist and sociologist Ruy Mauro Marini (2022) on "subimperialism, they contend that the BRICS bloc has done more to support the existing structures of power that exploit the Global South than it has to challenge or replace those institutions. There is also a large group of progressive scholars who contend that the BRICS bloc is the inheritor of the world revolution of 1917 that is challenging and striving to replace the institutions of neocolonialism that keep the Global South in thrall (see essays in Bond 2023). But the BRICS from below advocates of a non-polar world-system note that the alternative global bank set up by the BRICS bloc has not really challenged the World Bank and global capitalism with serious alternative or more progressive policies. (see discussion of dedollarization above). South Africa did succeed in getting the International Court of Justice to declare that Israeli actions in the Gaza war constitute genocide, but South Africa has continued to export coal to Israel. The most obvious explanation is that the BRICS countries remain themselves dependent on the hierarchical institutions of global governance such as the use of U.S. dollars for international trade.

The likelihood of BRICS support or leadership in the struggle for a carbon zero future is low because all the BRICS countries are either heavily dependent on fossil fuels or are themselves exporters of fossil fuels. Saudi Aramco (2023) claims to be actively pursuing zero-carbon technologies, so it is possible that the BRICS+ bloc could do more than green-washing in support of the global green new deal. But this seems unlikely because of their current dependencies.

Semiperipheral and peripheral polities have been transformational agents in world-systems in the past and all the nation-states that rose to the position of hegemony and instigated new systemic cycles of capitalist accumulation (the Netherlands, Britain and the United States) had formerly been semiperipheral. But so far, the rise of the BRICS does not seem to be going in the direction of transformation beyond a more multipolar distribution of economic, political and eventually military power. The middle-run (the next three or four decades) promises to be another Time of Troubles for world society but there are at least three or four different possible structural outcomes of this period of chaos. The only good news at this point is that the evolution of world-systems has been through many chaotic periods in the past and has always survived and eventually resumed a trajectory of greater complexity. This may be of little comfort to those who are or will suffer from economic hardships. destructive warfare or unlivable climate change, but the likelihood that the human story is probably not over can be comfort for some.

#### References

- Amin, Samir. (2019). The Reawakening of The Arab World: Challenge and Change In the Aftermath of the Arab Spring. New York: Monthly Review Press.
- Amin, Samir. (2020). "Toward the Fifth International?" Pp 191-213 in (ed.) Vishwas Satgar BRICS and The New American Imperialism: Global Rivalry and Resistance. Johannesburg: Wits University Press.
- Anderson, David G. (1994). The Savannah River Chiefdoms: Political Change in the Late Prehistoric Southeast. Tuscaloosa, AL: University of Alabama Press.
- Anderson, Perry. (2017). The H-Word: The Peripeteia of Hegemony. London: Verso.
- Arrighi, Giovanni. (2008). Adam Smith in Beijing. London: Verso.
- Arrighi, Giovanni. (2010). The Long Twentieth Century. 2<sup>nd</sup> ed. London: Verso.
- Arrighi, Giovanni and Beverly Silver. (1999). Chaos and Governance in the Modern World-System: Comparing Hegemonic Transitions. Minneapolis: University of Minnesota Press.
- Arrighi, Giovanni and Lu Zhang 2011 "Beyond the Washington Consensus: A New Bandung?" Pp. 25-57 in Jon Shefner and Patricia Fernández-Kelly (eds), *Globalization and Beyond: New Examinations of Global Power and its Alternatives*, College Station, PA: Penns State University Press
- Bazzi, Mohamad. (2023). "Thanks to Trump and Biden, Saudi Arabia is Stronger than Ever" *Guardian* <u>https://www.theguardian.com/commentisfree/2023/oct/02/five-years-after-</u> killing-a-journalist-in-cold-blood-saudi-arabia-is-stronger-than-ever
- Bond, Patrick. (2015). 'BRICS and the Sub-imperial Location" Pp. 15-26 in Patrick Bond and Ana Garcia (ed.) BRICS An-Anti Capitalist Critique. London: Pluto Press.
- Bond, Patrick. (2016). 'BRICS Banking and the Debate over Sub-imperialism." *Third World Quarterly*, 37(4): 611-629.
- Bond, Patrick. (2020). 'Subimperial BRICS Enter the Bolsonaro-Putin-Modi-Xi-Ramaphosa Era," Pp. 106-139 in (ed.) Vishwas Satgar BRICS and the New American Imperialism: Global Rivalry and Resistance. Johannesburg: Wits University Press.

ed. 2023 BRICS+ Hype, Hope and Helplessness A brics-from-below reader for the Johannesburg debates (see also <u>https://www.bricsfrombelow.org/</u>

Borgatti, P. Stephen, Martin G. Everett and Jeffrey C. Johnson. (2018). *Analyzing Social Networks*. 2<sup>nd</sup> ed. Los Angeles: Sage.

Čavoški, Jovan. (2022). Non-Aligned Movement Summits A History. London: Bloomsbury Academy.

Chase-Dunn, Christopher, Alessandro Morosin and Alexis Alvarez. (2014). 'Social Movements and Progressive Regimes in Latin America: World Revolutions and Semiperipheral Development" in Paul Almeida and Allen Cordero Ulate (eds.) *Handbook of Social Movements Across Latin America*, New York: Springer Verlag.

Chase-Dunn, Christopher and Marilyn Grell-Brisk. 2019. "World-System Theory" Oxford Bibliography of International Relations.:// https www.oxfordbibliographies.com/view/document/obo-9780199743292/obo-9780199743292-0272.xml?rskey=NKUFuv&result=271

- Chase-Dunn, Christopher, Alvarez and Liao. (2023). "Waves of Structural Deglobalization: A World- systems Perspective" *Social Sciences*, Volume 12, Issue 5, 301 <u>https://doi.org/10.3390/socsci12050301</u>
- Chase-Dunn, Christopher and Paul Almeida. (2020). *Global Struggle and Social Change Movements: From Prehistory to World Revolution in the 21st Century*. Baltimore: Johns Hopkins University Press.
- Chase-Dunn, C and Sakin Erin 2024 "The BRICS+ and the Middle-Run Futures of the Global System" *International Review of Modern Sociology* Special Issue on "Crises, Conflicts, and the Future of the World Capitalist System,"Edited by Berch Berberoglu, Vols 1-2.
- Chodor, Tom. (2015). Neoliberal Hegemony and the Pink Tide in Latin America: Breaking Up with Tina. New York: Palgrave MacMillan.
- Clark, Rob and Jason Beckfield. (2009). "A new trichotomous measure of world-system position using the international trade network" *International Journal of Comparative Sociology*, 50(1): 5-38. https://doi.org/10.1177/0020715208098615
  - \_\_\_\_\_and Jeffrey Kentor. 2022"Foreign capital and economic growth: A social network analysis, 2001–2017." *Sociological Perspectives* 65.3: 580-607. https://doi.org/10.1177/0731121421103515
- Dezayas, Alfredo. (2023). "Unilateral Coercive Measures and Human Rights." *Counterpunch* December 29, https://www.counterpunch.org/2023/12/29/lots-of-painful-formatting-onthis-one-sorry-about-that-unilateral-coercive-measures-and-humanrights/?eType=EmailBlastContent&eId=9028f492-a23e-4217-904d-88148c425a48
- Fernández, Víctor R. et al. (2023). "The Rise of the Global South and the Redefinition of World-System Hierarchies." Pp. 69-80 in *World-systems Analysis at a Critical Juncture*, edited by Corey R. Payne et al. New York: Routledge.
- Foran, John. (2019). "System Change, Not Climate Change: Radical Social Transformation in the Twenty-First Century," Pp. 399-425 in Berch Berberoglu (ed.) The Palgrave Handbook of Social Movements, Revolution, and Social Transformation, London: Palgrave Macmillian.
- Garcia, Ana and Karina Kato. (2020). "A Road to Development? The Nacala Corridor at the Intersection Between Brazilian and Global Investment" Pp 105-124 in Vishwas Satgar (ed.) BRICS and the New American Imperialism: Global Rivalry and Resistance. Johannesburg: Witswatersrand University Press.
- Givens, Jennifer E., Xiaorui Huang, and Andrew K. Jorgenson 2019. "Ecologically unequal exchange: A theory of global environmental injustice." *Sociology Compass* 13.5 e12693. https://doi.org/10.1111/soc4.12693
- Glosny, Michael A. (2010). "China and the BRICs: A Real (but Limited) Partnership in a Unipolar World" *Polity* 42,1:100-129.
- Gürcan, Efe Can. (2019). Multipolarization, South-South Cooperation and the Rise of Post-Hegemonic Governance. London: Routledge. <u>http://www.efecangurcan.net/index.html</u>
- Hanneman, Robert. A, and Mark Riddle. (2005). *Introduction to Social Network Methods*. <u>https://faculty.ucr.edu/~hanneman/nettext/</u>
- Keethaponcalan, Soosaipillai .I. (2016). "Reshaping the Non-Aligned Movement: Challenges and Vision." *Bandung: Journal of the Global South* 3 (4): 1-14.
- Kim, Jisoo. (2021). "Deglobalization of the Core: A Formal Network Analysis" *IROWS Working Paper #140*. <u>https://irows.ucr.edu/papers/irows140/irows40.htm</u>
- Kim, Sangmoon and Eui-Hang Shin. (2002). "A Longitudinal Analysis of Globalization and Regionalization in International Trade: A Social Network Approach." Social Forces, 81(2): 445-468.

- Lane, David. (2016). "Post-socialist Regions in the World System." European Politics and Society, 17 (S1): 46-66.
- Lashari, Samee 2024 The Rise of the Semi-Core: China, India and Pakistan in the World-System. Lanham, MD: Lexington Books
- Madrid, Raul. (2016). "The Origins of the Two Lefts in Latin America." *Political Science Quarterly*, 125(4): 587-609.
- Mahutga, Mathew. (2006). "The Persistence of Structural Inequality? A Network Analysis of International Trade, 1965-2000." *Social Forces*, 84: 1863-89.
- Mahutga, Matthew C. 2019 "Global value chains and quantitative macro-comparative sociology. Pp 91-104 in " Handbook on global value chains. Edward Elgar Publishing https://doi.org/10.4337/9781788113779.00010
- Manning, Patrick 2024 "Why Democracy is In Decline"

https://patrickmanningworldhistorian.com/blog/why-is-democracy-declining/

- Nemeth, Roger J and David A. Smith (1985). "International Trade and World-System Structure: A Multiple Network Analysis." *Review*, 8: 517-60.
- Marini, Ruy Mauro 2022 The dialectics of dependency. New York: New York University Press
- O'Neill, Jim. (2001). "Building Better Global Economic BRICs." Goldman Sachs Global Economics. Paper No. 66:1-16 Retrieved December 12, 2023 (https://www.goldmansachs.com/insights/archive/archive-pdfs/build-better-brics.)
- Prashad, Vijay. (2007). The Darker Nations: A People's History of the Third World. New York, NY: The New Press.
- Saudi Aramco 2023 "Aramco Advances Development-of-Emissions Reduction Solutions" <u>https://www.aramco.com/en/news-media/news/2023/aramco-advances-development-of-emissions-reduction-solutions</u>
- SetPol : The Research Working Group on Settlements and Polities, Institute for Research on Worldsystems, University of California-Riverside <u>http://irows.ucr.edu/research/citemp/citemp.html</u>
- Smith, David A, and Douglas R. White (1992). "Structure and Dynamics of the Global Economy: Network Analysis of the International Trade 1965-1980." *Social Forces* 70:857-93.
- Synder David, and Edward L. Kick. (1979). "Structural Position in the World System and Economic Growth, 1955-1970: A Multiple-Network Analysis of Transnational Interactions"." American Journal of Sociology, 84: 1096-126.
- van der Merwe, Justin. (2019). "Notes from the Hinterland: Theorizing BRICS and their Geographies of Resistance". Pp. 22-47 in *BRICS and Resistance in Africa* (ed) by Justin van der Merwe et al. London: Zed Books.
- V-Dem Institute 2024 DEMOCRACY REPORT 2024 Democracy Winning and Losing at the Ballot. <u>https://v-dem.net/documents/43/v-dem\_dr2024\_lowres.pdf</u>
- Wallerstein, Immanuel. (1984). "The Three Instances of Hegemony in the History of the Capitalist World-economy." Pp. 100-108 in Gerhard Lenski (ed.) *Current Issues and Research in Macrosociology*, International Studies in Sociology and Social Anthropology, Vol. 37. Leiden: E.J. Brill.
- Wallerstein, Immanuel. (1993). "The World-System after the Cold War." Journal of Peace Research, 30(1):1-6.

Wallerstein, Immanuel. (2003). The Decline of American Power. New York: New Press.

Wasserman, Stanley and Katherine Faust. (1994). Social Network Analysis: Methods and Applications. Cambridge: Cambridge University New Press.