

**VACCINES AS CONTENTIOUS CONNECTIVITY
IN THE INDO-PACIFIC**

THE CASE OF US-CHINA COMPETITION DURING THE COVID-19 PANDEMIC

Ville Sinkkonen & Anu Ruokamo

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This FIIA Working Paper explores the implications of contentious vaccine connectivity between the great powers for the future of regional connectivity and order maintenance in the Indo-Pacific. Utilising a connectivity-based analytical framework, it explores the Covid-19 vaccine forays of China, on the one hand, and the United States and its Quad partners, on the other, as well as the reactions of vaccine receiving countries.

The paper illustrates how the US and its partners, relying on a multilaterally-informed donations-based approach coupled with vaccines produced by Western manufacturers, have eventually managed to erode China's first-mover advantage in using vaccines as a means of enhancing regional influence. Moreover, the great-power contest has allowed vaccine receiving countries to practise hedging, and ultimately created the possibility of switching to Western vaccine providers amidst fears over the lower effectiveness of Chinese vaccines and China's bilateral sales-based approach to vaccine provision. More generally, the vaccine case illustrates the tragic consequences of worsening great-power relations for the provision of global public goods, as well as sustainable regional and international order.



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CONTENTS

INTRODUCTION 4

1. US-CHINA RIVALRY AND THE COVID-19 PANDEMIC 4

2. CONNECTIVITY AND GREAT-POWER COMPETITION 6

3. INFRASTRUCTURE AND CONNECTIVITY IN THE INDO-PACIFIC 7

4. STUDYING VACCINE DIPLOMACY THROUGH
THE LENS OF CONNECTIVITY 8

5. CHINA'S VACCINE FORAYS INTO THE INDO-PACIFIC 9

6. THE VACCINE PUSH BY THE US AND ITS PARTNERS 12

7. THE RECEIVERS OF VACCINES: CHALLENGES AND OPPORTUNITIES 15

CONCLUSIONS 17

BIBLIOGRAPHY 19

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INTRODUCTION

The global Covid-19 pandemic has now raged on for more than two and a half years and has had tragic human consequences. At the time of writing, the global death toll has passed 6 million and the number of infections has exceeded 619 million.¹ While economies across the world have felt the effects differently, the gulf between the “haves” and “have-nots” – globally and within countries – has grown. Beyond these harrowing statistics, the pandemic has also laid bare the advent of a new normal in global politics: great-power and multilateral cooperation is ever more difficult in an age defined by increasingly antagonistic relations between the core powers, especially China and the United States. An era of multi-domain great-power competition beckons.²

This new age in international politics is increasingly defined by a contest over *connectivity*, namely the establishment of webs of linkages in different domains between actors to create spheres of enhanced cooperation and influence. In this context, the pandemic has opened a new front of contentious connectivity, particularly over the provision and dissemination of Covid-19 vaccines. In the Indo-Pacific, this contest pits China against the United States and its network of regional partners, especially Japan, India and Australia, which, together with the US, comprise the Quadrilateral Security Dialogue (Quad).

To explore the implications of vaccine politics for the future of regional connectivity and regional order-building writ large, this Working Paper explores three questions:

1. How have the core global and regional powers, especially China and the US and its partners, engaged in vaccine connectivity during the Covid-19 pandemic in the Indo-Pacific region?
2. How have vaccine-receiving countries reacted to these forays by the key powers, and what challenges and opportunities have they been presented with?
3. What are the broader implications of vaccine connectivity for the evolution of the connectivity strategies of key actors, and the development of regional and international order more broadly?

To address these questions, the paper starts by contextualising the Covid-19 pandemic within the broader frame of US-China great-power competition. It then illustrates how applying the lens of connectivity can illuminate the intricacies of such contestation in a complex and interdependent world, followed by a discussion of how the Covid-19 vaccine case lends itself particularly well to such a connectivity-informed analysis. The paper then proceeds to a discussion of the current state of vaccine politics in the Indo-Pacific region. It first places the issue into the broader context of regional connectivity forays, including China’s Belt and Road Initiative (BRI) and the responses of other great powers – most pertinently the US, but also other Quad members Japan, India, and Australia – to this grand Chinese project. It then tackles regional vaccine politics by charting the vaccine diplomacies of China and the US and its partners. This is followed by an analysis of how the region’s vaccine-receiving countries have reacted to the forays of these big players. The conclusion discusses the implications of contentious vaccine connectivity for China and the US, the vaccine receivers, the broader regional constellation, and international order.

1. US-CHINA RIVALRY AND THE COVID-19 PANDEMIC

Much has recently been made of great-power or strategic competition between the United States and China across different domains, whether military, economic, institutional, technological or cyber.³ One prominent way to fathom the current situation is through the lens of a “hegemonic transition”.⁴ At such pivotal

1 The New York Times 2022.
2 Sinkkonen and Gaens 2020.

3 Wyne 2022; Sinkkonen and Gaens 2020.
4 Gilpin 1981; Moore 2020.

moments, the costs of hegemony – of providing economic and security public goods – begin to weigh on the incumbent hegemon, in this case the United States. This opens up space for the hegemonic challenger, namely China, to contest the incumbent’s ascendancy. Currently, this challenge is unfolding economically and increasingly militarily, especially in Beijing’s near abroad, most recently evident in heightened tensions around Taiwan.⁵ This gradual move towards a bi- or multipolar power constellation thus bears more conflict potential than the fleeting American unipolar moment of the 1990s and early 2000s, when challenging the US was too costly for other great powers.⁶

It is also evident that the US and China are increasingly contending over components of the current international order, “the settled rules and arrangements that guide the relations among states”.⁷ In the post-Second World War era, and even more so after the Cold War, this institutional fabric has been forged with American (or more broadly Western) leadership, hence the term “liberal international order”.⁸ Beijing has begun making bids for key leadership positions within established international organisations, like the International Court of Justice (ICJ), the World Trade Organization (WTO) and the International Telecommunications Union (ITU),⁹ and has set up various institutional alternatives such as the Asian Infrastructure Investment Bank (AIIB), the Shanghai Cooperation Organisation (SCO), and the Belt and Road Initiative (BRI).¹⁰ Unlike the US, Beijing has likewise forged ahead with regional free trade forays. It is a founding member of the Regional Comprehensive Economic Partnership (RCEP) and has announced its desire to join the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).¹¹

At the same time, China is challenging the West’s cherished values like human rights, freedom of information, and democracy with a normative agenda founded on sovereignty and non-interference.¹² Beijing’s growing assertiveness has also been coupled with a narrative that frames the US (and the West) as

being in irreversible decline, while China is completing its inevitable rise to global prominence.¹³

In Washington D.C., the imperative of competition with China has become akin to accepted wisdom for policymakers on both sides of the political aisle,¹⁴ policy pundits,¹⁵ and even the broader public.¹⁶ The dynamic of deepening great-power contention is reflected in the remarkable continuity between the China policies of the Trump and Biden administrations. The Biden administration has retained Trump-era tariffs on Beijing, and, like its predecessor, frames the relationship in chiefly competitive, albeit more nuanced terms.¹⁷ In particular, Biden is increasingly painting the competition as one between democracies and autocracies, and stressing the importance of the US alliance network.¹⁸

The Covid-19 pandemic unfolded against this backdrop of worsening great-power relations. After the initial outbreak in Wuhan, China in December 2019, the novel virus spread quickly, and virtually no corner of the world has been spared its human and economic impacts. These look to continue for years with the emergence of new variants and unequal global vaccine distribution.¹⁹

The pandemic has spurred analyses lamenting the dire state of the current international order; Covid is a tragic manifestation of global governance failure.²⁰ Just as important, however, are the leadership failures of the United States, the hitherto leading state, and the shortcomings of China, its near-peer competitor.²¹ In fact, the pandemic brought a new dimension to the already contentious dynamic between the two superpowers. The inability of Washington and Beijing (as well as Moscow) to cooperate has hampered the functioning of international institutions, including the WHO, the G20, and the UN Security Council.²²

For the US, the pandemic turned out to be a perfect storm. President Trump was a *sui generis* leader with little appetite for international cooperation, and, thrown into the centre of a global maelstrom, his

5 Hass 2022a.

6 Cf. Layne 2011; Tunsjø 2021; Brooks and Wohlforth 2008. The most sceptical observers of US-China relations forewarn that such transitional moments in the international system have often led to great-power wars. See e.g. Mearsheimer 2021; Allison 2017.

7 Ikenberry 2012, 47.

8 Ibid., 159–219.

9 Zhou 2018; Trofimov et al. 2020.

10 Foot 2020, 154–155; Cooley and Nexon 2020, ch. 4.

11 The pact’s precursor, the TPP, was shunned by the Trump administration in January 2017.

12 Economy 2021.

13 Economy 2021; Hass 2022b; Swayne 2021.

14 Cf. Trump 2017; Biden 2021.

15 Brands and Cooper 2021; Colby and Mitchell 2020; for critical takes, see Ashford 2021; Nexon 2021.

16 Silver et al. 2021.

17 Blinken 2021.

18 Brands 2021.

19 Of course, such vaccine inequality is not only a Covid-specific phenomenon. During the H1N1 pandemic in 2009, high-income countries obtained large quantities of the vaccine to the detriment of poorer nations. See Fidler 2021.

20 Bucher et al. 2022.

21 Kahl and Wright 2021.

22 Ibid.; Cimmino et al. 2020.

administration was wholly unprepared both internationally and domestically.²³ At the time of writing, over a million Americans have succumbed to the virus, due in no small part to incompetence at the initial stages of the crisis and the politicisation of the pandemic response.²⁴

China, in turn, drawing on draconian lockdown measures unfathomable in democratic states, quelled the pandemic quickly and was able to send aid to beleaguered countries. However, it quickly squandered international goodwill by appearing to cover up details of Covid's origins and engaging in combative "wolf warrior diplomacy".²⁵ By 2022, the downsides of China's initially successful zero-Covid policy had become apparent, and the country has been forced to battle novel variants with new large-scale lockdowns of its cities.²⁶

2. CONNECTIVITY AND GREAT-POWER COMPETITION

One way to make sense of great-power competition in the current age is by focusing on the establishment and shape of the manifold connections that have come to define today's interdependent world. Connectivity can be broadly understood as "[a]ll the ways in which states, organisations (commercial or else) and societies are connected to each other and interact across the globe".²⁷ It thus pertains to "both the physical flows of people and goods as well as information flows [... and] covers 'hard' infrastructures as well as 'soft' regulatory measures or socio-cultural ties".²⁸

Connectivity, then, connotes interdependence in all its myriad forms across different levels of (social) interaction from interstate all the way to people-to-people contacts. Connectivity is not merely an *international* but also a *transnational* phenomenon that can feasibly unfold in bi-, tri-, mini-, or multilateral fora, and be multi-stakeholder in nature or entirely privately driven. Such connections are, therefore, nothing less than building blocks of a multi-level global order.²⁹

Connectivity can entail the pursuit of economic profit or the search for a bargaining advantage. It can be used to enhance one's security, or even be an

exercise in altruism, as with some forms of development or humanitarian assistance, for instance. The definition does not say anything about how the fruits of connectivity are distributed. Connectivity can range from mutually beneficial to exploitative, with many variations in between.

At its best, connectivity entails *cooperation* between two or more actors. It creates gains for all involved, even if these are not always distributed equally. Liberal theories of international relations, for instance, maintain that "peoples and governments have a deep common interest in the establishment of a cooperative world", while "trade and exchange have a modernizing and civilizing effect on states [...] strengthening the fabric of international community".³⁰ In this reading, connectedness breeds convergence, and convergence creates order and new opportunities for the connected – a teleologically progressive vision of the world. Moving a step further, some view embracing "an open international order" made up of myriad connections as the only feasible path forward. In such a world, challenges boil down to glitches in connections: "problems and threats arise because people are too connected, not connected enough, or connected in the wrong ways to the wrong people or things".³¹ Connectivity has thus "replaced division as the new paradigm of global organization".³²

Yet, at the same time, connectivity is both a *site and means of competition*. Different providers of connections wrangle in a connectivity marketplace in order to establish links and possibly gain an advantage over competitors. Ideally, competition over connections is healthy in nature, benefitting consumers whilst driving out inefficient producers. Recently, however, negative readings of global interconnectedness have proliferated. Analyses of weaponised interdependence illustrate how powerful actors can impose costs upon and extract rents from others if they hold "political authority over central nodes in the international networked structures through which money, goods and information travel".³³ In such a world of "connectivity wars",³⁴ a state's structural position within manifold networks – whether in the economic and financial domains or alliance and partnership constellations – determines its ability to construct and disrupt connections and grant access to others.

23 Norrlöf 2020; Kahl and Wright 2021.

24 The New York Times 2022.

25 Gill 2020.

26 Financial Times 2022.

27 Ries 2019, 1; see also ASEM Pathfinder Group on Connectivity 2017.

28 Ries 2019, 1.

29 Cf. Acharya 2018; Medcalf 2020; Khanna 2016.

30 Ikenberry 2012, 63.

31 Slaughter 2016.

32 Khanna 2016, xvi, 6.

33 Farrell and Newman 2019, 45.

34 Leonard 2016.

Mark Leonard, for instance, argues that “connectivity conflicts’ between interlinked antagonists” constitute “the core organizing principle of today’s world”.³⁵

Competition over and through connections can thus be destructive if undertaken with the express aim of limiting others’ “connectability”. Connectivity becomes a *mode of inclusion and exclusion*. This could entail excluding some actors from connectivity endeavours with others, limiting their ability to connect within a domain or geographical region, or establishing exclusive zones of connectivity.

Similarly, connections – or the prospect of (dis)connection – can be used as *instruments of coercion*.³⁶ This can occur both through processes of disconnecting as well as through linking the establishment of connections in one domain to concessions on other issues. Hence connectivity is not merely constitutive of international order. It may also drive dynamics of disorder.

However, connectivity may also provide *opportunities for diversification*. Actors, especially smaller ones, can use connections to hedge their bets, engaging in what Cooley and Nexon term “goods substitution”.³⁷ A connection from one provider can be replaced by a connection from another, or the prospect of moving to another provider used as a bargaining chip in a negotiation with the original provider to acquire a better deal.

These insights underline how connectivity is constitutive of a state’s power in an interlinked world. Power analysis should therefore be less concerned with material capabilities per se – although they function as vital background conditions for connectivity – and more attuned to how connective relationships within structures potentially freeze power constellations in place, create novel opportunities and liabilities for actors, or enhance and curb influence.³⁸ Connectivity therefore redefines the parameters of “hegemonness” by placing the establishment and cultivation of relationships centre stage – a key insight of “third generation” hegemonic order theorising.³⁹ In sum then, connectivity is central to state strategies for milieu shaping in twenty-first-century great-power competition.

3. INFRASTRUCTURE AND CONNECTIVITY IN THE INDO-PACIFIC

The notion of connectivity has, arguably, been most prominently utilised in the context of the Indo-Pacific. According to Rory Medcalf, this “super-region”⁴⁰ presents “an expression of global connectivity: the main highway for commerce and energy between Asia, Africa, Europe, Oceania, and the Americas [...] the most globally connected of regions”.⁴¹ The recent proliferation of connectivity as a term in policy parlance cannot, therefore, be easily dissociated from the Indo-Pacific and, more specifically, its most developed and wide-reaching connectivity project: China’s Belt and Road Initiative (BRI).

The BRI is an ambitious infrastructure and investment project first publicised in 2013. It initially comprised development plans for two trade routes, the Silk Road Economic Belt, land routes joining Asia with Europe, and the shipping lanes of the Maritime Silk Road linking China to Southeast Asia, Africa and Europe.⁴² Since 2013, the BRI has expanded to encompass, for example, the so-called digital, space and health silk roads.⁴³ Close to 150 countries have joined the BRI through different projects.⁴⁴ As such, the BRI is not a clearly defined concept, but rather a vague umbrella term encompassing a wide range of projects that can, with the help of the BRI stamp, be linked together as a part of a broader whole.⁴⁵ As Flint and Zhu argue, “BRI is part of China’s geopolitical code of creating *connectivity* and cooperation, with an additional aim, or at least implication, of reducing US hegemony, especially US influence in Asia”.⁴⁶

After the initial surge in Chinese-funded projects, the attractiveness of the BRI has started to decline. China has been accused of “debt trap diplomacy” with its BRI lending, the provision of huge loans which it can later use as leverage for its own strategic benefit.⁴⁷ The BRI has also begun to create opposition internally, as Chinese companies and banks have voiced concern over the sustainability of some of the projects. Therefore, even before Covid-19’s impact on the global

35 Leonard 2021, 16.

36 Here, coercion is understood as forcing others to do what they would otherwise not do through “the infliction of pain or damage – or the withdrawal of something valued”. See Reus-Smit 2004, 58.

37 On hedging, see Jackson 2014; for goods substitution dynamics, see Cooley and Nexon 2021.

38 Cf. Kitchen and Cox 2019.

39 Ikenberry and Nexon 2019.

40 The Indo-Pacific is conceptualised here as “a super-region with hard-to-define outer limits and distinct subregions yet an unquestionably Asian core”. See Medcalf 2014, 473.

41 Medcalf 2019, 91, emphasis added.

42 Yu and Wallace 2021.

43 Mardell 2020a.

44 García-Herrero and Freyman 2022.

45 Kuo and Kommenda 2018.

46 Flint and Zhu 2019, 96, emphasis added.

47 China Power 2021. An often-cited example is the Hambantota Port in Sri Lanka, which the local government leased to China for 99 years after failures in debt repayments. Yu and Wallace 2021. For an alternate view on the debt trap diplomacy, see Hameiri 2020.

economy, China's overseas lending and contracts within the BRI decreased, with the focus being redirected towards the sustainability of the projects.⁴⁸ The pandemic has further underlined the need for adjustments, as travel restrictions have halted projects and recipient countries have struggled with debt repayment.⁴⁹

Fears of growing Chinese influence through the BRI have created an impetus for the connectivity forays of other key players. The European Union, following up on its 2018 connectivity strategy for Europe and Asia,⁵⁰ recently unveiled the Global Gateway strategy, with a promise to deliver “smart investments in quality infrastructure [...] in line with the EU's values and standards”.⁵¹ Already during the Obama era, the US had launched the New Silk Road, a plan to connect Afghanistan and Greater Central Asia,⁵² as well as US-ASEAN Connect⁵³ and the Global Procurement Initiative (GPI).⁵⁴ With the Trans-Pacific Partnership (TPP), the Obama team sought a framework that would allow the US, not China, to set the parameters of regional trade in the coming decades.⁵⁵

President Trump famously shunned the TPP, but the US took various measures to tackle China's infrastructure forays during his tenure. Congress passed the Better Utilization of Investments Leading to Development (BUILD) Act in October 2018, revamping the US development financing architecture with the establishment of the Development Finance Corporation (DFC).⁵⁶ The administration also created the Blue Dot Network in cooperation with Japan and Australia, a multi-stakeholder mechanism “to promote quality infrastructure investment” that complies with inclusivity, transparency and environmental and sustainability standards.⁵⁷ The “Clean Network Initiative”, in turn, was set up to block Chinese 5G providers and operators from the networks of the US and its allies.⁵⁸ Critics, however, have deemed these and other US forays “scattershot” and insufficiently funded to combat China's initiatives.⁵⁹

The Biden administration has continued setting up novel initiatives to compete with Beijing. At the G7 meeting in June 2021, the US and its partners unveiled the Build Back Better World (B3W) to address the \$40 trillion infrastructure deficit in low- and middle-income countries. The initiative is framed in terms of “four areas of focus – climate, health and health security, digital technology, and gender equity and equality”.⁶⁰ The June 2022 G7 Summit repackaged the B3W as the Partnership for Global Infrastructure and Investment (PGII), with a pledge to channel \$600 billion to infrastructure projects in the coming five years, with \$200 billion of this provided by the US. The initiative also added energy security and digital connectivity as new priorities, and placed more emphasis on hard infrastructure, potentially making it a more viable alternative to the BRI.⁶¹ Under the auspices of the Quad, in turn, the four partners have pledged to lead on high-quality infrastructure and launch a new Quad infrastructure partnership. This plank was added at the September 2021 leaders' summit to an already ambitious list of coordinating on the pandemic, climate and technology.⁶²

4. STUDYING VACCINE DIPLOMACY THROUGH THE LENS OF CONNECTIVITY

Peter Hotez defines vaccine diplomacy as “almost any aspect of global health diplomacy that relies on the use or delivery of vaccines”.⁶³ He ties it closely to multilateral, multi-stakeholder and private actors like the GAVI Alliance, the WHO and the Gates Foundation, and emphasises its humanitarian and conflict-mitigating functions.⁶⁴ However, when great powers engage in vaccine diplomacy, other objectives are certainly present. Vaccine diplomacy can be used, for instance, to improve bilateral ties with key states, achieve other (i.e. not directly health-related) goals through issue linkage,⁶⁵ and enhance a state's international legitimacy, soft power,⁶⁶ or status.⁶⁷ The Lowy Institute even deems “[v]accine diplomacy [...] the new currency of geopolitics”.⁶⁸ Judging by vaccine

48 China Power 2021; Minge and Kratz 2021.

49 Mardell 2020a. See Hameiri 2020.

50 Gaens 2018.

51 European Commission 2021a. The Union has also published an Indo-Pacific strategy, see European Commission 2021b.

52 Tracy 2013; Käpylä and Aaltola 2019, 44–49.

53 U.S. Mission to ASEAN n.d.

54 U.S. Trade and Development Agency n.d.

55 Obama 2016.

56 This new body took on the tasks of the U.S. Overseas Private Investment Corporation (OPIC) and charge of the U.S. Agency for International Development (USAID) Development Credit Authority. See Lew et al. 2021, 84.

57 U.S. Department of State n.d.a.

58 U.S. Department of State n.d.b.

59 Lew et al. 2021, 87.

60 The White House 2021a.

61 Die Bundesregierung 2022; Savoy 2022.

62 The White House 2021b; see also Hillman 2021.

63 Hotez 2014, 2.

64 Ibid.

65 See e.g. Sidek and Halim 2022; Kiernan et al. 2021a; Leng et al. 2022.

66 Nye 2011, 84–85; Lee 2021.

67 See e.g. Wolf 2017; Pu 2019; Larson and Shevchenko 2010.

68 Lemahieu and Leng 2021, 3.

dissemination statistics to date, this new front in great-power competition is particularly pertinent in the Indo-Pacific region.⁶⁹

At the end of the day, vaccine diplomacy, whether practised by great powers, international organisations, or other actors, implies engagement in the politics of connectivity. To illustrate, different vaccine producers compete for shares in the global vaccine market, providing consumers of vaccines with a choice, but also locking in longer-term distribution channels. COVAX, the Covid-19 Vaccines Global Access Facility co-led by the Coalition for Epidemic Preparedness Innovations (CEPI), Gavi, the Vaccine Alliance, and the WHO, in turn, aim to pool vaccines to disseminate a valued international public good, breeding new connections in the process. Great powers, meanwhile, have sought to use vaccines as a tool to connect and disconnect, creating new dependencies, circumscribing the influence of other actors and obtaining concessions.⁷⁰ At the same time, vaccine receivers have hedged their bets by connecting simultaneously with various vaccine producers or accepting vaccine donations from different sources.

Vaccine diplomacy also relies on the many connections that actors habitually harness. For instance, the development of physical infrastructures – the very essence of states’ connectivity strategies – is vital in the distribution of vaccines. The development and procurement of vaccines has also forced states to establish new public-private partnerships across national boundaries, which, in turn, have led to further transactions, breeding new relationships, contractual obligations as well as institutionalised cooperation replete with new rules, norms and practices (the “soft” infrastructure of connectivity). Moreover, these connections straddle a multifaceted space, tying together the interstate, inter-societal and even interpersonal levels of analysis. A vaccine providing country can, for instance, enhance its soft power through adept vaccine diplomacy, with possible knock-on effects for cooperation between vaccine providing and receiving countries in the future.

Vaccine politics also underline the intractable inter-linkages between security and connectivity. The procurement of vaccines creates asymmetric connections, as states depend upon a small cast of vaccine suppliers,

and such connections can be exploited by companies or states bent on leveraging interdependence, while disruptions to such vaccine dissemination channels present a health security risk. The pandemic has also illustrated the dependence of modern societies on secure global connections, and the disruptiveness of a fast-spreading pathogen.

A successful global vaccination drive to combat novel contagious and potentially more deadly variants is thus paramount for functioning and sustained economic, financial, technological or human-to-human connections across the globe. Opting for vaccine nationalism and failing to disseminate vaccines globally would thus present a textbook case of “hegemonic failure” on the part of the leading state(s) in the system.⁷¹

5. CHINA’S VACCINE FORAYS INTO THE INDO-PACIFIC

In the midst of the Covid-19 pandemic, China has re-emphasised the Health Silk Road (HSR), an offshoot of the BRI first introduced in 2015. Beijing has continued to present itself as a responsible power and a leader in global health, trying to establish what it calls “a community of common health for mankind”.⁷² The HSR concept has permitted Beijing to re-adjust its BRI after the disruptions to the global economy caused by the Covid-19 pandemic.⁷³ The focus on health might even be a longer-lasting trend with regard to the future of the BRI, allowing Beijing to direct its ventures towards lower cost and less resource-intensive projects – a move that would also respond to criticisms over sustainability.⁷⁴ Moreover, Beijing naturally sees a role for the BRI in the recovery of the global economy after the pandemic.⁷⁵

During the pandemic, China has been active in offering medical aid and protective equipment to other countries, an effort widely labelled as “mask diplomacy”.⁷⁶ China’s actions have also been analysed as an attempt to change the narrative on the origin of the SARS-CoV-2 virus, and to shift the focus away from

69 For example, both the United States and China have focused their vaccine shipments on the Indo-Pacific region. In fact, by June 2021, just after the announcement of the Quad vaccine partnership, East and South Asia had received over 50% of all promised donations globally, although at the time just over 20% of confirmed Covid-19 cases were found in the region. See Bridge Consulting 2022; KFF 2022; Kiernan et al. 2021a.

70 There are also reports of some countries having earmarked their COVAX vaccine allocations for a specific recipient country. See Kiernan et al. 2021b.

71 Per hegemonic stability theory, the provision of global public goods can be rational from the standpoint of a powerful state. The expectation is that a hegemon will undertake the provision of such goods as long as the benefits it accrues from providing those goods exceed the costs. For a discussion in the context of the Covid-19 pandemic, see Norrlöf 2020.

72 Mardell 2020a.

73 Mardell 2020a; Lancaster et al. 2020.

74 China Power 2021; Mingey and Kratz 2021; Lancaster et al. 2020; Lee and Rasser 2020.

75 Mardell 2020b.

76 Mardell 2020a.

China's failures at the early stages of the outbreak. This reframing has been directed at both domestic and international audiences.⁷⁷

China was an early starter in the development of a Covid-19 vaccine. In July 2020, China began to distribute Sinovac, Sinopharm and CanSino vaccines under its own emergency use programme to priority groups. According to Sinopharm, it had vaccinated over 1 million people by November 2020. Outside China, Indonesia was the first country to receive a shipment of Chinese vaccines in early December. Due to a very low level of transmission at home at the time, Chinese companies had to conduct testing abroad.⁷⁸ This was often branded as a show of generosity and "means of improving bilateral relations" by Beijing.⁷⁹ The Sinopharm and Sinovac vaccines have become the most widely distributed vaccine in China. Both utilise an inactivated virus, a technology different from the mRNA vaccines produced by companies such as Pfizer-BioNTech and Moderna. Following worries over lower protection rates of such traditional vaccines, both Sinopharm and Walvax Biotechnology have started developing a domestic mRNA vaccine.⁸⁰

In his speech, "Building a Global Community of Health for All" at the 73rd World Health Assembly, President Xi Jinping promised that the Chinese-made Covid-19 vaccines would be a "global public good".⁸¹ While Western countries were rushing to get their own citizens inoculated amid increasing infection rates, China managed to control the spread of the virus at home. With the help of its own vaccine development and production, Beijing was able to promise vaccines to those countries left out of purchasing deals with Western manufacturers.⁸²

Most of China's vaccines have been delivered based on bilateral agreements. This fits with China's broader "multi-bilateral" approach to international cooperation, "where interaction with other countries is based not on universally binding rules for international cooperation but on bilateral agreements".⁸³ From Beijing's standpoint, such ad hocery potentially allows it to establish asymmetric relationships wherein "demands for coherence and equal treatment" are potentially

lower, benefiting the more powerful party.⁸⁴ However, this approach undercuts China's claim that it is engaged in producing vaccines as a global public good.

While some countries have received Chinese vaccines as donations, most have been given the option to purchase them or provided with a loan for the purchases. By September 2022, China had pledged to donate over 280 million doses and had sold 1.9 billion doses of Covid-19 vaccines. Of these, it had delivered over 1.60 billion jabs. Some of the donations could be viewed as a "free sample", which has then been followed by a purchase order for a much larger amount.⁸⁵ By July 2022, 15 countries were manufacturing Chinese vaccines. Six more have signed licensing deals with Beijing for vaccine production.⁸⁶

China joined COVAX in October 2020. In early 2021, Beijing promised to donate 10 million doses to the initiative, promising an additional \$100 million for the COVAX financing instrument later the same year.⁸⁷ In mid-2021, the WHO approved Chinese Sinopharm and Sinovac for its Emergency Use Listing (EUL), the first Chinese vaccines to receive such authorisation, allowing them to be used by the COVAX programme.⁸⁸ By September 2022, China had sold 258 million doses to COVAX.⁸⁹ For many, WHO authorisation demonstrated the level of China's technological know-how but also the urgent need for vaccines.⁹⁰ The approval has been seen as one of the reasons for Beijing to join the initiative in the first place, in addition to demonstrating its support for multilateralism. WHO approval for the Chinese vaccines was seen by some as possibly easing some of the safety concerns regarding Chinese vaccines. The COVAX partnership could also bring economic benefits as China would be able to purchase, for the initiative, vaccines from domestic producers.⁹¹

Just six countries out of a total of 100 that China has promised vaccines to are not part of the BRI, illustrating the intimate linkage between Chinese vaccine diplomacy and its headline connectivity foray.⁹² In June 2021, China came forward with an initiative focusing on Covid-19 vaccine cooperation among the BRI countries.⁹³

77 Mardell 2020a; Lancaster et al. 2020.

78 Taylor 2020; Mallapaty 2021.

79 China Power 2022.

80 Riordan and Langley 2021. At the moment, nine mRNA vaccines are in development and in clinical trials by or in collaboration with a Chinese company. See Olcott 2022.

81 Quoted in Mardell 2020b; 2020a.

82 Mardell 2020b.

83 Rudyak n.d.

84 Krisch 2005, 390.

85 Bridge Consulting 2022; Karásková and Blablová 2021.

86 China Power 2022.

87 Zhou et al. 2020; GAVI n.d.

88 WHO 2021; China Power 2022.

89 Bridge Consulting 2022.

90 China Power 2022.

91 Yang 2021.

92 Beijing dislikes the term "vaccine diplomacy", as it allegedly implies that China's actions are fuelled by "sinister" political motivations. See Huang 2021.

93 Kiernan et al. 2021b; Ministry of Foreign Affairs of the People's Republic of China 2021.

Chinese Covid-19 vaccine deliveries (sales and donations)

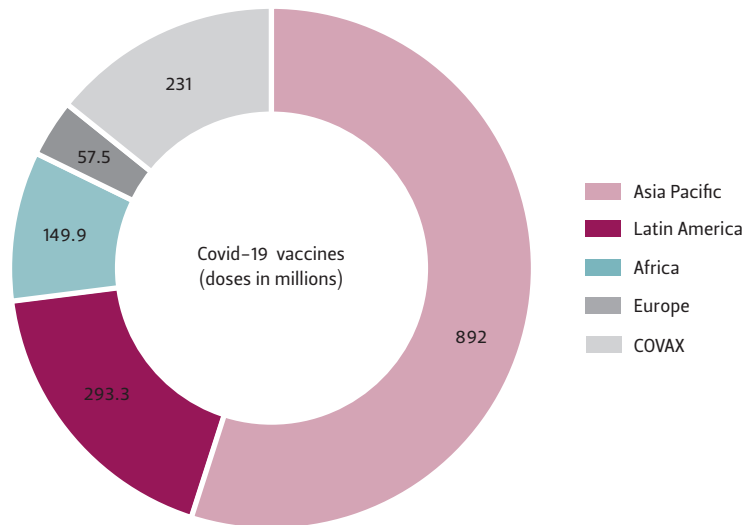


Figure 1. Chinese Covid-19 vaccine deliveries (sales and donations, doses in millions)

Source: Bridge Consulting 2022 (data as of 27 September 2022). Note: Deliveries by geographical regions consist only of bilateral contributions by China. Regional classification according to United Nations M49 standard (<https://unstats.un.org/unsd/methodology/m49/>).

Chinese Covid-19 vaccine deliveries (sales and pledged donations)

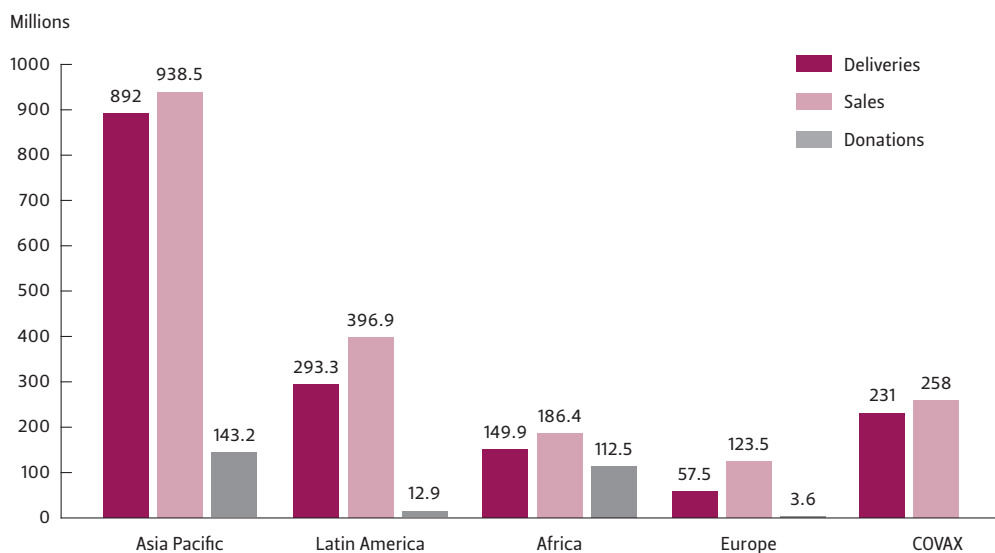


Figure 2. Chinese Covid-19 vaccine deliveries (sales and pledged donations, doses in millions)

Source: Bridge Consulting 2022 (data as of 27 September) Note: Deliveries by geographical region consist only of bilateral contributions by China. Regional classification according to United Nations M49 standard (<https://unstats.un.org/unsd/methodology/m49/>).

Top 10 recipient countries of Chinese Covid-19 vaccine deliveries

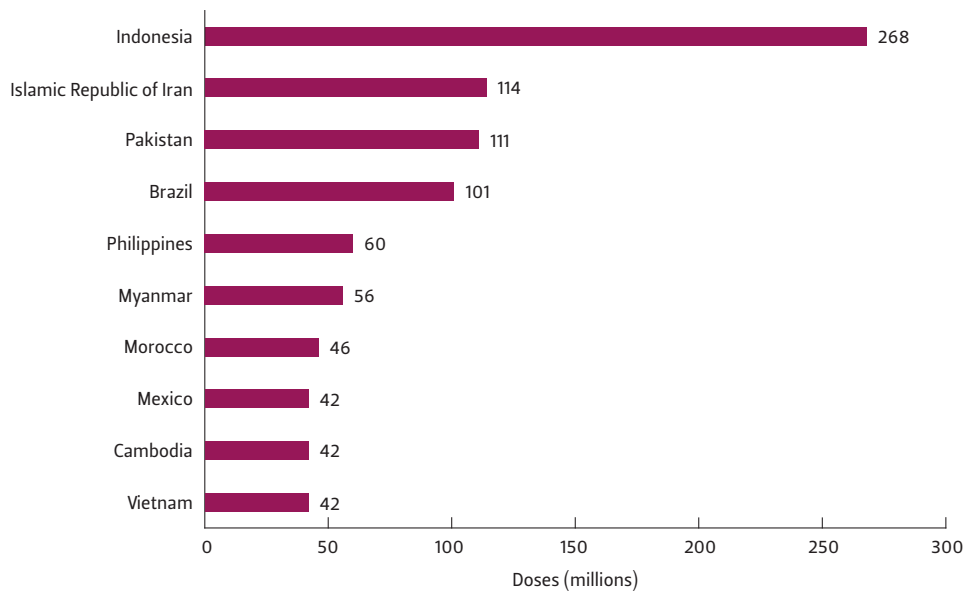


Figure 3. Top 10 recipient countries of Chinese vaccine deliveries (doses in millions)
Source: Bridge Consulting 2022 (data as of 27 September 2022).

The Asia Pacific region is by far the biggest receiver of Chinese vaccines. The region comprises 64% of China’s delivered vaccines, 52% of pledged donations and 57% of sold vaccines (bilateral contributions).⁹⁴

When it comes to delivered vaccines, Indonesia has been the biggest individual recipient with Pakistan, the Philippines, Myanmar, Cambodia and Vietnam as the other representatives of the Indo-Pacific in the top ten.⁹⁵

Since the beginning of 2022, China’s vaccine delivery numbers have decreased substantially. According to Bridge Consulting, the global vaccine market now has more options for buyers as companies such as Pfizer–BioNTech and Moderna have increased their export numbers, and vaccines produced in India are improving the COVAX initiative’s access to vaccines. In addition, some of the bigger buyers of Chinese vaccines have not continued with their purchasing agreements.⁹⁶

6. THE VACCINE PUSH BY THE US AND ITS PARTNERS

In the Trump era, the US by and large abdicated its leadership role in key international fora, and nowhere was this more evident than in the administration’s pandemic response. Instead of providing global public goods, the early stages of the pandemic illustrated how the US had effectively become “a consumer of security, dependent on the support of other states [...] in the realm of naturogenic threats”.⁹⁷ This was evident in soaring US infection and death rates, likely exacerbated by the administration’s inaction and haphazard policy coordination.

Internationally, instead of coordinating a global response, the administration took aim at China. Alongside a narrative blame game, Trump’s team placed restrictions on Chinese companies, sanctioned officials, and termed the repression of the Uyghur minority in Xinjiang a genocide.⁹⁸ The administration also piled pressure on the WHO, which it viewed as complicit in China’s attempts to cover up the start of the pandemic, first threatening the organisation with

94 Bridge Consulting 2022.

95 Bridge Consulting 2022.

96 Bridge Consulting 2022.

97 Reich and Dombrowski 2020, 1254.

98 Wright 2021.

loss of American funding and ultimately announcing a US exit effective 6 July 2021. Trump also refused to join COVAX, and the US was criticised for hoarding medical supplies.⁹⁹

While the Trump administration received well-deserved criticism for its overall handling of the pandemic, its decision to pour vast sums of money into Operation Warp Speed – a private-public partnership funded by the US government – was instrumental in the development of effective Covid-19 vaccines in record time. Two of them, the Moderna and Pfizer-BioNTech jabs employ the new mRNA technology.¹⁰⁰ The Trump administration naturally celebrated the success of its vaccine development push as a crowning achievement, but the President’s concerns were parochial, echoing little indication that the US would get into the vaccine diplomacy game.¹⁰¹ At a “vaccine summit” staged in December 2020, he underlined that “the United States government prioritizes the getting out of the vaccine to American citizens before sending it to other nations”.¹⁰²

In January 2021, the US approach shifted. Trump’s “America First” vaccine nationalism gave way to Joe Biden’s pledges of US leadership in the global vaccination effort. The new administration resolved to tackle the pandemic through a swift vaccination drive at home and a pledge to lead in the international arena. Domestically, the administration met its early vaccination targets and managed to pass a \$1.9 billion Covid relief bill in March 2021. However, new delta and omicron variants, coupled with vaccine hesitancy, dampened these initial successes.¹⁰³ In the international arena, Biden quickly announced that the US would remain in the WHO and take part in COVAX.

On 22 September 2021, the President hosted his first Covid-19 Summit encompassing over 100 countries as well as participants from IOs, the private sector and civil society. The summit focused on three targets, namely “Vaccinate the World”, “Save Lives Now” and “Build Back Better”. US pledges around the summit included, inter alia, a donation of 500 million additional doses of the Pfizer-BioNTech Covid-19 vaccine, \$370 million for USAID to enhance vaccination capacity, and \$383 million from the DFC to Gavi, the Vaccine

Alliance, to insure vaccine deliveries, investments in vaccine production in India and Africa, as well as support for the Covid-19 TRIPS Waiver.¹⁰⁴

In a thinly veiled attempt to combat China’s vaccine diplomacy, the two Quad leaders’ summits in 2021 were used to voice the vaccine pledges of the US and its partners. At the March 2021 virtual leaders’ summit, the group promised “to strengthen equitable vaccine access for the Indo-Pacific, with close coordination with multilateral organizations including the World Health Organization and COVAX”, and also to set up a “vaccine expert working group” dedicated to fulfilling this pledge.¹⁰⁵ The group also pledged to deliver 1 billion vaccines by the end of 2022, a number that was increased to 1.2 billion during the first in-person meeting of the four leaders in September. The vaccines would be manufactured in India with financing from the United States. Japan’s assistance included financial aid, for example, to support cold-chain assistance. Australia pledged funding for vaccines and “last-mile” logistical assistance to inoculate Southeast Asia and the Pacific region. At the 2022 Quad Summit in Tokyo, the leaders further underlined the countries’ achievements, particularly the provision of \$5.2 billion to the COVAX Advance Market Commitment (40% of the funding), the production of vaccines under the Quad Vaccine Partnership in India, as well as the Quad’s delivery of some 265 million vaccine doses to the Indo-Pacific.¹⁰⁶

At the time of writing, the US has delivered 613.7 million doses of the 1.1 billion vaccine doses it has pledged globally before 2023. Of these, 88% have been delivered through COVAX, and the US is the largest vaccine provider to the multilateral initiative, as well as the largest overall donor to the global vaccination effort. The largest recipient region of US vaccines is South and Central Asia with East Asia and the Pacific coming third, after Sub-Saharan Africa. Moreover, five of the largest recipients of US vaccines are in or adjacent to the Indo-Pacific region, namely Bangladesh, Pakistan, Vietnam, Indonesia and the Philippines.¹⁰⁷

At the same time, however, the US – and the West at large – has been rightly criticised for prioritising its own populations and a sluggish delivery of pledged doses to lower- and middle-income countries. This

99 Toosi 2020; Friedman et al. 2020.

100 Kahl and Wright 2021, 293–296.

101 In fact, Trump desperately (albeit unsuccessfully) pushed for approval of a US-developed vaccine before the November 2020 presidential election to boost his chances of victory. See Abutaleb et al. 2020.

102 The White House 2020.

103 Knight 2021.

104 The White House 2021c.

105 The White House 2021d.

106 Ministry of Foreign Affairs of Japan 2022a; The White House 2021e.

107 KFF 2022.

US Covid-19 vaccine deliveries by region (donations)

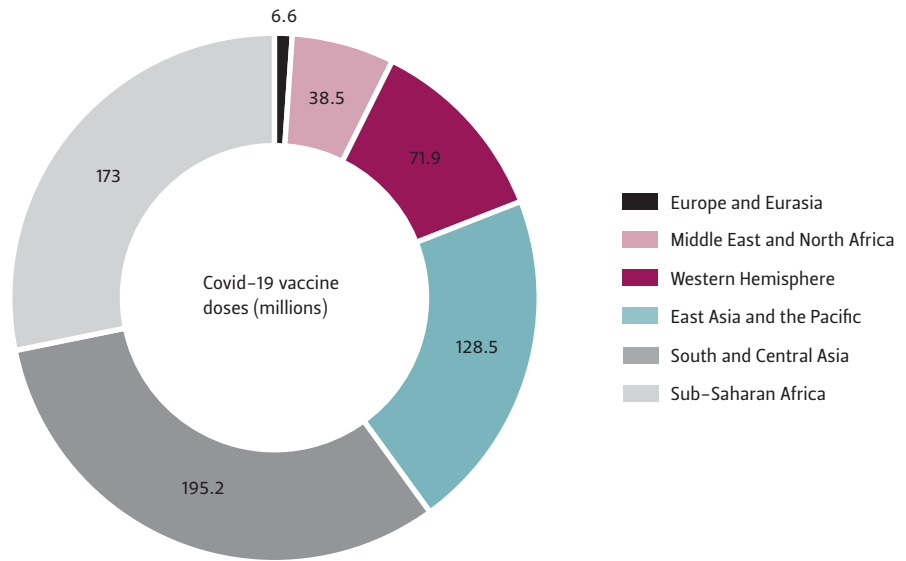


Figure 4. US Covid-19 vaccine deliveries by region (donations, doses in millions)
 Source: KFF 2022 (data as of 29 September 2022). Regional classifications as defined by the US Department of State (<https://www.state.gov/countries-and-areas-list/>)

Top 10 recipient countries of US Covid-19 vaccine deliveries (donations)

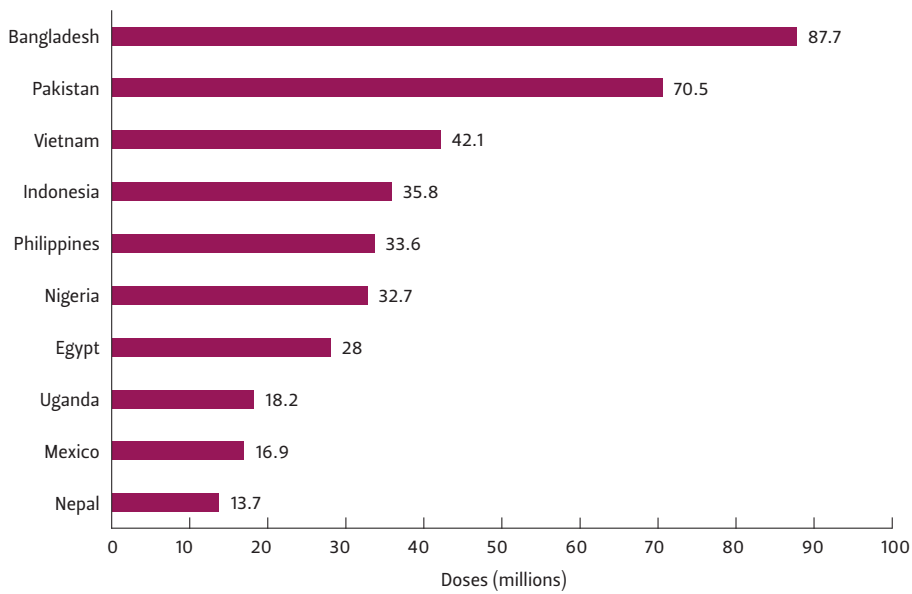


Figure 4. Top 10 recipient countries of US Covid-19 vaccine deliveries (donations, doses in millions)
 Source: KFF 2022 (data as of 29 September 2022).

is a function of production bottlenecks, advance purchase practices by rich countries, increasingly nationalistic approaches to trade leading to trade restrictions and non-tariff barriers, as well as delivery difficulties within receiver countries.¹⁰⁸ In a tell-tale sign of how difficult maintaining momentum for the global vaccination effort may yet be, the administration has struggled to get Congress to allocate additional funds for its global (and domestic) vaccination drive.¹⁰⁹ Biden's second (virtual) Covid-19 summit took place on 12 May, 2022 against this backdrop of Congressional recalcitrance, as the event had already been pushed back by Russia's war of aggression in Ukraine. The discussions centred on the need to avoid fatigue and complacency in the face of the pandemic. Reflecting the bind that Biden's administration finds itself in, the President was forced to plead with other countries to step up their efforts to combat the pandemic in the face of a US funding shortage. The \$3 billion pledged at the conference is nowhere near the \$15 billion that the WHO has called for.¹¹⁰

7. THE RECEIVERS OF VACCINES: CHALLENGES AND OPPORTUNITIES

The strategic competition between the United States/Quad and China in the realm of vaccines has focused strongly on the Indo-Pacific region, on recipients like Vietnam, the Philippines and Taiwan. However, the Indo-Pacific vaccine recipients have given varying responses to the vaccine diplomacy of the great powers while navigating the changing environment of infection rates and vaccine access.

Despite active public relations efforts, including attempts to garner goodwill and positive press through the organisation of vaccine handover ceremonies attended by local officials,¹¹¹ China's vaccine diplomacy has not been received without reservation in the region. Beijing's preference for a bilateral approach in its vaccine deliveries has raised concerns that Chinese vaccines come with possible strings attached – akin to the “debt trap diplomacy” that China has been accused

of in its BRI projects.¹¹² While Beijing has denied these accusations,¹¹³ the United States has made much of the fact that its vaccine deliveries do not come with any additional requests or demands – an indirect reference to the concerns raised by China's actions.¹¹⁴

In Taiwan, the vaccine distribution efforts of the US and China came to a head in mid-2021. Taiwan blamed China for a cancelled vaccine purchase deal with the German BioNTech SE. Beijing rejected the claim and made Taiwan an offer that it could purchase the vaccines through a Shanghai-based company retailing the Pfizer-BioNTech vaccine in the region. This move could be viewed as Beijing's attempt to extend its influence over, or even to coerce Taiwan to rely on China in its access to Covid-19 vaccines. Taiwan also had doubts over the safety of the vaccine offered by China.¹¹⁵ In addition, concerns were raised that Beijing would try to benefit from “the health crisis to undermine social stability and turn the public against [President] Tsai [Ing-wen], whom Beijing has accused of ‘plotting independence with the help of the pandemic’”.¹¹⁶ In response to Taiwan's predicament, the US promised a 750,000 vaccine donation to Taiwan. The number of US-donated doses was later increased to 2.5 million.¹¹⁷ Earlier, another Quad partner – Japan – had delivered 1.2 million vaccines to aid Taiwan, a move that was criticised by China. Notably, Japan's vaccine donations in general, both bilateral and through COVAX, have largely focused on Asia, Taiwan being in the top ten.¹¹⁸

In the Philippines, the then President Rodrigo Duterte's comments about vaccine deliveries to the country raised questions of potential concessions to China in exchange for (early) access to jabs.¹¹⁹ In July 2020, Duterte said he had requested vaccines from China once they became available, adding that he was not able to deter China's claim over the contested territories in the South China Sea. In its reply, the Chinese Foreign Ministry said the Philippines would be given “priority” to receive the vaccine.¹²⁰ Although ultimately not the first country to obtain Chinese

108 Gill and Ruta 2022.

109 Scott 2022; Banco 2022; Shear 2022.

110 WHO 2022; Gay Stolberg 2022.

111 A CSIS study found that by mid-September 2021, officials in 84 different countries attended such events to demonstrate their appreciation for China's efforts. See China Power 2022.

112 Mardell 2020b; Huang 2021; Rudolf 2021.

113 Huang 2021.

114 Wee and Myers 2021.

115 Martina et al. 2021; Hille 2021; Aspinwall 2021.

116 Hille 2021.

117 Martina et al. 2021; Hille 2021; Aspinwall 2021.

118 Hille and Harding 2021; Kiernan et al. 2021b; Ministry of Foreign Affairs of Japan 2022b.

119 Later, Duterte emphasised that China's vaccine donations did not come with any additional requests from China. See Grossman 2021.

120 Hillman and Tippet 2021; Radio Free Asia 2020; Heydarian 2021a.

vaccines, the Philippines did receive a donation of 600,000 doses from Beijing at the end of February 2021. However, safety concerns, along with claims of higher prices and corruption, later hampered China's vaccine diplomacy in the country.¹²¹ In March 2021, China's increasingly belligerent actions in the contested South China Sea, as it was delivering additional vaccines to the Philippines, fuelled questions over the possible motivations behind China's vaccine forays.¹²²

However, as the Philippines has also accepted vaccine donations from the United States,¹²³ its actions could be also viewed as hedging between the two great powers. According to Duterte, vaccine donations from the US even swayed him not to terminate the Visiting Forces Agreement (VFA) between the two countries,¹²⁴ preserving a vital foothold for the US military in the region.

In Vietnam, geopolitics also played a role in vaccine deliveries. Vietnam took an active approach in its attempts to ensure enough vaccines for its citizens.¹²⁵ China's initial offer of 500,000 doses in June 2021 faced a backlash after it was revealed that the doses were earmarked for specific recipients by Beijing. The United States, via COVAX, sent two million vaccines less than a month later.¹²⁶ Pledges made to Vietnam by the US and China are one of the clearest examples of the competition between the two countries in the realm of vaccines. Coinciding with Vice-President Kamala Harris's visit to Vietnam, China delivered another 200,000 doses to the country in August 2021. During her visit, Harris promised that Vietnam would receive a further one million Covid-19 vaccines from the United States.¹²⁷ This pledge was outdone by China, which, just before Harris's announcement, promised Vietnam an additional 2-million-dose donation.¹²⁸ Both the United States and China thus tried to use vaccine deliveries to achieve political ends, for instance to gain Vietnam's backing on monetary policy and tacit approval of the AUKUS security pact (US), as well as assurances that Vietnam would continue pursuing an independent foreign policy (China).¹²⁹ Vietnam's reaction, on the other hand, can be seen as consistent

with its earlier hedging strategy between the two powers.¹³⁰

As infection rates and vaccine availability have ebbed and flowed during the pandemic, novel hedging options have opened up to recipient countries. However, the changing situation has also at times benefitted one of the competing great powers. The Quad's pledge to accelerate vaccine production suffered an immediate setback in April 2021 after India faced a new wave of Covid-19 infections, consequently banning exports of vaccines produced in the country. Many countries had to turn to China for compensatory jabs.¹³¹ For example, when India was unable to fulfil its agreement with Bangladesh concerning 30 million vaccines, China came to the state's aid, providing vaccines as well as a production agreement with the Chinese Sinopharm. However, when the Chinese ambassador to Bangladesh noted that any plans by Bangladesh to join the Quad would have a negative impact on the relationship between the two countries, Dhaka responded strongly, underlining its foreign policy independence just ahead of another vaccine delivery from China.¹³² Both the United States and Japan have made efforts to respond to China's foothold in Bangladesh, and the country is currently the top recipient of US vaccine donations, and one of the top receivers of Japanese ones.¹³³

The Pacific countries have been divided in their success when it comes to vaccinating against Covid-19. While some larger countries have faced longer waiting times to inoculate their citizens, some of the smaller islands have managed significantly better. For example, the Marshall Islands were able to vaccinate their population with doses received from the United States, not needing their order from COVAX in the end.¹³⁴ Of the Quad members, Australia has focused its resources on aiding neighbouring countries.¹³⁵ Its vaccine diplomacy collided with that of China in Papua New Guinea (PNG) in 2021. Earlier, PNG's Acting Foreign Minister Rainbo Paita had had to deny Beijing's claim that China would provide the country with Covid-19 vaccines, and that he had expressed gratitude for China's assistance, stating that the matter was still under discussion.¹³⁶ Later on, the Chinese

121 Heydarian 2021a; Dela Cruz 2021.

122 Heydarian 2021b.

123 Grossman 2021.

124 Kiernan et al. 2021b.

125 Tung 2021, 7.

126 Tung 2021, 7; Wee and Myers 2021.

127 Zhou 2021; NPR 2021; Tung 2021, 8.

128 Tung 2021, 8.

129 Ibid., 11–12.

130 Ibid., 3.

131 Kazmin and Sevastopulo 2021.

132 Hassan 2021; China Power 2022.

133 Hassan 202; KFF 2022; Ministry of Foreign Affairs of Japan 2022b.

134 Natalegawa and Bismonte 2021.

135 Barr 2021.

136 Natalegawa and Bismonte 2021.

state media and foreign ministry accused Australia of “sabotage” and “political manipulation” regarding China’s vaccine deliveries to PNG and the region at large – claims rejected by Canberra.¹³⁷ Meanwhile, PNG’s Health Minister, Jelta Wong, thanked both countries for delivering vaccines, stating that the country does not “take sides”, denying it was facing “pressure from any political or country affiliation”. Nevertheless, Chinese officials had reportedly been “disappointed” after it was the country’s Planning Minister instead of the Prime or Health Minister who was sent to receive Sinopharm vaccines.¹³⁸

China’s vaccine diplomacy efforts encountered a serious challenge in the later part of 2021, when the lower protection rate of the Chinese vaccines began to raise concerns in recipient countries. This created space for western manufacturers and the United States’ and the Quad partnership’s vaccine efforts. For example, Indonesia, a country that was one of the first to receive Covid-19 vaccines from China and the number one receiver of Chinese-made vaccines, was faced with a wave of infections in mid-2021. Although the country had vaccinated its healthcare workers with Sinovac, since July 2021 10% had become infected with Covid-19. Jakarta decided to distribute Moderna shots to those healthcare workers who had received the Sinovac shot earlier. Cambodia made a similar decision. Thailand decided to provide an additional shot of AstraZeneca’s vaccine to residents who had received an earlier shot of Sinovac, and Malaysia announced that Sinovac vaccines would be phased out after finishing the existing stock.¹³⁹

Overall, the contentious vaccine connectivity between the United States/Quad and China created opportunities for hedging for many of the vaccine recipients in the Indo-Pacific. Some, such as Taiwan, felt that Beijing’s actions regarding vaccine access were more coercive. Yet concerns over China’s ability to use vaccines as a way to gain concessions from recipients do not seem to have been justified.

CONCLUSIONS

This paper has sought to illustrate how vaccine diplomacy has become a novel front in the great-power competition between China and the United States. As the Covid-19 pandemic remains a global health emergency and a moving target by virtue of the emergence of new variants, we can offer but an interim report on how contentious connectivity has played out in this domain.

It is obvious that creating connections through the provision of vaccines is ultimately not about altruism. In this case, the production of global public goods should ideally be in the interests of both the hegemon as well as its possible challengers, insofar as protecting one’s citizens requires eradicating the disease globally, as does the maintenance of functioning connections in a profoundly interdependent world. However, as we have illustrated above, this imperative has neither spurred the great powers of the day to make sufficient efforts to provide enough vaccines globally nor kept them from engaging in one-upmanship.

In the case of China, its first-mover advantage – in terms of both quickly beating the first wave of the pandemic and pushing out vaccines quickly – allowed it to seek leveraged connections with states in its vicinity. As the discussion illustrated, this was not only a matter of competing with Western vaccine candidates, but also an attempt to contain US influence in the region. Tellingly, receiving states also interpreted it as such. In a manner consistent with its mask diplomacy, China also sought acknowledgement of its status as a great (or responsible) power by requesting public displays of gratitude from vaccine recipients. Moreover, Beijing’s preference for bilateralism over the multilateral COVAX initiative underlined China’s desire to break down its vaccine connections into silos in anticipation of exerting influence.

For the US and its partners, the Quad’s cooperative approach to vaccines was naturally framed as an attempt to render effective vaccines available globally, but the initial focus on the Indo-Pacific illustrates the underwritten element of competing against China in vaccine connectivity. In particular, the shift from Trump’s America First vaccine nationalism to Biden’s America is Back mantra allowed the US to re-engage the globe as a provider of sought-after goods in concert with partners. This cooperative approach of exercising power with others by channelling considerable amounts of vaccine through the multilateral

137 Whiting et al. 2021; Whiting 2021. Australia’s PM Scott Morrison did make a comment later, however, stating vaccines as one of the reasons for preventing Chinese “incursion” into the region. See Reuters 2022.

138 Whiting et al. 2021; Whiting 2021.

139 Wee and Myers 2021.

COVAX framework, as well as the effectiveness of the Western-produced vaccines when compared to their Chinese counterparts, ultimately allowed the US and its partners to erode China's first-mover advantage and establish potentially more sustainable vaccine connections with states in the Indo-Pacific region.

Moreover, when it comes to the vaccine receivers in the Indo-Pacific, the fact that the US/Quad and China were both vying to provide vaccines for them opened space for cultivating connections with both patrons in hopes of a better outcome. However, these states also objected to the coercive bent of China's calls for fealty, and were ultimately dismayed by the poorer quality of China's vaccines. In the end then, hedging has become a less appealing approach as states have one by one begun to prefer Western vaccines.

This first reading of contentious vaccine connectivity provides three further takeaways. First and foremost, health connectivity figures prominently in the connectivity forays of Indo-Pacific powers, and the Covid-19 pandemic has been a key impetus in strengthening this pillar into the foreseeable future. Regrettably, however, the increasing focus on these issues has not materialised into great powers providing sufficient quantities of vital life-saving goods.

Second, the example of Covid-19 illustrates the contestedness of order in the Indo-Pacific “super-

region”, and underlines the suboptimal consequences of great-power competition with respect to order. While offering opportunities for great powers to increase their influence and certain well-placed small actors to pit the great powers against each other, by and large the vaccine rollout has increased tensions between the US and China, opened a new front for coercive diplomacy, and worsened inequality. Contentious connectivity has been corrosive in terms of order.

Finally, the paper points to a broader finding with respect to the ebb and flow of hegemonic power: China, the rising challenger, has failed in husbanding its first-mover advantage into appreciable gains in power and influence. Since the tumult of Donald Trump's presidency subsided and effective mRNA vaccines came online, the US has managed to assume leadership in the provision of Covid-19 vaccines and even enlist a group of partners in the Indo-Pacific to create a US-backed network of vaccine connectivity. However, this is an interim conclusion. As the pandemic declines in importance in the face of other pressing matters – whether the war in Ukraine, tensions over Taiwan, or the looming US Midterms – such leadership may prove short-lived, and the map of vaccine connectivity in the Indo-Pacific may be redrawn once more. /

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