Briefing Paper

Global Economy and Finance Programme April 2021

Trade policy and medical supplies during COVID-19

Ideas for avoiding shortages and ensuring continuity of trade

Summary

- The COVID-19 pandemic has brought to the fore concerns about shortages of medical goods, including vaccines, and about the risks associated with competition for supplies. Policymakers to date have often advocated ill-conceived approaches that misunderstand the dynamics of relevant supply chains.
- International mechanisms have a role in supporting properly devised national initiatives to ensure resilient supplies in times of crisis. To this end, this paper proposes a three-part framework for policy coordination, consisting of:
 - Promotion of effective public health responses, including early intervention in emergencies and potential domestic rationing of key supplies.
 - Specific national measures for medical goods, including revised rules on domestic and overseas procurement, de-risking of supply chains, and 'trade facilitation plans' to suspend tariffs and taxes and fast-track port clearances.
 - A confidence-building MoU to codify key principles. Signatories would commit to joint-purchasing arrangements and data sharing on medical goods stockpiles. Swap arrangements for stockpiles should also be agreed.
- The MoU could be presented for adoption at the G7 summit in June 2021. It could also form the basis for a wider agreement to be announced on the sidelines of the 2021 UN General Assembly.

Simon J. Evenett



Introduction

Despite the first approvals in December 2020 of vaccines for COVID-19, the challenges around their distribution and associated inoculation programmes mean that governments will be dealing with the current pandemic through much of 2021, at the very least. Levels of demand for medical consumables (such as masks), medical equipment and medicines will remain elevated. Most countries will continue to rely on overseas production for the supply of many of those goods.

This raises two questions. What steps, if any, should governments take to minimize the likelihood, extent and duration of shortages of medical goods?¹ And how can international cooperation help to achieve this, and prevent competition for supply from impeding responses to the pandemic?

Trade frictions around medical goods (including vaccines) have been a prominent concern during the pandemic to date. Following the heavy-handed scramble for personal protective equipment (PPE) and ventilators in the second quarter of 2020, many governments framed their initial policy responses in terms of security of supply – a concept used previously in deliberations on the adequacy of supplies of food and electricity. For what it is worth, others have framed the matter in terms of supply chain resilience.

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During this initial pandemic response, certain senior government officials – and not only those known to advance economic nationalism – were very critical of cross-border supply chains. They proposed repatriating production in general, subsidizing the relocation of factories from China in particular, and financing the expansion of domestic production of medical goods through state aid.² That China was both the source of the pandemic and a large supplier of PPE aggravated the contentiousness of the issue, coming on top of the discord arising from pre-pandemic trade tensions and geopolitical rivalry.³

This paper explores ideas for minimizing the risks to supplies of pandemic-related medical goods, addressing in particular the paradox that poorly constructed national procurement agendas may undermine the very trading arrangements needed to ensure reliable supplies. The paper's focus is on the international trade dimension

¹ For the purposes of this paper, the term 'medical goods' refers to medicines, multiple-use medical equipment (such as ventilators) and disposable medical consumables (such as face masks and personal protective equipment, PPE). COVID-19 vaccines are also classified here as 'medical goods'.

² Evenett, S. J. (2020), 'Chinese whispers: COVID-19, global supply chains in essential goods, and public policy', *Journal of International Business Policy*, 3: 408–29, https://link.springer.com/article/10.1057/s42214-020-00075-5.
3 Blustein, P. (2019), *Schism: China, America and the Fracturing of the Global Trading System*, Waterloo, Ontario: Center for International Governance Innovation, https://www.cigionline.org/publications/schism-china-america-and-fracturing-global-trading-system; and Davis, B. and Wei, L. (2020), *Superpower Showdown: How the Battle Between Trump and Xi Threatens a New Cold War*, New York: Harper Collins.

of security of supply. The approach taken is deliberately grounded in evidence and relevant sectoral experience, as this provides a useful counterpoint to the impulsive arguments of certain policymakers and analysts.

Governments have a duty to protect their citizens during crises, including threats to public health. What is contested here is the means, not the ends, of public policy. As this paper will elaborate, there is a role for international cooperation to support properly devised national reform initiatives; indeed without the former, the benefits of the latter will be blunted.

The paper is structured into three sections (excluding this introduction). First, to put the policymaking calculus in perspective, the paper presents two case studies from sectors where security-of-supply considerations are important: medical goods and electricity. In the latter, such considerations have long preoccupied policymakers, and the sector offers a useful contrast to the on-the-hoof policymaking witnessed last year in the medical goods sector. The case studies are followed by a final section that outlines recommendations for national policy, international cooperation and measures to sustain cooperation in an enduring implementing structure. A proposed timetable is also presented.

Case study 1: Medical goods shortages early in the COVID-19 pandemic

On 3 March 2020, the World Health Organization (WHO) reported mounting concerns over PPE shortages – taken to mean a significant excess of demand over supply. The shortages were said to have arisen from panic buying, hoarding, misuse and a surge in demand from national health systems. WHO warned that this threatened the health and lives of medical personnel and their patients. Avoiding a repeat of shortages in the future is a top policy priority for governments and international organizations.

Initiatives to limit or avoid shortages of medical goods need to take account of both demand- and supply-side factors, the most important of which are outlined below:

Public health response as a major driver of demand

Demand for medical goods is a function of the public health response to a pandemic. Specifically:

- Hospitalization rates. Hospitalization triggers higher use of and therefore demand for – medical goods. Nations that took early steps to curb the spread of COVID-19 saw, by and large, fewer people hospitalized.
- Rationing. Whether a government rations its population's access to PPE is another driver of demand. Taiwan's rationing of masks early in 2020 was noteworthy in this regard.

 $[\]label{thm:condition} \begin{tabular}{l} 4 World Health Organization (2020), `Shortage of personal protective equipment endangering health workers worldwide', 3 March 2020, https://www.who.int/news/item/03-03-2020-shortage-of-personal-protective-equipment-endangering-health-workers-worldwide. \end{tabular}$

 Stockpile levels. Having substantial pre-existing stockpiles can dampen short-term demand for additional medical goods.

In a well-prepared public health infrastructure – in which robust scenario planning for pandemics has led to the drawing up of contingency plans that are actually followed in the event of a crisis – authorities are less likely to engage in panic buying and less likely to induce panic buying by others. Indeed, it is the presence of panic buying on a large scale that makes forecasting demand for medical goods so difficult during public health emergencies. In the absence of a sufficiently robust supply-side response, demand surges exacerbated by panic buying make shortages almost inevitable.

Four pertinent supply-side considerations

In addition to demand drivers, four supply-side considerations influence the magnitude of any domestic shortages of medical goods. First, when sourcing from abroad is an option, a nation's import barriers affect the availability and price of supplies. For example, at the outset of the COVID-19 pandemic, many governments were still taxing imports of soap and medical goods.⁵ In response to elevated demand for imported supplies, 106 governments subsequently implemented 240 reforms that eased imports of these goods.⁶

A second factor is whether a policy-induced breakdown occurs in national and international transportation infrastructure, slowing or preventing delivery of goods from factory gate to hospitals etc. On the other hand, delivery can be facilitated by expedited customs procedures and the use of so-called 'green lanes'.

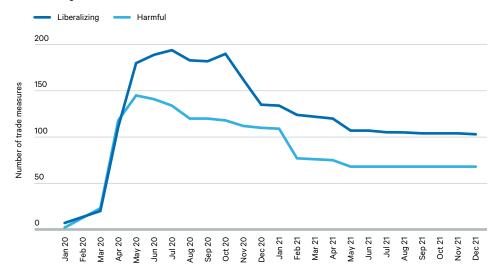
A third policy-related supply-side consideration is whether panicked officials impose export controls on medical goods. It is pertinent to point out that by April 2020 a total of 145 new export controls on medical goods had been imposed since the start of the pandemic (see Figure 1). While the export controls took many different forms, and some have since been unwound, a total of 68 are expected to survive in 2021. This suggests that recent policy-induced disruptions to cross-border supply could well leave permanent scars on the relevant sectors.

⁵ World Trade Organization (2020), 'Trade in Medical Goods in the Context of Tackling COVID-19: Information Note', 3 April 2020, https://read.wto-ilibrary.org/economic-research-and-trade-policy-analysis/gender-specific-differences-in-geographical-mobility_5a1af59c-en#page1.

⁶ The latest information on trade policy changes affecting food, medical supplies and medicines is available at https://www.globaltradealert.org/reports/54. This policy-monitoring initiative has collected information on more than twice as many policy changes as have official international organizations. For a description of the associated database, including reasons for the enhanced monitoring performance, see Evenett, S. J., Fiorini, M., Fritz, J., Hoekman, B., Lukaszuk, P., Rocha, N., Ruta, M., Santi, F. and Shingal, A. (2020), *Trade Policy Responses to the COVID-19 pandemic crisis: Evidence from a New Dataset*, World Bank Policy Research Working Paper number 9498, December 2020, https://openknowledge.worldbank.org/handle/10986/34942.

Figure 1. New trade measures affecting cross-border supplies of medical goods, 2020 and 2021

(Cumulative global number of measures introduced in 2020 and still in force in each month)



Source: The Essential Goods Monitoring Initiative, Global Trade Alert, monthly updates available at https://www.globaltradealert.org/reports/54 (accessed 25 Jan. 2021).

The final supply-side consideration concerns the speed and scale at which the private sector can ramp up production – whether by expanding production runs at existing medical goods plants, repurposing other manufacturing facilities or setting up new plants. Furthermore, to the extent a pandemic may hit countries at different times, then the total supply of medical goods to any one country may be maximized by careful sequencing of supplies from different locations. As Figure 2 shows, imports of face masks into the US surged from April 2020, reaching multiples of pre-pandemic levels, with the vast bulk of this increase supplied by Chinese manufacturers. Understanding how quickly the private sector can scale up production of medical goods may go some way to reassuring officials and preventing panic buying. Of course, the private sector is taken here to include foreign, not just domestic, suppliers.

In sum, multiple factors determine the scale and duration of any shortages of medical goods and medicines. Government policy has a significant influence on the demand- and supply-side drivers of shortages – yet this fact was apparently lost on many senior policymakers as they drew erroneous conclusions from the shortages in medical goods witnessed in the first half of 2020. Some argued that there was too much dependence on a small number of foreign suppliers. Others claimed that China, a major producer of medical goods and active ingredients for pharmaceuticals, would exploit shortages to gain leverage over its trading partners.⁸

⁸ This critique contains an irony. Having for years criticized China for maintaining excess capacity in sectors such as steel, its trading partners were upset that China did not have enough production capacity to *immediately* meet pandemic-induced demand for medical supplies. Similarly, any suggestion that redundant capacity be deliberately built up at home (as a precaution against future surges in demand for essential goods) ignored the fact that such steps would create the very excess capacity that has been a source of trade tensions and discord among G20 members in recent years.

Volum 20 Oct 19 Mar 12 Mar 20 Oct 19 Oct 19

Figure 2. Value of face mask imports into the US in 2018–20, by source, \$ million

Source: United States International Trade Commission (undated), USITC DataWeb, https://dataweb.usitc.gov (accessed 25 Jan. 2021).

Flaws in prominent reform proposals for medical supply chains

The above-mentioned misinformed critiques of supply chains in 2020 led to the following broad classes of policy proposal to alter where medical goods are produced or sourced:9

- Repatriation of production from abroad;¹⁰
- Industrial policies to expand production of medical goods and medicines at home; and
- Greater diversification across suppliers (to the extent that foreign sourcing continues).¹¹

Many governments appear determined to add to domestic production capacity. As shown in Figure 3, in a number of cases public procurement regimes have been adjusted to favour local producers. More widely, governments have offered various types of financial support to encourage firms to establish and expand production at home. The goal appears to be – and in some cases is explicitly stated as such – to displace imports with local production.

In these measures, trade and development policy analysts will see a direct parallel with the import-substitution industrialization policies of the 20th century. Analysts will also doubtless recall that such policies were overwhelmingly unsuccessful, and were ultimately abandoned because they provided little incentive for local firms to control costs, improve productivity or innovate. This time around,

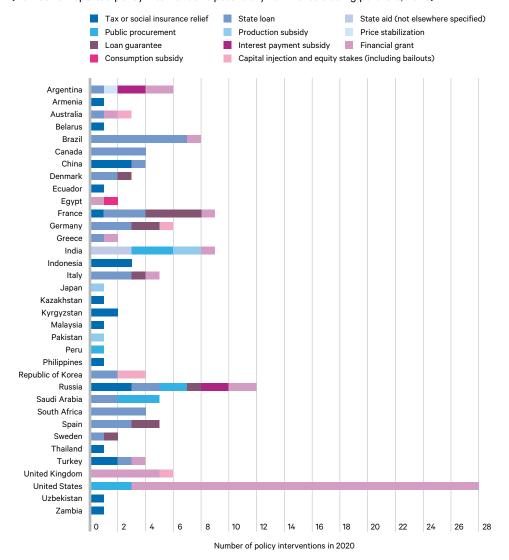
⁹ An alternative approach that need not require relocating the production of medical goods is to build stockpiles. **10** State aid has been offered by certain governments to induce firms to shift factories out of China. Japan has the most high-profile initiative in this regard, having created a \$2.2 billion fund in 2020. However, the average sums dispersed per corporate beneficiary are relatively small, at least when compared to the total value of Japanese foreign direct investment in China.

¹¹ Evenett (2020), 'Chinese whispers: COVID-19, global supply chains in essential goods, and public policy'.

instead of using high tariffs to reduce or eliminate imports, governments are using subsidies to expand domestic production. The potential consequences of such an approach are likely to include a higher-cost and weakly innovative medical goods sector.

Figure 3. Import-substitution industrialization policies in the medical goods sector

(Number of reported policy interventions potentially harmful to trading partners, 2020)



Sources: Global Trade Alert, plus additional information collected by the author from official websites.

The proposed diversification of supply has also come under increased scrutiny. During the past nine months, evidence has come to light casting doubt on claims that the sourcing of medical goods was concentrated in too few foreign nations to ensure reliable supply. Careful parsing of data on imports of individual medical products reveals that, contrary to common belief, China is the majority supplier of only a tiny fraction of the categories of medical goods imported by France,

Germany, the UK and the US.¹² A similar analysis of data for the entire EU confirms little 'overdependence' on imports from China.¹³ For the US, once domestic production is taken into account, China's share of the US domestic medical equipment market was only around 8 per cent before the pandemic hit.¹⁴ As such, the rhetorical tactic of critics of cross-border supply chains – in highlighting what they think are telling examples of supply vulnerabilities – has been shown to be unrepresentative of realities on the ground and, therefore, an unsound basis for public policy.

Once the literature on supply chain management is consulted, the weaknesses become apparent in the broad-brush policy recommendations advanced last year to repatriate or reshore production or diversify suppliers. ¹⁵ First, there is considerable diversity across the supply chains used to manufacture different types of medical equipment (such as ventilators), medical consumables (such as PPE) and medicines. Policy initiatives need to be tailored to the specificities of each supply chain.

Second, many politicians and commentators have appropriated the terms used to describe *firm-based strategies* for managing disruption in cross-border supply chains, and have applied these apparently with little thought to the *national level*. But what may be appropriate for individual companies does not automatically translate to the national context. A given firm's supply chain may be 'resilient' (however defined) in isolation, but a government needs to concern itself with whether, taken together, all of the suppliers of a particular type of medical product are resilient.

There is the potential here for a classic fallacy of composition. If every firm took identical resilience measures, it might expose a national health system to significant location-specific risks. Governments have to think differently from firms about managing sector-wide supply chain disruption. This means that stress tests performed by governments need to be different from those undertaken by, or applied to, any one firm. ¹⁶

Third, even some of the seemingly unobjectionable policy recommendations put forward in the past year wilt under scrutiny. Take the recommendation that a firm diversify its sourcing across multiple locations. This may indeed have the intended effect of reducing the probability of the firm failing to deliver to its customers should any one supplier be unable to meet its commitments. However, maintaining multiple suppliers, or suppliers across multiple locations, incurs additional costs and brings risks of its own (see Table 1).

¹² Ibid.

¹³ Guinea, O. and Forsthuber, F. (2020), *Globalization Comes to the Rescue: How Dependency Makes us More Resilient*, European Centre for International Political Economy, ECIPE Occasional Paper 6/20, September 2020, https://ecipe.org/publications/globalization-makes-us-more-resilient.

¹⁴ Leibovici, F., Santacreu, A. M. and Peake, M. (2020), 'The US reliance on other countries for essential medical equipment', Voxeu.org, 13 April 2020, https://voxeu.org/article/us-reliance-others-medical-equipment.

15 Altenberg, P. (2020), *Improving Economic Resilience Through Trade-should we rely on our own supply?*, Stockholm: The National Board of Trade, https://www.kommerskollegium.se/en/publications/reports/2020/improving-economic-resilience; and Gereffi, G. (2020), 'What does the COVID-19 pandemic teach us about global value chains? The case of medical supplies', *Journal of International Business Policy*, 3(3): 287–301.

¹⁶ As such, the author's recommendation here differs from the firm-specific stress tests advocated in Simchi-Levi, D. and Simchi-Levi, E. (2020), 'We need a Stress Test for Critical Supply Chains', *Harvard Business Review*, 28 April 2020, https://hbr.org/2020/04/we-need-a-stress-test-for-critical-supply-chains.

Moreover, as a comprehensive recent study of steps by thousands of firms to manage their international supply chains shows, ¹⁷ the time needed to restore operations after a disruption is longer for firms with more diversified sourcing. While diversification reduces the risk of disruption, this is at the expense of prompt restoration of operations should such disruption occur. This evidence implies that there are always trade-offs when it comes to reducing supply risks.

From the perspective of managing cross-border supply chain disruptions, business experience has also revealed that there are pros and cons in developing long-term relationships with suppliers. The same applies to sourcing from locations with better logistics infrastructure, even though such suppliers may in principle be able to facilitate faster shipment in response to changing demand (see Table 1).

Overall, many official statements about the deficiencies of cross-border supply chains, and how to fix them, bear little relation to the evidence from sourcing patterns on the ground. Nor have such statements accurately reflected the diversity of supply chains among firms even within the same broad sector of medical goods, or the ways in which firms have lessened disruption-related risks in their cross-border supply chains.

Table 1. Comparison of sourcing strategy options – no perfect solution

Sourcing option	Pros	Cons
Diversification	Allows for easier switching between suppliers in response to supply disruptions. Competition between suppliers can encourage suppliers to make investments that facilitate recovery.	On average, sourcing from multiple suppliers reduces the size of purchases from each one, weakening buyer leverage.
		Costlier for buyers to identify counterparties that are better managed less likely to suffer shocks and able to recover faster from disruption.
		More time needed to restore full operations after disruption.
Long-term relationships	Facilitate relationship-specific investments, information-sharing and cooperative behaviour that speeds up recovery from disruption.	Can result in complacency and diminished incentives to invest in solutions that could otherwise foster recovery from disruption.
	Support investments in redundant supplier capacity.	
Sourcing from locations with efficient and low-cost	High-quality logistics infrastructure and fewer bureaucratic hurdles can facilitate faster recovery after disruption.	Lean, low-cost logistics tend not to be associated with the redundancy in capacity needed to cope with disruptions (in particular, surges

Source: Compiled and adapted from Jain, Girotra and Netessine (2020), 'Recovering Supply Chains for Sourcing Interruptions: The Role of Sourcing Strategy'.

¹⁷ Jain, N., Girotra, K. and Netessine, S. (2020), 'Recovering Supply Chains for Sourcing Interruptions: The Role of Sourcing Strategy', forthcoming article in *Manufacturing & Service Operations Management*.

Conclusions from the medical goods case study

In sum, most of the policy proposals advanced last year to secure supplies of medical goods have targeted the supply side of the market. The approaches advocated are problematic for two reasons: (i) the issue of demand surges remains largely unaddressed; and (ii) the suggested reconfigurations of supply chains go against much of what is known about how the private sector – acting independently of government – minimizes and tackles disruptions. It should not be forgotten that firms with a reputation for reliability have strong incentives to minimize disruptions.

Furthermore, widespread resort to subsidization – as advocated in some quarters – will blunt the incentives of private sector providers of medical goods to keep costs under control and innovate, thus harming public health over the medium to longer term. Add to this the risk that unilateral measures may inflame tensions with trading partners, and it becomes apparent that a different policy mix is needed.

Since the outbreak of the pandemic, policymaking has taken place in fraught circumstances, with little time to reflect on every policy initiative's consequences for the security of supply of medical goods.

Since the outbreak of the pandemic, policymaking has taken place in fraught circumstances, with little time to reflect on every policy initiative's consequences for the security of supply of medical goods. As the second case study (below) illustrates, the same cannot be said in the electricity sector, where security-of-supply considerations have been uppermost for decades. What are the lessons from that sector for policymakers determined to prevent or limit future shortages of medical goods, including vaccines?

Case study 2: Lessons from security-of-supply policies for electricity

The electricity sector is one in which, for decades, governments around the world have taken numerous steps to ensure security of supply. This is because at any time a failure to equalize supply and demand can lead to a collapse of the system of power generation and distribution. The challenge for policymakers here is complicated by two other factors: first, rationing of demand is either infeasible or costly; and second, only relatively small amounts of electricity can be stored. Under these circumstances private suppliers of electricity would, in the absence of state intervention, fail to take into account the social costs of building insufficient production capacity.

¹⁸ Neither condition applies to medical goods.

¹⁹ Fabra, N., Motta, M. and Peitz, M. (2020), *Preparing for the next crisis: How to secure the supply of essential goods and services*, Centre for Economic Policy Research, CEPR Policy Insight No. 106, September 2020, https://cepr.org/active/publications/policy_insights/viewpi.php?pino=106.

Key decisions in the design of supply capacity mechanisms

In response to these challenges, many governments have developed different types of *capacity mechanism* to ensure that the choice of total production capacity is not left to market forces. The design of such capacity mechanisms must address the following questions, each of which maps on to a key decision that a government has to take:

- What is the optimal capacity²⁰ target?
- What is the optimal policy to achieve that target? And how can the desired level of supply be achieved at lowest cost?
- What form should any state aid to producers take? Should all production plants receive so-called capacity payments?
- How do such payments affect the functioning of energy markets? What flanking
 policy measures are needed to offset any undesirable side-effects of state aid?
- How should optimal policy change in light of technological advances, including the development and adoption of renewable forms of energy?

These questions make clear the decisions that must be made in devising a mechanism that directly targets supply levels in a context in which – in contrast to pandemic-related medical goods – the necessity of future demand is not disputed, and in which regular patterns of energy consumption and growth facilitate the forecasting of demand.²¹ Ultimately, the introduction of capacity mechanisms in the electricity sector has involved a substantial expansion in the role of the state, along with calls for a clear-sighted assessment of the pros and cons of such moves.

Assessment of supply capacity mechanisms in electricity and their relevance to other sectors

That this is a contentious area of public policy should serve as a warning to those seeking to adapt or replicate this approach in other sectors. The establishment of supply capacity mechanisms often pits competition enforcement agencies and unfavoured firms against subsidy recipients and governments. Furthermore, in the case of tradeable goods such as medical goods, in so far as subsidies are a major element of the policy mix, the measures taken by governments in leading producer countries may also result in trade tensions and disputes.

This is not to mention the evident moral hazard problem. Suppose, for the sake of argument, that a government established a mechanism that ensured security of supply for PPE. Then, other things being equal, the incentive to take prompt action when faced with a public health crisis, such as COVID-19, would be diminished. Given the concern that certain governments may have waited too long before taking aggressive measures to limit the spread of the coronavirus, a public policy to assure security of supply of PPE may, unintentionally, threaten lives. The law of unintended consequences strikes again.²²

 $^{{\}bf 20}$ Here the capacity is taken to be the maximum feasible level of production.

²¹ The point here is that we know for sure that we will need electricity, and we also know for sure that we will need medical goods. But we don't always know for sure which types of medical goods we will need – that will depend on the nature of the medical emergency.

²² In the inevitable uncertainty surrounding the unfolding of a pandemic or other medical emergency, even a well-meaning government may be tempted to wait longer just in case circumstances take a turn for the better. The existence of a secure supply of PPE or other medical goods may shift the policymaking calculus towards delay.

There are other reasons why the lessons from the electricity sector do not necessarily carry over to other sectors in which a government may deem certain goods essential. A recent assessment asks how, in the context of potential future pandemics and other threats to national health, a government can confidently know which medical goods will be needed. Even if one could predict which goods would be needed, it would almost certainly not be possible to forecast with confidence the amount required following a surge in demand. Worse, since many medical goods (in particular, equipment such as ventilators) are produced from parts and components, ensuring domestic security of supply would require forecasting and assuring capacity for the individual parts and components too. Assuring sufficient capacity for the transportation of medical goods would be required as well – again, specific needs would be very difficult to anticipate (as in the case of COVID-19 vaccines that must be stored and transported at very low temperatures).

Once the 'unknown unknowns' associated with potential future health emergencies are taken into account, the notion that governments can objectively plan schemes that guarantee the supply of the 'right' essential goods should be dismissed. Instead, policy initiatives should be framed in terms of reducing the likelihood, scale and duration of any shortages caused by unexpected – and possibly fear-driven – spikes in demand for goods that arise once pandemics or other crises hit.

The following framework has been devised to that end.

A framework to guide national policy responses, supported by international cooperation

National steps to limit or reduce the magnitude and duration of shortages of medical goods can be strengthened by international cooperation. This paper argues for a multi-pronged approach, which is set out in the following proposed three-part framework. The framework's 10 guiding principles are also summarized in Box 1.

Effective public health responses by governments

Reliance on cross-border supply chains for medical goods cannot make up for first-order errors in public health policy. Consequently, any package to limit the duration and magnitude of shortages of medical goods will require action to reduce the magnitude of demand spikes. This requires governments to take the following steps:

 Implement measures to limit animal-to-human transmission of infectious diseases.

²³ Fabra, Motta and Peitz (2020), Preparing for the next crisis: How to secure the supply of essential goods and services.

- Act early when public health emergencies arise, so that the number of people falling sick and requiring medical assistance is reduced in the first instance (in the case of highly infectious diseases, this should include investing in an effective test-and-trace system).
- Where appropriate, ration access to key pieces of medical equipment and PPE.
- Maintain stockpiles alone or with trusted allies of only those medical goods likely to be relevant to a range of future public health emergencies.

Specific national measures relating to medical goods

To allow governments to ramp up purchases of medical goods during emergencies, public procurement regulations and practices must be revised with an eye to encouraging bids for state contracts from suppliers both *at home* and *abroad* (on the condition, in either case, that prospective suppliers can demonstrate they meet applicable international standards). Where national and international standards diverge, the application of national standards should be suspended for the duration of the public health emergency, thereby facilitating sourcing from a greater number of qualified overseas suppliers.

Procuring entities should develop systems to assess the overall exposure of their suppliers' sourcing chains to specific geographical regions. It is not enough just to take account of the production locations of relevant first-tier suppliers. First-tier suppliers must also provide information on the locations of their own (i.e. second-tier) suppliers, and so on for third-tier suppliers etc. where relevant. Procuring entities could introduce incentives (either financial or in the criteria for evaluating bids) to encourage sourcing from producers in under-represented regions. First-tier suppliers able to switch production rapidly from one region to another could be treated more favourably.

Governments should devise and publish **national trade facilitation plans** to ease the import of specified medical goods. Each government should also enumerate the legal, regulatory and other steps necessary to execute such a plan in short order, including:

- The suspension of import tariffs, quotas or other curbs for a fixed period;
- The suspension of the levying of value-added and sales taxes on imported and domestically produced medical goods for a fixed period; and
- Implementation at airports, ports and customs houses of trade facilitation
 measures to ensure the rapid despatch and receipt of cross-border shipments,
 including potentially the creation of special lanes for the shipment
 of medical goods.

Such plans would be triggered by the declaration of a national, regional or global public health emergency.

A confidence-building MoU backed up by dedicated official support

There is no global consensus on developing new multilateral trade obligations for medical goods, as the discussion of EU proposals for reforming medical trade demonstrated at the General Council of the World Trade Organization (WTO) in December 2020. That is not to say that cooperation cannot be achieved, however. It can develop instead through a process of policy deliberation in 'concentric circles' – starting with a core group of G7 countries and potentially widening out to other like-minded governments, including other G20 members. This would build on the recent proposals for keeping supply routes for essential goods open, as advanced by various coalitions and parties – including a group led by New Zealand and Singapore; the so-called 'Ottawa Group' of WTO members;²⁴ and various other WTO members.²⁵

Officials should prepare a draft non-binding memorandum of understanding (MoU) for adoption in principle at the G7 leaders' summit in June 2021. That draft could then be shared with other G20 members and like-minded nations, with an eye to adoption at the UN General Assembly in September 2021 by as many governments as are interested. Ideally, the MoU would cover an agreed list of medical goods and commit signatories to the following steps during a future crisis:

- Upon declaration of a regional or global public health emergency, each
 participating nation's trade facilitation plan (as mentioned above) would
 be locked in place for 12 months. This measure could be renewed at six-month
 intervals after the first year.
- Each signatory would **eschew export controls** of any type, or at minimum significantly proscribe their application or scope, for 12 months. Again, this measure could be reviewed and renewed at six-month intervals after the first year.
- A joint commitment would be made to limit competitive (and, in the context, ruinous) bidding on global markets, with participants instead establishing joint-purchasing arrangements to be triggered during regional or global public health emergencies.²⁸

²⁴ For details, see European Commission (2020), 'Ottawa Group proposes a global Trade and Health Initiative', 23 November 2020, https://trade.ec.europa.eu/doclib/press/index.cfm?id=2215&title=Ottawa-Group-propose s-a-global-Trade-and-Health-Initiative.

²⁵ For a list of proposals by WTO members, see WTO (undated), 'COVID-19 Proposals', https://www.wto.org/english/tratop_e/covid19_e/proposals_e.htm.

²⁶ In a paper co-authored with Alan Winters, the author proposed a non-binding deal between like-minded nations that would cover trade facilitation plans and the eschewal of export controls. See Evenett, S. and Winters, L. A. (2020), *Preparing for a second wave of COVID-19: A trade bargain to secure supplies of medical goods*, UK Trade Policy Observatory, Briefing Paper No. 40, April 2020, https://blogs.sussex.ac.uk/uktpo/publications/preparing-for-a-second-wave-of-covid-19-a-trade-bargain-to-secure-supplies-of-medical-goods/#centralelementsbp40.

²⁷ There is no suggestion here that the MoU should become a formal United Nations accord.

²⁸ Developing-country governments could band together to enhance their buying power. Indeed, a G7 member or another industrialized nation could join forces with a group of developing countries in a joint-purchasing arrangement, with the former potentially financing part of the purchases for the latter. Likewise, the World Bank or regional development banks could support the creation of joint-purchasing arrangements by developing countries.

- Signatories would exchange lists detailing the contents and size of their stockpiles of medical goods, and update these lists over time.
- Signatories would establish swap arrangements for such stockpiles.
- Signatories would develop common guidelines on methodologies for assessing risks from the overconcentration of suppliers in different regions.
- An independent unit would be empowered and resourced within an international organization to (a) conduct active surveillance of pertinent national policymaking; (b) identify best practices through analysis of public policy interventions; and (c) foster dialogue among governments and between governments, the private sector and other relevant stakeholders.²⁹

Net importers of medical goods have a strong interest in keeping trade routes open, and in avoiding ruinous bidding wars for whatever supplies are available on international markets. Yet in the absence of assurances on these matters, it should not be surprising if such nations subsidized the substitution of imports with domestic production, notwithstanding the evident inefficiencies involved in doing so. At a time when public finances are under great strain in many countries, avoiding further demands on national budgets is clearly desirable. So, too, is avoiding the trade tensions that would result from another wave of crisis-induced subsidization.

Net exporters of medical goods, in addition to national public imperatives, have a commercial interest in keeping foreign markets open for their producers. Plus, to the extent that health procurement systems in other countries may start to penalize excessive sourcing from particular countries or regions, exporters have a stake in the creation of mechanisms to ensure the transparent and even-handed application of any resultant trade restrictions that might come into force.

As the largest exporters of medical goods, China, the EU and the US all have a significant commercial interest in reducing policy-induced uncertainty in the trillion-dollar trade in medical goods.

As the largest exporters of medical goods, China, the EU and the US all have a significant commercial interest in reducing policy-induced uncertainty in the trillion-dollar trade in medical goods,³⁰ and in discouraging the development of inefficient domestic substitutes in their trading partners.

Although China is not a member of the G7, nothing in principle would prevent engagement with trade officials from Beijing early in the process of drafting the above-mentioned G7 MoU. For those seeking to ease the trade tensions of recent

²⁹ The requirement for independence essentially rules out the WTO as the home for this unit, as the WTO is a 'member-driven' organization. If the intention is to encourage the governments of larger emerging markets to join, then that rules out the OECD as a home for this unit. Similar considerations eliminate the UN Conference on Trade and Development, as some high-income countries would likely object. Ultimately, then, the best fit for such a unit would be the World Bank.

³⁰ Estimates of market size can be found in WTO (2020), 'Trade in Medical Goods in the Context of Tackling COVID-19'.

years, finding common ground between G7 members and China on keeping trade routes open for medical goods will be a lot easier than deliberations over subsidies and related level-playing-field matters.

There is also plenty of scope for international cooperation to reduce the policy-induced uncertainty and trade barriers which, during fraught times such as a pandemic, might otherwise discourage manufacturers from scaling up the production of medical goods. Reassuring corporate executives in the medical goods sector on this point is important, as the scaling up of supply capacity is essential if shortages are to be tackled sooner rather than later.

In conclusion, enlightened self-interest and joint action by governments to facilitate the flow of medical goods, including vaccines, across national borders can help to counter supply shortages that may arise from demand spikes during public health and other emergencies. Expectations of what trade policy can deliver should be realistic, however. Trade is part of the solution, but so is ensuring that demand for medical goods does not rise too much in the first place.

Box 1. Ten principles to guide national policymaking and international cooperation

Drawing together the evidence and logic developed in this briefing, the following principles should inform the development of production and trade policies on medical goods, including vaccines:

- 1. Reducing the risk of shortages is not just about ramping up supply. Governments should take steps to limit any spike in demand for medical goods in the first place.
- Reducing, rather than eliminating, the risk of supply chain disruption is the only practical policy objective. Policy should not target firm-specific risk reduction but instead should target system-wide risk, taking account of the contribution of supplies from abroad.
- 3. As buyers of insurance know, risk reduction is not free. Transparency about the costs and benefits of state intervention, as well as the logic underlying it, is needed to allay the concerns of taxpayers and, for that matter, trading partners.
- 4. No one size fits all. Supply chains within the same sector or sub-sector can differ markedly, so tailored approaches informed by industry expertise are required.
- 5. To curb ruinous bidding wars, governments should develop contingent joint-purchasing arrangements.
- Governments should share information on the magnitude and contents of their stockpiles of essential goods. Contingent swap arrangements should be encouraged.
- A 'do no harm' approach should be adopted towards trade policies. Governments should eschew interventions, such as counterproductive export controls, that would disrupt cross-border supply during crises.

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- 8. Mechanisms for cross-border shipment should be eased. This principle applies not just to tariffs, but also to technical and procurement regulations that might impede the movement of essential goods even when these meet international standards. Customs formalities should be reviewed with an eye to streamlining processes for essential goods.
- 9. Measures to deter panic buying and fear-driven policymaking should include:
 - Active surveillance of national trade policy changes affecting the cross-border flow of essential goods (as standard government notification processes to the WTO are not fit for purpose).
 - Active tracking of media and financial reports on shortages in critical supply chains, in order to reduce information asymmetries between the public and private sectors. Regular dialogues involving public and private sector players should be established, and organized for different industry groups.
- 10. Confidence will further be built if items 5–9 above are consolidated into a non-binding MoU between governments. The MoU should be open to any government willing to subscribe to these 10 principles and to cooperate with a specially created unit to be housed within an existing international organization tasked with taking these principles forward.

About the author

Simon J. Evenett is a professor of international trade and economic development at the University of St. Gallen. He is the founder of the St. Gallen Endowment, the new home of Global Trade Alert, the leading independent trade policy monitoring initiative.

After starting his career at the (then) University of Michigan business school, he has taught at Oxford and Rutgers universities and has been DLA Piper distinguished visiting professor at Johns Hopkins University (twice) and visiting professor of corporate strategy at the University of Michigan (three times). He was the first director of economic research at the World Trade Institute, and has been co-director of the Centre for Economic Policy Research's international trade and regional economics programme.

He served twice as a World Bank official, has been a non-resident senior fellow of the Brookings Institution in Washington, DC, and was a member of the High Level Group on Globalization established by then French trade minister, Christine Lagarde. In 2020 he was invited to join the Global Future Council on Trade and Investment of the World Economic Forum.

Acknowledgments

I thank Ruben Ernst and Fabien Ruf for excellent research. Incisive feedback from Creon Butler and Stephen Pickford was greatly appreciated. Jake Statham's editorial suggestions sharpened the text considerably.

The views expressed in this paper are those of the author alone.

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This briefing paper is part of a series being published by Chatham House's Global Economy and Finance Programme under the project 'Rebuilding International Economic Cooperation'. The recent election of Joe Biden as US president raises the prospect of a renewed push to find multilateral solutions to global economic problems, coordinated by the G7 and G20 in 2021 and beyond. But the mechanisms of the past won't simply snap back into place. The extent of common ground needs to be established; trust needs to be rebuilt; and technical solutions to problems found.

This project seeks to support that process by putting forward practical, collaborative, politically viable solutions to some of the economic challenges the world currently faces. The papers are authored by independent economic policy experts from the private sector, academia and think-tanks, often with a public policy background. Each paper addresses a specific problem, made more acute by the COVID-19 pandemic, where international economic cooperation can make a significant difference.

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Cover image: A warehouse of 'Santé publique France' storing face masks as part of France's strategic national masks reserve, on 4 November 2020 at a military site in Marolles.

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ISBN 978 1 78413 453 2

This publication is printed on FSC-certified paper. designbysoapbox.com

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10 St James's Square, London SW1Y 4LE T +44 (0)20 7957 5700 contact@chathamhouse.org | chathamhouse.org

Charity Registration Number: 208223