UNIVERSITY OF COLORADO BOULDER **LEEDS SCHOOL OF BUSINESS**

# COLORADO BUSINESS REVIEW

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## IN THIS ISSUE



# Accelerating International Access to COVID-19 Vaccines: A Global Patent Waiver Is Not the Best Answer

*Keith E. Maskus*

### Introduction

It has been almost two years since the coronavirus that causes COVID-19 first came into public view. The fact that several effective vaccines have been developed, at considerable cost and largely paid for by public funding in a few developed economies, is an unprecedented achievement. Equally remarkable is that large percentages of the populations in rich economies and several higher-income emerging economies have received at least one dose, vaccine hesitation notwithstanding. It is a major public-health success, at least in those places.

That success is severely limited, however, by the systemic inability to provide vaccines in the massive volumes needed to inoculate people in the great majority of developing countries. Accomplishing such a task was never going to be easy, of course, because the pandemic entered a world unprepared even to devise, much less implement, the necessary global and collaborative solutions. The structural impediments to resolving this distribution problem are legion, ranging from difficulties in producing sensitive inputs along stretched supply chains to a lack of purchasing power and appropriate medical facilities in poor countries. Perhaps most problematic has been the “vaccine protectionism” alleged on the part of richer countries, which are widely perceived as hoarders of the shots for which they have contracted and paid.[1] This perception is sharpened by the decision to offer third inoculations as boosters, available so far only in a few rich nations.

To be sure, a few countries have offered doses to poor countries, whether of their

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[1]See Thomas J. Bollyky and Chad P. Bown, “The Tragedy of Vaccine Nationalism: Only Cooperation Can End the Pandemic,” *Foreign Affairs*, September/October 2020.

# from the editor

Uncertainty is abound in the international trade landscape. As the U.S. and Colorado economies continue their recoveries, the breakdown of the global supply chain, rising prices, and the continued presence of COVID-19 remain headwinds against a return to normalcy. This publication of the *Colorado Business Review* discusses these concerns with articles written by business and education leaders. The issue describes the unequal distribution of COVID-19 vaccines around the globe, the expansion of export potential in the Colorado economy, the importance of free-trade agreements to growth and certainty in the economy, as well as the size and scope of Colorado international trade.

Our next issue will present a review of the 2022 Colorado Business Economic Outlook. Look for it in January in your inbox.

Please contact me directly at 303-492-1147 with any comments or questions.

**—Richard Wobbekind**

surplus vaccines or through purchases for that purpose from vaccine suppliers. To date, just over 300 million doses have been shipped to poor countries through COVAX, an international system set up to allocate supplies across 92 poor and middle-income countries. The United States recently pledged another 500 million doses by the end of 2022. These are notable pledges but far short of what is needed to address COVID in much of the world in a timely fashion. The importance of ramping up these supplies on a much larger scale is self-evident: the longer it takes to vaccinate sufficiently high percentages of the global population, the greater the time before the pandemic is conquered and the greater the risk of new and more damaging variants of the virus. This delay will also slow down the global economic recovery from the lingering pandemic-induced recession.

**Patents and Access to Vaccines**

Among potential impediments to global vaccines access, a frequent target of critics is patents and other forms of intellectual property rights (IPR). Patents provide exclusive rights to inventors of new products and technologies to produce and distribute them, and to license those rights. These rights are temporary and, under rules of the World Trade Organization (WTO), must exist for at least 20 years after the patent is granted, though this period may be effectively shorter in medicines, medical equipment, and diagnostic techniques because of time lags in gaining product and marketing approvals by health authorities. Research-based pharmaceutical firms and vaccine developers, with justification, consider this temporary exclusivity as essential in their ability to earn financial returns on their R&D costs, which can be substantial. New medicines are expensive to design but relatively easy to reverse engineer and copy, leaving them particularly vulnerable to imitation.

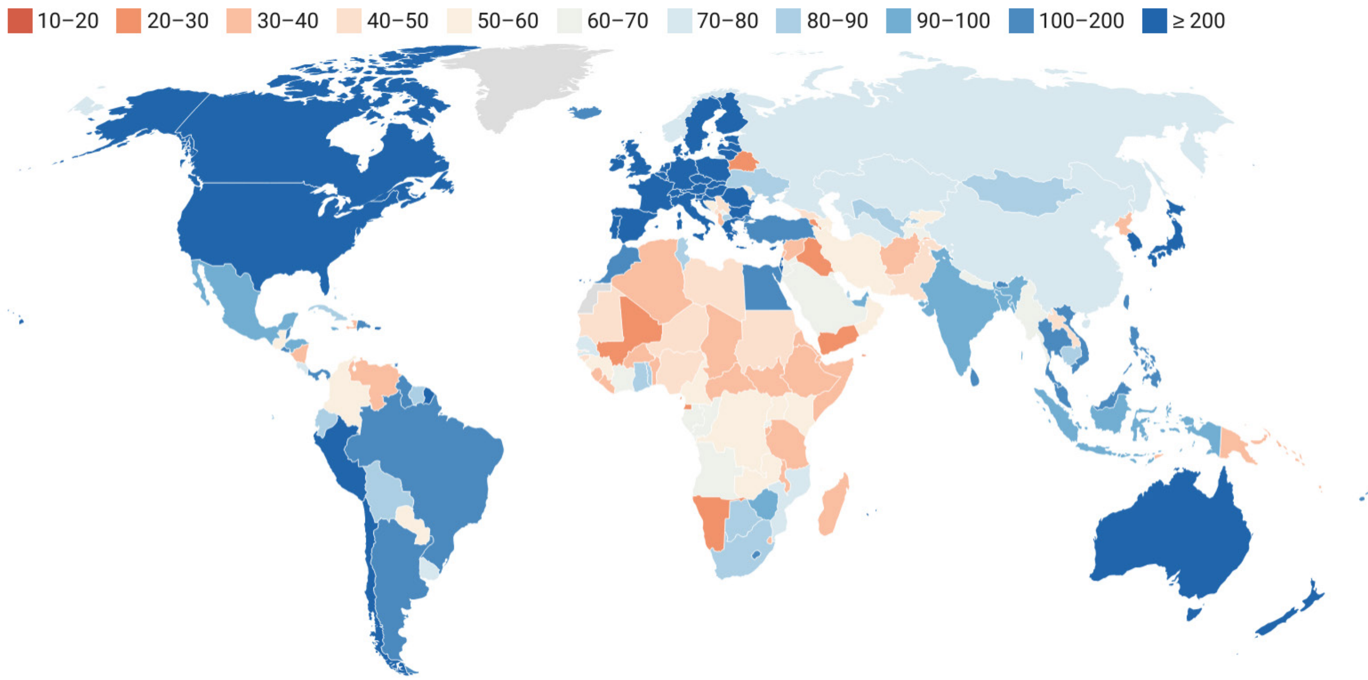
Patents are also territorial, in that the rights they protect only exist in the country or jurisdiction where they are granted. Other IPR, including trademarks, copyrights, and confidential business information, are also territorial but vary widely in the scope and modalities of protection. That patents are issued by national governments means that firms seeking patents must apply for them in all countries in which they seek protection. In fact, even in medicines the inventor companies rarely take out patents beyond a limited number of jurisdictions, including the major developed economies and key emerging countries, such as China, India, and Thailand. These locations constitute the bulk of global demand for new medicines. More importantly, the emerging economies represent the most credible threats of imitation because they have domestic generic producers that can quickly learn to produce imitative versions. Patents are generally unnecessary in lower-income countries, which are unlikely to constitute imitative threats. Even if their companies could copy and produce a new vaccine, their ability to export to other markets would be limited by patents in protected markets and by WTO rules.

This situation underlies concerns that patents are a present and future blockage to widespread global access to vaccines. Numerous proposals have been made for the world to agree to a comprehensive waiver of all IPR covering COVID vaccines. Existing patents would be vacated, and new patents would not be issued, both for a temporary period of, say three years. There are also vague statements regarding the obligation of vaccine producers to share their trade secrets. This campaign was initiated by India and South Africa and quickly joined by China, Russia, and more than 100 other countries, along with the WTO and other international agencies.[2] Surprisingly, the Biden administration announced its support in May of this year. In contrast, several members of the

[2]See “A Patent Waiver on COVID Vaccines is Right and Fair,” *Nature Editorial,* 25 May 2021.

**Secured Vaccines and/or Expected Vaccine Supply**

% of Total Population, as of October 15, 2021




Map: Business Research Division • Source: International Monetary Fund • Created with Datawrapper

European Union and other rich countries remain opposed, as do primary vaccine suppliers and the broader pharmaceutical industry. Firms in the latter group fear that a waiver would set a dangerous precedent, while worrying that rapidly increasing generic production in many countries would eviscerate their ability to control global distribution of their originator vaccines, which they manage for both commercial and medical reasons.

### How Much Would the Patent Waiver Help?

There are powerful arguments supporting the elimination of IPR protection in this case. First, in principle it would alleviate global scarcities associated with the political imperative in rich countries to vaccinate their citizens first. Second, the global public-health needs are extreme and need to be met as quickly as possible, lest the pandemic become so persistent that it permanently raises health burdens and diminishes growth prospects. Finally, much of the development costs of these vaccines were paid for by public subsidies, suggesting that public distribution should take priority over private decisions, including internationally.

The benefits of a waiver, however, depend on how effectively it would increase global supplies and address distribution problems. Unfortunately, the practical circumstances surrounding COVID-19 vaccines are highly complex and leave considerable room for skepticism for several reasons. First, while major vaccine developers may register patents on their formulations and dosages, those elements are founded on combinations of technologies and inputs, each of which may be subject to patents and complex licensing arrangements that would be a challenge to unravel.[3] Perhaps the proposed patent waiver might extend to these prior technologies, but some are inputs into other medical therapies, raising a legal hornet's nest across multiple jurisdictions that could take years to sort out.

Second, even if ending patents encouraged drug firms in emerging and developing countries to produce vaccines at the finishing and packaging stage, they would need to build or access complex international supply chains to procure raw ingredients, preservatives, stabilizers, vials, and other inputs. At present, only a few firms worldwide can sustain the quality control needed to purify and stabilize the necessary active ingredients.[4] Waiving patents on final assembly is unlikely to free up these inputs or expand global production, even in the medium term. This problem could also run into political pressures for the governments in producing countries to limit exports of such inputs, a form of protectionism that has plagued distribution so far. Third, such expansion is possible only if the original input producers and vaccine suppliers share their complex trade secrets and production knowhow, which cannot practically be mandated by a patent waiver. Patent applications rarely embody sufficient technical detail for this purpose and only shared knowledge can achieve relatively rapid technology

[3]Mario Gaviria and Burcu Kilik, "A Network Analysis of COVID-19 mRNA Vaccine Patents," *Nature Biotechnology,* 39: 546-548, 2021.

[4]Bollyky and Bown, op. cit.

transfer. Vaccine firms are unlikely to share these secrets, especially with potentially lower-cost competitors in China and India. This means in practical terms that such competitors will need to engage in imitative R&D and clinical trials to achieve market approval in multiple countries, a costly and drawn-out process.

The essential point is that waiving IPR protection seems an attractive means of expanding access to vaccines that benefited from public subsidies in their development. However, relying on this policy alone is unlikely to achieve sufficiently ramped-up supplies to address the global problem in the short term, if ever. Finally, there is an important dynamic factor to consider: if patents are waived for this set of vaccines, it may deter firms from developing therapies to address future pandemics.

**Needed: A Coordinated International Response**

This analysis suggests that a global patent waiver is a blunt instrument that is unlikely to be effective in the short period of time needed to deal with the pandemic and risks longer-term disincentives to future vaccine development. It is an indirect approach to a structural problem involving limited short-term supply responsiveness and inadequate purchasing power in poor nations. The situation calls for a more direct approach, based on international coordination to resolve supply bottlenecks and ensure sufficient resources to incentivize increases in licensed production and distribution.

On the supply side, major countries should first agree quickly to forego export restrictions that limit trade in critical medical inputs, raising certainty that supply-chain problems will not be worsened by policy mistakes. As for the WTO, its role should be to facilitate a broader, long-term trade agreement cementing the elimination of export protectionism and ending import barriers in this area across the globe. Second, mechanisms should be developed to facilitate international licensing of vaccines and related inputs, including related production knowhow, with appropriate compensation paid to licensors. These mechanisms would include additional development funding to subsidize rapid investments in licensed production facilities and secure distribution systems, while paying partially for knowledge transfers. In this context, emerging and developing countries that receive more investments or gain more access to vaccines should be required to contribute some portion of such costs. One particularly useful approach could be to facilitate the development of regional supply centers among groups of developing nations within licensed arrangements.[5]

Even if such initiatives were to expand supply capacities, they need to be complemented on the demand side by additional funding to purchase vaccines in massive volumes for application in emerging and developing economies. Thus, a third leg of this coordinated approach should be to garner funding for purchase guarantees that could involve requirements for low procurement prices. Such funds would quickly address the problem that developed economies are hoarding vaccine supplies, reducing uncertainty about the ability of widespread inoculations to restore international economic vitality.

None of this will be easy, and erecting such mechanisms will take commitment and cooperation. There would be a longer-term payoff, however, if the world absorbs critical lessons in anticipation of future pandemics, which seem inevitable. Countries were caught unprepared and without a plan for dealing with cross-border supply externalities. It is time to build a comprehensive framework that anticipates these problems for the next outbreaks.

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[5]Frederick M. Abbott and Jerome H. Reichman, "Facilitating Access to Cross-Border Supplies of Patented Pharmaceuticals: The Case of the COVID-19 Pandemic," *Journal of International Economic Law,* 23: 535-561, 2020.

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# Free Trade Agreements Fuel Colorado Exports

*Pam Reichert*

Free Trade Agreements (FTAs) have led to significant export growth for Colorado businesses, from tech and manufacturing to grain and livestock. Unfortunately, current U.S. tariffs imposed to counter China's unfair trade practices have also impacted trade with other key global markets, create a drag on exports, and make it difficult for our small businesses to plan and execute their export strategies. President Trump signed an executive order removing the U.S. from the 12-country Trans-Pacific Partnership (TPP) on his first day in office in 2017. And in July 2018, the United States imposed tariffs on Chinese imports in response to China's unfair trade practices, leading to the Chinese government imposing retaliatory tariffs on U.S. exports into China. Notwithstanding the significant impact that COVID-19 has had on global trade, the continuation of a punitive approach to U.S. global trade policy is a detriment to expanded sales through exports.

FTAs are comprehensive bilateral or multilateral agreements negotiated between countries to provide for the reduction or elimination of tariff and nontariff barriers to trade. The United States currently has 20 such agreements in force (see the table on the next page), which provides for the relatively free flow of goods and services with no or low tariffs, boosting company sales, U.S. GDP, and supporting and creating employment. Additionally, the U.S. has agreements on specific sectors with many industrialized countries, including the European Union. For Colorado, goods exports to our FTA partners represented 34.2% of goods exports on average between 2018-2020 and 30.6% of total exports go to Canada and Mexico. While China is our third largest trading partner, goods exports to China have declined to 6.1% of total exports in 2020 compared to 7.1% of the total in 2017 prior to tariffs.

Trade agreements provide stability that allows companies to plan and execute their business strategy with a degree of certainty and fewer chances of running into unforeseen tariffs and non-tariff barriers to trade at the port of entry. Historical export data show that Colorado exports increase significantly

## U.S. Free Trade Agreements

| Country | Year Implemented | 2020 Exports ($) | 1996 — 2020 |
|---|---|---|---|
| Canada | 1994 (NAFTA)/2020 (USMCA) | 1.28B | 724.4M 1.3B |
| Mexico | 1994 (NAFTA)/2020 (USMCA) | 1.05B | 191.7M 1B |
| South Korea | 2010 | 521.48M | 159.9M 521.5M |
| Australia | 2004 | 152.19M | 147.9M 152.2M |
| Singapore | 2004 | 75.69M | 243.7M 75.7M |
| Israel | 1985 | 60.35M | 18.1M 60.4M |
| Colombia | 2012 | 27.21M | 10.4M 27.2M |
| Chile | 2004 | 26.29M | 12.5M 26.3M |
| Peru | 2007 | 20.98M | 7.7M 21M |
| Guatemala | 2009 (CAFTA) | 14.95M | 2.9M 15M |
| El Salvador | 2009 (CAFTA) | 14.28M | 1.2M 14.3M |
| Nicaragua | 2009 (CAFTA) | 12.22M | 60.7K 12.2M |
| Costa Rica | 2009 (CAFTA) | 11.24M | 1.6M 11.2M |
| Dominican Republic | 2009 (CAFTA) | 6.59M | 1.1M 6.6M |
| Morocco | 2006 | 5.82M | 301K 5.8M |
| Oman | 2006 | 5.58M | 1.7M 5.6M |
| Panama | 2012 | 4.56M | 4.8M 4.6M |
| Honduras | 2009 (CAFTA) | 2.98M | 420K 3M |
| Jordan | 2001 | 1.9M | 1.3M 1.9M |
| Bahrain | 2006 | 1.62M | 509.3K 1.6M |
| **Total** | | **2.65B** | **2.2B 2.6B** |

Chart: WISERTRADE • Created with Datawrapper

with FTA partners in the years following implementation of comprehensive agreements. And for companies new to exporting, the United States' trilateral agreement with Canada and Mexico provides access to nearby markets with less hurdles and transportation costs than shipping to Asia or Europe.

When the original FTA (NAFTA) between the United States, Canada, and Mexico went into effect in 1994, Colorado exports to Mexico increased exponentially from less than $200 million to over $1 billion by 2006 and Mexico became our second-largest trading partner. Canada was already Colorado's largest trading partner, and non-oil exports to Canada rose to $1.7 billion by 2006, up from $724 million in 1996. Other markets where FTAs have contributed significantly to increased exports from Colorado following implementation of an FTA include Chile, up 146% over the first five years, and South Korea, where Colorado exports have more than doubled over the more than 10 years since implementation of an FTA with the United States.

**Broadened Mandate of FTAs**

One criticism of free trade agreements is that they shift manufacturing jobs overseas and lower wages for U.S. workers. More recent trade policy includes addressing workers' rights to improve labor conditions overseas and to ensure an even playing field for U.S. workers. The updated free trade agreement between the United States, Mexico, and Canada (USMCA) came into force in 2020 with stronger labor and environmental provisions. The Rapid Response Labor Mechanism in the

USMCA agreement led the United States and Mexico to agree to remediation to ensure Mexican laborers at the GM plant in Silao, Mexico, have the right to collective bargaining. This supports Mexican workers and protects U.S. workers from unfair labor practices in overseas plants.

Environmental protections are also becoming more prominent in free trade agreements as a means to strengthen oversight of illegal activities and policies detrimental to the environment. The United States-Peru Trade Promotion Agreement includes a section on forests that has stopped illegally sourced timber from entering the supply chain into the United States, for example. The U.S. Korea FTA provides a mechanism for the United States to move against illegal and unregulated fishing. The USMCA brings environmental standards into the core agreement, providing for enforcement mechanisms and adherence to existing multilateral environmental agreements, including the Convention on International Trade in Endangered Species of Wild Fauna and Flora. USMCA also includes provisions to stop illegal and harmful fishing practices, address air quality, and marine trash.

**Moving Forward**

An alternative or complement to maintaining tariffs on China would be to return to the TPP, although it would require modifications to address domestic criticism and modifications that occurred after the United States left the negotiations. The TPP, now called the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), represents about 800 million consumers and 40% of global GDP. (CPTPP includes Brunei, Chile, New Zealand, Singapore, Australia, Vietnam, Peru, Canada, Japan, Malaysia, and Mexico.) While the remaining 11 countries completed an agreement in March 2018 and it came into force by the end of that year, the absence of the United States led to revisions that had been advocated by U.S. negotiators. A report from The Council on Foreign Relations notes that enhanced intellectual property rights negotiated by the United States were left out, Investor-State Dispute Settlement (ISDS) provisions were maintained but modified, and labor and environmental standards positions advocated for by the United States were relaxed, including enhanced intellectual property protection. TPP provided a broader platform as leverage against Chinese practices, including dumping, intellectual property and trademark rights infringement, and lack of protection for labor.

Central to negotiating such agreements is the U.S. president's trade promotion authority. This is congressional approval for the administration to negotiate an agreement and bring it to the Senate for ratification without amendments or a filibuster. Such authority provides assurance to those countries the U.S. trade negotiators are negotiating with that U.S. negotiators have the authority to complete an agreement. However, this authority expired on July 1, 2021, with no signs it will be renewed. Renewing this authority and emphasizing comprehensive bilateral and multilateral agreements would strengthen the market position of U.S. businesses and our ability to influence the direction of global trade policy.

It is Colorado's small innovative businesses that pay the price of uncertainty in trade policy. While it is necessary to hold countries with unfair trade practices accountable, it is also time to renew negotiations on multilateral and bilateral trade agreements to strengthen our market position, Returning to the table to negotiate entry into what is now the CPTPP will take significant effort since original terms negotiated by the United States were diluted in the final agreement. And it is important to complete a free trade agreement with the United Kingdom post-BREXIT to ensure continuity with this important market for Colorado. It is encouraging to see the Biden administration and Europe commit to consulting on China and to negotiate on digital trade. These initiatives give us a broader platform to improve opportunities globally.

*Pam Reichert is Managing Director of Alzar Global and served as Colorado's International Trade Director from 2007-2010.*

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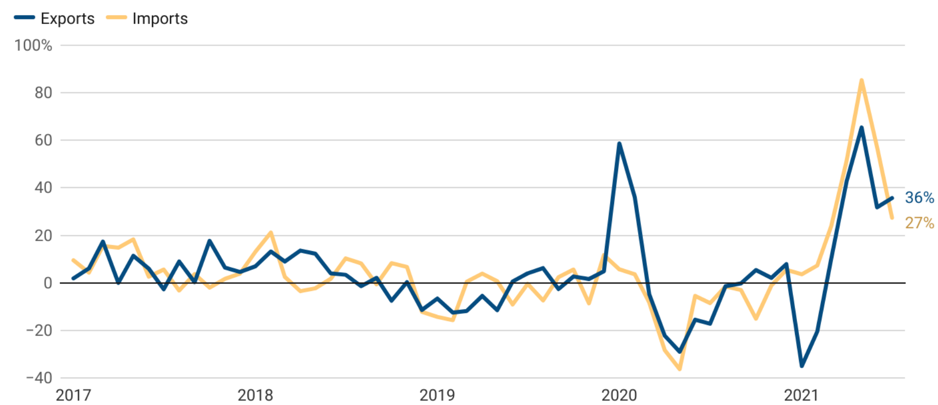
# Pandemic Disrupts Colorado Trade, Recovery in Sight

*Max Olson and Jacob Dubbert*

In 2021, progress has been made in the recovery of international trade, but latent effects of the pandemic-induced recession have continued to disrupt global supply chains. A reopening world economy and trillions of dollars of stimulus have fueled demand, but the continued presence of COVID-19 has caused bottlenecks and shortages, leading to price surges in shipping and consumer goods. In September, for example, factories across Southeast Asia were shut down due to rising COVID-19 cases, constraining the global supply of both finished products and raw materials. Meanwhile, a backlog of orders and global labor shortages have clogged international ports, causing thousands of container ships to be stuck on the docks for weeks. Supply chain issues will continue to affect U.S. trade, especially headed into the holiday season, and resolution is unlikely in the year ahead. Additional headwinds include continued trade policy uncertainty and lagging vaccination timetables in countries across the world. That said, the long-term outlook for global trade is positive, as volumes are still expected to expand in 2021 and 2022, according to the International Monetary Fund.

**Colorado Imports and Exports up considerably after 2020 declines, mirroring national trend**

International goods trade in **Colorado,** year-over-year percent change




International goods trade in the **United States,** year-over-year percent change

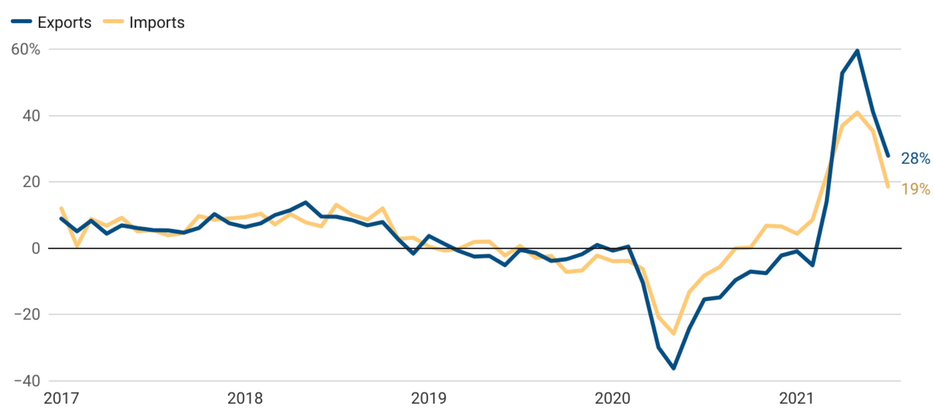



Chart: Business Research Division • Source: Bureau of Economic Analysis • Created with Datawrapper

### National

Looking back on 2020, real national exports of goods fell 10.2% year-over-year, from \$2.6 trillion to \$2.2 trillion, according to the Bureau of Economic Analysis (BEA). Service exports, meanwhile, fell 19.8% in 2020, being hit harder than goods exports as transport, travel, and other services were heavily impacted by the COVID-19 pandemic. Exports of services account for a small fraction of U.S. trade—\$617.1 billion, or 28%, of total exports. Exports of civilian aircraft, engines, and parts saw the steepest decline in 2020, falling 43.7% year-over-year, likely due to the near non-existence of international travel reducing demand. The only export that grew last year was foods, feeds and beverages, increasing 5% year-over-year. Unsurprisingly, imports also declined in 2020, with goods and services declining 5.6% and 22.6%, respectively.

Year-to-date through Q2 2021, real exports of goods increased 9.8% year-over-year, but services fell 6.6%, and imports of goods and services grew 20.4% and 2.5%, respectively. However, given that 2020 was such an abnormal year, it is more indicative to compare 2021's recovery to levels seen in 2019. Goods exports and imports, and trade imports are above the levels recorded in Q2 2019.

### Colorado

*Exports*

Trade makes up a relatively small amount of the Colorado economy, accounting for 10.8% of the state's real GDP, which ranks 36th among all states. In 2020, most Colorado imports and exports declined similar to the nation. On the surface, it would appear that the state performed better than the nation since exports of goods increased by 0.9%. However, this increase can solely

**Colorado ranked 47th in exports per capita in 2020**

2020 exports per capita, ($), by state

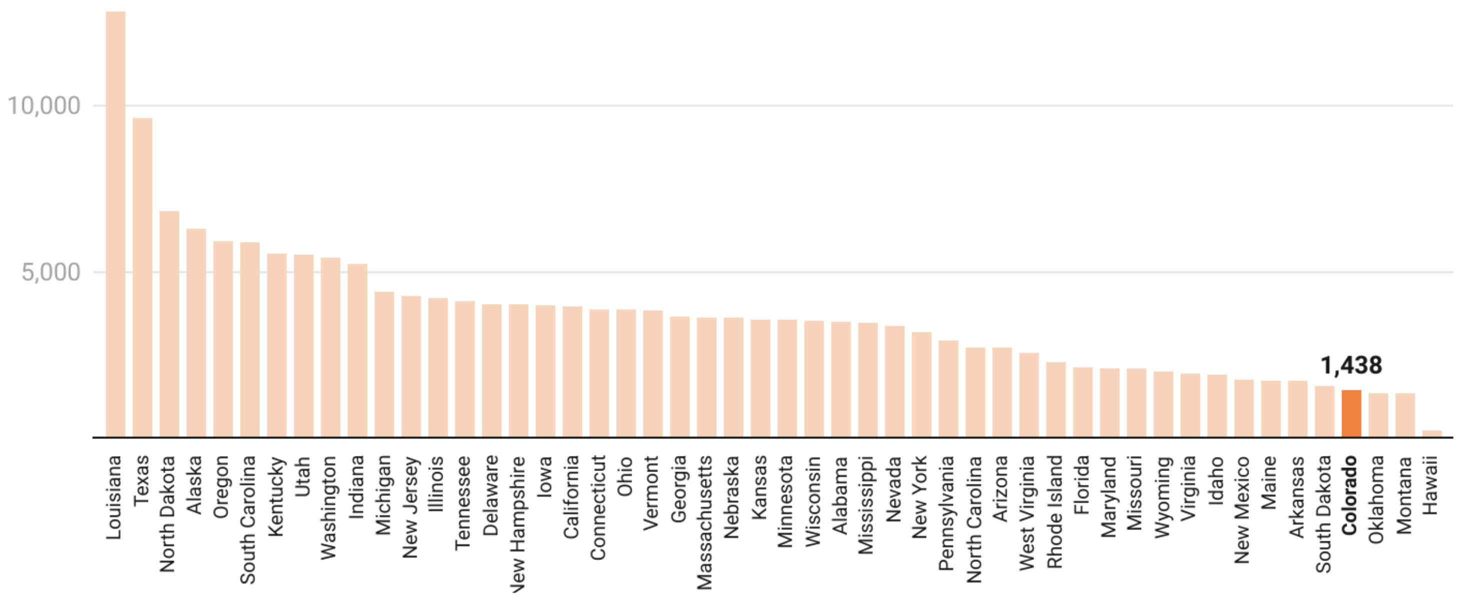



Chart: Business Research Division • Source: U.S. Census Bureau • Created with Datawrapper

be attributed to the sale of two satellites, valued at around $350 million and $150 million, to French Guiana and the United Arab Emirates (UAE). For perspective, from 2002 to 2019, exports to French Guiana and the UAE averaged $170.4 thousand and $58.8 million, respectively. If it were not for the sale of these two goods, Colorado exports would have fallen 5.5% in 2020.

Colorado's top 10 export partners and their respective shares in 2020 were the following: Canada at 15.7%; Mexico at 12.8%; Malaysia at 6.4%; South Korea also at 6.4%; China at 6.1%; Japan at 4.9%; French Guinea at 4.3%; Germany at 3.7%; Netherlands at 3.7%; and Taiwan at 2.7%. The value of goods exported to these 10 countries made up 66.8% of the total. Exports to Canada experienced the steepest decline of the 10 countries in 2020, falling 11.3%.

Through August 2021 year-to-date (YTD), exports have grown 12% and 11.4% compared to the same periods in 2020 and 2019, respectively, signaling the strong return of international trade in 2021. Keep in mind, however, that year-to-date through August 2020 includes the sale of the two satellites. Excluding those, exports have increased 23.5% YTD in 2021. Canada, Mexico, Malaysia, South Korea, and China remain the top five export destinations, although China has surpassed Malaysia and South Korea. In fact, YTD exports to China reached a record high, doubling from $292.4 million in August 2020 YTD to $587.3 million. Exports to Mexico have also increased significantly, with August YTD exports growing 56.6% over 2020 and 34.8% over 2019.

Colorado's top commodities exports and their shares in 2020 were Computer & Electronic Products (22.2%), Food & Kindred Products (20.3%), Machinery, Except Electrical (10.9%), Chemicals (8.3%), Transportation Equipment (7.5%), Miscellaneous Manufactured Commodities (5.5%), Fabricated Metal Products (5%), Plastics & Rubber Products (2.8%) and Nonmetallic Mineral Products (2.8%), together accounting for 91% of total exports. However, in August 2021 YTD, Computer & Electronic Products have underperformed compared to the same period last year, falling 8.9%; meanwhile, Food & Kindred Products have become Colorado's top export so far in 2021, totaling $1.5 billion in value and growing 37.6% year-over-year. Mexico, Canada, South Korea, and China import over three quarters of Colorado's Food & Kindred Products. Malaysia, however, imports only a tiny fraction of food from Colorado. Instead, Colorado exports 23.2% of its Computer & Electronic products to Malaysia, the most of any country.

*Imports*

In 2020, Colorado imported $12 billion of goods, falling 8.2% year-over-year and creating a trade deficit of approximately $3.8 billion. Colorado imported the most goods from Canada, with 24.4% of the total coming from across the northern border. China was next at 13.9%, followed by Mexico (10.3%), Switzerland (7%), Taiwan (5.1%), Germany (4.6%), Vietnam (3.7%), South Korea (2.4%), Malaysia (2.4%), and Australia (2.3%). Colorado is on track to import a record value of goods in 2021, having imported $10.4 billion worth of goods through August, a 33.6% increase over the same period in 2020. Through August 2021, Canada remains the top exporter of goods to Colorado, totaling over $3.1 billion and increasing 66.8% over August 2020 YTD, and 23.3% over the same period in 2019. YTD Imports from Taiwan, Vietnam, Malaysia, and Thailand have all grown by over half compared to last year, with the value of imports from Malaysia seeing the highest growth rate at 141.7%

**Colorado's top five exports accounted for 69.9% of all exports in 2020**

Exports by commodity, in millions ($)

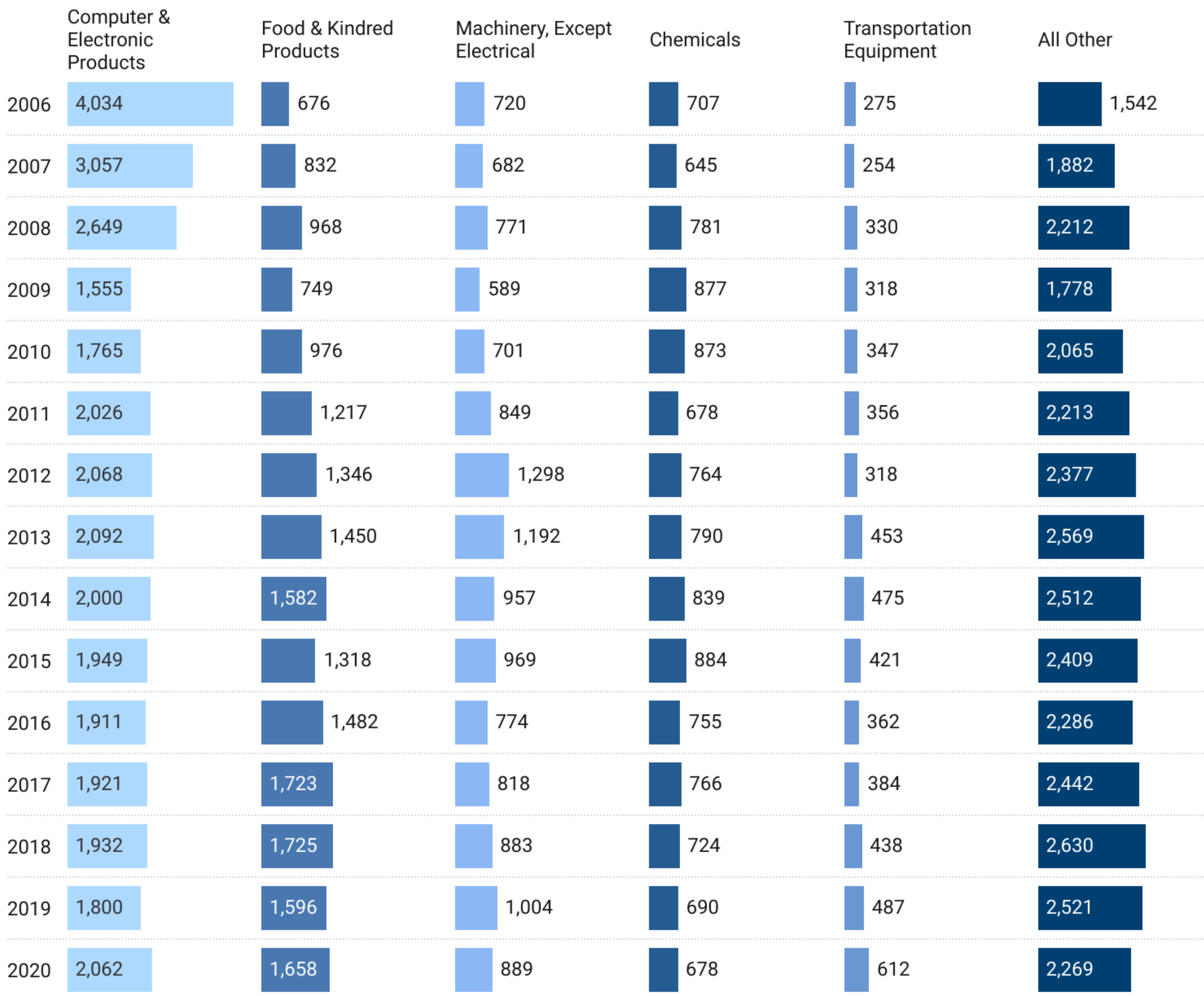



Chart: Business Research Division • Source: U.S. Census Bureau • Created with Datawrapper

Colorado's top export in 2020 was also its top import, with the state importing just over $3.1 billion of Computer & Electronic Products, or 28.6% of total imports. Oil & Gas imports followed at 13.1%, Machinery, except Electrical at 10%, Transportation Equipment at 7.2%, Miscellaneous Manufactured Commodities at 6.3%, Electrical Equipment at 5.5%, Apparel & Accessories at 3.4%, Fabricated Metal Products at 3.1%, and Chemicals at 3%. All imports of these commodities fell between 6.8% and 29.6%, with the exceptions of Computer & Electronic Products, Apparel & Accessories, and Plastics & Rubber Products, which grew 9.5%, 48.9%, and 4.1%, respectively.

Imports of Computer & Electronic products have continued to grow through 2021 and are currently up 33.6% over last year. Oil & Gas imports in 2021 have already surpassed the value recorded in 2020, growing 77.2% year-to-date through August 2021 due, in part, to the return of demand for gasoline and the subsequent rise of gasoline prices in the world economy.

## Trade Policy

Trade policy under the Biden administration has remained largely unchanged from trade policy under the Trump administration; however, it is still early. While Trump authored a protectionist view toward foreign policy, Biden has expressed interest in pursuing a more multilateral approach. The Biden administration is interested in rebuilding the transatlantic relationship with the European Union on trade matters and ensuring trade policies promote equitable economic growth and a sustainable climate pathway by including strong labor and environmental standards in trade agreements. China trade policy is also a high priority of the administration.

The Biden administration recently announced the U.S. will continue to enforce the "Phase One Agreement" with China that was signed in January 2020 after nearly two years of a tit-for-tat trade war that dramatically reduced trade between the two countries. The tariffs imposed on $135 billion, or 93%, of imports of intermediate inputs from China that were implemented under President

**Colorado's Top 5 export partners accounted for 56% of exports through August**

Total exports, year-to-date through August 2021

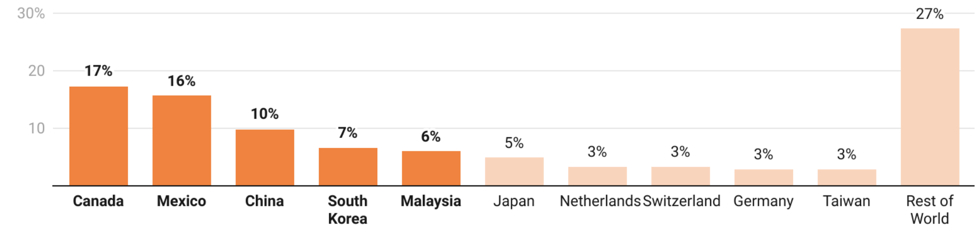



Chart: Business Research Division • Source: U.S. Census Bureau • Created with Datawrapper

**Colorado's Top 5 import partners accounted for 60.8% through August**

Total exports, year-to-date through August 2021

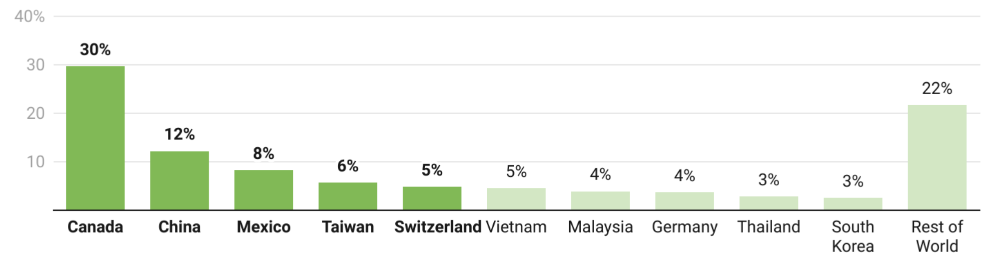



Chart: Business Research Division • Source: U.S. Census Bureau • Created with Datawrapper

**Colorado Exports up 12% year-to-date through August over last year**

Total Colorado exports, in millions ($)

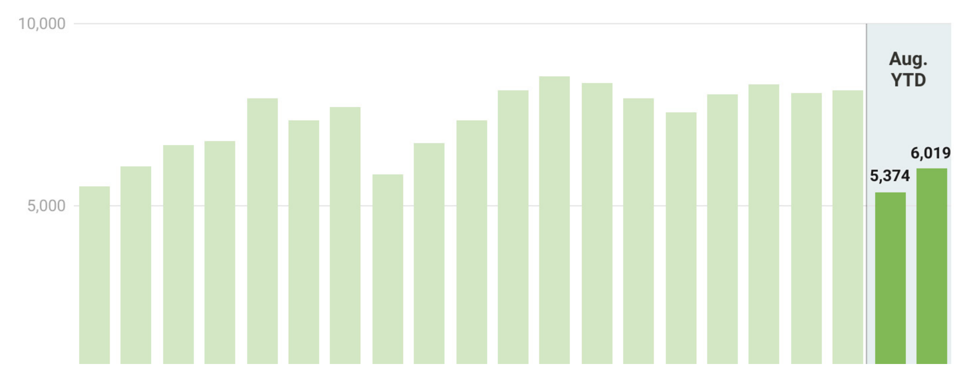



Chart: Business Research Division • Source: U.S. Census Bureau • Created with Datawrapper

Trump are still in force. However, the administration said it will reestablish a "targeted tariff exclusion process" to waive duties for some U.S. companies that were hard hit in the trade war. With China being Colorado's second-largest import market, the tariffs imposed on companies importing Chinese products have impacted Colorado producers, so a tariff exemption could help businesses in the state. The phase one agreement committed China to purchasing an additional $200 billion of U.S. goods and services, and to work on enforcing intellectual property rights, remove nontariff barriers to farm imports, and liberalize its financial services sector. Despite the agreement, China has failed to live up to its commitment, only purchasing 61% of the U.S. goods expected as of August 2021, and U.S. exports to China are only slightly above 2017 levels. Even so, the purchase provision has likely had positive impacts for Colorado producers as exports to China were steadied throughout 2020 and August 2021 YTD exports to China are at a record high.

The newly enacted United States-Mexico-Canada Agreement (USMCA) that replaced NAFTA was implemented in July 2020, but impactful for Colorado as Canada and Mexico are the state's main trading partners. In addition, the Trump administration secured a trade agreement with Japan in 2020 on certain agricultural and industrial goods and digital trade. There is also hope and interest from both countries that the U.S. and Britain will form a new trade agreement in the near future.

### Future Outlook

According to the International Monetary Fund, world trade volume of goods and services is projected to increase 9.7% in 2021 and 6.7% in 2022. The World Trade Organization's Goods Trade Barometer, a leading indicator for the outlook of merchandise trade, recorded a reading of 110.4 in August, its highest reading since its inception in 2016. While this indicates a strong trajectory for current trade expansion, it also a reflects the impact of the pandemic-induced recession. Despite the strength of these forecasts, there is marked uncertainty surrounding the continuing effects of the COVID-19, the varying distribution of vaccines, and trade policy. Additionally, the Federal Reserve has indicated that it expects the inflationary run to last through the end of the year, and that it will likely raise interest rates in the coming years. Higher inflation and interest rates generally cause the dollar to appreciate relative to other currencies, disadvantaging U.S. exports by making them more expensive. Despite these headwinds, however, signs point to a continued recovery in international trade for both the state and the nation.

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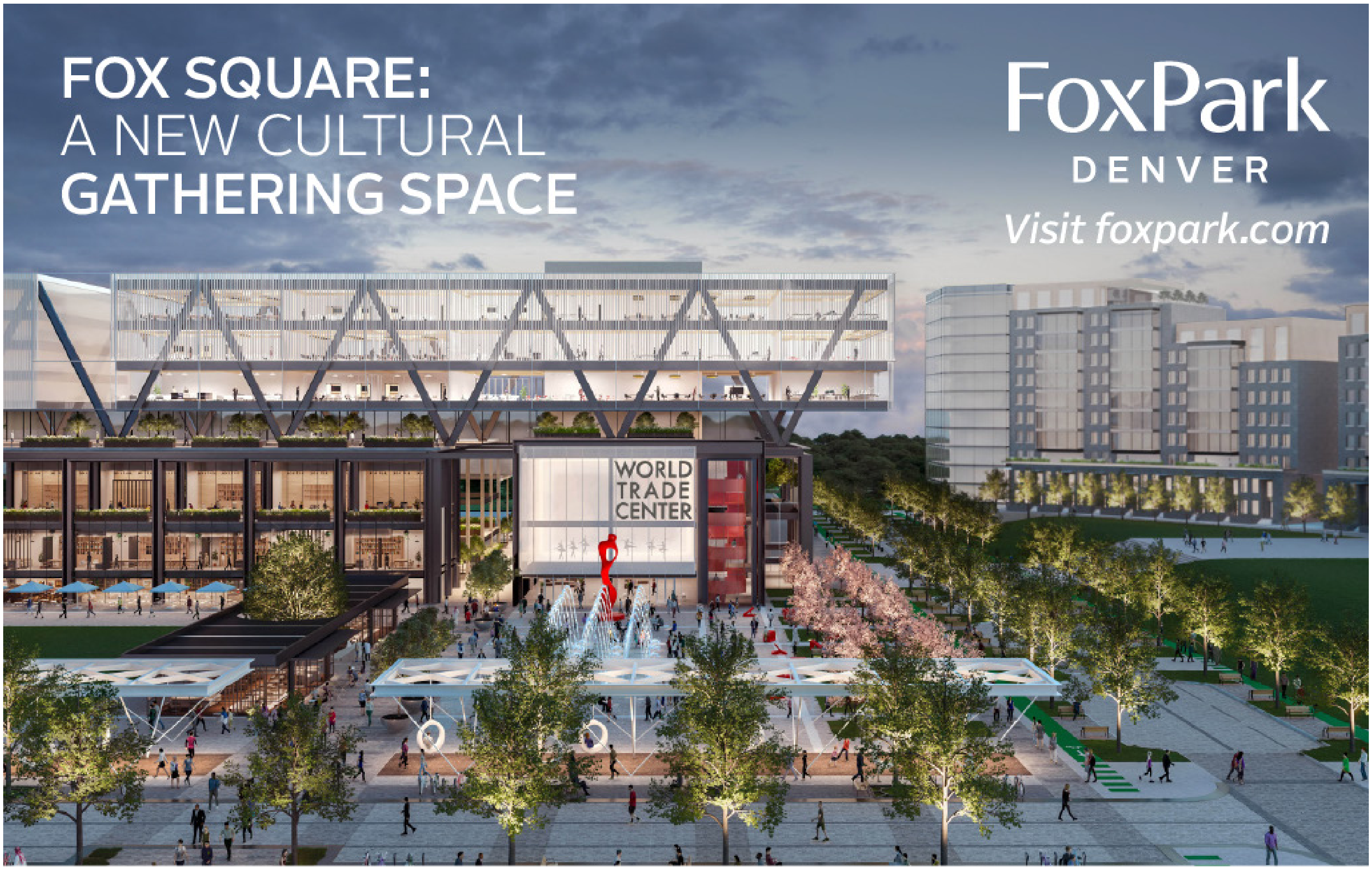



# WTC Denver: Global Connections and Trade Make Colorado More Competitive

*Karen Gerwitz*

There has never been a more critical time for Colorado companies to think about building out their international trade strategies. While localizing may be the knee-jerk reactive trend in the post-pandemic world, trade and international cooperation play a major role in driving our economic recovery. One lesson learned from the pandemic is that we are more connected internationally than ever, and we rely on a global supply chain to make the products we use on a daily basis. As country after country closed non-essential businesses and introduced social distancing measures to curb the spread of the virus, the public health emergency evolved rapidly into an economic crisis. The COVID-19 pandemic demonstrates the interconnected and fragile nature of our economy. Countries today are highly interdependent and wealthier as the result of the global economy. As the world shut down, we witnessed how much weaker we are in isolation.

Colorado has seen the benefits of a connected economy and is emerging as a global commerce hub, with many of our industry sectors collaborating and connecting with global partners and customers, creating economic opportunity locally. In fact, one in five Colorado jobs comes about due to international trade. These global connections promote innovation, which drives the productivity growth needed to expand Colorado businesses, create more local jobs, and boost wages. Global connections make Colorado more competitive and can drive sales when our domestic market is slowing. A pivot to serving international customers when domestic orders are slowing down could be the strategy companies use to sustain sales and keep employees working. Without fail, after every economic recession in this country or our state, Colorado companies have traded more to boost their overall sales and become more competitive by sourcing products internationally.

Renowned for our healthy blend of knowledge-based industries and niche manufacturing, Colorado provides plenty of opportunities for companies to compete on the global stage. With our innate entrepreneurial spirit, strong history in innovation and highly educated workforce, Colorado is a natural location for companies conducting international trade. From Colorado you can conduct business with Europe, the Americas, and Asia Pacific in the same business day, and fly directly to most cities in the United States and to many international destinations from the iconic Denver International Airport. The global pandemic highlighted some of the challenges Colorado companies face when looking to grow through international trade, such as rising transportation costs, strained supply chains, and a tight labor market, especially in the manufacturing sector. But the global support ecosystem in Colorado, made up of businesses, governments, and other organizations, help take the risk out of doing international trade.

The World Trade Center Denver (WTC Denver) is the hub of the Colorado international commerce ecosystem, supporting our local and regional firms in developing and executing their international expansion strategies. We have trained more than 35,000 business professionals on critical international trade concepts that help take the risk out of global business and have connected our business community to international opportunities through our network of over 300 WTCs in 100 countries. While our organization has over 34 years of experience supporting and connecting manufacturers and other Colorado industries, we are continuously adapting to find new ways to help Colorado connect globally.

Like many other Colorado companies, the pandemic forced our organization to redesign our service offerings. The delivery of our content moved to a mix of virtual and hybrid for the past two years, and we didn't skip a beat in bringing quality training and webinars to our network to share best practices. It was also important to flip our services for customized delivery, truly meeting our clients where they are to help them grow.

One way we're customizing our service delivery is through our Global Trade Activator program, our accelerator, which guides Colorado companies through the entire trade process, executing a customized trade plan to launch products or services into new markets or sourcing from them in just a few months. With training, professional coaching, technical assistance, capital, and connections along the way, companies are tapping into new potential. Graduates of the accelerator, like Spinster Sisters of Golden, have the goal of expanding locally through international commerce.

To further connect Denver and Colorado to the global stage, the WTC Denver has partnered with Pure Development and will locate to the new Fox Park global campus, a 41-acre community development site at the crossroads of I-70 and I-25, near the Transit Oriented Development (TOD) site at 41st and Fox. The new site will allow for ample place-making opportunities for our international business community and will provide Denver with a physical presence, showing the world that we compete on a global stage.

Denver-based Tryba Architects has designed the master plan, transforming the former Denver Post's 327,000-square-foot printing press facility into the 600,000-square-foot World Trade Center Denver Complex, which will be a modern multi-use urban center, including a cultural center, International Exhibit Hall, boutique hotel, performing arts theater, conference center, global and local restaurants, retail, fitness center, maker space, and art galleries. The new global campus will likely break ground in Q4 2021 to enhance infrastructure and open in Q3 2023 with a phased approach.

The WTC Denver's new corporate offices will anchor the global campus and will include innovative local and international businesses of all sizes and industries. We will expand our services again and offer members and campus tenants a Trade Help Desk, Concierge Services, Executive Suites, Event Booking, B2B Matchmaking, Foreign Investment Support, Vendor Clearinghouse, Trade Education, and more. One of the major benefits of the new space will be the ability to better convene the international business community to connect to global opportunities and share lessons learned from peers.

The Fox Park global campus will help Denver and Colorado shine a light on our region's global influence and connections. Our WTC Denver network has long recognized the importance of global connectivity, shared innovation, and international trade, and our future global campus will allow us to showcase the best of Denver on a global scale, creating global opportunities for our local community.

*Karen Gerwitz is President of the World Trade Center Denver. She may be contacted at Karen.Gerwitz@wtcdenver.org.*


# Denver International Airport: Catalyst for Global Business

*Laura Jackson*

Accessibility to global markets—to facilitate the movement of both people and products—is critical in establishing and maintaining a competitive position in today's economy. Denver International Airport (DEN) is the primary gateway for air travel in the Front Range, the state of Colorado, and surrounding states. Historically, Denver's location has provided a unique competitive advantage for domestic passenger travel for two reasons. First, Denver's relatively isolated location, nearly 500 miles from the next closest major airport, necessitates air travel for most purposes. Second, due to the city's central location in the United States, Denver is a convenient connecting point for transcontinental travel. As a result, Denver ranked as the second-largest U.S. airport for domestic travel demand in 2019, far outpacing the region's population rank (19th-largest metropolitan area).

Denver's location has long been a strength in terms of the growth of domestic passenger traffic, but it has proven to be a weakness in terms of the development of both international air service and cargo volume. The central location means that airlines must overfly larger coastal cities to reach international destinations. Traditionally passenger airline hub and spoke networks have prioritized international air service growth from coastal and more populated cities; only in recent years has Denver's demographics matured to the point for the market to sustain a more robust offering of nonstop international passenger flights. In addition, Denver's relative isolation is a disadvantage when it comes to cargo development, due in part to the lack of a critical mass of consumers that exists in more densely populated areas along the East Coast, the West Coast, and in larger metropolitan regions (e.g., Chicago and Dallas).

**2019: DEN's Peak International Passenger Volumes**

In 2019, DEN served over 69 million passengers, a record number. Of this total, international origination and destination (O&D) passengers accounted for nearly 3.5 million, or 5% of total passenger traffic; 2019 was also a record year for international passenger demand in Denver. In the years leading up to 2019, DEN experienced tremendous growth in both the number of international carriers serving the market and in international destinations served nonstop. This expansion led to market stimulation and growth in demand for international travel to and from Denver.

**2020: The COVID-19 Shock**

The impact of the COVID-19 pandemic on the global aviation industry was swift and deep. On March 7, 2020, DEN celebrated an inaugural flight to Nassau, The Bahamas, a brand-new destination, bringing DEN's total international destinations served nonstop to 26 in 13 countries. Just days later, on March 11, 2020, the World Health Organization declared COVID-19 a pandemic, and this was immediately followed by the expansion of a presidential proclamation to ban nonessential travel into the United States from many countries, including Europe and the United Kingdom. As a result, DEN's international air service network collapsed, and the 75 days between April 2 and June 15 marked an unprecedented period in Denver aviation history where the airport did not offer any service to international destinations. The second half of 2020 saw the slow return of international passenger flights at DEN, and the airport ended the year with relatively limited nonstop connectivity regained to just six countries (Belize, Canada, Mexico, Costa Rica, Germany, and Panama).

### 2021: International Passenger Traffic Recovery

Year-to-date (YTD) through July 2021, DEN's total passenger traffic declined by 21% as compared to YTD July 2019; domestic passenger traffic recorded a decline of 20% while international passenger traffic was down by 50%, more than double the rate of decline of domestic passenger volume. When examining this 50% decline in international passenger traffic in more detail, the trends are wildly uneven, with some international markets experiencing growth over 2019 levels and others exhibiting nearly no demand. These varied trends are a direct result of border closures, travel restrictions, and the continued unpredictability of the virus.

For the YTD July 2021 period, demand for travel between DEN and Mexico grew by 3% as compared to YTD July 2019, and some markets, such as Cancun, recorded double-digit demand growth. Mexico's market share jumped to 61% of DEN's total international demand, a significant increase over its 25% market share for the YTD July 2019 period. This is the result of leisure and visiting

**Monthly passenger traffic back to pre-pandemic levels at DEN**

Denver International Airport, passenger total, millions

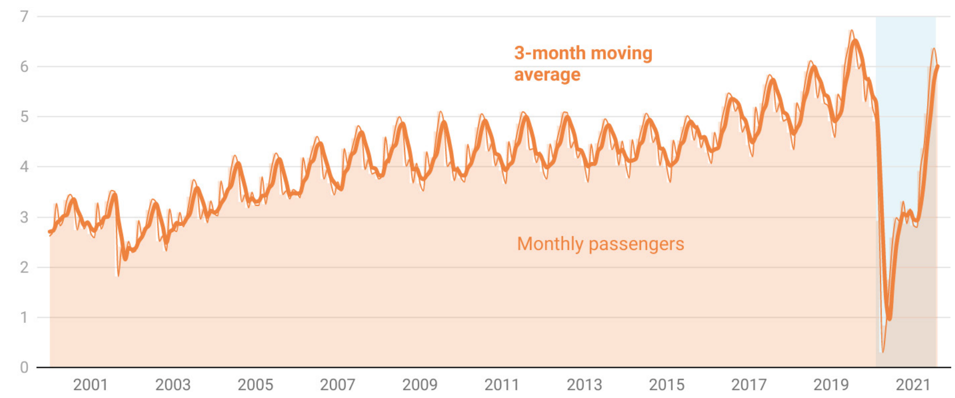



Chart: Business Research Division • Source: Denver International Airport • Created with Datawrapper

friends and relatives (VFR) travel leading international passenger demand recovery, and airlines have adjusted their business models to capture this type of demand. At the same time, demand for travel between DEN and Europe declined by 83%; for YTD July 2019 Europe accounted for 30% of DEN international passenger traffic demand, and this fell to just 12% for YTD July 2021. Canada has experienced the most dramatic decline: demand for passenger travel between DEN and Canada has fallen by 92%.

### Cargo

In the early months of the COVID-19 pandemic, the demand for cargo far outpaced the demand for passenger travel. In 2020, the volume of cargo handled at DEN declined by only 1.6% compared to 2019, and for the YTD July 2021 period, cargo volume declined by just 0.5% compared to YTD July 2019. In 2021, all-cargo carriers are recording higher volume than 2019 while passenger carriers are recording declines; this reflects the slower return of long-haul international passenger flights that are an important component of international cargo capacity at DEN.

While DEN currently ranks as the 3rd-busiest airport in the U.S. for passenger traffic, the airport ranks 16th in terms of cargo volume. Although DEN's primary catchment area is geographically large

**Passenger traffic in August year-to-date at DEN up 72% from 2020 but still down 19% from 2019**

Denver International Airport, passenger traffic, year-to-date, millions

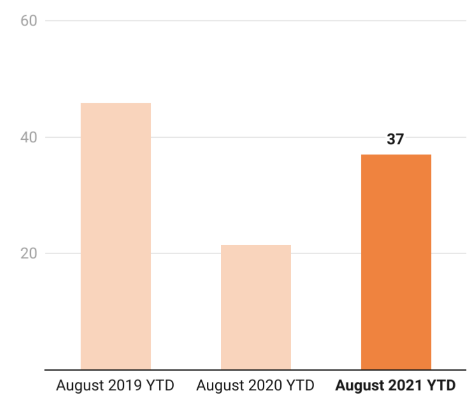



Chart: Business Research Division • Source: Denver International Airport • Created with Datawrapper

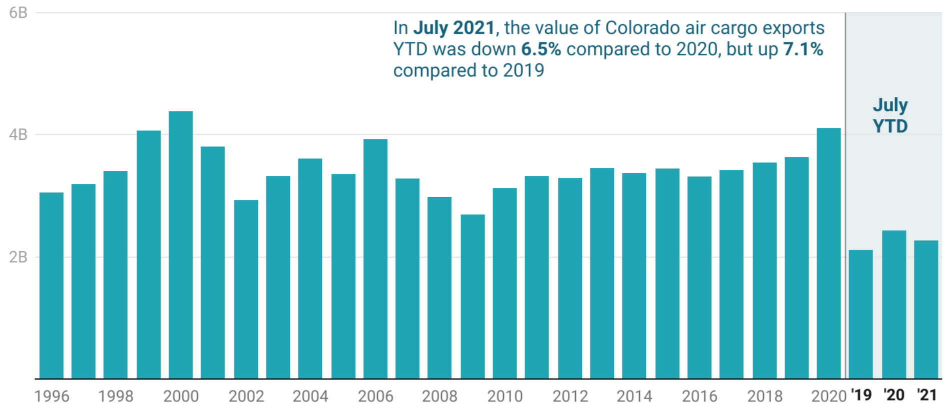
and stretches across multiple states, including portions of Wyoming, Kansas, and Nebraska, outside of the Front Range the region is sparsely populated, and demand is simply lower than in more densely populated regions.

### Future Outlook

Of major U.S. airport hubs, DEN's recovery of passenger traffic for YTD July 2021 ranks second only to Charlotte Douglas International Airport (CLT). DEN has proven to be among the most resilient airports during the COVID-19 pandemic, and DEN estimates that both

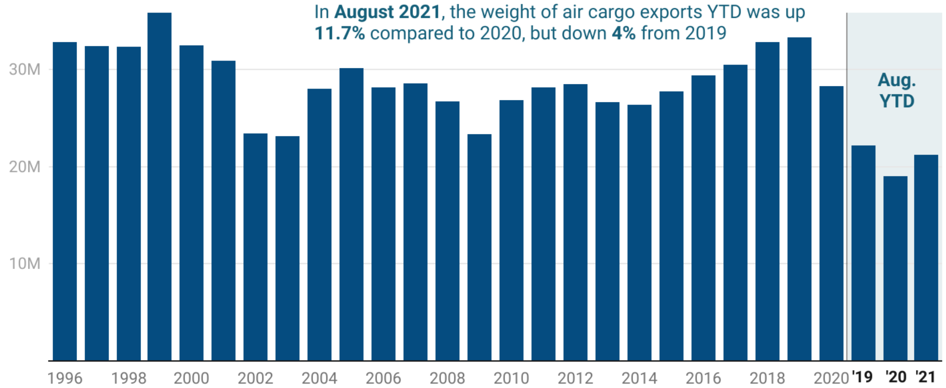
## Value of Colorado air cargo exports in 2020 at 20-year highs despite air weight declining

Denver International Airport, passenger total, millions




Source: WISERTrade • Created with Datawrapper

Colorado air cargo exports, **air weight (KG)**




Source: WISERTrade • Created with Datawrapper

domestic and international passenger volumes will recover to 2019 levels by mid-2022. As DEN emerges from this crisis, DEN is guided by Vision 100, a plan encompassing four pillars designed to prepare the airport to accommodate 100 million annual passengers, a milestone that DEN is expected to reach in the next decade. *Expanding Global Connections* is one of the four pillars, and it directly addresses the expansion of DEN's air service network and the growth of cargo operations—critical components to ensure the region and the state remain competitive in the years to come.

*Laura Jackson is Vice President of Air Service Development at Denver International Airport. She may be reached at Laura.Jackson@flydenver.com.*

# Colorado Innovation Accelerates Global Biological Research

*Bill Fester*

Intelligent Imaging Innovations (3i) is a global supplier of microscope systems for biomedical research. Founded as a Colorado company in 1995 by two recently minted Ph.D.s, a Colorado native and a CU graduate, 3i designs software and optical components to create research microscopes for use in biological research. As a manufacturer, systems integrator, and consulting group, 3i works with biomedical researchers in academia, government, and the biotech and pharmaceutical industries. 3i designs novel instruments with the goal of conducting experiments, often on living cells, that were previously not practical or even possible.

International trade is a critical component of 3i's business. 3i customers conduct fundamental biological research largely in nations that have substantial government investment in fundamental research. Advanced research microscopes require sophisticated scientific equipment from the United States and around the world. 3i procures microscopes, lasers, cameras, computers, motors, stages, filters, and more from Germany, France, the United Kingdom, Japan, and the U.S., to name some of the key source countries. This equipment is combined with innovative optomechanical designs and proprietary software in the Denver headquarters to create systems that are much more than the sum of their parts. Sourcing of the equipment and delivery of the instruments rely greatly on the free, or relatively free, movement of goods and services across many borders.

Nearly 40% of 3i's annual revenue can be attributed to international trade. Different business models are adopted to be successful in various markets. Subsidiaries in London, Paris, and Germany conduct business across Europe. Employees in Australia and China support a growing customer base. And key partner companies in Israel and India provide critical local support. 3i customers are scientists, and as such, tend to share universal intellectual traits and personal goals that transcend cultures and nations. However, the trade relationships that govern the flow of instruments for their work do not always have such similarities. Trying to understand and work within these trade relationships can be quite challenging for small to midsize businesses.

Early on, 3i recognized the need to have a business presence in Europe. From the beginning, major sales were made in Europe, a market deeply connected with the United States as a world leader in biomedical research. Today 3i has wholly owned subsidiaries in Germany, France, and the United Kingdom. These subsidiaries enhance 3i's competitiveness by providing local employees to develop customer relationships and by allowing for efficient logistics execution and providing a native entity from which to navigate systems of duty and VAT. In more recent history, 3i has expanded via nonsubsidiary routes in Australia, China, India, and Israel.

Australia is a particularly welcome place to do business. Australian business practices are generally like those in the U.S., making it straightforward to develop customer relationships and deliver products. The Australian commitment to fundamental research on a per capita basis is very impressive, and as a result, some of 3i's most advanced systems are conducting research there. Employing personnel, importing goods, and paying taxes are readily facilitated by hiring professional services firms similar to those in the U.S.

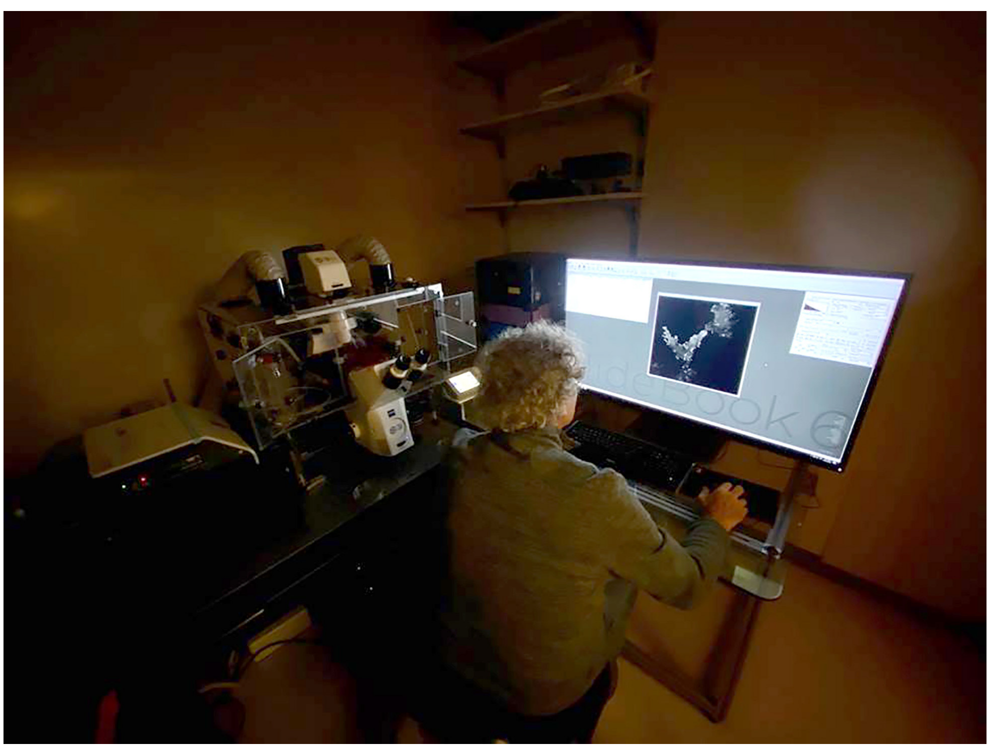
China is potentially the fastest-growing market in the world for 3i, and the most challenging. Many researchers in China were educated and trained in part in the U.S. and Europe, some on 3i systems, making for a good introduction to the market. However, beyond the scientists and their instruments there are challenges associated with tariffs, import/export companies, tax exemptions, and intellectual property. 3i has enjoyed some very good local relationships with partner companies in China, and some challenging ones as well. 3i made a strategic decision to expand business in China in 2015, investing in new personnel and securing funds from the Colorado Office of Economic Development and International Trade (OEDIT) to help jumpstart efforts. By 2017 the business climate had changed, and our previously cooperative efforts turned unpredictable and at times strained. By 2018, we began to suffer from tariffs, including an unexpected charge of more than $200,000 on a single microscope system. We struggled to find a way to cover this shortfall, as our business partner and our customer were not able to cover the tax alone. We realigned our strategy to prepare for the next large sale, which then unexpectedly received zero tariff. This kind of unpredictability may seem appropriate at times from a governmental perspective, but for businesses this can be wasteful on many levels.

India has a significant number of highly trained scientists and engineers, and like China, many have studied in the U.S. and Europe. This creates excitement and interest in the market, with many researchers eager to do more than they can do now. The challenges in India are funding from the government, infrastructure that is changing rapidly, and a system of tender approvals that is difficult for non-nationals to track. A close business partner is a must in India, and 3i is fortunate to have one. When the final tender award turns out to be not so final, a deeply embedded business partner can be indispensable in closing a deal.

Israel, like Australia, is a very positive market for biomedical research, with a commitment to fundamental research befitting a much larger population. Some of the more creative microscope systems from 3i have been designed for scientists in Israel. A recent favorite is an over/under microscope, where two complete and independent microscopes simultaneously image hydra from above and below. The regenerative properties of hydra are of great interest to biologists, and observation from two sides is critical to reveal a complete 3D view of the organism as it regrows lost portions of its body. Israel has an interesting placement in 3i's global business as the European subsidiaries manage the development and support of customers, while the U.S. headquarters transacts orders directly with Israeli customers to avoid duplicated duties and taxes when goods transition through three economic zones.

A proud and longtime member of the Colorado business community, 3i's peers and competitors are often located in larger metropolitan areas along the east and west coasts. 3i can compete and succeed in part due to Denver International Airport, allowing global business connections from Colorado, easily shipping and receiving both goods and people. We look forward to continued growth as we make new business connections wherever scientific research is happening around the world. BR

*Bill Fester is Vice President of Business Development at Intelligent Imaging Innovations (3i). He may be contacted at bill@intelligent-imaging.com.*



*A 3i Marianas research microscope system in the laboratory of Dr. Alexander Sorkin (Richard Beatty Mellon Professor and Chair, University of Pittsburgh Department of Cell Biology).*

# The U.S. Commercial Service: Strengthening American Business Through Exporting

*Suzette Nickle*

In an increasingly global economy, American companies are looking beyond our borders to grow their businesses. With over 70% of the world's purchasing power located outside of the United States, companies that export can dramatically expand their own growth while simultaneously spurring growth in the American economy. Exporting strengthens American businesses, supporting more than 40,000 jobs in Colorado alone. Despite the challenges that 2020 presented, Colorado companies still exported over $8 billion of goods and services, illustrating that buyers around the world want American products and services.

The U.S. Commercial Service helps Colorado companies seize the business opportunities that export expansion presents. For those unfamiliar with this federal government organization, the Commercial Service's mission is to help companies identify and pursue opportunities and succeed in the global marketplace. The U.S. Commercial Service, the export promotion arm of the International Trade Administration at the U.S. Department of Commerce, has supported American companies as they navigate global markets for the past 40 years. Our teams are present in over 100 U.S. cities and 75+ embassies and consulates around the world.

The U.S. Commercial Service's assistance to American businesses is critically important as the U.S. continues to recover from the impacts of the COVID-19 pandemic. U.S. exports will play a key role in contributing to the economic recovery process as they support over 10 million American jobs. Despite the many advantages to exporting, historically small- and medium-size enterprises (SMEs) have faced significant challenges in initiating export sales. These challenges may

**Dollar retreats from 2020 highs**

Nominal broad dollar index


Chart: Business Research Division • Source: Federal Reserve Bank of St. Louis • Created with Datawrapper

include a lack of knowledge about export opportunities or markets, lack of access to financing, or difficulties in identifying and vetting foreign partners.

Our team of international trade experts at our Denver office support companies in Colorado and Wyoming, helping them improve their exporting capability by providing market intelligence, trade counseling, business matchmaking, and commercial diplomacy services, most at little to no cost to the companies. The team continually adapts to meet the needs of our client companies, particularly in this virtual environment.

While the pandemic has created new challenges for exporters, it has also ushered in developments that will help organizations like the U.S. Commercial Service to be more inclusive in its outreach and connect with more potential clients, including minority-owned businesses, as the U.S. economy recovers from the pandemic. More specifically, using digital tools and virtual services, we are able to assist more clients and provide additional resources to help U.S. businesses to recognize their competitive advantages and seize exporting opportunities.

For example:

- This past year, we have advised companies to utilize the Single Company Promotion (SCP) as a marketing option. The SCP provides a U.S. firm with a promotional event such as a technical presentation to help increase awareness of their existing/new products/services in a specific foreign market. The U.S. Commercial Service organizes the event logistics; conducts a targeted direct mail or e-mail campaign; manages the promotional campaign and event-related logistics; and provides a post-event debriefing to discuss next steps.
- We produce actionable market intelligence for over 140 international markets through our *Country Commercial Guides* found on our website (trade.gov).
- Through its eCommerce Innovation Lab and trained trade professionals, the U.S. Commercial Service

offers valuable tools to help U.S. companies grow their brand for global sales. The Website Globalization Review (WGR) Gap Analysis is the first step and provides a technical and strategic assessment of a company's eCommerce sales channel efforts and is aimed at helping companies acquire more international consumers online.

- In July, Colorado was featured as a premier travel and study destination through the U.S. Commercial Service Worldwide Social Media State Promotion Project. In collaboration with the Colorado state Tourism office and Study Colorado, CS Denver assembled a social media content schedule featuring beautiful Colorado destinations and campuses all over the state. The Colorado content was shared with more than 70 U.S. embassies and consulates around the world to disseminate through official U.S. government social media channels. The content was translated and shared in Chinese, Spanish, and Arabic, driving website traffic and generating international interest in Colorado tourism sites and schools.

Our signature *Gold Key Service* creates an opportunity for U.S. companies to travel to a foreign market and take part in up to five matchmaking appointments with firms arranged through our Commercial Diplomats and local trade expert staff in the U.S. embassy or consulate in that market. The Gold Key Service primarily focuses on in-person meetings; however, during the pandemic this has shifted to virtual introductions to continue to facilitate these business-to-business meetings. One example of a Colorado company that has leveraged this service is Siege International, a veteran-owned intelligence and security services consulting firm. Our Commercial Service Denver team has worked with Siege for the past three years to connect the company with opportunities in Africa, the Middle East, and South America. According to its COO, Guy Tchoumba, "during the ongoing pandemic, the Commercial Service's assistance and constant support allowed us to virtually pursue new opportunities globally from home."

Additionally, the International Trade Administration (ITA) hosts major trade-focused events and webinars throughout the year, including our signature Trade Winds, the largest annual government-led trade mission. The U.S. Commercial Service Denver team is assisting with organizing our upcoming Trade Winds Middle East and Africa mission hosted in Dubai in March 2022. Companies that participate in the trade mission will attend the business forum and have the opportunity to customize their experiences with optional business-to-business matchmaking meetings with pre-screened buyers, agents, distributors, or joint venture partners in the host country as well as additional market visits in the region.

We encourage Colorado and Wyoming companies to leverage our expertise, our market insight, and our extensive network. Our team in Denver is the ideal resource for expanding Colorado and Wyoming companies' export potential. Our team is available to accompany you on your export journey.

*Suzette Nickle is the Director of U.S. Commercial Service Colorado & Wyoming. She may be reached at Suzette.Nickle@trade.gov.*



COLORADO BUSINESS REVIEW

**Leeds** School of Business
UNIVERSITY OF COLORADO **BOULDER**

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