



THE GLOBAL HOLIDAY SUPPLY CHAIN

How much is at stake?

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The end-of-year holiday season is a crucial time for the global economy, with many retailers and their suppliers relying on this hectic five-week period to generate the largest portion of their yearly profits.

It is a fraught time as businesses bet on the popularity of items ordered months ago and wrangle supply chains that stretch across the globe to meet demand.

Last year, nerves were more frayed than usual as major delays in supply chains from Beijing to Dubai, New York and all points in between threaten to dampen this crucial economic lifeline for millions of businesses worldwide.

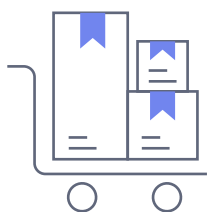
In the face of this unprecedented disruption, Quincus, a leading global provider of AI-driven supply chain optimization technology, and the Centre for Economics and Business Research (Cebr), an economics think tank, teamed up to create the most accurate view of the global supply chain of 2021's holiday period.

Our research [shows that the global holiday supply chain in 2021 was worth more than \\$65 billion](#). In a less turbulent year, this would be cause for celebration. But against a backdrop of clogged ports, backlogs of containers and a shortage of delivery drivers, this enormous global trans-shipment becomes a potential liability.

Continued disruption meant businesses all along the supply chain were left uncertain whether the goods they ordered would arrive in time for the holiday period or remain in limbo. This created economic uncertainty in place of the expected, and long awaited, seasonal cheer.

Even more worryingly, the research showed that the global supply chain logjam has caused [the expected value of goods shipped for the holidays in 2021 to fall slightly compared with the same items 12 months ago](#). This indicates that the hold-ups immediately affected the world economy.

We forecasted an unusual decline in the value of goods in the holiday supply chain in 2021 for two of the most important sectors—clothing and toys —while consumer electronics was only expected to make modest gains.



\$65bn

worth of goods locked up
in global supply chain



The fact that we are not seeing the increase from last year's data that we would expect indicates that the supply chain logjam is having a cooling effect on the global economy at a crucial time.

Katherina Lacey,

Quincus Co-Founder & Chief Product Officer

"This year's data are worrying on two counts," said Katherina Lacey at the time of our projections. "Firstly, with \$65 billion worth of goods locked up in this global supply chain, it is clear there is a lot at stake.

"Secondly, the fact that we are not seeing the increase that we would expect from last year's data indicates that the global supply chain logjam is having a cooling effect on the world economy at a crucial time."

Quincus and Cebr measured the value of goods in the global economy across three main categories: clothes, consumer electronics, and toys. These sectors accounted for the majority of end-of-year holiday gifts.

"We use this data, based on the value of goods we know are in the system, to give us a realistic view of what's at stake in the global supply chain at any one time," Lacey added.



The results of this data express the changing patterns of consumer behavior during the COVID-19 pandemic, with consumption being curtailed significantly at other points of 2021.

The largest increase in the value of goods was in the supply chain for clothing, with the value rising from \$318 billion in 2019 to \$348 billion in 2020.

The toys sector was the smallest in terms of the value of goods along the supply chain, in line with the industry's smaller share of global output when compared to clothing and consumer electronics. Accounts receivable for toys amounted to \$15 billion in 2020.

The aggregate value of goods across these three categories was expected to increase once more in 2021. Nevertheless, the rate of increase was anticipated to be just 1%, taking the value of holiday goods to \$714 billion.

Supply chain disruptions that impacted global trade were the main factors behind this slowdown in growth and impacted economic activity in the run-up to the Christmas period.

The value of goods in the supply chain across the whole year increased compared to 2020, with total cargo at the largest port in the US up nearly 25% from 2020 (breaking company records).

"From what we can observe, this slowdown comes as a direct result of the current global supply chain issues that are holding up goods at ports and in warehouses all over the world," said Jonathan Savoir, Quincus Co-Founder and CEO. "While this is a systemic problem, we have seen that digitalization of those tasks that traditionally have been manual—such as creating orders, fleet management, and last-mile delivery—can significantly ease the strain of overburdened supply chains."

To better understand this phenomenon, we have provided detailed analysis of the top three gift categories.

A CLOSE LOOK AT THE DATA REVEALS THE FULL PICTURE:

The value of goods across the clothing, consumer electronics and toys sectors—which together accounted for the majority of holiday spending—rose by 5% between 2019 and 2020 to \$707 billion.

Goods attributed to the festive period picked up by 7% between 2019 and 2020. This was driven by an even larger jump in the share of expenditure on gifts during the final months of the year compared to previous festive seasons.



\$707bn

spending on clothing, electronics, and toys

CLOTHING

The value of goods along the clothing sector's supply chain amounted to \$348 billion in 2020. This represents growth of 9% compared to 2019.


The value of goods attributable to Christmas gifts rose by 12% between 2019 and 2020. Clothing expenditure was even more heavily concentrated toward the festive season last year as a result of changing patterns of consumer behavior influenced by lockdown measures in earlier periods of the year.

The impacts of the COVID-19 pandemic are also clear when considering revenues among firms in the clothing supply chain. Many firms saw a reduction in revenue. For instance, Inditex, TJX, and Ross Stores—three of the largest players in the clothing retail space—all saw their revenues fall by over a fifth between 2019 and 2020. Meanwhile, estimates from IbisWorld suggest that total revenues amongst fabric producers slipped by around 5% during the same period.

Clothing remains the most popular gift category in the US, according to the Deloitte Holiday Retail Survey. Some 77% of US consumers planned to gift clothing in 2021. Moreover, the average expenditure per consumer was higher for clothing than for any other category, and was estimated at \$304 ahead of the 2021 festive season.

Despite this, the value of goods in the clothing supply chain in the 2021 holiday period was expected to decrease quite significantly to around \$33 billion, a drop of 2.1% year-on-year. **A major contributing factor to this expected slowdown in the clothing market was the disruption to the global supply chain.**

"Clothing and fashion are seasonal, with manufacturers and retailers relying on sophisticated supply chains," Lacey says. **"Late delivery of raw materials or finished garments can mean missing an entire season of revenue.** Digitalization of the supply chain using specialist technology developed by Quincus can ensure deliveries remain on time."



The average expenditure per consumer was higher for clothing than for any other category, amounting to an estimated \$304 ahead of the 2021 festive season.

The icon for the TOYS section, featuring a blue diagonal bar above the word TOYS in a bold, sans-serif font.

The value of goods along the toy sector supply chain increased by an estimated 5.1% between 2019 and 2020.

Much of this growth was concentrated among suppliers to toy manufacturers, such as plastic producers. Toy manufacturers themselves saw growth of 5.1%, mirroring the wider supply chain.

The value of goods attributed to holiday gifts in the toy category reached an estimated \$1.5 billion in 2020. A fallback of more than 2.7% to \$1.4 billion was anticipated in the 2021 festive season, driven by a decline in activity among toy manufacturers and disruption to global supply chains.

Revenues among the major toy manufacturers increased between 2019 and 2020. This was most stark for Bandai Namco, with revenue from toys picking up by 19.5% on an annual basis. Hasbro and Lego also saw large relative increases in revenue, an estimated 15.8% and 16.6% respectively.

It is a sector that has seen a resurgence in popularity in recent years. According to the Deloitte Holiday Retail Survey, 76% of consumers were set to purchase an item from this category during the 2021 festive season. This compares to just 39% in 2017.

As such, toys and hobbies were expected to be the second most popular gift category in 2021, alongside gift cards and behind clothing and accessories.

The expected expenditure per consumer was lower for toys and hobbies, however, amounting to \$187.

“Toys and games are one of the most important categories for all year-end holiday gift-giving, whatever tradition you celebrate,” Lacey says.

“Deploying a smart, connected supply ecosystem can keep supply chains running smoothly, so gifts are delivered on time and nobody will be disappointed.”


A report by Bloomberg News claimed “Every step of the global supply chain is going wrong—all at once.” Finding a panacea for such a complex and interwoven global challenge is vital.

Quincus firmly believes [the more digitally interconnected a supply chain becomes, the more likely it is to work smoothly and efficiently.](#)

An enterprise-wide SaaS (software as a service) platform improves logistics for any company that delivers: from global manufacturers to e-commerce providers and consumer goods companies to airlines, freight carriers, and last-mile couriers.

[Quincus employs technology that enables clients to automate manual tasks, maximize resources across supply chains, and build business resilience.](#) The combination of flexibility, seamless integration, and robust data intelligence provides real-time supply chain visibility and control.

“The global supply chain touches every business on earth,” Lacey says. “Quincus can connect them all to create a seamless chain of communication that helps clients save time, optimize resources, and improve their service to customers.”

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We use this data to give us a realistic view of what's at stake in the global supply chain at any one time.

*Katherina Lacey,
Quincus Co-Founder & CPO*



CONSUMER ELECTRONICS

The value of goods along the consumer electronics supply chain increased by around \$4 billion between 2019 and 2020. This reflects the continued pattern of technological adoption worldwide.

The trend was further strengthened by the pandemic. More time spent in the home and a greater need for connectivity prompted an increase in demand for electronic goods.

The consumer electronics space is characterized by large enterprises at all stages of the supply chain. Alongside brands such as Apple and Lenovo are firms such as Hon Hai Precision Industry (also known as Foxconn Technology Group), which is a manufacturer of electronic devices and key input goods.

A majority (61%) of US consumers planned to purchase electronics and accessories as a gift in the 2021 festive season, according to the Deloitte Holiday Retail Survey. Even so, the value of electronic gifts in that year's supply chain was estimated to have increased by only 2.3% year-on-year to \$30.6 billion

"Disruption of the consumer electronics supply chain has an impact that can be felt far beyond its boundaries," Savoir says. "A logjam from one chip manufacturer can impact smartphone and laptop manufacturers, for sure, but also automotive, heavy industry, and even construction."

"Almost all industries today rely to some extent on the semiconductor industry. The digitalization of this supply chain is perhaps the most vital."

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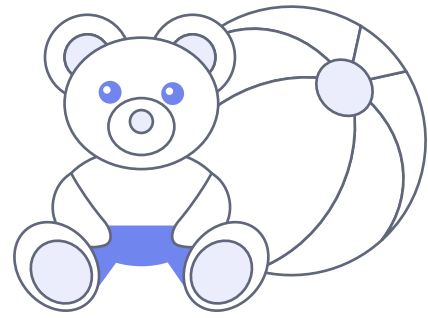
*Jonathan Savoir,
Quincus Co-Founder & CEO*

THE GLOBAL HOLIDAY SUPPLY CHAIN



\$65bn -0.1%*

Projected value of the 2021 holiday supply chain



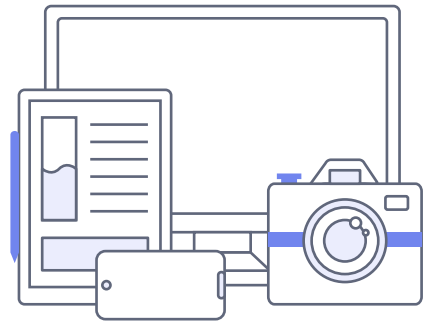
\$1.4bn -2.7%*

Projected value of the 2021 holiday supply chain for toys



\$33bn -2.1%*

Estimated value of the 2021 holiday supply chain for clothing



\$30.6bn +2.3%*

Estimated value of the 2021 holiday supply chain for consumer electronics

** % change, year on year*

METHODOLOGY

To estimate the value of goods at stake within the 2021 holiday supply chain, we examined the annual reports of each sector's major companies at various stages of the supply chain. Data on each company's accounts receivable provided information on the amount owed to the company downstream in the supply chain, while the accounts payable provided information on the amount that the company owed to its suppliers upstream in the supply chain.

We then scaled up the accounts receivable figures to arrive at sector-wide figures using estimates of companies' respective market shares. Estimates for 2019 and 2020 were based on full year earnings reports for the respective companies. Nowcasts for 2021 were based on mid-year reporting. Given the smaller pool of data, these figures were subject to greater uncertainty.



Quincus is a leading global provider of AI-driven logistics optimization technology, improving the operations of every business and the experiences of every customer on earth—one delivery at a time.

Founded in 2014 by Jonathan Savoie and Katherina Lacey, Quincus is an enterprise SaaS platform that fundamentally improves logistics for any company that delivers from global manufacturers, e-commerce providers, and consumer goods companies to airlines, freight carriers, and last mile couriers.

The global supply chain touches every business on earth. By developing the right technology, Quincus can connect them all to create a seamless and boundless chain of communication to fundamentally improve the lives of billions of customers.

Quincus employs technology that enables our clients to automate manual tasks, maximize resources and productivity across supply chains, and build business resilience. The combination of flexibility, seamless integration, and robust data intelligence provides realtime supply chain visibility and control, helping our clients save time, save resources, and improve the lives of their customers.

Quincus is headquartered in Singapore with a global presence in the USA, the UK, Indonesia, Malaysia, Mexico, Taiwan, Vietnam, and the UAE.

Quincus has the data that delivers.

