Quincus

December 2021

THE GLOBAL HOLIDAY SUPPLY CHAIN

How Much is at Stake?

www.quincus.com

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 profits for the whole year.

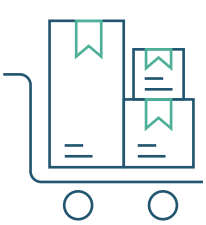
It is a fraught time as businesses bet on the popularity of items ordered months ago and wrangle supply chains that stretch across the globe to meet demand.
This year nerves are more frayed than usual as major delays in supply chains from Beijing to Dubai, New York and all points in between threaten 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, have teamed up to create the most accurate view of the global supply chain as it enters the holiday period.
Our research shows that the global holiday supply chain in 2021 is forecast to be 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 means businesses all along the supply chain are uncertain whether the goods they ordered will arrive in time for the holiday period or remain in limbo. This creates economic uncertainty in place of the expected, and long awaited, seasonal cheer.

Even more worryingly, the research also shows that the current 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 are already having a dampening effect on the world economy.

We forecast an unusual decline in the value of goods in the holiday supply chain this year for two of the most important sectors – clothing and toys – while consumer electronics is 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

"This year's data are worrying on two counts," says Katherina Lacey, Quincus co-founder and Chief Product Officer. "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 measure the value of goods in the global economy across three main categories – clothes, consumer electronics and toys. These sectors account 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 adds.

A CLOSE LOOK AT THE DATA REVEALS THE FULL PICTURE:

The value of goods across the clothing, consumer electronics and toys sectors – which together account 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.

This reflects the changing patterns of consumer behavior during the Covid-19 pandemic, with consumption being curtailed significantly at other points of the year.
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 is 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.

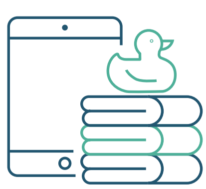
The aggregate value of goods across these three categories is expected to increase once more in 2021. Nevertheless, the rate of increase is anticipated to be just 1%. This rate would take the value of holiday goods this year to $714 billion.

Ongoing supply chain disruptions that have impacted global trade are the main factors behind this slowdown in growth. These supply issues are particularly pertinent at present and look likely to impact economic activity in the run-up to the Christmas period.

Although the value of goods in the supply chain across the whole year is expected to have increased compared to 2020, the value of goods attributed to festive spending is set to fall year-on-year.

"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," says 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.



$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 towards 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 plan to purchase clothing as a gift in 2021. Moreover, the average expenditure per consumer is higher for clothing than for any other category, amounting to an estimated $304 ahead of the 2021 festive season.

Despite this, we estimate the value of goods in the clothing supply chain in the 2021 holiday period will decrease quite significantly to around $33 billion, a drop of 2.1% year-on-year. It is also clear from our analysis that the current disruption to the global supply chain is a major contributing factor to this slowdown in the clothing market.

"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 help ensure on-time delivery remains on time."

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

TOYS

The value 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 is anticipated in the 2021 festive season, driven by a decline in activity among toy manufacturers. This reflects the ongoing 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 are 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 are expected to be the second most popular gift category in 2021 alongside gift cards behind clothing and accessories.

The expected expenditure per consumer is 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 recent report by Bloomberg News proclaimed "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 difficult.

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 a configurable and modular 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."

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

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 there 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 plan to purchase electronics and accessories as a gift this festive season, according to the latest Deloitte Holiday Retail Survey. Even so, the value of electronic gifts in this year's supply chain is 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."

*Disruption of consumer electronics supplies has an impact far beyond its boundaries.
The digitalization of this supply chain is perhaps the most vital*

*Jonathan Savoir,
Quincus co-founder*

Quincus

Quincus is a leading global provider of AI-driven supply chain optimization technology, improving the lives of every business and every customer on earth, one delivery at a time.

Founded in 2014 by Jonathan Savoir 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.

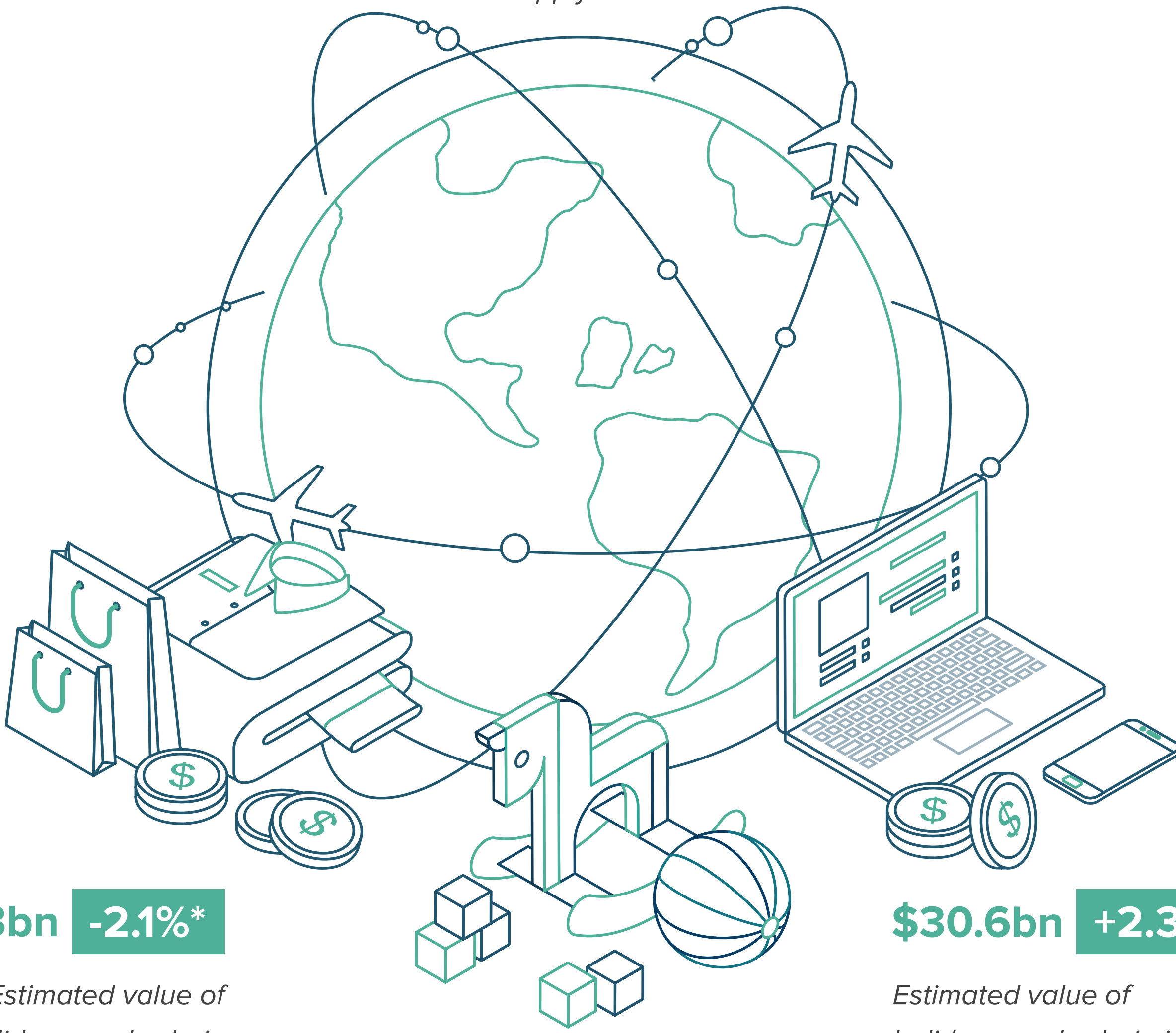
The global supply chain touches every business on earth. By developing the right technology, Quincus can connect them all to create a seamless and boundless chain of communication to fundamentally improve the lives of billions of customers.

Quincus employs a configurable and modular technology that enables our 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, 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.

$65bn **-0.1%***

Estimated value of 2021 holiday supply chain



$33bn **-2.1%***

Estimated value of holiday supply chain in clothing

$1.4bn **-2.7%***

Estimated value of holiday supply chain for toys

$30.6bn **+2.3%***

Estimated value of holiday supply chain in consumer electronics

** % change, year on year*

METHODOLOGY

To estimate the value of goods along the end of year holiday supply chain, we have examined the annual reports of each sector's major companies at various stages of the supply chain. Data on each company's accounts receivable provide information on the amount owed to the company downstream in the supply chain, while the accounts payable provide information on the amount that the company owes 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 are based on full year earnings reports for the respective companies. Nowcasts for 2021 have been based on mid-year reporting. Given the smaller pool of data, these figures are subject to greater uncertainty.