



6TH ADVANCED SUMMIT ON
Food Law – Regulation, Compliance and Litigation

Developing Strategies to Address the Legal, Economic,
and Environmental Impacts of Pandemic Induced
Food Supply Chain Disruptions

Presented by

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PANDEMIC PROBLEMS

STAFFING IMPACTS, *e.g.*, farm workers, meat packers, truck drivers, restaurant employees, *etc.*

1. Reduced Production
2. Reduced Processing
3. Reduced Available Logistics Services
4. Retailing Challenges
 - Unstable inventories
 - Higher prices
 - Reduced consumer demand



PANDEMIC CONSEQUENCES

FEDERAL COVID PREVENTION SPENDING: To aid the nation's recovery from the coronavirus pandemic, the U.S. Congress passed four special appropriations laws for the federal government to use in relief efforts.

- The first was \$8 Billion in funding through the **Coronavirus Preparedness and Response Supplemental Appropriations Act**, passed on March 6, 2020.
- Next, Congress appropriated, \$19 Billion under the **Families First Coronavirus Response Act**.
- The third and largest appropriation was the **Coronavirus Aid, Relief, and Economic Security (CARES) Act**, which provides approximately \$2.08 Trillion (with a "T") and is the largest supplemental appropriation in American history.
- In April of 2020, the Congress appropriated \$483 Billion associated with the **Paycheck Protection Program and Healthcare Enhancement Act**.

Conservative lawmakers and some economists argue that extreme levels of COVID-related fiscal and monetary stimulus pumped money into households and investment markets, contributing to inflation.

INFLATION: Bottlenecks in supply chains caused by the COVID-19 pandemic have interfered with the production of many goods, constricting supplies even as demand was growing because many people, after so much time in pandemic lockdowns, have savings they're eager to spend on things they couldn't do over the past couple of years.

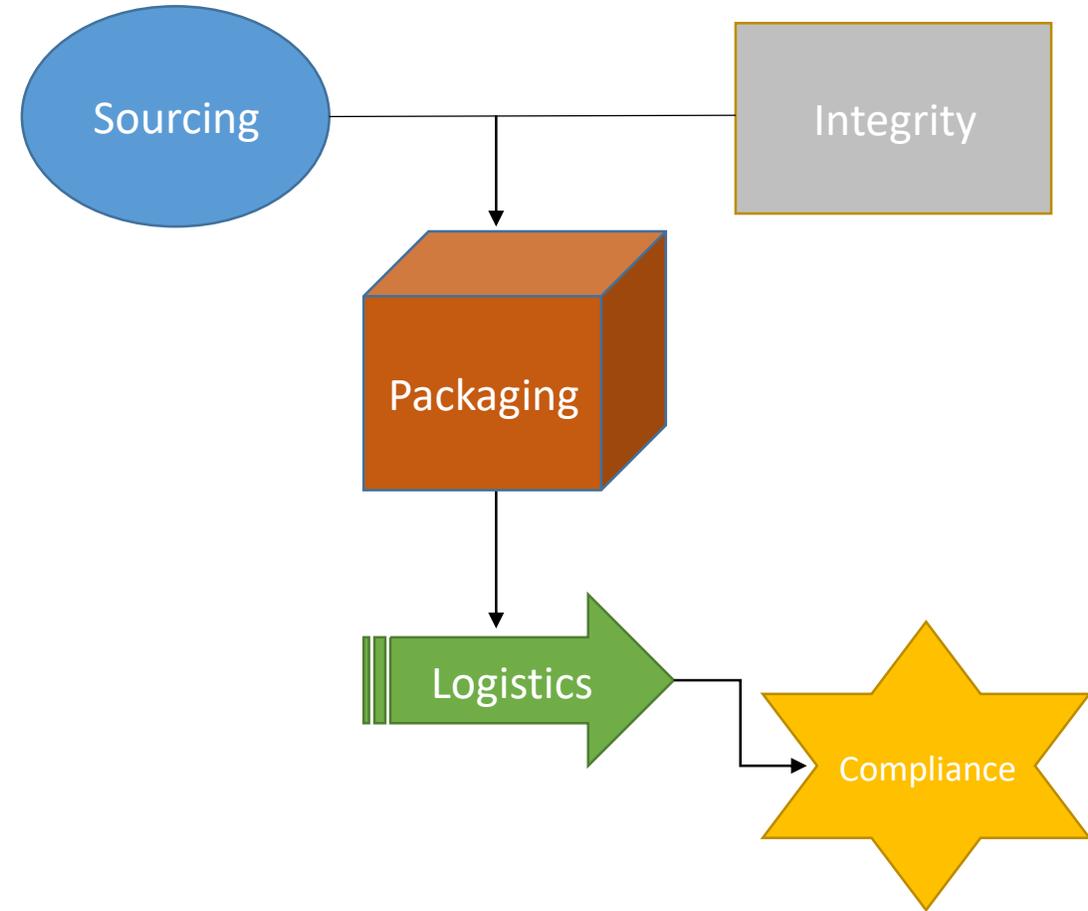
The resulting whiplash effect has produced levels of inflation not seen in generations. The government reported last month that consumer prices climbed 8.6 percent over the year through May, the fastest rate of increase in four decades. **The Center for Public Integrity** last week warned that *"fast-rising prices for gas, food and most everything else is negatively impacting the purchasing habits of consumers across the country, and hitting low-income households hardest."*

INTEREST RATES AND FED RESERVE HIKES: Federal Reserve interest rate hikes in March, May and June of this year were aimed at the demand side of the inflation issue. Higher interest rates make it harder to borrow money or get credit, which means businesses and even consumers generally will have less money to spend. Moreover, higher interest rates could hurt farmers, ranchers and processors who are seeking to expand food production operations and fill the gap caused by other market factors such as Russia's invasion of Ukraine and the resulting constriction on grain and other ag-commodity exports from Europe's breadbasket.

FAMINE: **David Beasley**, the Executive Director of the **UN World Food Program**, warned last week that a looming hunger catastrophe is set to explode over the next two years, creating the risk of unprecedented global pressure. The number of people classed as "acutely food insecure" by the UN before the COVID crisis was 130 million, but *after COVID this number rose to 276 million.*

PANDEMIC SOLUTIONS REQUIRE FIVE-FOLD PLANNING

1. BALANCED/DIVERSIFIED SOURCING
2. VERIFIED INTEGRITY
3. SUSTAINABLE PACKAGING
4. RELIABLE LOGISTICS
5. COMPLIANCE WITH INCREASING REGULATION



BALANCED/DIVERSIFIED SOURCING



BALANCED/DIVERSIFIED SOURCING

- **Pre-pandemic “just in time” supply chains** typically focused on procuring raw materials and components for the lowest cost possible, regardless of their point of origin. **Enterprise resource planning (ERP) systems** such as supply chain management systems and software could accurately predict order fulfillment time frames.
- Even when raw materials and components required longer lead times because of maritime shipping timetables, supply chain managers could generally rely on this predictability.
- However, most ERP systems were created prior to 2020.
- Today, raw material manufacturing disruptions and imbalances with supply versus demand have rendered the traditional strategies ineffective. Moreover, costs are rising rapidly along with global inflation, which is further undermining the just-in-time model's viability.
- The cost savings previously gained by sourcing from the world's lowest-cost providers is outweighed by the lost revenue and increasing costs.

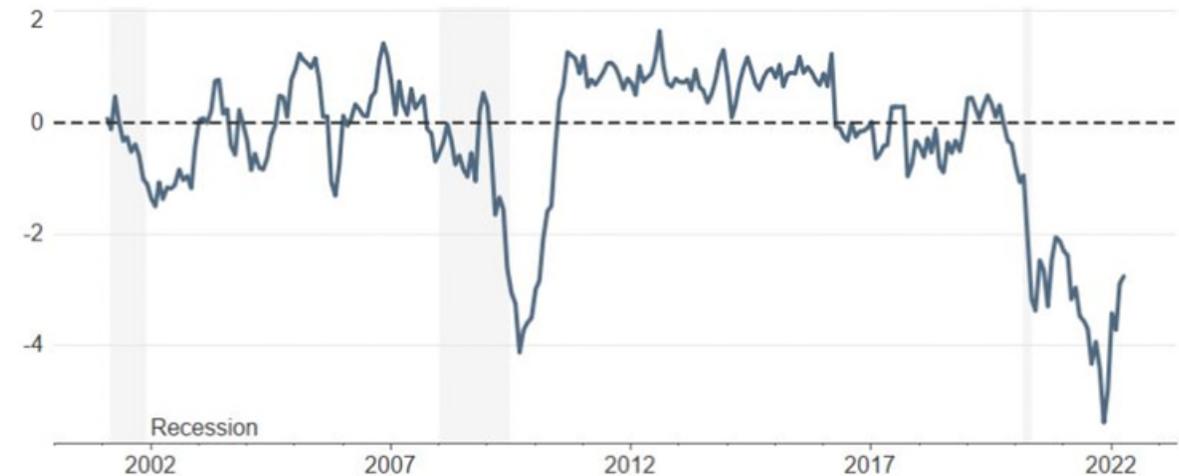
BALANCED/DIVERSIFIED SOURCING

- Pandemic reductions in labor and productivity translate into unstable supplies.
- Pandemic lockdowns in China, exacerbated by prolonged geopolitical conflict in Ukraine and increasingly devastating drought conditions in traditional food producing regions like India and the Midwestern U.S., will likely produce more supply chain disruptions in the near and mid-terms.
- Diversification of sourcing reduces risk

The RSM US Supply Chain Index rose 4.5% in the Spring of 2022 to a level of **Negative 2.76** standard deviation below neutral. The slight improvement came largely from higher inventory levels and domestic industrial capacity utilization. However, growing inflation pressures and increasing freight traffic combined with continuing COVID-19 lockdown in China and other factors such as Summer Droughts and the Russian invasion of Ukraine will slow down and likely reverse improvement.

RSM US Supply Chain Index

Z-score based on mean and standard deviation from 2001 to 2019



Note: An index value of zero is defined as a normal level of supply chain efficiency. Positive values of the index suggest adequate levels; negative levels suggest deficiencies. Source: Various government & private organizations, Bloomberg, RSM US

BALANCED/DIVERSIFIED SOURCING

- Events in Eastern Europe and China have led smarter companies to plan for redirecting and diversifying their input sources, which includes reshoring.
- Reliance on a few countries for important input and raw materials has proven to be detrimental to businesses during the pandemic, eroding the profitability once associated with single source strategies.
- **Many supply chain and procurement managers are willing to pay more to get consistent and reliable product faster or more predictably, which can increase profit margins in a world where COVID will continue to be a reality for the near and likely mid-term.**
- Establishing new and multiple sources for supply, building new processing facilities and setting up new supply chain infrastructure will take time to come online. Nevertheless, trading off past cost-efficiencies for future long-term sustainability is a necessary step for globalized food companies to become more resilient.

SOURCING QUESTIONS

4 questions to ask about your supply chain strategy:



Does it need to be further **diversified**?



Do I need to **localize** manufacturing?



Should I invest in **digitalization**?



Can I make it more **customer-focused**?

SOURCING SOLUTIONS

- One bright spot might come from **continuing increases in domestic production** that have become more important to fill the void left by global supply chain disruptions. The smart supply chain and procurement managers are **diversifying the vendor base**. Many had relied solely on one or two vendors for their supply chains, which worked fine prior to 2020. Since 2020, this strategy concentrates risk among too few vendors. Now procurement managers are more likely to **increase their roster of alternative vendors and backup providers**.
- Another market solution is the growing move towards **vertically integrated supply chains**. Many food companies are acquiring raw material providers if possible, or building their own **in-house competencies** across the supply chain.
- A third response to Pandemic problems is the **accelerated use of data and analytics**. Food companies are extending their data visibility further into the supply chain with both their vendors and customers. **Integrating with customers' systems** to better anticipate demand, **and with vendors' systems** to better predict material or component availability, helps reduce the vagaries caused by the pandemic.
- Not to be overlooked is the **importance of dedicated labor**. Supply chain managers are investing more heavily in their people. Past supply chains centered on the flow of goods and materials, but today's supply chain leaders consider more carefully labor's impact on supply chains. The Great Resignation, labor shortages and workplace health concerns have made **human capital management** more important than ever for effective supply chain management during the ongoing pandemic.

BALANCED/DIVERSIFIED SOURCING

THE BOTTOM LINE:

An effective digital strategy that invests heavily in:

1. Diversified sourcing, emphasizing domestic vendors,
2. New business processes, including internalized vertical integration,
3. Human capital management, and
4. Data integration

will be critical to succeed in our new, pandemic-driven environment.

VERIFIED INTEGRITY



VERIFIED INTEGRITY

- Pandemic-related infections can impact products as well as workers.
- The COVID-19 pandemic has resulted in food supply chains being disrupted with some products, ingredients, or materials being unavailable or in short supply. **In the rush to identify new suppliers**, food businesses may focus less attention on the integrity of the supply chain, thereby opening new opportunities for **food fraud**.
- COVID also has produced **more health-conscious consumers** who are demanding “safe” food products. While there is no indication that SARS-CoV-2 and its offspring are foodborne viruses, the impact the COVID pandemic has had on everyday life is unprecedented.
- The pandemic has had serious consequences on **what and how people eat*** and has brought to light important questions on how we keep our food safe, as well as the people responsible for our food: everyone from farmers to grocery store employees.
- Purchasers seek producers who can assure the integrity of their products.

* J. Cable, L. Jaykus, K. Hoelzer, J. Newton, and M. Torero, “The impact of COVID-19 on food systems, safety, and security—A symposium report.” *Annals of N. Y. Acad. of Science*. 2020;1484:3–8. doi: 10.1111/nyas.14482.

VERIFIED INTEGRITY

Most regulated consumables tend to have established, transparent specification regimes for regulatory compliance:

- **Food contaminants** (safety) *e.g.* mycotoxins;
- **Alcohol beverages** (safety, distribution control, and tax revenue) *e.g.* alcohol content by volume (ABV);
- **Food commodities** (safety and consumer awareness) *e.g.* sugar content, country of origin disclosures.

But how best to regulate/verify Food Authenticity and Integrity in a COVID environment?

- Geographical origin?
- Species/variety declaration?
- Status descriptors, *e.g.*, Organic, grass-fed or free-range?

VERIFIED INTEGRITY

The verification needs of Producers and Processors.

- Pandemic-related disruptions can make a food supply chain more vulnerable to breaches in food safety practices.
- What were seen as standard protocols prior to the COVID pandemic have become a challenge for many producers and processors, especially with illness-related staffing shortages as well as uncertainty about how public health officials are going to contain escalating risks created associated with new COVID subvariants.
- Additionally, because many food production and processing operations are staffed predominantly by migrant and immigrant workers, purchasers' need for verification protocols that insure the supplying vendor's compliance with applicable health and safety requirements has become paramount during the pandemic.
- Some food companies, farmers, processors and restaurants alike have made responsive pivots to new market channels and buyers by leveraging relationships in local food supply chains. **"Short-circuit chains"** allow enterprises to develop direct, personal relationships with their supply chain partners and buyers, which in turn obviate some of the most burdensome pandemic supply chain problems.

VERIFIED INTEGRITY

Verification is an issue for e-commerce food retailers as well.

- Purchasing and eating habits have changed because of COVID. Especially in times of escalating contagion, consumers are purchasing less often in person and consuming more home-cooked meals while managing with existing supplies at home.*
- As a result, food supply chains are much more democratized, meaning that consumers now have access to many other links in the supply chain, from farm to retail.**
- Furthermore, while food companies “pivoted” to e-commerce to reach consumers and e-procurement to reach processors and farmers, delivery intermediaries “copivoted” with food firms to help them deliver and procure phone apps and/or internet websites. This was crucial to the ability of the many food enterprises to pivot, including farmers’ markets, processors and other food providers which would not normally interact daily with the consumer before the pandemic.
- HOWEVER, The use of delivery intermediaries such as UberEats, GrubHub and Postmates raises concerns regarding food integrity. Safe storage, climate controlled transport and time intervals between pick-up at the retailer and delivery to the consumer are all factors that can implicate food safety issues.

A. Kuna, “Impact of Covid—19 on Food Purchasing, Eating Behaviors and Perceptions of Food Safety in Consumers of Telangana and Andhra Pradesh of India.” *Int. J. Agric. Environ. Biotechnol.* 2020; 13:395–402. doi: 10.30954/0974-1712.04.2020.3.

**L. Chenarides, M. Manfredo, and T.J. Richards, “COVID-19 and Food Supply Chains.” *Appl. Econ. Perspect. Policy.* 2020;43:270–279. doi: 10.1002/aep.13085.

VERIFIED INTEGRITY

Verification Solutions: TECHNOLOGY.

- A key step and first line of defense is thorough supply chain mapping and full transparency, assessing the likelihood of fraudsters to penetrate the chain at any point.
- More vulnerable chains, such as those where ingredients and/or raw materials are purchased through traders or auctions, may require a higher degree of sampling, testing, and surveillance.
- Access to analytical tools is pivotal, requiring continuous development and possibly sophistication in identifying chemical markers, data acquisition, and modeling.
- Significant progress in portable technologies is evident already today, for instance, as in the rapid testing now available at the agricultural level.
- For food manufacturers, targeted analytical methods complemented by untargeted approaches are end control measures at the factory gate when the material is delivered.

VERIFIED INTEGRITY

Verification Solutions: BEST PRACTICES.

- **Maintain a functioning national food safety inspection program.** The key issue for competent authorities is to ensure compliance with food legislation in those categories of food premises that pose the greatest risk. Many food businesses are introducing new biosecurity measures to limit the entry of external personnel.
- **A risk profile of each food business for inspection purposes should be based on the nature and extent of the food business,** taking into account:
 - the type of food handled, processed and distributed;
 - the methods of processing (cooked food, ready-to-eat products);
 - scale of the operation, and possible at-risk groups among consumers of the products.
- **Focus should be directed at** compliance or with food legislation, effective development and implementation of the food businesses' Food Safety Management System (FSMS), and maintenance of verification records.
- **Staff protection is critical,** and measures should be taken to avoid serious health risks for employees and workers without jeopardizing the prevention of food safety risks.
- **So is staff training.** Staff must be able to recognize COVID symptoms early so that they can seek appropriate medical care, self-report, and exclude themselves from work, minimizing the risk of infecting fellow workers. Staff may require refresher training courses in the basic principles of food hygiene and operational procedures for conducting internal inspections, particularly on the use of PPE and ensuring that they do not contribute to contaminating the work environment.

VERIFIED INTEGRITY

THE BOTTOM LINE:

Verification is an unavoidable cost of doing business.

For the past decade (2010 – 2020), many Americans enjoyed a subsidized existence from the mosaic of urban amenities in food (as well as other amenities such as travel, delivery, retail generally) that vaguely pretended to be tech companies.

If you woke up on a **Casper mattress**, worked out with a **Peloton**, called an **Uber** to take you to your job at **WeWork**, ordered lunch on **DoorDash**, took a **Lyft** home, and ordered dinner through **Postmates** only to realize your partner had already started on a **Blue Apron** meal, your household had, in one day, interacted with eight unprofitable companies that collectively lost about \$15 billion in one year.

In effect, these Gig economy disruptor start-ups, backed by venture capital, were subsidizing consumers to buy their products. This business model can work in a low-rate environment, in which investors are attracted to long-term growth more than short-term profit. As long as money is cheap and Silicon Valley told itself the next world-conquering consumer-tech firm was one funding round away, the best way for a start-up to make money from venture capitalists was to acquire a huge base of customers, even at the cost of profitability.

But here's the reality today: Pandemic adjustments are making this subsidized growth approach much less viable, especially in regards to food and hospitality, because the new costs associated with assuring the integrity of products furnished to COVID-era consumers are substantially higher, and cannot be avoided.

SUSTAINABLE PACKAGING



SUSTAINABLE PACKAGING

Hygienics have joined sustainability as key links in the packaging value chain, especially now that the COVID-19 pandemic is also influencing consumer sentiment and behavior.

A **Canadian study*** of consumer perceptions related to food packaging during the COVID-19 pandemic found that 55% of the approximately 1000 respondents were more concerned about food safety since COVID-19, and that 50% of respondents had become more price conscious when buying groceries.

A **McKinsey & Company** survey** of approximately 10,000 consumers in late 2020 uncovered three main findings:

- As a result of the COVID-19 pandemic, **consumers now place significantly more value on food safety and hygiene.** This is a key element of the next normal in packaging, whereby packaging suppliers will have to rethink materials and design requirements. focusing on consumer sentiment in the United States.
- Consumers see sustainability as being increasingly important as we make our way through a pandemic environment. Marine litter is top of mind in Europe and Japan, while pollution is more of a concern in other Asian countries and the Americas. **Across the globe, a vast majority of consumers claim to be willing to pay more for sustainable packaging.**
- Consumers around the world disagree on what packaging type is most sustainable; however, they do **agree on what are the least sustainable options.**

* Robert Kitz, Tony Walker, Sylvain Charlebois, and Janet Music, "Food packaging during the COVID-19 pandemic: Consumer perceptions," *Int J Consum Stud*. 2021 Apr 22 : 10.1111/ijcs.12691. doi: 10.1111/ijcs.12691 [Epub ahead of print]; accessible online at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8250247/>

** David Feber, Anna Granskog, Oskar Lingqvist, and Daniel Nordigården, "Sustainability in packaging: Inside the minds of US consumers," McKinsey.com (Oct. 21, 2020); accessible online at: <https://www.mckinsey.com/industries/paper-forest-products-and-packaging/our-insights/sustainability-in-packaging-inside-the-minds-of-us-consumers>

SUSTAINABLE PACKAGING

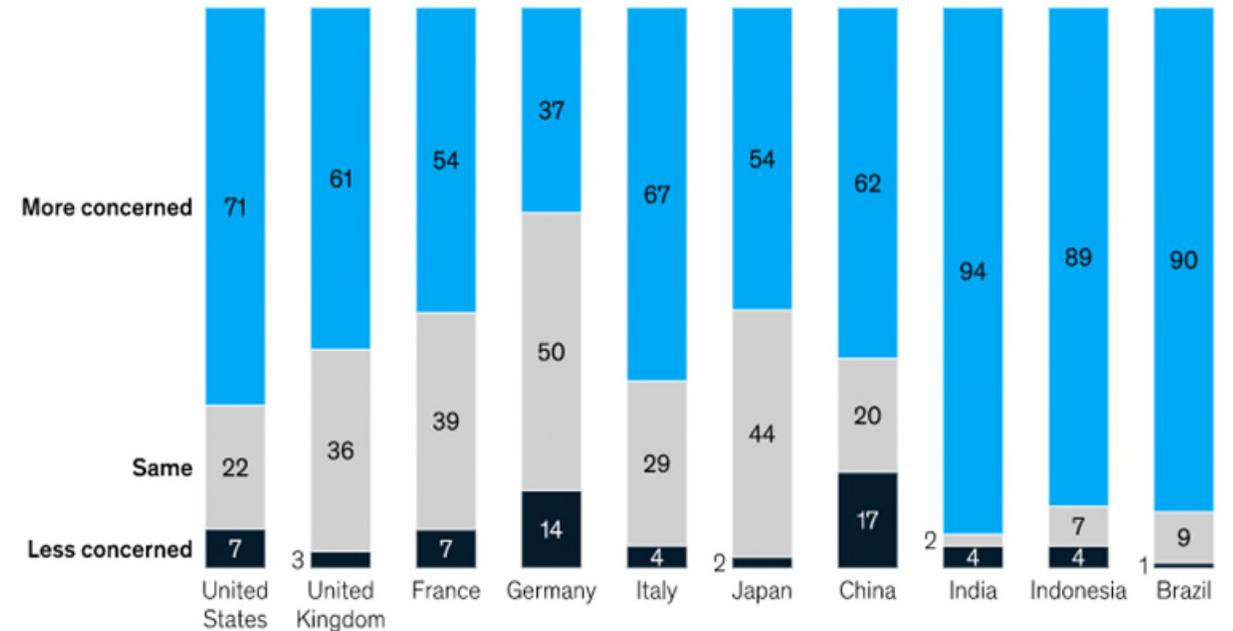
- Consumers are becoming acutely aware of the packaging sector's environmental footprint.
- Rising public awareness has sparked responses from legislators around the world.
- With sustainability increasingly part of their value proposition, consumer-goods retailers are promising swift action and made bold commitments to improving the recycling potential of their packaging.
- This combination of downstream pull from consumers, lawmakers and retailers is having a profound impact on food producers and concomitantly, the packaging industry.

SUSTAINABLE PACKAGING

- During the pandemic, hygiene concerns have been integrated into the drive for sustainable packaging.
- In food service, consumers' willingness to pay more for green in food service is growing.
- At the same time, the McKinsey survey revealed that better labeling on the packaging (explaining its sustainable attributes) and increased availability would encourage 23 to 61 percent of the surveyed consumers to buy more green packaging.
- The data show that a clearly communicated sustainability benefit is a strong value proposition for packaging suppliers.

When thinking about packaging, how do you currently perceive the importance of hygiene and food safety compared to the time before COVID-19?

% of respondents¹



¹Figures may not sum to 100%, because of rounding.
Source: McKinsey Packaging Survey (2020)

SUSTAINABLE PACKAGING

CASE IN POINT: Coffee Pods

The areas of food processing, distribution, and retailing are most acutely affected by the plastic dilemma, *i.e.*, the desire by consumers to move away from plastic packaging due to environmental and sustainability considerations.

Yet, plastics represent three quarters of the food consumers purchase. Reducing reliance on plastics within the food industry has been challenging, mainly due to concerns related to costs, convenience, and food safety.

Pressure is growing on the food industry to implement a move away from single-use plastic and packaging. Alternatives need to have lower environmental impacts than their petroleum-based single-use plastic counterparts.

Reusable coffee pods are a good example. The sale of recyclable coffee pod solutions lagged, as consumers were inconvenienced by disassembling used pods. In response, companies initially developed a compostable pod; however, many jurisdictions disallowed these pods in compost which made building a green supply chain to support this innovative solution impossible. ***Advances in research on bioplastics and political representation relaxed composting and recycling regulations in many parts of the western world.*** Indeed, the utilization of bioplastics has potential to be convenient alternative to single-use plastic and packaging. This is especially relevant now that escalating oil prices make virgin-plastics even more expensive for the plastics industry to use compared to using recycled plastics. Moreover, the “green” premium is increasingly worthy of consideration by the food industry, especially for younger generations of consumers concerned about sustainability.

SUSTAINABLE PACKAGING

LOOKING AHEAD: Plastic Substitutes

The scientific community has provided significant options for food companies looking reduce their environmental plastic presence. Generally, bio-based plastics are defined as materials that are produced from renewable resources.

Bioplastics can be prepared from two principal feed stock sources:

1. Agropolymers, which include biomass products like polysaccharides, proteins, starch, cellulose, hemicellulose, and lignins.
2. Biopolyesters, which include monomers extracted from microorganisms [poly(lactic acid) (PLA), polyhydroxyalkanoate (PHA), poly(3-hydroxybutyrate-co-3-hydroxyvalerate), commonly known as PHBV], and petrochemical products (Iwata, 2015). All bioplastics have advantages and disadvantages associated with them.

Many materials can replace plastics. One example is wood, which is used to make cellulose or cellulose acetate, and it is often mixed with petroleum-based plastics. In the food industry, wood is now more commonly used to replace plastic utensils. But wood has limited value to package food products because it can easily carry pathogens, and wood's physical properties make it difficult to wrap or protect anything.

Ocean sources. Prawn or crustacean shells used to produce chitin or chitosan are another bioplastic option, although production costs are substantial, and it has limited structural applications. Scalability and access to supplies of shells are also issues for this type of material, however, from a circular economy perspective, the appeal is obvious since most of these shells currently have no economic use. More promising are green algae and microorganisms that can be utilized to make another type of bioplastic. Used to produce curdlan or pullulan; these materials can be scaled up easily , and research is progressing to fully assess the structural properties for an algae-based solution.

Starch-based materials also are considered a viable option. These materials have great potential as biodegradable food packaging solutions that can reduce undesirable environmental pollution. The functional attributes of starch-based biodegradable materials can be expanded or enhanced by adding other biopolymers or additives. Like most biomaterials, scalability of production and building economies of scale to reduce unitary costs are a challenge, but the changing dynamics of the pandemic environment are raising the opportunity values of starch-based products to provide them a competitive advantage in the packaging materials marketplace.

SUSTAINABLE PACKAGING

THE BOTTOM LINE

Packaging suppliers and their food industry customers, *e.g.*, producers, processors and retailers, should strategically reevaluate at their portfolios and assess them with three key questions in mind:

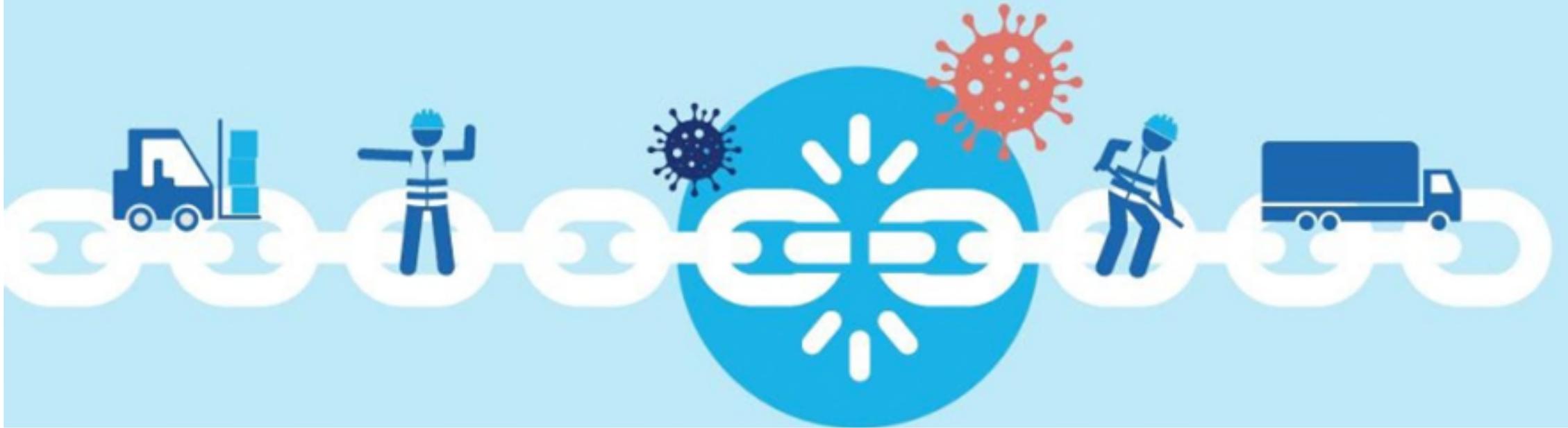
1. What are the foreseeable hygienic and sustainability shifts facing the food industry based on anticipated consumer perception and regulatory changes?
2. What is the resulting value at stake (*i.e.*, where are packaging practices most exposed in light of these shifts and market position)?
3. What are the potential growth opportunities for recognizing the shifts and adapting both R&D as well as production practices accordingly?

By answering these questions, **packaging suppliers can examine new materials that will allow for updating and enhancing their product and technology strategies with relevant hygienic and sustainability narratives designed to address today's pandemic environment.**

Doing so will help to identify growth opportunities and the partners needed to deliver them, and provide insight into areas of risk for remaining in conventional packaging options if alternative solution are not developed.

RELIABLE LOGISTICS

Risk managers need to take a close look at their **supply chains** to determine whether they are resilient against the kinds of shocks we saw from COVID-19.



RELIABLE LOGISTICS

- The pandemic has impacted supply chain logistics **both directly and indirectly**.
- The obvious direct impact is on human capital. Beginning in 2020, reduced ranks due to illness of air and sea port operators, loading dock workers and teamsters, freight managers and truck drivers -- all produced material delays and incapacities.
- Distribution bottlenecks appeared to have eased in the Spring of 2022, but observers suggest that new complications may reverse that trend soon.
- Looking ahead, new COVID-19 lockdowns in China will slow down improvement in inventories produced overseas, while inflation pressures on input costs will remain higher than originally forecasted. Even more impactful is the emergence of new, highly contagious Omicron variants.
- Weeks after the Omicron variant's BA.2 lineage caused surges globally, two more Omicron spin-offs are on the rise. First spotted by scientists in South Africa in April and linked to a subsequent rise in cases there, **BA.4 and BA.5** are the newest members of Omicron's growing family of coronavirus subvariants; they have been detected in dozens of countries worldwide, including the United States.
- The BA.4 and BA.5 subvariants are spiking globally because they can spread faster than other circulating variants, and significantly these variants can infect people who were immune to earlier forms of Omicron and other variants.

RELIABLE LOGISTICS

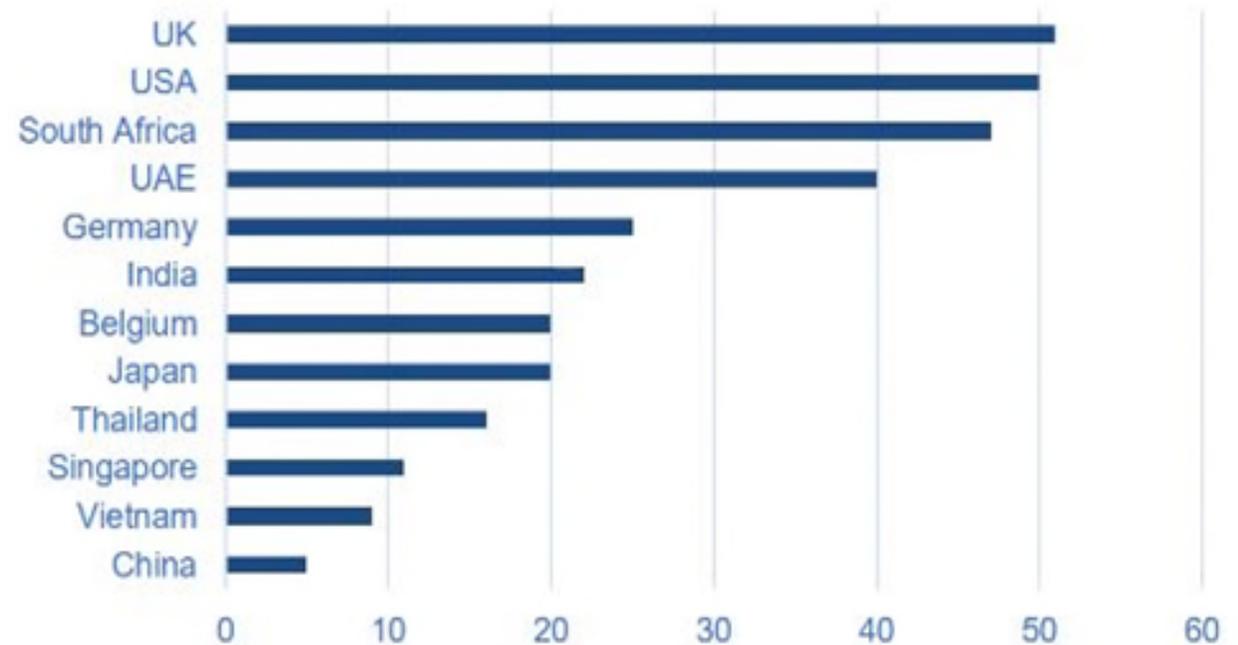
The pandemic's **indirect impacts** on America's food industry supply chains also are producing dramatic consequences. **CASE IN POINT: Maritime Shipping.**

According to the Agriculture Transportation Coalition, on average 22% of U.S. agriculture foreign sales could not be completed in 2021 due to ocean carrier practices including:

- exorbitant freight rates;
- declined booking requests;
- unreasonable freight and demurrage/detention charges; and
- failure to communicate schedules in a timely manner.

American Farm Bureau Federation President Zippy Duvall told President Joe Biden that estimates indicate the **U.S. has lost on more than \$25 billion in agricultural exports over the past six months due to ocean shipping constraints.**

Average median time containers spent in depots in 2021



RELIABLE LOGISTICS

Why is this happening now?

“Arms Race” on Larger and Larger Container Vessels. One causation factor in the container shortages, port congestion, and supply chain meltdown is the advent of “big boats.” Each year brings a new, larger-than-ever megaship. The largest ship class has increased by 50% from 2012 to today, or nearly six-fold from 1981 to today. ***These huge vessels underpin the global shipping oligopoly and everyone ignored the implications of this cartel as long as shipping rates were low.***

Concentration of Carriers. Up to 60 of the 100 largest ocean carriers have vanished from the 2000s to today, resulting from a wave of bankruptcies and acquisitions. ***The top ten largest ocean carriers in 2000 commanded 51% of the market; today, just nine companies control the sea lanes, dominating 85% of the market according to a White House fact sheet. All of these companies are based outside the U.S.***

The pandemic and its negative direct impacts have collided with this market concentration in maritime shipping, creating an indirect impact Perfect Storm. During the pandemic, these nine companies have imposed higher shipping costs that hurt businesses and exacerbate problems with inflation. ***Maritime carriers made \$190 billion in profit in 2021, seven times higher than the year before.***

RELIABLE LOGISTICS

Why is this happening now?

85% of the world's capacity



The impact of industry consolidation



RELIABLE LOGISTICS

President Joe Biden signed legislation on June 16th to make shipping goods across oceans cheaper — a move the White House says will help lower retailer costs that have remained high since the start of the coronavirus pandemic and helped fuel record inflation.

Key elements of the new law include:

- Importers and exporters have new monetary remedies and rights against common carriers (shipping companies) and marine port terminals on fees and charges.
- Common carriers and marine terminal operators have a greater burden of providing the reasonableness of imposing the fees and charges and are penalized with civil penalties and refunds to importers, etc. for errors.
- Shipping customers are protected against retaliation by common carriers and terminal operators and the **FMC is mandated to investigate every compliant** filed via a new portal on the FMC website.
- More required sharing of shipping available data to facilitate importers and exporters planning and transparency by the shipping companies and marine terminal operators.
- Many of these actions require new regulations by the FMC that must generally be finalized no later than one year after the date of enactment (June 16, 2022).
- No guarantee that sufficient monies will actually be appropriated by Congress to fund these new responsibilities and the FMC and other Federal agencies or commissions.

The reality is that none of these measures will immediately repair the supply chain meltdown; rather, these are building blocks moving forward.



RELIABLE LOGISTICS

Berthing Preferences for Ships Exporting U.S. Goods-Proposed Legislation.

The [American Port Access Privileges Act](#), introduced last Wednesday by U.S. Congressmen John Garamendi and Jim Costa, both California Democrats, would put American exporters “at the front of the line at our ports” in supporting the economy, [according to the lawmakers](#). “Foreign exporters’ access to the American market and our consumers is a privilege, not a right,” Garamendi said. “Cargo ships looking to offload foreign-made products and profit off West Coast ports must provide opportunities for American exports in return. Congress must restore fairness at our ports for American exporters to help reduce the United States’ longstanding trade imbalance with countries like China.”

- According to the bill’s text, ***details of how preferential berthing would work would be hammered out through rules issued no later than 90 days after the enacting of the law.*** However, carriers loading and unloading both imports and exports would receive preferential treatment at ports, according to the lawmakers, by establishing a “secondary berthing preference” for ocean carriers that serve multiple U.S. ports or have cargo bookings of at least 51% American. Exports as determined by weight or container volume.
- The legislation also would:
 1. Require export-carrying vessels seeking preferential berthing report cargo bookings at least seven days in advance to port operators.
 2. Ensure the new preferential berthing for export-carrying vessels would not interfere with U.S. Coast Guard orders for commercial vessels, port safety or collective bargaining agreements for port workers.
 3. Codify the current preferences for military, Jones Act and other U.S.-flagged vessels in place at many major American ports.
 4. To evaluate the effect of preferential booking, the law would also authorize the U.S. Department of Transportation to collect annual data on berthing and cargo practices from American ports and marine terminal operators.

RELIABLE LOGISTICS

VIABLE SOLUTIONS:

- Ship smaller quantities per load as they are ready, with consolidation services;
- Air freight service for critical or high-value shipments;
- Use adaptive warehousing strategies (origin and destination) to adapt in real time to fluctuating inventories and product availabilities;
- Rethink routing, demand points and modalities;
- Plan for increased shipping costs;
- Reassess insurance coverage;
- Don't wait to develop product disposal strategies for expired goods.

RELIABLE LOGISTICS

THE BOTTOM LINE:

- Supply chains will remain under constant threat of disruption for the next decade;
- Supply chains operate best when the world is peaceful and stable;
- A smoothly running supply chain requires “buffer stock,” which is challenging with declining population demographics;
- Currently, there is a conflict between environmental, social and governance (ESG) goals and globalized supply chains optimized for cost and speed. In order to prioritize ESG, companies will need to reconsider domestic sourcing and adapt new and improved logistics technologies in order contend with pandemic-driven supply chain risks;
- Government can help with laws like The Ocean Shipping Reform Act, but that alone is not the cure.
- **Supply chain logistics technology will become the big venture capital category winner** as companies continue to make investments in technologies that can help them mitigate their supply chain challenges.

COMPLIANCE WITH INCREASING REGULATION



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In the U.S., food producers have felt the direct impacts of COVID-related regulation through requirements imposed by the federal Department of Labor and the Occupational Safety and Health Administration (OSHA) to protect workers. Specifically:

- Under OSHA's [temporary labor camp standards](#), farmworker housing must comply with certain minimum occupancy and space requirements. Generally, each occupant of the housing must have at least 50 square feet of floor space in sleeping rooms or 100 square feet in rooms in which occupants cook, eat and sleep. Beds must be elevated at least one foot off the floor and must be spaced at least three feet apart from one another. For bunkbeds, there must be at least 27 inches between the lower bunk and the top bunk.
- An employer provides to agricultural workers must comply with the applicable safety standards, including the requirement for adequate ventilation. Windows must be constructed so that at least one-half of windows can be opened for ventilation. Doors and windows must have screens, and all screen doors must be self-closing.
- Employers must report the outbreak of any communicable disease, including COVID-19, to local health authorities. Additionally, employers must not allow any person with a communicable disease, including COVID-19, to work in the preparation, cooking, serving, or handling of food in a kitchen or dining room operated in the labor camp.
- Retaliation against workers who report COVID or other diseases, including efforts to intimidate, threaten, blacklist, or discharge, is strictly prohibited under each of the agricultural laws that the Wage and Hour Division enforces, and the Department of Labor investigates claims of retaliation.
- Note that the requirement for employers provide paid sick leave or expanded family and medical leave under the Families First Coronavirus Response Act (FFCRA) expired on December 31, 2020, and employers are not required to provide paid sick leave or expanded family and medical leave under that statute after that date. However, employers who choose to provide such leave between January 1, 2021 and September 30, 2021, may be eligible for employer tax credits.

COMPLIANCE WITH INCREASING REGULATION

- In addition to labor laws, trade laws such as tariffs, embargoes and other government-imposed restrictions on open trade are, and will, exacerbate the impacts of COVID on America's food supply chain. **CASE IN POINT: The Uyghur Forced Labor Prevention Act .**
- The Chinese government has detained and “reeducated” more than 1 million Uyghurs and other Muslim ethnic and religious minorities in the Xinjiang Uyghur Autonomous Region (XUAR), in an effort to fully secure and control—or “stabilize” —the population there.
- The XUAR's main crops are wheat, corn, cotton, rapeseed, sugar beets, Hami melons, grapes and pears. XUAR grows 85% of China's cotton, more than 70% of its tomatoes (and produces as much as 90% of its export tomato paste), 50% of its walnuts, and 28% of the country's grapes. The region also grows wheat, corn, and other grains.
- Although both Congress and the Trump/Biden administrations have highlighted concerns over the past year about forced labor in the XUAR, exports to the United States have grown dramatically. From April 2019 to April 2020, the XUAR's fastest-growing export market was the United States, rising by more than 250 percent (\$26.6 million).
- On June 21, 2022, the United States government implemented laws under the Uyghur Forced Labor Prevention Act that have a significant impact on consumer goods companies' supply chains. This stems from the U.S. condemning forced labor and repression of minority groups in the Xinjiang region in China, including Muslim Uyghurs.
- Under **19 U.S.C. § 1307**, Customs & Border Protection will prohibit entry to XUAR goods produced from forced labor. According to the regulation, all exports that contain any part or component from the Xinjiang region will be stopped from entering the U.S.
- While the Act identifies cotton, tomatoes and polysilicon as high-priority sectors for enforcement, it covers all goods and raw materials incorporated into finished products.

COMPLIANCE WITH INCREASING REGULATION

THE BOTTOM LINE:

- While the pandemic has produced numerous rules and restrictions intended to deter contagion and promote public safety, it is not the sole source of food regulation.
- Producers, importers and other interested companies should consider strengthening their HR and labor law staffing, import compliance programs, due diligence practices, and recordkeeping to reduce the risk of non-compliance with a growing set of government-imposed workplace practices, trade rules, food laws and other regulatory responsibilities.

LOOKING AHEAD



Provide productivity-enhancing safety nets



Reduce post-harvest crop losses and improve food stocks along the value chain



Remove artificial constraints to domestic trade throughout the food chain in order to link smallholder farmers to markets

LOOKING AHEAD

- **Look at sourcing labor conditions for the entire supply chain.** Companies already investing in greater transparency into meeting ESG criteria may be a step ahead of these new regulations. Others should follow suit.
- **Develop business analytics and forecasting tools to help make viability, efficiency and sustainability decisions quickly.** Assess current [inventory levels](#) using data analytics to make smart decisions around what's truly needed for upcoming seasons. Having the right products in the right quantities on hand will lower demand for excess.
- **Consider internalized vertical integration and recycled supply options to augment new material supply disruptions.** Companies investing in reused and recycled materials are seeing gains in consumer brand value and new ways to combat supply chain issues.

LOOKING AHEAD

