
For thirty years industrial and auto supply chains have been dominated by accountants, scale, efficiency and low cost (e.g., purchasing from anticipatory stock mountains in China). Disruption occurred upstream but this over time became a downstream finished goods crisis due to lack of demand (300,000 cars were unsold worldwide as Western nations left lockdown unlocked in June/July). Covid 19 demonstrates the need to push resilience back into supply-chain thinking, creating a more robust adaptive system. Creating a transitioning pathway towards long-run sustainability will require a paradigm shift in how industrial supply chains are designed, from sourcing and production through to distribution. This creates disadvantages with rivals that continue to optimize short-run revenues at the risk of fragility in the face of pandemic disruptions.

We are at a decision point: should manufacturing and industrial supply chain management revert to a costs/profit basis or shift toward a resilience/sustainability calculus? Public-private partnerships and provisioning by local authorities (in areas such as human resources, cyber-physical infrastructure, and capital) can develop the skills and digital infrastructures needed to build sustainable manufacturing and infrastructural industries. These investments will position the region to participate in future waves of innovation.

Policy offer:

- Encourage intelligent regeneration that builds local capacity to insulate against global supply/demand shocks.
- Plan and implement public-private partnerships and provisioning initiatives.
- Begin the transition to green manufacturing based on sustainable supply chains.

2. Freight and logistics: towards a resilient and green recovery - Tony Whiteing (University of Leeds)

Compared to passenger transport, freight operations have proved a lot more resilient to COVID19, partly because of greater adaptability (e.g. trucks normally moving goods to shops instead moved to supplying online operators). Brexit is more of a problem in this sector. The role of logistics in strategic growth must be re-examined, looking to logistics as a service to support recovery across all industries, rather than just to directly create jobs in warehouses. Previous interventions in logistics did not consider skills development; future plans must include investment in skills at all levels, from senior managers to drivers, to develop high value-added logistics services (consultancy, equipment, IT) not just trucks and sheds. Automation and robotics could also be a road to resilience. We’ve made these low-skill mistakes (e.g. call centres to replace coal jobs) and should not repeat this. A freight and logistics strategy not just for WYCA, but across the north, is needed, focusing on decarbonization, as well as greener and more resilient inter-model systems.

Policy offer:

- Plan for on-line retail; it’s here to stay. This will include decentralisation of warehousing as future volumes of on-line sales will be too big for current large centralised warehousing to cope with.
• Use logistics to enhance green recovery, not just provide low-skilled jobs, by investing in skills and training for high value-added logistics services and focusing on more resilient multi-modal systems.

3. The value of work and migrant labour in the post-Brexit, post-COVID economy - Chris Forde and Jo Cutter (University of Leeds)

COVID19 brought problems caused by limited migration of workers under Brexit into sharp relief. Jobs seen as essential during COVID19 do not match those so considered under Brexit. Most low-skilled migrants in the health sector will never score enough points to get a visa, yet 95% of health workers classified as essential. Investment in tech to replace workers, or recruit local workers, are responses but considered problematic in one way or another. Huge challenge ahead for employers, some of whom are considering relocating the whole business to e.g. Eastern Europe to ‘follow the workers’.

Policy offer:

• Highlight the mismatch between the CV19 and Brexit definition of essential workers, and that high proportions of essential sector as defined by CV19 rely heavily on a workforce that will disappear after Brexit. Plan for local retraining in these sectors.

4. Regional food system resilience post Covid-19 - John Lever (University of Huddersfield)

How are local food systems responding to the crisis? Regional food businesses can play a crucial role in providing resilience, especially those not tied into supermarket chains. There are food-system interactions with COVID19: lack of workers, on the supply side; and those with poor diet are more vulnerable and thus spread the disease. Re-balancing regional and global links will build more resilient place-based food systems that are self-sufficient but do not divorce themselves from global supply chains, to transform cities and their hinterlands.

Policy offer:

• Encourage and enhance local food systems as a way to support regional resilience and regenerate cities.

5. Understanding the end of the supply chain: household consumption - Lucie Middlemiss (University of Leeds)

The empty shelves at the beginning of the crisis did not happen everywhere; they were a reaction to local supply/consumption practices chains, not inevitable. Consumers are presented as a large part of the solution (e.g. by staying at home, wearing masks) and assumption that things are consumption-led is evident. There are many intersections that shape interaction with the supply chain, e.g. energy-poor households consume very differently and just transitions must be linked to their experience. To reduce the impact of our supply chains on people and the environment, we must understand that: consumption is relational; households are diverse and their needs are not static; identity shapes what is consumed; and technology changes who is responsible for consumption (e.g. smart meters).

Policy offer:

• Build an understanding of diversity and the relational nature of consumption into policy design, through interaction with key agencies (e.g. energy suppliers).