



HOW COVID-19 EXPOSED THE FAULT LINES OF PRODUCT COMPLEXITY

By [Ralf W. Seifert](#) and Richard Markoff

Chemin de Bellerive 23
PO Box 915,
CH-1001 Lausanne
Switzerland

Tel: +41 21 618 01 11
Fax: +41 21 618 07 07
info@imd.org
www.imd.org

Ralf W. Seifert and Richard Markoff ask: just how complex do we want our supply chains to be?

As supply chains rebalance and return to something like normal after [digesting the shocks](#) induced by the COVID-19 pandemic, discussions are shifting to lessons learned. Much of the focus has been on issues like [global trade](#), [near-sourcing](#), [just-in time inventory management](#), and [supply chain resiliency](#). This is both understandable and relevant.

It takes two types

It all began with a [provocative article in Medium](#) that suggested that the much-discussed toilet paper shortage at the onset of the lockdowns was not due to hoarding, but in fact down to the bifurcated nature of the toilet paper supply chain.

Residential toilet paper has different quality specifications and packaging sizes to the industrial variety (that found in most workplaces, schools and institutions). Supply chains proved too rigid to lower industrial production quickly, and increase residential production in turn as lockdowns took hold.

Quickly thereafter, stories of surprising shortages of other consumer staples emerged.

Many markets experienced a shortage of eggs. At first glance this is difficult to explain, as egg production had not been impacted and egg consumption was stable. The difference turned out to be the location in which egg consumption was occurring.

In the interests of efficiency, the egg supply chain had grown into [two separate streams](#): one for retail in cartons of various sizes that we all know as consumers, but also one for commercial kitchens where the eggs have been cracked open in advance and shipped in bulk liquid.

With restaurant and workplace cafeterias closed, the demand for the 'liquid egg' supply chain vanished, fully replaced by demand for whole eggs. The two supply chains were unable to merge quickly enough, leading to a vexing shortage of eggs, to the frustration of both consumers and producers.

A similar story developed for flour. Supply chains finely tuned to fill and deliver flour in large sacks for industrial bakeries were [not sufficiently agile](#) to switch to smaller packaging for retail consumers. This inflexibility was further exposed by the increase in demand for flour by a popular lockdown hobby of baking bread.

The food supply chain offers other examples of hyper-efficient models that led to waste and shortages during the pandemic, such as [milk](#) and onions. Casualties, you might say, of COVID supply chain dynamics.

Tactical supply chain simplification

Not all consumer supply chains suffered, however.

Pasta manufacturer Barilla responded to the increased demand for pasta as a staple of lockdown shopping by [rethinking their product offering](#), starting from the factory floor. In order to maximize capacity, it pared back its catalogue, halting production of more exotic pastas, cutting package size options and focusing on the most popular pasta references.

Unilever took similar steps with the UK culinary favorite, Marmite. The company [stopped production](#) of all packages sizes save the 250g jar. The manufacturing capacity gained by this simplification allowed the company to keep the store shelves stocked and get through a shortage in the brewer's yeast used as an ingredient in Marmite.

The opportunities for simplicity were not limited to the food supply chain. One manufacturer of feminine hygiene products took steps similar to Barilla and Unilever: concentrating capacity on the intersection of best-selling references and highest production rates.

The result was record sales and market share in the midst of the pandemic. The marketing executive for the product line told us, *"I knew my supply chain was a key strategic advantage, but I had not realized how much it could be a key tactical advantage as well."*