

Economic Bulletin.

29 April 2020



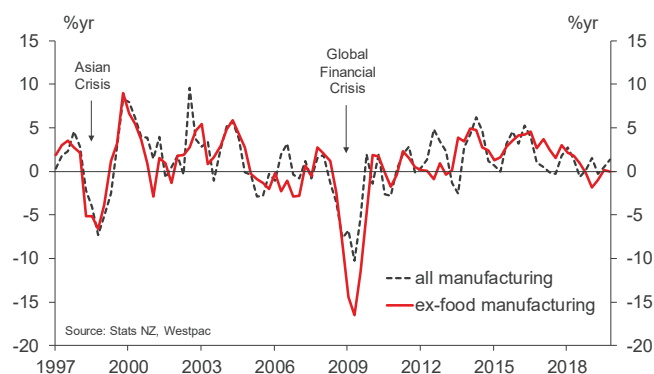
The outlook for the manufacturing sector post Covid-19.

- The impact of Covid-19 on New Zealand's manufacturing sector will be larger than anything we have seen before.
- After the lockdown is lifted many manufacturers will re-emerge into a world of dramatically lower economic activity, and they will have to comply with safety expectations around Covid-19.
- Small manufacturing firms are less likely to have deep enough pockets to get through the recession than large firms, and Covid-19 could be the last straw for some that have been struggling.
- Covid-19 will probably accelerate big structural changes already happening in manufacturing – a threat to some, an opportunity for others.
- Covid-19 may prompt a worldwide shift toward shorter supply chains and slower growth in international trade. That is an ill-tiding for some New Zealand exporting manufacturers, but could be positive for firms selling into the domestic market that are struggling with international competition.
- The trend toward shorter supply chains will be facilitated by new technologies like 3D printing. This favours larger firms that can afford to invest.
- Covid-19 will probably hasten the emergence of a two-tier manufacturing sector, with a few high-tech globally competitive firms and many smaller firms restricted to meeting bespoke local needs.

Massive disruptions to manufacturing activity.

Measures to combat Covid-19, both at home and abroad, have not only severely curbed demand for many products produced by New Zealand's manufacturing sector, they have also massively disrupted supply chains that reach far beyond national borders. This bulletin looks at how New Zealand's manufacturing firms are responding to these and other threats and what this might mean for the shape of the sector going forward.

Figure 1: Growth in manufacturing sales



This is not the first-time the \$104bn manufacturing sector has been under threat. Indeed, many New Zealand manufacturers have found competing at the sharp end of global competition a continual struggle. Many New Zealand manufacturers have survived by focusing on niche markets, producing specialised bespoke products. Of course, there are exceptions, with large scale manufacturing occurring in New Zealand's key areas of comparative advantage such as food, and a few household names in other areas that punch well above their weight, both at home and abroad.



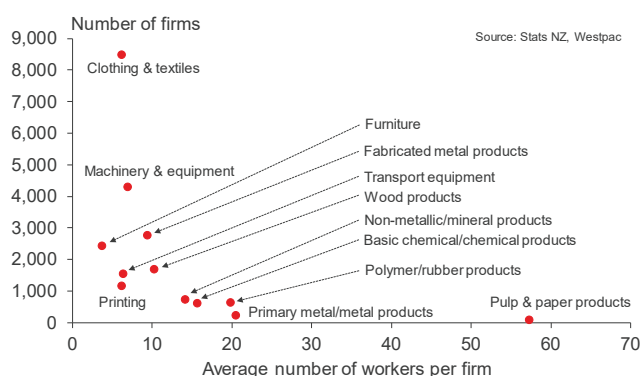
The difference between this and past recessions is that the threat to manufacturing will be almost universal, affecting all sub-sectors except for those that manufacture essential goods. Even then, the drop in manufacturing associated with the Covid-19 pandemic is likely to easily outstrip the 15% fall in manufacturing output posted during the Global Financial Crisis (GFC).

Prior to the implementation of the Level 4 lockdown on March 24, conditions facing New Zealand's manufacturers were already difficult. Disruptions to global supply chains as a result of Covid-19 had already weakened demand for locally produced manufactured goods, at home and in export markets. Most vulnerable were firms that lacked the flexibility to switch product lines or into markets less exposed to Covid-19.

These disruptions also affected the supply of imported intermediate products used by local firms to manufacture downstream products in New Zealand. Particularly vulnerable were those that depended on supplies from China on a just-in-time basis. As a result, many local firms found themselves having to scramble to secure supplies from other countries, although these also came under severe pressure as Covid-19 grew into a full-blown pandemic.

Further disruptions were to follow with the implementation of the Level 4 lockdown. Outside of a few sub-sectors that manufacture essential goods like food, medical equipment, pharmaceuticals, petrol refining and gas production, manufacturing in New Zealand effectively ground to a halt, with virtually no activity being undertaken by an estimated 18,000 firms, employing about 140,000 workers. Just over 90% of these firms operate with less than 20 staff with half being single proprietors that rely on cash flowing through their books to keep them afloat. Most of these can be found in sub-sectors that manufacture clothing and textiles, machinery and equipment, furniture and transport equipment, as well as printing.

Figure 2: Shape of non-essential manufacturing - 2019



Had it not been for Government's wage subsidy, many of these firms would have already closed with large-scale layoffs. Additional business support measures, such as the tax carry back scheme announced by government more recently to offset losses should also help. For some though, these

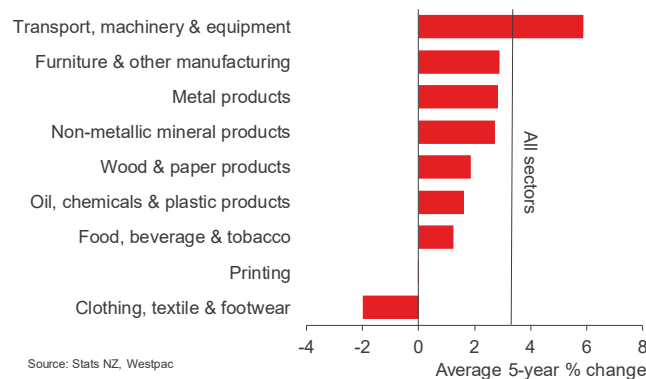
measures have come too late, with firms in the clothing and textiles, wood products, and secondary metal manufacturing industries having already closed their doors. By contrast, larger firms have looked to rejig their operations, which in some cases has involved salary sacrifices.

Despite the amount of support being provided by the Government, many firms are still likely to close their doors. Most vulnerable will be those that are already struggling with the rapid pace of new technological change, growing environmental considerations and competition from overseas. As such, Covid-19 is expected to accelerate a process that was already underway. Many of these will be small firms that run on cash, and no sub-sector will be left unscathed. By contrast, larger firms, with deeper pockets and easier access to debt, are better positioned to keep their heads above water.

Expected shape of recovery in manufacturing.

Once the Level 4 restrictions are lifted and manufacturers get back to work, many are still likely to find conditions are tough. At the operational level, times will not be normal. The need to maintain physical distancing could lead some firms to re-organise factory layouts and introduce flexible work arrangements, including more shift work. Something along these lines had previously been proposed for firms in the wood processing industry at the beginning of the Level 4 lockdown.

Figure 3: Average manufacturing GDP growth rates



Manufacturers will restart in an environment of dramatically lower economic activity, both in New Zealand and overseas. For some manufacturers there may be period of catchup, possibly in the form of inventory building, which should support output growth in the near-term. For most though, sluggish economic growth and still-weak demand is likely to cap production. Activity is likely to be slowest in sub-sectors which rely more heavily on discretionary spending. That includes firms that manufacture consumer goods, from household appliances and furniture to clothing and textiles. An expected drop in business investment should also mean less demand for machinery and equipment as well as transport equipment. Similarly, sharply lower private sector investment in residential and non-residential building activity should mean less need for building materials and products,

although manufacturers of cement, concrete, and structural metal are still likely to see some offset from increased government spending on civil construction activity. Firms that manufacture non-discretionary products like food are likely to remain largely unaffected, although some manufacturing in niche foods could still find the going tough. Export orientated manufacturers and those that rely on the supply of imported intermediate products are also likely to face additional challenges, not least because of lockdown extensions currently being implemented in many other countries.

Longer-term the portents look more favourable. As Covid-19 passes, restrictions on activity are lifted and economic growth gathers momentum, manufacturing activity is likely to expand. However, we think that there could be much more to this recovery than just a step change in production levels. The very fabric of manufacturing might change as firms look to address some of the vulnerabilities rudely exposed by the pandemic.

Key among these has been the extent to which firms have relied on China, not only as a market for their products but also as a supplier of intermediate inputs. In a post-Covid-19 world, we would expect China's role as a global manufacturing hub to be increasingly challenged in coming years, with manufacturers worldwide adopting new approaches and forms of collaboration to increase overall resilience. Among these will be the domestication of supply chains.

Some of this has already happened. The US and Europe, for example, had previously moved much of its manufacturing capacity to China to take advantage of economies of scale that were available in that country as well as relatively low labour costs. However, with new technologies such as artificial intelligence, robotics, internet of things, cloud computing and additive manufacturing (3-D printing) reducing the need for labour as well as creating opportunities for customisation on a mass scale, this trend has started to reverse. Increasingly, firms in the US and Europe are moving production closer to the point of consumption and are shortening value chains. Following Covid-19, this process is set to accelerate.

We think something similar could eventually happen in New Zealand, albeit on a much smaller scale. However, the adoption of 4th industrial revolution technologies is likely to require levels of investment way beyond the reach of many smaller New Zealand manufacturing concerns, especially those that are domestically focused. The smaller market in New Zealand means that for these manufacturers it is often more difficult to earn a commercial payback.

However, for some of our larger manufacturers with deeper pockets, these new technologies create the possibility of being able to bring previously exported manufacturing capacity back home. Much like that seen overseas, this is likely to mean a reconfiguration of productive capacity, resulting in more streamlined supply chains where production and consumption at each point in the chain are brought closer together. Many smaller firms unable to take advantage of new technologies, but still with something to sell, are likely

to find themselves being integrated into these new supply arrangements to some degree. This might even encourage the start-up of new innovative firms.

The domestication of supply chains and a shift away from globalisation towards a more protectionist stance globally could provide a reprieve for some New Zealand manufacturers that previously found it hard going competing against imports, but now find themselves better positioned to pursue increased domestic opportunities. This includes firms that process wood as well as secondary steel and downstream plastic product manufacturers. However, for those that have been able to achieve export success, the global shift towards protectionism and a stronger focus on import substitution poses a direct threat to their ability to compete on the global stage. Those that might be affected include firms operating in the agri-tech sector, particularly those involved in manufacturing machinery and systems, as well as fencing and monitoring systems.

Covid-19 will accelerate other key structural changes already underway in New Zealand's manufacturing sector. What will emerge over time will be a two-tier sector. The first tier will include firms that are fully integrated into streamlined domestic supply chains, enabling them to increase their operating efficiencies and the ability to compete in export markets. While this will be true for most firms along the value chain, the focus is likely to be on producing higher value-added downstream products, often involving hi-tech, that are able to compete effectively in global markets. The second tier will involve many small manufacturers that sell into these supply chains on an intermittent basis but are not fully integrated into them. Shielded from the glare of global competition, they will tend to operate in niche areas, producing bespoke, but typically low-tech products for domestic consumption only.

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