Boom and bust cycles

A recent study found that much of the boom/bust effect in New Zealand’s construction industry is caused by internal systems structure and behaviour, rather than by external factors.

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The New Zealand construction industry, like any other, is prey to boom and bust cycles. The aim of this study was to establish and communicate a shared understanding of the key drivers in these cycles. Thus interventions and policy-making can become more effective and responsive. The resulting quantitative or qualitative data would help the industry to further understand the interplay and interactions between the industry players themselves, the environment, other industries and government.

Systems thinking rather than economic theory

Many studies of this type are based on economic theory, but this study used a different approach, adopting a ‘systems thinking’ philosophy. There were two main reasons for this. First, systems approaches are seen by many leading thinkers and research organisations as a more effective way to view complex, inter-connected real-world problems. Second, the construction industry is complex and fragmented, with many different bodies and differing objectives. A systems thinking approach aims to understand the key systemic behaviours and relationships rather than find an optimal solution.

System models have been developed to better understand, though not to predict, the dynamics of multiple complex interactions – from hard economic data to people’s irrational behaviour (see Figure 1). During the study, there was consultation with a broad cross section of industry professionals and practitioners.

Cause of cycles uncertain

Most industry players broadly understand how the overall economic climate impacts
the construction industry in New Zealand, but there is little uptake of the economic theories about boom and bust cycles by construction practitioners. There is broad agreement that cycles do exist and that they influence decision-makers, but the cause of the cycles is uncertain, and varies depending on the industry sector and the perspective of the observer.

Government spending and policy decisions were seen as a major influence for most participants in this study, which is particularly relevant in the current economic environment.

**Rapid change brings problems**

It is the rate of change, whether in boom or bust conditions, that causes the problem, not the fact that the industry has good years and bad years. Generally it is accepted that a rapid upward phase of the cycle causes inflated prices and reduced competition due to full order books, whereas the downward phase leads to competitive cost-cutting, reduced margins and pressure on quality. It is this sort of negative self-fulfilling prophecy that should be challenged if the industry is to break free of the most negative aspects of boom and bust cycles.

**Volatility mostly internal**

The study concluded that, while external shocks will always impact the construction industry, much of the volatility is caused by internal system factors. Better communication within the supply chain, visibility of future orders, long-range planning around resources (particularly skilled workers) and reducing delays in approval and the procurement system can produce considerable improvements in performance and productivity.

The construction industry is an important indicator of trends and stimulus for the New Zealand economy, so is prone to manipulation by policymakers attempting to influence the domestic economy. If care is not taken in implementation, such manipulation is often to the detriment of the industry itself. This duality of purpose causes increased industry uncertainty and volatility.

**New thinking needed**

The study’s key finding was that the complexity and uncertainty that characterises the New Zealand construction industry demands changes to industry structures and strategic thinking that encourages collaborative learning processes.

Championing improved work practices and greater collaboration as well as infrastructure investment is the only way to maximise responses to the current economic climate. Government must also recognise the important contributions made by the construction industry to New Zealand’s economic performance in the long term.

Action should be motivated by the finding that much of the boom/bust effect in the New Zealand construction industry is actually caused by the internal system structure and behaviour, rather than external shocks. Therefore, the way forward requires both industry and policymakers to adopt new thinking.

This study was undertaken by the New Zealand Centre for Advanced Engineering (CAENZ) and funded by BRANZ from the Building Research Levy. A report with full findings and recommendations can be found on www.caenz.com under Publications.