15th ASIACONSTRUCT CONFERENCE 2009, MALAYSIA

COUNTRY REPORT: NEW ZEALAND

By Nigel Bickle, Department of Building and Housing, New Zealand

1. Executive summary

New Zealand has a small market-based economy which is heavily dependent on international trade, mainly with Australia, the European Union, the United States, China and Japan. It has a significant tourism sector and a highly competitive primary sector. It has a large domestically oriented services sector and a small manufacturing sector. New Zealand is generally regarded as being lightly regulated with efficient government services. It has consistently ranked in the top 1 or 2 easiest countries in which to do business according to the World Bank.

Between 1999 and 2008, New Zealand enjoyed its longest period of sustained growth in three decades. However, the economy was in recession from the start of 2008 to June 2009. The current outlook is for a slow recovery.

The construction sector is a significant part of the economy accounting for around 5% of GDP and around 8% (180,600 in March 2009) of all people employed. The sector has just come off the largest boom in recent history, with annual volumes of building work peaking at $19 billion in 2008. The sector has been one of the hardest hit in the current recession. The number of paid hours in the construction industry fell 10.8% in the year to March 2009.

The outlook for the construction sector is highly uncertain although there are early indications of a pick-up in residential activity. House prices appear to have ceased falling and the number of house sales is increasing. Net inward immigration remains positive but has so far had a muted impact on the residential market due to an increase in occupancy rates rather than housing demand. Non-residential construction activity remains relatively strong buoyed by a strong pipeline of work-in-progress, and buoyant infrastructure spending. The government's stimulus package, in response to the global financial crisis, included an accelerated package of 'ready to roll' infrastructure projects at an estimated cost of almost $500 million.

2. Macro economic review and outlook

Over the last quarter of a century, the New Zealand economy has changed from being one of the most regulated in the OECD to one of the least regulated. It has also substantially diversified. The economy comprises a strong tourism sector, a relatively large and highly competitive primary sector, a large domestically oriented-services sector and a relatively small manufacturing sector. It is heavily dependent on international trade, mainly with Australia, the European Union, the United States, China and Japan. New Zealand is generally regarded as being lightly regulated with efficient government services. The country has consistently ranked in the top 1 or 2 easiest places in which to do business according to the World Bank.

After weathering the twin "shocks" of the Asian economic downturn and consecutive summer droughts in 1997-98 and 1998-99, the New Zealand economy experienced almost a decade of continuous growth from 1999 to 2008. The years 2001 and 2002 saw good agricultural seasons, relatively high world prices for New Zealand's export commodities, a low exchange rate and a robust labour market. These factors boosted annual average GDP growth from 1.9% in June 2001 to 5.2% in December 2002.

Over the period 2002 to 2004, annual average growth in GDP was higher than the historical trend – in the range of 3.4% to 5.2%. This period of strong growth came about despite the economy experiencing several temporary negative events such as travel disruptions and uncertainty due to the conflict in Iraq. The construction sector was a major contributor to growth in output over this period in part due to a housing boom and growth in non-residential construction activity.

More recently, growth eased as a result of high oil prices, interest-rate increases and slowing permanent and long-term immigration. Output in the economy was flat in the second half of 2005 but growth recovered slightly during 2006 helped by a rebound in domestic demand and dairy exports. The resurgence in growth driven by domestic demand and high terms of trade continued throughout 2007 despite the significant tightening of monetary policy during this period. The economy contracted over the first three quarters of 2008 as high food and fuel prices, along with high interest rates, led to a sharp fall in domestic demand.

The economy experienced a recession between march 2008 and June 2009 and growth is expected to remain weak in the short term as households go through a period of debt consolidation. The exchange rate remains at historically high levels and is working against an export-led recovery.

Reflecting the strong economic performance, inflation increased from 1.8% pa in September 2007 to 5.1% pa in September 2008, well outside the Reserve Bank's inflation target band of between 1% and 3%. The main drivers for this were higher petrol and food prices. Annual inflation has since fallen back to 1.9% in the June 2009 quarter, driven by falls in the price of fuel and other imports and a general easing in pricing pressures in the economy due to weaker domestic and external demand, partly as a result

of the global financial crisis. Further falls are expected over the remainder of 2009 and into next year. Monetary policy is significantly relaxed at present.

Table 1: Main Economic Indicators

Year	2004	2005	2006	2007	2008	2009
GDP and Components						
GDP at real price $m (base: 1995/96)	$122,034	$126,733	$130,468	$134,286	$137,242	$135,054
GDP at current market price $m	$139,938	$149,946	$157,355	$166,108	$178,098	$179,912
Real GDP growth (%pa)	3.96%	3.85%	2.95%	2.93%	2.20%	-1.59%
Nominal GDP growth (%pa)	6.82%	7.15%	4.94%	5.56%	7.22%	1.02%
GDP growth for agriculture sector (%pa)	13.29%	-3.30%	6.47%	0.31%	-1.94%	1.69%
GDP growth for fishing, forestry and mining sector (%pa)	8.99%	-3.79%	5.03%	0.89%	-1.29%	0.17%
GDP growth for construction sector (%pa)	10.33%	6.72%	4.39%	-1.82%	4.42%	-8.92%
GDP growth for manufacturing sector (%pa)	3.56%	3.06%	-1.46%	-1.97%	1.03%	-5.35%
GDP growth for finance, insurance and business services (%pa)	3.21%	3.75%	5.39%	3.94%	3.87%	2.06%
Demographic Indicator						
Population (000)	4,078.70	4,126.60	4,176.10	4,222.70	4,263.60	4,305.70
Population growth rate (%pa)	1.63%	1.17%	1.20%	1.12%	0.97%	0.99%
Labour force (000)	2,066.20	2,125.30	2,182.80	2,230.10	2,255.50	2,295.50
Labour force growth rate (%pa)	2.28%	2.86%	2.71%	2.17%	1.14%	1.77%
Unemployment rate (%pa)	4.60%	3.90%	3.90%	3.80%	3.70%	4.50%
Financial Indicator						
Inflation rate (base: June 1999 quarter) (%pa)	1.64%	2.69%	3.36%	2.54%	3.37%	2.97%
Inter bank interest rate (%pa)	5.25%	6.67%	7.25%	7.59%	8.1%	3.08%
Short term loan interest rate (90 day) (%pa)	5.54%	6.99%	7.49%	7.88%	8.91%	3.24%
Long term loan interest rate (10yr) (%pa)	5.74%	6.16%	5.72%	5.87%	6.36%	4.77%
Exchange rate NZ/USD	$0.66	$0.73	$0.64	$0.70	$0.80	$0.53

On the fiscal front, there has been a dramatic improvement in government finances since the late 1980s, with debt falling. The government moved into a net financial asset position for the first time in 2006. This was made possible by a combination of asset sales, in the 1990s, followed by a period of strong fiscal surpluses and the build up of the New Zealand Superannuation Fund. However, the current recession – exacerbated by the international financial crisis – has led to a dramatic turnaround in the fiscal outlook. The

government now expects to run deficits until at least 2014 and gross (net) debt is expected to climb from 18% (6%) of GDP in 2007/08 to 43% (36%) by 2016/17.

The current global financial crisis represents a difficult environment for small open economies. New Zealand has high levels of private sector debt and needs to shift the composition of its growth away from domestic demand towards exports in order to unwind imbalances partly reflected in a large current account deficit. The economic performance of New Zealand's trading partners will play a crucial role in the performance of the New Zealand economy over the coming years.

3. Trading country

As a small open economy, external trade is of fundamental importance to New Zealand. Primary sector based exports and commodities remain important sources of the country's export receipts, while exports of services and manufactured products also provide a significant contribution. This, together with a reliance on imports of raw materials and capital equipment for industry, makes New Zealand strongly trade-oriented.

Over the last 5 years export growth has outstripped import growth with exports growing on average by 8.8% and imports by 8.3%. Between 2008 and 2009 exports grew by almost 14% and imports by almost 13%.

3.1. Annual import and export

3.1.1. Value of imports and exports (March 2009)[1]

	Value (NZ$)	% of GDP
Imports	$45,177,309,961	25%
Exports	$43,352,879,271	24%

3.1.2. Top 5 major trading countries of import and export in value (2008)

	Imports			Exports		
	Country	Value	% of Total Imports	Country	Value	% of Total Exports
1	Australia	$8,298,681,809	21%	Australia	$9,179,863,650	24%
2	China	$6,059,722,347	15%	United States of America	$4,196,256,922	11%
3	United States of America	$4,335,553,586	11%	Japan	$3,597,311,384	9%
4	Japan	$3,695,098,825	9%	China	$2,516,154,892	7%
5	Singapore	$2,142,843,518	5%	United Kingdom	$1,630,252,539	4%

[1] Import and export figures are for merchandise trade. Import figures are Value for Duty (VFD) and export figures are Free on Board (FOB)

3.1.3. Top 5 import and export products by value (June 2009)

	Imports			Exports		
	Product	Value (NZ$)	% of Total Imports	Product	Value (NZ$)	% of Total Exports
1	General Machinery and Equipment	$5,919,196,522	15%	Dairy Products - Processed	$8,853,532,281	23%
2	Transport Equipment and Parts	$5,658,353,019	14%	Meat and Offal, Fresh, Chilled, Frozen, Dried or Otherwise Simply Preserved	$5,525,667,725	14%
3	Office, Telecommunications and Audio-visual Equipment and Parts	$4,231,568,512	11%	Preparations of Food, Beverages and Tobacco nec	$2,956,712,504	8%
4	Crude Petroleum	$3,816,490,794	10%	General Machinery and Equipment	$2,450,632,943	6%
5	Refined Petroleum Products	$3,184,676,433	8%	Crude Petroleum	$1,963,599,980	5%

4. Overview of construction industry

4.1. Value of contract/expenditure

The construction sector is large comprising 53,594 firms, providing employment for 180,600 people and accounting for around 5% of Gross Domestic Product.

The sector has just come off the largest boom in recent history. The annual volume of building work reached 28 year highs in 2003/04 and then grew by a further 14% to peak in 2006. Building activity remained high in 2007 and 2008, making it the longest as well as the strongest period of growth in the industry's recent history.

Table 2: Break down of construction contract/expenditure

	2004	2005	2006	2007	2008	2009
Value by building type (Annual - March)						
Residential $,000	$6,522,374	$7,396,339	$7,500,805	$7,689,881	$8,620,735	$6,845,930
Non-residential $,000	$3,379,614	$4,227,459	$5,205,765	$5,042,367	$5,024,492	$5,287,067
Other construction $,000	$3,238,446	$3,697,273	$4,231,729	$5,035,816	$5,511,665	$6,096,408
Value by institutional sector (Annual - March)						
Households $,000	$3,989,760	$4,410,666	$4,607,645	$4,933,629	$5,455,366	$4,688,381
Private enterprises[2] $,000	$4,978,833	$6,186,209	$6,471,629	$6,498,416	$6,994,544	$6,234,277
Government $,000	$933,302	$1,026,907	$1,607,924	$1,297,679	$1,191,035	$1,210,303

[2] Enterprises include government enterprises and non-profit organisations

4.2. Construction companies

The sector is diverse, spanning residential building, non-residential building, civil engineering and construction trade services (e.g. the trades, designers, landscapers). Figure 4.2.1 illustrates this diversity in the form of the distribution of firms and employees by sub-industry.

4.2.1. Number of firms by industry sub-sector[3]

Sub-Sector	Firms	Employees
Residential Building Construction	17344	19980
Non-Residential Building Construction	1555	11000
Heavy and Civil Engineering Construction	1466	29600
Land Development and Site Preparation Services	3999	9050
Building Structure Services	3629	7980
Building Installation Services	10245	28160
Building Completion Services	11266	15120
Other Construction Services	4090	11060

The industry is highly fragmented, comprising mainly very small firms (including a large number of self-employed contractors) as shown in table 4.2.2 below.

4.2.2. Number of firms by employment size

Employee count size group	0	1–5	6–9	10–19	20–49	50–99	100+	Total
Number of firms	33,518	15,274	2,292	1,579	715	138	78	53,594

4.3. Employees and construction labour

In March 2009, the construction industry employed approximately 180,600 people. Overall, the construction industry provides around 8% of all jobs in New Zealand. These figures predominantly relate to on-site employment. Construction services provided off-site, for example building design, are classified elsewhere. Nor do these figures include the numbers of people employed in the building regulatory process such as building inspectors. For these reasons, these figures understate the true size of the construction workforce.

About 20 occupations make up the two thirds of the construction industry workforce. The remaining third of the workforce is drawn from a large number of other occupations.

[3] Statistics New Zealand: Business Demography (February 2008)

4.3.1. Number of construction worker by job type

Occupation	Total Employed	% of Employment
Builder including Contractor	21,054	14%
Carpenter and/or Joiner	10,791	7%
Electrician	8,442	6%
Painter, Decorator and/or Paperhanger	6,954	5%
General Labourer	6,858	5%
Plumber	5,118	4%
General Manger	4,731	3%
General Clerk	4,272	3%
Plasterer	3,954	3%
Builder's Labourer	3,705	3%
Heavy Truck or Tanker Driver	3,102	2%
Bricklayer and/or Blocklayer	3,081	2%
Roofer	2,289	2%
Administration Manager	2,115	1%
Concrete Worker	2,061	1%
Office Manager	2,004	1%
Construction Manager	1,902	1%
Excavating Machine Operator	1,881	1%
Landscape Gardener	1,761	1%
Carpet and Other Floor Covering Layer	1,650	1%
Total	97,725	67%

Source: Department of Labour[4]

Between 2007 and 2008 the number of employees in non-residential building construction grew twice as fast as the number of employees in residential building construction (16% and 8% respectively).

4.4. Productivity

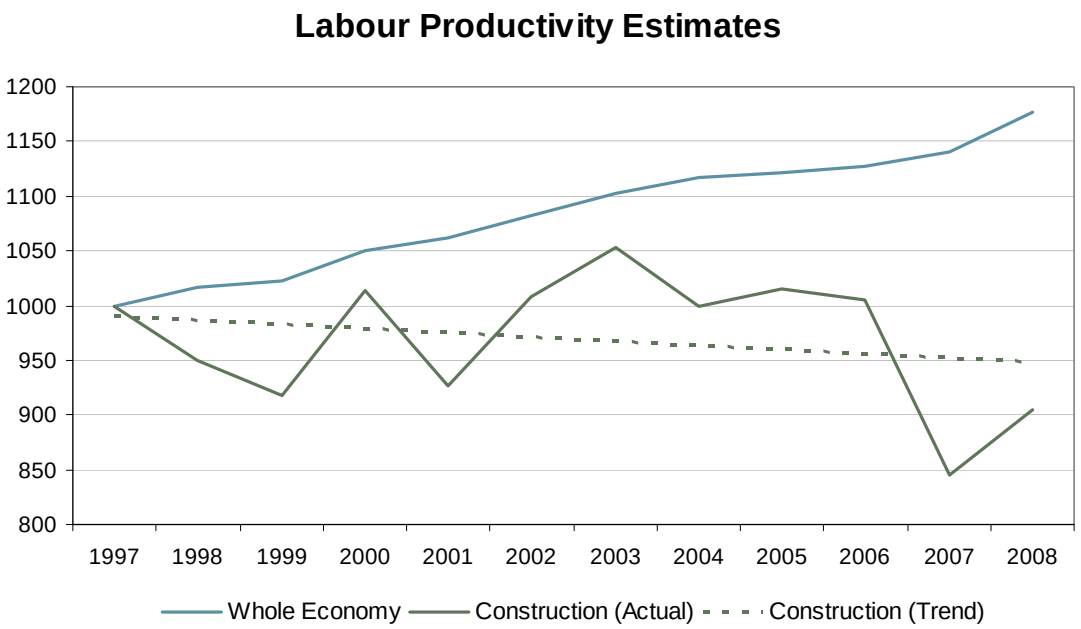
Research commissioned by the Department of Building and Housing paints a disappointing picture of sector productivity since the late 1980s[5]. The overall conclusion is that productivity appears low, relative to the construction sectors in other countries and that productivity growth has been poor.

[4] These figures are drawn from different data sources and don't tie back to aggregate employment figures for the industry

[5] Nick Davis (2007), Construction Sector Productivity Scoping Report, MartinJenkins, Wellington

Figure 4.4.1 below shows labour productivity for the construction sector compared to that for the aggregate economy for the period up to 2008. Its shows that while labour productivity has steadily increased for the economy has a whole, it has trended downwards in the construction sector.

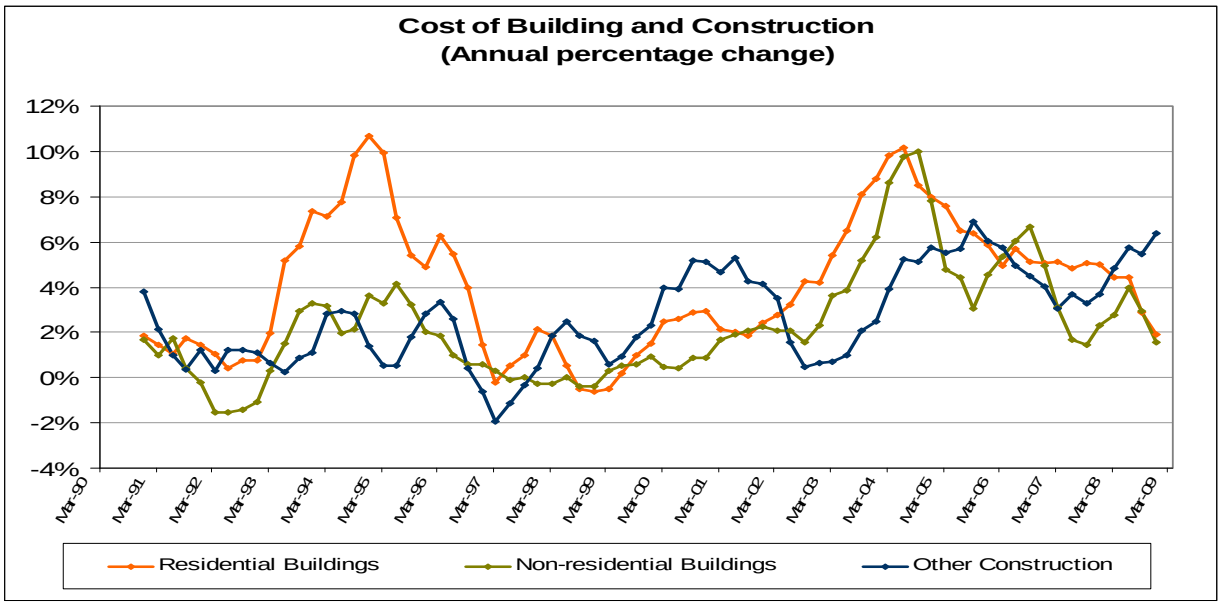
4.4.1. Labour Productivity in the Aggregate Economy and the Construction sector compared (1997-2008)



4.5. Construction cost

The rate of growth in the price of capital goods in the residential building category exceeded 10% pa twice in the last 15 years, and also exceeded 10% pa in the non-residential building category in 2004/05. The rate of price increases in these building categories has since slowed, but has remained relatively strong in the 'other construction' area. In the year to March 2009, the capital goods price increase was 1.9 % for residential building, 1.5 % for non-residential building, and 6.4 % for other construction (Figure 4.5.1). The overall increase for all construction categories was 4.9 % per annum.

4.5.1. Cost of building and construction



Source: Statistics New Zealand

In terms of labour costs, construction salaries and wage rates have increased 3.5 % in the year to March 2009, and 3.4 % for building trade workers. This does not reflect movements in incomes however, as hours worked are down significantly.

The average median income for workers in construction occupations is $37,500 compared with $39,206 for all occupations, primarily reflecting the large number of labourers who typically earn low incomes. Within construction occupations there is a wide distribution of incomes. Construction and engineering managers are the highest earners with median incomes almost double the national average. Architects, engineers, quantity surveyors, draughters and engineering technicians are also paid well above average. Labourers, on the other hand, typically earn 66% of the national median income.

4.5.2. Median Income by Occupational Group, 2006

Occupational Group	Median Income	% of All Occ Median
Construction & Engineering Managers	$73,307	187%
Architects, Engineers and Related Professionals	$57,773	147%
Quantity Surveyors, Draughters and Engineering Technicians	$47,748	122%
Fitter and Turners	$44,800	114%
Electricians	$42,900	109%
Electrical Fitter	$41,400	106%
Earthmoving and Other Materials-Handling Equipment Operators	$39,913	102%
Building Frame and Related Trades Workers	$36,764	94%
Joiner's benchhands	$36,700	94%

Occupational Group	Median Income	% of All Occ Median
Building and Related Workers	$35,718	91%
Concrete workers	$35,000	89%
Building Finishers and Related Trades Workers	$33,830	86%
Cabinetmakers	$32,700	83%
Labourers	$25,986	66%

Source: Statistics New Zealand and Department of Labour

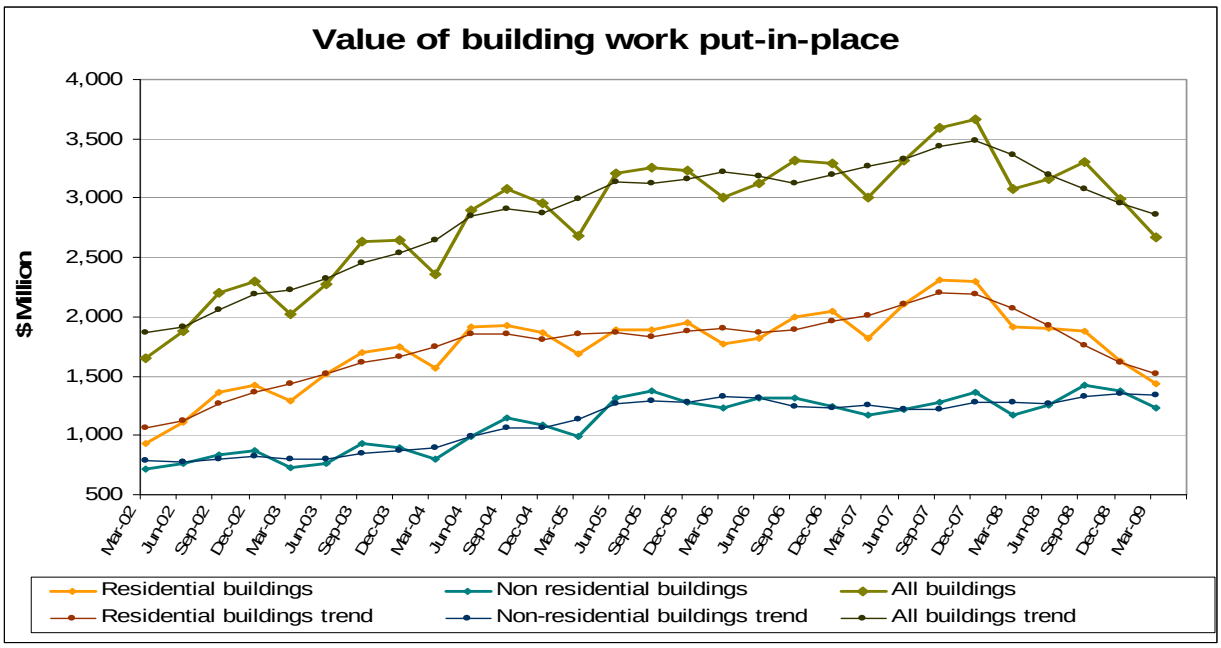
4.6. Import and export of construction work

Data is not available on the value or volume of imports and exports of construction contracts.[6] However, since most construction work is undertaken by domestically located firms, the degree of foreign ownership of the sector is an alternative measure of the extent of foreign involvement in the New Zealand construction sector. Foreign ownership is less common in the industry compared with the economy at large. Less than 0.3% of enterprises have more than 1% foreign ownership. In terms of employment, 11% of total construction employees are employed in enterprises that are majority foreign owned, compared with 17% for all industries. A number of large New Zealand construction firms, for example Fletcher Building, Fulton Hogan and Hawkins Construction, also have a significant international presence, particularly in Australia and the South Pacific, as well as in Asia, North and South America, Europe and the Middle East.

5. Construction Outlook 2009/2010

Sector activity has been declining since early 2008 but the rate of contraction is slowing. The value and volume of all building work fell during the March 2009 quarter (with a decrease in consent values of 16 % over the previous year). Residential building continued to fall in volume and value, and while the (unadjusted) value of non-residential building work was still high in the March quarter, the trend for that is also now declining. Building consents are also trending down despite recent increases in monthly consents. This reduced level of building work will create future price pressure, with an expectation of inadequate supply to meet emerging housing needs over the next few years.

[6] New Zealand only regularly produces merchandise international trade and only occasionally and partially measures the value of international trade in services.

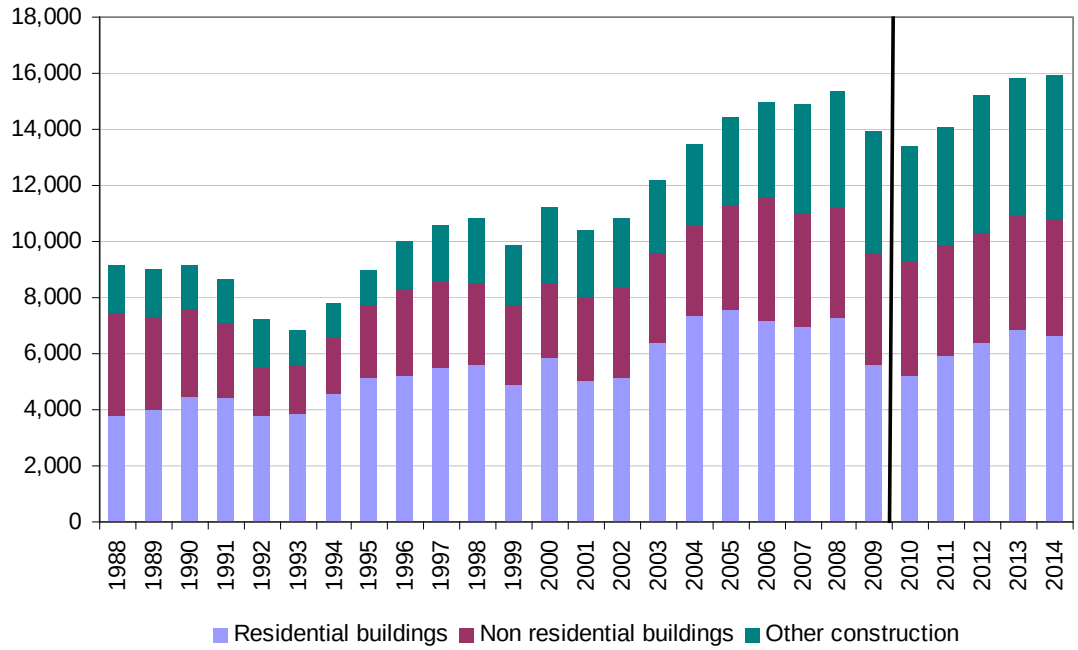


Although the March 2009 quarter showed more people employed in the sector, they are employed for fewer hours in total: the number of paid hours worked in the sector is down by over 9 % compared with same time in 2008, and, with less building work, this is likely to drop further. If, as is forecast, these falls continue beyond the near term, there is a risk that the sector will lack the necessary capacity and skill to respond to the upturn in the market when it occurs.

Part of the government's response to mitigating the effects of the recession and the global financial crisis is an accelerated package of infrastructure projects spanning the housing, transport, education and energy sectors at an estimated cost of almost $500 million, of which around $100 million worth of projects will start in the current financial year.

The most recent forecasts for the volume of building activity, prepared by Infometrics Ltd, are shown below.

Forecast of total value of building activity, 1995/96 $m (GFCF basis)



Source: Infometrics July 2009Building Forecasts

The willingness of banks to lend will be a key determinant in any recovery for residential building activity. A pick-up in house sales and more stable property prices are expected to drive some recovery in consent numbers heading into 2010. A current lift in net migration will not provide the immediate boost to demand for housing due to increasing occupancy rates per dwelling rather than demand for housing. But even taking a conservative view on household formation rates, the supply of new homes coming onto the market is likely to be below underlying demand until 2012/13.

Non-residential building consents have remained strong over the last few months. Although the underlying trend in private sector building work is weak, reasonable levels of public sector activity have been supplemented by a run of large private sector consents (over $25m). These large projects are likely to have been well advanced and with funding secured before the credit crisis turned ugly, and will keep the level of completed non-residential construction strong over the next 9-12 months. The softening property and weak investment environment will then result in a mild decline in non-residential construction over 2010/11. Infrastructure spending remains buoyant, although the risk remains of a drop-off in activity over the next year from its very high levels. Both non-residential and infrastructure activity will grow from 2011/12 to the end of the forecast period.

15th ASIACONSTRUCT CONFERENCE 2009, MALAYSIA

THEME PAPER: INITIATIVES TO ENHANCE PRODUCTIVITY OF THE CONSTRUCTION INDUSTRY, INCLUDING BETTER VALUE CHAIN INTEGRATION

By Nigel Bickle, Department of Building and Housing, New Zealand

1. Executive Summary

There has been a significant focus on construction sector productivity in recent times, sparked initially by government interest in housing affordability, and more recently motivated by concerns with regard to skills, procurement and regulation. Recent research suggests productivity growth in the sector has been low since at least the late 1980s. Further, the recent strong economic expansion led to a rapid influx of unskilled and under-qualified labour. There has been little efficiency-enhancing innovation in construction business models. Unsophisticated procurement practices have contributed to this, as well as a lack of management capability. The industry is not entirely to blame. New Zealand consumers play their part by demanding unique buildings and demonstrating a willingness to pay higher costs for buildings.

Measures to address these problems include several initiatives to streamline the building consent process, investigation of options for smarter use of technology including national online consenting, an easing of some regulations including the scope of building work requiring a consent, the promotion of simple, affordable housing designs by way of a compliance document and a design competition. In addition, the Government established an industry-led construction sector productivity taskforce, which has offered concrete recommendations for improvement in the areas of skills, procurement and industry leadership. Looking forward, the government has ambitious plans to further reform building and resource management regulation, and is also seeking to pursue non-regulatory means of improving the performance of the industry. Building on the success of the Construction sector productivity taskforce, the government expects ongoing engagement with the industry to progress the taskforce's recommendations.

2. Integration of the construction value chain

Research commissioned by the Department of Building and Housing paints a disappointing picture of construction sector productivity growth since the late 1980s.[7] There are likely to be a number of reasons for poor productivity including:

- Construction is a ***fragmented industry***. It is comprised of a large number of small firms and self-employed 'labour only' contractors, each specializing in a certain part of the value chain. In general, there is greater horizontal and vertical integration within the commercial and non-building construction sub-sectors than in residential construction, although the productivity problem is not solely

[7] Nick Davis (2007), Construction Sector Productivity Scoping Report, MartinJenkins, Wellington

confined to the residential sector. There are a variety of reasons for the fragmented industry structure. First, New Zealand's residential construction demand cycles with large amplitude. This presents risks for firms in taking on permanent staff. Second, the project-based nature of building work, which requires the combination and recombination of different skill sets at different stages of the building process, requires flexible labour supply that may best be achieved through short-term contracts. The lack of standardization in building construction further exacerbates this fragmented structure, since standardization is a pre-requisite for scale economies. Fragmentation of the value chain increases the potential for coordination failure, inefficiency and rework.

- Another problem area is ***skills***. Construction is a labour intensive industry. The boom/bust cycle has contributed to declining average labour quality in the industry. A sharp downturn in the early 1990s, combined with a temporary period of reduced investment in industry training, led to the sector losing a large cohort of experienced construction managers and supervisory staff. More recently, growth in the industry has outstretched the capacity of the education and training system to supply sufficient number of well trained people. The increased demand for labour has been met by people with sub-optimal skills and training. More than half of workers operating in the sector have no or a high-school only qualification. There are also concerns about how effectively skills in the existing workforce are being upgraded given changes in building technologies and the need for continuous improvement. Despite the downturn, skill shortages in certain critical areas remain (e.g. architecture, engineering, quantity surveying, site management, electrical workers).
- ***Procurement practices*** are relatively unsophisticated on average, leading to buildings being unnecessarily complex to construct because buildability issues are not sufficiently considered at the design stage. Poor procurement practices is also linked to low productivity throughout the supply chain, with contractors focused on defending contractual claims for additional payments and extensions of time.
- There are also concerns regarding low rates of ***innovation***. While there has been significant innovation in certain segments of the sector, for example in building materials, this has largely been quality-enhancing product innovation rather than efficiency enhancing process innovation. Exceptions include precast and prefabricated building components but, by and large, the methods and underlying business models used in construction have undergone little change. Management capability is thinly spread and there is a general lack of people with professional construction management training. This has contributed to there being little large scale innovation in supply chain management and new business models (although group-home building has gained market share).
- ***Consumer preferences*** have also played their part. New Zealanders demand unique buildings, meaning there is a limited market for standardized construction. To the extent that volume is a pre-requisite for large-scale pre-fabrication and other labour saving innovations, the bespoke nature of construction demand limits the rate of productivity growth that is technically feasible.
- A final area of concern relates to ***regulation***. Major changes to building regulation were made in 2004, in response to the leaky building problem. While

the performance based building code was retained, building controls were significantly tightened. In addition, the application of joint and several liability meant that Building Consent Authorities face significant liabilities associated with leaky buildings. The combination of these factors has led to significant risk aversion by BCAs, which may have stifled innovation in building design and use of novel materials or construction methods. Greater risk aversion has also increased the transaction costs and delays associated with building consenting and certification processes.

3. Initiatives and measures to improve productivity, including through better integration of the value chain

Over the period 2004 to 2007, a major focus of the government was the implementation of the wide-ranging reforms embodied in the Building Act 2004.[8] The reforms were a response to a systemic failure of the building regulatory system, which saw a large number of leaky buildings built during the 1990s. The principal factors behind the leaky building problem included:

- Lack of responsibility and accountability for building quality (due to fragmentation, sub-contracting, and use of corporate and other devices to avoid risk)
- Poorly articulated standards interpreted by poorly skilled regulators
- Inadequate regulatory oversight by the then central regulator, the Building Industry Authority
- Inadequate focus on consumer interests
- Concerns regarding competition in the provision of building consent services.

As a result of the review, the government tightened regulation of the sector. While retaining a performance-based approach at its core, existing performance-based controls were reinforced and a number of new input controls were added. Key reforms included:

- Strengthening the central regulator's role and transferring responsibility for building and housing regulatory functions from a range of agencies, including the now defunct Building Industry Authority, to the newly established Department of Building and Housing
- Carrying out a review of the Building Code to ensure that the standards that buildings must meet are clearer, provide for greater consumer protection (eg, increasing emphasis on durability and maintenance standards), and provide a way forward for the development of more transparent and relevant building guidance material. The review led to an increase in the amount of documentation supporting the Code (compliance documents and guidance documents), and providing for bans of particular products or ways of building in certain circumstances (mandatory compliance documents)

[8] This Act replaced the Building Act 1991.

- Requiring the accreditation, registration and audit of building consent authorities
- Providing for the certification of building products
- Providing for the licensing of building practitioners
- Strengthening consumer protections, including providing for mandatory standard warranties.

Beginning in early 2008, and in parallel with the continued implementation of the above reforms, the government began to increase its focus on issues of housing affordability. Consistent with trends in many OECD countries, New Zealand experienced a house price boom between 2002 and 2007, with prices rising much faster than incomes. A government inquiry into housing affordability led to policy proposals to streamline building regulation and to increase building sector productivity. It also prompted work on land-planning issues within the framework of the Resource Management Act 1991.

Streamlining building regulation

Recent changes have been made to the Building Act 2004 to increase the flexibility and efficiency of the building consent process, while ensuring that quality homes and buildings continue to be constructed. Specific recent changes include:

<u>The introduction of national multiple-use approvals</u>

National multiple-use approvals will streamline the consent process for building work that uses the same design and that will be replicated nationwide, making it cheaper, easier and faster for developers to obtain regulatory approval for replicable developments. The changes are also expected to free up time for building consent authorities to focus on other consenting activity. The authority to issue national approvals will sit with the Department of Building and Housing. These changes will go live in 2010.

<u>Streamlining process for minor variations to building consents</u>

Changes to consented building work commonly occur during the construction process. Some changes are minor while others are major and are likely to affect compliance with the Building Code. Different building consent authorities currently take a range of different approaches to managing amendments to building consents which sometimes adds unnecessary cost and delay to the building process.

To address this, the Building Act was recently amended to differentiate between major and minor variations to consented building work to support best practice in managing amendments to building consents. The exact difference will be clarified in regulation but the change paves the way for minor variations to consented building work to be handled more expeditiously and more consistently.

Widening the set of building work that does not require a consent

When the Building Act was passed in 2004, it contained a number of exemptions that do not require approval by a building consent authority. Mostly, the original exemptions apply to minor building work (eg, repair and maintenance and small non-habitable structures).

In October 2008, additional building work exemptions were added, broadening the range of building work that does not require a building consent. The following are examples of projects that no longer require building consent:

- Removing or altering a wall that is not structural or bracing
- Awnings, pergolas or a verandah over a deck
- Installing or replacing windows, exterior doors or roof windows (as long as structural elements are not changed)
- Altering homes to improve disability access (excluding wet area accessible showers)
- Internal shop or office fit out where changes do not affect specified systems or means of escape from fire
- Altering existing plumbing (includes minor drainage alterations but excludes new connections)
- Erecting tents and marquees (size and use restrictions apply).

Compliance Document for Simple Starter Homes

The Department is currently in the process of developing a Compliance Document for Simple Starter Homes. This compliance document will provide, in one place, all the information and requirements necessary to build an affordable house, making it easier for designers, builders, and building officials to deliver such projects. A further objective is to promote simplification, standardisation and appropriate choice of house sizes.

The Compliance Document aims to influence the market to build more standardised, simple, low-cost homes. A significant proportion of new houses in New Zealand are highly customised "one off" projects. This increases costs, complicates design and compliance checking, and leads to inefficiencies in the construction process.

The Compliance Document demonstrates that a simple, modest, functional, low-risk, low cost design is possible without lessening the amenity, energy efficiency and the appeal of the house. The Compliance Document is different from existing Compliance Documents in that it addresses all the Building Code requirements for a specific building type, rather than providing a means of compliance with individual Building Code Clause(s).

As part of the development of the Compliance Document, and to promote awareness in the construction of simple and affordable starter homes, the Department of

Building and Housing ran a design competition. The purpose of the competition was to encourage designers, architects, builders and students to use their creativity to come up with designs that offer flexibility and functionality for first-home buyers. Designs were required to use a draft Compliance Document as a design guide, including meeting size and cost requirements. The winning design is to be built by Housing New Zealand Corporation.

Construction Sector Productivity Taskforce

The *Final Report of the House Price Unit* concluded that there was a need for government to engage with industry to address potential productivity issues, including in relation to skills, investment quality, innovation and management practices. The report considered there may be gains to be had from economies of scale in the sector, for example through greater pre-fabrication and manufacturing of parts of buildings. Subsequent advice to the government recommended the establishment of a Construction Sector Productivity Taskforce, comprising leaders from industry and government. The establishment of a Taskforce recognized that the productivity challenge was not an issue that either industry or government could address alone.

To discuss the need for industry-government engagement, the then Minister for Building and Housing invited 60 leaders and decision makers from the sector to a Building and Construction Sector Forum in August 2008. An outcome from the forum was the establishment of the Construction Sector Productivity Taskforce, which was tasked with proposing a way forward for enhancing sector productivity and skill levels and to identify ways to improve approaches to procurement of construction projects.

Membership of the Taskforce was drawn from industry and government, with leadership coming from the industry. Individual members were recognized leaders selected for their skills and experience rather than on a representative basis. The Department of Building and Housing provided secretariat support. In addition, separate Skills and Procurement working groups were established to support the work of the Taskforce, with Membership drawn from people within the sector, again because of their specialist skills, knowledge and experience.

At the conclusion of its work, the Taskforce produced a report that was presented to a second Building and Construction Sector Forum in July 2009.[9] The process, which was undertaken in less than one year, provides a model for how government and industry can work together constructively toward shared objectives.

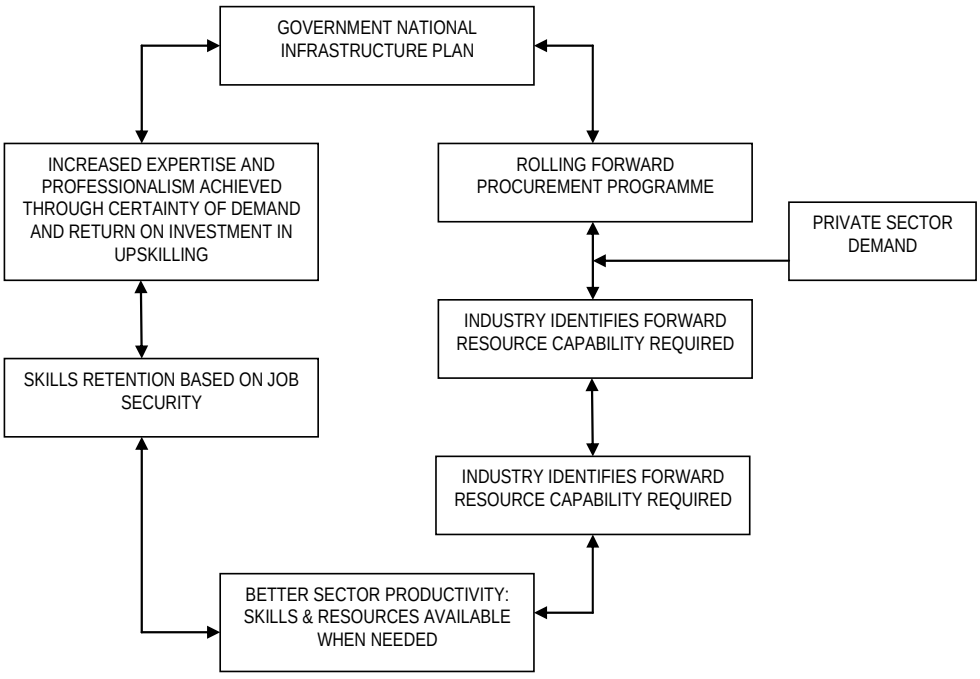
The report offered concrete recommendations for improvement in two main areas: skills and procurement. The Taskforce chose to focus on these two areas because:

[9] The Taskforce report can be found at (http://www.dbh.govt.nz/UserFiles/File/Building/sector-forum/Sector-Productivity-Taskforce-Report.pdf).

- in relation to skills,
    - The sector is labour intensive, with labour's share of income averaging 78% over the last ten years compared with 56% for the wider economy
    - 54% of employees in the sector have no qualification or a high school qualification only
    - Approximately 50% of construction industry employees are functionally innumerate or illiterate
    - Low capability has become a greater concern in recent years owing to the rapid growth of the sector
    - Both government and industry are major funders of trade-training, and the government is the major funder of training at degree level and above
    - The introduction of the new licensed building practitioner scheme represents an opportunity to upgrade skills within the industry.

- in relation to procurement,
    - Procurement practices, in particular an excessive focus on linear, least-price tendering arrangements, were seen as reinforcing poor quality and low productivity, and leading to perverse outcomes including:
        - user needs being neglected
        - loss of innovation
        - additional cost, due to changes made after the project has commenced
        - poor quality and performance
        - disputes leading to litigation
    - Procurement practices within government were variable
    - Government spends a significant amount on building and construction projects each year and is seen as having a leadership role in demonstrating innovation through procurement.

The Taskforce also linked skills and procurement issues at a macro-level, as shown in the following diagram.



The Taskforce's key recommendations were that:

- The Government develop a rolling 10 year forward plan for its capital investment programme, with a high level of detail in the first 3-5 years to help the sector better plan its forward skill needs
- The Government review its procurement policy for non-residential construction, building on the approaches used by the New Zealand Transport Agency, and changing its emphasis from minimizing the tender price to maximising value over the whole life of the project
- The Government consider, where practical, opportunities for standardising building components and systems in health, education and corrections in order to gain greater efficiencies in public sector construction projects
- Government agencies consider introducing skill and training requirements for both contractors and sub-contractors into procurement contracts, spanning all levels from trainee to management levels
- The industry, working with government agencies as appropriate, develop unified strategies to promote the sector to potential talented employees, for example improving the way it communicates possible career paths and opportunities within the sector, and to provide information on the training opportunities available to meet employees career aspirations
- The industry engages with the appropriate government bodies to ensure the delivery of entry level training meets industry needs in such matters as meeting projected demand for skills and expertise, the number and range of qualifications on offer, the funding mechanisms for entry level training, and the consistency and standard of assessment
- The industry and government work together to strengthen continuous professional development in the sector, including through using existing occupational licensing and registration schemes (including the licensed building practitioner scheme) to underpin the upgrading of skills
- The industry, working with government agencies as appropriate, develop a formal strategy to improve management and leaderships skills in the sector.

The Taskforce recognised that while the Government has a role in better supporting the sector – for example, through the way it manages its own procurement and engagement with the sector, and by communicating why procurement affects value for money – the construction sector itself needs to take greater ownership and leadership of the skills and procurement issues. The Taskforce called for the construction industry to take responsibility for improving productivity and skill issues in the sector. Industry is viewed as having the best understanding of what the productivity issues are, the best appreciation of how to improve the performance of the sector, and the strongest incentives for doing so. The Taskforce called for the industry to develop a built infrastructure industry leadership body as a mechanism for strengthening industry ownership of these issues.

Streamlining Resource Management Regulations

The government recently introduced changes to the Resource Management Act 1991 to simplify and streamline certain aspects of New Zealand's resource use planning laws, including:

- Making it more difficult for parties to undertake frivolous, vexatious and anti-competitive objections to resource consent applications, which can add significant costs to the resource consent process and deter investment
- Streamlining processes for projects of national significance, such as major infrastructure projects
- Improving plan development and plan change processes
- Improving resource consent processes and streamlining decision-making
- Strengthening compliance by increasing penalties and providing a wider range of enforcement options.

4. Future Developments

The government has a number of major processes underway to address industry performance:

Building Act Review

A number of concerns with the current regulatory settings have led the Government to initiate a fundamental review of the Building Act:

- Perceptions of inefficiencies in building consent processing, leading to delays and higher than necessary costs
- Unpredictability of timeframes for building consent approvals
- Inconsistent decision making across the 73 territorial local authorities that decide building consent applications
- Concerns that unbalanced allocation of risk and liability within the sector, in particular too great a role for building consent authorities, has resulted in a stifling of innovation as well as contributing to increased delay and additional costs
- A licensed building practitioners scheme that, while fundamental to future regulatory reform, is currently too complex and costly[10]
- A general concern that key processes of the building control system are not delivering value for money.

[10] Proposals to streamline the licensing scheme are discussed further in the following section.

The Review will focus on reducing the cost of the building control system but not at the expense of the quality of building work. Key outcomes expected include that:

- Quality homes and buildings are produced through a business enabling and efficient regulatory framework
- Consumers can make informed decisions and have confidence in transacting in the building and housing market
- Homes and buildings are produced cost effectively by a productive sector who have the right skills and knowledge
- The regulatory system is administered in an efficient and cost-effective manner.

It is expected that the review will achieve these outcomes through a combination of:

- Removing building regulation that is adding cost and little benefit
- Further streamlining building consent requirements, including reducing the amount of building work requiring a consent and better matching consenting requirements with the risk and complexity of proposed building work
- Improving alignment between the Building Code and New Zealand Standards, making it easier to identify how building work can comply with the Code
- Achieving a more balanced allocation of risk and liability across parties in the sector, including considering alternatives to joint and several liability and the greater use of insurance/warranty products for more effective risk management
- Providing consumers with more information about their rights and responsibilities and better mechanisms for resolving disputes
- Increasing incentives for building practitioners to become licensed, including providing the possibility for licensed practitioners to self-certify their work
- Facilitating consolidation of building consent functions, reducing the number of consenting authorities and using increased volume of consents to develop more efficient and consistent decision-making processes
- Using technology smartly to improve the efficiency of the building consent process, including possibly introducing national online consenting.

Streamlining the Licensed Building Practitioner Scheme

In parallel with the Building Act Review, the government is consulting on proposals to streamline the licensing of building practitioners. Licensing is considered to be an important underpinning platform for many of the possible outcomes outlined above. Specifically, licensing is seen as a means to:

- Lift skills across the sector to achieve better performance and increase productivity
- Ensure people doing the work have the appropriate skills to do so
- Enable consumers to choose competent building practitioners, and

- Enable a more-risk based approach to regulating the sector, recognizing and rewarding competency (possibly by allowing licensed practitioners to self-certify building work), thus reducing compliance costs.

Streamlining the scheme will involve:

- A fast-track, simplified and cheaper process for trade-qualified practitioners
- Simplified license classes for the Design and Site Management classes
- Removing duplication with other occupational licensing schemes, for example automatically recognized registered plumbers as competent to carry out roofing work
- Exempting occupational groups from licensing where costs outweigh the benefits
- Exempting owner builders from licensing requirements, subject to certain disclosure requirements being met
- Requiring that work only needs to be supervised (rather than carried out) by a licensed practitioner, meaning not all practitioners who carry out restricted work must become licensed
- Limiting the scope of work for that must be supervised or carried out by a licensed practitioner to critical elements of residential construction work[11].

Follow up to Construction Sector Productivity Taskforce Report

The Report of the Construction Sector Productivity Taskforce has generally been welcomed by the Government, which is expected to formally respond in October. It is expected there will be a fresh round of engagement between the sector and the government, oriented around the joint development of an action-oriented sector skills strategy and related sector education and investment plan.

Other building related initiatives

In addition to the above initiatives, the Government is looking at a number of non-regulatory ways to improve performance and productivity in the sector including:

- Supporting councils to work smarter using technology and leveraging the same technology to reduce design and building costs
- Putting greater focus on information and education, so people make informed choices rather than having them made for them
- Facilitating and incentivising building consent authorities to consolidate and rationalise their functions
- Getting better outcomes from the increased investment in trade training.

[11] These critical elements relate to the primary structure of a house, the external moisture management systems (i.e. roof and wall cladding), and the design of fire safety systems in small to medium-sized apartments.

Resource Management Act Review

In parallel with the Building Act Review, the Government is reviewing the Resource Management Act. The first phase of this review, focused on immediate opportunities for streamlining the regulatory process and reducing cost and delay, has been completed. The second phase, which is currently underway, is aimed at more fundamental reform to achieve least cost delivery of good environmental outcomes (including land use planning). Two areas of focus under Phase Two of the review are: alignment of consenting processes under the Resource Management and Building acts; and exploring better approaches to urban planning. The latter is intended to include measures to address land supply issues that were thought to contribute to higher than necessary housing costs in the previous boom.

5. Conclusion

The recent construction policy agenda in New Zealand, has focused since 2004 on reregulation of the sector, including the introduction of new input controls while preserving the performance-based building code. In the last two years, the focus has shifted somewhat to achieving a more streamlined approach to regulatory implementation, within the framework of the current legislation. Looking forward, the new government has signaled an appetite for more fundamental changes to building regulation, based on a view that the pendulum may have swung too far. The forward regulatory work programme is expected to have a strong focus on industry performance, innovation and productivity.

At the same time, there are a range of non-regulatory measures being contemplated to improve the performance of the building regulatory system. These include, among other things, smarter use of technology to obtain efficiency gains, including investigating the potential gains through national online consenting. They also include facilitating the consolidation of building consent functions, which are currently spread across 73 building consent authorities, to achieve economies of scale and to improve consistency and processing efficiency.

Beyond the regulatory system, the construction industry is facing up to significant productivity problems, which have been masked by recent growth in output and, hence, profit. While there is no silver bullet for addressing productivity issues, the Construction Sector Productivity Taskforce – which itself is an innovative example of joint government-industry action – has made a number of concrete recommendations for improving skills within the industry, the industry's attractiveness to new entrants, and procurement models in use within the public and private sector. While the government is yet to decide on its response to this report, we expect further joint industry-government engagement on productivity issues in the near future.