

building forecasts

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Unless otherwise stated, the source for all data is Statistics NZ.

This forecast is based on data available up until 24 June 2011.

Additional forecast tables are available on request, including:

- residential work put in place by region
- apartment consents by region
- the number of residential A&A consents
- the number and value of residential outbuilding consents
- the value of non-residential consents by building type

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**Summary of July 2011 forecasts**

Annual average percentage changes

<i>March years</i>	Average 2000-2010	2009/10	2010/11 Estimate	2011/12 Forecast	2012/13 Forecast	2013/14 Forecast	2014/15 Forecast	2015/16 Forecast	Forecast Average
Real expenditures									
Private consumption	2.9%	0.4%	1.4%	1.0%	4.2%	3.7%	1.9%	1.4%	2.4%
Government consumption	3.1%	0.2%	3.3%	3.9%	0.3%	0.9%	-0.2%	2.4%	1.4%
Private investment	1.6%	-13.0%	10.7%	7.5%	10.5%	10.8%	9.1%	4.9%	8.5%
Government investment	7.2%	1.5%	-4.6%	10.3%	3.9%	6.2%	6.4%	7.0%	6.7%
Inventories (1)	-0.3%	-2.2%	2.0%	1.8%	1.1%	0.4%	0.0%	0.0%	0.7%
Gross national expenditure	2.7%	-3.6%	4.8%	4.4%	5.5%	4.9%	3.1%	2.6%	4.1%
Exports of goods and services	3.0%	4.6%	1.8%	5.5%	1.9%	2.5%	2.9%	2.0%	3.0%
Imports of goods and services	3.2%	-9.4%	12.5%	9.3%	4.6%	7.3%	2.8%	2.3%	5.2%
Gross domestic product	2.6%	0.7%	1.8%	3.0%	4.7%	3.2%	3.2%	2.5%	3.3%
Production-based GDP	2.4%	-0.7%	1.1%	2.9%	4.7%	3.2%	3.2%	2.5%	3.3%
Nominal GDP									
Operating surplus - private	3.7%	-2.1%	8.8%	4.8%	6.7%	6.2%	5.9%	4.6%	5.7%
Priv. Investment (% of GDP)	19.2%	16.7%	18.0%	18.8%	20.0%	21.4%	22.5%	22.8%	21.1%
Households									
HLFS employment	2.0%	-1.3%	1.2%	2.5%	2.0%	2.0%	1.6%	1.1%	1.8%
HLFS unemployment rate (2)	4.7%	6.4%	6.6%	6.0%	5.4%	5.1%	4.8%	4.8%	5.2%
Labour productivity	1.2%	3.5%	0.0%	-0.8%	0.8%	1.2%	1.7%	1.6%	0.8%
Hourly wage	3.8%	3.1%	1.7%	2.9%	2.6%	3.4%	3.2%	3.4%	3.1%
Real disposable income	2.6%	2.7%	3.1%	1.3%	4.6%	1.8%	2.2%	2.3%	2.4%
CPI (3)	2.7%	2.0%	4.5%	2.7%	1.8%	2.5%	3.2%	3.0%	2.6%
Budget balance (OBEGAL), \$m (4)	2,929	-6,315	-16,373	-8,332	-2,994	-322	443	1,000	-2,041
Govt spending (% of GDP) (4)	39.6%	42.9%	48.5%	43.7%	41.7%	40.9%	40.8%	40.3%	41.5%
External sector									
Current a/c balance (\$bn)	-8,824	-4,460	-8,302	-10,731	-13,666	-15,336	-17,529	-20,366	-15,526
as % of GDP	-5.5%	-2.4%	-4.2%	-5.2%	-6.3%	-6.6%	-7.2%	-8.0%	-6.7%
Financial (annual average rates)									
Exchange rate - TWI; level	62.0	63.0	67.2	72.5	75.4	73.2	72.0	72.4	73.1
Annual % change	1.2%	2.3%	6.7%	7.9%	4.1%	-2.9%	-1.7%	0.6%	1.5%
International bond rate	3.7%	3.0%	2.7%	3.1%	3.5%	3.9%	4.1%	4.4%	3.8%
plus NZ risk premium	2.4%	2.7%	2.8%	2.6%	2.5%	2.4%	2.1%	1.9%	2.3%
NZ interest rates - bonds	6.1%	5.7%	5.5%	5.6%	6.0%	6.3%	6.2%	6.2%	6.1%
less bills	6.3%	2.8%	3.1%	2.8%	4.4%	6.1%	6.3%	6.3%	5.2%
yield gap	-0.2%	2.9%	2.4%	2.9%	1.6%	0.1%	-0.1%	-0.1%	0.9%

(1) Contribution to GDP growth

(2) Annual average for year ended

(3) March on March

(4) June years

These forecasts are based on GDP figures produced by Statistics NZ to December 2010, and other data available to 24 June 2011.

The source for all data in this publication, unless otherwise stated, is Statistics NZ.

Table 1.1



1. FORECAST STORY

Shaking off the shakes

Data released so far this year has shown signs that the New Zealand economy was starting to pick itself up after the disappointments of 2010. Outside Christchurch, there appears to have been no lasting negative effects on confidence from the earthquakes, and confidence is also improving across the agricultural sector that commodity prices will remain high. The combination of rebuilding work in Christchurch and increased spending from the agricultural sector will push economic growth up to a peak of 5%pa at the end of 2012. Over the medium-term, the New Zealand economy will be forced to grapple with less stimulatory fiscal policy and the potential for the trend of cheap consumption goods and favourable interest rates to start reversing. A lack of export volume growth will also leave the economy vulnerable to shocks to commodity prices.

Without wanting to be flippant, if we could put aside the Christchurch earthquake that occurred in February this year, we believe that the economy would be putting the problems of 2010 behind it and be on track for a much better growth performance in 2011 and 2012. Although The Treasury has received a fair bit of flak for its upbeat growth outlook, we think the optimism is largely justified. It looks unlikely that the false dawn that occurred in 2010 will be repeated this year.

Last year's growth was undermined by a soft patch for the global economy and uncertainty caused by the sovereign debt problems in Europe. A number of government policy changes within New Zealand also had a more significant effect on the economy than anyone anticipated. The raft of tax changes announced by the government may have been roughly fiscally neutral, but uncertainty caused by the changes seemed to have a dampening effect on economic activity throughout much of last year.

- Changes to the tax treatment of property reduced investor demand for housing, as expected, and sucked the life out of the housing market. The property market had already started to look a bit shaky after the rebound during 2009, so the tax changes exacerbated the market's reversal and had a significant negative effect on consumer confidence and willingness to spend.
- The lift in GST caused hardly any boost to spending before it came into effect, partly because people's appetite for large purchases was so weak anyway. The tax change also makes saving a slightly more attractive option than it was previously, resulting in a one-off downward adjustment in spending levels.

We are of the view that the effects of last year's tax changes have largely worked their way through the system. Net investor demand for housing is still likely to be subdued, particularly in provincial areas where purchasing decisions may be more influenced by cash-flow than by prospects of



capital gains. But signs of a renaissance in Auckland's housing market augur well for broader consumer confidence in New Zealand's largest city.

Four months after the big one

The economy's performance seems to have been less affected by February's Christchurch earthquake than we allowed for in our initial assessment. A summary of some of the partial indicators is shown in Table 1.1, comparing activity in Canterbury with what would have been expected had the region moved in line with the nationwide trend. The rebound in each of these indicators towards "normal" levels has occurred sooner than we had expected.

The quakes' effect on activity in Canterbury

Estimated level of activity compared to "normal"

	Feb	Mar	Apr	May
Car registrations	-29%	-25%	-4%	2%
Guest nights	-14%	-29%	-28%	NA
House sales	-45%	-48%	-14%	-23%
New dwelling consents	-19%	-35%	16%	NA
Non-residential consents	-64%	-46%	78%	NA

Table 1.1

Arguably even more important is the lack of any significant effect on confidence around the rest of the country. Business confidence is almost back to the levels it was before the earthquake (seasonally adjusted). Consumer confidence has not rebounded quite as quickly but didn't really fall that far anyway.

Initial fears of a 1-1.5% knock to economic activity in the March quarter, with the economy taking much of the rest of this year to make up the lost ground, now appear to be overblown. We estimate that overall GDP growth in the March quarter 0.4%, a pretty good result given the destruction wrought and uncertainty caused by the earthquake.

The more long-lasting economic effects of the quake are yet to play out. These effects include the size of any permanent population loss from Christchurch, the decline in business numbers and employment opportunities in the city, and the timing of the rebuild process across the various construction types.

The latter issue is particularly important in terms of its contribution to the economy's recovery over the next 12 months, and we have included an overview of our assumptions in *Guessing how the quake rebuild will pan out* (p35). However, considerable uncertainty remains over the size and timing of the repair work. After initial complaints about the haste with which demolition was taking place, progress seems to have slowed substantially. Some of the most extreme hold-ups are likely to occur around buildings such as the Hotel Grand Chancellor, which will reportedly take ten months to demolish, and other buildings that will require



remediation work lasting for up to 18 months. Comments that rebuilding will not get underway until the ground stops shaking also highlight the risk that the boost to economic activity takes longer to show up than is currently expected, especially given the number of sizeable shakes that Christchurch has suffered within the last month.

One positive move in recent weeks is the appointment of Roger Sutton as Chief Executive of the Canterbury Earthquake Recovery Authority. Mr Sutton is well-respected and has a reputation as a man of action, which boosts the chances of the city's rebuild being undertaken in a timely manner.

Commodity prices to dominate credit constraints

Although commodity prices are at an elevated level, the financial sector continues to restrain growth. Financial markets are still grappling with the tougher capital requirements and prudential oversight that has been progressively implemented by the Reserve Bank since 2008. Record low interest rates have given a deceptively positive indication of how freely available credit has been – particularly outside the housing market.

The progressive tightening of banks' capital requirements and ongoing shakedown of the financial sector following the global financial crisis may still have an effect on the potential for growth over the next 12 months. Of most immediate concern to us are changes affecting agricultural lending, which came into effect at the end of June.

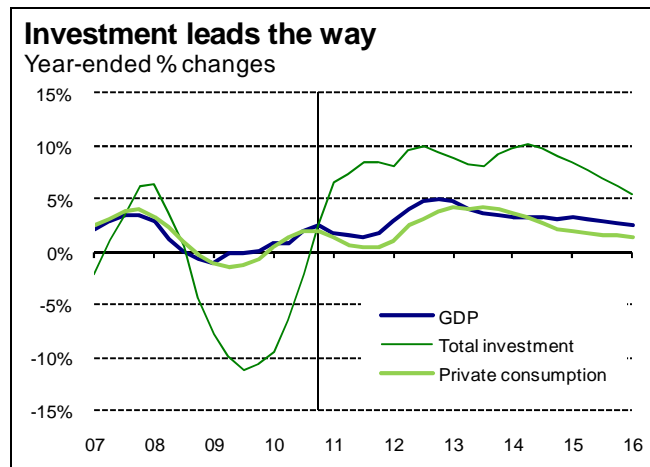
We have repeatedly stated during the last two years our view that commodity prices would hold at historically high levels over the medium-term, boosting export incomes and New Zealanders' spending power through a higher terms of trade. That view has not changed, and our forecasts continue to be premised on a pick-up in spending emanating from the agricultural sector over the next year. However, it is also worthwhile remembering that the effects on the construction sector of the finance company collapses, global financial crisis, and tightening credit conditions have been more long-lasting than we expected two years ago. In broad terms, the conditions are in place for a pick-up in spending but we remain wary of institutional impediments in the financial sector that may inhibit the economy's acceleration.

Rebuilding the capital stock

We have revised up our forecasts of near-term GDP growth as investment spending across the economy has continued apace over the last few months. The quick rebound in business confidence following the earthquake lines up with the ongoing growth in capital plant and equipment imports. Add in the necessary capital spending by central and local government in response to the quake and it is easy to see total investment spending climbing 8.2% over the year to March 2012.

We forecast growth in total gross fixed capital formation to be more than 8%pa for each of the following three years as well. Earthquake recovery and rebuilding work will coincide with a broader catch-up in investment

spending as economic conditions become more favourable and the strong New Zealand dollar helps to limit cost increases for imported plant and equipment.



Graph 1.1

In contrast to our higher investment forecasts, we have revised down our forecasts of private consumption. In the near-term, we have taken a cautious approach regarding the timing of a concerted pick-up in household spending. Although spending data for the early part of this year has looked to be reasonably robust, we are conscious of the changing borrowing environment facing the agricultural sector and any delays to a broader pick-up in household spending that those changes may cause. Faster spending growth is likely to take place in 2012/13 as consumer confidence improves substantially and households splash out after the restraint of the previous three years. We forecast that growth in household spending will peak at 4.2%pa during 2013.

Will Chinese changes eventually force rebalancing?

Over the last five years, there has been a lot of talk about a necessary rebalancing for the New Zealand economy, with a number of forecasters predicting persistently weak growth in consumption spending and more focus by households on savings. Our medium-term forecasts of household spending are more subdued than they have been in the past, with private consumption growing by an average of 2.3%pa between March 2013 and March 2016.

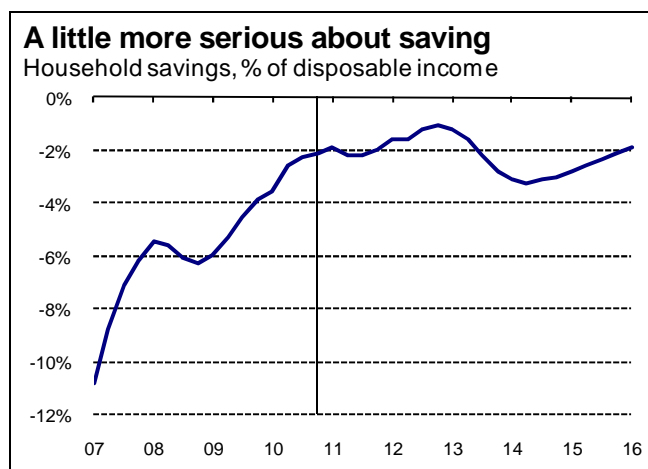
However, our version of the rebalancing story is not driven by a wholesale epiphany among households that debt is bad and saving is good. It is not driven by financial conditions permanently remaining as tight as they were in the immediate aftermath following the global financial crisis. Rather, the pressure for any rebalancing is likely to come from changes in economic trends overseas that affect the availability of cheap money and cheap consumption goods.

We are specifically referring to China, where we expect three changes to become evident within the next five years.



- The steady appreciation in the Chinese Yuan is likely to continue as the Chinese economy grows faster than the developed world and continues to run a sizeable trade surplus. The Chinese exchange rate with the US dollar has risen 5.1% over the last year and we suspect a similar rate of appreciation will prevail over the next five years. The stronger currency will lift the international price of Chinese-produced goods.
- Rising materials costs, labour costs and, in some cases, capacity pressures will counteract the steady downward pressure on manufactured goods prices that has been a feature of China's effect on the global economy over the last two decades.
- Increased spending levels within China will be reflected in a reduced outflow of funds for international investment. Since 2007, household spending as a percentage of GDP has shown signs of increasing from its very low level, but we believe further increases will occur over the next five years. This trend is likely to put upward pressure on interest rates internationally.

We predict that some upward pressure on the price of consumption goods, combined with higher borrowing costs on average over the cycle, will lead to slower growth in household spending over the medium-term. We also expect the household savings rate to hold between -1% and -3%, markedly higher than the low of -11% recorded in 2006.¹



Graph 1.2

Export volumes hard to find

Our forecast of New Zealand's export performance reveals how half-hearted any rebalancing within this country is likely to be. Export volumes are forecast to grow just 3%pa on average over the five years to March 2016, well below growth in total domestic spending of 4.1%pa.

¹ We have noted in previous forecasts that we believe the official statistics understate total household incomes and thus have a negative bias in measuring the household savings rate. The key point is not that the official savings rate is forecast to remain negative, but that we forecast savings behaviour to be stable around current rates over the next five years.



The reality is that, with 56% of New Zealand's exports tied up in the agricultural sector, and another 13% in forestry, achieving rapid growth in export volumes is difficult. In theory, manufacturing output is easier to quickly expand, but our manufacturing sector faces an uphill battle competing with cheaper production options in developing countries. Add in the natural decay in oil exports as current fields pass their production peaks and it becomes increasingly clear that our export revenues are dependent on prices rather than volumes.

We forecast that the current account deficit will expand from 4.2% of GDP to over 6% of GDP by the second half of next year. Import volume growth will pick up over the next 18 months, partly due to demand for resources in Christchurch. We expect a current account deficit of 6-8% of GDP to persist over the medium-term, so New Zealand's reliance on strong prices to generate growth in export receipts is clearly a vulnerability. Our external position leaves little room to absorb an unexpected drop in international prices for our export products.

When the government's wallet shuts

No matter which way you look at it, the government's contribution to economic growth is set to diminish over the forecast period. We estimate that government spending as a percentage of GDP has peaked at 48.5% in the fiscal year just ended, and will drop to 40.9% of GDP by 2013/14. The trend in crown cash flows may not turn around for another year yet, as the lingering costs of the earthquakes and welfare costs associated with the economy's slowdown over the last three years take longer to work their way out of the system.

The tough line that the government is taking to try and bring spending levels down is likely to show up in the national accounts from 2012 onwards. We forecast that government consumption spending will grow by just 0.3%pa between March 2012 and March 2015, the slowest rate of growth since the 1990-1993 period.

There is little doubt that a tighter rein on government spending is necessary given the size of the fiscal deficit and the expansion in the size of government that has occurred since 2007. However, the adjustment will create another potential headwind for the economy to battle its way through over the medium term. The government will need to be conscious that its tighter stance can only be progressed when confidence across the economy is robust enough to withstand the government's withdrawal.



2. BACKGROUND DRIVERS

Stimulus now leads to sustainable recovery

Very low interest rates are helping to provide the platform for a recovery in the economy during 2012, along with high export prices and the prospect of substantial rebuilding in Christchurch. The Reserve Bank will want to be relatively sure that the economy is on track for a sustained pick-up before tightening monetary policy, so rate rises are unlikely to gain much momentum before mid-2012. Mortgage rates will then climb to around 8% by mid-2013.

The economy's pick-up over the next 18 months will initially be underpinned by increased investment spending, but growth in consumer spending will accelerate as well as household confidence in the labour and housing markets improves. A better performance by the economy will also help to turn around net migration from the end of this year. The negative effect of the Christchurch earthquake on migration flows will also diminish by that stage, and we expect migration to return to a net inflow of around 15,000 people per annum over the medium term.

The earthquakes in Christchurch and Japan have had a negative effect on the tourism sector, and the consequences of the Christchurch quake on visitor numbers could persist for some time. More important, though, is the effect of the high New Zealand dollar over the medium term, which will lead to downward pressure on tourist numbers over the forecast horizon.

February's earthquake has worsened the government's fiscal position, as it has forced more spending on infrastructure and other assistance packages for Christchurch. Although this spending will help stimulate more economic activity in the near term, the pressure to return the budget to a balanced position implies that there will be very limited growth in other government spending over the next four years.

Quake rebuilding work will stretch capacity within the building industry in coming years. We expect to see a lift in building cost inflation during 2012 and 2013 as subcontractors' charges and labour costs are pushed up. Price rises for materials are not likely to be as significant given the high New Zealand dollar, and should help to prevent building costs rising quite as quickly as they did at the height of the building boom last decade.

Still an attractive place to live

Although the Christchurch earthquake will push down net migration inflows in the near term, New Zealand will remain a popular destination for migrants in the medium term – especially from developing Asian economies.

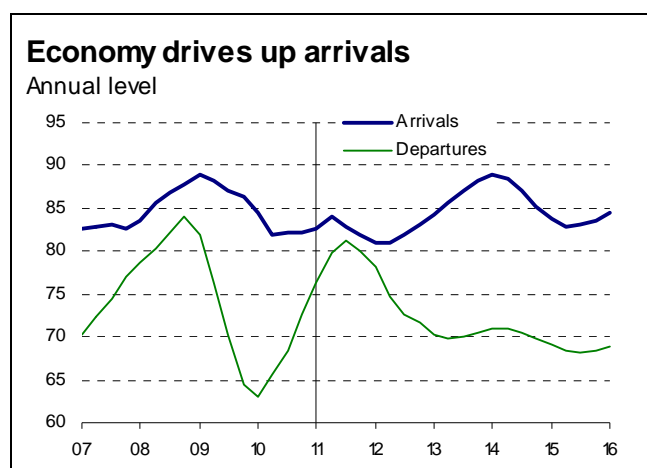
The February Christchurch earthquake led to a significant increase in permanent departures from New Zealand, with the net inflow of 450 people in February switching to a net outflow of 520 people in March (seasonally adjusted).

With more Christchurch residents deciding to leave the region over the coming months, we expect annual net migration to fall to just below 2,000pa in late 2011 (down from 10,451 in 2010).

Net migration is expected to recover during 2012, as the sharp improvement in the domestic labour market pushes up permanent arrival numbers and reduces the number of permanent departures. The net inflow of residents is expected to peak at around 18,000pa in early 2014 before settling at 15,000pa.

Helping to boost net migration will be an increase in arrivals, especially from increasingly wealthy developing Asian countries. Arrivals from many of these countries are "supply driven" – meaning that it is New Zealand's conditions regarding entry that limit the number of people arriving. As incomes rise, more residents from Asian nations will be able to gain approval to move to New Zealand.

The reduction in net migration in the near term will see population growth cool to 0.9%pa in 2011, down from 1.3% in June 2010. Further out, with net migration recovering, population growth will stabilise at around 1.1%pa.



Graph 2.1



Tightening in the second half of 2012

Interest rates are set to remain on hold until the end of this year, and we expect it to be mid-2012 before the Reserve Bank is sufficiently convinced about the economy's recovery to start raising rates with any gusto.

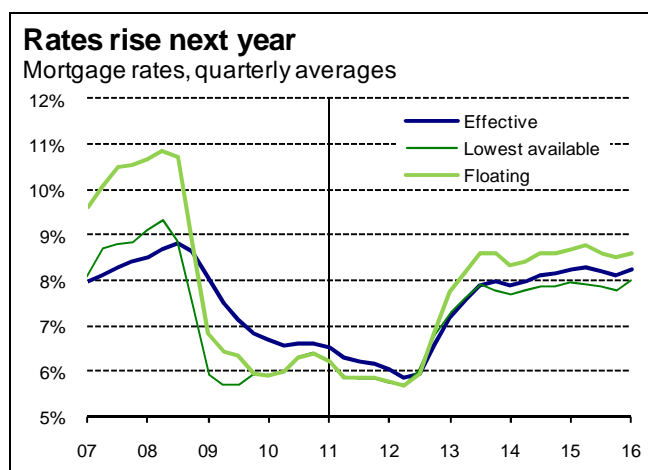
The Reserve Bank's decision to cut the official cash rate by 50 basis points in March was aimed at shoring up confidence in a time of considerable uncertainty. Although the economy's performance in subsequent months has been relatively robust, particularly outside Canterbury, inflationary pressures remain weak at this stage and there is little pressure on the Bank to start tightening monetary conditions again yet.

Financial markets are picking the first interest rate rise to take place between December this year and March 2012. We think the Reserve Bank will take some time to really get into its tightening phase, and we forecast that the OCR will have risen to just 3% by June next year. We see the risks around economic activity being weighted towards the acceleration taking longer to get going than is currently expected.

Over the next 12 months, there is a chance that the OCR rises sooner and a little more quickly than we have allowed for. This risk may materialise if the housing market turns around more sharply than we expect, particularly in Auckland, or if recent surveys showing a lift in inflation expectations develop into genuine price pressures across the economy.

The OCR will rise more quickly during the second half of 2012 to reach 4.75% by year-end. We expect a peak of about 6% in the OCR during 2013 as the Reserve Bank reacts to the effects of strong export prices and earthquake rebuilding work on GDP growth and inflationary pressures.

With spare capacity in the economy being well and truly exhausted by 2013, we expect more "normal" interest rates to prevail over the second half of our five-year forecast period. Bill and bond rates are likely to hold at around 6.0-6.5%, with mortgage rates in the 7.5-9.0% range. The yield curve will be considerably flatter and we are likely to see a higher proportion of mortgage lending back on fixed rates again.



Graph 2.2

Labour market tightness to return

An accelerating economic recovery will reduce the unemployment rate over the next five years, with a shortage of skilled labour expected to appear in the second half of 2012.

New Zealand's unemployment rate remained high throughout 2010 and into the first quarter of 2011. Weak economic growth and elevated levels of uncertainty had convinced firms to hold back on hiring – making it relatively easy for firms that needed staff to find them.

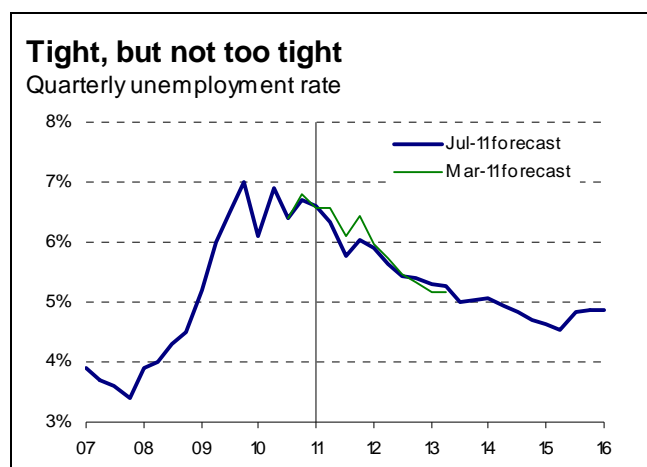
However, there are already signs that areas of the labour market are becoming tight. The NZIER's latest Quarterly Survey of Business Opinion stated that firms were finding it as difficult to find skilled staff as it was during the first half of 2008, when the unemployment rate was only 4%.

We do not expect the labour market as a whole to be particularly tight during the next five years. However, the uneven nature of the economic recovery implies that there are some industries and skill sets where we expect the labour market to tighten considerably – even within the next year.

Skilled or technical staff are expected to be the hardest to find. Employment surveys are already suggesting that IT staff are difficult to find. Furthermore, the recent strong increase in investment will ensure that there will be strong demand for workers with specific computer or machinery skills.

From 2012, there will be significant shortages of labour in the construction industry. Even before construction work begins in Canterbury, the lift in demand for architects and engineers will outstrip the capacity currently available in New Zealand.

However, with consumer spending relatively slow to recover and significant spare capacity in the industry, we would expect the labour market in the retail industry to remain loose.



Graph 2.3



Consumers have hit rock bottom

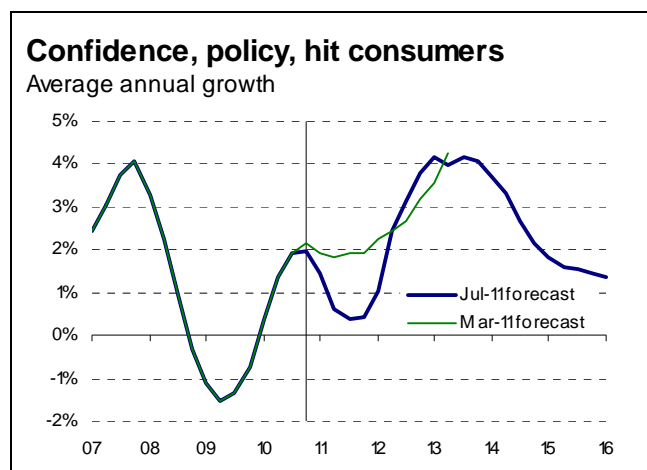
Consumer spending has struggled during the past year, but is soon expected to turn the corner – with rising disposable incomes the catalyst.

Our immediate outlook for consumer spending over the next year has taken a hit during this set of forecasts. Our forecasts published in March were only able to take a superficial look at the impact of the Christchurch earthquake on spending. Furthermore, they were released before the Japanese earthquake, which has had a significant negative impact on the availability of manufactured goods in the near term. As a result of further work looking at both of these disasters, and also the impact of the GST increase on consumer behaviour, we have revised down growth in the volume of consumer spending to 0.4% during the 2011 year.

Having said all that, we believe that most of the weakness in consumer spending has already occurred. Although consumers are currently hesitant to spend, disposable incomes have been increasing and credit has become more widely available to households. With a boost in spending likely during the Rugby World Cup, we expect consumer confidence to improve and retail spending to begin rising quickly from its current low level.

Throughout 2012, an improving labour market, rising disposable incomes, and favourable prices for consumer goods are all factors that will lead to a significant increase in consumer spending.

Following two years of strong spending growth, we expect consumer spending to pull back during 2015/16. High interest rates, a weak housing market, and a falling New Zealand dollar will limit the willingness of consumers to get out and spend.



Graph 2.4

Who would want Bill English's job right now?

Luckily the damage done in the latest round of aftershocks in Christchurch will add little to the government's exposure, but there is still a lot of red ink to come for the government's books.

Reinsurance excesses, damaged infrastructure from the Canterbury earthquakes, the lacklustre economic recovery, and expensive policy prescriptions have conspired to push the OBEGAL deficit to an estimated 8.2% of GDP for the year to June 2011.

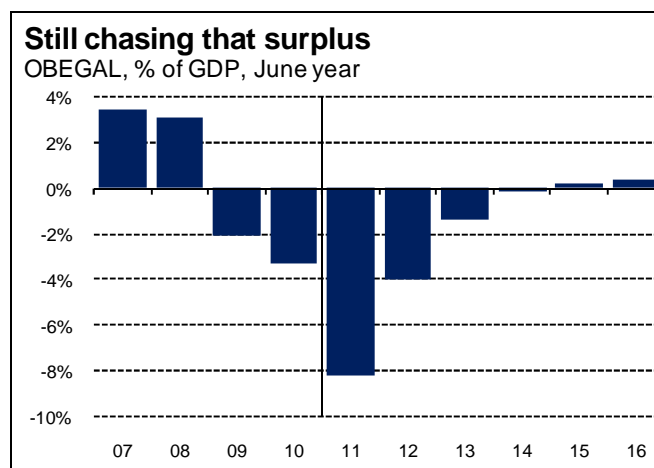
At the budget in May, The Treasury estimated the cost to the government from the earthquakes would be just under \$9bn. This estimate does not include the effect of lower tax revenue owing to the economic impacts of the quake. The cost of the quakes will add about three percentage points to crown debt (as a percentage of GDP), with some of the cost being borne by state owned enterprises and so not adding to debt.

The government will contribute 60%, or about \$800m, of the cost of rebuilding Canterbury's infrastructure. Buying out properties is likely to cost over \$1bn once the orange zone is assessed.

Owing to the sorry state of the government's books, Bill English is putting pressure on departmental baselines once again. Further job losses are expected in the public sector over the next year, which will take some confidence out of the Wellington job market.

We expect a small government surplus in 2015, and our forecasts include moderate tax adjustments and spending increases in the 2014 budget before that year's election. The modest forecast surpluses mean that we are unlikely to see the election lolly scrambles of the recent past repeated.

Crown debt will peak at around 35% of GDP, which is not large by global standards, but is significant when taken in tandem with New Zealand's high level of private sector debt. Furthermore, if the economy does not produce several years of solid economic growth in the second half of this decade, debt could peak at a much higher level during the next downturn.



Graph 2.5



Quakes and dollar dominate tourism outlook

The long-lasting impact of natural disasters and the high New Zealand dollar will limit tourist arrival growth in the next five years.

The earthquakes in Christchurch in February and Tōhoku (Japan) in March had a significant negative effect on tourist arrivals to New Zealand, with arrivals falling 12% between January and March (seasonally adjusted).

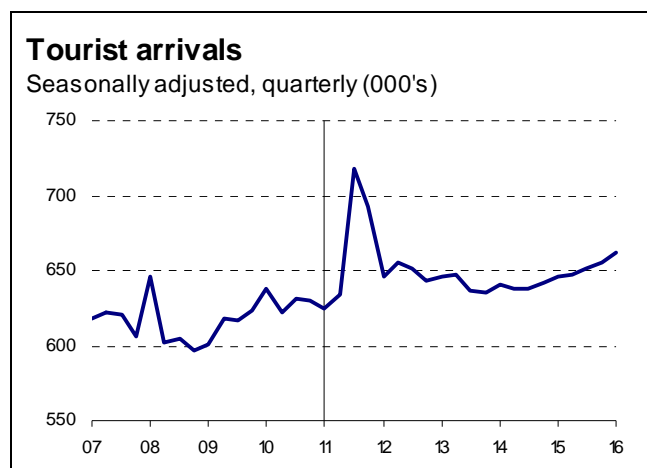
Although tourist numbers have since partially recovered, we expect visitor arrival numbers to stay lower than they would have otherwise during the next year. With the Rugby World Cup taking place in September, we predict tourist arrivals in the year to March 2012 to be up 7.3% from a year earlier. However, excluding the impact of the Rugby World Cup, arrivals would actually be down 1.2%.

Tourist numbers are expected to decline during the following two years, with arrivals in the March 2014 year down 4.9% from March 2012, compared to the 0.9% decline we expected in our March forecasts.

There are a number of reasons for our softer tourism outlook. The main driver is our much higher exchange rate forecast. If the exchange rate was to stay at current levels, tourist numbers would be only about 1.1% lower in March 2014. If the TWI was to fall to its post-1985 average of 61, arrivals would actually be 5.4% higher.

Even though the high exchange rate will strongly limit the number of tourist arrivals during the next five years, the entry of Jetstar and Air Asia X into the market and increases in capacity by Air New Zealand will ensure that arrival numbers from Asia (excluding Japan) are relatively strong.

The loss of the Christchurch tourism market, the persistent weakness of the Yen, and the destruction in Japan following the Tōhoku quake are expected to have a relatively long-term impact on Japanese tourist arrivals. Our forecast for arrivals from Japan in the March 2015 year has been revised down to 85,000 people – roughly in line with March 2011 arrivals, and 32% below our previous forecast.



Graph 2.6

Quake rebuild stretches capacity, increases costs

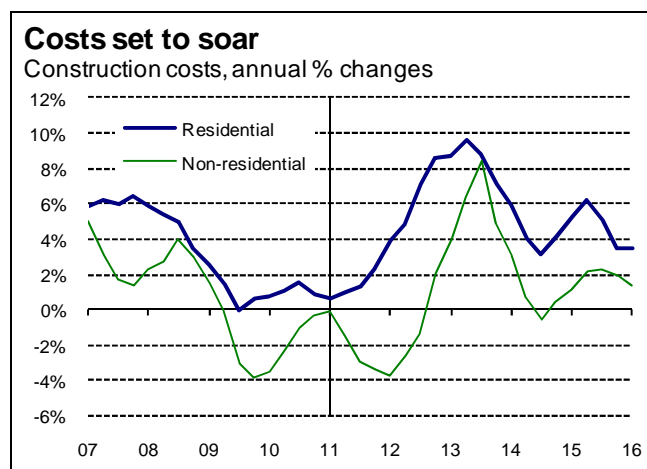
Rebuilding following the Canterbury earthquakes will place considerable upward pressure on building costs between 2012 and 2014 as capacity in the industry is stretched.

Rapid growth in residential and non-residential building activity during parts of the last decade led to very strong growth in construction costs. Both residential and non-residential building cost inflation peaked at 10%pa during 2004 as capacity constraints led to significant increases in labour costs and, to a lesser extent, material costs. Infrastructure cost inflation peaked at 6.9%pa in 2005 as the peak growth rate in activity was slower, and infrastructure work is less labour-intensive than the other construction types.

Total construction work put in place across the three building types grew by 50% between June 2001 and March 2006. Our forecast of a cyclical upturn in construction activity overlaid with the necessary rebuilding work in Christchurch is likely to drive a similar-sized upturn in building activity during the next five years. Between June 2011 and December 2015, we are forecasting a 49% increase in total work put in place.

Another period of very strong growth in construction activity implies that there will again be upward pressure on building costs. We are forecasting that residential building cost inflation will gradually accelerate over the next two years to peak at 9.6%pa in mid-2013. Residential building costs will continue to rise above the rate of general consumer price inflation throughout the forecast period as labour constraints remain an issue.

Non-residential building costs are likely to remain subdued in the near-term as a lull in building activity this year maintains some downward pressure on prices. The strong New Zealand dollar will also help keep a cap on the price of materials. However, as non-residential building work picks up during 2012/13, we expect more rapid price rises for non-residential construction as well. We predict a peak in non-residential cost inflation of 8.5%pa in the second half of 2013.



Graph 2.7



3. RESIDENTIAL BUILDING AND PROPERTY

Quake work dominates cyclical improvement

The housing market is showing signs of stabilising and possible recovery after its downturn during 2010. Sales volumes have been improving in fits and starts since October last year – initially led by the Auckland market, but the improvement has spread to other regions as well over the last month or two.

Whispers of a tightening rental market in Auckland have continued as well, and these anecdotes are now starting to be backed up by faster rental inflation. The pressure on landlords to improve their cash-flow as a result of last year's tax changes will also be contributing to bigger increases in rents.

House prices are still down from a year ago, but prices will start to rise by late 2011, and house price inflation is forecast to reach 6-7%pa during 2012. Perceptions that housing is still relatively expensive, the need among landlords for increased rental yields to make up for the tax changes, and rising mortgage rates will combine to prevent more rapid increases in house prices. House price inflation will remain positive between 2013 and 2015, but property values may struggle to rise in real terms.

The emerging improvement in the real estate market will not show up in residential building activity until 2012. We forecast that consent numbers will remain below 14,000pa until the March 2012, but thereafter growth will accelerate and could get as high as 50%pa during 2013. More positive cyclical conditions will help to boost activity around the country, and rebuilding work in Canterbury will contribute almost 3,000 additional houses in the year to March 2014. Indeed, if the effect of Canterbury is stripped out of the numbers, the cyclical upturn is revealed as relatively modest given the under-building that has occurred over the last three years, an outcome that is partly due to ongoing issues around obtaining funding for property development. It is likely to be 2013/14 before the annual build rate significantly exceeds underlying demand. We expect the annual consent total to peak at about 27,600 in 2015.

Residential alterations and additions work looks set to dip in the near term, reflecting recent weakness in the housing and labour markets. Activity over the next five years will be dominated by repair work in Christchurch. Even with over half of the quake repair bill not being captured in the consent process, A&A activity looks likely to exceed its previous peak in 2006 by more than 20%. The underlying trend in A&A activity will be less positive, with modest levels of turnover and capital growth in the housing market preventing growth in A&A work being as strong as was the case at times last decade.



Rents may give first sign of a turnaround

There have been more indications of rising rents over the last few months, and as the economy continues to improve, landlords will be looking to boost their yields to compensate for the tax changes of the last year.

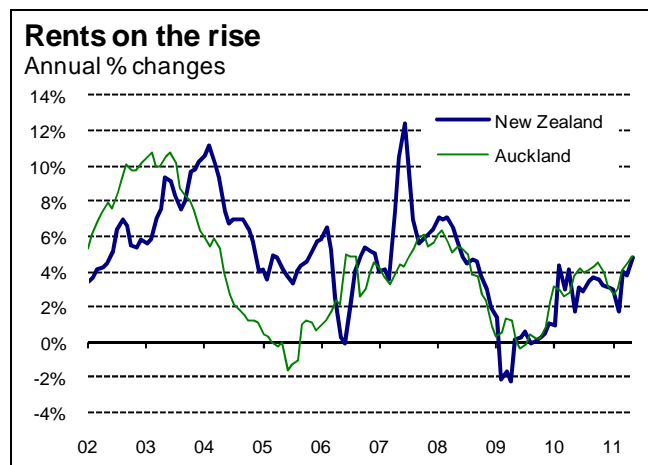
We were dismissive of upbeat media reports about the Auckland market earlier in the year, but upward pressure on rents is now emerging, with rental growth in the region reaching a three-year high of 4.9%pa in May.

The loss of around 12,000 houses around Christchurch will have had a profound effect on the relative demand and supply of accommodation in the city and surrounding areas. The departure of some people from Christchurch, either temporarily or permanently, will be having some effect on the availability of accommodation in other towns as well.

The government's tax changes have negatively affected the future cash-flow of landlords and mean that investors will now require a higher yield from their properties. The prolonged slow patch for the economy has made it difficult for landlords to raise rents, and although nationwide rental inflation had lifted to 4.8%pa by May, some investors have been looking to reduce their holdings, placing some downward pressure on property prices at the bottom end of the market.

As the economy improves over the next 18 months, we expect rents to rise as landlords look to lift rental yields. Rents in Auckland and greater Christchurch are likely to come under the greatest upward pressure given the relative shortage of housing in those two cities. However, rents in provincial areas may also start to push up as spending from the agricultural sector filters through these regions and boosts income and economic activity on a broader basis.

Even with a pick-up in rental inflation throughout 2012 and into 2013, any increase in rental yields will be limited by house prices rising at the same time. With residential building activity struggling to catch up the under-building of the last three years, conditions are likely to be conducive to further rises in rents and rental yields beyond 2013.



Graph 3.1



Property buyers returning slowly

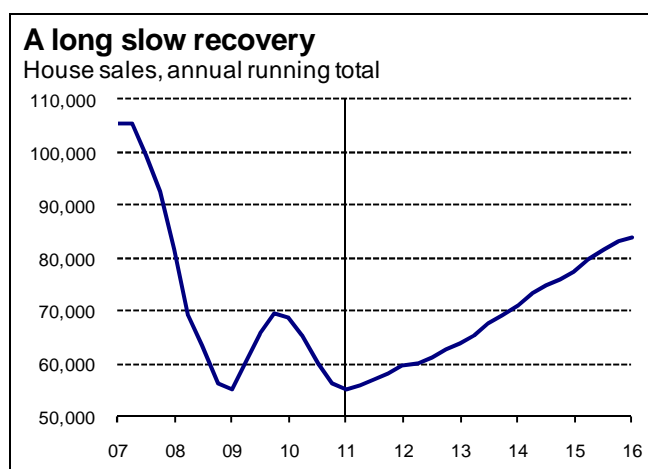
House sales will recover from their very current very low levels throughout the forecast period, but poor housing affordability and rising interest rates will prevent the pick-up from being a particularly rapid one.

Although activity in the housing market has gradually improved since October last year, sales volumes are still 27% below the average of the last decade. The market's lift since late 2010 has largely been driven by Auckland, where a relatively strong economic performance, low levels of building activity over the last six years, and low mortgage rates are leading to increased confidence in the housing market and beginning to push up buyer demand.

Despite the very low mortgage rates available, anecdotal evidence suggests that investor demand for property remains weak as a result of the tax changes that came into force on April 1. The desire of some investors to reduce their holdings has led to downward pressure on property prices at the lower end of the market. Although some first-home buyers have been attracted by the possibility of bargains, the soft labour market is stunting overall growth in housing demand at the moment.

Slowing population growth will continue to limit the rate of pick-up in house sales activity over the next 9-12 months. Net migration will start to turn around in the first half of 2012, but this more positive influence will coincide with the dampening effect of rising mortgage rates. So although growth in house sales is likely to remain positive over the next couple of years, our forecast peak in growth is a modest 12%pa in 2014.

At a regional level, Auckland is likely to be one of the stronger performers in the near-term as sales activity recover from the very low levels of the last few years. We expect provincial areas to perform well during 2012 as the flow-on effects from farm incomes boost their economies, and a recovery in activity in Christchurch is likely during 2012/13 as the ground hopefully settles down, insurance payouts are made, and an influx of labour arrives in the city to assist with the rebuilding process.



Graph 3.2

House price rises nothing to get excited about

House prices are set to rise again during 2012 and 2013, but we forecast price growth to peak below 7%pa as housing remains overvalued.

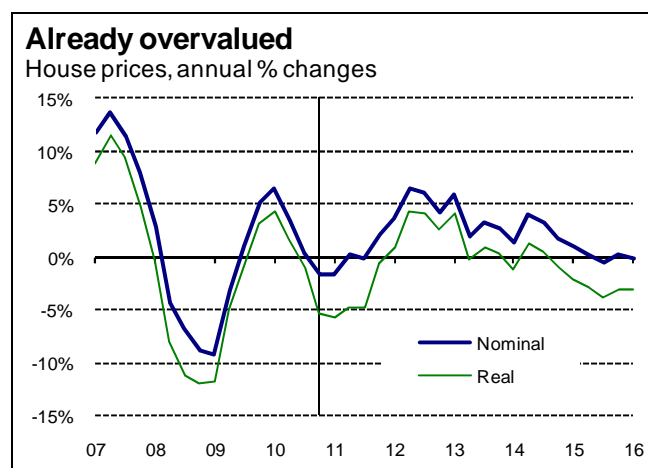
House prices have stabilised over the last few months. One of the best performers has been the Auckland market, where it appears that the supply of property for sale has been tightening up, resulting in some modest upward pressure on prices emerging. There have also been early post-quake signs of displaced demand from Christchurch pushing up demand and prices in the neighbouring Waimakariri and Selwyn districts.

Nationally, though, the tax changes announced in last year's budget are still constraining investor demand and weighing on property prices. The negative effect of the tax changes will wane by the end of 2011, and we expect house prices to finish this year up 2.1% from a year earlier.

We estimate that house prices are currently 10% overvalued, compared to an overvaluation of 20% at the end of 2009 and 41% in mid-2007. Although housing is now much more affordable than it was in 2007/08, the fact that it is still overvalued suggests there is limited scope for house price appreciation over the next five years. We expect house price inflation to average just 2.3%pa between now and 2016, which equates to a 0.5%pa fall once consumer price inflation is taken into account.

The strongest house price growth is likely to occur within the next 1-2 years – we forecast a peak in growth of 6-7%pa in 2012/13. The pick-up will primarily be driven by the shortage of housing in Auckland and the mismatch of demand and supply in Canterbury mentioned above.

Price growth will hold between 1% and 4%pa through until early 2015, underpinned by higher net migration and solid economic growth. But expectations of capital gains will be limited as mortgage rates become less favourable. The tighter tax treatment of housing will help maintain a cap on house price growth over the next five years, and we also see a chance that the supply of capital from Asia that helped fund last decade's housing boom will start to become less freely available over the medium-term.



Graph 3.3



Rising demand to exacerbate looming shortage

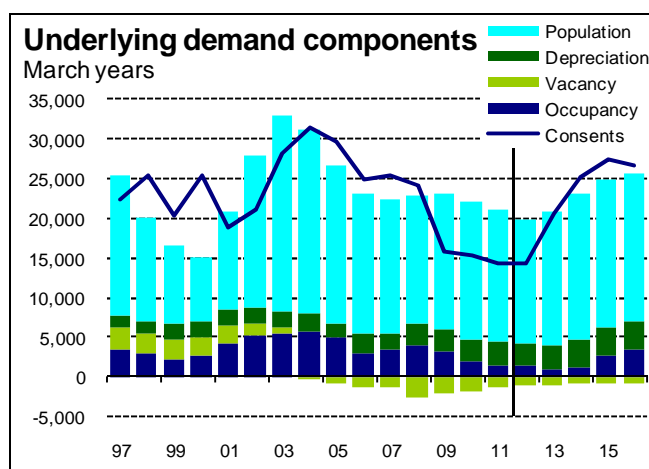
Underlying demand for housing has been constrained by economic conditions over the last two years, but that has not prevented a shortage starting to appear given the very low levels of residential building activity.

Since 2009, the occupancy rate (number of people per dwelling) has been significantly higher than simple modelling of the age profile of the population would suggest. Between December 2008 and March 2010, the occupancy rate rose from 2.664 to 2.679 people per house as the weak economy and lack of new building activity forced the population to squeeze together more tightly than would normally be the case.

The occupancy rate has been static over the last 12 months, despite some increase in the rate of household formation. Prolonged uncertainty about the turnaround by the economy and persistently low levels of residential building have prevented the occupancy rate from resuming its long-term downward trend. Given that a rapid rebound in residential construction appears unlikely in the near-term, and that there is likely to be more crowding in Christchurch than normal for some time, it could be 2014 before we start to see any noticeable fall in the occupancy rate again.

The destruction of around 12,000 houses in Christchurch represents about 0.7% of the national dwelling stock, and could send the nationwide vacancy rate down from 4.9% to 4.3%, its lowest level since the mid-1990s. It is unlikely that Canterbury has a sufficient number of vacant dwellings to absorb the displaced households, let alone in the right locations – we estimate that there were about 9,200 vacant dwellings in Canterbury at the end of last year. Some of the population will leave the region for other parts of New Zealand or Australia, but pressure on the housing stock in Canterbury will be intense over the next five years.

We estimate that underlying demand for new houses will lift from 18,800 in the year to March 2012 to 24,800 by March 2016. Improving funding conditions over the latter part of the forecast period will aid the industry's ability to meet strengthening underlying demand over the medium term.



Graph 3.4



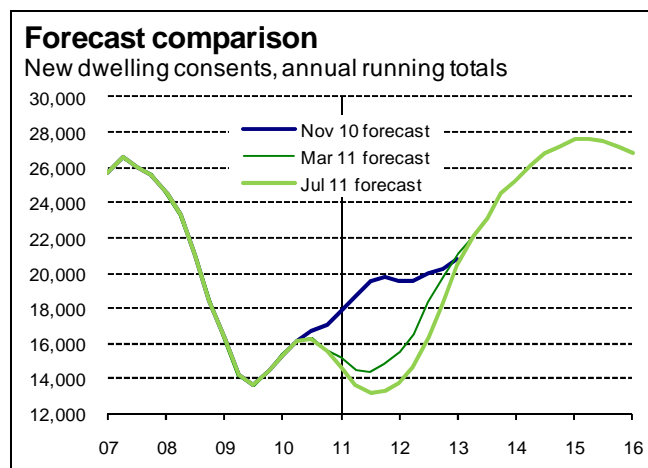
Further weakness before rebuilding kicks in

Funding conditions and cyclical weakness will drag residential consent numbers lower throughout the rest of this year, but rebuilding work following the Christchurch quake will herald a prolonged pick-up in building activity between 2012 and 2015.

Although the existing housing market is showing signs of stabilising, it will be early next year before house price growth starts to accelerate. As a result, we do not expect any significant pick-up in dwelling consent numbers before early 2012. Consent numbers are likely to edge up throughout the remainder of 2011, but are likely to remain below the levels from a year ago until the June quarter next year.

Even with the housing market beginning to show greater signs of life in 2012, a significant proportion of the upturn will initially be driven by the Canterbury rebuild. By mid-2012, we estimate that about 60% of the lift in the annual consent total will have been driven by quake rebuilding work. Although quake rebuilding work will continue to accelerate through until mid-2013, the rest of the country will begin to feel the positive effects of the improving housing market and stronger economy. We forecast that the annual consent total will rise from 14,627 to 22,010 between mid-2012 and mid-2013, with around one quarter attributable to rebuilding work in Christchurch and the remaining three quarters indicative of the nationwide cyclical upturn.

We estimate that underlying demand for new dwellings will average 22,000pa over the five years to March 2016. Our consent forecasts do not see the annual build rate significantly exceeding underlying demand until 2013/14, as the more difficult funding conditions following the finance company collapses will continue to have a negative effect on the rate of residential development. Furthermore, limited rises in house prices over our forecast period will dampen the signal for substantial increases in residential building activity. We are forecasting a peak in the annual consent total of 27,600 in June 2015, or about 25,400 if quake rebuilding work is excluded.



Graph 3.5



Needing more confidence in apartments

Apartment building is at very low levels, and although increased demand for housing in Auckland will help drive up activity over the next five years, consent numbers will still be well below the peak reached in 2004.

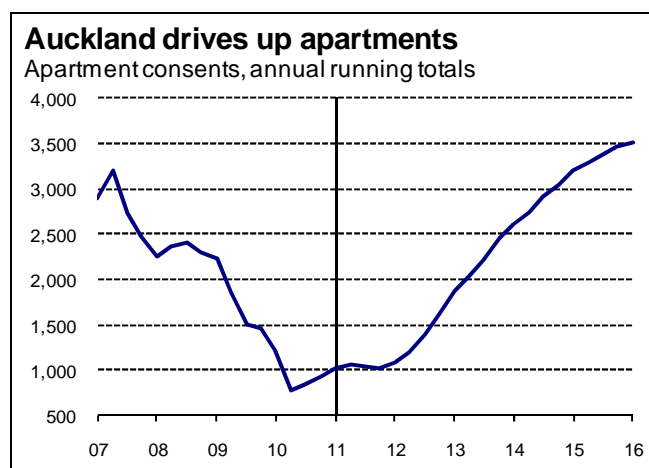
Although apartment consent numbers have recovered from their 16-year low of 763 recorded in the year to October 2010, immediate prospects for substantial new developments in this area remain limited. The volatile nature of the apartment market has meant that finding potential funders for new buildings has been incredibly difficult given the financing issues being experienced across the entire construction sector.

Buyer demand levels will remain constrained by the unwillingness of banks to lend substantial amounts on apartments. The tax changes implemented over the last year are also likely to be placing some downward pressure on apartment values given the relatively high proportion of apartments that are rentals. However, given the substantial correction that the apartment market has undergone during the last 3-4 years, we suspect that further price falls will be reasonably limited.

On a more positive note, the new Unit Titles Act should improve the transparency of the processes and costs involved with apartment ownership, maintenance, etc.

Apartment consent numbers are likely to stay below 1,100pa until early 2012 as confidence in the apartment market remains weak. Auckland's improving property market in 2012/13 may lead to more apartment building activity, but funding issues for developers will still provide a major limitation on projects going ahead. Much more discernment among buyers will also force developers to focus on higher-quality projects compared with developments during the first half of last decade.

Notwithstanding the funding issues and focus on quality over quantity, we expect a consistent upward trend in apartment consent numbers between 2012 and 2016. By March 2016, we expect the apartment consent total to top 3,500pa, still well short of the peak of 6,586 recorded during 2004.



Graph 3.6



The quake's giant repair bill

Businesses involved in alterations, additions, and renovation work face a huge pipeline of work as a result of the Canterbury earthquakes.

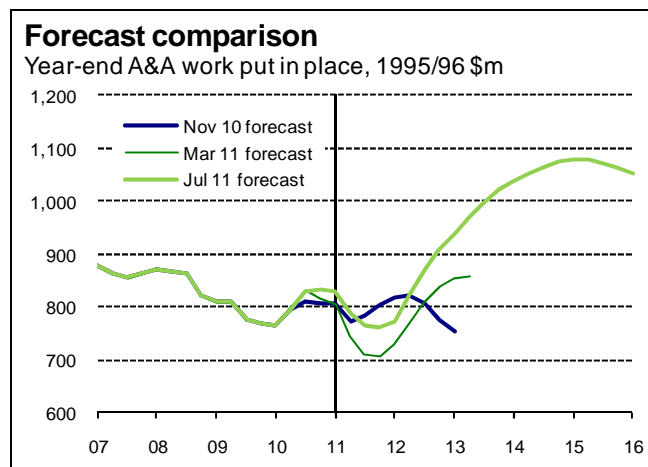
Our initial estimates of the residential repair bill following Christchurch's earthquake in February were on the low side. Our much higher estimate of the repair bill is reflected in our forecasts of alterations and additions work as well, with growth in activity predicted to peak at 22%pa in the year to March 2013. By that stage, the volume of work being undertaken nationally will have surpassed the previous record high posted in 2006.

Throughout the rest of 2011, before quake-related work really swings into action, there will be some downward pressure on the level of A&A work. Consent volumes in the March quarter were 15% down from March 2010, reflecting the weak housing market, the soft economy, and uncertainty about job and income prospects. We expect the annual total of A&A work to dip to an eight-year low by the end of 2011.

A more buoyant housing market and strengthening income growth should result in more demand for A&A work by mid-2012. But cyclical growth will be much more modest than our headline numbers suggest – excluding quake-related work, we expect A&A activity to grow at 0-5%pa between 2013 and 2016. Weak house price inflation will prevent the rapid growth in underlying activity that occurred between 2002 and 2006.

We also note the progress that the government has been making towards solving the leaky home problems that have blighted the housing market over the last decade. Remedial work associated with leaky buildings has been present in A&A activity over the last nine years. However, we recognise the potential for more leaky home work to take place over the next five years and have factored this activity into our forecasts as well.

We expect nationwide A&A work to peak in 2015 at more than 20% above its 2006 high. Note that our forecasts of A&A activity assume that only 45% of quake repair work will be required to go through the consent process and be captured in official work put in place numbers.



Graph 3.7



4. NON-RES BUILDING AND PROPERTY

Sluggish now, but big improvement starts in 2012

The slowdown in the broader economy during the second half of last year will prevent any further growth in non-residential building activity this year. The non-residential property market is traditionally one of most lagging parts of the economy, and the emerging optimism about property prices that had appeared during 2010 has been tempered since the start of 2011.

Vacancy rates for lower-grade office, retail, and industrial property remain relatively high and will limit the need for significant levels of building activity over the next year. Funding conditions for property development remain difficult, and most projects that are going ahead have pre-committed tenants and cashed-up developers. Speculative building is still off the radar and the pipeline of projects in some areas such as office construction looks decidedly lean.

An improving labour market and a pick-up in retail spending activity during 2012 and 2013 should start to facilitate more commercial property development. Industrial construction will continue to be underpinned by demand for food processing facilities, and the favourable exchange rate with Australia may lead to expansion plans by some other manufacturers over the next couple of years. Investment in various coal processing facilities in Southland may also boost industrial construction activity further out in our five-year forecast period.

Initial fears following the Christchurch earthquake that the government might reallocate money away from school and hospital building appear to be unfounded. We expect government spending in these areas to remain strong throughout the next five years, and plans remain in place to build a new prison in South Auckland as well.

Prospects for other accommodation building are still underwhelming. The exchange rate and middling growth prospects for developed economies may limit growth in visitor numbers.

Rebuilding work following the Christchurch earthquake will boost construction activity over the medium-term, most particularly for commercial, education, accommodation, and miscellaneous building. Without the Christchurch effect, we would expect 31% growth in non-residential work put in place between June 2011 and December 2015. The earthquake rebuild pushes our forecast for growth during this period up to 43%.



Another soft patch for property prices

Property prices softened again in the first quarter of this year following the economy's weak performance in 2010, a factor which will limit the business case for new building construction in the near term.

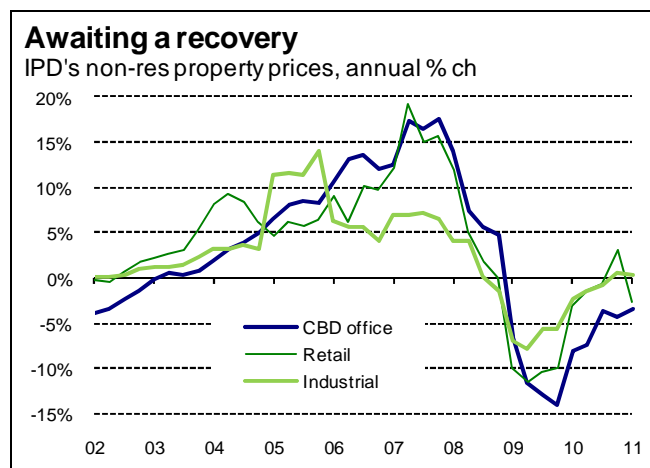
Non-residential property prices dipped in the first quarter of 2011. IPD's composite index showed a 2.2% drop in prices over the year to March, dragged down by a 2.7% annual fall in retail property prices. CBD office prices were 3.5% lower than a year earlier, while industrial property prices were up 0.3% from a year ago.

The non-residential property market tends to lag broader economic activity, so the renewed dip in property prices is not surprising given the economy's sluggish performance in the second half of 2010. Improving GDP growth should help arrest the property price falls by the end of 2011. Investor demand for property is improving, and vacancy rates appear to have stabilised following substantial increases over the last two years.

There continues to be a sharp divide in tenant demand for space across different grades of property.

- Vacancy rates in prime and high-grade office space remain lower than vacancy rates for lower-grade space, reflecting the larger and typically more robust businesses that generally occupy the top-quality space.
- Modern industrial buildings have generally been well occupied, but older warehouses have struggled to retain or attract tenants throughout the economic downturn.
- The strong presence of national and international chains in malls and bulk retail centres has limited vacancies in these retail formats, but vacancy rates are higher for strip retailing as small firms have struggled to withstand the prolonged patch of weak spending.

The saving grace for property owners over the last two years is that, where tenants have been retained, relative yields have remained attractive given record low interest rates.



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Farms and Christchurch drive miscellaneous growth

The completion of stadiums ahead of the Rugby World Cup will lead to a small drop in miscellaneous work over the next few quarters, but a pick-up in farm building and a large amount of quake repair work will drive a strong pick-up in activity between 2013 and 2015.

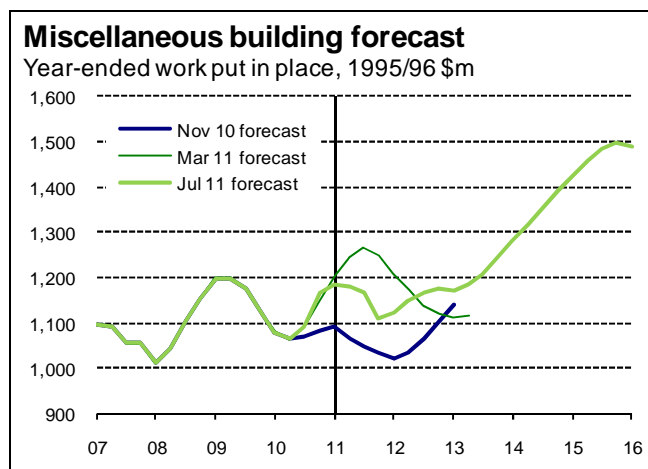
Momentum in miscellaneous work put in place eased substantially in the first quarter of 2011, with annual growth in the volume of activity slipping from 29% to 8.3%pa. With the annual total of consents having dropped 16% over the last 12 months, we expect to see a dip in the amount of work being completed by the end of this year.

The weakness in consents in recent quarters has been driven by a decline in social, cultural, and religious building. Stadium building work ahead of the Rugby World Cup has virtually been completed, with just the finishing touches left to be put on Forsyth Barr Stadium in Dunedin.

In contrast, consents for farm building have shown signs of starting to lift again following the substantial fall in activity since the end of 2008. In broad terms, we expect a pick-up in spending by farmers to materialise over the next 12 months. Investment in new buildings is likely to be an important component of that pick-up, although we note that farm building activity is unlikely to reach the highs of three years ago when dairy conversion numbers were very high. With commodity prices for beef, sheep meat, and wool relatively attractive at the moment, the demand to switch to dairying will be weaker than in 2007 and 2008.

A significant amount of quake rebuilding work in Christchurch will fall under the miscellaneous building category. Repairs to AMI Stadium, the QEII complex, Christchurch Town Hall and Convention Centre, and a large number of churches will help boost activity from 2013 onwards.

Outside Christchurch, the largest single project is the proposed national convention centre in Auckland. This development looks likely to go ahead in the latter part of our forecast period.



Graph 4.2

Commercial pick-up delayed

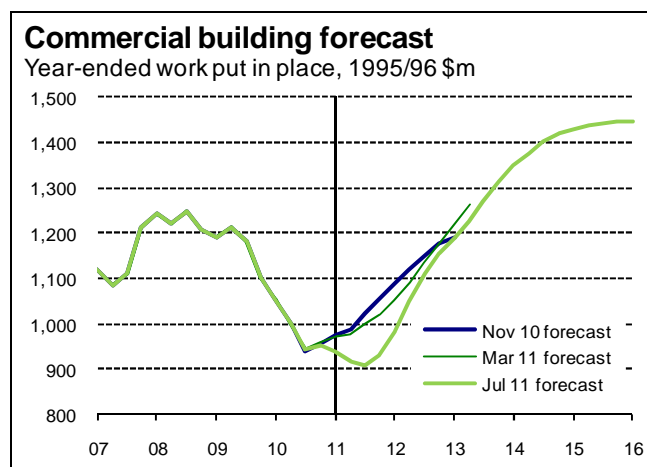
Commercial construction will remain under pressure throughout the rest of 2011 before an improving economy and rebuilding in Christchurch boost activity.

Last year's economic slowdown will delay any recovery in the commercial property market, with firms able to make do with their existing office or retail space for longer given weak demand conditions. A substantial amount of lower-quality office space remains available in Auckland and Wellington, while retail space outside the malls and bulk retail centres is also struggling. The volume of commercial consents in the year to March 2011 was down 24% from the previous 12 months.

Office building projects have generally been put on the backburner – the weak economy and lack of funding do not lend themselves to speculative projects going ahead. ASB's new headquarters in Auckland and the proposed Kate Sheppard Exchange for the Ministry of Social Development in Wellington are the main projects of note in the short-term. Prospects for the future balance of the Auckland market have improved given ANZ's decision not to go ahead with a new development on Customs Street.

There are some signs of retail development around Auckland picking up a bit, but profitability in the sector overall remains tight. The trend towards internet retailing has gained momentum over the last three years as shoppers have increasingly watched their spending and sought bargains. Retail property owners and developers will need stronger evidence of better spending and profits before committing to new developments.

Christchurch's rebuild will boost commercial construction in the second half of our forecast period. Early guesses suggest that around 20% of businesses may not return to the CBD, while most firms intending to return would prefer buildings of five storeys or less. Significant changes in where people live, with large areas abandoned and new subdivisions rapidly populated, will also have implications for spending patterns and could foster retail development and expansion in some areas.



Graph 4.3



Demand for schools still strong

Pressure on tertiary institutions will encourage more education building in the next two years, while the effects of the earthquakes in Christchurch will also demand more school building work over the medium term.

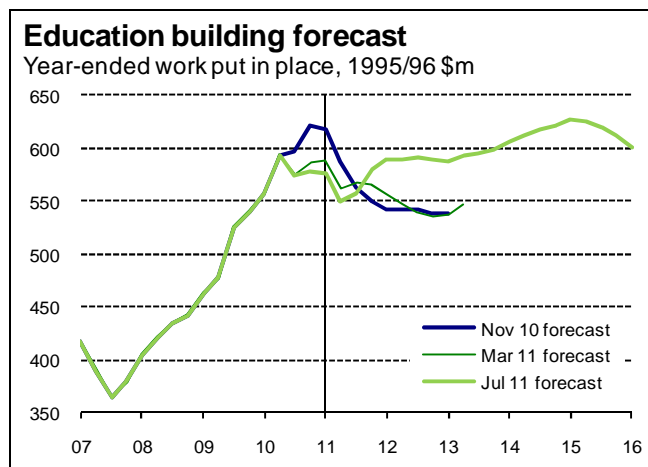
The volume of education building consents rose by 4.7% for the year ended March 2011, a healthy result given the weakness in consents that had appeared around mid-2010. Last year's dip in consents will lead to a small dip in work put in place through the middle part of 2011.

The lack of any significant recovery in the labour market to date will maintain pressure on education facilities into 2012, as students extend their study programmes due to the difficult employment environment. Projects are in the planning stages at a number of tertiary institutions around the country and many are likely to get underway during 2013.

As was the case with hospital building, we saw a risk for government funding for school building to be cut back following the earthquakes in Canterbury and their effect on the fiscal position. However, education appears to be one of the "untouchable" areas of government spending, and following the budget in May, we are now more confident that education construction activity will hold up over the medium term.

The quakes have also had a significant effect on prospects for education building in Christchurch in two other ways. Firstly, there is a significant amount of damage to some schools that will need to be repaired. As with a lot of other quake work, some of the immediate work will be "quick fixes", with more permanent solutions pursued over the medium term. Secondly, the significant shifts in population away from the most heavily affected eastern parts of the city will stretch resources in other parts of the city. It is likely that some schools in the north-western suburbs of Christchurch may require extra classrooms, while new subdivisions that are rapidly populated may also need completely new schools to be built.

We expect education building to edge up throughout most of the forecast period and reach new record highs between 2013 and 2015.



Graph 4.4

More hotel building some time away

Immediate prospects for the accommodation sector after the Rugby World Cup look shaky, but prison building, budget airline capacity, and quake rebuilding work should boost construction between late 2012 and 2015.

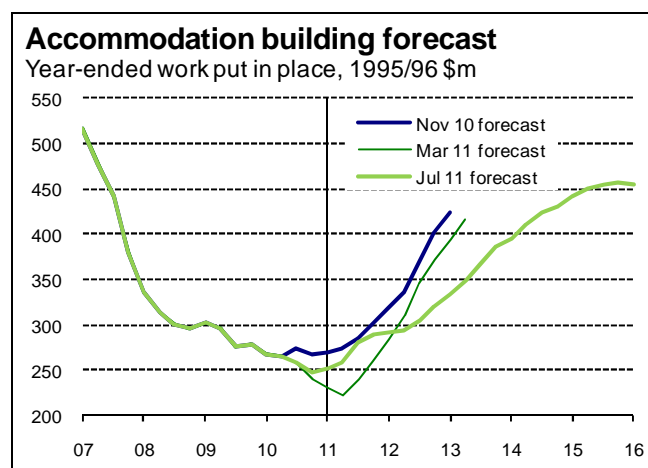
The Rugby World Cup is almost upon us and the hospitality sector is preparing to be rushed off its feet for a six-week period in September and October. There have been a small number of new hotels built ahead of the Cup, but underlying prospects for the tourism sector remain questionable. The high New Zealand dollar and mixed growth outlook for developed economies cast doubts over the potential for growth in visitor numbers. The volume of accommodation consents in the year to March 2011 was down 38% from the previous 12 months.

One of the interesting points to have come out of tourism data in recent months is the importance of airline capacity in influencing visitor numbers. The addition of cheap flights to Singapore and Malaysia has boosted tourist numbers from those countries. With budget airlines increasingly popular with Asian holidaymakers, there may be scope to further expand the Asian market via this method.

Greater airline capacity from Australia to Queenstown is also cementing ongoing growth in the Central Otago market, and the town is likely to continue to be a significant driver of accommodation construction.

A significant amount of accommodation capacity in Christchurch will need to be replaced following the quake. However, the negative effect of the disaster on tourists' willingness to visit the city will limit the urgency of reconstruction. Visitor numbers to Christchurch are only likely to return to normal once the CBD has been more or less rebuilt.

The government's plans to build a new prison at Wiri in South Auckland remain in place, with construction expected to take place between late 2012 and early 2015. Rebuilding work in Christchurch and some additions to the accommodation stock in other parts of the country are likely to add to the upward momentum in building activity between 2013 and 2015.



Graph 4.5



Industrial fuelled by food and coal

We expect a sustained pick-up in industrial construction over the next five years, underpinned by a need for more food processing facilities, as well as investment by Solid Energy in Southland.

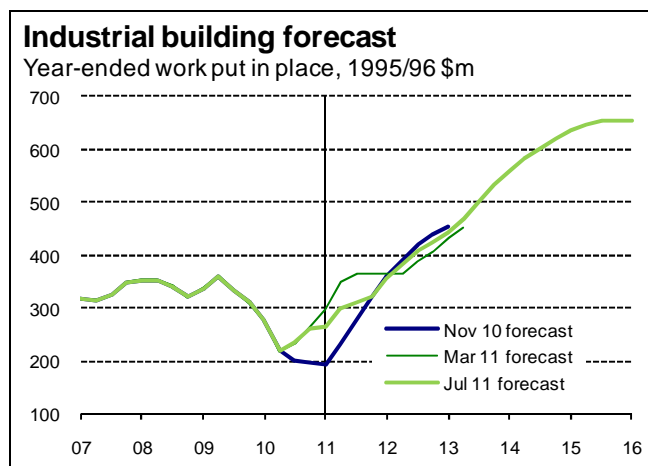
Business NZ’s performance of manufacturing index showed production in May expanding at its most rapid rate in almost a year. Manufacturing data from Statistics NZ suggests that the recent pick-up has been more broad-based than the patchy improvement recorded in 2009, when agricultural-related manufacturing was virtually the sole driver of growth.

Exporters to Australia continue to enjoy the low exchange rate. However, as New Zealand’s economic growth accelerates and interest rates rise over the next two years, we expect the exchange rate with Australia to lift and make conditions for trans-Tasman exporters more difficult.

With much of Christchurch’s manufacturing activity based in the western part of the city, quake damage has been less critical than for most other building types and the disruption to production has been relatively limited.

The industrial property market has shown some increases in leasing activity, but uncertainty about international and domestic growth prospects are curbing further improvement in the market. Building work has also been limited by tight funding conditions, and any projects that are going ahead have pre-committed tenants and are not speculative. But with industrial building activity coming off such a low base, there has been a 40% increase in the volume of consents during the year to March 2011.

As we have noted in previous forecasts, food processing facilities will be a central component of industrial construction going forward. Our view has not changed, although we note the continued discussion about large-scale investment by Solid Energy in Southland for lignite processing, including a \$1.5bn coal-to-fertiliser plant. This project is a key factor driving strong growth in our industrial construction forecasts, which could see industrial work put in place surpass the record high recorded in 1986.



Graph 4.6

A small and temporary dip for hospital building

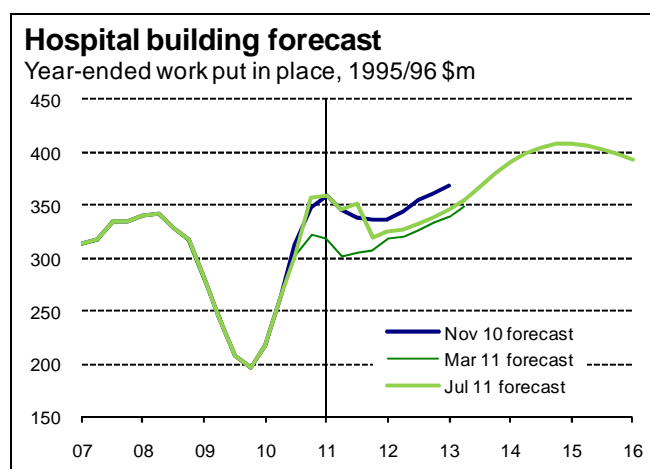
Although hospital building will ease in the near term, with the government committed to spending on health we expect hospital construction to reach new record highs between 2013 and 2015.

The volume of hospital building consents fell 20% over the year to 2011 following a period of very strong growth in late 2009 and parts of 2010. Significant projects continue to take place at a number of sites around the country, including Hamilton, Rotorua, and Whakatane. However, the consent figures suggest that the pipeline of work may ease heading into 2012 and lead to declines of up to 11% in the annual total of activity over the next 18 months. Although this decline is a significant one, it is important to recognise that hospital building work in the last year has been at an all-time high – and so will still be at a high level even after easing over the next 18 months.

Ongoing work at Waikato, Middlemore, and North Shore Hospitals will provide a solid base for activity over the next couple of years. Significant work in New Plymouth is about to get underway, while the potential for a major redevelopment at Grey Hospital remains possible as well. We expect these projects to drive growth of up to 13%pa in hospital building work during 2013/14.

In our last set of forecasts, we noted the potential for the government's difficult fiscal position, as a result of the Canterbury earthquakes, to limit further growth in capital spending on hospitals over the next five years. However, the government's budget in May has suggested that health spending remains a high priority for the government. Consequently, we are less concerned about cutbacks in hospital building work than we were four months ago.

We do note, however, that the proposed redevelopment of Christchurch Hospital over the medium-term may be delayed by other demands on construction resources in the city.



Graph 4.7



No let-up in infrastructure spending

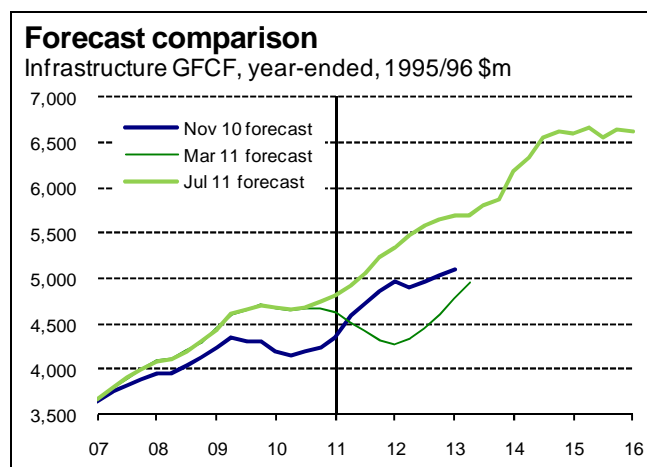
The response to the Canterbury earthquakes will help drive significant growth in infrastructure activity over the next five years, aided by work on the Roads of National Significance and construction of new power stations.

A fuller assessment of the effects of February's earthquake in Christchurch means that we have significantly revised up our forecasts of infrastructure building. Back in March, there were renewed suggestions that there was less infrastructure work in the pipeline ready to get underway. Add in the possibility of some funding being diverted to rebuild Christchurch, and the potential for it to be some months before work in the quake-ravaged city got underway in earnest, and we saw the potential for infrastructure work to ease throughout 2011 before recovering in 2012 and 2013.

It has become clear that the infrastructure repair process in Christchurch will have two distinct phases. The first phase involves quick repairs to restore critical infrastructure to some state of usability. This work has been underway since March and will help drive growth in infrastructure activity throughout 2011 and 2012. Beyond the initial response are more permanent repairs and upgrades to the roading, water, storm-water, wastewater, and electricity networks and the port at Lyttelton. This work will extend over a longer period and could take 5-8 years to complete.

Outside Christchurch, progress continues to be made on the Roads of National Significance, with work in Auckland continuing apace and gathering momentum in Tauranga. Further large sections of the Waikato Expressway are close to getting started, while the Wellington Northern Corridor will also be an important contributor to infrastructure work within the next five years. However, there are early indications that central government funding for spending on other roads may not grow as quickly over the next decade as previous documents might have suggested.

A significant number of power stations have gained approval over the last 18 months, and additions to the country's generation capacity will be an important contributor to infrastructure building over the next five years.



Graph 4.8



5. BUILDING ARTICLES

Guessing how the quake rebuild will pan out

There remains considerable uncertainty about the size and timing of the rebuilding effort required in Christchurch and the surrounding areas. This article outlines our current working assumptions for the timeline of activity across the various construction types.

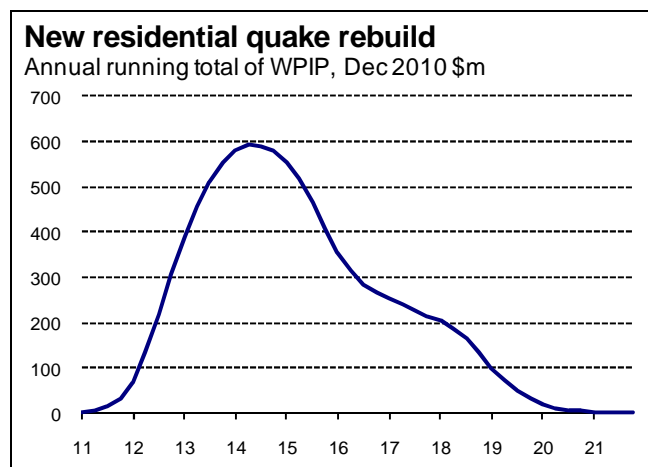
Our very early assessment of February's earthquake in Christchurch was that the damage looked likely to be about 2½ times the extent of the first major earthquake that struck in September last year. Although the aggregate numbers that The Treasury is currently working with concur with the relative effects of the two quakes, we now believe that our baseline assessment of the September quake's cost was on the low side. As a result we have substantially revised up our estimates of the total cost of rebuilding.

Having had more time to develop our projections, we have also worked on developing a more realistic profile of the timing of the rebuild work across the various construction types.

New dwellings

We have allowed for 12,000 houses to be completely rebuilt as a result of the quakes at an average cost of \$210,000 each (this figure excludes any land costs). We estimate that the total construction cost, in December 2010 prices, will be about \$2.5bn.

Recent announcements from the government identifying some streets and suburbs that will not be rebuilt within the next few years indicate that major decision-making processes are gradually being advance. However, the EQC and insurance assessment process remains a drawn-out one. In the case of properties where a house is deemed to be uninhabitable and the damage is estimated at over \$100,000, EQC can be removed from the equation pretty quickly.



Graph 5.1



Early rebuilding work is likely to be focused on replacing houses damaged by the September quake in the Selwyn and Waimakariri districts, as these areas seem to have been less affected by the February quake and subsequent aftershocks. We expect new house building activity to accelerate most rapidly between June 2012 and June 2013, with activity peaking by December 2014. We expect 50% of work to be completed by September 2014, 80% by June 2016, and 95% by March 2018.

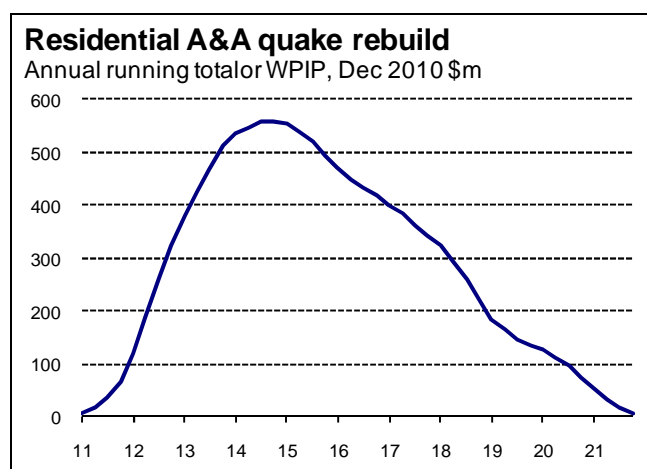
Some of the major candidates for housing displaced Christchurch residents are located outside the Christchurch city boundaries, including Lincoln, Pegasus, and Rolleston. Although there are other subdivision possibilities within Christchurch (eg Aidanfield, Prestons, and Wigram), we note that a significant proportion of residential rebuilding may not take place in the city itself.

Residential alterations and additions

The difficulty with estimating the level of “alterations and additions” work that will occur as a result of the quake is that a significant portion of repair work will not require a building consent. Plastering, painting, and many other repairs will only be dependent on insurance assessments and payouts and the subsequent availability of trades-people.

We have made an allowance for a total of \$7bn of residential repair work, with 45% (or \$3.2bn) being captured in official work put in place numbers. Non-consented work is likely to get going more quickly than work requiring a consent, focused on easy fixes and remedial work to make damaged houses comfortably and safely habitable. Large repair jobs that allow a house to be lived in again are also likely to be given a relatively high priority, while mid-range jobs that are more about convenience and comfort than safety may be further down the list.

We expect residential repair work to accelerate most rapidly between March 2012 and March 2013, with activity peaking by March 2015. We expect 50% of work to be completed by March 2015, 80% by June 2017, and 95% by June 2019.



Graph 5.2

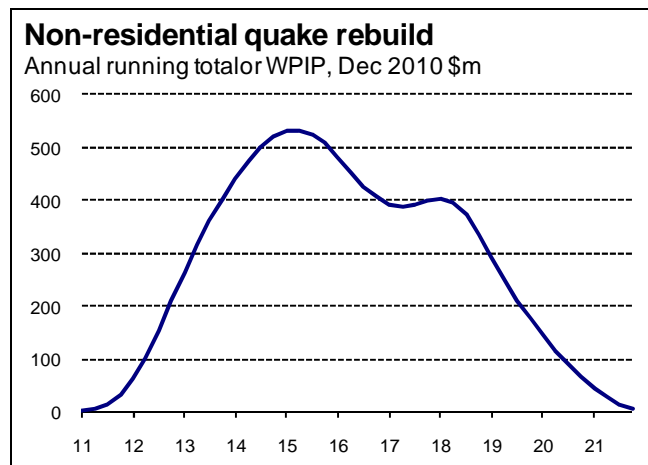
The profile of non-consented work is likely to be more advanced than the above timeline given the less complex and costly nature of work that falls outside the consent process.

Non-residential building

Non-residential building work will be largely concentrated in the Christchurch CBD. In our view, moving the city's CBD is an unlikely prospect. But even if the decision to rebuild in the same area is made relatively quickly, considerable issues of planning, design, and coordination will need to be worked through before reconstruction can get underway. Furthermore, the spectre of difficult demolition jobs such as the Hotel Grand Chancellor will mean that some areas will be off-limits until the danger of collapse has been eliminated, which could easily be until the middle of 2012.

We have allowed for \$3.1bn of non-residential rebuilding work to take place. However, there are considerable risks to this figure given the relocation of businesses out of the central city. The longer that the CBD remains out of action, the more accustomed people will be to working and obtaining services from suburban centres instead, and the weaker the business case will be for substantial rebuilding in the city centre. In some cases, building owners will simply take their insurance payouts and invest the money elsewhere.

At this stage, we expect non-residential building work to accelerate most rapidly between June 2012 and June 2013, with activity peaking by September 2015. We expect 50% of work to be completed by September 2015, 80% by December 2017, and 95% by June 2019.



Graph 5.3

Infrastructure

The infrastructure repair bill will be mostly made up of four main components – repairs to:

- roads (mostly local roads rather than state highways)
- water, wastewater, and storm-water networks and processing facilities



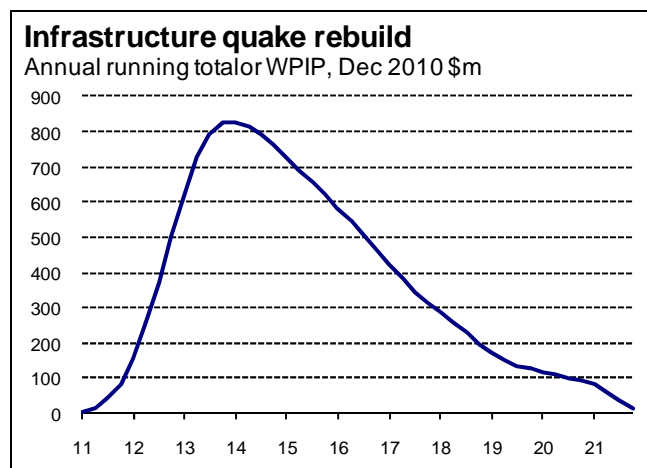
- the electricity network
- the port facilities at Lyttelton.

There will also be some limited expenditure on the rail network as well.

The initial response has been focused on providing immediate solutions to infrastructure and network problems to ensure that, where possible, people have access to essential services, and that facilities are working as well as possible given the considerable damage they have sustained. More permanent repairs and upgrades will start to be undertaken once the immediate infrastructure problems have been resolved.

We have allowed for \$4bn of spending on infrastructure work in Canterbury over the next decade. The timing of this work is very uncertain given the lack of any good information we have on infrastructure spending at the best of times. Furthermore, it is difficult to gauge how much of the immediate response work will be superseded by less time-critical repairs further down the track.

Bearing this uncertainty in mind, we expect infrastructure work to accelerate most rapidly between March 2012 and March 2013, with activity peaking by June 2014. We expect 50% of work to be completed by September 2014, 80% by December 2016, and 95% by March 2019.



Graph 5.4

Risks to our timing assumptions

The risks to the timing of repair work across each of the building categories are slightly different.

Delays around building assessment and decisions about where rebuilding is not able to occur could lead to a slower start for the construction of **new dwellings**. However, we also recognise that ensuring people are not stuck in unliveable conditions for an extended period of time will be a high priority for officials, so we also see scope for new residential building work to be completed sooner than we have currently assumed. On this basis, we judge the risks to be reasonably balanced, but we note that it is difficult to envisage a much faster build rate than our peak of 2,960



additional consents. We also note that temporary housing solutions are, at this stage, an unknown piece of the puzzle.

Residential alterations and additions work also has the potential to be delayed by the insurance assessment process. We may have underestimated the extent to which some problems with houses are being immediately addressed, but this work is unlikely to be consented and therefore won't show up in official work put in place numbers. Once insurance payouts have been received, the biggest constraint on how quickly work can progress will be the availability of trades-people. We judge that the risks to our forecasts of residential repairs are weighted towards the pipeline of work being dealt with more quickly than we have allowed for.

The risks around the timeline for **non-residential construction** are significantly weighted towards activity taking longer to get underway, and longer to be completed, than our current assumptions suggest. The persistence of aftershocks for another year could limit progress towards reconstruction during that time. And as indicated above, the process of rebuilding the CBD is a complex one with significant coordination issues to be worked through. Assuming there is not a wholesale relocation of the CBD, we are comfortable that all demolished buildings will eventually be replaced in one form or another. However, there is a considerable risk that the rebuild stretches out over 20 years. Vacant sites could persist for long periods of time until new landowners are willing to enter the market and develop sites left empty by previous owners choosing not to rebuild.

The critical nature of electricity, water, and wastewater networks suggests that the level of **infrastructure activity** could be higher than we have allowed for in the short-term. We are confident that work in some areas will continue for a considerable period of time, with Orion indicating a ten-year plan for strengthening the city's electricity network, and Lyttelton Port stating that it expects repairs to take up to five years to complete. Overall, we judge that the balance of risks lies towards more infrastructure work being undertaken earlier than we have allowed for.

In summary, the overall balance of risks around our rebuilding assumptions appears to be reasonably balanced. We will continue to monitor developments in Christchurch over coming months and make adjustments to our assumptions about the size and timing of the rebuild if required.





6. FORECAST TABLES

Housing market influences

Years ended March	Real HH consumption <i>Annual average % changes</i>	Real HH disposable income	Net external migration <i>Number</i>	Housing consents <i>Number</i>	Occupied private dwellings <i>'000</i>	Household formation number <i>Number</i>	Real house prices <i>Annual average % changes</i>	Nominal house prices	Real mortgage rates <i>Percent</i>
1997/98	2.2	2.1	2,707	25,565	1,370.8	18,000	3.9	5.0	8.9
1998/99	3.0	1.4	-10,199	20,695	1,387.0	16,200	-3.5	-2.6	7.5
1999/00	3.3	8.0	-8,987	25,858	1,405.7	18,700	2.2	2.5	6.6
2000/01	1.4	-4.5	-12,600	19,370	1,421.8	16,100	-3.8	-0.9	5.5
2001/02	2.7	4.2	25,635	21,302	1,439.3	17,500	0.0	2.5	4.7
2002/03	4.8	-0.5	41,592	28,320	1,462.3	23,000	8.1	11.0	5.1
2003/04	6.2	8.4	27,978	31,823	1,490.7	28,400	19.6	21.5	5.8
2004/05	4.5	5.9	10,013	30,255	1,520.8	30,100	12.9	15.8	5.8
2005/06	4.4	1.9	9,739	25,406	1,546.3	25,500	10.3	13.8	6.0
2006/07	2.5	1.8	12,081	25,740	1,570.9	24,600	7.1	10.5	6.4
2007/08	3.3	8.6	4,678	24,533	1,595.5	24,600	6.1	8.8	7.8
2008/09	-1.1	-1.7	7,482	16,234	1,615.3	19,800	-10.8	-7.3	5.5
2009/10	0.4	2.7	20,973	15,381	1,628.2	12,900	0.4	2.3	4.3
2010/11	1.4	3.1	6,554	14,611	1,643.5	15,300	-2.8	0.1	3.3
2011/12*	1.0	1.3	2,786	13,716	1,656.4	12,882	-2.7	1.4	1.9
2012/13*	4.2	4.6	14,095	20,450	1,671.8	15,394	2.0	5.7	4.8
2013/14*	3.7	1.8	18,125	25,218	1,691.2	19,393	-0.4	2.3	6.0
2014/15*	1.9	2.2	14,584	27,576	1,713.1	21,925	-0.7	2.5	5.8
2015/16*	1.4	2.3	15,653	26,838	1,737.6	24,512	-3.3	-0.1	5.3

Sources: Quotable Value NZ, Statistics NZ, RBNZ, Infometrics estimates and forecasts.

Table 6.1



Residential investment

Quarterly data

	10			11			12			13			14			15	16	
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Mar	Mar
New dwelling consents																		
Non-apartment consents	3958	3665	3252	2708	2937	3302	3309	3076	3752	4827	5053	4950	5141	5731	6286	5462	5768	5378
Apartment consents	175	299	335	219	200	290	313	289	296	489	549	535	467	669	784	677	822	885
Total new dwelling consents	4133	3964	3587	2927	3137	3593	3622	3365	4048	5315	5603	5484	5608	6400	7070	6139	6590	6263
Seas adj, non-apartments	4077	3498	3110	2903	3025	3152	3165	3297	3865	4607	4832	5306	5295	5470	6012	5855	6183	5765
Quarterly percentage change	1.5%	-14.2%	-11.1%	-6.7%	4.2%	4.2%	0.4%	4.2%	17.2%	19.2%	4.9%	9.8%	-0.2%	3.3%	9.9%	-2.6%	-0.4%	-0.4%
Avg floor area, all consents	201	198	197	199	198	196	197	198	203	205	210	213	217	216	216	217	223	225
Avg floor area, non-apartments	207	206	207	208	206	205	206	207	211	215	221	225	227	229	230	231	240	246
Avg floor area, apartments	69	95	94	89	86	89	97	108	112	108	106	106	104	107	106	106	101	95
Activity at 1995-96 prices																		
New dwellings	756	746	677	591	594	634	655	609	648	786	889	899	947	1037	1136	1096	1191	1160
Additions and alterations	231	214	201	184	190	191	197	194	238	240	235	226	266	266	263	243	248	237
Total residential WPIP	988	960	878	776	784	825	851	803	886	1026	1124	1125	1213	1304	1399	1339	1439	1397
Fees and taxes	382	362	342	311	352	352	355	332	378	412	428	413	466	494	501	475	512	515
Total residential investment	1370	1322	1220	1087	1136	1177	1206	1136	1264	1438	1552	1538	1678	1798	1900	1814	1950	1912
Sales of existing houses	2235	1986	2124	2106	2343	2154	2345	2315	2378	2367	2571	2515	2605	2672	2817	2790	3013	3144
Activity at current prices																		
New dwellings, \$m	1297	1285	1163	1016	1029	1107	1152	1088	1176	1469	1697	1744	1885	2109	2323	2254	2579	2599
Additions and alterations, \$m	397	369	346	316	328	333	346	346	433	448	449	439	530	541	537	501	537	530
Total residential WPIP, \$m	1693	1654	1509	1332	1357	1441	1498	1434	1609	1917	2146	2183	2415	2650	2860	2755	3116	3129
Fees and taxes, \$m	609	565	545	535	610	614	624	593	686	769	818	802	927	1004	1025	977	1108	1155
Total residential invest., \$m	2302	2219	2054	1867	1967	2054	2122	2028	2295	2687	2964	2984	3342	3654	3885	3732	4224	4284
Sales of existing houses, \$m	5346	4718	5041	5009	5613	5113	5683	5705	6061	5960	6492	6566	6762	6948	7311	7380	8053	8384
Costs and prices																		
Cost of new dwellings	1.715	1.722	1.719	1.718	1.732	1.745	1.759	1.786	1.816	1.869	1.910	1.940	1.991	2.033	2.045	2.057	2.166	2.240
Price of existing houses	2.392	2.375	2.374	2.378	2.395	2.374	2.423	2.465	2.548	2.518	2.525	2.611	2.596	2.601	2.596	2.645	2.673	2.667

Table 6.2

**Residential investment***Annual percentage changes in quarterly data*

	10			11			12			13			14			15			16		
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Mar	Mar	Mar	Mar	
New dwelling consents																					
Non-apartment consents	44.5	1.8	-19.5	-28.5	-25.8	-9.9	1.8	13.6	27.8	46.2	52.7	60.9	37.0	18.7	24.4	10.4	5.6	-6.8			
Apartment consents	-71.2	24.6	40.8	68.5	14.3	-3.0	-6.7	32.1	48.0	68.5	75.8	84.9	57.7	36.9	42.7	26.7	21.4	7.6			
Total new dwelling consents	23.5	3.3	-16.1	-25.3	-24.1	-9.4	1.0	15.0	29.0	48.0	54.7	63.0	38.5	20.4	26.2	11.9	7.3	-5.0			
Avg floor area, all consents	8.2	-0.4	-1.1	-1.5	-1.4	-1.0	-0.1	-0.3	2.7	4.8	6.6	7.6	6.8	5.1	3.3	1.6	2.6	0.8			
Avg floor area, non-apartments	0.9	-0.6	0.7	1.3	-0.5	-0.5	-0.7	-0.5	2.4	4.8	7.2	8.8	8.0	6.2	4.3	2.5	4.0	2.4			
Avg floor area, apartments	-30.0	41.8	12.1	-20.3	24.7	-6.9	2.7	21.3	29.5	21.6	9.7	-2.4	-6.8	-1.2	-0.2	0.0	-4.1	-5.8			
Activity at 1995-96 prices																					
New dwellings	17.4	10.5	-5.2	-7.1	-21.4	-15.0	-3.3	3.0	9.0	23.9	35.8	47.5	46.2	32.0	27.8	21.9	8.6	-2.6			
Additions and alterations	15.2	19.3	0.5	-0.3	-18.0	-10.7	-2.2	5.4	25.6	25.5	19.5	16.6	11.7	11.1	11.8	7.6	1.9	-4.6			
Total residential WPIP	16.9	12.4	-4.0	-5.6	-20.6	-14.0	-3.0	3.6	13.0	24.3	32.0	40.0	36.9	27.1	24.5	19.1	7.4	-2.9			
Fees and taxes	3.6	-2.3	-9.4	-7.0	-7.9	-2.8	3.7	6.8	7.3	17.1	20.8	24.3	23.2	20.0	17.0	15.0	7.7	0.7			
Total residential investment	12.9	7.9	-5.6	-6.0	-17.1	-11.0	-1.2	4.5	11.2	22.2	28.7	35.4	32.8	25.0	22.4	18.0	7.5	-2.0			
Sales of existing houses	-19.8	-27.5	-20.7	-8.4	4.8	8.5	10.4	9.9	1.5	9.9	9.6	8.6	9.5	12.9	9.6	11.0	8.0	4.3			
Activity at current prices																					
New dwellings, \$m	18.7	12.2	-4.4	-6.5	-20.6	-13.8	-1.0	7.1	14.3	32.7	47.4	60.3	60.2	43.5	36.9	29.3	14.4	0.8			
Additions and alterations, \$m	16.5	21.2	1.4	0.4	-17.2	-9.5	0.1	9.6	31.8	34.4	29.7	26.7	22.4	20.8	19.7	14.0	7.3	-1.3			
Total residential WPIP, \$m	18.1	14.1	-3.1	-5.0	-19.8	-12.9	-0.8	7.7	18.5	33.1	43.3	52.2	50.1	38.2	33.3	26.2	13.1	0.4			
Fees and taxes, \$m	0.3	-6.5	-11.4	-0.8	0.2	8.5	14.5	11.0	12.5	25.4	31.2	35.1	35.1	30.5	25.3	21.9	13.4	4.2			
Total residential invest., \$m	12.8	8.0	-5.5	-3.8	-14.5	-7.4	3.3	8.6	16.7	30.8	39.7	47.2	45.6	36.0	31.1	25.1	13.2	1.4			
Sales of existing houses, \$m	-17.1	-27.1	-22.0	-9.9	5.0	8.4	12.7	13.9	8.0	16.6	14.2	15.1	11.6	16.6	12.6	12.4	9.1	4.1			
Costs and prices																					
Cost of new dwellings	1.1	1.6	0.9	0.6	1.0	1.4	2.4	4.0	4.9	7.1	8.6	8.7	9.6	8.8	7.1	6.0	5.3	3.4			
Price of existing houses	3.4	0.5	-1.6	-1.6	0.1	-0.1	2.1	3.6	6.4	6.1	4.2	5.9	1.9	3.3	2.8	1.3	1.1	-0.2			

Table 6.3



Residential investment

Annual data

	10			11			12			13			14			15	16	
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Mar	
New dwelling consents																		
Non-apartment consents	15384	15450	14663	13583	12562	12199	12256	12624	13439	14964	16708	18581	19970	20875	22108	22620	24374	23313
Apartment consents	783	842	939	1028	1053	1044	1022	1092	1188	1387	1624	1869	2040	2220	2455	2598	3202	3524
Total new dwelling consents	16167	16292	15602	14611	13615	13243	13278	13716	14627	16350	18331	20450	22010	23095	24563	25218	27576	26838
Avg floor area, all consents	200	200	200	199	198	197	197	197	199	201	205	208	211	214	216	217	220	226
Avg floor area, non-apartments	206	206	206	207	207	207	206	206	207	210	214	218	222	226	228	229	236	245
Avg floor area, apartments	80	89	92	89	92	90	91	96	101	106	108	107	106	106	106	106	103	97
Activity at 1995-96 prices																		
New dwellings	2782	2853	2816	2771	2609	2497	2475	2492	2546	2698	2932	3221	3520	3771	4019	4216	4771	4831
Additions and alterations	795	830	831	831	789	766	762	772	820	869	907	939	967	994	1022	1039	1078	1051
Total residential WPIP	3578	3683	3647	3601	3398	3263	3236	3264	3366	3567	3839	4161	4488	4765	5040	5255	5849	5882
Fees and taxes	1465	1457	1421	1397	1367	1357	1370	1391	1416	1476	1550	1631	1719	1801	1874	1936	2135	2235
Total residential investment	5043	5140	5068	4999	4765	4620	4606	4655	4782	5043	5389	5792	6206	6566	6914	7190	7985	8116
Sales of existing houses	9954	9201	8645	8451	8559	8727	8948	9157	9192	9405	9631	9831	10057	10362	10608	10884	11879	12900
Activity at current prices																		
New dwellings, \$m	4745	4886	4832	4761	4493	4315	4304	4376	4523	4885	5431	6087	6795	7435	8060	8571	10100	10686
Additions and alterations, \$m	1357	1421	1426	1427	1359	1324	1324	1355	1459	1574	1676	1769	1866	1959	2048	2109	2280	2325
Total residential WPIP, \$m	6102	6307	6258	6188	5852	5639	5628	5730	5982	6459	7107	7855	8661	9394	10108	10680	12380	13010
Fees and taxes, \$m	2368	2328	2258	2254	2255	2303	2382	2441	2517	2673	2867	3075	3316	3551	3758	3933	4517	4942
Total residential invest., \$m	8470	8635	8516	8442	8107	7942	8010	8171	8499	9131	9974	10931	11977	12944	13865	14613	16897	17952
Sales of existing houses, \$m	23845	22087	20663	20113	20380	20775	21417	22114	22561	23409	24218	25079	25780	26768	27587	28401	31772	34489
Costs and prices																		
Cost of new dwellings	1.705	1.712	1.716	1.718	1.723	1.728	1.738	1.755	1.777	1.807	1.845	1.884	1.927	1.968	2.002	2.031	2.116	2.212
Price of existing houses	2.396	2.399	2.389	2.380	2.381	2.380	2.393	2.414	2.452	2.489	2.514	2.551	2.562	2.583	2.601	2.609	2.675	2.673

Table 6.4

**Residential investment***Annual percentage changes in annual data*

	10			11			12			13			14			15	16	
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Mar	Mar
New dwelling consents																		
Non-apartment consents	25.0	27.5	13.0	-4.1	-18.3	-21.0	-16.4	-7.1	7.0	22.7	36.3	47.2	48.6	39.5	32.3	21.7	7.8	-4.4
Apartment consents	-58.0	-44.0	-35.2	-15.4	34.5	24.0	8.8	6.2	12.8	32.8	58.9	71.2	71.7	60.1	51.2	39.0	23.3	10.1
Total new dwelling consents	14.1	19.7	8.2	-5.0	-15.8	-18.7	-14.9	-6.1	7.4	23.5	38.1	49.1	50.5	41.3	34.0	23.3	9.4	-2.7
Avg floor area, all consents	2.1	2.3	2.1	0.9	-1.2	-1.3	-1.1	-0.8	0.4	2.1	3.9	5.6	6.4	6.3	5.3	4.0	1.8	2.3
Avg floor area, non-apartments	-1.9	-0.3	-0.1	0.5	0.2	0.2	-0.1	-0.5	0.2	1.8	3.9	6.0	7.2	7.3	6.4	5.0	2.9	3.8
Avg floor area, apartments	-22.2	-16.0	-3.8	-2.0	14.7	1.0	-1.7	7.3	10.1	17.9	19.0	12.1	4.6	-0.5	-2.2	-1.6	-2.2	-5.9
Activity at 1995-96 prices																		
New dwellings	-5.7	4.6	4.6	3.8	-6.2	-12.5	-12.1	-10.0	-2.4	8.0	18.5	29.2	38.3	39.8	37.1	30.9	13.2	1.2
Additions and alterations	-1.6	7.1	8.1	8.6	-0.8	-7.7	-8.4	-7.1	3.9	13.4	19.1	21.8	17.9	14.4	12.6	10.6	3.8	-2.5
Total residential WPIP	-4.8	5.1	5.4	4.8	-5.0	-11.4	-11.3	-9.4	-0.9	9.3	18.6	27.5	33.3	33.6	31.3	26.3	11.3	0.6
Fees and taxes	-2.9	-0.5	-3.3	-3.8	-6.7	-6.8	-3.6	-0.5	3.6	8.8	13.2	17.3	21.4	22.0	20.9	18.7	10.3	4.7
Total residential investment	-4.3	3.5	2.8	2.3	-5.5	-10.1	-9.1	-6.9	0.4	9.2	17.0	24.4	29.8	30.2	28.3	24.1	11.0	1.7
Sales of existing houses	10.9	-6.9	-18.3	-19.6	-14.0	-5.1	3.5	8.4	7.4	7.8	7.6	7.4	9.4	10.2	10.1	10.7	9.1	8.6
Activity at current prices																		
New dwellings, \$m	-5.2	5.6	5.7	4.8	-5.3	-11.7	-10.9	-8.1	0.7	13.2	26.2	39.1	50.2	52.2	48.4	40.8	17.9	5.8
Additions and alterations, \$m	-0.9	8.2	9.2	9.7	0.1	-6.9	-7.1	-5.1	7.3	18.8	26.6	30.6	27.9	24.5	22.2	19.2	8.1	2.0
Total residential WPIP, \$m	-4.3	6.2	6.5	5.9	-4.1	-10.6	-10.1	-7.4	2.2	14.5	26.3	37.1	44.8	45.4	42.2	36.0	15.9	5.1
Fees and taxes, \$m	-2.8	-2.0	-5.8	-4.7	-4.8	-1.1	5.5	8.3	11.6	16.0	20.4	26.0	31.7	32.8	31.1	27.9	14.8	9.4
Total residential invest., \$m	-3.9	3.8	2.9	2.8	-4.3	-8.0	-5.9	-3.2	4.8	15.0	24.5	33.8	40.9	41.8	39.0	33.7	15.6	6.2
Sales of existing houses, \$m	15.4	-3.4	-16.6	-19.4	-14.5	-5.9	3.7	9.9	10.7	12.7	13.1	13.4	14.3	14.4	13.9	13.2	11.9	8.6
Costs and prices																		
Cost of new dwellings	0.6	1.0	1.1	1.0	1.0	1.0	1.3	2.2	3.1	4.6	6.1	7.3	8.5	8.9	8.5	7.8	4.2	4.6
Price of existing houses	4.0	3.9	2.1	0.1	-0.7	-0.8	0.1	1.4	3.0	4.6	5.1	5.7	4.5	3.8	3.4	2.3	2.5	-0.1

Table 6.5



Non-residential building activity

Quarterly data

	10			11			12			13			14	15	16			
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Mar	Mar
ACTIVITY AT 1995/96 PRICES																		
Consents	623	706	802	614	754	846	870	748	851	898	913	891	1017	1027	1081	948	962	934
Work put in place(1)	881	913	994	791	851	940	970	908	972	1065	1059	973	1078	1196	1209	1102	1177	1154
Work put in place - by sector																		
Government	332	296	358	298	275	315	344	319	280	325	349	324	303	344	370	349	356	335
Private(2)	550	617	636	492	576	625	626	590	692	740	709	649	776	852	838	753	821	820
Work put in place by building type(3)																		
Accommodation	67	61	58	66	72	84	68	66	75	96	82	81	91	113	101	91	104	103
Commercial	241	258	250	190	217	253	271	244	280	314	319	276	318	359	363	309	320	320
Industrial	37	79	86	63	73	88	98	97	100	115	112	116	126	146	144	144	159	158
Hospitals & nursing homes	90	84	113	73	77	89	81	78	79	94	87	86	89	106	99	97	98	94
Educational	151	130	146	149	123	139	168	159	125	141	166	155	131	143	170	162	167	155
Miscellaneous & multi-purpose(4)	295	301	340	250	289	288	284	263	313	306	293	260	324	330	331	298	329	325
ACTIVITY AT CURRENT PRICES																		
Consents	843	954	1082	828	1004	1111	1134	972	1103	1163	1215	1205	1403	1441	1509	1322	1356	1334
Work put in place(1)	1191	1234	1341	1068	1134	1234	1264	1180	1260	1379	1409	1316	1488	1679	1686	1535	1659	1649
Work put in place - by sector																		
Government	448	400	483	403	367	414	448	414	363	421	465	438	418	484	517	486	502	478
Private(2)	743	834	858	665	767	820	816	767	897	958	944	878	1071	1196	1169	1049	1156	1171
Work put in place by building type(3)																		
Accommodation	90	83	79	89	96	110	88	86	98	124	109	109	125	159	141	127	146	147
Commercial	326	349	338	257	288	332	353	317	363	407	425	373	438	503	507	430	451	457
Industrial	50	106	116	84	97	115	127	127	130	148	149	156	174	205	201	201	224	226
Hospitals & nursing homes	122	113	153	98	102	117	106	102	102	122	116	116	123	149	138	135	138	134
Educational	204	176	198	202	164	182	219	206	162	182	221	210	180	200	237	226	236	222
Miscellaneous & multi-purpose(4)	400	407	459	338	385	378	370	342	406	396	389	351	448	463	462	415	464	464
PRICES & TURNOVER																		
Capital goods price index(5)	1.352	1.352	1.349	1.350	1.331	1.313	1.303	1.300	1.297	1.294	1.331	1.352	1.380	1.404	1.395	1.394	1.409	1.429
Commercial price index(5)	1.815		1.867		1.785		1.703		1.615		1.613		1.647		1.680			
Commercial turnover(6)	494		601															
Industrial price index(5)	2.195		2.085		1.931		1.784		1.666		1.751		1.858		1.917			
Industrial turnover(6)	208		222															

(1) Excludes fees and duties (2) Includes government enterprises (3) Quarterly forecasts of work put in place by building type should be regarded as indicative only

(4) Includes social, cultural, religious, recreational, and farm buildings (5) Rebased to 1995/96, half-year ended in quarter shown

(6) At 1995/96 prices, half-year ended in quarter shown

Table 6.6

**Non-residential building activity**

Annual % changes in quarterly data

	10			11			12			13			14	15	16			
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Mar	Mar
ACTIVITY AT 1995/96 PRICES																		
Consents	-34.4	-4.7	-3.2	-6.1	21.0	20.0	8.5	21.8	12.8	6.1	4.9	19.2	19.5	14.3	18.4	6.4	1.4	-3.0
Work put in place(1)	-4.8	0.0	19.2	1.8	-3.4	3.0	-2.5	14.9	14.1	13.3	9.2	7.1	11.0	12.3	14.1	13.2	6.9	-1.9
Work put in place - by sector																		
Government	30.4	2.8	8.8	-1.8	-16.9	6.6	-4.1	6.7	1.8	3.2	1.7	1.7	8.0	5.9	6.0	7.7	2.2	-6.1
Private(2)	-18.2	-1.3	25.9	4.1	4.8	1.3	-1.6	19.8	20.0	18.4	13.3	10.1	12.2	15.1	18.1	15.9	9.0	-0.1
Work put in place by building type(3)																		
Accommodation	-3.2	-11.5	-13.6	5.8	8.6	37.1	16.4	1.0	3.9	14.0	20.8	22.0	20.3	18.1	23.6	12.8	13.6	-1.0
Commercial	-18.1	-18.1	3.1	-5.9	-10.0	-2.1	8.3	28.3	29.1	24.4	17.9	13.0	13.6	14.1	13.7	11.8	3.6	0.0
Industrial	-60.4	25.2	49.3	3.4	96.3	12.0	13.6	55.7	37.1	30.5	14.5	18.6	25.6	27.4	28.9	25.0	10.1	-0.4
Hospitals & nursing homes	110.6	90.0	92.8	2.6	-15.1	6.3	-28.4	7.9	2.7	6.2	7.3	9.5	13.1	12.3	13.5	13.3	0.7	-4.4
Educational	31.9	-12.9	2.0	-0.6	-18.1	6.8	14.7	6.1	1.2	1.3	-1.0	-2.2	4.7	1.6	2.1	4.7	3.0	-7.2
Miscellaneous & multi-purpose(4)	-5.2	10.5	28.6	8.3	-2.1	-4.4	-16.4	5.4	8.2	6.2	3.0	-1.3	3.7	7.9	13.3	14.5	10.7	-1.4
ACTIVITY AT CURRENT PRICES																		
Consents	-36.0	-5.7	-3.5	-6.3	19.1	16.4	4.8	17.3	9.9	4.6	7.1	24.0	27.2	24.0	24.2	9.7	2.6	-1.6
Work put in place(1)	-7.1	-1.1	18.8	1.6	-4.9	0.0	-5.8	10.6	11.2	11.8	11.5	11.5	18.1	21.8	19.7	16.7	8.0	-0.6
Work put in place - by sector																		
Government	27.2	1.7	8.5	-2.0	-18.2	3.5	-7.3	2.7	-0.9	1.8	3.8	5.8	14.9	14.8	11.2	11.1	3.3	-4.8
Private(2)	-20.1	-2.3	25.5	3.9	3.2	-1.7	-4.9	15.3	16.9	16.8	15.7	14.5	19.4	24.8	23.9	19.5	10.2	1.3
Work put in place by building type(3)																		
Accommodation	-5.5	-12.4	-13.9	5.7	7.0	33.1	12.5	-2.8	1.2	12.4	23.3	26.9	28.1	28.1	29.6	16.3	14.9	0.4
Commercial	-20.1	-18.9	2.8	-6.0	-11.4	-5.0	4.6	23.5	25.8	22.6	20.3	17.6	20.9	23.7	19.3	15.3	4.7	1.4
Industrial	-61.4	23.9	48.9	3.2	93.2	8.7	9.8	49.9	33.5	28.6	16.8	23.4	33.6	38.1	35.2	28.9	11.4	1.0
Hospitals & nursing homes	105.5	88.0	92.2	2.4	-16.4	3.2	-30.8	3.9	0.1	4.7	9.6	13.9	20.4	21.8	19.0	16.8	1.8	-3.0
Educational	28.7	-13.8	1.7	-0.8	-19.4	3.7	10.8	2.1	-1.4	-0.1	1.0	1.7	11.5	10.2	7.1	8.0	4.2	-5.9
Miscellaneous & multi-purpose(4)	-7.5	9.3	28.2	8.1	-3.6	-7.2	-19.3	1.4	5.4	4.7	5.1	2.6	10.3	17.0	18.8	18.0	11.9	0.0
PRICES & TURNOVER																		
Capital goods price index(5)	-2.4	-1.0	-0.3	-0.1	-1.5	-2.9	-3.4	-3.8	-2.6	-1.4	2.1	4.0	6.4	8.5	4.9	3.1	1.1	1.4
Commercial price index(5)	-4.8		3.2		-1.6		-8.8		-9.6		-5.3		2.0		4.1			
Commercial turnover(6)	-26.8		-12.1															
Industrial price index(5)	-1.0		-6.5		-12.0		-14.4		-13.7		-1.8		11.5		9.5			
Industrial turnover(6)	-33.0		-28.9															

(1) Excludes fees and duties (2) Includes government enterprises (3) Quarterly forecasts of work put in place by building type should be regarded as indicative only

(4) Includes social, cultural, religious, recreational, and farm buildings (5) Rebased to 1995/96, half-year ended in quarter shown

(6) At 1995/96 prices, half-year ended in quarter shown

Table 6.7



Non-residential building activity

Annual data

	10			11			12			13			14	15	16			
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Mar	Mar
ACTIVITY AT 1995/96 PRICES																		
Consents	2846	2812	2785	2745	2875	3016	3084	3218	3315	3367	3410	3553	3719	3848	4016	4073	4196	4018
Work put in place(1)	3405	3405	3565	3579	3549	3576	3552	3670	3790	3915	4004	4069	4176	4307	4456	4585	4967	5040
Work put in place - by sector																		
Government	1252	1260	1289	1284	1228	1247	1233	1253	1257	1268	1273	1279	1301	1320	1341	1366	1419	1363
Private(2)	2153	2145	2275	2295	2321	2329	2319	2417	2532	2648	2731	2791	2875	2987	3115	3218	3548	3677
Work put in place by building type(3)																		
Accommodation	265	258	248	252	258	281	290	291	294	305	319	334	349	367	386	396	442	456
Commercial	1001	944	951	940	915	910	931	984	1047	1109	1157	1189	1227	1271	1315	1348	1431	1446
Industrial	218	234	262	264	300	310	321	356	383	410	424	442	468	499	532	561	635	653
Hospitals & nursing homes	264	303	358	359	346	351	319	325	327	332	338	346	356	368	379	391	408	394
Educational	594	575	577	576	549	558	580	589	590	592	590	587	593	595	598	606	627	600
Miscellaneous & multi-purpose(4)	1063	1092	1168	1187	1180	1167	1111	1125	1148	1166	1175	1171	1183	1207	1245	1283	1423	1492
ACTIVITY AT CURRENT PRICES																		
Consents	3860	3803	3763	3708	3869	4026	4078	4221	4320	4372	4452	4686	4986	5265	5558	5675	5871	5732
Work put in place(1)	4618	4605	4817	4834	4777	4777	4699	4812	4939	5084	5229	5364	5592	5892	6170	6389	6949	7190
Work put in place - by sector																		
Government	1698	1705	1743	1734	1653	1667	1631	1642	1639	1646	1663	1687	1741	1804	1856	1904	1986	1945
Private(2)	2920	2900	3075	3100	3124	3110	3068	3170	3300	3437	3565	3677	3851	4089	4314	4485	4964	5245
Work put in place by building type(3)																		
Accommodation	360	348	336	340	347	374	384	381	383	396	417	440	468	502	535	553	619	650
Commercial	1358	1276	1286	1269	1232	1215	1230	1291	1365	1440	1512	1567	1643	1740	1821	1879	2002	2062
Industrial	296	316	355	357	404	413	425	467	500	533	554	584	627	684	736	782	889	932
Hospitals & nursing homes	357	410	483	486	466	469	422	426	426	431	442	456	477	503	525	545	571	562
Educational	805	777	780	779	739	746	767	771	769	769	771	775	793	812	828	844	877	856
Miscellaneous & multi-purpose(4)	1442	1477	1578	1603	1589	1559	1471	1476	1496	1514	1533	1542	1584	1651	1724	1788	1991	2128
PRICES & TURNOVER																		
Capital goods price index(5)	1.356	1.352	1.351	1.351	1.346	1.336	1.324	1.312	1.303	1.299	1.305	1.318	1.339	1.367	1.383	1.393	1.399	1.427
Commercial price index(5)	1.812		1.841		1.826		1.744		1.659		1.614		1.630		1.663			
Commercial turnover(6)	1178		1095															
Industrial price index(5)	2.213		2.140		2.008		1.857		1.725		1.709		1.805		1.888			
Industrial turnover(6)	519		429															

(1) Excludes fees and duties (2) Includes government enterprises (3) Quarterly forecasts of work put in place by building type should be regarded as indicative only

(4) Includes social, cultural, religious, recreational, and farm buildings (5) Rebased to 1995/96, half-year ended in quarter shown

(6) At 1995/96 prices, half-year ended in quarter shown

Table 6.8

**Non-residential building activity**

Annual % changes in annual data

	10			11			12			13			14	15	16			
	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Mar	Mar
ACTIVITY AT 1995/96 PRICES																		
Consents	-15.5	-13.8	-15.3	-13.5	1.0	7.3	10.7	17.3	15.3	11.6	10.5	10.4	12.2	14.3	17.8	14.6	3.0	-4.3
Work put in place(1)	-10.2	-8.0	0.3	3.7	4.2	5.0	-0.4	2.5	6.8	9.5	12.7	10.9	10.2	10.0	11.3	12.7	8.3	1.5
Work put in place - by sector																		
Government	35.5	25.3	15.3	9.3	-2.0	-1.0	-4.4	-2.4	2.4	1.6	3.3	2.1	3.5	4.2	5.3	6.9	3.8	-3.9
Private(2)	-25.0	-20.4	-6.6	0.9	7.8	8.6	1.9	5.3	9.1	13.7	17.8	15.5	13.5	12.8	14.1	15.3	10.2	3.6
Work put in place by building type(3)																		
Accommodation	-10.5	-6.6	-11.0	-5.9	-2.9	8.9	16.8	15.4	13.9	8.8	10.1	14.9	19.0	20.1	20.8	18.7	11.6	3.0
Commercial	-17.6	-20.1	-13.7	-10.8	-8.5	-3.6	-2.2	4.8	14.4	21.9	24.4	20.8	17.2	14.6	13.6	13.3	6.2	1.0
Industrial	-39.5	-29.7	-15.0	-3.8	37.7	32.4	22.5	34.7	27.7	32.5	32.0	24.2	22.1	21.8	25.3	26.7	13.3	2.8
Hospitals & nursing homes	8.0	45.9	82.9	66.3	31.2	15.8	-10.8	-9.7	-5.5	-5.4	6.0	6.5	8.9	10.6	12.2	13.0	4.4	-3.5
Educational	24.4	9.4	6.7	3.4	-7.5	-2.9	0.4	2.1	7.5	6.1	1.8	-0.3	0.4	0.5	1.4	3.2	3.4	-4.2
Miscellaneous & multi-purpose(4)	-11.4	-7.3	3.4	9.9	11.0	6.9	-4.8	-5.2	-2.7	-0.1	5.7	4.1	3.0	3.5	6.0	9.6	10.9	4.8
ACTIVITY AT CURRENT PRICES																		
Consents	-18.2	-16.1	-16.9	-14.4	0.2	5.9	8.4	13.8	11.7	8.6	9.2	11.0	15.4	20.4	24.8	21.1	3.4	-2.4
Work put in place(1)	-13.1	-10.5	-1.6	2.7	3.4	3.7	-2.5	-0.5	3.4	6.4	11.3	11.5	13.2	15.9	18.0	19.1	8.8	3.5
Work put in place - by sector																		
Government	31.2	22.0	13.3	8.3	-2.7	-2.2	-6.4	-5.3	-0.8	-1.2	2.0	2.8	6.3	9.6	11.6	12.9	4.3	-2.0
Private(2)	-27.4	-22.6	-8.4	-0.2	7.0	7.2	-0.2	2.3	5.6	10.5	16.2	16.0	16.7	18.9	21.0	22.0	10.7	5.7
Work put in place by building type(3)																		
Accommodation	-13.4	-9.1	-12.6	-6.8	-3.7	7.4	14.4	12.1	10.4	5.9	8.6	15.4	22.2	26.8	28.2	25.5	12.0	5.1
Commercial	-20.2	-22.2	-15.3	-11.8	-9.3	-4.8	-4.3	1.7	10.8	18.5	22.9	21.5	20.4	20.8	20.5	19.8	6.6	3.0
Industrial	-41.4	-31.7	-16.8	-5.0	36.6	30.6	19.8	30.7	23.6	28.8	30.4	25.0	25.6	28.4	32.9	33.9	13.8	4.8
Hospitals & nursing homes	4.3	41.7	79.7	64.9	30.4	14.4	-12.7	-12.3	-8.5	-8.0	4.6	7.0	11.9	16.6	18.9	19.5	4.8	-1.6
Educational	20.5	6.5	4.9	2.5	-8.2	-4.0	-1.7	-0.9	4.0	3.1	0.5	0.4	3.2	5.6	7.3	9.0	3.9	-2.4
Miscellaneous & multi-purpose(4)	-14.2	-9.8	1.5	8.7	10.2	5.6	-6.8	-8.0	-5.8	-2.9	4.2	4.5	5.9	9.0	12.5	15.9	11.4	6.9
PRICES & TURNOVER																		
Capital goods price index(5)	-3.2	-2.7	-1.8	-1.0	-0.8	-1.2	-2.0	-2.9	-3.2	-2.8	-1.4	0.5	2.8	5.2	5.9	5.7	0.4	2.0
Commercial price index(5)	-8.0		-0.9		0.8		-5.3		-9.2		-7.5		-1.7		3.1			
Commercial turnover(6)	1.0		-19.4															
Industrial price index(5)	-7.6		-3.8		-9.3		-13.2		-14.1		-8.0		4.6		10.5			
Industrial turnover(6)	-3.5		-30.9															

(1) Excludes fees and duties (2) Includes government enterprises (3) Quarterly forecasts of work put in place by building type should be regarded as indicative only

(4) Includes social, cultural, religious, recreational, and farm buildings (5) Rebased to 1995/96, half-year ended in quarter shown

(6) At 1995/96 prices, half-year ended in quarter shown

Table 6.9



Total building activity

Annual data

	10				11				12				13				14	15	16
	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Jun	Sep	Dec	Mar	Mar	Mar
Activity at current prices																			
Work put in place																			
Residential, \$m	5,843	6,102	6,307	6,258	6,188	5,852	5,639	5,628	5,730	5,982	6,459	7,107	7,855	8,661	9,394	10,108	10,680	12,380	13,010
Non-residential, \$m	4,710	4,618	4,605	4,817	4,834	4,777	4,777	4,699	4,812	4,939	5,084	5,229	5,364	5,592	5,892	6,170	6,389	6,949	7,190
Other construction, \$m ⁽¹⁾	6,842	6,851	6,930	7,074	7,232	7,450	7,696	8,001	8,236	8,488	8,687	8,852	8,944	8,998	9,253	9,419	9,951	10,940	11,273
Total construction, \$m	17,394	17,572	17,842	18,149	18,254	18,079	18,112	18,328	18,778	19,409	20,230	21,187	22,164	23,252	24,539	25,697	27,020	30,269	31,474
Gross fixed capital formation ⁽²⁾																			
Residential, \$m	8,208	8,470	8,635	8,516	8,442	8,107	7,942	8,010	8,171	8,499	9,131	9,974	10,931	11,977	12,944	13,865	14,613	16,897	17,952
Non-residential, \$m	5,011	4,908	4,887	5,109	5,123	5,059	5,059	4,971	5,090	5,224	5,378	5,531	5,674	5,916	6,233	6,527	6,759	7,351	7,606
Other construction, \$m	7,248	7,267	7,355	7,509	7,676	7,906	8,167	8,490	8,739	9,006	9,218	9,392	9,490	9,548	9,818	9,994	10,559	11,608	11,962
Total construction, \$m	20,467	20,645	20,877	21,134	21,241	21,072	21,168	21,471	22,000	22,730	23,727	24,898	26,096	27,441	28,996	30,387	31,931	35,856	37,521
Activity at 1995-96 prices																			
Work put in place																			
Residential	3,435	3,578	3,683	3,647	3,601	3,398	3,263	3,236	3,264	3,366	3,567	3,839	4,161	4,488	4,765	5,040	5,255	5,849	5,882
Non-residential	3,450	3,405	3,405	3,565	3,579	3,549	3,576	3,552	3,670	3,790	3,915	4,004	4,069	4,176	4,307	4,456	4,585	4,967	5,040
Other construction ⁽¹⁾	4,408	4,384	4,409	4,481	4,543	4,636	4,764	4,923	5,041	5,167	5,265	5,336	5,362	5,359	5,479	5,542	5,821	6,231	6,236
Total construction	11,293	11,367	11,497	11,693	11,723	11,583	11,603	11,711	11,974	12,322	12,747	13,180	13,592	14,022	14,551	15,039	15,660	17,048	17,157
Gross fixed capital formation ⁽²⁾																			
Residential	4,887	5,043	5,140	5,068	4,999	4,765	4,620	4,606	4,655	4,782	5,043	5,389	5,792	6,206	6,566	6,914	7,190	7,985	8,116
Non-residential	3,654	3,604	3,603	3,771	3,785	3,754	3,783	3,757	3,882	4,009	4,142	4,236	4,305	4,418	4,556	4,714	4,850	5,254	5,332
Other construction	4,670	4,650	4,679	4,757	4,822	4,920	5,055	5,224	5,349	5,482	5,587	5,662	5,689	5,686	5,814	5,880	6,177	6,612	6,616
Total construction	13,211	13,297	13,422	13,596	13,606	13,439	13,457	13,587	13,885	14,274	14,772	15,288	15,786	16,310	16,936	17,509	18,217	19,851	20,064

(1) Infometrics estimates based on gross fixed capital formation data (2) Fees and taxes make up the difference between work put in place and gross fixed capital formation

Table 6.10

**Total building activity***Annual percentage changes in annual data*

	10 Mar	Jun	Sep	Dec	11 Mar	Jun	Sep	Dec	12 Mar	Jun	Sep	Dec	13 Mar	Jun	Sep	Dec	14 Mar	15 Mar	16 Mar
Activity at current prices																			
Work put in place																			
Residential, \$m	-14.7	-4.3	6.2	6.5	5.9	-4.1	-10.6	-10.1	-7.4	2.2	14.5	26.3	37.1	44.8	45.4	42.2	36.0	15.9	5.1
Non-residential, \$m	-10.9	-13.1	-10.5	-1.6	2.7	3.4	3.7	-2.5	-0.5	3.4	6.4	11.3	11.5	13.2	15.9	18.0	19.1	8.8	3.5
Other construction, \$m ⁽¹⁾	9.0	3.8	3.4	3.3	5.7	8.7	11.1	13.1	13.9	13.9	12.9	10.6	8.6	6.0	6.5	6.4	11.3	9.9	3.1
Total construction, \$m	-5.5	-3.9	0.3	3.0	4.9	2.9	1.5	1.0	2.9	7.4	11.7	15.6	18.0	19.8	21.3	21.3	21.9	12.0	4.0
Gross fixed capital formation ⁽²⁾																			
Residential, \$m	-12.2	-3.9	3.8	2.9	2.8	-4.3	-8.0	-5.9	-3.2	4.8	15.0	24.5	33.8	40.9	41.8	39.0	33.7	15.6	6.2
Non-residential, \$m	-10.7	-13.0	-10.6	-1.9	2.2	3.1	3.5	-2.7	-0.6	3.3	6.3	11.3	11.5	13.2	15.9	18.0	19.1	8.8	3.5
Other construction, \$m	9.4	4.3	3.9	3.7	5.9	8.8	11.0	13.1	13.9	13.9	12.9	10.6	8.6	6.0	6.5	6.4	11.3	9.9	3.1
Total construction, \$m	-5.2	-3.6	0.1	2.0	3.8	2.1	1.4	1.6	3.6	7.9	12.1	16.0	18.6	20.7	22.2	22.0	22.4	12.3	4.6
Activity at 1995-96 prices																			
Work put in place																			
Residential	-15.3	-4.8	5.1	5.4	4.8	-5.0	-11.4	-11.3	-9.4	-0.9	9.3	18.6	27.5	33.3	33.6	31.3	26.3	11.3	0.6
Non-residential	-8.5	-10.2	-8.0	0.3	3.7	4.2	5.0	-0.4	2.5	6.8	9.5	12.7	10.9	10.2	10.0	11.3	12.7	8.3	1.5
Other construction ⁽¹⁾	4.8	0.3	0.1	0.7	3.1	5.8	8.1	9.9	11.0	11.4	10.5	8.4	6.4	3.7	4.1	3.9	8.6	7.0	0.1
Total construction	-6.2	-4.7	-0.9	2.0	3.8	1.9	0.9	0.2	2.1	6.4	9.9	12.5	13.5	13.8	14.2	14.1	15.2	8.9	0.6
Gross fixed capital formation ⁽²⁾																			
Residential	-13.0	-4.3	3.5	2.8	2.3	-5.5	-10.1	-9.1	-6.9	0.4	9.2	17.0	24.4	29.8	30.2	28.3	24.1	11.0	1.7
Non-residential	-8.4	-10.2	-8.0	0.2	3.6	4.2	5.0	-0.4	2.5	6.8	9.5	12.7	10.9	10.2	10.0	11.3	12.7	8.3	1.5
Other construction	5.2	0.8	0.6	1.0	3.3	5.8	8.0	9.8	10.9	11.4	10.5	8.4	6.4	3.7	4.1	3.9	8.6	7.0	0.1
Total construction	-6.0	-4.3	-0.8	1.4	3.0	1.1	0.3	-0.1	2.1	6.2	9.8	12.5	13.7	14.3	14.7	14.5	15.4	9.0	1.1

(1) Infometrics estimates based on gross fixed capital formation data (2) Fees and taxes make up the difference between work put in place and gross fixed capital formation

Table 6.11



New dwelling consents by region

Year ended June

	Northland		Auckland		Waikato/Bay of Plenty/Gisborne		Hawke's Bay		Taranaki/Manawatu/Wanganui	
	Number	APC ⁽¹⁾	Number	APC ⁽¹⁾	Number	APC ⁽¹⁾	Number	APC ⁽¹⁾	Number	APC ⁽¹⁾
2007	1,373	2%	6,781	-6%	5,837	8%	902	-4%	1,725	7%
2008	1,202	-12%	5,769	-15%	4,749	-19%	753	-17%	1,663	-4%
2009	829	-31%	3,212	-44%	2,834	-40%	499	-34%	880	-47%
2010	829	0%	3,656	14%	3,149	11%	636	27%	1,217	38%
2011*	637	-23%	3,344	-9%	2,703	-14%	504	-21%	953	-22%
2012*	804	26%	3,292	-2%	2,999	11%	558	11%	1,130	19%
2013*	1,131	41%	5,072	54%	4,322	44%	730	31%	1,509	33%
2014*	1,273	13%	6,472	28%	4,855	12%	734	1%	1,599	6%
2015*	1,418	11%	6,791	5%	5,415	12%	768	5%	1,713	7%
2016*	1,538	8%	6,603	-3%	5,791	7%	758	-1%	1,897	11%

	Wellington		Nelson/Marlborough		Christchurch		Provincial Canterbury/Westland		Otago/Southland	
	Number	APC ⁽¹⁾	Number	APC ⁽¹⁾	Number	APC ⁽¹⁾	Number	APC ⁽¹⁾	Number	APC ⁽¹⁾
2007	2,032	0%	1,160	29%	2,425	17%	2,348	5%	1,953	11%
2008	2,153	6%	1,082	-7%	1,791	-26%	2,277	-3%	1,820	-7%
2009	1,554	-28%	723	-33%	1,123	-37%	1,290	-43%	1,231	-32%
2010	1,413	-9%	781	8%	1,524	36%	1,618	25%	1,343	9%
2011*	1,273	-10%	660	-15%	1,116	-27%	1,300	-20%	1,123	-16%
2012*	1,371	8%	678	3%	1,293	16%	1,279	-2%	1,223	9%
2013*	1,689	23%	873	29%	3,092	139%	1,947	52%	1,646	35%
2014*	1,942	15%	962	10%	4,316	40%	2,205	13%	1,736	5%
2015*	2,025	4%	1,000	4%	4,511	5%	2,208	0%	1,711	-1%
2016*	2,054	1%	1,049	5%	3,180	-29%	1,972	-11%	1,834	7%

Source: Statistics New Zealand; * Infometrics forecasts

(1) Annual percentage change

Table 6.12

**Non-residential building by region**

Work put in place, year ended June, 1995/96 \$m

	Northland/Auckland		Waikato/Bay of Plenty		Gisborne/Hawke's Bay/Taranaki		Manawatu/Wanganui/Wellington		Canterbury		Other South Island	
	WPIP	APC ⁽¹⁾	WPIP	APC ⁽¹⁾	WPIP	APC ⁽¹⁾	WPIP	APC ⁽¹⁾	WPIP	APC ⁽¹⁾	WPIP	APC ⁽¹⁾
2007	1,360	-16%	689	-6%	220	13%	580	-14%	424	17%	405	-17%
2008	1,366	0%	587	-15%	239	9%	570	-2%	449	6%	482	19%
2009	1,427	4%	483	-18%	204	-15%	632	11%	482	7%	566	17%
2010	1,196	-16%	518	7%	161	-21%	540	-15%	487	1%	503	-11%
2011*	1,377	15%	553	7%	159	-1%	568	5%	435	-11%	456	-9%
2012*	1,641	19%	604	9%	191	20%	540	-5%	407	-7%	407	-11%
2013*	2,067	26%	509	-16%	183	-4%	506	-6%	582	43%	329	-19%
2014*	2,004	-3%	457	-10%	137	-25%	538	6%	1,103	89%	461	40%
2015*	2,086	4%	501	10%	146	7%	620	15%	1,158	5%	514	12%
2016*	1,832	-12%	402	-20%	105	-28%	539	-13%	1,098	-5%	427	-17%

Source: Statistics New Zealand; * Infometrics forecasts

⁽¹⁾ Annual percentage change

Table 6.13



Construction project survey (over \$50m) by region

Source: What's On

Northland/Auckland

Under construction	11 projects totalling \$1,399m
To start next 18 months	12 projects totalling \$1,590m
Planning stages	34 projects totalling \$10,934m

Waikato/Bay of Plenty

Under construction	7 projects totalling \$2,005m
To start next 18 months	7 projects totalling \$792m
Planning stages	15 projects totalling \$2,147m

Gisborne/Hawke's Bay/Taranaki

Under construction	1 project totalling \$50m
To start next 18 months	1 project totalling \$52m
Planning stages	1 project totalling \$500m

Manawatu/Wanganui/Wellington

Under construction	1 project totalling \$220m
To start next 18 months	6 projects totalling \$646m
Planning stages	26 projects totalling \$2,908m

Canterbury

Under construction	3 projects totalling \$530m
To start next 18 months	2 projects totalling \$166m
Planning stages	13 projects totalling \$2,222m

South Island excl Canterbury

Under construction	3 projects totalling \$496m
To start next 18 months	6 projects totalling \$2,830m
Planning stages	17 projects totalling \$6,287m

We endeavour to ensure that all information contained in this table is correct. However, it should not be regarded as a comprehensive list of all major building projects planned or underway. Projects listed in this table are not guaranteed to proceed. A detailed list of projects is available on request to subscribers of What's On.

Table 6.14

**Construction project survey (over \$50m) by building type**

Source: What's On

Accommodation

Under construction	No projects
To start next 18 months	1 project totalling \$300m
Planning stages	6 projects totalling \$520m

Commercial

Under construction	5 projects totalling \$615m
To start next 18 months	6 projects totalling \$850m
Planning stages	19 projects totalling \$2,593m

Education

Under construction	2 projects totalling \$140m
To start next 18 months	No projects
Planning stages	7 projects totalling \$490m

Hospital

Under construction	1 project totalling \$208m
To start next 18 months	1 project totalling \$52m
Planning stages	2 projects totalling \$537m

Industrial

Under construction	1 project totalling \$100m
To start next 18 months	2 projects totalling \$200m
Planning stages	6 projects totalling \$2,211m

Miscellaneous

Under construction	1 project totalling \$113m
To start next 18 months	1 project totalling \$50m
Planning stages	5 projects totalling \$798m

Residential

Under construction	5 projects totalling \$570m
To start next 18 months	8 projects totalling \$765m
Planning stages	9 projects totalling \$1,170m

Other Construction

Under construction	11 projects totalling \$2,954m
To start next 18 months	15 projects totalling \$3,859m
Planning stages	59 projects totalling \$17,304m

We endeavour to ensure that all information contained in this table is correct. However, it should not be regarded as a comprehensive list of all major building projects planned or underway. Projects listed in this table are not guaranteed to proceed. A detailed list of projects is available on request to subscribers of What's On.

Table 6.15