

# Chapter 11 Construction

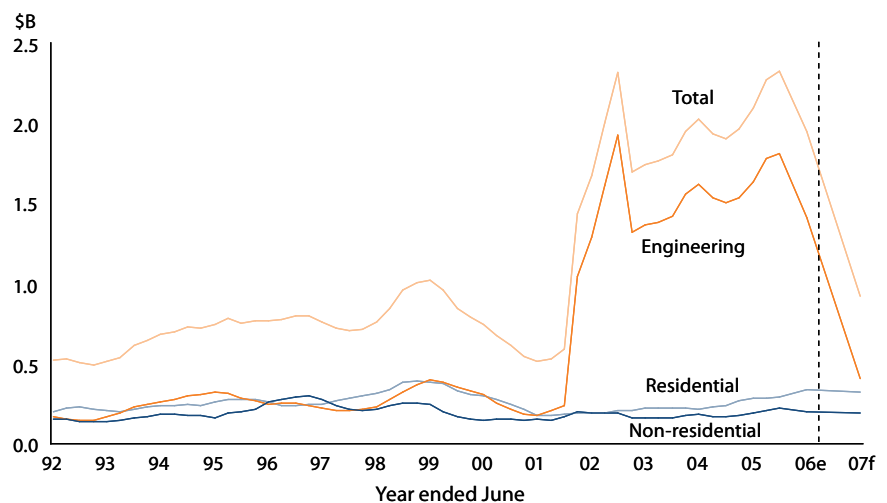
## Key Points

- Over the past five years, the construction industry has on average accounted for 6.5 per cent of Territory gross state product and employed 7.3 per cent of the workforce.
- The period immediately following the major defence force relocation to the Top End coincided with a marked reduction in construction activity, as economic and population growth weakened.
- Major infrastructure projects such as the Bayu-Undan oil and gas development and the liquefied natural gas plant at Wickham Point, as well as the Alcan G3 refinery expansion, have kept engineering construction at record levels in recent years.
- Property markets have strengthened significantly since 2004. After increasing by 3.9 per cent to \$2.1 billion in 2004-05, the value of construction work done is estimated to decrease by 7.3 per cent to \$1.9 billion in 2005-06.
- In 2006-07, the value of construction work done is forecast to decrease by 52 per cent to \$916 million. The completion of work on the Wickham Point LNG plant is the major factor contributing to the decline.
- In 2006-07, construction activity will again be underpinned by engineering work for major projects, particularly the Alcan G3 refinery expansion, and will be further supported by solid residential activity associated with recovering population growth in the Darwin region.

Construction is a major Territory industry, but is highly volatile, accounting for 7 per cent of gross state product (GSP) in 2004-05 compared to 6 per cent nationally.

Construction activity slowed markedly following the strong growth of the mid to late 1990s associated with the defence build up (Chart 11.1). In 2000-01, construction work done totalled less than \$0.6 billion, increasing to \$1.7 billion in 2001-02 and 2002-03, primarily driven by construction work for the Alice Springs to Darwin railway and Bayu-Undan stage 1. Activity reached record levels in 2003-04 and 2004-05, with construction for Bayu-Undan stage 2, the LNG plant at Wickham Point and the \$2 billion Alcan G3 refinery expansion at Gove.

Chart 11.1: Territory Construction Work Done (moving annual total, 2003-04 dollars)



e: estimate; f: forecast

Source: Northern Territory Treasury, ABS Cat. Nos. 8752.0, 8762.0, 8782.0.65.001

The construction industry is a significant employer in the Territory, accounting for 7.3 per cent of resident employment in the past five years. Although major projects such as the Alcan G3 refinery expansion at Gove create a significant number of jobs in the Territory, this is not necessarily reflected in resident employment figures as reported by the Australian Bureau of Statistics (ABS). The primary reason is that the very large scale of these projects combined with a limited pool of skilled local workers results in a strong reliance on fly in fly out (FIFO) employees.

Projects such as the Alcan G3 refinery expansion have a huge impact on the value of construction work done in the Territory. They are significant both on a Territory and a national scale and can lead to substantial volatility in the value of construction work done. However, the impact of these projects on underlying economic activity may be less substantial due to their location, often in remote areas or offshore, use of FIFO workers and the importation of equipment and construction materials from outside the Territory.

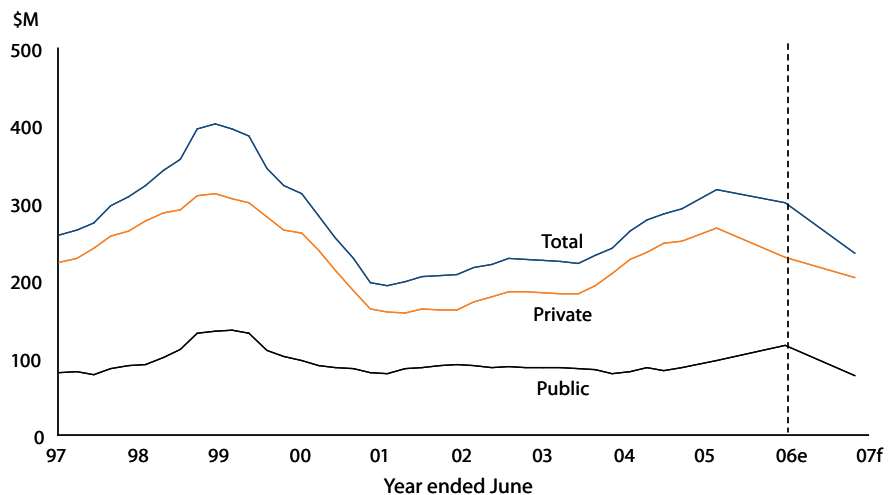
### Residential Construction

Residential construction includes the building of new houses and other residential buildings, residential conversions, alterations and additions to residential buildings.

Demographic, social and economic factors have strong influences on the demand for residential dwellings and, in turn, on construction. Factors affecting the demand for housing include the rate of new household formation, the distribution of income and wealth, the availability and cost of housing, the price of new dwellings relative to existing dwellings and government housing policies. In the short term, interest rates and business and consumer confidence are also major influences on the building cycle.

Territory housing construction sustained strong levels of activity throughout the late 1990s (Chart 11.2). Growth reflected the impact of the increased defence presence, which in conjunction with activity in tourism and other sectors, boosted economic and population growth and demand for dwellings. Combined with relatively low interest rates and tax incentives, this growth generated strong investor and developer confidence in the residential market, particularly in the Darwin area and notably for units and high-rise apartment complexes.

Chart 11.2: Territory Residential Building Work Done (moving annual total, 2003-04 dollars)



e: estimate; f: forecast  
 Source: Northern Territory Treasury, ABS Cat. No. 8752.0



## Land

The completion of the defence build up and a general downturn in the onshore economy from 2000 saw land sales decline over the period to 2003, to about half the 1998 peak. In 2004, land sales began a steady improvement in line with stronger housing demand. The pace of land sales continued to grow in 2005, increasing by 19 per cent in the year, albeit from a relatively low level. In 2005, Palmerston accounted for 78 per cent of all residential land sales, up from 65 per cent a year earlier, while Darwin accounted for 19 per cent of sales, down from 31 per cent, and Alice Springs accounted for 3 per cent of sales (Chart 11.3).

**Alice Springs** In Alice Springs, a shortage of residential land for development over the past decade was associated with native title restrictions on the release of crown land. A landmark Indigenous Land Use Agreement (ILUA) between the Territory Government and the Lhere Artepe native title holders was finalised in April 2004. The agreement led to the release of 40 residential blocks in the new subdivision of Stirling Heights. In recent years, two large rural resident developments have been proposed for the Alice Springs region, which may provide up to 400 new blocks.

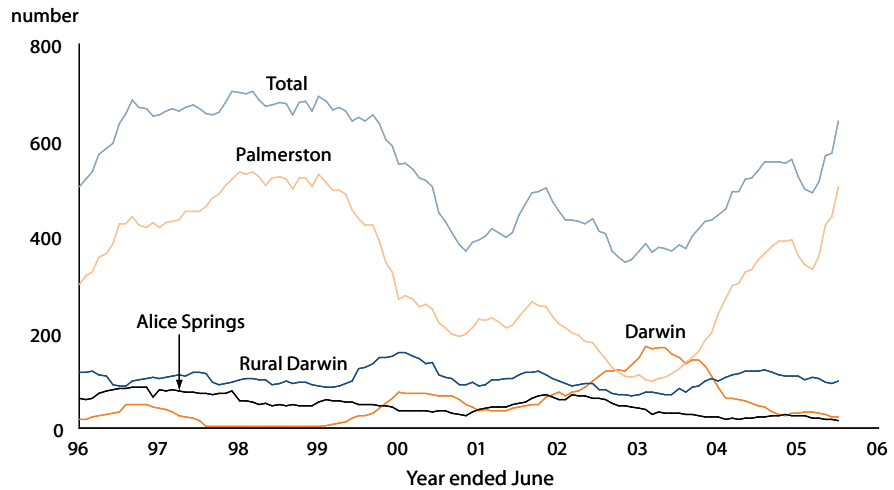
**Darwin** Subdivision of Darwin's newest suburb, Lyons, will begin in 2006. Lyons is a joint public-private sector development and will create approximately 700 residential lots on 77 hectares of surplus defence land near Lee Point. The suburb will be developed concurrently for defence and private sector housing.

Although Darwin is currently seeing substantial construction of medium and high density dwellings (notably in the central business area), a number of new housing estates close to the central business district have also been developed in recent years including Bayview, Woolner, Parap Grove, The Narrows, Tipperary Waters and City Valley.

**Palmerston** Strong population growth from 1995 to 1998 associated with the defence build up, combined with the limited supply of land for housing development in Darwin, was the primary stimulus for the rapid growth of Palmerston. Palmerston's ready supply of land has seen the suburbs of Durack (Fairway Waters), Gunn (The Chase), Bakewell, Farrar and Rosebery develop and grow substantially in a relatively short time. Demand has recovered rapidly from the low levels experienced in 2002-03, bolstered by owner-occupier and investment demand, and supported by increased home ownership incentives offered through the Northern Territory Government's HomeNorth Scheme.

Access to land for residential development is not an immediate issue in Palmerston; available land in Gunn, Farrar, Durack and Rosebery is considered sufficient for at least the next five years.

Chart 11.3: Territory Residential Land Sales (moving annual total)



Source: Australian Valuation Office

**Residential Building Approvals**

Residential building approvals are a lead indicator of short-term dwelling construction activity. Following strong growth in the mid to late 1990s, approvals peaked in 1998-99. Approvals declined by 30 per cent in both 1999-2000 and 2000-01, followed by two years of stagnation (Chart 11.4).

Several factors contributed to the downturn. The primary reason was overbuilding resulting from the defence-related construction boom of the 1990s. Weaker population growth and rising interest rates also acted to dampen owner-occupier and investor demand. The introduction of the Territory Government’s QuickStart scheme and the doubling of the First Home Owner Grant helped to halt the rate of decline, with private sector approvals increasing by 2 per cent in 2001-02.

Approvals were unchanged in 2002-03 as the introduction of Government incentives in the previous year acted to pull forward activity. Strong growth in other residential building approvals was more than offset by a decline in house approvals, which fell to their lowest level since 1989.

Chart 11.4: Territory Building Approvals for Residential Dwellings (moving annual total)



Source: ABS Cat. No. 8731.0



In 2004-05, approvals increased by 18 per cent to 1388, with solid growth in both new houses (up 24 per cent), and approvals for several large apartment complexes which increased 'other' dwellings approvals by 18 per cent.

### Property Markets

Movements in property markets continue to be the largest influence on the residential construction sector in the Territory. The building industry and property markets are subject to strong fluctuations in activity, real estate prices and sales volumes.

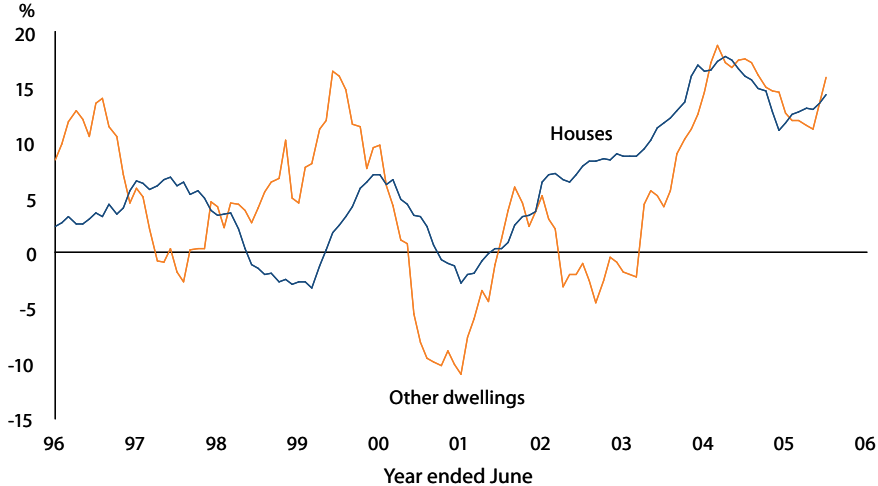
#### Housing Prices

The Territory did not experience the housing price boom seen in most southern states in the period leading up to 2004. The Real Estate Institute of Australia (REIA) reports that established house prices in Darwin increased by 58 per cent in the five years to 2005, the second lowest growth of the eight capital cities (behind Melbourne).

In 2005, Darwin house prices increased by 15 per cent, the strongest growth since the mid 1990s (Chart 11.5). Nevertheless, the Territory continues to have the most affordable housing of all jurisdictions, according to the REIA.

The other dwellings market (townhouses and units) tends to be significantly more volatile than the market for houses (Chart 11.5), with prices fluctuating with the release of major new developments, changes in investor sentiment and distinct cycles of under and over supply.

Chart 11.5: Territory House and Other Dwellings Prices (year on year percentage change)



Source: Australian Valuation Office

The REIA estimates that other dwellings prices in Darwin increased by 13 per cent to \$176 300 in 2004, as investors and owner occupiers returned to the market. The other dwellings market strengthened further in 2005, with median prices increasing by 24 per cent to \$216 100. Over the five years to 2005, other dwellings prices increased by 44 per cent, compared to 58 per cent for houses.

#### Property Sales

Residential property sales peaked in 1999, boosted by public sector disposals related to the Territory Housing divestment program. Property sales fell significantly in 2000 and 2001, notably for houses, which fell more than 30 per cent over the two year period.

Sales numbers for both houses and other dwellings have improved markedly since the trough in mid 2001 (Chart 11.6). Growth has been driven equally by sales of other dwellings and houses over this period, although the proportion of unit sales has increased significantly. Sales growth has slowed markedly since mid 2004; nonetheless house sales are at record levels and other dwellings sales are close to record levels.

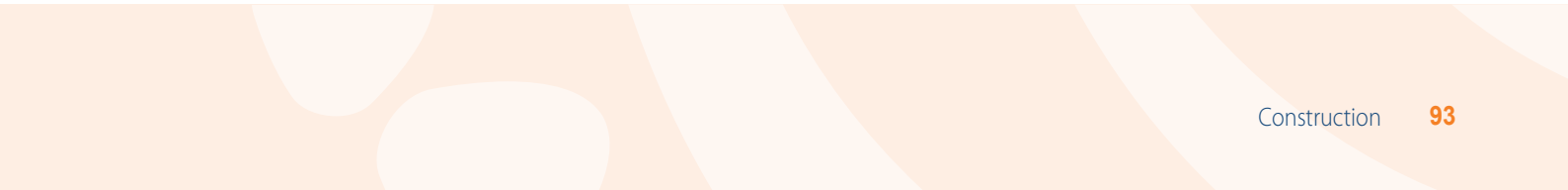


Chart 11.6: Territory House and Other Dwelling Sales (moving annual total)



Source: Australian Valuation Office

### Rental Market

Territory rental vacancy rates were at relatively high levels for several years until early 2002, reflecting a general oversupply. Over the past three years, vacancy rates have fallen to levels that suggest demand will outpace supply in the short to medium term. The Real Estate Institute of the Northern Territory (REINT) reports the average residential vacancy rates for 2005 as:

- Darwin – 2.0 per cent for houses and 2.6 per cent for units;
- Palmerston – 2.8 per cent for houses and 2.2 per cent for units;
- Alice Springs – 3.3 per cent for houses and 4.2 per cent for units; and
- Katherine – 3.1 per cent for houses and 2.1 per cent for units.

According to the REIA, rental income for a three-bedroom house in Darwin averaged \$300 per week in 2005, the highest average weekly rental income on record. A two-bedroom unit generated average weekly rental income of \$220 for the same period, up from \$210 in 2004.

### Public Housing

In the Territory, the main providers of housing assistance are Territory Housing, which manages the Territory Government’s public and government employee housing stock, the Indigenous Housing Authority of the Northern Territory (IHANT) and the Defence Housing Authority (DHA). These organisations provide partially or fully subsidised accommodation to eligible low-income earners, public sector employees, Indigenous Territorians and defence personnel.

In the Territory, the number of households in public sector dwellings is relatively high, with 2001 Census data reporting that 15 per cent of households were renting from a state housing authority compared to 5 per cent nationally. This proportion has fallen since the 1996 Census, when 29 per cent of households were renting from a state housing authority in the Northern Territory.

### Territory Housing

Territory Housing owns and manages more than 7200 dwellings throughout the Territory.

Construction work since 2003-04 has concentrated on increasing the maintenance and upgrade program to address the deterioration in condition and amenity of Territory Housing stock. In addition, a number of public housing complexes were redeveloped to reduce density and minimise associated antisocial behaviour. There has also been an increased emphasis on the provision of government employee housing in remote areas.



Significant Territory Housing projects in 2004-05 include the completion of 40 ground level two-bedroom units at the Fannie Bay Seniors Village, the construction of 34 government employee dwellings in remote communities at a cost of \$10.6 million, the replacement of 40 government employee dwellings at a cost of \$14.6 million and the upgrade of 53 dwellings at a cost of \$5.3 million.

Since 1991, Territory Housing has supported home ownership through a program to provide home loans under the HomeNorth scheme. HomeNorth provides assistance to low and middle income households which are unable to obtain finance through private sector financial institutions.

The scheme was popular in the late 1990s, but the level of uptake declined in 2000. In 2001 the number of new loans decreased by 21 per cent to 251. This decline continued before reaching a low of 178 approvals in 2003. There was an 88 per cent increase in 2004 to 335 approvals, albeit from a relatively low base reflecting increased confidence in the Darwin housing market and improvements to the scheme. Major changes to the scheme in July 2005 resulted in a 44 per cent increase (to 483) in the number of new loans in 2005.

#### Indigenous Housing Authority of the Northern Territory

IHANT was formed in 1995 and is responsible for the development of improved housing for Indigenous Territorians. During 2004-05, 94 new dwellings were constructed and 22 dwellings were upgraded and renovated at a cost of \$20 million. IHANT also generates considerable building activity through its maintenance program.

In December 2005, the Australian Government and the Northern Territory Government signed the Agreement for the Provision of Housing and Housing Related Infrastructure for Indigenous People in the Northern Territory 2005-2008. The agreement effectively moves the expenditure from the Australian Government's National Aboriginal Health Strategy to existing Indigenous housing programs administered by the Territory Government.

#### Defence Housing Authority

Defence relocations in the mid to late 1990s resulted in significant residential construction through DHA. DHA provides housing for defence personnel through its ownership of dwellings, development activity, and through the leasing of properties from the private sector. DHA-managed stock in the Territory has increased from about 1250 dwellings in 1992 to 2215 dwellings since June 2005. DHA is also a partner in the development of the new Darwin suburb of Lyons near Lee Point, and will retain at least 300 residential lots. Construction is expected to take place over a five year period from mid 2006.

### Non-Residential Building

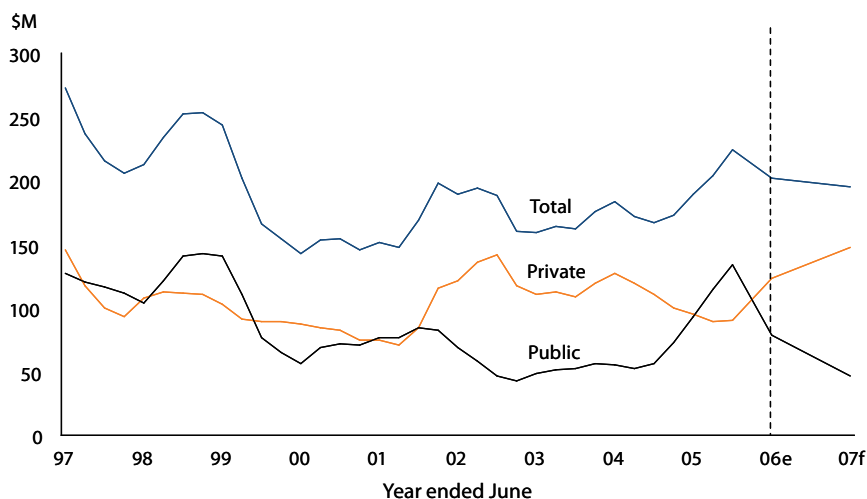
Non-residential building includes hotels, shopping centres, factories, offices, schools, hospitals and cinemas. The level of private sector investment in non-residential building is determined by several factors, including the adequacy of existing capital stock, interest rates, anticipated future demand and general business confidence.

Public sector expenditure on non-residential building is targeted to meet medium to long-term needs and provide social and economic infrastructure such as schools, hospitals and roads.

Population growth fuelled the need for expanded social and commercial infrastructure required to support growing demand, notably for shopping and educational facilities. Strong tourism growth in the 1990s also resulted in major hotel investment.

In line with the completion of major defence works and moderating population growth, non-residential building eased in 1999-2000 and 2000-01. Strong growth of 25 per cent in 2001-02 was primarily associated with upgrades at the Darwin and Alice Springs hospitals and the significant expansion of the Ayers Rock Resort at Yulara. Non-residential building activity fell in 2002-03 as the completion of the hospital upgrades reduced public investment.

**Chart 11.7: Territory Non-Residential Building Work Done (moving annual total, 2003-04 dollars)**



e: estimate; f: forecast

Source: Northern Territory Treasury, ABS Cat. Nos. 8752.0, 8755.0, 8782.0.65.001

Non-residential activity increased by 15 per cent in 2003-04 and by 3 per cent in 2004-05 primarily due to public investment expenditure which increased by 68 per cent. The most notable of the public sector investment projects was defence-related infrastructure, including the co-location of the 1st Aviation Regiment to Darwin and the Bradshaw Field Training Area. Total non-residential building activity is estimated to have increased by 6.9 per cent in 2005-06 (Chart 11.7).

**Private Sector** Private sector non-residential construction fell by 25 per cent in 2004-05, with projects struggling in an environment of rising labour costs and skills shortages as they were unable to match wages and conditions offered by mega-projects such as the Wickham Point LNG plant and the Alcan G3 refinery expansion.

**Public Sector** Territory Government investment for non-residential building in 2004-05 included the commencement of the construction of a bulk loading facility at East Arm, a low security correctional centre in Darwin and classrooms at Darwin High School. Health-related projects included the construction of hospice and palliative care facilities at Royal Darwin Hospital, a renal health clinic in Tennant Creek and remediation works at Alice Springs Hospital. Additionally, as part of the National Aboriginal Health Strategy, a number of health clinics were built or upgraded in remote communities.

Public sector non-residential construction activity eased in 2005-06 as the work related to the upgrade of Robertson Barracks concluded. Although this was somewhat offset by Northern Territory Government and cooperative projects, public non-residential activity is estimated to have fallen by around 16 per cent in 2005-06.

At the local government level, the Alice Springs Town Council began a \$9 million redevelopment of the Civic Centre in late 2004. Stage 1 of the development was completed in late 2005, with stage 2 scheduled to be completed in early 2006.



### Darwin Waterfront Development

The \$1.1 billion Darwin Waterfront Development, a joint private and public sector project, commenced in 2005 and will continue to provide a stimulus to the non-residential construction sector over coming years. In particular, the \$100 million Darwin Convention and Exhibition Centre, as well as commercial space, serviced apartments and a hotel, has a minimum 85 per cent local content requirement for contractors and suppliers.

In 2005-06, the Darwin Waterfront Development, along with other large non-residential projects, such as stage 1 of the Darwin Chinatown development (consisting of an office tower and carpark) and the \$100 million Outrigger Pandanas serviced apartments, will lead to an estimated 29 per cent increase in private non-residential construction activity.

### Engineering Construction

Traditionally, engineering construction activity in the Territory has been predominantly funded by the public sector and largely focused on infrastructure development.

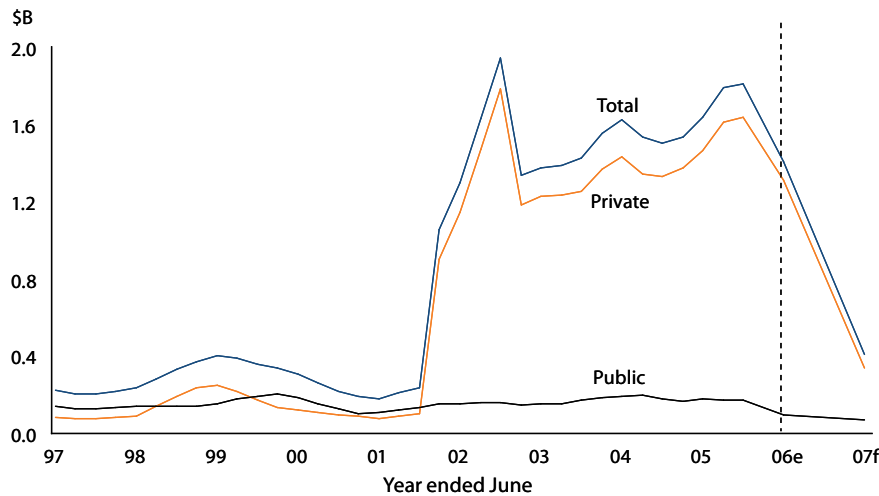
However, as a proportion of work done, private sector engineering construction has grown over the past decade. Work on the Alice Springs to Darwin railway and Bayu-Undan stages 1 and 2 have resulted in private sector work exceeding that of the public sector. Based on current projects, private sector engineering will remain at high levels until 2007, as investment for Bayu-Undan stage 2 and the Alcan G3 refinery expansion at Gove (the main drivers of engineering work done) reach their peak in 2005-06.

Excluding the impact of the Timor Sea oil and gas mega-projects such as the Laminaria-Corallina oilfields in 1998-99, the Bayu-Undan oil and gas project (2002 to 2005) and the Alcan G3 refinery expansion (2004 to 2006), private sector engineering activity has averaged around one-third of the total engineering construction work done since 1990.

### Major Projects

Territory engineering construction increased seven-fold from \$179 million in 2000-01 to more than \$1.3 billion in 2001-02. The sharp spike was primarily attributable to work for Bayu-Undan stage 1 and the railway (Chart 11.8). As expenditure for these projects continued in 2002-03, engineering construction activity increased by a further 6 per cent to \$1.4 billion.

Chart 11.8: Territory Engineering Construction Work Done (moving annual total, 2003-04 dollars)



e: estimate f: forecast

Source: Northern Territory Treasury, ABS Cat. Nos 8762.0, 8782.0.0.65.001

The railway project and associated bridge work accounted for an estimated 15 per cent of total engineering work done in 2001-02, increasing to more than 20 per cent in 2002-03 as construction reached peak levels. The construction of stage 2 of the East Arm Port also contributed significantly to total engineering construction work done during 2002-03 and, to a lesser extent, into 2003-04.

Engineering construction work increased by 19 per cent to more than \$1.6 billion in 2003-04 and by 0.6 per cent in 2004-05. The significant increase was predominantly due to work for Bayu-Undan stage 2 commencing in mid 2003, including the construction of the US\$1 billion LNG plant at Wickham Point and a US\$500 million sub-sea pipeline. The Wickham Point LNG plant was completed in December 2005, marking the conclusion of the construction phase of the Bayu-Undan project, which is the major contributor to the estimated 14 per cent decline in engineering construction work in 2005-06.

### Alcan G3 Refinery Expansion

In late 2004, work commenced on the \$2 billion expansion of the Alcan G3 refinery at Gove. This project is the first major project in the Territory to make use of pre-assembled modules (PAMs). The 600 modules are assembled offsite (primarily in Malaysia and Thailand) and shipped to Gove for installation. This process enables the majority of fabrication work to be carried out in locations where skills are more available and costs are lower. The Alcan expansion will substantially increase the capacity of the existing refinery and is due to be completed in October 2006.

Other major engineering projects commenced or continuing in 2005-06 include the \$70 million Darwin biodiesel plant, the \$65 million Bradshaw Field Training Area at Timber Creek, and \$37 million related to infrastructure for the Darwin Waterfront Development.

## Construction Outlook

Given the uncertainty surrounding many of the factors influencing the decision to proceed with construction activity, timing can be unpredictable. These factors include the investment climate, access to capital, the outlook for global economic growth, commodity prices, the value of the Australian dollar and perceptions about the Territory's comparative advantages.

Construction activity in the Territory is forecast to decrease by 52 per cent to \$916 million in 2006-07. The value of residential building is forecast to decrease by 6 per cent to \$314 million and non-residential construction is forecast to decrease by 4 per cent to \$195 million. The dominant influence will be engineering construction, which is forecast to fall by 71 per cent (\$1 billion) to \$406 million.

### Residential Building

The outlook is for weakening residential construction activity in 2006-07, with work done forecast to decrease by 6 per cent, but will remain at historically high levels after increasing by an estimated 20 per cent in 2005-06.

With a relatively strong property market, strengthening population growth and buoyant employment prospects, consumer and investor confidence is expected to continue in the short term, although the threat of rising interest rates could act to dampen activity. A number of large multi-storey apartment complexes are currently under construction, with more planned in 2006-07, almost exclusively in the Darwin central business district.



The growth in residential activity is expected to peak in 2005-06, although it will remain strong in 2006-07. Major developments proceeding include:

- the Evolution on Gardiner residential and commercial development (\$50 million);
- the residential component of the Darwin Waterfront Development (\$70 million);
- the residential component of the 26-storey Pandanas Outrigger development (\$100 million); and
- the joint venture development of the Darwin suburb of Lyons (\$280 million).

Looking further ahead, land availability is sufficient for several years of development at current take-up rates in both Darwin and Palmerston. The completion of relocation of the Stuart Park fuel tank farm to East Arm will create a significant parcel of prime real estate available for residential development in 2007.

#### Non-residential Building

Non-residential building work is forecast to decrease by 4 per cent in 2006-07, following a relatively strong period of activity in recent years primarily due to the completion of defence projects such as the redevelopment of Robertson Barracks and the Bradshaw Field Training Area. This will be somewhat offset by an increase in private sector non-residential construction associated with the Darwin Waterfront Development, including the \$100 million Darwin Convention and Exhibition Centre, and the Darwin Chinatown development.

#### Engineering Construction

Engineering construction in 2006-07 is forecast to fall by 71 per cent to \$406 million, as major engineering projects draw to a close. Public sector investment over the next decade will be focused on the Darwin Waterfront Development.

With major engineering work for Bayu-Undan stage 2 complete, and as the Alcan G3 refinery expansion draws to a close in 2006, engineering construction activity in the Territory will contract substantially in 2006-07. However, new projects such as the \$750 million development of the Blacktip gas field in the Joseph Bonaparte Gulf and the \$450 million condensate processing facility at East Arm will ensure that engineering activity in the Territory remains at levels well above historical averages beyond 2007.

#### Longer Term Outlook

As the Territory continues to develop as a service and manufacturing hub for the northern Australian mining and energy sectors, further opportunities are likely to be created for the Territory construction industry.