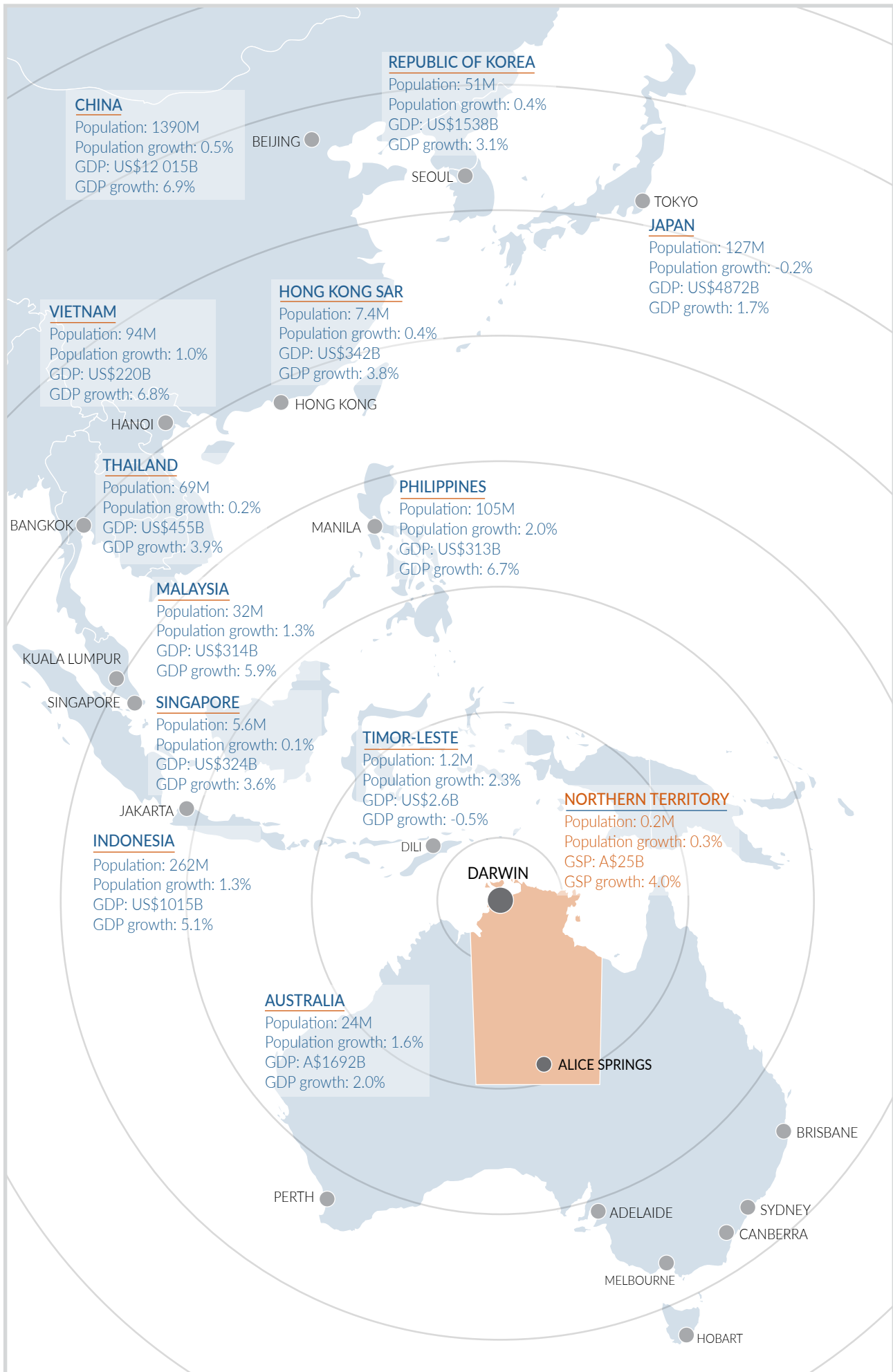




NORTHERN TERRITORY  
ECONOMY



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The map left is produced from various sources. Department of Treasury and Finance cannot guarantee the accuracy, currency, or completeness of the information. To be used as a guide only.

GDP: gross domestic product; SAR: special administrative region; GSP: gross state product



## Overview

The 2018-19 Northern Territory Economy publication details the outlook for the Territory economy across a range of key economic indicators and industry sectors. These include economic growth, population, labour markets, and prices and wages. The Territory's key economic forecasts for the 2018-19 Budget and outlook period are detailed in Table i.

The format of this year's publication is different to previous years, as the commentary on current and historical economic conditions in the Territory is now provided through the new Territory Economy website at [nteconomy.nt.gov.au](http://nteconomy.nt.gov.au). The website content will be updated regularly as new data becomes available and should be read in conjunction with this publication.

Table i: Territory key economic indicators (%)

	2016-17	2017-18e	2018-19f	2019-20f	2020-21f	2021-22f
Gross state product <sup>1</sup>	4.0	2.6	2.1	- 0.4	2.6	2.8
State final demand <sup>1</sup>	8.2	0.1	- 8.0	- 4.4	2.0	2.8
Population <sup>2</sup>	0.3	0.0	- 0.7	0.6	1.0	1.1
Employment <sup>3</sup>	2.5	- 2.0	- 0.5	0.3	0.9	1.0
Unemployment rate <sup>4</sup>	3.4	4.3	4.9	4.5	4.3	4.0
Consumer price index <sup>3</sup>	0.1	0.5	1.0	1.7	1.9	2.3
Wage price index <sup>3</sup>	2.1	1.8	1.7	1.8	2.0	2.1

e: estimate; f: forecast

1 Year ended June, year-on-year percentage change, inflation adjusted.

2 As at December, annual percentage change.

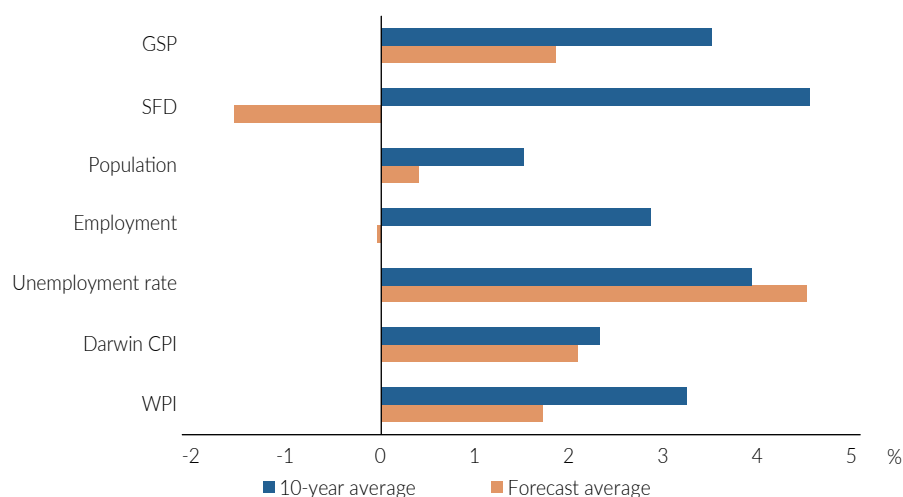
3 Year ended June, year-on-year percentage change.

4 Year average.

Source: Department of Treasury and Finance; Australian Bureau of Statistics

Over 2018-19 and 2019-20 the Territory economy will continue to face challenging conditions following a sustained period of record growth since 2011. As the Ichthys liquefied natural gas (LNG) project transitions from construction to the production phase, key economic indicators are all expected to moderate from the levels reported over the past few years (Chart i). The Territory is also facing challenging fiscal conditions as a result of moderating revenues, most notably the GST, the Territory's largest revenue source. Notwithstanding these challenges, the Territory Government will continue to invest in a significant infrastructure program to stimulate the economy.

Chart i: Territory economic indicator forecasts (%)



GSP: gross state product; SFD: state final demand; CPI: consumer price index; WPI: wage price index

Source: Department of Treasury and Finance; Australian Bureau of Statistics

The most significant impact of the Ichthys LNG project on the Territory economy has been the record levels of private business investment. Over the five years from 2012-13, it is estimated there was an additional \$4.0 billion per annum of investment, equivalent to almost 20 per cent of the Territory's total gross state product. This scale of investment is unprecedented in the Territory's history and has had a substantial impact on the Territory's economy.

The Territory's headline economic growth strengthened in 2016-17 to 4.0 per cent from 1.9 per cent in 2015-16, driven by strong growth in private and public investment, as well as consumption. Economic growth over 2017-18 and 2018-19 is estimated to remain reasonably strong, before declining in 2019-20, largely reflecting declines in business investment. Public investment from the Territory Government's \$1.45 billion infrastructure spend in 2018-19, combined with Commonwealth defence capital works projects, is expected to partially offset declining private investment over the same period.

Over the outer years of the forecast period, economic growth will be underpinned by net exports, predominantly from the production phase of the Ichthys LNG project, as well as moderate growth in consumption from the household and public sectors. Business investment is also expected to return to moderate growth. However growth in export volumes is unlikely to flow through to other areas of the Territory economy, such as employment and population growth, and is not reflected in state final demand forecasts over the outlook period.

The Territory's population grew modestly at 0.3 per cent in 2016 and growth remains well below long-term trend. In 2017, population growth is estimated to be flat due to underlying weakness across many sectors of the economy, as well as the near completion of the construction phase of the Ichthys LNG project. Over 2018, the Territory's population is forecast to decline by 0.7 per cent, reflecting the likely higher interstate migration outflow as a result of the Ichthys LNG project transitioning to a smaller operational workforce. From 2019, the population is forecast to return to growth, trending upwards over the outer years of the forecast period, however remaining below long-term trend.

Following 2.5 per cent employment growth in 2016-17, the Territory is estimated to experience declines in employment over 2017-18 and 2018-19, consistent with the stage of the business cycle. Over the outer forecast period, employment growth is likely to strengthen gradually, however remains below long-term trend. The Territory's unemployment rate is forecast to remain around long-term trends over the forecast period, although initially trending upwards, averaging 4.7 per cent over 2018-19 and 2019-20. The Territory's unemployment rate continues to remain one of the lowest of all jurisdictions.

Growth in the Darwin consumer price index (CPI) is estimated to remain restrained at 0.5 per cent in 2017-18 before a modest return to growth over the forward estimates, however remaining below long-term trend. The softer outlook is mainly due to the continuing effect of moderate population and employment growth, lower input and labour costs, and lower housing costs, particularly lower rents.

Wage growth in the Territory is expected to moderate to 1.8 per cent in 2017-18, and remain subdued. Modest strengthening is expected over the medium-term, consistent with national trends and the below-trend growth forecasts for employment in the Territory and Darwin CPI.

The Territory economy is transitioning from a period of sustained growth over the past decade. It has grown since 2006-07 by 37.5 per cent, to \$25.4 billion in 2016-17 and is broader and more diversified compared to the mid-2000s. There is also significant potential upside to the Territory economy with a pipeline of major projects that have not yet reached final investment decision. If approved, these projects will provide a boost to the Territory's key economic indicators. Other opportunities exist with defence infrastructure investment, record levels of tourism investment,

and emerging agricultural and mining potential, to support growth of the Territory economy over the medium term.

On 27 March 2018, the Independent Scientific Inquiry into Hydraulic Fracturing of Onshore Unconventional Reservoirs in the Northern Territory released its final report. The Territory Government has decided to lift the moratorium on hydraulic fracturing, accepting all 135 recommendations made by the report, which should reduce risk to an acceptable level while creating jobs and guaranteeing significant economic activity over the medium to long term. The economic implications of this decision have not been factored into forecasts as the expected economic impacts on production, employment and regional economic activity are largely beyond the forecast period for the 2018-19 Budget.

The Territory Government's Economic Development Framework is a long-term strategy for the Territory to take advantage of its existing strengths in agribusiness, energy, minerals, tourism and defence, but also capitalise on emerging sectors, such as environmental services, human service delivery, tropical health, renewable energy and marine maintenance, to underpin future growth and opportunity. Collaboratively developed strategies and action plans are now being rolled out to support the development of these sectors, such as the Population Strategy, updated 10-year Infrastructure Plan, industry strategies and regional economic development plans.





## Chapter 1

## Structure of the Economy

## Outlook

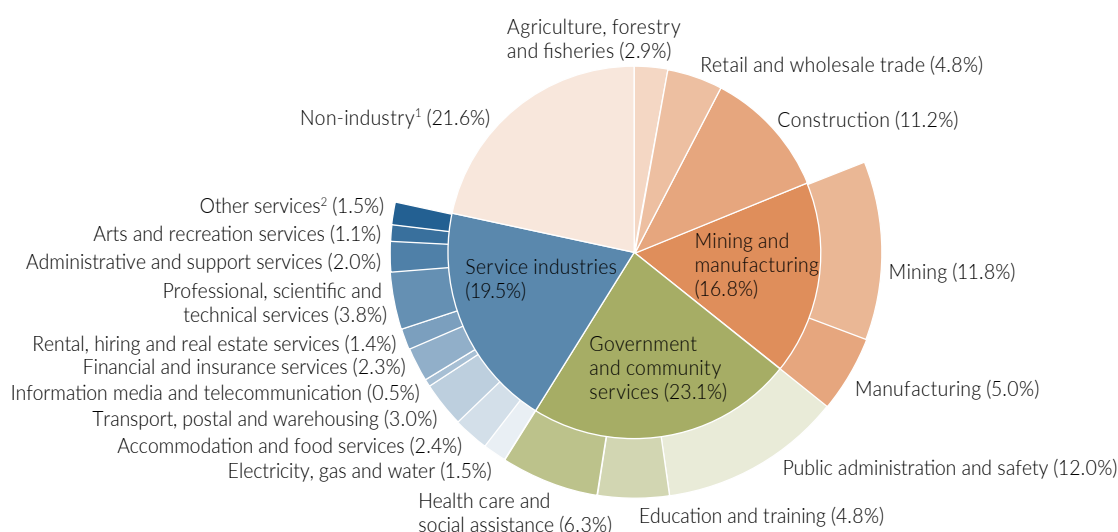
The Territory economy has grown considerably over the past decade. Gross state product (GSP) grew by 37.5 per cent from \$18.5 billion in 2007-08 to \$25.4 billion in 2016-17, and population increased by 12.9 per cent or about 28 000 to over 246 000 people during this period. The Territory's labour force has also expanded, increasing by about 26 300 (22.5 per cent) to over 143 100 people. The economy is more diverse, with a greater share of employment and output across goods and service industries (Chart 1.1).

Over 2018-19 and 2019-20 the Territory economy will face challenging conditions, following a sustained period of record growth associated with the construction of the US\$37 billion Ichthys liquefied natural gas (LNG) project. As the project transitions from construction to the production phase, key indicators such as business investment, construction activity, dwelling investment, employment and population conditions are all expected to moderate from the highs and be replaced by an export-led economy.

Accordingly, the outlook for the structure of the Territory economy is a shift from construction as the dominant sector to mining and manufacturing, however the Ichthys LNG project's contribution to total employment will be considerably less, as a smaller workforce is required for its operational phase. Net exports are then expected to emerge as the primary driver of Territory economic growth, increasing substantially over 2018-19 and 2019-20, and remaining at these levels well into the future.

At the same time the Territory is also facing challenges with fiscal conditions as a result of declining revenues, most notably GST, the Territory's largest revenue source. Despite these challenges, the Territory Government is committed to a significant infrastructure investment program to stimulate the economy and responding to increasing demand for the key services of health, education and public safety.

Chart 1.1: Contributions to GSP, 2016-17



GSP: gross state product

1 Non-industry components of GSP include ownership of dwellings, taxes less subsidies and statistical discrepancy.

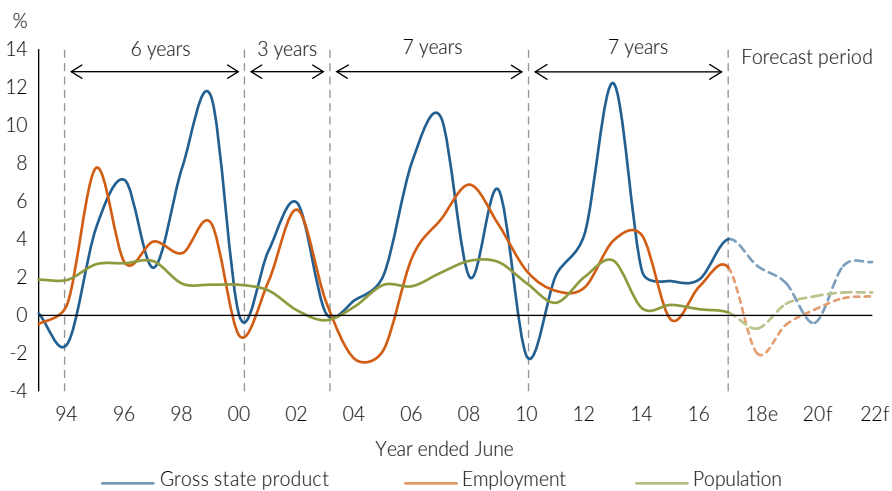
2 Other services components of GSP include personal services and general repair and maintenance activities.

Source: ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0

All economies are subject to cyclical effects, with the frequency, magnitude and length of time between periods of growth often linked to the size of the economy, structure and reliance on key industries, and vulnerability to external factors such as commodity prices and exchange rates. As a small open economy heavily reliant on resources and historically driven by major projects, the economic cycles in the Territory tend to be more pronounced than in other jurisdictions in Australia. Over the last 25 years the Territory has experienced growth cycles averaging six to seven years where expansionary economic conditions have been experienced. These expansionary cycles have been followed by periods of cyclical contraction.

The Territory is currently transitioning through a downturn in the economic cycle, which is reflected in low growth across a number of key economic indicators. The Territory's GSP, employment, population and consumer price index collectively provide an overview of the cyclical nature of the Territory economy (Chart 1.2). The highly transient nature of the Territory's population is a significant factor in these movements, as economic and particularly employment conditions influence people to come to or leave the Territory. Hence, population growth is generally in line with growth in the Territory's GSP. Since employment is a key driver of net interstate migration, its movement is generally consistent with population growth. The recent period of economic expansion, which peaked in 2012-13, was driven by the Ichthys LNG project, which had an unprecedented effect on the Territory economy and will continue to provide a positive contribution for the duration of the 40-year operational life of the project, largely through exports of LNG, ongoing maintenance activities including major shutdowns and potential future investment.

Chart 1.2: Year-on-year change in key indicators



GSP: gross state product

1 Inflation adjusted.

2 Annual change.

Source: ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0, *Labour Force, Australia*, Cat. No. 6202.0, *Australian Demographic Statistics*, Cat. No. 3101.0, *Consumer Price Index, Australia*, Cat. No. 6401.0

## Fiscal challenges

The Productivity Commission's inquiry into horizontal fiscal equalisation (HFE) is examining whether or not Australia's system of HFE, which underpins the distribution of GST revenue to the states and territories (states), is detracting from national productivity, efficiency and economic growth. Indications from the inquiry's Draft Report are the Productivity Commission will be recommending changes to the way HFE is implemented that will significantly reduce GST revenue to the Territory compared with the current approach. The Productivity Commission's Final Report is due to be provided to the Commonwealth in May 2018, but it is not yet known if or when any recommendations will be implemented.

At the same time, the five-yearly review of the methodology used for distribution of GST revenue among the states is being undertaken by the Commonwealth Grants Commission (CGC). This presents a further risk to the Territory's fiscal position, with any changes recommended by the CGC's methodology review to affect states' GST shares from 2020-21 onwards.

Given the Territory's reliance on GST for around half of its general government revenue, the Productivity Commission's inquiry and CGC Methodology Review represent major financial risks to the Territory. Any resulting reduction in GST revenue to the Territory will constrain the Territory Government's capacity to provide counter-cyclical economic support, continue to provide services and infrastructure at current levels and, in particular, will constrain the capacity to invest in new services and infrastructure to support economic growth into the future.

Despite current and future potential challenging conditions, the Territory is well positioned to take advantage of a number of opportunities likely to re-define the structure of the Territory economy throughout the forecast period and into the next decade. The Territory's position as a gateway to Asia, a key defence hub, with world-renowned tourist attractions and a rich diversity of mineral, gas, petroleum and agricultural resources, provides the opportunity to develop a sustainable economy.

## Opportunities

### Major projects

The Territory Government is committed to stimulating economic activity and attracting private investment opportunities to support local industries through the transition of the Ichthys LNG project. There are a number of major projects identified in the Territory economy that will help sustain growth over the medium and long term. Furthermore, there are several other projects that have received major project status from the Territory Government that, if realised, are expected to sustain the economy into the future. As these projects remain subject to the usual regulatory approval processes or final investment decisions, the economic contributions resulting from these projects have not yet been included in the published economic forecasts, therefore presenting considerable upside if and when these projects are realised (Map 1).

### Resources

The Territory has an abundance of reserves in manganese, uranium, phosphate, base metals, gold, vanadium and rare earths, and it retains substantial land yet to be fully explored for potential development and mineral projects. There are a range of potential developments that could diversify the mining industry. The Territory Government continues to support and facilitate exploration activities, assisting with job creation for the resource sector. The signing of the agreement over the Australian and East Timor maritime border could be a positive step towards the Greater Sunrise oil and gas site being developed. The development of LNG has the potential to turn the Territory into an LNG hub.

## Onshore gas

In late 2016 the Territory Government announced a moratorium on hydraulic fracturing of onshore unconventional reservoirs, pending the outcomes of a scientific inquiry into the environmental, social and economic risks and impacts of hydraulic fracturing and associated activities in the Territory. A final report was delivered to Government on 27 March 2018.

On 17 April 2018, the Territory Government announced that it accepted all 135 recommendations in the Final Report and would lift the moratorium, with strict regulatory controls to be put in place. Based on the scientific inquiry's recommendations, areas of the Territory that will be excluded from hydraulic fracturing include national parks, conservation areas, indigenous protected areas, towns, residential and strategic assets, and areas of high cultural, environmental or tourism value. A detailed implementation plan is expected to be released in July 2018.

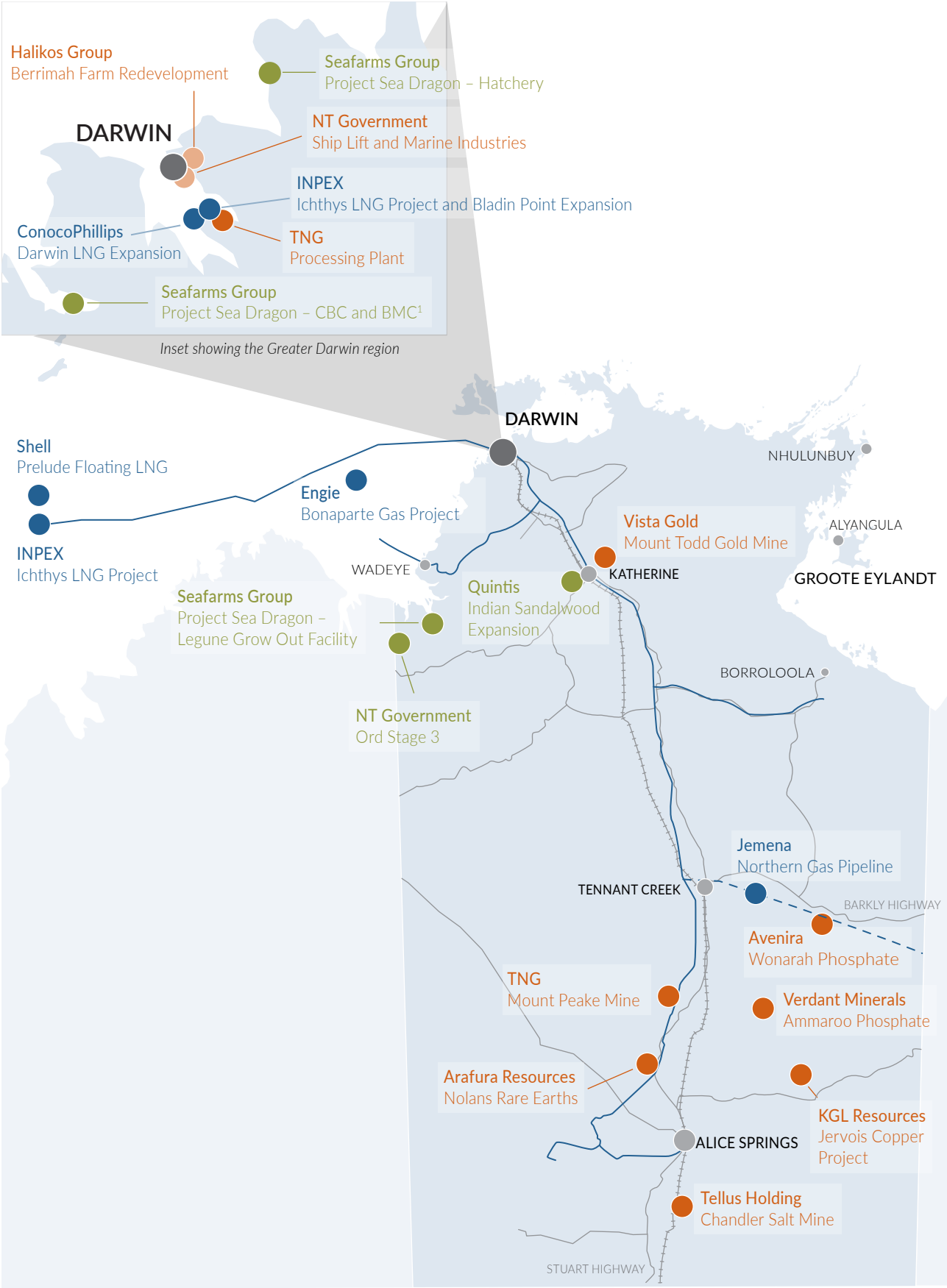
Economic modelling by ACIL Allen Consulting, commissioned by the scientific inquiry, reports that where the extraction of onshore shale gas is found to be commercially viable, there are likely to be tangible benefits to regional economies – and the Territory economy more broadly – in the form of additional employment, population and income growth, as well as increases in taxation revenue. Other benefits from industry-related investment could include improved quality and access to supporting infrastructure such as utilities and telecommunications, and demand for local delivery of services. In addition, larger regional centres and cities in the Territory will likely benefit from providing support services for the onshore gas sector.

The net economic benefits for the Territory and national economy identified by ACIL Allen under its analysis of commercially viable production scenarios are based on a 25-year period and range from a low (breeze) scenario to a high (gale) scenario and forecast:

- an increase in GSP from \$5.1 billion under the breeze scenario to \$17.5 billion under the gale scenario, or an average annual increase of \$197 million to \$674 million, respectively
- an increase in jobs growth from an additional 5000 jobs under the breeze scenario (82 jobs per annum), to 13 600 under the gale scenario (524 jobs per annum)
- additional taxation revenue to the Territory Government, consisting of payroll tax and royalty revenue, totalling between \$384 million under the breeze scenario and \$2.1 billion under the gale scenario
- additional taxation revenue to the Commonwealth, consisting of income tax, company tax and other Commonwealth taxes, totalling between \$1.3 billion under the breeze scenario and \$4.6 billion under the medium (wind) scenario.

Lifting the moratorium provides the settings for a new industry to develop in the Territory with potential for future associated manufacturing, exports and energy supply to the eastern states.

Map 1: Territory projects with major project status



- Mining
- Oil and gas
- Agriculture
- Other
- Gas pipeline
- - - Gas pipeline under construction

1 Core breeding centre and broodstock maturation centre.  
 Source: Department of Trade, Business and Innovation

## Free trade agreements

Current free trade agreements (FTAs) between Australia and Japan, South Korea and China are expected to provide long-term trade opportunities for the Territory economy through the expansion of existing export markets and the opening of new export markets for Territory goods and services. The Trans-Pacific Partnership has been signed but is not yet in force and other FTAs under negotiation include the Peru-Australia FTA, Indonesia FTA and Hong Kong FTA. The benefits of additional FTAs are likely to increase the flow and diversity of economic activity between the Territory and key trading partners.

## Defence

Defence continues to be a significant contributor to the Territory economy and is expected to increase its contribution considerably over the medium term, providing stimulus to local businesses and creating employment opportunities in the region. In 2017, the Territory Government appointed its first Defence and National Security Advocate to ensure the Territory capitalises on current and future defence opportunities. The 2016 Defence White Paper highlights the importance of the Territory to Australia's defence and security.

## Infrastructure Plan

Government investment in economic infrastructure is critical to facilitating economic activity, creating jobs, and growing labour force skills and expertise. The Northern Territory Infrastructure Strategy and a 10-year Infrastructure Plan, also released in mid-2017 and updated annually, continue to set the Territory's long-term infrastructure agenda and are expected to provide confidence to business and individuals to invest, establish new industries and develop skills to support the economy.

## Economic Development Framework

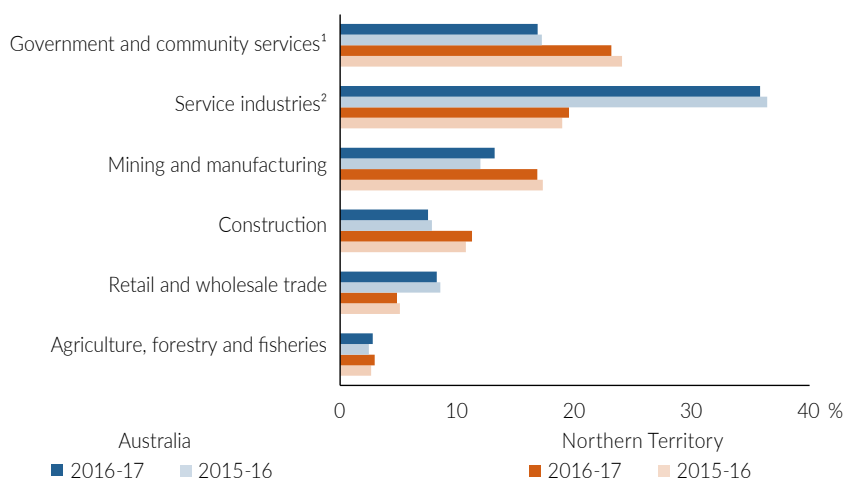
The Territory Government's Economic Development Framework (EDF) released in mid-2017 is focused on economic opportunities for all Territorians, with policies that support growth and investment strategies to build a strong economy for the future. From the EDF, a Population Strategy is being developed to address the low population growth in the Territory. A number of key projects are underway or complete from the EDF, including the Regulation Reform Agenda, priority development zones, regional economic development plans and priority projects, industry development strategies and revitalising city areas.

## Industry structure and employment

The history of the Territory's economic development and growth cycles has largely been driven by the resources sector. The Territory economy has a relatively large public sector, a significant defence force presence and a small and remote population, which is distributed over a large and isolated area. In recent years, the construction and mining industries have been the main drivers of economic growth. However, growth prospects for the mining industry in particular are reliant on overseas demand and investment, and subject to movement in global commodity prices and exchange rates.

The government and community services industry has traditionally contributed a far greater share to both the Territory's economy and employment than it does nationally. Other key industries in the Territory include the construction, and mining and manufacturing sectors. By comparison, the services industry is the dominant industry in Australia (Chart 1.3).

Chart 1.3: Key industry proportion of GSP and GDP



GSP: gross state product; GDP: gross domestic product

1 Government and community services includes public administration and safety; education and training; and health care and social assistance industries.

2 Service industries includes electricity, gas and water; accommodation and food services; transport; postal and warehousing; information media and telecommunications; financial and insurance; rental hiring and real estate; professional, scientific and technical; administrative and support; arts and recreation; and other services.

Source: ABS, Australian National Accounts: State Accounts, Cat. No. 5220.0

## Government and community services

The government and community services sector contributed 23.1 per cent to economic growth and employed over one third of the Territory workforce (37.7 per cent) in 2016-17 (Chart 1.4). This industry includes public administration and safety, education and training, and health care and social assistance employees. While the industry is dominated by the Territory, Commonwealth and local government public sector employees (including defence), it also includes output from non-government providers of education and training, health, aged care and community services. The relatively large size of the government and community services industry reflects the considerably labour-intensive and higher per unit cost of delivering a wide range of services to a small and highly dispersed population over a large and remote land mass with a relatively high Aboriginal population and high levels of disadvantage.

Chart 1.4: Share of total employment by key industries



1 Government and community services comprises public administration and safety; education and training; and health care and social assistance industries.

2 Service industries includes electricity, gas and water; accommodation and food services; transport; postal and warehousing; information media and telecommunications; financial and insurance; rental hiring and real estate; professional, scientific and technical; administrative and support; arts and recreation; and other services.

Source: ABS, Labour Force, Australia, Cat. No. 6291.0.55.003

In 2017, the Victorian-based school Haileybury College, took over the site in Darwin on which Kormilda College had operated for 28 years. Officially commencing operations in 2018, the newly established Haileybury Rendall School provides a tier 1 education opportunity in the Territory. The school continues to support Indigenous students and provides boarding facilities, along with plans well under way to develop the first international boarding school program in northern Australia, providing education with an international focus with a campus in China and partner schools in Timor-Leste, the Philippines, Japan, France, the United Kingdom and the United States of America.

Ongoing public infrastructure investment, continued defence spending and the opening of the Palmerston Regional Hospital is expected to benefit the Territory economy over the medium to long term. Other public infrastructure projects over the outlook period include new and upgraded facilities to schools, a new Palmerston police station, remote housing and new youth detention centres in both Darwin and Alice Springs.

## Service industries

The service industries includes a variety of industries which, although disparate, have been grouped because individually they make a relatively small contribution to the Territory economy but collectively their contribution is important. These comprise accommodation and food services; transport; postal and warehousing; information and media telecommunications; financial insurance services; rental, hiring and real estate services; professional, scientific and technical services; administrative and support services; electricity, gas, water and waste services; and arts and recreation services. In 2016-17, the service industries collectively accounted for 19.5 per cent of the Territory's output and 33.6 per cent of total employment (Chart 1.4). Nationally, the service industries accounted for a larger share of GDP at 35.8 per cent in 2016-17.

The outlook for the service industries is mixed, reflecting the wide variety and diverse nature of industries in this category. In the short to medium term, the transition of the Ichthys LNG project from the construction phase to production phase is expected to detract from a range of service industries. This will be partly offset by anticipated growth in tourism-related industries due to government stimulus and anticipated direct flights to and from China commencing in 2018.

## Mining and manufacturing

In 2016-17, the mining (11.8 per cent) and manufacturing (5.0 per cent) industry accounted for 16.8 per cent of the Territory's GSP, above the national average of 13.2 per cent. The significance of mining and manufacturing to the Territory's economy reflects the abundance of natural resources, including natural gas, petroleum, uranium, zinc/lead, gold and manganese. The contribution of the mining and manufacturing industry to GSP has continued to decrease below its 10-year average of 25.8 per cent. Following the completion of the Ichthys LNG project and the commencement of production, it is likely the mining and manufacturing industry will become the single largest contributor to the Territory economy.

Mining and manufacturing accounted for only 6.9 per cent of the Territory's resident employment compared to 9.3 per cent of the national workforce. This is largely due to the more labour-intensive manufacturing industry at the national level.

The outlook for the mining and manufacturing industry is expected to be dominated by the commencement of production at the Ichthys LNG plant, in 2018. Growth is expected to be more subdued in the non-LNG components of mining and manufacturing, with new mines opening in the first part of 2017-18, and the potential for more to follow in the outer years, being partly offset by the closure of other mines such as the Harts Range garnet mine in late 2017.



## Construction

Construction accounted for 11.2 per cent of the Territory's GSP, compared with 7.5 per cent of Australian GDP in 2016-17. The strength of the construction industry has been supported by engineering work related to major projects, with the construction industry in the Territory having grown by an average of 19.3 per cent per annum, over the five years to 2016-17. As work on major projects slows or reaches completion, the construction sector's share of Territory GSP is expected to return to historical levels. Construction is also a key employer in the Territory, employing 10.2 per cent or about 13 960 persons of the total resident workforce.

The proportion of people employed in the broader construction industry is expected to decline significantly following the completion of construction work on the Ichthys LNG project, as well as subdued activity in the residential building industry over the outlook period. In addition, general employment conditions across the resource sector have moderated in recent years, following the completion of other projects or the cessation of some mining developments.

## Retail and wholesale trade

Retail and wholesale trade, as a contribution to the Territory's output, remains relatively stable, averaging 5.0 per cent of GSP over the past decade. In 2016-17, the value of the industry increased by 2.1 per cent, likely reflecting conservative consumer spending in retail and household spending as a result of moderate wage and household consumption growth. Retail and wholesale trade is one of the larger employers in the Territory with 10.2 per cent of employed people working in this industry in 2016-17, compared to 13.3 per cent nationally.

The outlook for the retail and wholesale trade industry is heavily influenced by expectations of both business and consumer confidence. Sentiment for businesses is relatively subdued as new major projects are yet to reach the final investment stage. Consumer confidence is diminished by low wage growth, employment uncertainty and relatively high household debt. This is compounded by lower population growth that is expected to constrain growth in retail trade.

## Agriculture, forestry and fishing

The agriculture, forestry and fishing industry's share of Territory output had been below the long-run average in recent years, reflecting a number of seasonal fluctuations and horticultural biosecurity setbacks, which affected production levels and output from a number of local businesses in the Territory. In 2016-17, the industry started to recover, with the value of the industry increasing by 8.6 per cent. The industry's share of Territory GSP was 2.9 per cent, which is above the 10-year average of 2.2 per cent. Although the agriculture, forestry and fishing industry makes a relatively small contribution to the Territory's GSP, it is a vital industry in terms of generating economic activity and employment in regional areas.

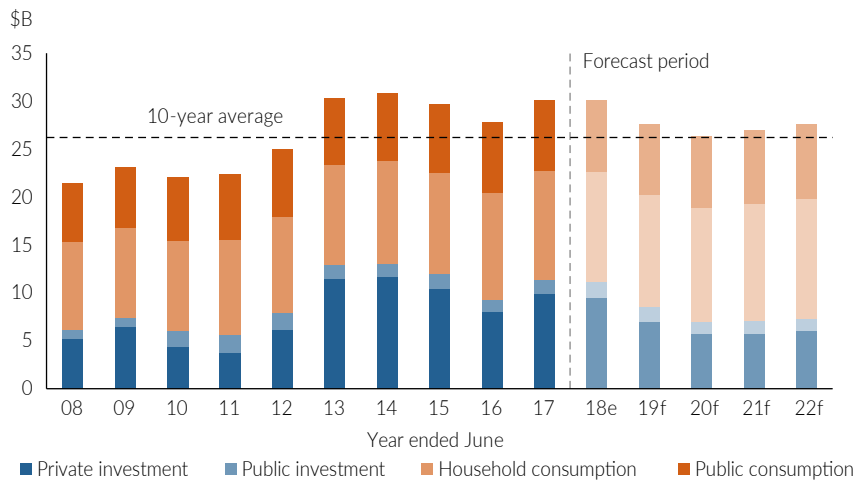
The FTAs with Indonesia and Vietnam will allow mangoes and dragon fruit to be imported to Australia. The full implications for the Territory are unclear, however, local mango growers are concerned mangoes from Indonesia will arrive in line with the peak mango season in Australia, putting the imported mangoes in direct competition with the Australian harvest.

In the short term, the agriculture industry is expected to moderate, largely driven by lower demand for live cattle from overseas. However, the horticulture and fisheries sector is anticipated to improve over the medium term driven by positive outlooks for barramundi, prawns and a recovery in banana production. Over the long term, there are a number of opportunities for the agriculture industry to expand with possible trials of passionfruit and avocado crops.

## Investment and consumption

The balance between consumption and investment in the Territory has shifted over the past few years following record high levels of private investment activity associated with major projects, particularly in the resource sector (Chart 1.5). In 2016-17, investment increased by 21.2 per cent, after declining by 22.0 per cent in 2015-16. As a result, investment comprised 38.0 per cent of state final demand (SFD) in the year. Consumption grew by 1.6 per cent in 2016-17, driven by a 2.8 per cent increase in household consumption, and comprised 62.0 per cent of SFD.

Chart 1.5: Territory investment and consumption<sup>1</sup>



e: estimate; f: forecast

<sup>1</sup> Inflation adjusted.

Source: Department of Treasury and Finance; ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0

Over the forecast period, private investment’s contribution to SFD is expected to contract, consistent with the timelines for the Ichthys LNG project. In its place, private investment is to be supported by smaller scale major projects. Public investment is anticipated to play a relatively larger role in supporting economic activity with the Territory Government infrastructure programs of \$1.54 billion in 2017-18 and \$1.45 billion in 2018-19. Commonwealth defence infrastructure projects are also expected to support activity.

Household consumption will continue to support SFD over the forecast period albeit at a slower rate, reflecting the underlying moderate population and wage growth. Household consumption is forecast to grow just below the long-term average. Public consumption is expected to be moderate, reflecting ongoing Territory Government fiscal constraints.

## Net exports

Net exports are the total value of goods and services exported, less the total value of imported goods and services. In the Territory, net exports mostly comprise goods.

Net exports in the Territory have been influenced by a number of key trends over the last decade including the mining boom, which resulted in strong growth in the Territory’s mineral commodity and gas exports, along with fluctuating conditions for the agricultural industry, particularly live cattle exports. Territory exports are a significant component of the economy and, as such, global supply and demand conditions and exchange rate movements can have a significant impact on the economy. Furthermore, the Territory’s succession of major projects in recent years resulted in substantial imports of large high value components related to the construction of major energy and resource projects.

Much of the Territory's trade data is confidentialised by the Australian Bureau of Statistics, making it difficult to determine the exact composition of exports. With the commencement of production from the Ichthys LNG project in 2018 onwards, gas and petroleum-based products are expected to be the dominant exports from the Territory. Based on these expectations, growth in total exports is anticipated to strengthen to record levels, while imports contract and settle around the long-term average, reflecting expectations of lower demand for construction materials and equipment-related imports for major developments over the medium outlook. As a result, net exports are likely to increase to around \$8.0 billion from 2019-20 onwards.



## Chapter 2

## Economic Growth

## Recent activity

Headline economic growth in the Territory strengthened to 4.0 per cent in 2016-17, driven by strong growth in private and public investment as well as consumption. Similarly the 8.2 per cent growth in state final demand was also driven by investment and consumption expenditure.

## Outlook

The Territory's economic growth rate is expected to average 1.9 per cent over the next five years. Liquefied natural gas (LNG) exports will be the main driver of growth, more than making up for moderate consumption growth and a return to long-term trend levels of private investment.

Gross state product (GSP) represents the value of economic output in the Territory economy and is published by the Australian Bureau of Statistics (ABS) on an annual basis. GSP is calculated using three measures: income, production and expenditure. Headline GSP represents an average of the combined income, expenditure and production measures. ABS also publishes quarterly estimates of state final demand (SFD), a measure of domestic economic activity that is the sum of consumption and investment expenditure and forms a key component of GSP. SFD reflects domestic activity, however does not include demand for the Territory's goods and services from overseas, net interstate trade or changes in inventories.

Department of Treasury and Finance (DTF) forecasts are based on a single measure, GSP on an expenditure basis, which includes changes to consumption, investment and net exports as well as the balancing item. The balancing item measures interstate trade and changes in inventories and confidentialised expenditure such as the value of feedstock gas imports from the Joint Petroleum Development Area.

ABS data and DTF forecasts regarding public investment and consumption are not directly comparable to Territory Government expenditure reported in the Budget Papers.

Caution should also be noted when comparing data in this publication to previous publications. Historical GSP data is often revised from year to year as a result of new information available to the ABS. Given the relatively small size of the Territory economy, this new information and subsequent revisions can have a significant impact on the Territory's growth rates.

For the latest data on the Territory's economic activity, refer to the Territory Economy website.

## Outlook

Table 2.1: Territory economic growth forecasts (%)<sup>1</sup>

	2016-17a	2017-18e	2018-19f	2019-20f	2020-21f	2021-22f
Gross state product	4.0	2.6	2.1	- 0.4	2.6	2.8
State final demand	8.2	0.1	- 8.0	- 4.4	2.0	2.8

a: actual; e: estimate; f: forecast

<sup>1</sup> Inflation adjusted.

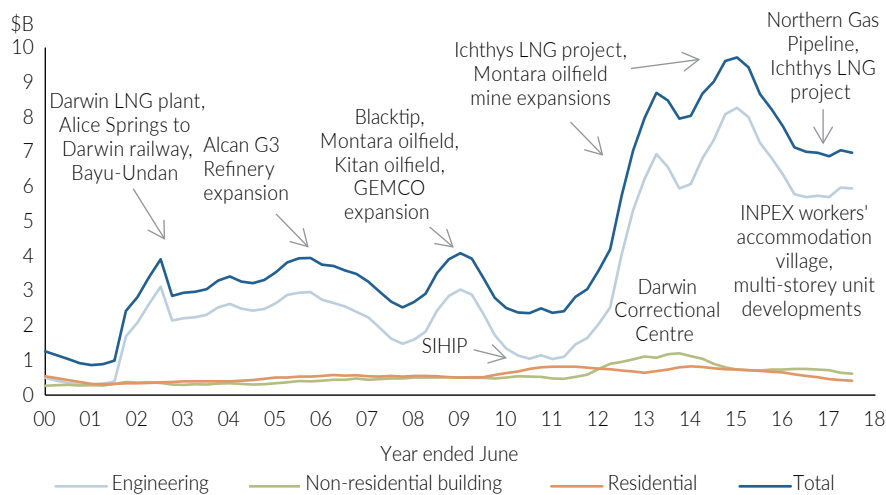
Source: Department of Treasury and Finance; ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0

The Territory recorded headline economic growth of 4.0 per cent with GSP of \$25.4 billion in 2016-17, an improvement from 1.9 per cent growth in 2015-16 and stronger than the national economic growth rate of 2.1 per cent. The Territory recorded the second highest growth rate of the jurisdictions.

Over the past 10 years, economic growth in the Territory has been largely driven by a succession of major resource projects, which had a significant impact on levels of construction-related investment (Chart 2.1). These projects include the Gove alumina refinery expansion, Blacktip gas project, development of Kitan oilfield and, most recently, the Ichthys LNG project. This has resulted in economic growth ranging between a low of -2.3 per cent in 2009-10 to double digit growth of 10.4 per cent in 2006-07 and 12.2 per cent in 2012-13, reflecting peaks and troughs in private investment. The size of the Territory's economy in 2016-17 was 37.5 per cent or \$6.9 billion larger than 10 years earlier.

The Territory economy has exhibited typical resource-driven business cycles over the past decade with strong expansionary and contractionary phases. The current business cycle is no exception, though it differs due to the sheer scale of the Ichthys LNG project.

Chart 2.1: Territory construction work done (moving annual total)<sup>1,2</sup>



SIHIP: Strategic Indigenous Housing and Infrastructure Program

1 Preliminary data estimates.

2 Inflation adjusted.

Source: Department of Treasury and Finance; ABS, *Construction Work Done, Australia*, Cat. No. 8755.0

Economic growth in 2016-17 was underpinned by significant increases in private investment (up 23.5 per cent), public investment (up 7.5 per cent) and household consumption (up 2.8 per cent), partly offset by net exports falling 58.6 per cent, mainly as a result of a 26.1 per cent increase in imports. The increase in imports reflects the ongoing construction and commissioning work associated with the Ichthys LNG project.

The Territory's economic growth over the forecast period continues to reflect a transition from record levels of private investment, towards export-driven growth (Chart 2.2). This transition will be largely dominated by activity related to the US\$37 billion Ichthys LNG project. This is the Territory's largest-ever project and it has provided a significant contribution to GSP growth since 2011 through private investment, population, employment and consumption, including adding an average of \$4.0 billion of private investment per annum to the Territory economy.

As construction of the Ichthys LNG project is completed and the plant commences production in 2018, growth in Territory domestic economic activity will moderate further. However, commencement of the production phase will benefit the economy significantly due to a boost in

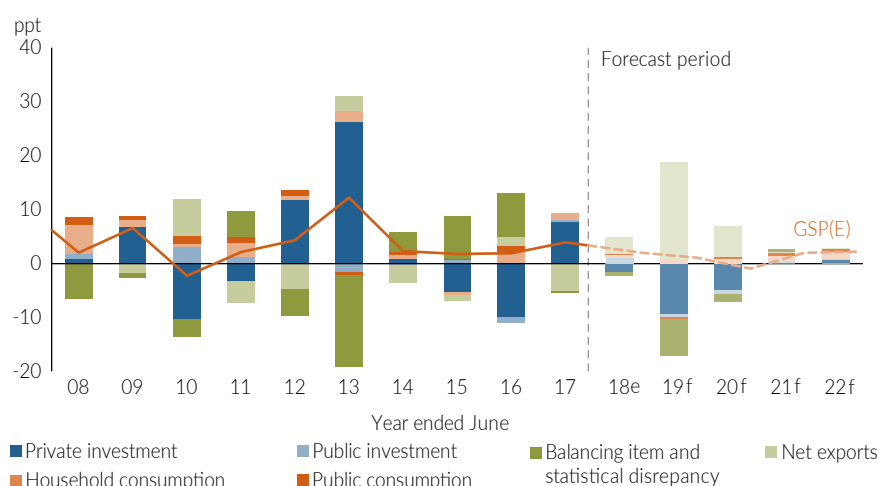
LNG, liquefied petroleum gas (LPG) and condensate exports beginning in 2018-19, reaching full export capacity in 2019-20 at levels expected to be sustained throughout the project's 40-year life.

As a consequence, Territory GSP is forecast to grow moderately over 2017-18 and 2018-19, before declining in 2019-20 (Table 2.1), largely reflecting declines in business investment as the Ichthys LNG project completes its construction and commissioning phase. This will be partly offset by a significant improvement (over 375 per cent) in net exports over the two year period 2018-19 and 2019-20, from 2017-18 (Chart 2.2). However, given the significant scale of the project, any changes to the construction completion, commissioning timing or initial level of exports from the Ichthys LNG project will have a material impact on the Territory's annual economic growth forecasts over the 2017-18 to 2019-20 period.

Economic growth in the outer years is likely to be supported by net exports, as well as moderate growth in consumption from both households and public sectors. Growth over 2020-21 and 2021-22 is forecast to strengthen from 2.6 per cent to 2.8 per cent. This improving trend (Chart 2.2) is in line with forecasts for the Territory's population and employment in the outer years.

Overall the Territory economy is expected to be over 50 per cent larger by 2021-22, at \$28.0 billion in size, compared to 10 years ago.

Chart 2.2: Contribution to Territory economic growth<sup>1</sup>



GSP(E): expenditure measure of gross state product; ppt: percentage point; e: estimate; f: forecast

<sup>1</sup> Inflation adjusted.

Source: Department of Treasury and Finance; ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0

## State final demand

The change in the domestic economy over the forecast period, as measured by SFD, reflects the Territory's economic transition from private business investment to domestic consumption. SFD will experience a significant rebalancing following years of record private investment and consumption. As a result, SFD is expected to contract over the forecast period as, unlike GSP growth, it will not benefit from the boost in exports from 2018-19 onwards (Chart 2.3).

SFD is estimated to moderate to 0.1 per cent growth in 2017-18, following an 8.2 per cent increase in 2016-17 to \$30 billion, which was mainly driven by strong private investment. The estimate for 2017-18 is in line with the latest data, which saw SFD decline by 7.1 per cent in the December quarter 2017, largely driven by declining business investment. However this decline in business investment in 2017-18 will be partly offset by increased public investment associated with the Territory Government's infrastructure program, and moderate growth in household consumption that will provide some support to SFD.

SFD is expected to contract in the medium term, with an 8.0 per cent decline forecast in 2018-19 and 4.4 per cent decline in 2019-20, largely reflecting the declines in business investment. Underlying public investment is expected to provide some offsetting support to SFD however not at a level sufficient to fully offset the scale of the decline in private investment.

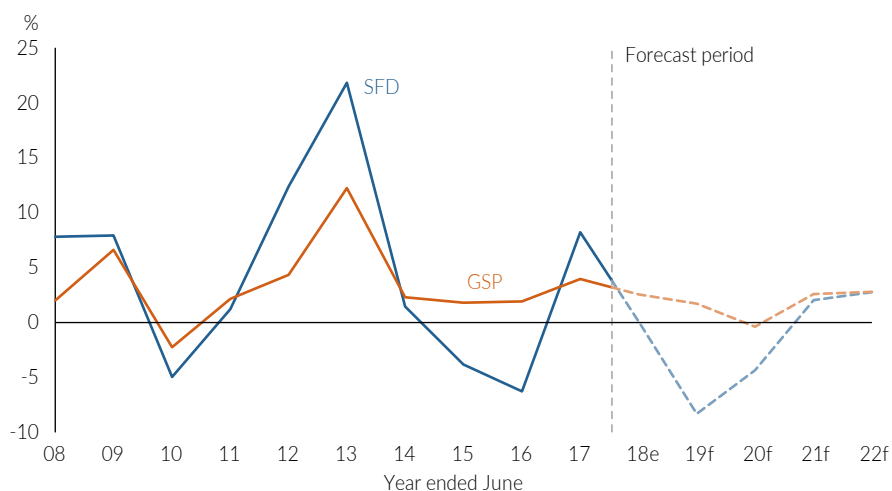
SFD is expected to return to moderate growth of 2.0 per cent in 2020-21 and 2.8 per cent in 2021-22, as household consumption strengthens, albeit below trend levels over the medium term, and private investment resets to long-term trend. This improving trend, although below historical levels, over the outer forecast period is largely in line with population and employment growth forecasts.

Prospective investment projects in the pipeline, including those with major project status, are not included in the above forecasts as they have not yet received final investment decisions. If realised, these projects have the potential to provide significant improvement to the Territory's economic growth over the forecast period.

On 27 March 2018, the Independent Scientific Inquiry into Hydraulic Fracturing of Onshore Unconventional Reservoirs in the Northern Territory released its final report. The Territory Government has decided to lift the moratorium on hydraulic fracturing, accepting all 135 recommendations made by the report, which should reduce risk to an acceptable level while creating jobs and guaranteeing significant economic activity over the medium to long term. The economic implications of this decision have not been factored into forecasts as the expected economic impacts on production, employment and regional economic activity are largely beyond the forecast period for the 2018-19 Budget.

Potential defence projects include the \$161 million upgrade of the Royal Australian Air Force (RAAF) Base Darwin to support the Poseidon P8 maritime patrol aircraft and \$207 million National Aircraft Pavement Maintenance Program at RAAF Base Tindal and RAAF Base Darwin. Projects awarded major project status by the Territory Government that have not yet reached a final investment decision, such as the US\$1.45 billion prawn farm development Project Sea Dragon, \$850 million Mount Peake vanadium-titanium-iron mine and \$750 million Ammaroo phosphate project, have potential to provide significant improvement to Territory economic forecasts.

Chart 2.3: Changes to Territory GSP and SFD<sup>1</sup>



SFD: state final demand; GSP: gross state product; e: estimate; f: forecast

<sup>1</sup> Inflation adjusted.

Source: Department of Treasury and Finance; ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0

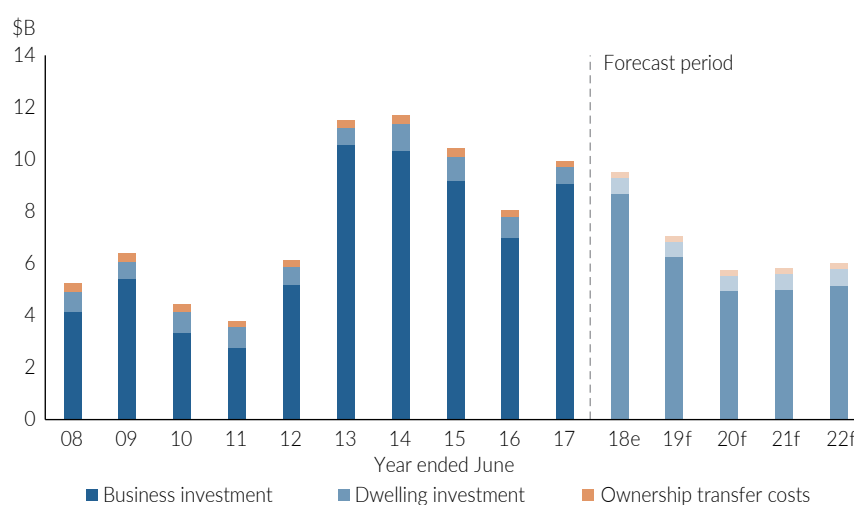


## Private investment

Following record levels of private investment over the past few years (Chart 2.4), private investment will contract significantly over the forecast period. This will see a return to underlying levels of private investment in the outer years, taking into account the size of the economy and underlying activity has grown over the past decade.

In 2017-18, private investment is estimated to decrease by 4.3 per cent. This is in line with the latest data trends for private investment, showing a 23.5 per cent decrease in the December quarter 2017. This reflects the transition of the Ichthys LNG project from its construction and commissioning phase, as well as lower dwelling investment following elevated levels in previous years. Despite the decline, private investment in 2017-18 is expected to remain above the 10-year average level of \$7.8 billion.

Chart 2.4: Territory private investment<sup>1</sup>



e: estimate; f: forecast

<sup>1</sup> Inflation adjusted.

Source: Department of Treasury and Finance; ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0

Private investment is expected to contract further in the medium term, down 25.7 per cent in 2018-19 and 18.5 per cent in 2019-20. However, the forecast decline is softened by the construction of the \$800 million Northern Gas Pipeline, the expected commencement of the Darwin luxury hotel and Darwin ship lift facility, as well as ongoing levels of investment associated with maintenance and operation of the Ichthys LNG plant.

Dwelling investment is forecast to detract from Territory economic activity over 2017-18 and 2018-19 as demand for housing continues to slow in line with population forecasts. Underlying levels of dwelling investment will be supported through ongoing housing development projects. Increased demand by first home owners has been reported due to lower house prices across the Territory and the Territory Government's first home owner incentive schemes.

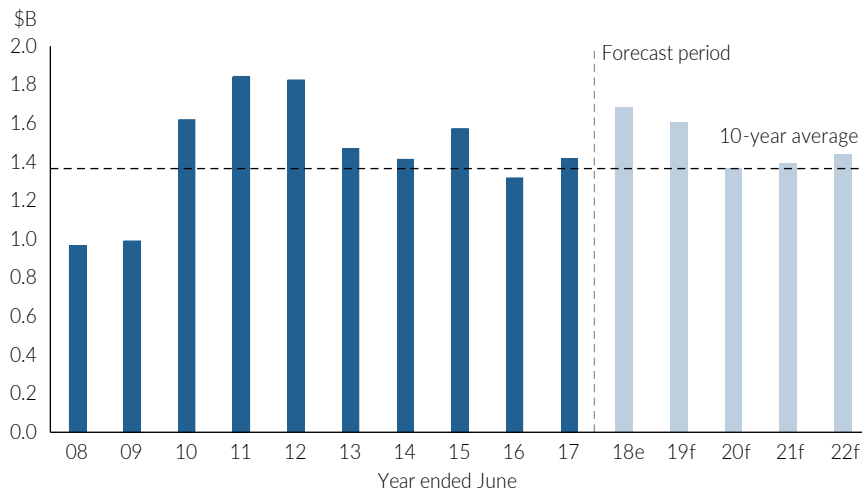
In the outer years, private investment in the Territory is expected to return to pre-Ichthys LNG project long-term trend levels of around \$5.8 billion per annum, with forecast growth of 0.8 per cent in 2020-21, later strengthening to 3.3 per cent in 2021-22. Growth is likely to be supported by a pipeline of major projects as well as some recovery in dwelling investment, however there are no new large-scale projects currently factored into forecasts. Despite this, the major projects currently in planning, as discussed above, have the potential to provide a significant boost to the Territory's private investment over the outer years if they progress.

## Public investment

Public investment is expected to play an important role in supporting economic activity over the forecast period and provide a significant support to economic growth, particularly in 2017-18 and 2018-19. The Territory Government’s infrastructure spending and the Commonwealth’s large-scale defence projects remain key drivers of public investment over the medium term.

In 2017-18, public investment is estimated to increase by 18.6 per cent and contribute 1.0 percentage point to economic growth in the year. This largely reflects an increase in Territory Government investment related to significant infrastructure spending throughout the year, which includes the Immediate Works stimulus package as well as new road upgrades, including the Keep River Plains Road to support development for Project Sea Dragon and the Ord stage 3 irrigated agricultural development. It also includes continued construction of Palmerston Regional Hospital and remote Aboriginal housing. Growth is also expected to be supported by increased levels of Commonwealth investment, including defence expenditure, as well as the continued rollout of the National Broadband Network and the National Disability Insurance Scheme (NDIS).

Chart 2.5: Territory public investment<sup>1</sup>



e: estimate; f: forecast

<sup>1</sup> Inflation adjusted.

Source: Department of Treasury and Finance; ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0

Following above-average levels of public investment in recent years, including 2017-18, public investment will begin to transition back to long-term levels over 2018-19 and 2019-20, and is forecast to contract to average \$1.4 billion per annum in outer years (Chart 2.5).

Major Territory Government-funded projects scheduled for 2018-19 include Territory road upgrades along the Tablelands, Plenty and Buntine highways, as well as \$124 million in new works for the Remote Housing Investment Package and land servicing in its first full year of delivery, \$100 million City Deals project to revitalise the Darwin central business district (CBD) and \$20 million investment in the Alice Springs CBD revitalisation. Growth will also be supported through current investment programs across Territory defence establishments including RAAF Base Tindal and RAAF Base Darwin airfield works to support new aircraft and greater levels of defence activities, as well as upgrade works at Larrakeyah Barracks, HMAS Coonawarra and Robertson Barracks.

In the outer years, public investment will be supported by underlying growth in Territory Government infrastructure investment, as well as increased levels of Commonwealth defence-related expenditure. Public investment is forecast to increase in 2020-21 by 1.6 per cent and 3.5 per cent in 2021-22.

### Household consumption

Household consumption is estimated to remain subdued over the forecast period, reflecting underlying trends in economic activity, employment and population growth in the Territory. Growth in household consumption in 2017-18, although moderating from 2016-17, is expected to be supported by expenditure on recreation and culture, finance and insurance services, and personal care goods and services. Growth in household consumption is forecast to remain below trend, averaging 1.7 per cent per annum growth over 2018-19 and 2019-20.

Over the outer years, household consumption, is expected to strengthen by 2.7 per cent by 2021-22. This growth will be supported by strengthening, though still modest, employment and population forecasts in the outer years. Household consumption is however expected to remain below the 10-year average historical growth rate of 3.5 per cent.

### Public consumption

Growth in public consumption is expected to provide moderate support, on average, to economic growth across the forecast period. In 2017-18, public consumption is expected to increase 0.9 per cent following a 0.3 per cent decrease in 2016-17. Public consumption is forecast to contract in 2018-19 by 0.7 per cent, reflecting Territory Government budget constraints.

Growth in the outer years, averaging around long-term trend levels, will be supported by Territory Government resourcing of health, family and children services, education and police. Commonwealth expenditure relating to ongoing defence operations in the Territory, including the growing Joint Australia-United States (US) Force Posture Initiative, and the continued rollout of the NDIS will positively contribute to public consumption.

### Net exports

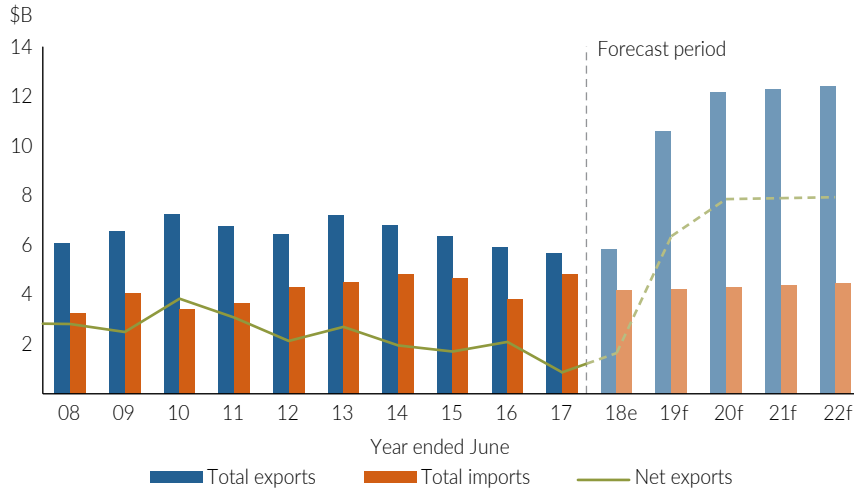
The Territory's net exports over the three years 2017-18 to 2019-20 remain heavily influenced by the Ichthys LNG project. Over 2017-18 net exports are expected to contribute 3.0 percentage points to GSP, mainly driven by declining levels of imports associated with the Ichthys LNG project construction, particularly payments associated with the import of pre-assembled modules for the project, as well as some growth in exports of minerals and the agriculture sector.

The Territory's net exports will substantially increase over 2018-19 and 2019-20, growing by over 375 per cent or about \$6.2 billion over the two years, from 2018-18, significantly higher than the \$2.4 billion average over the past decade (Chart 2.6). This reflects exports commencing from the Ichthys LNG plant, particularly LNG, but also LPG and condensate exports. Over the same period, imports are expected to grow at below-trend rates, reflecting softer underlying economic activity in private investment and household activity in the Territory.

Over the outer years of the forecast period, net exports are expected to stabilise at around \$8.0 billion per annum, reflecting average growth of 0.5 per cent per annum. This below-trend growth in net exports reflects moderate growth in both exports and imports, albeit with exports at historically high levels.

These forecasts assume existing commodity prices and exchange rate conditions continue. Given the Territory’s exposure to international markets, diversity of mineral resources and agricultural potential, there remains significant upside in forecasts for net exports, particularly related to minerals and agriculture projects that are yet to achieve final investment decisions.

Chart 2.6: Territory net exports<sup>1</sup>



e: estimate; f: forecast

<sup>1</sup> Inflation adjusted.

Source: Department of Treasury and Finance; ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0

Table 2.2: Components of Territory gross state product (expenditure)<sup>1,2</sup>

	Value (\$M) <sup>1,2</sup>									
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18e	2018-19f	2019-20f	2020-21f	2021-22f
Total consumption	17 369	17 691	17 618	18 411	18 702	18 906	19 029	19 357	19 829	20 334
Household consumption	10 430	10 642	10 511	11 049	11 361	11 499	11 675	11 886	12 169	12 501
Public consumption	6 939	7 049	7 107	7 361	7 341	7 407	7 354	7 471	7 660	7 833
Total investment	12 980	13 101	12 000	9 357	11 344	11 178	8 661	7 121	7 188	7 428
Private investment	11 509	11 689	10 429	8 041	9 929	9 500	7 057	5 755	5 800	5 992
Dwelling investment	636	1 021	929	846	644	612	600	600	606	621
Ownership transfer costs	301	321	336	234	213	208	208	208	210	215
Business investment	10 562	10 335	9 161	6 962	9 071	8 680	6 250	4 948	4 985	5 156
Public investment	1 469	1 412	1 571	1 316	1 415	1 678	1 604	1 366	1 388	1 436
State final demand	30 361	30 802	29 623	27 768	30 046	30 083	27 690	26 477	27 017	27 762
Net exports	2 695	1 954	1 708	2 089	865	1 639	6 357	7 852	7 891	7 929
Total exports	7 197	6 776	6 353	5 893	5 663	5 820	10 575	12 153	12 277	12 402
Total imports	4 502	4 822	4 645	3 804	4 798	4 181	4 218	4 301	4 386	4 473
Balancing item <sup>3</sup>	- 10 008	- 9 179	- 7 328	- 5 396	- 5 485	- 5 641	- 7 412	- 7 804	- 7 695	- 7 718
<b>Gross state product</b>	<b>23 049</b>	<b>23 576</b>	<b>24 003</b>	<b>24 461</b>	<b>25 427</b>	<b>26 081</b>	<b>26 636</b>	<b>26 525</b>	<b>27 213</b>	<b>27 973</b>
	Year-on-Year Change (%) <sup>1,2</sup>									
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18e	2018-19f	2019-20f	2020-21f	2021-22f
Total consumption	1.9	1.9	- 0.4	4.5	1.6	1.1	0.7	1.7	2.4	2.5
Household consumption	4.2	2.0	- 1.2	5.1	2.8	1.2	1.5	1.8	2.4	2.7
Public consumption	- 1.2	1.6	0.8	3.6	- 0.3	0.9	- 0.7	1.6	2.5	2.3
Total investment	63.0	0.9	- 8.4	- 22.0	21.2	- 1.5	- 22.5	- 17.8	0.9	3.3
Private investment	88.1	1.6	- 10.8	- 22.9	23.5	- 4.3	- 25.7	- 18.5	0.8	3.3
Dwelling investment	- 8.0	60.5	- 9.0	- 8.9	- 23.9	- 5.0	- 2.0	0.0	1.0	2.5
Ownership transfer costs	20.4	6.6	4.7	- 30.4	- 9.0	- 2.5	0.0	0.0	1.0	2.5
Business investment	103.5	- 2.1	- 11.4	- 24.0	30.3	- 4.3	- 28.0	- 20.8	0.8	3.4
Public investment	- 19.4	- 3.9	11.3	- 16.2	7.5	18.6	- 4.4	- 14.8	1.6	3.5
State final demand	21.8	1.5	- 3.8	- 6.3	8.2	0.1	- 8.0	- 4.4	2.0	2.8
Net exports	26.6	- 27.5	- 12.6	22.3	- 58.6	89.5	287.9	23.5	0.5	0.5
Total exports	11.8	- 5.8	- 6.2	- 7.2	- 3.9	2.8	81.7	14.9	1.0	1.0
Total imports	4.5	7.1	- 3.7	- 18.1	26.1	- 12.9	0.9	2.0	2.0	2.0
Balancing item <sup>3</sup>	53.6	- 8.3	- 20.2	- 26.4	1.6	2.8	31.4	5.3	- 1.4	0.3
<b>Gross state product</b>	<b>12.2</b>	<b>2.3</b>	<b>1.8</b>	<b>1.9</b>	<b>3.9</b>	<b>2.6</b>	<b>2.1</b>	<b>- 0.4</b>	<b>2.6</b>	<b>2.8</b>
	Percentage Point Contribution to Year-on-Year GSP Change (ppt) <sup>1,2</sup>									
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18e	2018-19f	2019-20f	2020-21f	2021-22f
Total consumption	1.6	1.4	- 0.3	3.3	1.2	0.8	0.5	1.2	1.8	1.9
Household consumption	2.0	0.9	- 0.6	2.2	1.3	0.5	0.7	0.8	1.1	1.2
Public consumption	- 0.4	0.5	0.2	1.1	- 0.1	0.3	- 0.2	0.4	0.7	0.6
Total investment	24.4	0.5	- 4.7	- 11.0	8.1	- 0.7	- 9.7	- 5.8	0.3	0.9
Private investment	26.2	0.8	- 5.3	- 9.9	7.7	- 1.7	- 9.4	- 4.9	0.2	0.7
Dwelling investment	- 0.3	1.7	- 0.4	- 0.3	- 0.8	- 0.1	0.0	0.0	0.0	0.1
Ownership transfer costs	0.2	0.1	0.1	- 0.4	- 0.1	0.0	0.0	0.0	0.0	0.0
Business investment	26.2	- 1.0	- 5.0	- 9.2	8.6	- 1.5	- 9.3	- 4.9	0.1	0.6
Public investment	- 1.7	- 0.2	0.7	- 1.1	0.4	1.0	- 0.3	- 0.9	0.1	0.2
State final demand	26.5	1.9	- 5.0	- 7.7	9.3	0.1	- 9.2	- 4.6	2.0	2.7
Net exports	2.8	- 3.2	- 1.0	1.6	- 5.0	3.0	18.1	5.6	0.1	0.1
Total exports	3.7	- 1.8	- 1.8	- 1.9	- 0.9	0.6	18.2	5.9	0.5	0.5
Total imports	0.9	1.4	- 0.8	- 3.5	4.1	- 2.4	0.1	0.3	0.3	0.3
Balancing item <sup>3</sup>	- 17.0	3.6	7.9	8.0	- 0.4	- 0.6	- 6.8	- 1.5	0.4	- 0.1
<b>Gross state product</b>	<b>12.2</b>	<b>2.3</b>	<b>1.8</b>	<b>1.9</b>	<b>3.9</b>	<b>2.6</b>	<b>2.1</b>	<b>- 0.4</b>	<b>2.6</b>	<b>2.8</b>

e: estimate; f: forecast; ppt: percentage point

1 Inflation adjusted.

2 Components may not add to totals due to rounding and chain volume estimation.

3 Balancing item includes statistical discrepancy.

Source: Department of Treasury and Finance; ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0



## Chapter 3

## External Economic Environment

## Recent activity

In 2016-17 the Territory's net exports decreased by 58.6 per cent to \$865 million, primarily driven by a 26.1 per cent increase in total imports and a 3.9 per cent decline in total exports.

## Outlook

Territory trade is expected to increase sharply as exports from the production phase of the Ichthys liquefied natural gas (LNG) project commence in 2018-19.

The Northern Territory is a small open economy influenced by trade, investment and movements in commodity prices and exchange rates, with a large proportion (about 33 per cent) of the Territory economy comprising the mining, construction, manufacturing and tourism sectors.

This chapter outlines national and global economic conditions, as well as those of key trading partners and commodities relevant to the Territory economy. Forecasts for key components of the external environment are also specified over the short to medium term.

For the latest data on Territory international trade and major trading partners, refer to the Territory Economy website.

## Outlook

## International trade

The Territory's net exports are expected to increase to \$1.6 billion in 2017-18, primarily due to a decrease in imports, as the Ichthys LNG project approaches construction completion. In the forward years, net exports are forecast to increase significantly as LNG, liquid petroleum gas and condensate products are exported to Japan, Taiwan and other global destinations, while imports are forecast to grow below trend, in line with major project completion. By 2021-22, net exports are expected to reach around \$8 billion (Table 3.1).

Table 3.1: Net export component of Territory GSP (\$M)<sup>1, 2</sup>

	2016-17a	2017-18e	2018-19f	2019-20f	2020-21f	2021-22f
Total exports	5 663	5 820	10 575	12 153	12 277	12 402
Total imports	4 798	4 181	4 218	4 301	4 386	4 473
<b>Net exports</b>	<b>865</b>	<b>1 639</b>	<b>6 357</b>	<b>7 852</b>	<b>7 891</b>	<b>7 929</b>

GSP: gross state product; a: actual; e: estimate; f: forecast

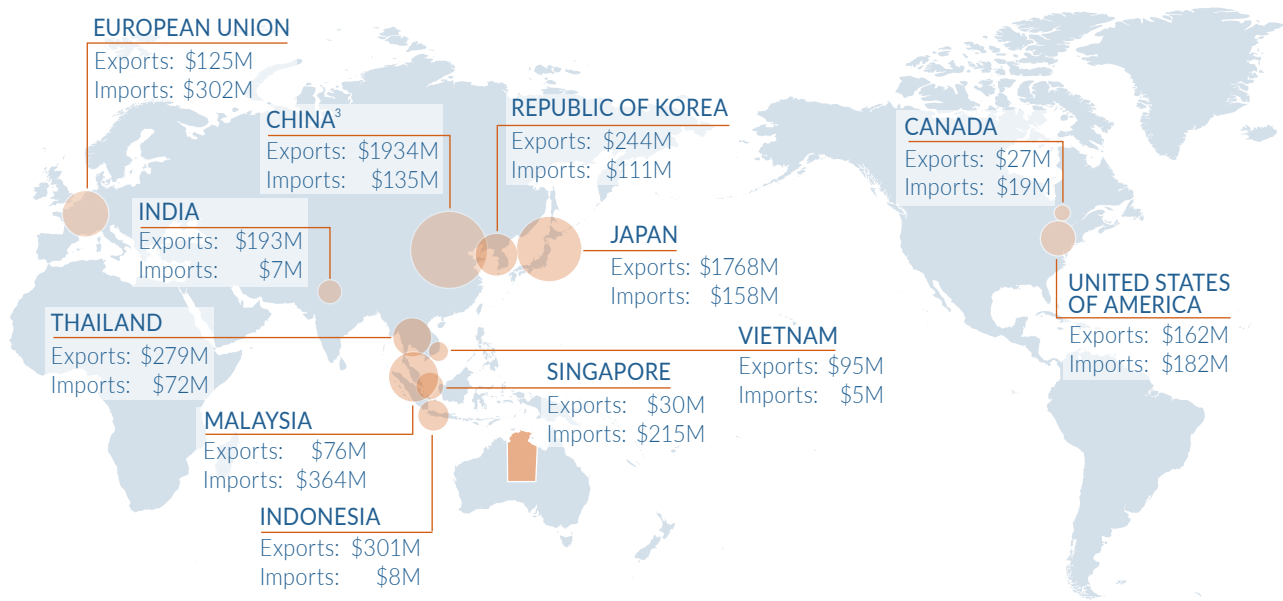
1 Inflation adjusted.

2 Components may not add to totals due to inflation adjustments.

Source: Department of Treasury and Finance; ABS, *Australian National State Accounts*, Cat. No. 5220.0

The Territory is geographically located close to major Asian economies including China, Japan, Indonesia and Thailand and, as expected, these are the Territory's major trading partners. The Territory also relies on goods imports from the United States of America and the European Union, which are also identified as key trading partners.

Economic conditions in the Territory's major trading partners, along with demand for commodities can influence the Territory's international trade performance. Map 2 provides a summary of trade activity for 2017 between the Territory and major trading partners.

Map 2: Territory's major goods trading partners, 2016-17<sup>1,2</sup>

1 Current prices.

2 This map is produced from various sources. Department of Treasury and Finance cannot guarantee the accuracy, currency or completeness of the information. To be used as a guide only.

3 Excluding special administrative regions (Macau and Hong Kong) and Taiwan.

Source: Department of Treasury and Finance, ABS, *International Trade in Goods and Services*, Cat. No. 5368.0

## Global growth

Table 3.2: GDP growth for the Territory's current major trade destinations, Australia and world regions (%)

	2017a	2018e	2019f	2020f	2021f	2022f
United States	2.3	2.9	2.7	1.9	1.7	1.5
Japan	1.7	1.2	0.9	0.3	0.7	0.5
China	6.9	6.6	6.4	6.3	6.0	5.7
Thailand	3.9	3.9	3.8	3.6	3.6	3.5
Indonesia	5.1	5.3	5.5	5.6	5.6	5.6
Singapore	3.6	2.9	2.7	2.6	2.6	2.6
India	6.7	7.4	7.8	7.9	8.1	8.1
Australia	2.3	3.0	3.1	2.9	2.7	2.6
Emerging markets and developed economies	4.8	4.9	5.1	5.1	5.1	5.0
Advanced economies	2.3	2.5	2.2	1.7	1.7	1.5
<b>Global</b>	<b>3.8</b>	<b>3.9</b>	<b>3.9</b>	<b>3.8</b>	<b>3.7</b>	<b>3.7</b>

GDP: gross domestic product; a: actual; e: estimate; f: forecast

Source: International Monetary Fund

According to the International Monetary Fund (IMF), about 120 countries experienced economic growth in 2017, signifying a strengthening of global economic recovery. The IMF forecasts global growth to increase marginally from 3.8 per cent in 2017 to 3.9 per cent in 2018 (Table 3.2). Advanced economies are forecast to grow at 2.5 per cent, while emerging markets and developing economies are forecast to grow at 4.9 per cent in 2018.

Global growth is expected to continue in the later years, with emerging markets and developing economies remaining the key drivers of growth, increasing by 5.1 per cent in 2019. In Asia, strong growth will be driven by the advancement of Asia's tiger economies (including Indonesia, Thailand, Malaysia and the Philippines). Indonesia in particular is a key market for the Territory's live cattle trade, taking 82.5 per cent of total international live cattle exports. Further, the steady growth rate in India as a result of tax reforms will also contribute to global growth.



Growth in the developing economies is partly offset by the slowing Chinese economy. At the 19<sup>th</sup> National Congress of the Communist Party, China emphasised its commitment to more sustainable growth into the future, rather than the very high headline gross domestic product (GDP) growth seen in recent years. The IMF forecasts growth in China's economy to slow from 6.9 per cent in 2017 to 6.6 per cent in 2018 (Table 3.2).

Strong world trade in the advanced economies, supported by higher investment activities contributed to strong global growth in 2017. According to the IMF, a number of countries in the advanced economies experienced stronger than anticipated growth in the third quarter of 2017, including Germany (2.5 per cent), Japan (1.7 per cent), the Republic of Korea (3.1 per cent) and the United States (US) (2.3 per cent).

Advanced economies are expected to rise from growth of 2.3 per cent in 2017 to 2.5 per cent in 2018, with growth over the next five years expected to average 1.9 per cent. Future growth is likely to be largely driven by growth in the European Union and Japan and particularly monetary policy in the US returning to pre-global financial crisis settings. In December 2017, the US Federal Reserve raised interest rates from 1.5 per cent to 1.75 per cent and external commentators anticipate the US Federal Reserve will continue to raise interest rates to about 2.5 per cent and 3.5 per cent by the end of 2018 and 2019 respectively. This combined with the reduction in corporate tax, policy changes in the US are anticipated to stimulate growth through to 2020. Beyond 2020, growth will slow down to 1.5 per cent over the medium term, this is caused by the short-term gain of US tax reform passing through.

According to the most recent IMF World Economic Outlook April publication, growth forecasts for some advanced economies have been revised upwards for 2018 and 2019, reflecting stronger external trade demand. The US growth forecast has been revised upwards from 2.3 per cent to 2.9 per cent in 2018 and from 1.9 per cent to 2.7 per cent in 2019. Similarly, estimated growth rates for countries in the European Union such as Italy, the Netherlands and Germany have been revised up, indicating stronger domestic and higher external demand.

Most recently, the US has decided to apply tariffs on all steel (25 per cent) and aluminium (10 per cent) imports. Australia, Argentina, Brazil, Canada, the European Union, Mexico and South Korea have been granted tariff exemptions until at least 1 May 2018, however a new steel quota will be applied to Australia, affecting the quantity of steel exported to the US. The new quota is not a major concern to Australia as steel and aluminium are not part of the top-five Australian exports to the US. However, this new tariff could ultimately impact global growth through higher prices, as well as lower global trade, particularly if other countries begin to impose retaliatory trade barriers.

Over the next five years, global growth is expected to average 3.8 per cent, largely driven by emerging markets and developing economies, with advanced economies growing moderately below trend.

## Commodity prices

Commodity prices grew strongly in 2017, particularly steel-related commodities such as iron ore, metallurgical coal and manganese. These commodities are raw ingredients used in manufacturing steel, and production is largely driven by global steel demand. In 2017, growth was supported by strong demand from China and strong global economic growth. However, commodity prices are forecast to decline by 2.0 per cent and by 10.0 per cent in 2017-18 and 2018-19, respectively. According to forecasts from the Office of the Chief Economist from the Commonwealth Department of Industry, Innovation and Science, the decline will be largely influenced by steel-related commodities. Steel demand is anticipated to slow from China, reflecting China becoming more focused on environmental sustainability. Additionally, increasing supply of steel-related commodities from Australia and Brazil are also expected to put downward pressure on commodity prices.

Prices for the Territory's major commodity exports, which include bauxite and manganese, are expected to remain subdued in the short to medium term. The increasing focus on environmental policies in China affects the demand for both bauxite and manganese.

Gold prices were relatively stable in 2017, with the downward effects of rising interest rates in the US being offset by the upward momentum from gold's traditional position as a safe haven commodity. Gold prices are expected to gradually increase over the next five years, reflecting declining world mine supplies and increased demand for gold as a reliable investment, due to global political instability. The value of Australian gold exports is expected to decline slightly in 2017-18, reflecting lower production levels, before increasing in 2018-19. In the Territory, gold is produced in the form of gold dore, which is not exported directly overseas but is transported to Western Australia for refining into gold bars.

Crude oil prices are forecast to increase in the short to medium term, primarily due to the Organization of the Petroleum Exporting Countries (OPEC) agreeing to cut oil production. OPEC's decision to cut production aims to reduce the oil oversupply in the world market. In November 2017, the production cut was extended until the end of 2018. Crude oil prices are forecast to increase as world production surpluses start to diminish. Higher US shale oil production is likely to further limit growth in crude oil prices. In the long term, OPEC's ability to meet production targets and keep agreements between countries will further influence crude oil prices. Although world LNG prices are linked to crude oil prices, this has less effect in the Territory as LNG produced in the Territory is currently sold on long-term contracts.

Territory LNG export volumes are expected to grow sharply over 2018 and 2019, following the completion of the Ichthys LNG project. The price of LNG in Australia has been flat, reflecting low oil prices in 2017, however prices are forecast to increase in line with higher oil prices. Nationally, LNG is expected to become Australia's second largest energy export in 2018-19.

## Exchange rates

Movements in the Australian dollar are influenced by domestic and international interest rates and also world commodity prices. Deloitte Access Economics forecasts the Australian dollar will remain stronger than previously forecast for the remainder of 2017-18. In the medium term, the Australian to US dollar exchange rate is expected to depreciate by 1.2 per cent in 2018-19 and 2.2 per cent in 2019-20 as the US dollar strengthens and world commodity prices ease. A weaker Australian dollar is expected to benefit the Territory's goods and service exports.

## National economy

The IMF forecasts economic growth in Australia to be 3.0 per cent in 2018 and average 2.9 per cent over the five-year forecast period to 2022. The 2017-18 Commonwealth Mid-Year Economic and Fiscal Outlook (MYEFO) anticipates that Australia's 26 consecutive years of economic growth will continue over the medium term. MYEFO forecasts the Australia economy to grow by 2.5 per cent in 2017-18 before increasing to 3.0 per cent by 2021-22. Future economic growth is expected to be supported by non-mining business investment, housing consumption and public investment, supported by a weaker Australian dollar and benefiting goods and service exports.

## Interest rates

The Reserve Bank of Australia (RBA) has kept the official cash rate at a record low of 1.5 per cent since August 2016. According to Deloitte Access Economics, following rate increases in the US Federal Reserve, the Bank of England and the Bank of Canada, Australia's official cash rate is forecast to stay flat before rising in 2019. Current RBA monetary policy is influenced by Australia's subdued inflation and marginal wage growth. The Territory could benefit from ongoing low interest rates, which support business confidence, consumption and investment decisions.

## Chapter 4

# Population

### Recent activity

Population growth remains significantly below historical trends, with net migration outflows at record levels.

### Outlook

The Territory's population is expected to decline in 2018 before growth rates gradually recover towards the long-term average.

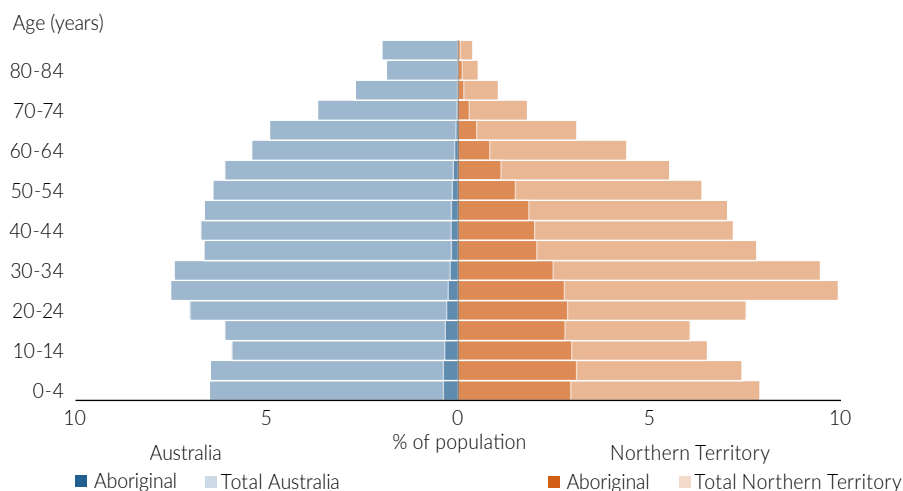
The estimated resident population (ERP) is the official Australian Bureau of Statistics (ABS) measure of Australia's population. It quantifies the number of usual residents of Australia and locations within Australia. ERP provides the most reliable measure of the Territory's resident population. ERP is based on the results of the five-yearly Census of Population and Housing, adjusted for census undercount, and is updated quarterly between censuses using information on births and deaths (natural increase), net interstate migration (NIM) and net overseas migration (NOM).

The Territory's estimated resident population of nearly 250 000, comprising 1 per cent of the total Australian population, is spread over the third largest Australian jurisdiction by geographical area, making it the most sparsely populated jurisdiction with 0.2 persons per square kilometre. Over half (59.4 per cent) of the Territory's population resides in Greater Darwin and the remainder is dispersed over remote and very remote areas. About one third of the Territory's population is Aboriginal, around 80 per cent of whom live in remote and very remote areas.

The Territory has a younger age profile (Chart 4.1), with a median age of 32.7 years, compared with 37.3 years for Australia, partly reflecting the age profile of the Territory's large Aboriginal population. The relatively large number of persons aged 25 to 34 years in the Territory also reflects the structure of the Territory economy, dominated by mining, construction and defence, and the transient nature of the Territory population. These industries also typically employ more men than women, skewing the Territory's gender balance, with 106 males for every 100 females, compared to less than 99 males for every 100 females for Australia.

For the latest data on the Territory's estimated resident population, refer to the Territory Economy website.

Chart 4.1 Population age profile – Australia and Territory by Aboriginal status, as at June 2016



Source: ABS Census 2016

## Outlook

Table 4.1: Territory population forecasts (%)

Calendar year	2016a	2017e	2018f	2019f	2020f	2021f
Population growth	0.3	0.0	- 0.7	0.6	1.0	1.1

a: actual; e: estimate; f: forecast

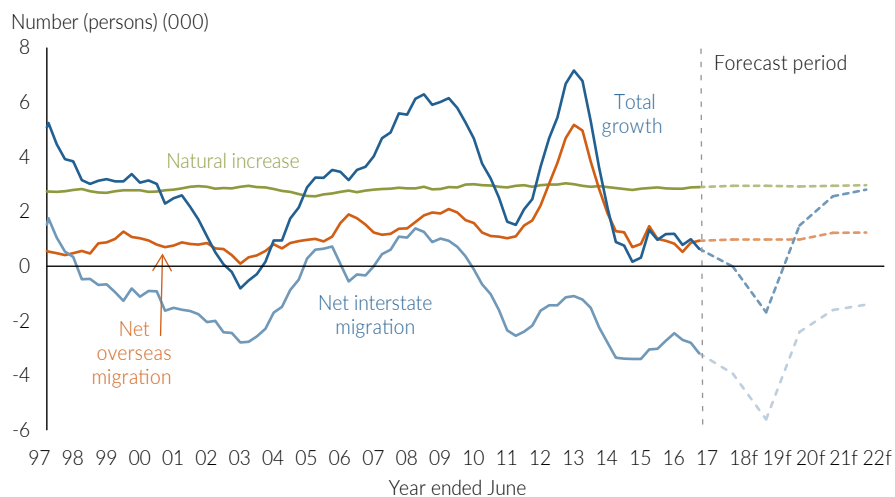
Source: Department of Treasury and Finance; ABS, *Australian Demographic Statistics*, Cat. No. 3101.0

The Territory’s population growth has been subdued over the past few years, driven by large net outflows of interstate migrants, as well as lower levels of overseas migration inflows, compared to recent highs. In 2016, the Territory’s population increased by 0.3 per cent, to 245 048. Since then, the rate of population growth has slowed, with no change in population reported between the September quarters of 2016 and 2017.

The Territory’s population growth over 2017 is expected to be flat, with natural increase and a small improvement in NOM being offset by continued elevated levels of NIM outflows. Much of the increase in the NIM outflow is expected to have been driven by an underlying weakness in non-construction-related sectors of the Territory economy, such as retail trade, as well as lower levels of new employees required at the Ichthys liquefied natural gas (LNG) project as construction is completed in the first quarter of 2019. The first three quarters of 2017 also saw a strong decline in the number of people arriving in the Territory, reflecting strong economic and population growth in other jurisdictions, particularly in Victoria and New South Wales, which is also contributing to elevated NIM outflows.

In 2018 the Territory’s population is forecast to decline by 0.7 per cent (Chart 4.2). Much of this decline reflects further expected NIM outflows over the year as workers, who had relocated to the Territory to work on major projects, depart. NOM is expected to continue to be a stable positive contributor to the Territory’s population but levels are not expected to be high enough to offset NIM outflows.

Chart 4.2: Components of Territory population growth



f: forecast

Source: Department of Treasury and Finance; ABS, *Australian Demographic Statistics*, Cat. No. 3101.0

The Territory Government is developing a Population Strategy, which will aim to improve the Territory’s population growth. The Population Strategy will focus on key measures that will support the attraction and retention of key population cohorts in the Territory. These measures will include generating investment and creating jobs, enhancing liveability, and moderating costs of living and costs to business.

The Commonwealth has made changes to working visa categories, including the abolition of the 457 Temporary Work visa. From March 2018, the 457 visa is replaced by a new Temporary Skill Shortage visa, which will be available for either two years or four years. This is part of a wider package of changes to the national skilled migration program. Currently it is difficult to gauge what impact, if any, these changes will have on the Territory's NOM.

The outlook for the Territory's population is expected to improve in the outer forecast period, returning to growth from 2019. This in part reflects much lower levels of anticipated post-construction outflows of workers from the Ichthys LNG project, the majority of whom are expected to depart in 2018. Fewer departures interstate from 2019 onwards should result in moderating NIM outflows. NOM and natural increase are both expected to remain steady contributors to population growth.

The outlook for the outer years does not include any impact from potential major projects currently in the pipeline. Although it would seem unlikely there will be another major project of the magnitude of the Ichthys LNG project in the near future, smaller projects could still provide a temporary boost to the Territory's population growth, particularly encouraging NIM. Similarly, economic conditions in other parts of Australia also have the potential to affect the outlook for Territory population growth, as people move from one region to another in search of new employment opportunities.

## Components of population growth

### Natural increase

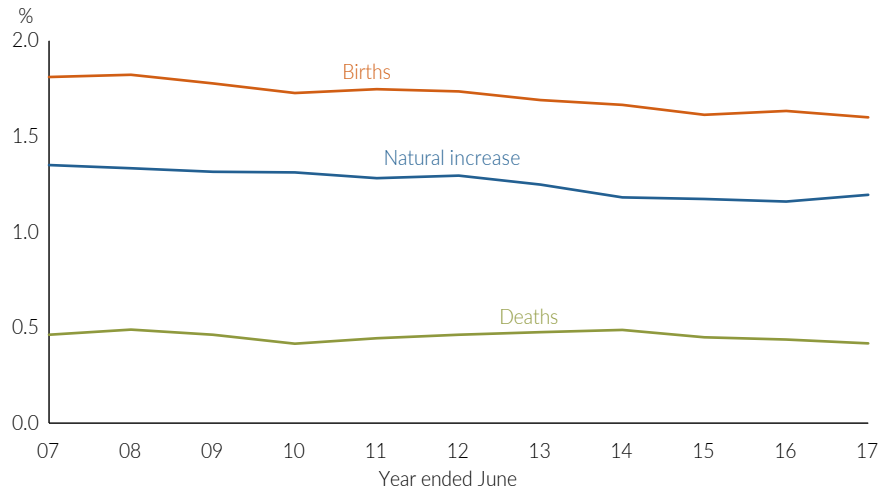
Natural increase is the difference between the number of births and deaths, which shows population growth in the absence of migration. The ABS obtains birth and death information from state and territory Registrars of Births, Deaths and Marriages.

The Territory differs markedly from the rest of Australia in respect of the impact of natural increase on total population growth. In 2016-17, natural increase contributed 1.2 per cent to the Territory population. This was lower than the 20-year average of 1.3 per cent and continued a slight but clear decline observable over the past 10 years, a result of fewer births as a proportion of the total population. Nevertheless, natural increase's annual contribution to the population in the Territory remains higher than for the Australian population, which was 0.6 per cent in 2016-17, also slightly below its 20-year average of 0.7 per cent.

The number of births in the Territory has remained reasonably stable, at around 4000 births per annum. In 2016-17, this equated to a total fertility rate (TFR) of 2.0 births per woman, down from a rate of 2.2 births five years previously. The decline in the TFR reflects declining births across both the Territory's Aboriginal and non-Aboriginal population, while declining births overall are also a function of decreasing numbers of women of child-bearing age arriving and staying in the Territory. Overall, births contributed 1.6 per cent towards Territory population growth, down from 1.7 per cent 10 years previously (Chart 4.3).

While the rate of births in the Territory declined, the number of deaths (as well as standardised death rate) also fell in 2016-17. There were 1068 deaths in the Territory in 2016-17 which, after adjusting for an ageing population, equates to a standardised death rate of 7.2 deaths per 1000 persons, below the five-year average rate of 8.1. Despite the decline, the standardised death rate in the Territory is well above the national rate of 5.3 deaths per 1000 in 2016-17.

Chart 4.3: Contribution of natural increase, births and deaths to the Territory population



Source: ABS, *Australian Demographic Statistics*, Cat. No. 3101.0

### Interstate migration

NIM is derived from Medicare interstate change of address information with adjustments for defence personnel who are not covered by Medicare. Historically, Territory NIM tends to be negative, with positive NIM last being reported from 2007 to 2009. Territory NIM averaged a net outflow of 1289 persons per annum over the past 20 years. However, in recent times the rate of net outflows has risen to well beyond long-term averages, with a net outflow of 3490 interstate migrants in 2016-17, the highest annual total in over 30 years.

The component flows of people moving to and from the Territory each year far exceed the reported NIM, averaging between 15 000 and 17 000 persons annually.

NIM outflows in 2016-17 were largely driven by a strong decline in the number of interstate arrivals, down by 8.5 per cent to 13 546 persons, with arrivals from all jurisdictions declining in the year. In contrast, the number of people departing from the Territory to other jurisdictions fell slightly over the year, down by 2.7 per cent to 17 036. Departures to all jurisdictions declined, except to Victoria, where the number of people departing from the Territory increased by 11.8 per cent (to 3384) in 2016-17.

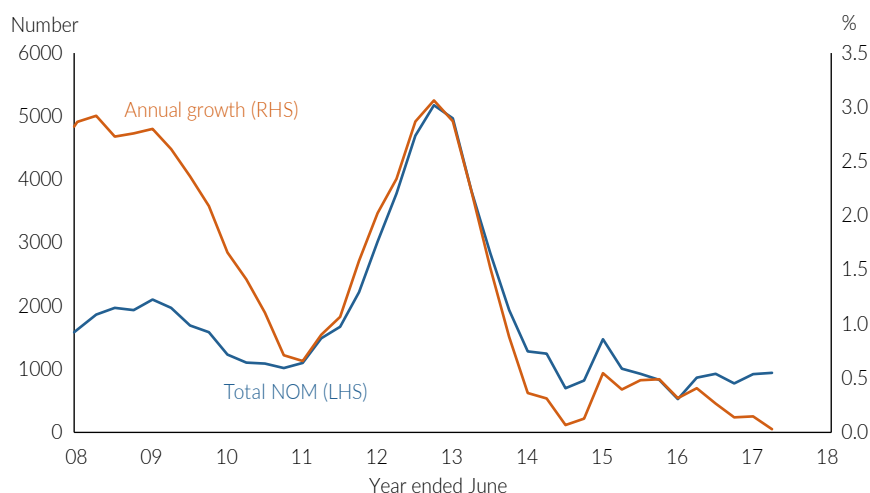
### Overseas migration

In 2016-17 NOM added 923 people to the Territory's population, higher than the previous year's NOM contribution of 526 people, but lower than the 20-year average of 1365 persons per year.

The Territory's NOM flows have displayed greater volatility than Australia's flows, reflecting changing employment opportunities within and external to the Territory. In 2016-17 NOM to the Territory comprised 0.4 per cent of total NOM to Australia, lower than the 10-year average of 0.8 per cent.

NOM inflows were at record levels in 2012 and 2013, reaching an annual high of 5173 in the 12 months to March 2013, and remaining at elevated levels into early 2014 (Chart 4.4). This corresponded with a period of very high population growth in the Territory. Since that time, NOM inflows have returned to longer term trend levels and at the same time Territory population growth has also slowed.

Chart 4.4: Annual NOM and annual change in Territory population growth



Source: ABS, *Australian Demographic Statistics*, Cat. No. 3101.0

## 2016 Census of population and housing

The census provides an important snapshot of Australia's people on a five-yearly basis. It is the principal means of estimating Australia's population, and these estimates are used for a variety of purposes, such as planning for future health and education services. The census provides information on a standard basis for the country as a whole as well as for small geographic areas and small population groups, such as the Territory's remote and Aboriginal populations.

Census data differs from ERP in that it is a count of people, on a particular night, rather than a measure of population flows. ERP is an estimate derived from the census count, which is then adjusted for any undercount or overcount in the census, residents overseas and other adjustments, including backdating from the date of the census to 30 June 2016. Census data is available in much finer detail than ERP data and is therefore useful as a relative measure, for example, comparing smaller geographic areas. Commencing mid-2017, the ABS has been releasing the results of the 2016 Census, including updated ERP data, as well as more detailed information not available for the inter-censal period. Below is an analysis of some of the data collected during the census.

### Country of birth

According to the 2016 Census, 22.4 per cent of Territorians were born overseas, lower than the national rate of 28.3 per cent. The top five source countries for migrants were the United Kingdom (UK), the Philippines, New Zealand, India and Greece. The proportion of people born overseas varied between the Territory's regions, as did the country of origin of those migrants. While most of the analysis in this chapter has focused on Greater Darwin as a single region, in this section the results will be discussed at a more detailed level, as there was a wide variance between different parts of Greater Darwin in the census data.

Darwin city and Darwin suburbs had the highest rate of people born overseas (36.9 per cent and 34.9 per cent, respectively) while Daly-Tiwi-West Arnhem had the lowest (5.7 per cent). Greece was the fifth highest country of birth in the Territory overall, while in Darwin suburbs it was ranked fourth, behind the Philippines, UK and India. In Darwin city, in contrast, there were large numbers of people born in Ireland and Japan, possibly reflecting past economic weakness in the former and potentially the presence of workers employed by the Japanese-owned company INPEX, who are working on the Ichthys LNG project. Palmerston had a similar profile to Darwin city, while Litchfield had a higher proportion of persons born in Vietnam and Thailand than other parts of the Territory, reflecting the horticultural industry and Asian vegetable farms in the region.



Though the UK, Philippines and New Zealand were in the top five overseas countries of birth in all regions, there was still variation in the source countries across different parts of the Territory. Alice Springs (where 19.6 per cent of persons were born overseas) and Katherine (8.7 per cent) both had a large proportion of persons born in the United States of America, likely reflecting the larger military presence in those regions, while Daly-Tiwi-West Arnhem and East Arnhem (5.7 per cent and 6.0 per cent of persons born overseas, respectively) both reported a higher proportion of persons born in Papua New Guinea. The Barkly region was more diverse than other remote parts of the Territory, with 9.3 per cent of persons born overseas, and had a similar profile to the Territory overall, with the Philippines, UK and New Zealand the largest source countries.

#### Interstate and regional migration

The Territory's population is highly mobile, with large inflows and outflows of interstate migration each year. Data from the 2016 Census allows for the comparison of a person's usual residence on census night to the same time five years prior. Based on that data, the Territory had the highest population mobility of the jurisdictions, with 25.5 per cent of persons living in the Territory on census night having moved from interstate within the past five years, compared to 10.9 per cent nationally. Not all parts of the Territory were equally as mobile. Population mobility was highest in Darwin city, with 47.4 per cent of residents having lived elsewhere five years ago, compared to 9.2 per cent of residents of Daly-Tiwi-West Arnhem. The other parts of Greater Darwin – Darwin suburbs, Palmerston and Litchfield – as well as Alice Springs, are much closer to the Territory average in terms of mobility, with their proportions of people who lived interstate five years ago ranging within 20 to 30 per cent of the population. Despite the large and generally highly mobile defence population, Katherine had a lower level of population mobility, with 19.1 per cent of the population residing elsewhere five years ago, suggesting the non-defence component of the population is more stable than the Territory average.

The main locations where people were residing five years prior included many areas of Australia that share similarities with the Territory, particularly areas with mining and LNG construction activity, such as outback Western Australia, outback Queensland, Cairns and Townsville. There were also a large number of people who had moved from more densely populated areas such as inner Melbourne, the Australian Capital Territory and the Gold Coast, though these were concentrated in the Greater Darwin and Alice Springs regions.

#### Aboriginal identification

Preliminary results from the 2016 Census indicate there has been substantial growth in the number of people across the nation identifying as Aboriginal, at rates significantly higher than natural increase. This has not been reflected in the Territory and, consequently the Territory's share of the national Aboriginal population has reduced. A key contributor to the higher rate of growth in the Aboriginal population in other jurisdictions were people being newly recorded as identifying as Aboriginal. In addition, children born to parents of 'mixed heritage' with one parent identifying as Aboriginal, are increasingly identified as Aboriginal. Both these factors tend to be more prevalent in Australia's metropolitan centres.

Between the 2011 and 2016 censuses, the Aboriginal population of Australia increased by 18.4 per cent. Growth in the jurisdictions ranged from a high of 25.8 per cent in Victoria to a low of 2.6 per cent in the Territory. Much of the growth in the Aboriginal population has been concentrated in areas that traditionally had very low levels of Aboriginal identification, particularly in more highly urbanised and populated parts of the country. Data is not yet available to measure the population by remoteness, however much of the growth has been in the greater capital city statistical areas, particularly in Greater Melbourne, Greater Sydney and Greater Brisbane. In contrast, areas with the lowest rates of growth have been in parts of the country that already had a very high Aboriginal population, such as the Territory, regional South Australia and regional Western Australia.



As a result of these changes across the country, the Territory's share of the total Aboriginal population has decreased from 10.4 per cent in 2011 to 9.0 per cent in 2016. Within the Territory, growth was much slower than at a national level, with the Aboriginal population of Darwin increasing by 7.8 per cent, and the regional Territory population increasing by just 0.1 per cent. Due to this much smaller population increase than reported across the rest of the country, the proportion of the nation's Aboriginal people who reside in remote parts of the Territory has declined from 8.3 per cent in 2011 to 7.0 per cent in 2016, the largest decline of any region in Australia. This has significant implications for the Territory's share of GST revenue, as recommended through the Commonwealth Grants Commission assessments, discussed in more detail in Budget Paper No. 2.

### Department of Treasury and Finance – Charles Darwin University Partnership

The Department of Treasury and Finance (DTF) provides funding for and works closely with the demography research program at the Northern Institute at Charles Darwin University. The institute is a significant research hub in northern Australia and the population program presents Territory population issues and related research at national and international forums.

Key elements of the institute's current and planned population work program include the creation of a new population projection model for the Territory, undertaken as a joint project with DTF, in depth international comparisons of the Territory's population with other remote populations worldwide, and analysis of Territory data from the 2016 Census. The program also offers DTF staff a range of demography training opportunities.

Further information on the Northern Institute and its reports are available at: [cdu.edu.au/northern-institute/demography-and-growth-planning](http://cdu.edu.au/northern-institute/demography-and-growth-planning)

### Charles Darwin University: Synthesising Northern Territory Population Research

In 2017 the Territory Government commissioned a report by the Demography and Growth Planning research team at Charles Darwin University (CDU) to synthesise research on the causes and consequences of population change in the Territory. It built on previous research on the topic undertaken by CDU over the past decade. The report noted the Territory's low population growth and identified a number of priority action items to address this.

The report noted the Territory's current low population growth 'era', which began in 2010, is the third since the 1980s, and has been characterised by an extended period (26 consecutive quarters as at the report's release) of negative NIM and large declines in in-migration of early career workers, who are a key contributor to growth.

A series of market orientated population initiatives were suggested to address the Territory's population challenges. These would benefit from support at all levels of government, Territory businesses and the community. The report suggests the Territory needs specific strategies to attract and retain women and those transitioning to middle and late career stages as well as focus international migration efforts on source countries with strong growth potential, and develop a Territory alumni strategy to connect with alumni of the Territory. The report also recommended the Territory promote its regions as well as Darwin to offer a variety of Territory lifestyles.

The report has acknowledged the difficulties governments face in improving population growth, as there are few policy levers available when conditions in key economic sectors are challenging. It notes there are some policies that can position the Territory for faster recoveries, such as promoting housing affordability, welcoming international migrants and improving transport and communication

services. It also noted strategies to make people feel welcome and attached to the Territory within a year or two of arrival are critical to increasing retention rates, which is important for reducing the departure component of NIM.

Broad population goals or target ranges have been recommended by the report, rather than a specific population target figure. Within these goals the report suggests the market and type of change desired should be clearly identified, as should the time period for the goal.

### Long-term population projections

The Northern Territory population projections are calculations of the future size and characteristics of the Territory population and have been developed to assist Territory Government agencies, non-government organisations and businesses to plan service delivery across the Territory.

DTF has developed preliminary projections for the Territory's resident population to the year 2046, disaggregated by age, sex and Aboriginal status. The projections are based on Australian Bureau Statistics 2016 Census preliminary estimated resident population numbers at 30 June 2016. Supplementary regional population projections are currently being developed.

Population projections should be used with a clear understanding of the underlying assumptions and limitations, as they are compiled by applying mathematical models and assumptions of likely population trends (current and historical) to the base population. Projections provide information about how a population may change over the long term, subject to assumed parameters. They are not intended to be accurate short-term forecasts. Projections are also not targets, nor do they necessarily reflect the effects of current or future policies.

Key characteristics of the Territory's population projections include:

- growing from 245 740 in 2016 to 375 067 in 2046, assuming an annual growth rate of 1.4 per cent
- Aboriginal population growing from 74 509 in 2016 to 97 363 in 2046, at an annual growth rate of 0.9 per cent, and the Territory's non-Aboriginal population growing from 171 231 in 2016 to 277 704 in 2046, an annual growth rate of 1.6 per cent
- much of this difference in growth rates reflects differing migration patterns between the two groups, with the non-Aboriginal population more mobile than the Aboriginal population
- both the Aboriginal and non-Aboriginal populations are steadily ageing, with the proportion of persons aged 65 and over projected to increase. However, the Aboriginal population is projected to age faster, with the proportion of Aboriginal persons aged 65 and over anticipated to more than double from 2016 to 2046 (from 3.6 per cent to 9.0 per cent). Over the same time period the proportion of non-Aboriginal persons aged 65 and over is projected to increase from 8.3 per cent to 11.5 per cent.

## Population Strategy

The Northern Territory Population Strategy 2018 – 2028 provides the framework for attracting people to and retaining people in the Territory. It is based on evidence around the drivers of population change that will help achieve sustainable population growth.

The strategy is in response to the current experience of static population dynamics and the DTF's forecast of declining population over 2018 as the Ichthys LNG project's construction phase winds down. The Territory Government commissioned the Northern Institute at CDU to synthesise past population research in order to understand the drivers of population trends in the Territory, as well as the strategies used by other jurisdictions to influence their own population challenges.

The CDU researchers confirmed there is no single policy solution to achieving population growth and retention in a regional resource-dominated economy. A portfolio of approaches is required. The research report, *Synthesising Northern Territory Population Research: A Report to the Northern Territory Department of the Chief Minister*, recommended a number of broad policy responses and priority focus areas for government to consider.

The CDU report confirmed that jobs and career progression are the biggest drivers of people's decisions to move to, stay in or leave the Territory. The Top End climate is a drawcard for attracting people to the Territory, but is also a key reason for people leaving. However, a lack of social and family networks and concerns over law and order are other important reasons people make decisions to leave the Territory.

Recognising the limited direct influence the Territory Government has on the fundamental components of population change (fertility, mortality and migration), the Population Strategy provides a framework for existing Territory Government initiatives and outlines new activities that will support and complement government policy direction on:

- enhancing liveability across the Territory
- promoting regional economic development
- putting downward pressure on the cost of living
- working with businesses and industry to reduce business costs and ensure the Territory is a competitive and profitable place to do business-accessible and affordable services such as healthcare and education
- engaging with the Commonwealth to stimulate investment in infrastructure, and attract and retain a sustainable workforce in northern Australia.

Direct initiatives from the Population Strategy will focus on market initiatives and incentives with engaging and bringing back the Territory's alumni and attracting early career women, mid and late-career workers and retirees, and skilled migrants and university students.

The Population Strategy will be updated through an ongoing body of research from CDU and the Australian Regional Development Institute into:

- aspirations and attitudes of key segments of the population
- drivers of population change in the Territory
- drivers of regional population growth and/or decline.

The research program will enhance understanding and keep pace with existing and emerging population trends to help shape future Territory government policy in this critical area.



## Chapter 5

## Labour Market

## Recent activity

The Territory's labour market performance in 2016-17 reflected strong construction workforce requirements associated with the Ichthys liquefied natural gas project (LNG). At June 2017, the Territory's labour force consisted of about 143 100 people.

## Outlook

Employment growth is expected to contract in 2017-18 and 2018-19 following completion of construction of the Ichthys LNG project. Similarly, the unemployment rate is forecast to increase following a period of job shedding, before labour force conditions return to more normal levels in the outer years.

Labour market statistics are based on data reported by the Australian Bureau of Statistics (ABS) collected in the monthly labour force survey. The Territory has proportionately more households surveyed each month compared to other states. However, due to the relatively small population of the Territory, the labour market estimates are subject to a relatively high standard error and volatility. It is for this reason the ABS recommends using trend estimates, which better address the volatility in monthly data.

The monthly labour force survey measures the labour market status of civilians aged 15 years and over who are residents in the Territory. People are considered employed in the Territory if they work for one hour or more in a week and unemployed if not working but are actively looking for work and available to start work. The labour force participation rate measures the proportion of the civilian population aged 15 years and over, either employed or unemployed.

The ABS labour force survey reports on the employment of Australian workers in the jurisdiction based on usual place of residence rather than place of employment. Therefore, the survey does not record fly-in-fly-out (FIFO) workers in the Territory if these workers report their state of usual residence not being the Territory. Similarly, permanent or temporary overseas workers will be classified as employed in the Territory only if they identify themselves as a resident of the Territory. Permanent defence force personnel are also excluded from the survey and therefore the ABS labour force survey may not reflect actual employment. According to the 2016 Census and Australian Defence Force data, there were about 8700 FIFO workers (as at June 2016) and 4702 permanent defence force members (as at June 2017) in the Territory. The proportion of FIFO workers and defence force personnel present in the Territory is higher compared to most jurisdictions.

For the latest data on the Territory's labour market, including up-to-date activity for employment, unemployment and participation rate, refer to the Territory Economy website.

## Outlook

Table 5.1: Territory labour market forecasts (%)

	2016-17a	2017-18e	2018-19f	2019-20f	2020-21f	2021-22f
Employment <sup>1</sup>	2.5	- 2.0	- 0.5	0.3	0.9	1.0
Unemployment rate <sup>2</sup>	3.4	4.3	4.9	4.5	4.3	4.0

a: actual; e: estimate; f: forecast

<sup>1</sup> Year-on-year change in resident civilian employment.

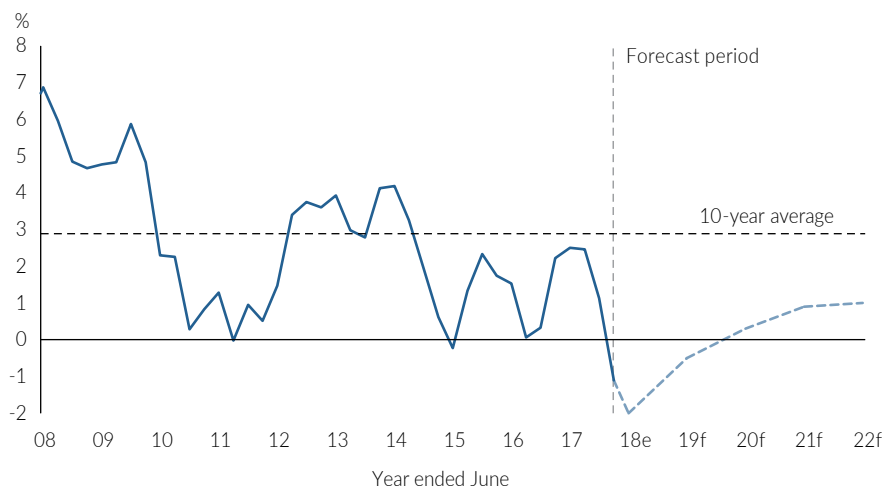
<sup>2</sup> Annual average.

Source: Department of Treasury and Finance; ABS, *Labour Force, Australia*, Cat. No. 6202.0

As construction work on the Ichthys LNG project nears completion and commissioning activities ramp up through 2018, employment growth is estimated to decline by 2.0 per cent in 2017-18. Being the largest project in the Territory’s history, the Ichthys LNG project has been a dominant driver of employment in the Territory and, as such, changes in workforce requirements will have a strong influence on the labour market outlook.

In the Territory, population growth is closely related to employment opportunities and as workforce requirements associated with the Ichthys LNG project lessen, both employment and population growth will continue to moderate. The employment loss caused by the Ichthys LNG project transitioning to the production and operational phase in 2018-19 is expected to have a one-off impact on the level of Territory employment. Consequently, employment is forecast to decline by 0.5 per cent in 2018-19, following the departure of people from the Territory’s labour force in the year (Chart 5.1).

Chart 5.1: Employment growth in the Territory



e: estimate; f: forecast

1 Year-on-year change in resident civilian employment.

Source: Department of Treasury and Finance; ABS, *Labour Force, Australia*, Cat. No. 6202.0

General employment conditions across the resource sector have also moderated in recent years, following the completion of other projects and the cessation of some mining developments. The construction industry is already reporting weakened conditions with the number of people employed declining by about 1800 people over the last two years.

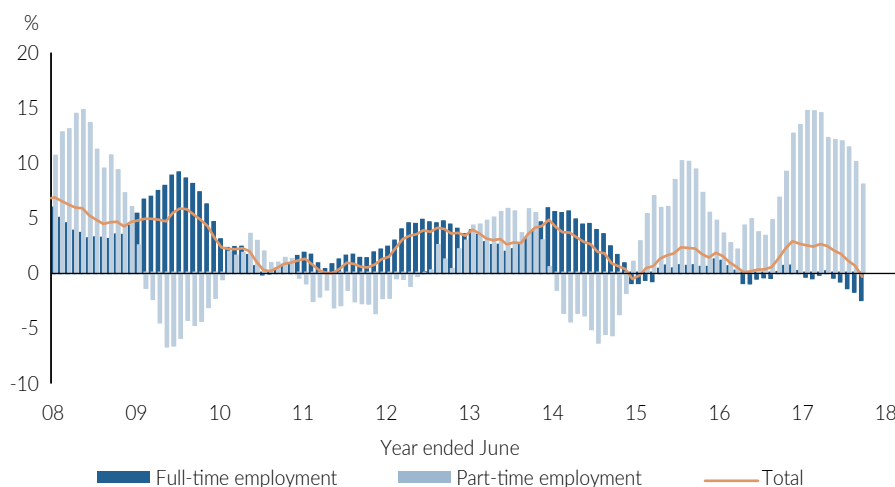
Although the completion of construction for the Ichthys LNG project will substantially reduce private sector non-residential construction activity in the Territory, employment growth is forecast to be supported by several other projects commencing in the Territory, albeit at a smaller scale. The current development of the Northern Gas Pipeline is expected to continue to support employment in 2018-19, until completion of the construction phase.

Territory employment growth is expected to average below long-term trends over the outlook period, with a shift from the construction sector as the main driver to an increased reliance on general growth across other key industries in the Territory including tourism, health and education services, public administration, agricultural and defence sectors.

In 2016-17 resident employment in the Territory increased by 2.5 per cent, which accounted for an average of 138 180 employed residents in the Territory during the year. Since then, employment has moderated, decreasing by 0.3 per cent in the year to February 2018, to an average of 136 370 employed residents in the Territory. This was primarily driven by a 2.4 per cent decline in full-time employment, partly offset by an 8.0 per cent increase in part-time employment. This trend shows a shift towards part-time employment being a stronger contributor to employment growth than

previous years, which further suggests an increase in spare capacity in the workforce (Chart 5.2). Given this current trend, the outlook for employment growth is expected to be weak.

Chart 5.2: Employment growth by status<sup>1</sup>



e: estimate; f: forecast

<sup>1</sup> Year-on-year change in resident civilian employment.

Source: Department of Treasury and Finance; ABS, *Labour Force, Australia*, Cat. No. 6202.0

In the year to February 2018, the Territory's unemployment rate averaged 3.9 per cent, in line with the 10-year average. However, the unemployment rate is expected to peak at an average of 4.9 per cent in 2018-19 as employment growth deteriorates following the major transition to the production and operational phase of the Ichthys LNG project.

From 2019 onwards, a large portion of workers who became unemployed and are unsuccessful in securing other employment are expected to move interstate for other employment opportunities or return to their usual place of residence. While reducing employment and the overall size of the labour market, the outflow of workers from the Territory is expected to limit the impact of the wind-down of the Ichthys LNG project construction phase on the Territory's unemployment rate over the outlook. Thus, the unemployment rate is expected to average 4.4 per cent over the four years from 2018-19.

The Territory consistently has the highest participation rate of all jurisdictions. This reflects the comparatively young age profile of the Territory's workforce and that employment is often a key motivator for people to move to the Territory, whereas unemployment is usually a key reason for people to leave. This traditional trend is expected to continue over the forward estimates.

## Job creation

The Territory Government is committed to stimulating economic activity and attracting private investment opportunities to support local industries through the transition of the Ichthys LNG project into the production and operational phase. The roll out of the Economic Development Framework in May 2017 will help sustain long-term growth in the Territory by supporting infrastructure investment and creating employment opportunities in a range of sectors. The Territory Government's Infrastructure Strategy and 10-year Infrastructure Plan provides confidence for individuals and businesses, and identifies opportunities for economic and employment growth over the outlook period. Furthermore, a Population Strategy is being developed to help address low population growth in the Territory, which has flow-on effects on the local labour market.

In February 2018, the Territory Government provided a \$103 million stimulus package for the tourism sector, which includes new infrastructure and improvements to current tourism facilities, attractions and parks over two years. This investment will contribute to economic growth and create

new employment opportunities across multiple sectors in the Territory including construction, retail, accommodation and food services, arts and recreation, administrative and support services, rental and hiring, as well as transport sectors.

The Territory Government's \$1.45 billion infrastructure program in 2018-19 is expected to contribute to employment opportunities and economic growth. Continued government investment in remote communities and regional development will also support employment in the remote regions of the Territory. This includes ongoing works as part of the Remote Housing Investment Package and land servicing with \$124 million in new works allocated for 2018-19. Further to the infrastructure program, the Territory Government has committed \$50 million towards the development of the National Indigenous Art Gallery in Alice Springs and \$30 million to establish the Agribusiness and Logistics Hub in Katherine from 2019-20, which will also create and support employment within the Territory.

An additional \$100 million as part of the City Deals project to revitalise the Darwin central business district (CBD), as well as a \$20 million funding commitment towards revitalisation works in Alice Springs CBD, will further support construction jobs through new and upgrades to existing infrastructure. Major infrastructure investment on road upgrades and transport developments such as the \$40 million Barneson Boulevard project in Darwin CBD and the \$40 million project to realign and seal Gunn Point Road will further stimulate jobs over the short-term outlook.

The Territory Government continues to invest in essential community infrastructure throughout the Territory, such as upgrades to the Royal Darwin Hospital, redevelopment of the Alice Springs Hospital and the Gove District Hospital, construction of a Palmerston police station, upgrades to Wadeye police station, upgrades and expansions to public school facilities, \$70 million for the replacement of youth detention facilities and \$15.9 million for the development of a multi-purpose hall at Darwin Middle School, which will create many construction and technical employment opportunities over the outlook period. The Territory Government's investment in remote infrastructure and amenities to address identified deficiencies in remote communities will further help provide jobs for people living in the bush. Upon completion of the Palmerston Regional Hospital in 2017-18, the new facility will further support new operational and health-related jobs through the outlook period.

Smaller Territory Government projects, such as construction of the \$18 million Darwin netball stadium and the \$25 million Warren Park rugby league stadium, as well as \$6.2 million investment in sporting infrastructure in Alice Springs, will further contribute to employment growth in the medium term. Other Territory Government-facilitated projects identified in the pipeline also have the potential to support employment growth over the outlook. Some of these include the Alice Springs tourism commercial development, seniors' lifestyle accommodation and the Mount Isa to Tennant Creek railway project.

The Territory Government continues to promote public sector employment opportunities for Aboriginal people living in the Territory through its Indigenous Employment and Career Development Strategy. The Aboriginal Employment Program was established to support whole of government initiatives for Aboriginal people who wish to expand their experience, re-enter the workplace, earn a qualification or build a career within the public sector. In turn, this will benefit the local community as well as the labour market by creating jobs and increasing the Territory's participation rate.

The defence industry will also play a significant role in terms of investment and job creation in the Territory with the \$20 billion infrastructure investment planned over 20 years. Major defence projects such as the new Air Combat Capability Facilities project at the Royal Australian Air Force (RAAF) Base Tindal, as well as major upgrades to facilities at RAAF bases



and HMAS Coonawarra are expected to provide further boosts to employment, which could potentially extend over the outlook period. Complementing the Territory's established status as a strategic defence hub, the Territory Government has committed \$95 million from 2019-20 towards the construction of the Darwin ship lift facility, which is also expected to support new construction-related employment.

Resource-based projects also have the potential to provide a significant boost to the Territory's construction industry and resources sector over the forecast period. Major projects in the pipeline, including those that have received major project status, include Nolans rare earths mine, Jervois base metal project, Chandler salt mine, Mount Peake mine and metals processing facility, Ammaroo Phosphate Project, and the Mt Todd gold mine. If realised, these projects will provide multiple employment opportunities across the medium outlook for the Territory.

Continued land releases across the Darwin and Palmerston regions are expected to sustain jobs for a number of local construction and related industries over the outlook. The continued construction of some commercial and retail developments, such as the next stages at Gateway and Coolalinga Central, as well as the construction of the new Palmerston CBD multiple-use tower, will support construction jobs over the development stages and retail job opportunities over the outlook.

On the downside, the Commonwealth's recent changes to the 457 visa program may affect growth in Territory employment.



## Chapter 6

## Prices and Wages

**Recent activity**

Growth in the Darwin consumer price index (CPI) remains well below long-term trend, with the few drivers in growth being fuel, alcohol and tobacco prices.

Territory wage growth is at record low levels, reflecting moderate increases in both private and public sector wages and generally soft labour market conditions.

**Outlook**

The outlook for growth in the Darwin CPI remains restrained for 2017-18 and trending to the long-term average over the forecast period, as the economic cycle returns to growth.

Growth in the Territory's wage price index (WPI) is expected to remain positive but subdued in the short term, increasing in the outer years, consistent with national trends and demand for labour.

Inflation is a key economic indicator that measures the change in the general level of consumer prices over a given period of time. It reflects supply and demand pressures in key markets such as housing, food products, fuel and utilities.

The Australian Bureau of Statistics (ABS) measures inflation in the economy through changes in CPI. CPI measures the change in the price of a representative basket of goods and services in each Australian capital city. The basket is made up of 11 groups of goods and services, and weightings as outlined in Table 6.2.

The ABS WPI measures the influence of market factors on the price employers pay for a standard unit of labour. To establish a standard unit of labour for the index, the ABS holds the quantity and quality of labour services constant by excluding changes in composition of the labour force, hours worked and changes in characteristics of employees (such as productivity) from the index.

For the latest data on Territory prices and wages refer to the Territory Economy website.

## Outlook

Table 6.1: Forecasts of the Darwin CPI and Territory WPI (%)

Financial year	2016-17a	2017-18e	2018-19f	2019-20f	2020-21f	2021-22f
Consumer price index	0.1	0.5	1.0	1.7	1.9	2.3
Wage price index	2.1	1.8	1.7	1.8	2.0	2.1
Calendar year	2017a	2018e	2019f	2020f	2021f	2022f
Consumer price index	0.6	0.8	1.4	1.8	2.1	2.4

CPI: consumer price index; WPI: wage price index; a: actual; e: estimate; f: forecast

Source: ABS, *Consumer Price Index, Australia*, Cat. No. 6401.0, *Wage Price Index, Australia*, Cat. No. 6345.0; Department of Treasury and Finance

## Consumer price index

Each group in the CPI basket is given a weighting depending on its relative importance to household expenditure. To determine the price index, the price change in each group is combined according to its weighting. ABS has introduced the 17<sup>th</sup> series of weighting patterns of the CPI series to incorporate results from the 2015-16 Household Expenditure Survey. Housing, which comprises rent, house purchase, utilities and other housing costs, has the largest weighting in the index and accounts for nearly a quarter of the Darwin CPI basket. The food and non-alcoholic beverages category is the second largest, accounting for around a further 16.3 per cent of the Darwin CPI basket (Table 6.2).

Table 6.2: Darwin CPI basket groups and weights

CPI basket group	Examples of basket items	Darwin CPI weightings December 2017
Housing	Rents, new dwelling purchase, maintenance and repair of dwellings, and utilities	24.66
Food and non-alcoholic beverages	Purchases associated with bread and cereal products, meat, seafood, dairy, fruit and vegetables, tea, coffee, juice, restaurant meals and takeaway	16.27
Recreation and culture	Costs for audio, visual and computing equipment, newspapers, books, stationery, holiday travel and accommodation, sports equipment, gaming and hobby materials, and services for animals	13.14
Alcohol and tobacco	Spirits, wine, beer, cigarettes, cigars and tobacco	9.59
Transportation	Payments associated with purchasing and hiring of vehicles, fuel, repairs of vehicles, maintenance of vehicles and public transport	9.52
Furnishings, household equipment and services	Furniture, linen, household appliances and utensils, cleaning products, child care and hairdressing	9.34
Financial and insurance services	Insurance fees, deposit and loan facilities (direct charges), and other financial services	4.97
Health	Payments associated with medications, treatments, therapeutic equipment, and medical, dental and hospital services	4.41
Communication	Payments for delivery of mail and parcels, and purchases, repair and services of telephones and internet connections	2.88
Clothing and footwear	Garments for adults and children, shoes, accessories, dry cleaning, shoe repairs and tailoring	2.70
Education	Fees related to preschool, primary and secondary education, and tertiary education	2.53

CPI: consumer price index

Source: ABS, *Consumer Price Index, Australia*, Cat. No. 6401.0 and 6473.0

Darwin CPI growth has been moderating over the past decade from the high of 4.4 per cent in 2006-07 to 0.1 per cent in 2016-17. The drivers of the moderation in prices over the decade have been in food and non-alcoholic beverages, clothing and footwear, communication, and recreation and culture. In 2017, the prices in the housing category declined by 1.7 per cent, mainly driven by declines in rents. The residential housing market has experienced general softening in recent past, with falls in median house and unit prices and rents coupled with a rise in vacancy rates. Other lesser detractors include communication, and clothing and footwear prices, which declined by 4.0 per cent and 0.9 per cent, respectively. The recreation and culture category prices remained flat in 2017.

In 2017-18, the Darwin CPI is estimated to grow by a modest 0.5 per cent, due to increases in transportation costs on the back of a historic low growth in CPI in 2016-17. The key reason for the 2017-18 result is the housing category, again detracting from inflation, and offset by some upward pressure from increases in fuel prices. World oil prices are expected to continue an upward trend in the medium term. In March 2018, the monthly average unleaded petrol price in the Territory increased by 17.7 cents per litre compared to the same time in the previous year.

In 2016-17, growth in the food and non-alcoholic beverages category contributed to Darwin CPI, but in 2017-18 its effect on CPI growth is anticipated to be similar to the historical pattern of averaging 1.8 per cent growth over the past 10 years. The increase in food and non-alcoholic beverage prices in 2016-17 was mainly due to disease outbreaks in certain fruits and vegetables in parts of Australia, leading to shortages and price spikes. There is likely to be an increase in banana and sugar cane prices due to flooding in Queensland in early 2018, however, this could be offset by decreases in melon prices due to the lower demand following the listeria outbreak in early 2018.

In 2018-19, the Darwin CPI is forecast to grow by 1.0 per cent, again well below long-term trends (Chart 6.3). The categories in which prices are expected to increase in the year include health, transport, education, food and non-alcoholic beverages, alcohol and tobacco, and furnishings, household equipment and services. The categories contributing to CPI growth are anticipated to increase similar to long-term trends. The alcohol and tobacco category is likely to be the strongest contributor to price growth in the Territory with regular implementation of increases to the tobacco excise tax.

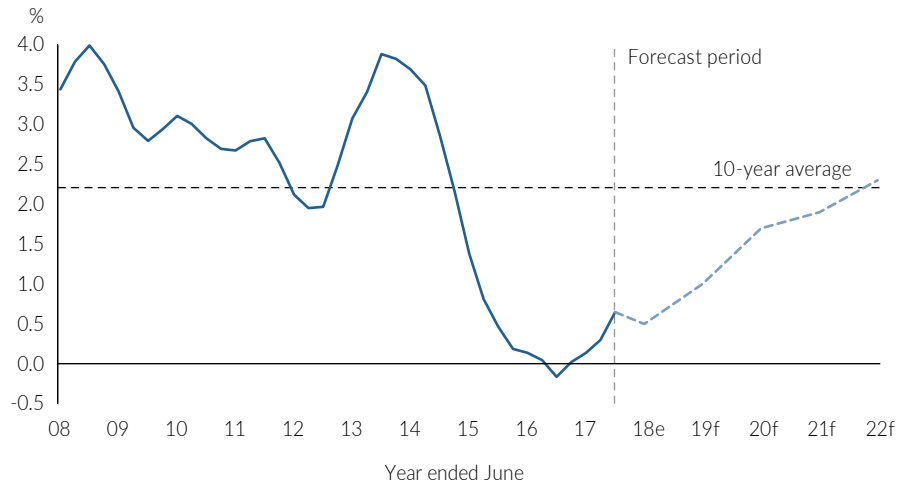
The new \$1.30 minimum floor price per standard drink for all alcoholic beverages in the Territory to be introduced in 2018-19 could also result in a one-off increase in this category. The Territory will be the first jurisdiction in Australia to implement a minimum floor price for alcohol, aimed at reducing harmful alcohol consumption as part of Government's response to findings of the Alcohol Policies and Legislation Review. The housing category will continue to detract from Darwin CPI growth in 2018-19 along with the traditional detractors of communication, clothing and footwear, and recreation and culture.

Over the forecast period, growth in the Darwin CPI is anticipated to continue to be modest without any strong inflation drivers and remain in the lower range of the Reserve Bank of Australia's (RBA's) target band of 2 to 3 per cent at the end of the forecast period. This reflects the cyclical downturn of the Territory economy, which is expected to negatively influence consumer spending habits. The job shedding associated with the current economic cycle and continued low wage growth is also expected to dampen spending and consumer demand for goods and services. The low growth in population is expected to further suppress consumer demand and property prices, and therefore inflation, over the outlook period.

In the current Territory economic environment, cost push inflation drivers, which are caused by increases in prices of inputs, are also not particularly strong. As the economy returns to normal growth patterns, the main source of cost push inflation in the Territory is increases to the tobacco and alcohol excise, which occurs on a regular basis. There are weak input and labour costs with very modest wage growth, which will restrain cost-push driven inflation. There has been an increase in labour market flexibility, with strong growth in part-time employment in recent years, which is likely to contribute to softer inflationary pressures. The lower housing costs in the Territory are further easing inflationary pressures and improve affordability for renters and first home buyers over the medium term.

As the economy returns to normal rates of growth over the forward estimates, Darwin CPI is expected to slowly trend upwards to 2.3 per cent in 2021-22. This is a return to around the 10-year average.

Chart 6.3: Darwin CPI, financial year-on-year percentage change



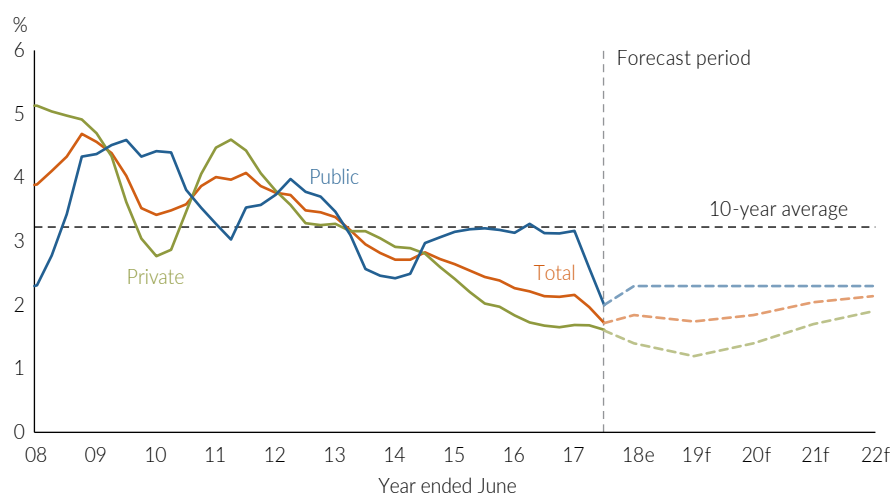
CPI: consumer price index; e: estimate; f: forecast  
 Source: ABS, *Consumer Price Index, Australia*, Cat. No. 6401.0; Department of Treasury and Finance

RBA forecasts the national CPI to increase by 2.0 per cent in 2017-18 and increase at 2.25 per cent in 2018-19 and 2019-20. The increase in the national CPI for 2018-19 reflects a decline in spare capacity in the economy resulting in more demand-side price pressures. The RBA notes weak discretionary consumer spending and continued retail competition has put downward pressure on prices over recent years. The RBA forecasts for the national CPI are historically low but remain stronger than the Darwin CPI forecasts.

## Wages

In 2016-17, the Territory recorded a 2.1 per cent increase in WPI, a historically low level. It has further moderated to 1.7 per cent in 2017, the lowest level on record (Chart 6.4). This historically low WPI growth is not isolated to the Territory, with WPI growth also at historically low levels nationally (up 2.0 per cent in 2017). The low growth in Territory WPI was mainly driven by the private sector, which grew by 1.6 per cent in 2017, well below its 10-year average growth rate of 3.2 per cent. Subdued growth in the private sector over the forecast period is largely consistent with current national labour market conditions. Public sector wages increased by 2.0 per cent in 2017, the lowest year-on-year increase in public sector wages on record. This reflected the ongoing Territory Government enterprise agreement negotiations, which had delayed the annual indexation of Territory public sector wages in 2017. The wage increase from the agreement is likely to be captured in 2017-18 figures.

Chart 6.4: Year-on-year percentage change in the Territory WPI



WPI: wage price index

Source: ABS, *Wage Price Index, Australia*, Cat. No. 6345.0

As a result of the performance in 2017, wage growth in the Territory is expected to remain moderate for the rest of 2017-18, due to low inflation expectations and a weaker labour market. There has been a shift towards part-time employment in the Territory, in particular for males, consistent with other jurisdictions in Australia, putting downward pressure on wage growth. Wage growth in the public sector is anticipated to be slightly higher than the private sector but growth is still expected to be below the long-term average, reflecting ongoing wage restraint and financial consolidation across all tiers of government. According to ABS data, there has been a reduction in the number of employees covered by enterprise agreements with the number of employees dropping by 4.6 per cent in the Territory in May 2016, compared to May 2014.

Another factor contributing to moderate wage growth over the medium term is the decrease in labour demand as the construction of the Ichthys liquefied natural gas (LNG) project nears completion. If these workers stay in the Territory, this is likely to increase the spare capacity in the Territory labour market, which will put further downward pressure on wage growth. Therefore, the lowest wage growth to occur over the forecast period is in 2018-19, which is when the Ichthys LNG project is scheduled to transition to the production and operational phase. Wage growth is forecast to increase from 2019-20, but remain below long-term trends, consistent with national trends and demand for labour.





## Chapter 7

## Residential Property Market

**Recent activity**

Conditions in the Territory housing market have continued to soften, reflecting increased supply relative to demand for housing. This has improved both housing rental and housing purchase affordability.

**Outlook**

Residential property and construction indicators suggest a further moderation in the residential property market in the medium term, driven by slowing economic activity and subdued population growth in the Territory.

The residential property market encompasses building of homes, buying or renting a dwelling, and new land development. Housing costs are a significant proportion of household expenditure in the Territory, with 20.9 per cent of household income devoted to meeting average mortgage repayments and 23.1 per cent to meet median rents in the December quarter 2017.

The purpose of this chapter is to provide an outlook of the residential property market in the medium term by examining leading indicators and developments in the residential sector, including policy changes. This chapter also reflects on the current Territory property market, set within the context of historical trends. The chapter uses median prices and rents as reported by the Real Estate Institute of the Northern Territory and the Real Estate Institute of Australia (REIA).

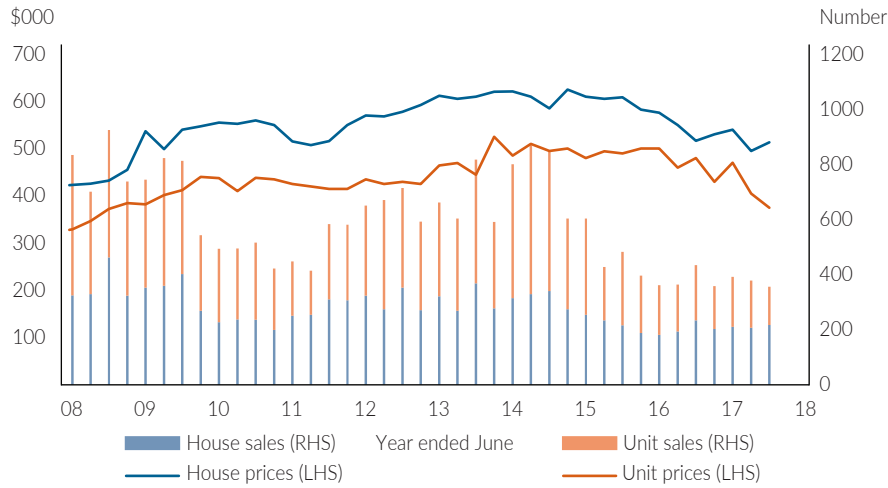
For the latest data on the Territory residential property market, refer to the Territory Economy website.

**Outlook**

The overall outlook for the Territory residential property market over the medium term remains subdued with key leading indicators, building approvals and housing finance commitments, remaining below long-term levels. This is consistent with other economic indicators, which are also showing signs of softening as the economy experiences a cyclical downturn before returning to long-term trends over the medium to long-term outlook.

The Territory's residential property market continues to moderate from the historically strong performance in 2012 and 2013 that was driven by major projects in the resources sector. At that time, demand drove up prices and rents and necessitated a strong supply response. However, the current softening conditions have now led to the level of supply exceeding demand reflected in increased vacancy rates. The median house price in Greater Darwin increased by 3.6 per cent in the December quarter 2017 but decreased by 0.6 per cent annually to \$513 000 (Chart 7.1). The median unit price decreased by 7.4 per cent in the quarter and declined by 21.9 per cent in annual terms to \$375 000. This is the lowest median unit price since the December quarter 2008. The vacancy rate in Greater Darwin was at 6.3 per cent in the December quarter 2017. The number of house sales in Greater Darwin decreased by 7.3 per cent in annual terms to 217 in the December quarter 2017 and unit sales fell by 30.5 per cent to 139 over the same period.

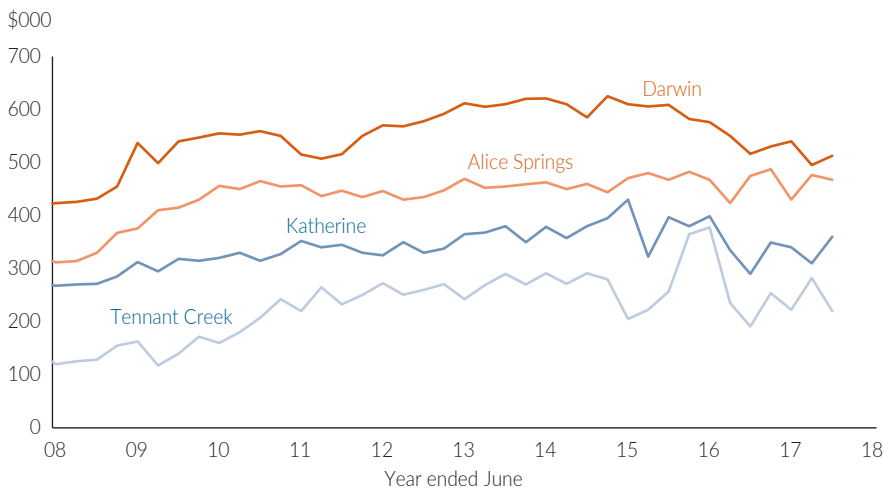
Chart 7.1: Greater Darwin median house and unit prices and sales



Source: Real Estate Institute of the Northern Territory

Caution needs to be used when interpreting regional results as the small size of regional markets and low number of sales can lead to volatile results. Alice Springs reflected similar trends to the Greater Darwin housing market, declining by 1.6 per cent in annual terms to \$467 500 (Chart 7.2). Median unit prices fell by 25.9 per cent in Alice Springs in annual terms to \$233 500. Katherine (up 24.1 per cent) and Tennant Creek (up 15.2 per cent) recorded increases in the median house price in annual terms in the December quarter 2017.

Chart 7.2: Median house prices



1 Greater Darwin includes Darwin city, Darwin suburbs and Palmerston.

Source: Real Estate Institute of the Northern Territory

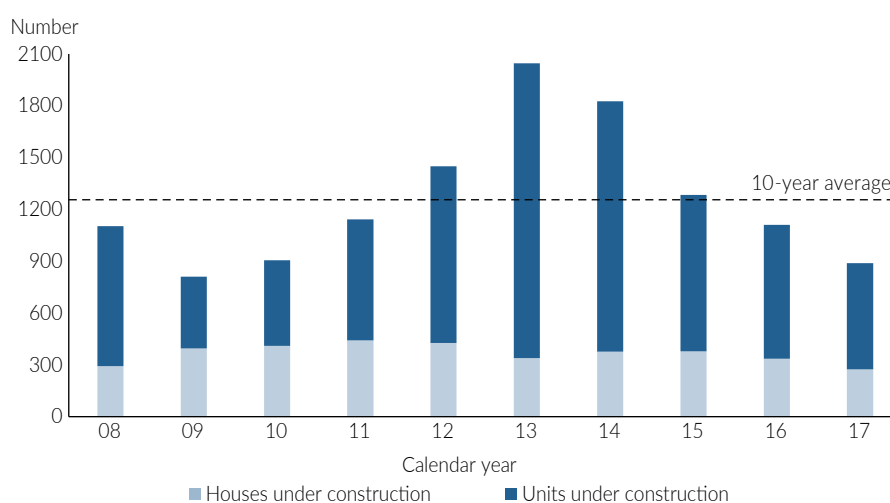
Moderation in the property market is likely to continue in the short to medium term. In anticipation of the downturn, the Territory Government introduced a number of initiatives to support the residential property market such as the First Home Owner Discount, a stamp duty concession for first home buyers purchasing an established home, and the Home Renovation Grant for first home buyers of established homes to undertake renovations. Assistance continued for first home buyers of new homes, under the First Home Owner Grant scheme.

A significant proportion of the increased supply in 2013 was concentrated in the unit sector in Darwin central business district, which appealed to investors and also accommodated the inflow of temporary residents associated with the Ichthys liquefied natural gas project. This is reflected in the softening in residential dwellings under construction (Chart 7.3), a leading indicator of the momentum of the property market suggesting a continuation of current conditions. This is

supported by other indicators such as dwelling investment and building approvals, which are key leading indicators for residential housing supply.

In 2017, the annual average number of residential dwellings under construction was 890 (615 units and 275 new houses). Also in 2017, the value of residential building work yet to be done decreased by 15.4 per cent to \$689 million. This comprised a 18.3 per cent decline in the value of houses work yet to be done (to \$181.9 million) and a 14.3 per cent decline (to \$501.1 million) in the value of units work yet to be done. Despite the decline in new residential building work yet to be done, the value of alterations and addition work yet to be done increased in 2017, up 3.3 per cent to levels above its 10-year average. Overall, however, this suggests that in the medium term the residential property market will be somewhat flat, with less new residential construction work in the pipeline.

Chart 7.3: Number of residential dwellings under construction in the Territory<sup>1</sup>



<sup>1</sup> Annual average.

Source: ABS, *Building Activity, Australia*, Cat. No. 8752.0

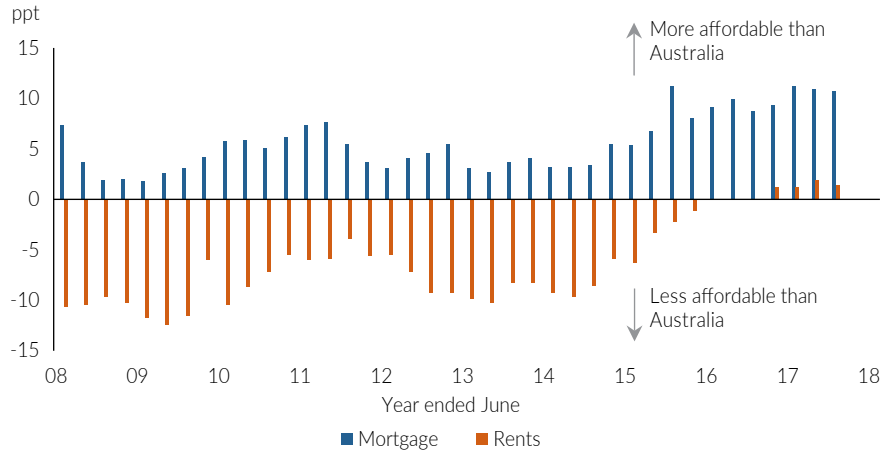
Land being released will continue to offer opportunities for Territorians to build new dwellings and may contribute to more affordable property prices. Land development projects are expected to return the number of serviced lots being supplied to historical levels over the medium term, following above-average trends in recent years. The land releases in the Greater Darwin region are expected to contribute sufficient supply to accommodate growth over the medium term, with land likely to be released in Durack, Zuccoli, Northcrest and further developments in Lee Point. Land releases in regional centres include Katherine East, Kilgariff in Alice Springs and Peko Road in Tennant Creek.

Underlying demand in the residential property market is expected to remain subdued as investor interest declines, reflected in softening house and unit prices and rents. In the September quarter 2017, Australian Prudential Regulation Authority (APRA) reported a decline of 44.8 per cent in new interest-only loans across Australia following the introduction of restrictions in March 2017. In February 2018, APRA released a proposal that would require banks to differentiate risk weightings for residential mortgages and this has the potential to curb interest-only loans further.

According to data published by REIA and the Adelaide Bank, the Territory's housing affordability has improved from the high of 30.4 per cent of median household income to meet average loan repayments in the March quarter 2012 to 20.9 per cent in the December quarter 2017. Similarly, the high of 35.8 per cent of median income to meet rents in September 2013 has fallen to 23.1 per cent in the December quarter (Chart 7.4). The Territory's December quarter 2017 result was lower than the national proportion of median household income to meet average

loan repayments (31.6 per cent) and the proportion of median household income to meet rents (24.5 per cent) and the Territory now ranks second for home loan affordability and fifth for rental affordability compared to other jurisdictions.

Chart 7.4: Difference between Australian and the Territory in the proportion of median income to meet loan repayments and rents

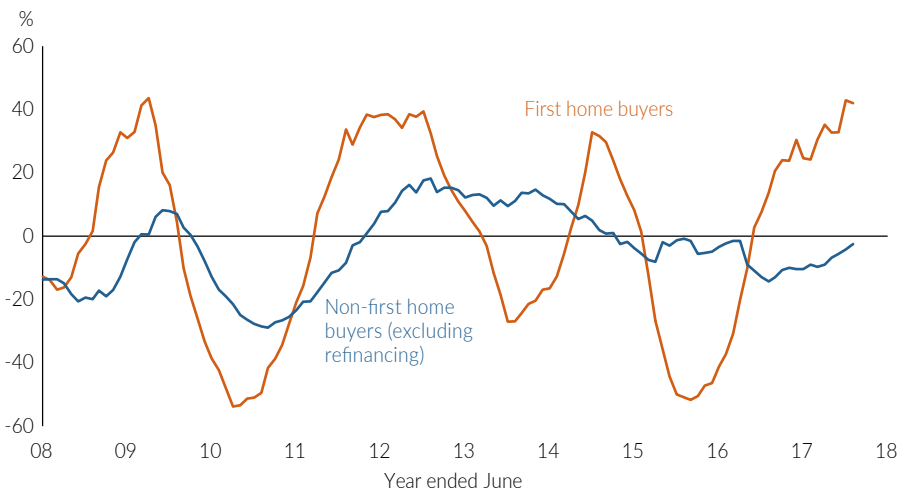


ppt: percentage points  
 Source: Real Estate Institute of Australia and Adelaide Bank

The number of housing finance commitments is a leading indicator for housing demand. In the year to February 2018, the number of housing commitments (excluding refinancing) increased by 6.6 per cent to 2774, mostly driven by an increase in the number of first home buyer commitments (up 42.0 per cent). The recent increase in first home buyers is being supported by the government assistance and improved affordability, coupled with low interest rates. These conditions are highly favourable for first home buyers. The recent increase in first home buyer commitments has been focused in the established dwelling market, in particular house sales, in line with housing demand coming from owner occupiers, rather unit sales that have appealed more to investors.

The underlying conditions for housing commitments represented by the number of non-first home buyers (excluding refinancing) has continued its current demand trajectory, falling by 2.6 per cent to 2017 commitments in the year to February 2018 (Chart 7.5). Consequently, the demand for housing is unlikely to be strong over the medium term due to ongoing softness in both population growth and employment conditions.

Chart 7.5: Housing finance commitments in the Territory (year-on-year change)



Source: ABS, *Housing Finance Australia*, Cat. No. 5609.0

## Chapter 8

# Industry Outlook

The Territory's economic output is predominantly concentrated in construction, government and community services, and the mining industry. These industries account for over half the Territory's total economic output. In contrast, the main contributors to total employment are construction, government and community services, and retail and wholesale trade.

Table 8.1: Territory industry contribution to, and growth in, GSP and employment, 2016-17

	Gross state product				Employment <sup>4</sup>			
	Value \$M <sup>1</sup>	Change % <sup>2</sup>	Share % <sup>3</sup>	10-year average	Number	Change % <sup>2</sup>	Share % <sup>3</sup>	10-year average
<b>Government and community services</b>	<b>5 983</b>	<b>1.8</b>	<b>23.1</b>	<b>5 330</b>	<b>51 833</b>	<b>1.0</b>	<b>37.7</b>	<b>45 486</b>
Public administration and safety	3 138	1.3	12.0	2 967	22 068	- 7.9	16.1	19 931
Health care and social assistance	1 640	3.3	6.3	1 255	16 909	6.2	12.3	14 391
Education and training	1 205	0.8	4.8	1 109	12 856	12.6	9.4	11 164
<b>Service industries</b>	<b>5 017</b>	<b>8.4</b>	<b>19.5</b>	<b>4 084</b>	<b>46 247</b>	<b>5.5</b>	<b>33.6</b>	<b>41 978</b>
Accommodation and food services	649	2.5	2.4	563	10 220	10.2	7.4	8 389
Transport, postal and warehousing	803	- 3.4	3.0	643	6 567	- 2.2	4.8	6 395
Information and media telecommunications	123	3.4	0.5	114	1 242	15.7	0.9	1 702
Financial and insurance services	575	8.3	2.3	552	1 715	6.6	1.2	1 803
Rental, hiring and real estate services	370	- 1.9	1.4	303	2 527	2.8	1.8	2 195
Professional, scientific and technical services	942	38.7	3.8	594	7 394	11.7	5.4	6 342
Administrative and support services	490	21.9	2.0	398	4 477	10.8	3.3	3 999
Electricity, gas, water and waste services	387	- 0.5	1.5	341	2 752	16.5	2.0	2 094
Arts and recreational services	298	8.0	1.1	221	3 387	0.6	2.5	3 257
Other services <sup>5</sup>	380	- 3.1	1.5	356	5 964	- 5.3	4.3	5 802
<b>Mining and manufacturing</b>	<b>4 352</b>	<b>3.0</b>	<b>16.8</b>	<b>3 973</b>	<b>9 442</b>	<b>- 3.0</b>	<b>6.9</b>	<b>8 884</b>
Mining	3 041	3.0	11.8	2 775	5 746	- 5.2	4.2	4 762
Manufacturing	1 311	2.9	5.0	1 198	3 696	0.5	2.7	4 121
<b>Construction</b>	<b>2 809</b>	<b>7.2</b>	<b>11.2</b>	<b>2 096</b>	<b>13 962</b>	<b>- 11.4</b>	<b>10.2</b>	<b>12 979</b>
<b>Defence<sup>6</sup></b>	<b>1 881</b>	<b>3.4</b>	<b>7.3</b>	<b>1 828</b>	<b>5 588<sup>7</sup></b>	<b>- 1.5</b>	<b>5.7</b>	<b>6 425</b>
<b>Retail and wholesale trade</b>	<b>1 270</b>	<b>2.1</b>	<b>4.8</b>	<b>1 075</b>	<b>14 070</b>	<b>7.4</b>	<b>10.2</b>	<b>13 593</b>
Retail	720	1.4	2.8	635	11 472	13.5	8.3	10 899
Wholesale trade	550	3.0	2.0	440	2 598	- 13.2	1.9	2 694
<b>Tourism<sup>6</sup></b>	<b>1 203</b>	<b>3.9</b>	<b>4.6</b>	<b>989</b>	<b>9 040<sup>8</sup></b>	<b>- 1.5</b>	<b>6.7</b>	<b>9 055</b>
<b>Agriculture, forestry and fishing</b>	<b>697</b>	<b>8.6</b>	<b>2.9</b>	<b>695</b>	<b>1 899</b>	<b>106.8</b>	<b>1.4</b>	<b>2 626</b>

GSP: gross state product

1 Inflation adjusted.

2 Compared to 2015-16.

3 Current prices.

4 Annual average.

5 Other services components of GSP include personal services and general repair and maintenance activities, however excludes units engaged in providing buildings or dwelling repair and maintenance services.

6 Tourism and defence are not separate industries for the purpose of reporting by the ABS in the national accounts, rather industry contributions are captured across multiple industries.

7 Territory share of Australian Defence Force.

8 Direct employment.

Source: ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0, *Labour Force, Australia*, Cat. No. 6291.0.55.003, ABS unpublished defence data; Department of Defence, *2016-17 Annual Report*; Tourism Research Australia, *State Tourism Satellite Accounts, 2016-17*

Over the forward estimates, the Territory expects to undergo a structural shift in share of gross state product (GSP) and employment towards a range of service industries that are less exposed to the resources and construction sectors.

The Territory Government's Economic Development Framework has identified industries with significant global growth and demand where the Territory has a comparative advantage. Territory sectors expected to experience strong demand growth include energy and minerals, tourism, agribusiness, and international education and training. Defence is also a historically important contributor to the Territory economy and will continue to provide significant opportunities in the future with national investments in defence and an increased presence from the United States (US) in the Territory.

Tourism and defence are not separate industries for the purpose of reporting by the Australian Bureau of Statistics (ABS) in national accounts. Rather, the contributions made by these sectors are included across other industries. Tourism and defence are, however, discussed individually in this chapter due to their relative importance in the Territory.

There are also several other developing industries presenting significant growth and development opportunities that will contribute to diversifying the economy and creating jobs across the Territory. These sectors tend to be smaller than the main growth sector industries, however present significant growth opportunities, and include creative industries, tropical health, environmental services and renewable energy.

This chapter provides a descriptive outlook of the Territory's key industries, the current trend of each sector in terms of share of GSP and total resident employment in the Territory, as well as opportunities for and risks to growth in these industries.

## Government and Community Services

### Recent activity

The government and community services industry accounted for 23.1 per cent of gross state product (GSP) and 37.7 per cent of total resident employment in 2016-17, remaining a significant industry and employer for the Territory.

### Outlook

Over the medium term, growth in the sector is expected to be relatively constrained as the Territory Government implements a range of budget repair measures in response to reduced Commonwealth funding, mainly GST revenue, partially offset by expected growth in the defence sector.

The government and community services industry comprises public administration and safety, education and training, and health care and social assistance. The services and outputs from these sectors are predominantly supplied and or funded by the public sector, including the Commonwealth, Territory and local governments. This industry also includes output from non-government providers of education, health, aged care and other community services as well as contributions made by the defence industry, which is discussed further in the Defence section of this chapter.

The government and community services industry contributed \$6.0 billion to the Territory's GSP in 2016-17, up from \$5.9 billion in 2015-16. This accounted for 23.1 per cent of the Territory's GSP, the third highest share across the jurisdictions. The government and community services industry continues to be a significant source of employment in the Territory, employing over 51 800 Territorians and accounting for 37.7 per cent of employment in 2016-17. Of these, 42.6 per cent were employed in public administration and safety, 32.6 per cent in health care and social assistance, and 24.8 per cent in education and training.

Public investment and consumption enhances economic development and enables future growth opportunities across various industries in the Territory. New programs and projects in this industry can have a widespread impact on the economy, such as the 2017-18 Remote Housing Investment Package that provides housing, employment and economic development in remote communities.

For the latest data on the government and community services industry, refer to the Territory Economy website.

### Outlook

The Territory is facing challenging economic conditions, with contracting population and employment growth, and declining levels of private investment and residential construction. The Territory Government's ability to provide counter-cyclical economic support to partially offset the impact of these issues is being constrained by significant reductions in Commonwealth revenue, particularly GST revenue, which is now forecast to be around \$4.0 billion lower than expected in August 2016, over the period from 2017-18 to 2021-22.

Over the medium term, growth in the government and community services sector is expected to remain constrained. Nevertheless, government and community services will remain a substantial contributor to the Territory economy with an ongoing commitment from the Territory Government to the health, education and public order sectors, and the broader public service.

## Public infrastructure investment

A series of public infrastructure projects as part of the Territory Government's 2018-19 Capital Works Program are expected to benefit the Territory economy over the short to medium term, including:

- the \$1.1 billion 10-year Remote Housing Investment Package, expected to deliver around \$124 million in new works and upgraded housing in remote communities in 2018-19
- \$82.5 million for new tourism infrastructure projects across the Territory, which includes \$42.2 million from the Territory Government's tourism stimulus package
- \$70 million to replace youth detention centres
- \$35 million in new projects to upgrade the Territory's road network, in addition to a number of significant ongoing road projects
- \$21.9 million in additional education facilities
- \$8.5 million as part of the Territory Government's \$50 million recreational fishing infrastructure package
- \$6 million for land release projects to stimulate residential and commercial investment.

Additionally, the Territory Government will continue the rollout of the four-year Building Better Schools program, which will provide \$300 000 to every public and private school in the Territory for new and upgraded facilities. The program's first round in 2017 was valued at \$16.2 million and \$13.5 million for the second round in 2018, and a further \$28.7 million is committed over 2019 and 2020.

The government and community services sector will also be supported through the construction of the new \$28.2 million Palmerston police station, expected to commence in May 2018. The Palmerston Regional Hospital is expected to open in July 2018, supporting around 300 jobs for health care professionals and other staff.

As part of the US Force Posture Initiatives in northern Australia, more than \$2 billion in infrastructure investment and defence-related spending will be shared between Australia and the US. Under the 2016 Defence White Paper, about \$20 billion in defence construction projects will be invested in the Territory over 20 years. Nearly \$1 billion is committed over the medium term, with additional projects awaiting approval from the Parliamentary Works Committee.

## Public recurrent expenditure

Key recurrent expenditure initiatives as part of the 2018 Budget include the Territory Government's response to the Royal Commission into the Protection and Detention of Children (about \$159 million over five years), commissioning of the positron emission tomography (PET) scanner and cyclotron at Royal Darwin Hospital and expansion of chemotherapy chairs at the Alan Walker Cancer Care Centre, implementation of an Alcohol Harm Minimisation Strategy and implementation of the Early Childhood and Development Plan.

The Territory Government is also investing in a range of population initiatives to attract and retain people in the Territory.



## Service Industries

### Recent activity

The value of service industries increased by 8.4 per cent in 2016-17, driven by growth in professional, scientific and technical services, administrative and support services, and financial and insurance services. Employment in service industries grew by 5.6 per cent in 2016-17.

### Outlook

In 2018-19, the transition of the Ichthys liquefied natural gas (LNG) project from construction to operation will detract from growth in service industries, partly offset by anticipated growth in tourism-related industries over the medium term.

Service industries cover a wide variety of sectors that, while individually small, combine to comprise a large proportion (19.5 per cent) of the Territory's GSP. These industries include accommodation and food services; transport, postal and warehousing; information media and telecommunications; financial and insurance services; rental, hiring and real estate services; professional, scientific and technical services; administrative and support services; electricity, gas, water and waste services; arts and recreation services; and other services. The outlook for the service industries sector is mixed, reflecting the wide variety and diverse nature of industries included in this sector.

For the latest data on Territory service industries, refer to the Territory Economy website.

### Outlook

Several service industries are expected to improve due to future developments in the Territory's tourism industry over the medium term. The Territory Government announced a \$103 million tourism stimulus package over the 2017-18 and 2018-19 financial years. The package is directed towards tourism marketing, infrastructure and events.

The anticipated commencement of direct flights from Shenzhen in China to Darwin on 30 May 2018 is expected to boost tourism in the short to medium term. With the expected increase of Chinese visitors, demand for accommodation, catering, recreation and transport services will likely increase.

The completion of the majority of the Ichthys LNG project's construction and the large ramp down in the workforce through 2017-18 and 2018-19 is expected to dampen demand in a broad range of service industries, particularly accommodation and food services.

Continued moderation of the housing market and weak population growth in the Territory are expected to keep conditions subdued in the rental, hiring and real estate industry.

A luxury hotel in Darwin, pending development approval in May 2018, could increase growth in accommodation services if constructed. This is discussed further in the Tourism section of this chapter.

In 2016-17, service industries accounted for 19.5 per cent of the Territory's GSP and 33.6 per cent of the Territory's employment. A notable discrepancy exists between the share of GSP and share of employment in the Territory, which is indicative of high employment in labour-intensive industries, such as accommodation and food services. Service industries are expected to maintain or increase their share of Territory GSP and employment as the broad base of industries continue to mature in the Territory over the outlook.

As part of the Economic Development Framework, the Territory Government is committed to growing emerging industries in the services sector. Development of service industries will diversify the Territory economy and promote stable, sustainable economic growth. These will complement the traditional commodity industries that are less reliant on labour and heavily influenced by external factors such as exchange rates, market prices and foreign investment.

## Mining and Manufacturing

### Recent activity

The mining and manufacturing industry recorded growth of 3.0 per cent in 2016-17. The mining sector was driven by higher manganese prices, while manufacturing was driven by small-scale food manufacturing.

### Outlook

The mining and manufacturing industry is expected to grow rapidly over the coming years, largely driven by growth in LNG production.

The Territory's mining and manufacturing industries' data is reported together for the purposes of this publication, as ABS includes the gross value added of manufactured LNG in the mining industry classification. Mining and manufacturing activities in the Territory include mining of metal ores, petroleum production, quarrying and mining of non-metallic minerals, as well as manufacturing of a wide range of products for both domestic and overseas consumption such as concrete, wood and food products. The Territory's mining industry data also includes offshore petroleum production in Territory waters.

Analysis of the components of this industry is informed by a number of different sources, including information published in company reports and data provided by the Department of Primary Industry and Resources. Therefore, some sections are reported on a financial-year basis and others on a calendar-year basis.

Mining and manufacturing contributes to the Territory economy through international trade, private investment and employment. Mining and manufacturing industries also have a significant impact on the Territory's construction industry as mining and manufacturing development projects generally require significant levels of construction activity.

For the latest data on the Territory mining and manufacturing sector, refer to the Territory Economy website.

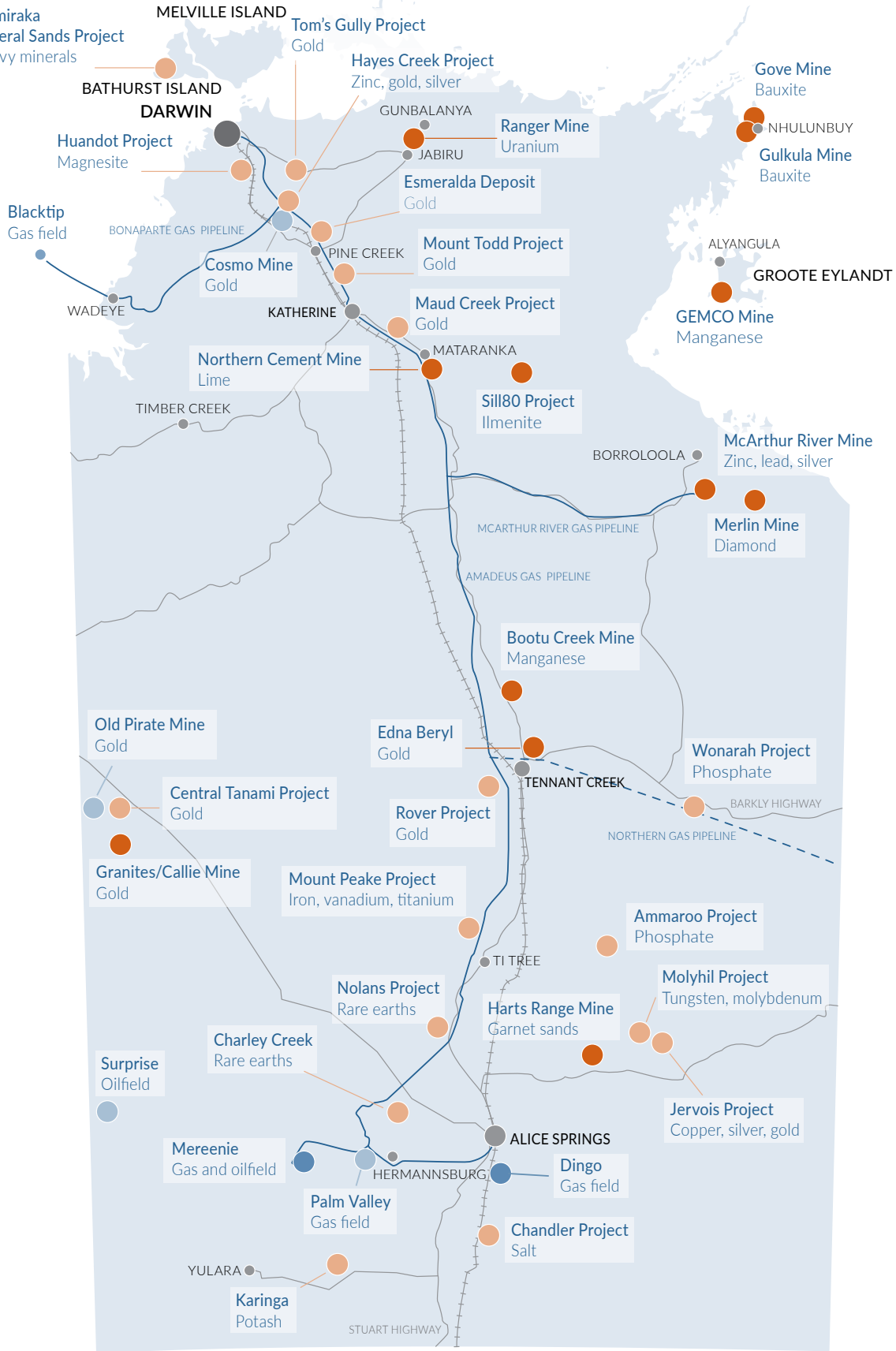
### Outlook

The outlook for the mining and manufacturing industry is expected to be dominated by the commencement of production at the Ichthys LNG plant, expected in 2018-19. This will dramatically increase the value of the mining industry over the coming years, and is likely to result in mining overtaking construction as the largest single industry contributor to the Territory economy. Growth is expected to be more subdued in the non-LNG components of mining and manufacturing, with new mines opened in the first part of 2017-18 and more potentially in the outer years, partly offset by the closure of other mines such as the Harts Range garnet mine in late 2017.

The Territory's mining and manufacturing industry increased by 3.0 per cent in 2016-17, to almost \$4.4 billion. The increase reflects a 3.0 per cent increase in mining (to \$3.0 billion) and a 2.9 per cent increase in manufacturing (to \$1.3 billion).

The mining and manufacturing industry's share of total GSP has contracted over recent years, largely due to the rapid expansion of the construction industry. However, growth in construction has been strongly driven by the construction of mining-related projects, particularly the Ichthys LNG project, which will next drive growth in the mining industry when production commences. In 2016-17, the mining and manufacturing industry contributed 16.8 per cent of total GSP in the Territory, compared to a high of 33.6 per cent of GSP in 2008-09.

Map 3: Current and pending mineral and onshore petroleum operations in the Territory<sup>1</sup>



- Producing mineral mines
- Producing oil/gas field
- Potential mineral development
- Ceased production
- Gas pipeline
- - - Gas pipeline under construction

<sup>1</sup> This map is produced from various sources. Department of Treasury and Finance cannot guarantee the accuracy, currency or completeness of the information. To be used as a guide only.

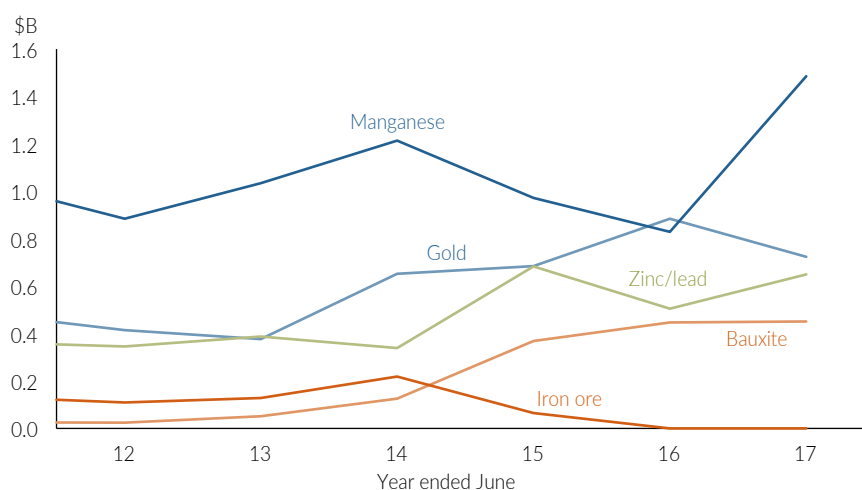
Source: Department of Primary Industry and Resources; Department of Treasury and Finance

## Minerals production

The majority of mineral commodities produced in the Territory are metallic, including gold dore (a mixture of gold and silver), manganese, zinc/lead concentrate (including individual concentrates), bauxite and uranium. The Territory also produces a range of non-metallic mineral resources, such as crushed rock, sand and gravel.

The Territory's mineral producers sold \$3.6 billion worth of commodities in 2016-17, an 18.9 per cent increase from the previous year. This increase was largely driven by a 79.1 per cent increase in the value of manganese production, due to an increase in global manganese prices, and also follows the reopening of the Bootu Creek mine part way through 2016-17 (Chart 8.1).

Chart 8.1: Value of selected Territory mineral production



Source: Department of Primary Industry and Resources; Department of Treasury and Finance

The value of the Territory's mineral production is expected to increase slightly over the coming years, with an increase in the value of manganese, gold and ilmenite production expected to be offset by lower production of uranium and garnet sands.

### Manganese

Manganese is one of the raw ingredients used in the manufacturing of steel and production is largely driven by global steel demand. It is produced at the Groote Eylandt Mining Company (GEMCO) mine and at the Bootu Creek mine near Tennant Creek. Following a 79.1 per cent increase in 2016-17, the value of manganese production is expected to increase again in 2017-18, albeit at a much lower rate, with a full year of production expected from the newly reopened Bootu Creek mine. South32, owner of the GEMCO mine, has also reported an increase in production across its two Australian manganese mines (the other is located in Tasmania) in the first six months of 2017-18.

An ore concentrate project planned for Bootu Creek mine in 2018-19 is expected to support increased manganese production levels by allowing improved processing of existing stockpiles. GEMCO has recently undertaken expansion projects that provided the capacity to increase production.

### Gold

Gold is currently produced in the Tanami region (the Granites gold mine) and in the Barkly region (Edna Beryl mine). Gold has also historically been produced around the Pine Creek region in the Top End (Map 3).

In 2016-17, the value of gold production decreased by 18.2 per cent after production at the Granites gold mine was affected by flooding. Gold production in the Territory is expected to recover in 2017-18 supported by production from the Edna Beryl mine, which opened in July 2017, as well as increased production from the Granites gold mine following an expansion project completed in late 2017. This growth is expected to be partly offset by the end of production from the Cosmo mine, near Pine Creek, which suspended production in the middle of 2017. However, there is potential for the Cosmo mine to reopen in the near future, following exploration and development of further gold deposits currently under way at the site.

### Zinc and lead

Zinc and lead are produced at the McArthur River mine, located 65 kilometres southwest of Borroloola, in the form of a combined zinc/lead and silver concentrate as well as individual zinc and lead concentrates. The value of zinc and lead concentrate increased by 28.8 per cent in 2016-17, reflecting increased global prices. The value of zinc and lead production in the Territory is expected to increase slightly in the near term as prices continue to recover.

### Bauxite

The value of bauxite production in the Territory increased modestly by 0.9 per cent to \$451.8 million in 2016-17, reflecting an increase in production that was partly offset by a fall in prices. From late 2017 there have been two bauxite mines operating in the Territory. The Gulkula mine project agreement was signed by Rio Tinto Alcan and Gumatj Corporation in August 2017, becoming the first Indigenous-owned mining company operating on traditional land. Bauxite from this small scale mine will be sold to the Rio Tinto Gove mine where it will be processed and exported to Asian markets, predominantly for use in the production of aluminium. As production from the Gulkula mine increases, it is expected that production at the Rio Tinto Gove mine will reduce by a similar amount.

In late 2017, Rio Tinto confirmed the permanent closure and remediation of its alumina refinery at Gove, which has been under care and maintenance since 2013.

### Uranium

Uranium is produced at the Ranger mine, located within the boundaries of the Kakadu National Park, with the site leased from traditional owners. The current lease is due to expire in January 2021 and traditional owner approval has not been obtained to extend the lease beyond this date. Open-cut mining at the site was curtailed in 2012 and since then all production from the mine has been attributed to running down existing stockpiles. Production levels are expected to be stable until early 2021 and remediation of the mine site is expected to be completed by early 2026.

Energy Resources of Australia, the operator of Ranger mine, is working with traditional owners and other stakeholders, including the Territory Government, to support the transition of Jabiru from mining and to a government service centre and tourism hub for the Kakadu National Park.

### Other minerals

Non-metallic mineral production decreased by 22.0 per cent in 2016-17, with declines in production of lime, gravel, crushed rock and sand partly offset by an increase in soil production. Production is expected to remain subdued over the next few years reflecting the continued slowdown in construction activity in the Territory.

Though there was no production of mineral sands and other mineral commodities in 2016-17, much of the potential growth in the Territory's non-LNG mining and manufacturing industry is likely to come from commodities such as mineral sands, salt and rare earths. In the early part of 2017-18, production of other minerals was boosted by the reopening of the Sill80 ilmenite mine, though this was offset by the closure of the Harts Range garnet sands mine in late 2017. However, the Harts Range mine may reopen and recommence production by early 2018-19. In October 2017, Merlin Diamonds Limited, which operates a mine near Borroloola, announced the sale of a parcel of diamonds. Further exploration and mining of diamonds at the Merlin mine is expected into the future. Iron ore production ceased in the Territory in the late 2014, with the last stockpiles exported in 2015. There has been no further iron ore production in the Territory.

There are also a number of other projects in the pipeline that, if realised, could provide a boost to mineral production in the Territory. These projects include the new Mount Peake vanadium, titanium and iron mine in Central Australia, the Nolans rare earths mine near Alice Springs, the Chandler salt mine also near Alice Springs, and the Ammaroo phosphate mine near Tennant Creek. Demand for rare earths and other materials used in making technology products such as mobile phones and electric cars is expected to continue to increase into the future, which should increase the potential viability of many of these projects.

### Petroleum production

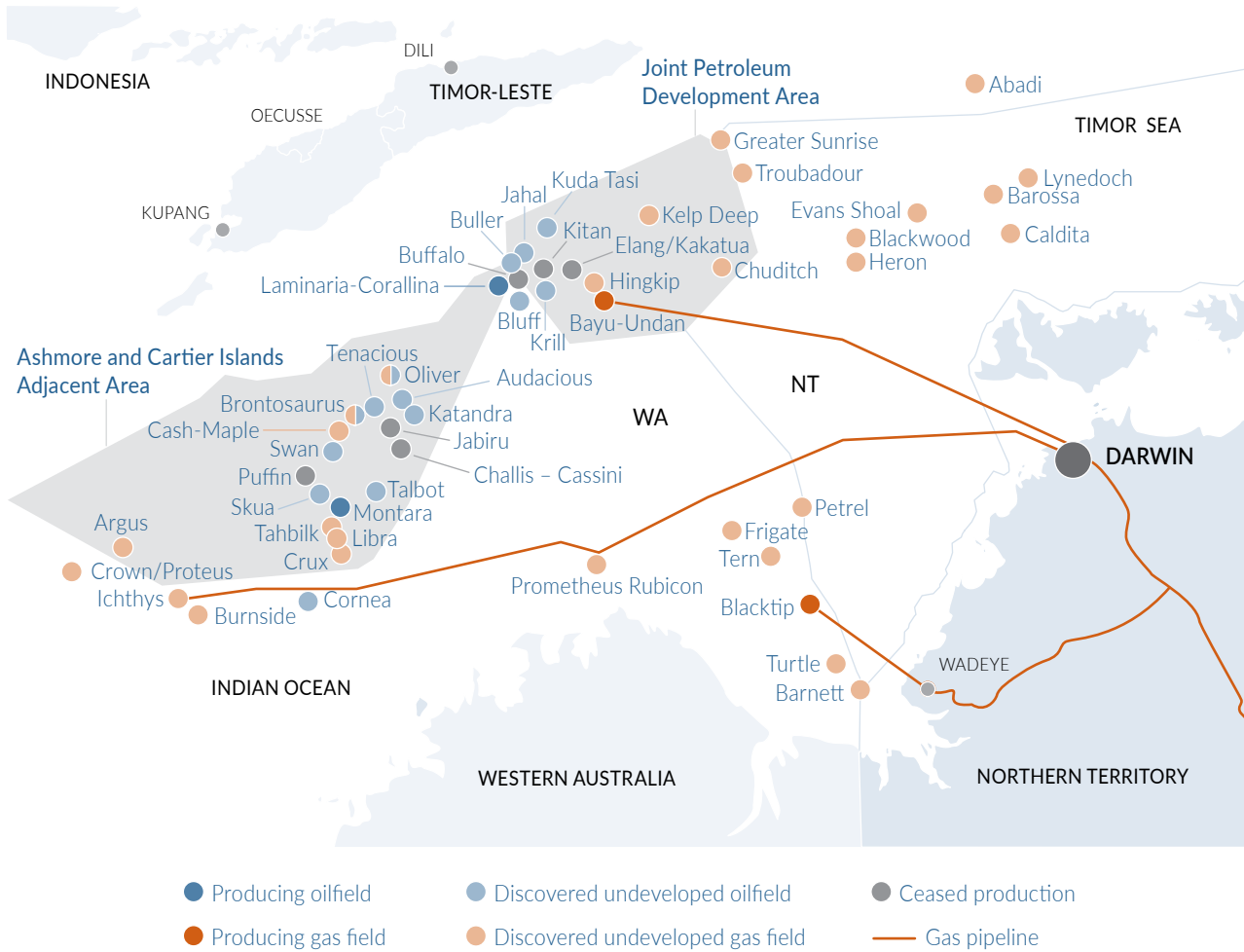
The Territory's onshore conventional gas is produced from the Amadeus Basin, at the Dingo and Mereenie gas fields, located in the Central Australia region. The Territory's onshore gas production increased by 18.5 per cent in 2017.

The majority of the onshore oil produced in the Territory is transported to South Australia for processing for domestic customers as well as for export overseas. In 2017, total onshore oil production volumes decreased by 7.3 per cent compared to the previous year.

The Territory has a number of offshore gas reserves in Territory waters and in the Joint Petroleum Development Area (JPDA) (Map 4). Current offshore Territory gas production is located at the Bayu-Undan gas field in the JPDA and Blacktip gas field near the Territory and Western Australia border.

Offshore oil production attributed to the Territory in 2016-17 was at the Montara and Laminaria-Corallina oilfields. Oil produced offshore is exported directly from the fields for overseas trade. The value of the Territory's offshore petroleum oil exports increased by 11.1 per cent to \$213.8 million in 2016-17.

Map 4: Offshore petroleum activity near the Territory<sup>1</sup>



<sup>1</sup> This map is produced from various sources. Department of Treasury and Finance cannot guarantee the accuracy, currency or completeness of the information. To be used as a guide only.  
Source: Department of Treasury and Finance

The Territory’s petroleum (oil and gas) production is expected to increase significantly over the coming years, driven by LNG production at the Ichthys LNG plant. Growth in the production of offshore oil and gas is expected to be moderate over the medium term, though there is greater potential in offshore fields such as Barossa and Greater Sunrise in the distant future.

The completion of the Northern Gas Pipeline expected in late 2018 has the potential to increase gas production in the Territory, particularly onshore gas, as it provides greater access to gas markets in eastern Australia. Central Petroleum, which operates the Mereenie and Palm Valley gas fields, in partnership with Macquarie Mereenie, has announced its intention to develop new reserves at the Mereenie gas field, with some of the expected gas produced to be supplied into the Northern Gas Pipeline.

### Inquiry into Hydraulic Fracturing in the Territory

In late 2016 the Territory Government announced a moratorium on hydraulic fracturing of onshore unconventional reservoirs, pending the outcomes of a scientific inquiry into the environmental, social and economic risks and impacts of hydraulic fracturing and associated activities in the Territory. A final report was released in March 2018.

On 17 April 2018, the Territory Government announced that it accepted all 135 recommendations in the report. This includes the lifting of the moratorium, with strict regulatory controls in place. Based on the inquiry’s recommendations, areas of the Territory that will be off limits to hydraulic fracturing, include national parks, indigenous protected areas, towns and areas of high cultural,



environmental or tourism value. A detailed implementation plan is expected to be released in July 2018.

The economic implications of this decision have not been factored into forecasts as the expected economic impacts on production, employment and regional economic activity are largely beyond the forecast period for the 2018-19 Budget.

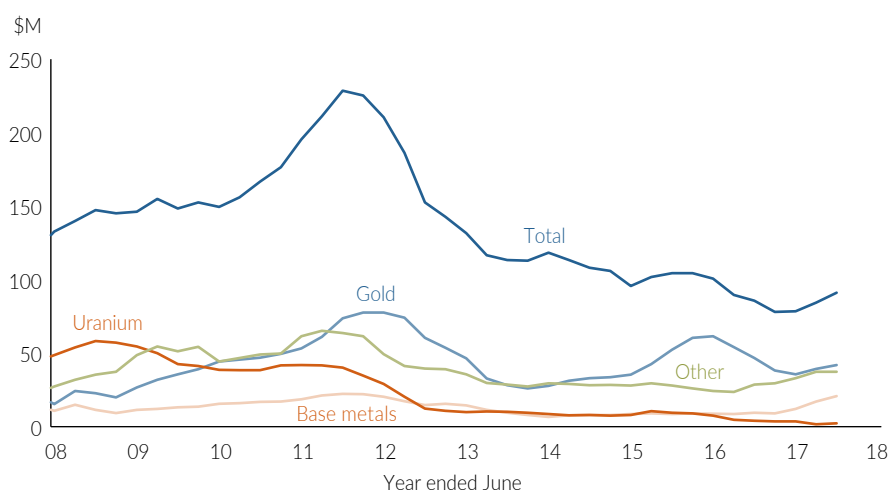
## Exploration activity

Though mining exploration does not always lead to development of new mines, levels of exploration activity provide a leading indicator of potential future mining development.

Total mineral exploration expenditure in the Territory increased by 6.5 per cent in 2017 to \$91.2 million, the first annual growth since 2011. This increase was largely driven by a more than doubling of the value of exploration for selected base metals (copper, silver, zinc/lead, nickel and cobalt) to \$20.9 million (Chart 8.2).

Growth was partly offset by a 10.5 per cent decline in gold exploration, to \$41.9 million, below the 10-year average of \$44.1 million. Gold exploration has been at elevated levels over the past few years, which is being reflected in expansion works at a number of current and potentially reopening gold mines in the Territory. Nationally mineral exploration increased by 22.9 per cent in 2017, while petroleum exploration decreased by 13.4 per cent over the same period.

Chart 8.2: Value of mineral exploration expenditure in the Territory



Source: Department of Treasury and Finance; ABS, *Mineral and Petroleum Exploration, Australia*, Cat. No. 8412.0

Mineral and petroleum exploration is expected to be supported over the coming years by the Territory Government's new Resourcing the Territory program, with \$26 million committed over four years from 2018-19 to help stimulate resource exploration and attract investment.

## Manufacturing

The Territory produces a wide range of manufactured goods, generally for local consumption, including steel fabrication, wood, paper and food. Larger scale manufactured goods exported from the Territory include boxed beef and helium. The Territory's manufactured goods production contributed \$1.3 billion to GSP in 2016-17, a 2.9 per cent increase in real terms compared to the previous year.

The outlook for manufacturing in the Territory remains steady over the coming years, with lessening demand for construction-related manufactured goods being at least partly offset by a slight strengthening in small-scale food manufacturing and meat processing.

## Construction

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### Recent activity

Growth in the construction industry reached its second highest level on record in 2016-17, following rapid expansion over the previous five years driven by major projects.

### Outlook

The construction industry is expected to contract following the completion of construction on the Ichthys LNG project, as well as residential building activity remaining below long-term trends. Commencement of smaller scale private and public construction projects are expected to help soften the construction downturn.

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Analysis on construction activity and work done is based on monthly and quarterly data reported by the ABS through a number of surveys including engineering construction activity, building activity, building approvals and construction work done preliminary estimates. Construction industry gross value added and contribution to the GSP is measured annually through the ABS national state accounts data. Industry contributions to employment are based on quarterly ABS labour force industry-related statistics.

The Territory's construction industry is historically dominated by major projects, largely mining, resource or defence related, with private sector engineering construction investment as a strong driver in recent years.

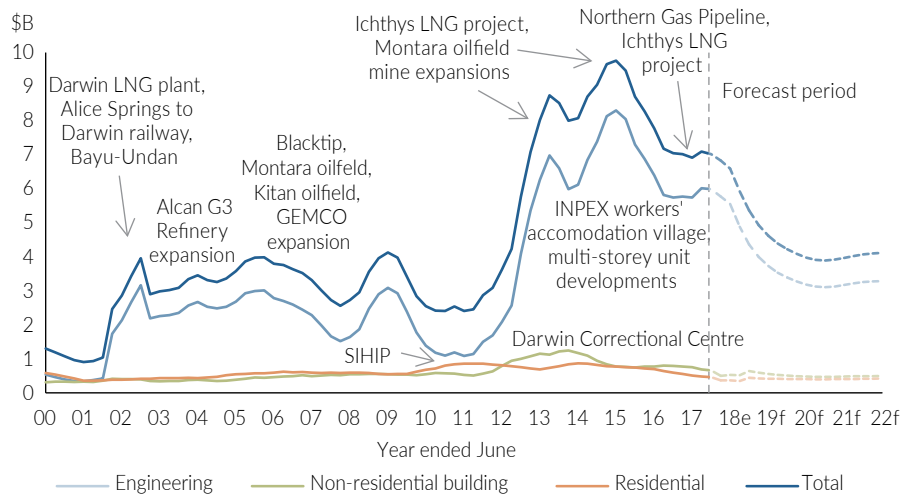
For the latest data on the construction sector, including up-to-date activity on main construction and building indicators, refer to the Territory Economy website.

## Outlook

Over the forward estimates, the Territory's construction sector is likely to detract from headline economic growth and employment, following the completion of construction and commissioning works on the major Ichthys LNG project over 2018-19, as well as the continued downward trend in dwelling investment and building activity related to residential construction.

Current weak activity across a range of construction-related indicators suggests further moderation in the industry over the medium term, with activity forecast to return towards long-term averages, in line with underlying economic conditions. Although the completion of the construction phase for the Ichthys LNG project will have a significant effect on the private non-residential construction sector in the Territory, construction work will be supported by the commencement of several other projects in the Territory, albeit on a smaller scale (Chart 8.3).

Chart 8.3: Construction work done in the Territory<sup>1,2</sup>



GEMCO: Groote Eylandt Mining Company Operation; LNG: liquefied natural gas; SIHIP: Strategic Indigenous Housing and Infrastructure Program

1 Construction work done preliminary data estimates.

2 Inflation adjusted.

Source: Department of Treasury and Finance; ABS, *Construction Work Done, Australia*, Cat. No. 8755.0

In 2016-17, the Territory's construction industry increased by 7.2 per cent to \$2.8 billion, the second highest result on record, contributing 0.8 percentage points to the total increase of 4.0 per cent in GSP (Chart 8.4). This follows the rapid expansion of the construction sector over the past five years driven by major projects, largely the Ichthys LNG project, as well as construction of the Darwin Correctional Centre, duplication of Tiger Brennan Drive, mineral and petroleum resource expansions projects, and record levels of residential construction. By value, the construction industry was the Territory's third single largest industry, accounting for 11.2 per cent of total GSP in 2016-17, an increase from its 10.7 per cent share in 2015-16.

Chart 8.4: Contribution of the Territory construction industry to GSP<sup>1,2</sup>



GSP: gross state product; LHS: left-hand side; RHS: right-hand side

1 Inflation adjusted.

2 The value of the construction industry is based on the ABS national state accounts statistics, which reflects the total gross value added to GSP by the industry and is measured on a different basis compared to other ABS construction-related surveys. This includes wages paid to employees and subtracts the intermediate input from output estimates.

Source: Department of Treasury and Finance; ABS, *Australian National Accounts*, Cat. No. 5220.0

There were an estimated 13 962 Territorians employed in the construction industry in 2016-17, a decrease of 11.4 per cent compared to the previous year. This was a result of lower residential and non-residential construction activity compared to the previous year. Over 2017-18 and 2018-19, the Territory's construction industry is expected to contract significantly, reflecting continued downward trends across all components including engineering construction, residential building and non-residential building activity. This follows completion of construction on major projects, as well as lower levels of new house and unit construction compared to previous years.

In 2016-17, the value of residential construction work done in the Territory was \$461.3 million, reflecting a 29.0 per cent decrease from 2015-16, falling below the Territory's 10-year average of \$658 million. This was largely driven by weakness in new house construction work done, and the continued downward trend in other residential construction (units and town houses), which decreased by 61.1 per cent to \$81.3 million. Despite the contraction in activity, a number of dwelling construction projects are expected to continue over the forward years, however data suggests at more subdued levels relative to previous years. Land development projects are expected to continue from 2018-19 onwards in Durack, Zuccoli, Northcrest, Lee Point, and Kilgariff in Alice Springs, as well as new essential housing and upgrades to existing dwellings in remote areas. Territory Government stimulus initiatives, such as the First Home Owner Grant, are expected to continue to generate demand for the construction of new dwellings.

The value of engineering construction work done declined by 10.3 per cent to \$5.7 billion in 2016-17, however remained above the 10-year average level of \$4.2 billion. This was largely driven by a fall in private sector activity, which decreased by 10.9 per cent in 2016-17 to \$5.3 billion, partly offset by a 7.1 per cent increase in public sector construction to \$434 million. Almost 87 per cent of total engineering work done in the Territory is heavy industry-related construction, which declined by 9.0 per cent to \$5.0 billion in 2016-17. Furthermore, the value of non-residential building construction work done decreased by 2.7 per cent to \$711.8 million in 2016-17. This decline follows a 38.7 per cent decrease in private sector non-residential building construction to \$322.1 million in the year, below the 10-year average of \$483.5 million. The outlook for engineering and non-residential construction activity has been informed by this current trend and the upcoming completion of construction on the Ichthys LNG project.

The current development of the Northern Gas Pipeline will continue to support engineering construction activity in 2018, until completion of the construction phase. Other private sector construction activity, such as the \$250 million Darwin luxury hotel, the Palmerston central business district (CBD) residential, commercial and retail tower, as well as the next stages of Gateway and Coolalinga Central, will support new non-residential construction activity in the Territory in the interim.

Chart 8.5: Value of Territory non-residential building, by sector<sup>1</sup> (moving annual total by quarter)

<sup>1</sup> Inflation adjusted.

Source: Department of Treasury and Finance; ABS, *Building Activity*, Cat. No. 8752.0

With declining levels of private sector construction activity, the Territory Government is continuing to support the construction sector through its own infrastructure programs. Despite the overall decline in non-residential construction activity during 2016-17, primarily driven by a contraction in private sector activity, public sector non-residential construction increased by 89.7 per cent to \$389.6 million in the year, above the 10-year average of \$231.0 million (Chart 8.5). This reflects increased construction work done in the community on health facilities and other public facilities, such as the Palmerston Regional Hospital and the Alice Springs Supreme Court, in recent years.

The roll out of the Economic Development Framework, which commenced in May 2017, will help sustain long-term growth in the Territory by supporting infrastructure investment and development opportunities in a range of sectors. The Territory Government's Infrastructure Strategy and 10-year Infrastructure Plan, which includes a number of proposed and planned Territory infrastructure projects, are set to provide confidence for individuals and businesses, and support industry growth over the forward estimates.

The \$5 billion Northern Australia Infrastructure Facility established by the Commonwealth was created to support the construction of infrastructure and attract further private sector investment in northern Australia. Although no projects in the Territory have been approved for a loan at the time of publication, there are several projects in the due diligence stage and other projects at various stages of the facility's project assessment pipeline that, if realised, will also contribute to the long-term growth of the construction industry.

The Territory Government's \$1.45 billion infrastructure program in 2018-19 is expected to continue to support the local construction industry and economic activity, through a variety of construction works on Territory roads, hospital and health facilities, school and education facilities, public and regional housing, community safety facilities, community infrastructure, and tourism facilities. Continued government support in remote communities and regional development will also sustain the construction industry in the remote regions of the Territory, providing new and upgrades to existing infrastructure. This includes ongoing works as part of the \$1.1 billion Remote Housing Investment Package over 10 years, with \$124 million in new works allocated for 2018-19, which includes land servicing. An additional \$100 million as part of the City Deals project to revitalise the Darwin CBD, as well as a \$20 million funding commitment in Alice Springs, also towards revitalising works, will support construction activity over the outlook period.

The Territory Government's tourism stimulus of \$103 million includes new infrastructure and improvements to current tourism facilities, attractions and parks over two years, which will further support the construction industry. Territory Government projects such as the \$25 million Warren Park rugby league stadium and the \$18 million Darwin netball stadium, will support industry employment through the construction stages in 2018.

Major infrastructure investment by the Commonwealth and Territory governments on road upgrades and transport developments will stimulate engineering construction activity and industry employment. This includes the \$40 million Barneson Boulevard project in Darwin CBD as well as the \$40 million project to realign and seal Gunn Point Road, which is also expected to help facilitate and progress the development of Project Sea Dragon. As part of the Northern Australia Beef Roads Program, the redevelopment of Tablelands Highway and the Barkly Stock Route will generate construction activity in 2018-19 through to 2019-20.

As part of the infrastructure program, the Territory Government has allocated \$50 million towards the development of the Alice Springs National Indigenous Art Gallery and \$30 million to establish an agribusiness and logistics hub in Katherine from 2019-20, which will continue to support industry development and construction activity throughout the Territory over the outlook period.

Other Territory Government facilitated projects such as the Alice Springs tourism commercial development, seniors' lifestyle accommodation and the Mount Isa to Tennant Creek railway project have the potential to deliver significant infrastructure benefits and industry employment over the outlook. The defence industry will also play a significant role in terms of investment and job creation in the Territory with the \$20 billion infrastructure investment planned over 20 years, supporting the construction sector and local businesses with various defence contracts.

Furthermore, there are a number of major projects in the pipeline that, if realised, will help stimulate growth in the construction industry over the medium and long term. These mainly relate to resources sector projects that received major project status, including Nolans rare earths project, Jervois base metal project, Chandler Salt mine, Mount Peake mine and metals processing facility, Ammaroo Phosphate Project, and the Mt Todd gold mine.

## Defence

### Recent activity

Defence continues to make a substantial contribution to the Territory economy through direct and indirect employment, major joint operations and exercises, and capital works projects.

### Outlook

A continued strong defence presence, as well as a long-term commitment in major infrastructure investment, will strengthen the Territory's strategic position and support the defence industry.

The ABS reporting standards do not classify defence as a separate industry in national accounts, rather it is reported against a number of industries and is predominantly included in the public administration and safety industry. Defence employment numbers are also not included in ABS labour force reporting. References to defence refer to the Department of Defence and the Australian Defence Force, collectively. Data for defence personnel and housing is sourced from the Department of Defence and Defence Housing Authority (DHA) annual reports.

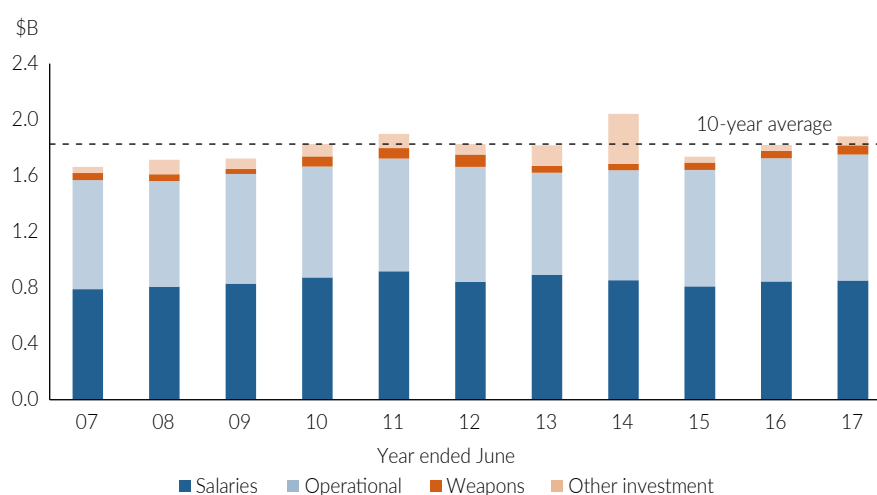
For the latest data on the Territory defence sector, refer to the Territory Economy website.

## Outlook

The Territory is a major strategic location for defence and the industry continues to make a substantial contribution to the Territory economy through direct and indirect employment and demand for local goods and services. Defence also generates economic activity through major operations and exercises held in the Territory and capital works projects that engage local businesses and supports the construction industry.

Defence expenditure in 2016-17 contributed 7.3 per cent to the Territory's GSP or \$1.9 billion, reflecting an increase of 3.4 per cent compared to the previous year. This result was above the 10-year average defence expenditure of \$1.8 billion per annum, largely driven by an increase in operational expenditure and investment (Chart 8.6). Defence expenditure in the Territory as a proportion of total national defence expenditure was 5.0 per cent in 2016-17. The defence industry is expected to increase its economic contribution considerably over the medium term through committed infrastructure investment, providing stimulus to local businesses and creating additional employment opportunities in the Territory.

Chart 8.6: Defence expenditure in the Territory<sup>1</sup>



<sup>1</sup> Inflation adjusted.

Source: Department of Treasury and Finance; ABS unpublished data

A continued strong defence presence in the Territory was reinforced by the 2016 Defence White Paper, which outlined the Commonwealth's long-term plans for strengthened capability in northern Australia through increased personnel, investment, training, exercises with international defence forces and the joint United States Force Posture Initiatives (USFPI). The White Paper also has a major focus on infrastructure investment in northern Australia. Expenditure in the Territory included in the White Paper is estimated to be valued at about \$8 billion through to 2024-25 and a further \$12 billion between 2025-26 and 2035-36.

The 2016 Defence Integrated Investment Program will guide the implementation of defence's investment. Over the forward estimates, the Territory will become home to significant new defence infrastructure. Some of the major committed defence projects that are in progress or expected to be executed in the near term include:

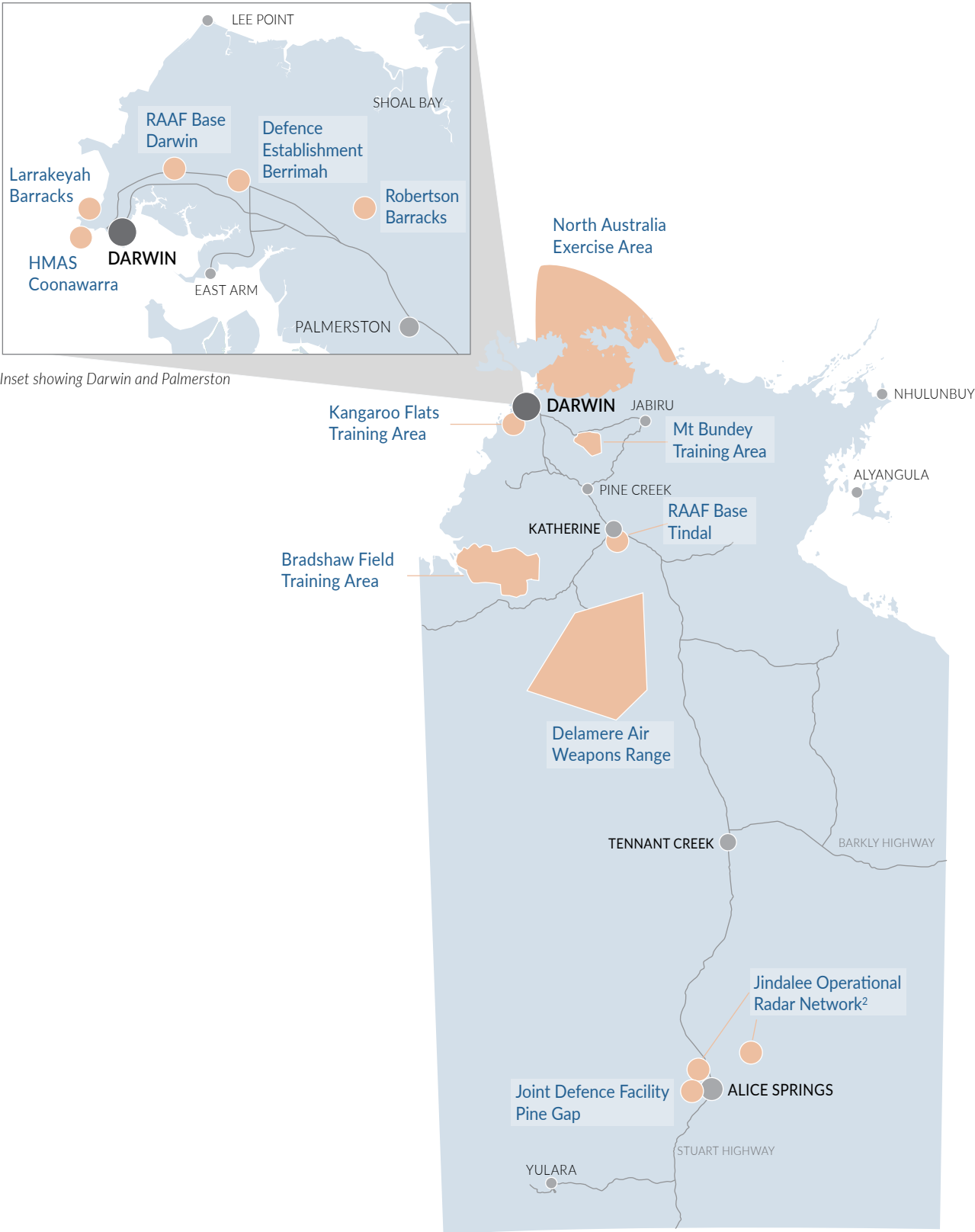
- \$39 million on the US-led airfield works at Royal Australian Airforce (RAAF) Base Darwin, during 2018 to 2020
- \$161 million on upgrades to RAAF Base Darwin to support the new Poseidon P8 maritime patrol aircraft, during 2018 to 2020
- \$130 million for the redevelopment works at the Delamere Range south of Katherine to include construction of new facilities, communication and guidance systems to support personnel training on the EA18G Growler aircraft, due for completion in 2019
- \$34 million on upgrades to health facilities at Robertson Barracks and development of a new health facility at Larrakeyah Barracks, during 2019-20
- \$21 million on upgrades to RAAF Base Darwin's explosive storage facilities as part of the Explosive Ordnance Logistics Reform Program, due for completion in 2020
- \$86 million for the replacement of the existing Australian Defence air traffic systems at RAAF Base Tindal and RAAF Base Darwin, due for completion in 2021
- \$538 million for the new Air Combat Capability Facilities project at RAAF Base Tindal and RAAF Base Darwin, to support the F-35A Lightning Joint Strike Fighters arriving at RAAF Base Tindal in 2021, due for completion in 2021-22.

Other defence works include upgrades to existing facilities to support a number of new defence capabilities platforms and also a range of long-term potential projects. If realised, it is expected the defence industry will generate numerous employment opportunities to support construction workers, following the completion of the construction phase on the Ichthys LNG project. Some of these proposed projects expected to commence in the next decade, subject to approval from the Parliamentary Works Committee, include:

- \$800 million on works at RAAF Base Tindal, to support the KC30A multi-role tanker air transport
- \$513 million towards upgrades to various defence training areas, including the Bradshaw Field Training Area
- \$503 million on the redevelopment of Larrakeyah Barracks and HMAS Coonawarra to improve infrastructure services and provide new maritime facilities, including a 250 metre wharf facility
- \$281 million on upgrades at HMAS Coonawarra to support the new offshore patrol vessels
- \$207 million for the pavement upgrade works at RAAF Base Tindal and RAAF Base Darwin, as part of the National Aircraft Pavement Maintenance Program
- \$150 million for new common user facilities at Robertson Barracks and RAAF Base Darwin, under the USFPI
- \$34 million on upgrades at the Jindalee Operational Radar Network in the Alice Springs region.



Map 5: Major defence sites in the Territory<sup>1</sup>



*Inset showing Darwin and Palmerston*

1 This map is produced from various sources. Department of Treasury and Finance cannot guarantee the accuracy, currency, or completeness of the information. To be used as a guide only.

2 The Jindalee Operational Radar Network has two operating facilities within the Alice Springs region, at Harts Range and Mount Everard. Source: Department of Treasury and Finance; Department of Trade, Business and Innovation; DefenceNT; Department of Defence.

The USFPI further demonstrates the importance of the Territory as a strategic location for regional security. This includes the US marines' rotations across the Territory, which are an essential component in preserving stability and security in Australia's geographic region over the coming decades. The 2017 rotation, consisting of about 1250 US marines, was a milestone for the USFPI, demonstrating the ongoing commitment Australia and the US have to achieving the objectives of the joint agreement. The 2018 rotation, which commenced in March 2018, is expected to involve more than 1580 US marines.

Over the outlook period, the number of US marines on rotation in the Territory is expected to increase to 2500 as part of the USFPI. The US has outlined it will commit to enhanced air cooperation activities and the exercises of the marine rotations in Darwin. Four tilt-rotor Ospreys, five Super Cobra helicopters and four Huey helicopters were deployed in 2017, which constituted the largest deployment of US aircraft in Darwin as part of the USFPI. As a result, it is expected there will be increased defence infrastructure expenditure to support the USFPI, as well as increased demand for local goods and services.

About \$2 billion of the total infrastructure investment outlined in the White Paper will be shared by Australia and the US as part of the USFPI. In addition, the US will contribute to the ongoing operational costs of the USFPI over the full 25-year life of the agreement.

The Territory Government continues to invest in the critical transport and maintenance infrastructure that supports defence activity, including \$95 million in 2019-20 towards the Darwin ship lift facility. A Project Development Agreement was reached between the Territory Government and the Northern Ship Support, as the successful proponent. This project will have the capacity to service defence, the Australian Border Force and other commercial users, and reduce the need for defence vessels to use other ports either overseas or in other Australian cities for maintenance and repairs.

The release of the Territory Government's Defence and National Security Strategy 2018 reinforces the Territory as a key defence and national security hub and the primary centre for maintenance and sustainment of facilities and assets deployed to the region. The strategy outlines key focus areas to support a strong defence and national security presence in the Territory and enhance opportunities in the industry, as part of developing northern Australia.

A growing number of defence and national security platforms (including aircraft, ship vessels and equipment) that are either based in or operate from the Territory will be replaced as part of the major national acquisition program currently under way. Current platforms in the Territory, such as the F-18 Hornet and the Armidale Class patrol boat, will be replaced with new platforms, such as the F-35A Joint Strike Fighter as well as six of the twelve new offshore patrol vessels, which are proposed to be located at HMAS Coonawarra. In the strategy, the Territory has also been identified as a potential operating base for the future MQ-4C Triton unmanned aircraft.

The appointment of the Territory's Defence and National Security Advocate in 2017, Ms Margaret Staib (former Air Vice-Marshal), will continue to provide a positive contribution to the defence sector and the Territory economy. Over the outlook period, Ms Staib will assist the Territory to increase engagement with defence and national security agencies, and capitalise on current and future defence-related opportunities. Ms Staib will also position the Territory to benefit from the \$20 billion defence infrastructure investment identified in the White Paper.

DHA is also progressing new developments and refurbishments of defence housing stock both on bases and in townships, including Darwin and Katherine, reaffirming the long-term defence presence and increases to defence investment in the Territory. In December 2017, DHA completed 80 new dwellings at the RAAF Base Darwin for occupation by defence personnel and their families.

Other DHA projects in the Territory currently under way or expected to commence in the coming years include:

- ongoing expansion of the suburb of Muirhead for completion in June 2018, which is expected to result in 1184 dwelling lots, with around 305 properties to be built by DHA and occupied by defence members and their families
- development of the former Lee Point Radar Station site located near Lee Point and Muirhead North, which is expected to result in about 800 residential lots, of which 30 per cent will be allocated for defence members.

DHA has further committed to a \$300 million program to upgrade and replace on-base housing in Alice Springs and Katherine to meet the minimum housing standard required by defence over the outlook period.

## Retail and Wholesale Trade

### Recent activity

Retail and wholesale trade expenditure has been subdued in recent years. Despite this, the industry's share of employment in the Territory continues to increase.

### Outlook

Retail trade activity is expected to be flat in the short to medium term due to subdued economic conditions contributing to weaker wages growth.

In 2016-17, the Territory retail and wholesale trade industry contributed \$1.3 billion in real terms to the Territory's economy. As a percentage share of GSP, the industry contributed to 4.8 per cent in 2016-17, only slightly below the 10-year average of 5.0 per cent.

Separately, wholesale trade is a smaller component of Territory GSP and a much smaller share of employment relative to retail trade. This chapter outlines both Territory and Australia's retail and wholesale trade industry conditions. Furthermore an outlook is provided over the short to medium term highlighting potential projects in the Territory.

For the latest data on the retail and wholesale trade industry, refer to the Territory Economy website.

## Outlook

The outlook for retail trade is expected to remain subdued over the forecast period. One of the main contributors to slow retail activity is low wages growth, which affects consumer spending behaviour and confidence. Weaker wages growth in the short to medium term is expected to constrain retail turnover and discretionary spending. Additionally, marginal population growth and a softening in the housing market are expected to further limit the growth of retail trade.

Despite subdued retail activity, a number of retail and entertainment developments are under way:

- Stage 1 of the \$300 million Palmerston Gateway Shopping Centre, opened in September 2017, stage 2, the Pavilions, is expected to finish in the first half of 2018, bringing more dining, retail and entertainment facilities to Palmerston.
- The \$0.5 million renovation of the Anthony Plaza in Darwin city is expected to host more restaurants, cafés and retailers.

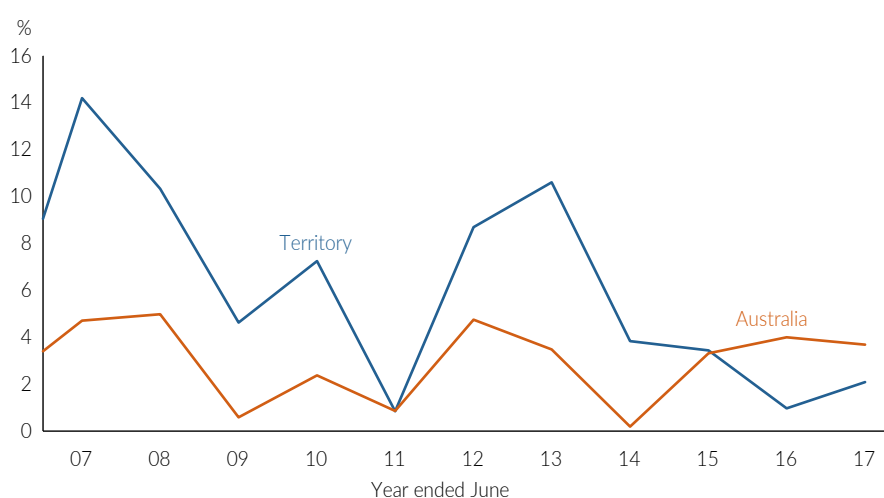
The following are longer term projects that may support small and medium-sized businesses across a variety of sectors, including retail:

- The Territory Government has committed \$100 million to the Darwin City Deal project to revitalise the CBD. The project is expected to create a more attractive and liveable city for residents and visitors as well as for retailers to conduct business.
- The Territory Government has also committed \$20 million in Alice Springs, which will include revitalisation to create a more vibrant CBD for residents, visitors and local businesses.
- The \$10 million smart technology project, with funding committed from the Territory and Commonwealth governments, and the City of Darwin will provide additional CCTV, smart lights, wi-fi and parking sensors in main tourist and shopping areas.
- The Territory Government's \$103 million tourism stimulus package over 2017-18 and 2018-19 is expected to develop the Territory's tourism industry and encourage retail spending as a result of more visitors. This is complemented by the expected development of the Darwin luxury hotel.

Nationally, retail trade activity is anticipated to be stronger than in the Territory but still perform below long-term historical trends. Subdued inflation, low interest rates and high building approvals, especially in the eastern states, are likely to drive strong demand for household goods, however, low wages growth and continued movement to online shopping are expected to detract from retail spending at brick-and-mortar businesses over the forecast period.

The outlook for wholesale trade remains relatively subdued, in line with expectations for major projects close to reaching construction completion. Wholesale trade is the sale of new or used goods to businesses and institutional users, but excludes government users. Activity in the Territory's wholesale trade industry is mainly in industrial storage and equipment, transport and food wholesaling, and has been influenced in recent years by major projects.

Chart 8.7: Year-on-year change in the retail and wholesale trade turnover<sup>1</sup>



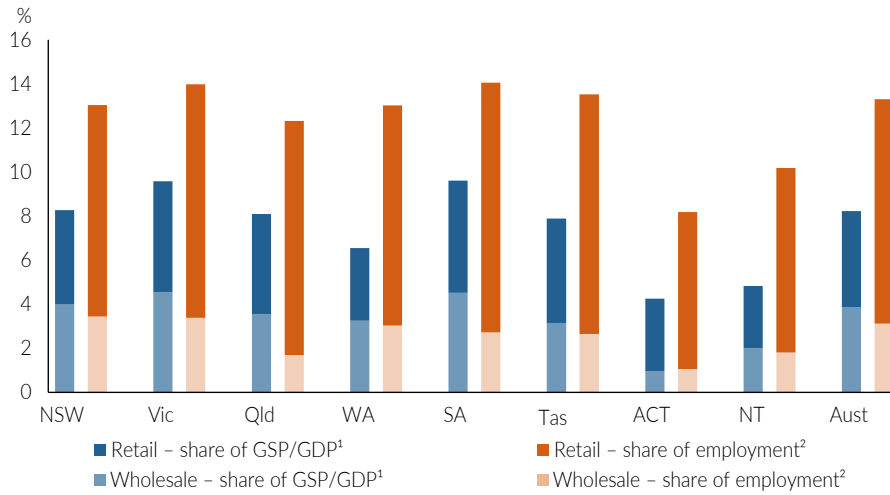
<sup>1</sup> Inflation adjusted.

Source: Department of Treasury and Finance; ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0

Retail and wholesale trade expenditure in the Territory grew by an average of 5.3 per cent per annum in the 10 years to 2016-17. In the past four years growth has moderated to below the 10-year average, but still increased by an average of 2.6 per cent per year, including 2.1 per cent in 2016-17 (Chart 8.7). Despite growth remaining modest, the retail and wholesale trade industry has recorded 16 years of consecutive growth in the Territory.

Across the larger jurisdictions, the retail and wholesale trade industry share of GSP and employment is broadly consistent, with the share of GDP averaging 8.7 per cent across Australia and the share of employment averaging 14.3 per cent over the past 10 years. Nationally, retail and wholesale trade as a share of employment has been trending downwards since 2012-13 with a share of 13.3 per cent in 2016-17, below the 10-year average of 14.3 per cent (Chart 8.8).

Chart 8.8: Retail and wholesale trade share of GSP, GDP and employment, 2016-17



GSP: gross state product; GDP: gross domestic product

1 Inflation Adjusted.

2 Annual average.

Source: ABS, *Australian National Accounts: State Accounts*, Cat. No. 5220.0; *Labour Force, Australia*, Cat. No. 6291.0.55.003

In the Territory, the contribution made by this industry to employment and GSP is smaller than the national average, reflecting the dominance of the government and community services industry, mining and construction industries, and the relatively small size of the Territory’s wholesale trade sector (Chart 8.8). Although the retail and wholesale trade industry contributes just under 5.0 per cent of total Territory GSP, it is one of the largest employers in the Territory with 10.2 per cent of employed people working in this industry in 2016-17, slightly below the 10-year average of 10.9 per cent.

## Tourism

### Recent activity

More domestic and overseas visitors travelled to Central Australia while domestic visitor numbers to the Top End were steady. The number of overseas travellers to the Territory decreased in 2017 compared to the previous year.

### Outlook

The tourism industry in the Top End is expected to be negatively affected by the transitioning of the Ichthys LNG project from construction to operation in 2018 but increase steadily over the medium term. To support the industry over this time, the Territory Government is implementing a \$103 million tourism stimulus package to boost leisure visitation.

Tourism differs from other industries as it is defined by the consumer's behaviour rather than the process of producing goods and services. Accordingly, standard ABS measures of production in the national accounts are not available for tourism. Rather, tourism's contribution to the Territory economy is captured in a range of industries, including accommodation and food services, retail trade, culture and recreation, and transport. Tourism is sensitive to a number of factors such as global and local economic performance, exchange rates, tourism activity, aviation access, changing consumer behaviour, visa regulations and an increasing number of competitive destinations.

The Territory economy relies more heavily on the tourism industry than other states or territories in Australia, in terms of tourism's direct and indirect share of the Territory's GSP. According to Tourism Research Australia (TRA), in 2016-17, tourism's direct contribution to total GSP in the Territory was 4.6 per cent and in terms of both indirect and direct it contributed 9.0 per cent. In addition tourism is a major employer, employing 16 270 people (9040 directly and 7230 indirectly).

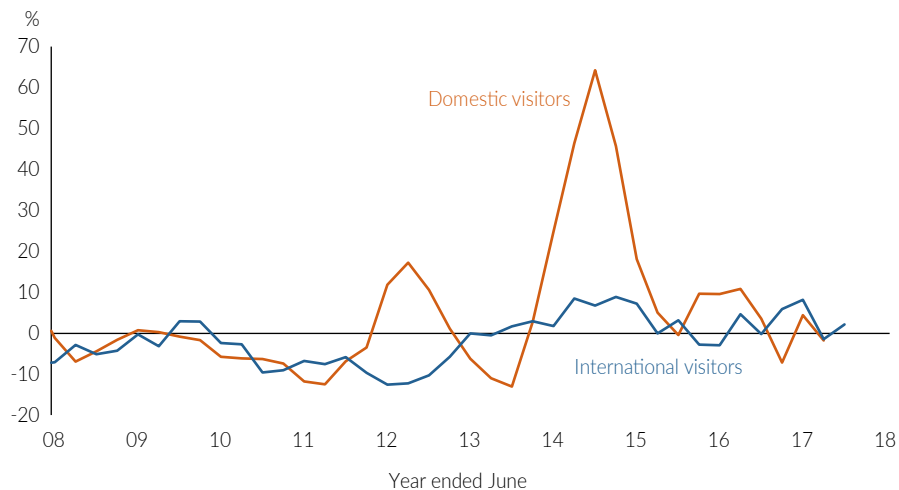
For the latest data on tourism refer to the Territory Economy website.

### Outlook

The Territory economy is directly affected by visitor numbers, length of stay and spending, as well as profits retained in the Territory by tourism operators. In 2017, results from TRA's National and International Visitor Surveys indicated that 1.9 million visitors came to the Territory, of whom 47 per cent came from interstate, 37 per cent travelled within the Territory and 16 per cent come from overseas.

Domestic visitor numbers increased by 3.2 per cent and international visitors to the Territory increased by 2.2 per cent (Chart 8.9). Visitors to the Territory during this time spent an average of \$1213 per trip, equating to total expenditure of \$2.3 billion. This exceeds the *Tourism Vision 2020: Northern Territory's Strategy of Growth* target of \$2.2 billion.

Chart 8.9: Year-on-year change in visitors to the Territory



Note: Due to a change in National Visitor Survey methodology from Q1 2014, intrastate, interstate and domestic estimates from 2014 onwards are not directly comparable to previous years. Caution is advised when analysing trends. For more information, refer to National Visitor Survey Methodology on Tourism Research Australia's website [tra.gov.au](http://tra.gov.au).

Source: Tourism Research Australia, *International Visitors in Australia*, *Travel by Australians*

Future growth in visitation to the Territory has been forecast by TRA at an average annual rate of 2.6 per cent for domestic overnight visitor nights over the next five years and 5.8 per cent for international visitor nights.

Even though these forecasts appear quite positive, attracting international visitors to the Territory remains a challenge as visitation continues to fall below national trends, resulting in declining visitor market share, now down to 3.6 per cent in 2017 from 3.8 per cent in 2016. In particular, there has been an increasing propensity of inbound visitors to Australia to visit the east coast, making fewer stopovers and not dispersing to more regional destinations such as the Territory. This is the case for large growth markets, such as mainland China, but also for the Territory's main markets, such as the United Kingdom and Germany.

However, recent growth in visitors from China shows signs of movement away from travelling on package tours to exploring as free independent travellers. Numbers from the US have also been improving with this market overtaking the United Kingdom as the Territory's greatest source of international visitors.

Encouraging domestic overnight travel in the Territory is also a challenge with increased competition and cheaper destinations offered domestically and internationally. Interstate holiday travel to the Territory has declined over the past year. Business travel in the Top End has been a the main contributor to overall growth in domestic visitation, primarily due to the Ichthys LNG project.

However, with the shift from the construction to the operational phase expected over the course of 2018, there will be a loss in visitation and visitor expenditure. There are a number of initiatives and attractions being developed to encourage visitors to the Territory and support the growth of the industry over the short and medium term.

The Territory Government is implementing a \$103 million tourism stimulus package over 2017-18 and 2018-19 to accelerate growth in the Territory's tourism industry. This includes \$26.57 million in additional marketing spending to bolster business and leisure travel from key domestic and international source markets (that is, US and Europe), as well as potential markets in Asia. As part of the marketing spending, \$10.85 million is allocated to cooperative marketing with key domestic and international airlines. The package also includes \$56.24 million for new tourism infrastructure. The infrastructure spending includes \$9.9 million to upgrade the George Brown Darwin Botanic Gardens, \$12 million for new cycling tracks in Central Australia and \$12.1 million to open new areas



of Litchfield National Park. There is also \$20.78 million allocated to festivals and events, including \$4.5 million towards maintaining and enhancing Territory parks, \$4 million to enhance existing and develop new festivals and events, and other initiatives including enhancing the visitor experience, activate Darwin and Alice Springs CBDs, and supports arts, festivals and sports in the Territory.

Aviation access is critical to bringing tourists to the Territory and the Government continues to collaborate with major domestic carriers as well as attract and maintain international carriers. To improve airline services with China, the Territory Government has successfully attracted Shenzhen-based Donghai Airlines to commit to a non-stop direct service flight to Darwin, commencing on 30 May 2018. Discussions are continuing with other Chinese carriers interested in establishing services to Darwin as the population centres in China are considered large enough to support more than one carrier to the Territory. In 2017, NT Airports introduced Chinese information on its arrivals and departures services, as well as Mandarin language announcements to better target and support the Chinese market.

Another positive development is Qantas moving its hub for flights to Australia from the United Kingdom to Singapore instead of Dubai. This decision is anticipated to have a positive impact for the Territory as it allows travellers to take advantage of existing services between Singapore and Darwin. The London to Sydney daily service via Singapore commenced on 25 March 2018. However, both Air Asia and Philippine Airlines have indicated they will withdraw their services from the Territory in 2018. The Territory Government is in discussions with other airlines to provide services between Darwin and Manila and other countries in Asia.

To increase travel to the Territory for business purposes, the Territory Government has launched a new Business Events Support Fund in 2018, to allow the Territory to more aggressively compete for business events in the Territory. The fund will provide financial assistance of \$100 per delegate to event organisers up to a maximum of \$50 000 per event, for events that meet the key criteria, which include aligning with Territory priority industry strength sectors and also the majority of event participants travel to the Territory from interstate and overseas.

The Territory Government is investing \$100 million into showcasing art and cultural objects produced in the Territory as part of the Indigenous Arts Trail. This investment incorporates a National Indigenous Art Gallery and the National Indigenous Cultural Centre in Alice Springs, grants for remote and regional museum and gallery infrastructure upgrades, gallery extensions in Katherine, Arnhem Land and Tennant Creek, and marketing and promotion to maximise visitation.

The Territory Government is committed to reviving the Arafura Games for 2019, which will be a positive contributor to international visitor numbers. The \$120 million investment in revitalising the CBDs of both Darwin and Alice Springs are also part of the government's efforts to help create and improve tourists' experiences in the Territory.

The Landbridge Group, the operator of Darwin Port, intends to grow the port and trade opportunities between Australian and Asian economies and, importantly for tourism, enhance cruise ship facilities at Fort Hill Wharf. As a result, the Territory's tourism industry is expected to benefit from increased interest from Chinese and other Asian holiday and business visitors.

The cruise ship sector is a key part of the tourism industry in the Top End, with 67 cruise ships due to visit the Territory in 2017-18, with strong numbers of stopover passengers likely to continue spending in the local economy. In close proximity to Asia, Darwin is well positioned as Australia's northern gateway port and is expected to generate strong numbers of visitors over the forecast period. Cruise ship visits provide an influx of tourists into the region during the off-peak seasons, with passengers and crew undertaking tours, visiting local attractions, shopping at local retail outlets, and spending at cafés and restaurants.

The availability and quality of accommodation can influence the number of international and domestic visitors to the Territory. Increasing activity in the accommodation sector will place the Territory's tourism industry in a position to attain its target to grow the visitor economy. Based on the Department of Tourism and Culture reports on the Territory's hotel development pipeline, there were 83 new rooms completed in 2017-18 with development approvals provided for a further 312 rooms. This leaves a remaining balance of 1226 rooms to be secured by 2020 to reach the short-term accommodation Tourism Vision 2020 target.

In August 2016, the Territory Government and the Landbridge Infrastructure Group Australia signed an agreement for the development of a luxury hotel in Darwin, to be located at the Darwin Waterfront and operated by Westin Hotels and Resorts. This luxury hotel will broaden the range of accommodation available, helping to attract more tourists and unique business events in Darwin, with around 200 rooms. Pending approval from the Development Consent Authority during May 2018, construction could commence on the site in 2018 dry season. The hotel is expected to be completed by 2020, to open early 2021.

## Agriculture, Forestry and Fishing

### Recent activity

The agriculture, forestry and fishing sector accounted for 2.9 per cent of GSP and 1.4 per cent of total resident employment in 2016-17. It remains a significant employer and source of economic activity in the Territory's regional and remote areas.

### Outlook

The value of the Territory's agricultural output is expected to moderate through to 2018-19, driven by decreases in live cattle exports, partly offset by increased live buffalo trade, along with a positive outlook for horticulture and aquaculture.

Although the agriculture, forestry and fishing sector represents a relatively small proportion of the Territory's output and employment, it is a significant employer and source of economic activity in regional and remote areas (Map 5), as well as having important linkages to other sectors of the economy, including retail and wholesale trade, manufacturing and transport. The industry's output can vary significantly from year to year due to changes in production, seasonal conditions and changes in global and domestic demand for Territory commodities.

For the latest data on the agriculture, forestry and fishing industry, refer to the Territory Economy or Department of Primary Industry and Resources (DPIR) website.

## Outlook

In 2016-17, the agriculture, forestry and fishing industry accounted for 2.9 per cent (\$697 million) of the Territory's GSP and 1.4 per cent (1899 people) of the Territory's total employment. The value of the agricultural industry is expected to moderate through to 2018-19 due to continued declines in live cattle exports, which is the largest contributor to the industry. This is expected to be partly offset by growth in horticulture (mainly mango production) and the live buffalo trade. It is anticipated the value of horticulture and aquaculture will continue to expand in the medium term as the banana and melon industries recover, and barramundi and prawn fisheries continue to perform well. Additional upside exists if Project Sea Dragon reaches final investment decision and begins production in 2020.

### Live cattle

The Territory's live cattle exports are expected to moderate as demand from traditional Asian export markets continues to decline. Relatively high cattle prices have decreased demand for Australian and Territory cattle in South East Asia as these countries look for cheaper alternatives (such as buffalo) and loosen restrictions on importing beef from countries such as India and Brazil. This is expected to be partly offset by increased demand from Queensland cattle farmers looking to restock herds after prolonged drought conditions, which ended in recent months.

Live cattle exports to Indonesia, which accounted for 82.5 per cent (169 540 head) of total Territory cattle exports in 2016-17, are expected to continue to moderate over 2018-19 (Chart 8.10). The high price of Australian cattle on the international market has been driving up the retail cost of beef in Indonesia. In response, the Indonesian Government allowed the import of frozen Indian buffalo meat in 2016 as a lower quality substitute, reducing demand for live Territory cattle in 2016-17. Further, with the release of import permits for 100 000 more tonnes of Indian buffalo meat in early 2018, demand for live Territory cattle is expected to continue to moderate in the short term. The Indonesian Government is also introducing a new regulation from early 2019, which will require Indonesian importers to import and raise one breeder for every five feeders imported. This

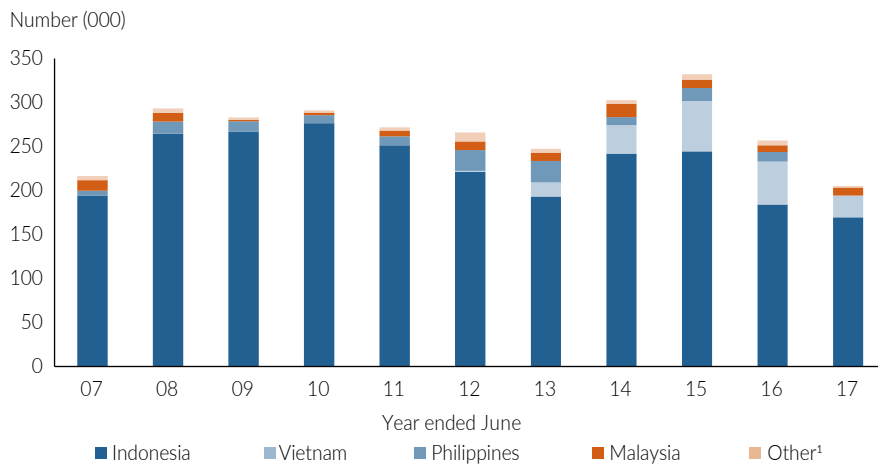
regulation is expected to change the way exporters conduct their business into the Indonesian market.

In 2017, parts of Queensland recovered from drought conditions, which led to increased demand for Territory cattle to restock herds. Recent above-average rainfall and the impact of Cyclone Nora in March 2018 is expected to have a similar effect, maintaining the high price of Territory cattle.

In early 2018, the first shipment of cattle from northern Australia was exported to China through Townsville. Prior to that, all cattle shipments to China were sourced from southern Australia as a result of the bluetongue virus in northern Australia. This is also a significant long-term opportunity for the Territory, as China could potentially become a major export destination for Territory cattle.

Although Indonesia remains the Territory's largest overseas destination for live cattle exports, other overseas export destinations may grow to encompass a greater share over the outlook. Vietnam, which accounted for 12.1 per cent (24 923 head) in 2016-17, is expected to grow by 10 per cent per year now that the market has matured.

Chart 8.10: Annual number of live Territory cattle overseas exports, by destination



<sup>1</sup> Other comprises Brunei, Cambodia, Egypt, East Timor and Thailand.

Source: Department of Primary Industry and Resources

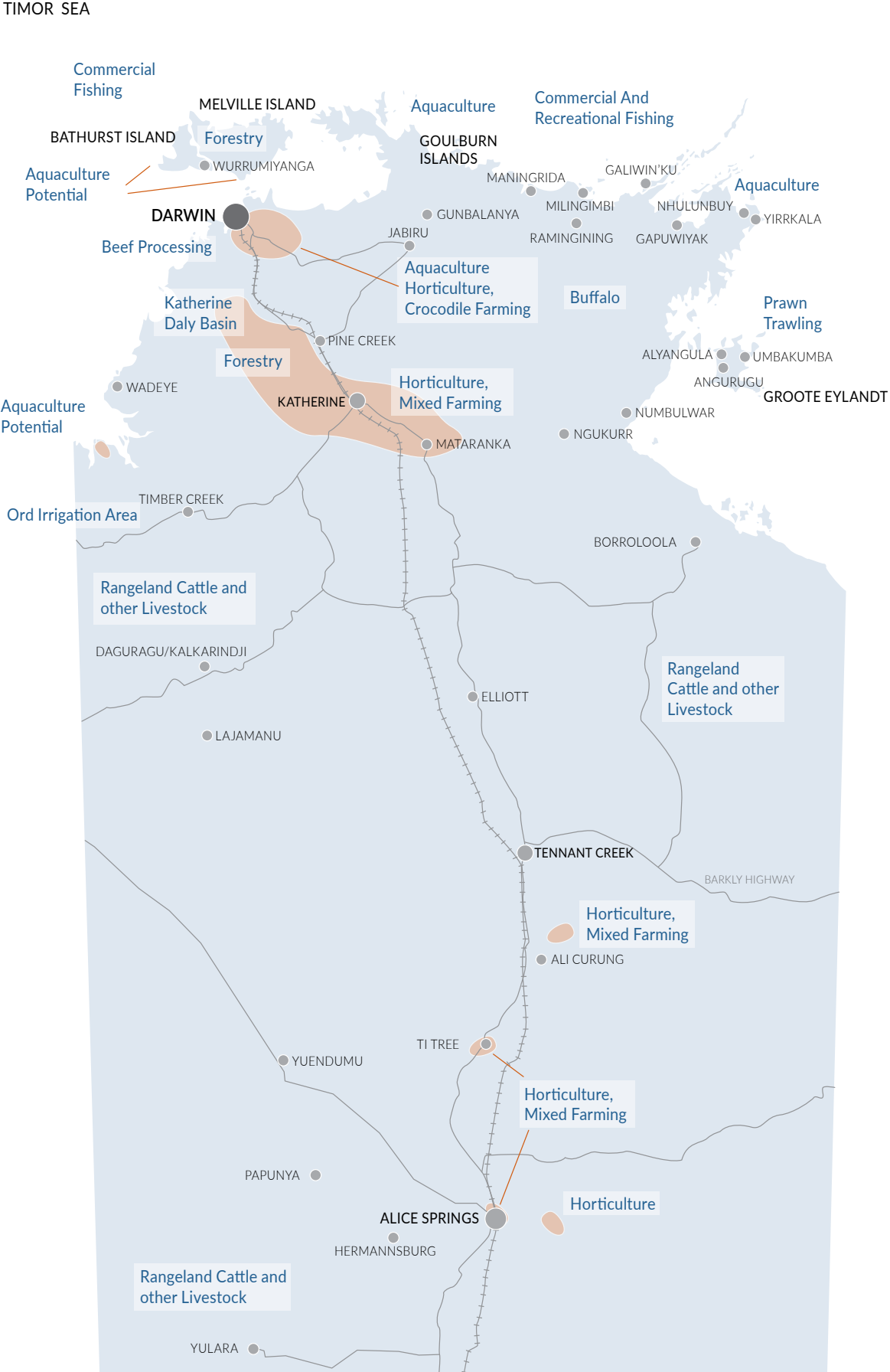
### Live buffalo

The live buffalo industry is a small but emerging industry in the Territory. The high price of beef has made live buffalo a more attractive Territory export, selling for about 60 per cent of the price of live cattle.

Malaysia resumed live buffalo trade in 2016 and grew to account for 37.1 per cent of Territory buffalo exports in 2017. Vietnam is the largest export destination of Territory buffalo (40.4 per cent) and, although it has not exhibited high growth over the past few years, importers have indicated demand could double if the Territory can provide a year-round supply. Unfortunately, about 80 per cent of current annual buffalo exports are harvested from the wild in Arnhem Land, which is only accessible during the dry season when the terrain is traversable, preventing a steady, year-round supply. This is an area of focus for the Territory government and industry.

In February 2017, Indonesia restarted live buffalo trade from the Territory after several years of little activity. It has since grown to 12.4 per cent of all overseas live buffalo exports from the Territory, with 1229 head exported there in 2017. Before the 2011 Australian live cattle import suspension, around 3000 head of buffalo were exported to Indonesia every year, indicating capacity still exists to increase this trade.

Map 6: Territory agriculture, forestry and fishing



1 This map is produced from various sources. Department of Treasury and Finance cannot guarantee the accuracy, currency, or completeness of the information. To be used as a guide only.  
 Source: Department of Treasury and Finance; Department of Primary Industry and Fisheries

## Other livestock

Boxed beef production from the Australian Agricultural Company (AACo) is anticipated to remain stable as the company continues to operate at full scale. AACo has recently announced a review of its Livingstone Abattoir to increase profitability. In late 2016, the AACo commenced its first full commercial trial of processing buffalo.

In March 2018, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership was signed by Australia and 10 other member countries. Part of the agreement involves the reduction of beef tariffs in Japan within 15 years, the elimination of Canadian beef tariffs in five years and the elimination of Mexican tariffs on beef cuts in 10 years. Peru is also eliminating its beef tariffs over five years under the Peru-Australia Free-Trade Agreement signed in February 2018. These agreements increase live export potential and create new markets for the Territory to export boxed beef.

The Crocodile Farmers Association of the Northern Territory (CFANT) aims to increase the value of the Territory's crocodile farming industry over the next five years to almost \$50 million per year by 2021-22. To achieve this target, and with support from the Territory Government, CFANT has put in place the Northern Territory Crocodile Farming Strategic Plan 2015-20, which is a strategy for optimising opportunities for sustainable industry growth and creating an environment for investment in crocodile production.

Australia accounts for 60 per cent of the global trade in saltwater crocodile skins, with about two thirds farmed and exported by the Territory. Of the remaining one third farmed interstate, the majority of stock is sourced from the Territory. In recent years, larger Territory crocodile farms in particular have invested heavily in infrastructure including construction and refurbishment of stock pens, improved water treatment and increased water supply and fencing. Due to stricter grading standards, there were fewer first grade crocodile skins sold in 2016-17, while a greater quantity were classified as lower grade skins. This increased supply of lower grade skins and increased global competition has reduced demand and price for the Territory product. In 2017-18, it is estimated the crocodile industry will generate total revenue of about \$23.6 million, a marginal increase from \$23.0 million in 2016-17.

Donkey farming is a potential industry for the Territory, with rising demand in China for donkey products. The Territory Government has recently purchased a small herd of feral donkey for a research program at the Kidman Springs Research Station to explore the economic and environmental sustainability of farming Territory donkeys.

## Horticulture

Mango production, which makes up a large proportion of the Territory's horticulture sector (34.9 per cent), is strongly influenced by seasonal conditions. Despite a sub-par mango season caused by high temperatures in 2016-17, mango production in 2017-18 appears to be one of the strongest on record. In October 2017, a shipment of mangoes was exported by air directly from Darwin to Singapore for the first time in a decade. Alongside exports to the US established a year prior, the continued opening of overseas markets for Territory mangoes is expected to increase the value of the Territory mango industry.

As part of a trade deal signed between Australia and Indonesia in early 2018, Australia will be importing mangoes and dragon fruit from Indonesia in late 2018. While not comparable to higher quality Australian-grown mangoes, mango growers are concerned the influx of Indonesian produce during peak season may drive down the price of mangoes, thus reducing the value of the Territory mango industry. This latest trade development followed the import of dragon fruit from Vietnam in 2017 and is expected to continue with the import of dragon fruit from Indonesia.

The destructive outbreak of banana freckle disease led to the commencement of the National Banana Freckle Eradication Program in 2013. The program entered its final phase in May 2017, which comprised two rounds of inspections. No banana freckle has been detected in the first round and, if no disease is detected in the second round, the Territory can expect to be declared free of banana freckle by mid-2018. Once cleared, farmers will be free to move banana trees and fruit across the border and quickly rebuild the Territory banana industry.

Melon production continued to recover in 2016 following the cucumber green mottle mosaic virus outbreak that impacted production in 2015. Although production increased from 51 000 tonnes in 2015 to 56 400 tonnes in 2016, it is below the long-term level of 70 000 tonnes. The outlook for melons from 2018 onwards is positive as production continues to recover.

Pineapple production in the Territory is likely to increase in the medium term with Piñata Farms, a Queensland producer, already established in the Territory.

In 2016, TPI Enterprises received approval from the Territory Government to trial 100 hectares of poppy crop near Katherine after trialing a different variety in 2015. Results showed poppy production was not economically sustainable due to the Territory's environmental conditions. As a result, there was no Territory poppy production in 2017, with no plans for production in 2018.

The Territory horticulture industry is continually developing new ventures with strong market potential. DPIR has developed new varieties of passionfruit that are ready for commercial development. The new variety can be grown in the Territory and produce fruit while other varieties are off-season on the domestic market. Another potential fruit for commercialisation is avocado, with two varieties developed by the private sector for Territory conditions. These varieties may also provide fruit during periods of low supply on the domestic market. Although no commercial crop of passionfruit or avocado has been announced in the Territory, there is potential for these new emerging industries in the medium to long term, in addition to broadacre crops such as soyabean and cotton.

## Fisheries

The outlook for fisheries production in the Territory appears to be positive, driven by anticipated growth in aquaculture production. Seafarms Group has continued to progress Project Sea Dragon, a US\$1.45 billion aquaculture project in northern Australia. In May 2017, stage 1 of Project Sea Dragon received approval under the Environment Protection and Biodiversity Conservation Act. Stage 1 constitutes around 10 per cent of the total project and is expected to begin in 2018 during the dry season. The project aims to produce 100 000 tonnes of black tiger prawns each year, with production planned to begin in 2020. In August 2017, an Indigenous Land Use Agreement was signed, with a major jobs package provided among the benefits to the community. Project Sea Dragon is expected to provide significant employment opportunities at the Legune Station on the Northern Territory and Western Australia border, along with supply chain benefits at Bynoe Harbour and Gunn Point.

Humpty Doo Barramundi is the Territory's largest primary producer and distributor of Australian saltwater barramundi. To meet increased demand in recent years, the operators have acquired additional land and established more growing ponds, which has doubled the production capacity of the existing farm to three million fish. Moving forward, Humpty Doo Barramundi is planning to develop supporting infrastructure to underpin future sustainable growth, efficiency and vertical integration in 2018-19.

## Forestry

Quintis currently owns 5848 hectares of sandalwood in the Territory, however the crop is still too young to be harvested.

African Mahogany Australia manages around 14 000 hectares of African mahogany plantations in the Douglas Daly region. The industry has predicted a projected value of \$150 million by 2019. In April 2017, African Mahogany Australia and Northern Tropical Timbers provided industry funds for a research project into optimising value from African mahogany plantations. The Territory and Queensland Governments will provide research support through their agricultural departments.

## Territory Government agribusiness development

Agribusiness is a key focus of the Territory Government's Economic Development Framework. Potential projects and opportunities mentioned in the Territory Government's 10-year Infrastructure Plan may be beneficial for the agriculture, forestry and fishing industry in the Territory. In April 2017, the Territory Government released the \$9.9 million Mapping the Future program, which will support scientific teams to identify potential productive land for future use in regional areas and improve natural resources information.



## Abbreviations and Acronyms

a	actual	NT	Northern Territory
AACo	Australian Agriculture Company Ltd	OPEC	Organisation of the Petroleum Exporting Countries
ABS	Australian Bureau of Statistics		
ACT	Australian Capital Territory	ppt	percentage point
APRA	Australian Prudential Regulation Authority	Qld	Queensland
AUD	Australian dollar	RAAF	Royal Australian Air Force
Aust	Australia	RBA	Reserve Bank of Australia
B	billion	REIA	Real Estate Institute of Australia
Cat. No.	catalogue number	RHS	right-hand side
CBD	central business district	SA	South Australia
CDU	Charles Darwin University	SFD	state final demand
CFANT	Crocodile Farmers Association of the Northern Territory	SIHIP	Strategic Indigenous Housing and Infrastructure Partnership
CGC	Commonwealth Grants Commission	Tas	Tasmania
CPI	consumer price index	TFR	total fertility rate
DHA	Defence Housing Australia	TRA	Tourism Research Australia
DPIR	Department of Primary Industry and Resources	UK	United Kingdom
DTF	Department of Treasury and Finance	US	United States (of America)
e	estimate	USFPI	United States Force Posture Initiatives
EDF	Economic Development Framework	Vic	Victoria
ERP	estimated resident population	WA	Western Australia
f	forecast	WPI	wage price index
FIFO	fly-in fly-out		
FLNG	floating liquefied natural gas		
FTA	Free trade agreements		
GDP	gross domestic product		
GEMCO	Groote Eylandt Mining Company		
GSP	gross state product		
GST	goods and services tax		
HFE	Horizontal fiscal equalisation		
HMAS	Her Majesty's Australian Ship		
IMF	International Monetary Fund		
JPDA	Joint Petroleum Development Area		
LHS	left-hand side		
LNG	liquefied natural gas		
LPG	liquefied petroleum gas		
M	million		
MYEFO	Mid-Year Economic and Fiscal Outlook		
NDIS	National Disability Insurance Scheme		
NIM	net interstate migration		
NOM	net overseas migration		
NSW	New South Wales		

# Glossary

## Consumer Price Index

A general indicator of the prices paid by household consumers for a specific basket of goods and services in one period, relative to the cost of the same basket in a base period.

## Current Prices

The value in nominal terms, not adjusted for inflation or changes in the purchasing power of money. It is the market value for the good or service at the time it was being sold.

## Employed

Persons 15 years and older who worked for one hour or more in the week as measured by the Labour Force Survey. Persons are measured as being employed in the jurisdiction in which they reside, regardless of the location of their employment.

## Estimated Resident Population

The official Australian Bureau of Statistics population measure that represents the number of persons that reside in a defined locality for more than six months of the year and for a period of at least 12 out of 16 consecutive months.

## Goods and Services Tax

The goods and services (GST), is a broad based tax of 10 per cent levied by the Commonwealth on most goods and services sold in Australia. Some items such as basic food, health, education and exports are GST-free.

## Gross Domestic Product

The total value of goods and services produced in Australia over the period for final consumption. Intermediate goods, or those used in the production of other goods, are excluded. Gross domestic product can be calculated by summing total output, total income or total expenditure.

## Gross State Product

Similar to gross domestic product, except it measures the total value of goods and services produced in a state or territory. It is the sum of all income, namely, wages, salaries and profits, plus indirect taxes less subsidies. It can also be calculated by measuring expenditure, where it is the sum of state final demand and international and interstate trade, changes in the level of stocks, and a balancing item.

## Inflation Adjusted (also known as Chain Volume)

Inflation-adjusted measures provide estimates of real changes by factoring in general changes prices from year to year.

## Labour Force

All persons 15 years and over who are available for work, that is, employed plus unemployed persons actively seeking work. Excludes Australian Defence Force personnel and non-residents.

## Moving Annual Total

A method used to smooth data and remove the short-term fluctuations in data by averaging observations collected over a 12-month period.

## Participation Rate

The proportion of the population over 15 years of age who are working or looking for work.

## Public Consumption

Public consumption includes government expenditure on goods and services (including wages and rents). National consumption is a combination of Commonwealth consumption, defence consumption and consumption by universities. State and local consumption includes all other public consumption.

## Public Investment

Most data for public investment is sourced from state and territory government finance reporting. Adjustments are made to deduct expenditure that is classified as consumption, rather than investment. Statistical treatment of public investment does not always reconcile with the Territory Government's reporting of investment expenditure and as a result is not directly comparable.

## State Final Demand

State final demand is a major component of gross state product and is a measure of the demand for goods and services in an economy. While state final demand includes consumption and investment expenditure, it does not include the contribution of trade or changes in inventories to economic growth and as such is not a comprehensive measure of economic growth.

## Unemployed

Persons 15 years and older who were not employed during the week of the labour force survey and were actively looking for work in the last four weeks.

## Unemployment Rate

The number of unemployed persons expressed as a percentage of the labour force.

## Visitor

Tourism Research Australia defines a visitor as someone who has stayed in a place at least 40 kilometres from their usual place of residence for at least one night, but who is away from home for less than 12 months. An international visitor is defined as an overseas arrival who stayed in Australia for less than 12 months.

## Wage Price Index

A measure of the change in the price of wage costs over time, unaffected by the change in the quality or quantity of work performed. It excludes non-wage costs such as superannuation, payroll tax and workers compensation.

