



FINAL REPORT

Economic Impact of Norfolk Island reform scenarios

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Executive summary

State of the Norfolk Island economy

Norfolk Island is a small, isolated island community of fewer than 1700 permanent residents. Most goods consumed on Norfolk Island are imported via Australia or New Zealand, while tourism-related services are Norfolk Island's only significant export activity. While no formal economic statistics are compiled, the CIE has estimated that Norfolk's Gross Territory Product (GTP) (at market prices) was around \$68 million in 2013-14. This estimate was around 22 per cent lower than a previous estimate from 2010-11.

- With around 1670 permanent residents, this equates to a GTP of nearly \$41 900 per capita.
- While a GTP per capita of \$41 900 might appear 'healthy', it should be noted that the prices of many consumer goods on Norfolk Island are significantly higher than on mainland Australia.

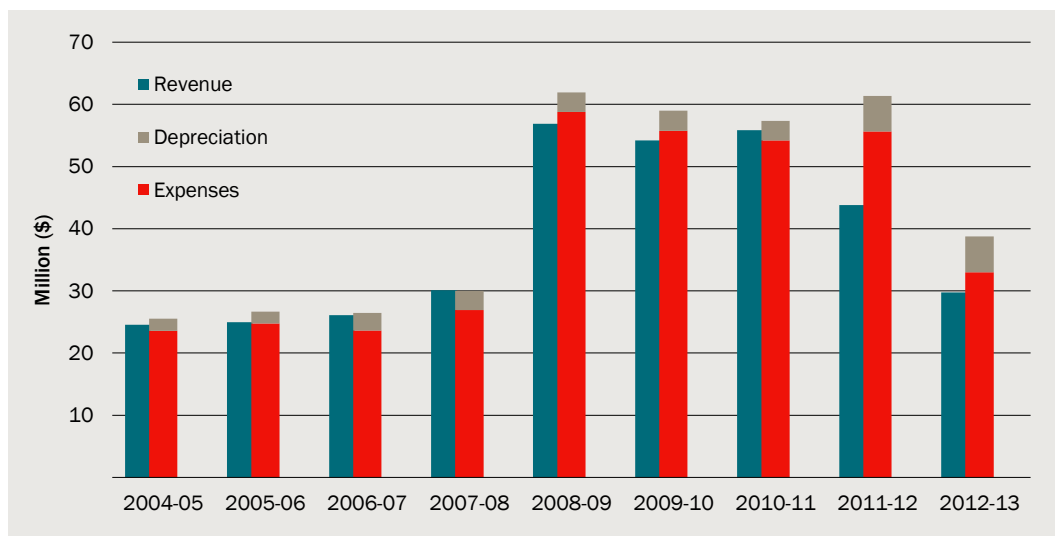
Various indicators point to a sharp contraction in Norfolk Island's economy over recent years.

- As tourism is Norfolk Island's only significant export activity, the number of visitors to the island is a major driver of economic performance. Over recent years, Norfolk Island has been attracting around 25 000 visitors per year, a decline of around 35 per cent compared to a decade earlier.
- GST collections suggest the value of sales have fallen by around 25 per cent over the past four years, or an average of 7 per cent per year. As prices are likely to have increased over this period, the volume of sales on Norfolk Island are likely to have fallen by even more.
- Workers Compensation Levy receipts suggest that the number of hours worked has fallen by around 24 per cent since 2009-10, or around 6.6 per cent per year on average.
- The Norfolk Island population has also declined steadily since 2001. As at September 2014, the population has fallen by around 360 people or 18 per cent since the 2001 Census.

Over the last decade or so the Norfolk Island Government (and associated Government Business Enterprises) has been running a sizable budgetary deficit (see chart 1).

- Until 2007-08, the budget was broadly balanced in cash terms, but has deteriorated significantly, particularly in the past two years.
- When depreciation and amortisation is taken into account, Norfolk Island has recorded budget deficits in every year except 2007-08. Over 2004-05 to 2012-13 the budget is in deficit by some \$40.9 million.

1 Budgetary position of Norfolk Island Government



Note: In 2008-09 the Norfolk Island Government changed the way its financial accounts were presented. Prior to 2008-09, the accounts reported the revenue and expenses of just the Norfolk Island Administration. In 2008-09 (and thereafter) the accounts reported the revenue and expenses of the Administration and the various GBEs.

Source: Norfolk Island Administration.

For the last several years the Australian Government has been subsidising Norfolk Island. Between 2009-10 and 2013-14, the Commonwealth provided around \$28 million to the Norfolk Island Government.

The continued poor budgetary position has meant necessary expenditure to maintain and expand the stock of infrastructure has not occurred. The most recent Infrastructure Strategy and Capital Management Plan identified infrastructure/capital expenditure requirements of \$77 million over a 10 year period. The inability of the Norfolk Island Government (and tax base) to meet this necessary expenditure is not only impacting adversely on the quality of service provision (such as electricity supply and telecommunications), but also on private sector activity and development.

The economic impact of potential reforms

The CIE has modelled the impact of the following reforms on the Norfolk Island economy:

- Core Reform — at the core of the proposed reforms is inclusion of Norfolk Island in the mainland's welfare and Medicare systems. This would also necessitate participation in the mainland income taxation system
- Other tax related reforms — imposition of mainland Superannuation, Goods and Services Tax, import duty (tariffs) and Fuel Excise, plus a simulation where Norfolk Island's GST, import duty and Fuel Excise are all removed (without extending comparable mainland taxes)
- Other reforms — include applying the Australian minimum wage in Norfolk Island; and GBE reforms such as improved governance arrangements and the establishment of an independent pricing regulator for monopoly services (or the opening of sectors to competition).

The estimated economic impact of these reforms are summarised in table 2.

Extending mainland income taxation, welfare and Medicare to Norfolk Island represents a substantial change. On average, Norfolk households will lose 15.3 per cent of their income to taxation (equivalent to \$4.3 million in 2013-14), but will gain some \$4.9 million in additional welfare type payments and avoid around \$5 million in healthcare related expenses. The Norfolk Island Government will no longer have to fund social service type payments of over \$1.6 million nor allocate nearly \$2 million to subsidising the local hospital, which means greater resources being available to fund unmet expenses such as depreciation and/or reducing the reliance on Australian budgetary support. Combined, the income taxation, welfare payment and Medicare reforms are estimated to see a sizable increase in economic activity of around 14 per cent, but a larger increase in household consumption (the preferred welfare measure) of around 38 per cent.

- The higher level of economic activity, increased employment and wages combine to see (nominal) household consumption each year being some \$20 million higher than otherwise.

2 Economic impact of reforms on GDP

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Core Reform									
Income tax, welfare and Medicare	0.0	14.7	14.8	14.4	14.1	14.1	14.1	14.1	14.1
Other tax-related									
Super	0.0	-1.6	-2.1	-2.5	-3.4	-3.6	-3.6	-3.6	-3.6
Aus GST	0.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
Aus tariffs	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Aus Fuel Excise	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No NI GST, Customs Duty, Fuel Excise	0.0	9.6	9.5	9.3	9.2	9.2	9.2	9.2	9.2
Other reforms									
Min wage	0.0	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
GBE reform	0.0	0.3	0.2	0.1	-0.1	-0.2	-0.2	-0.2	-0.2

Source: Norfolk Island economic model.

In summary, the GDP impacts of the other tax related reforms are as follows.

- Superannuation — employers experience higher wage rates, which acts to see a contraction in employment and economic activity (note that households would, presumably, have higher disposable income in retirement and hence lead to higher future consumption).
- Australian GST — compared to the Norfolk Island GST, the Australian GST is set at a lower rate (10 versus 12 per cent) and is approximately half the rate on the key

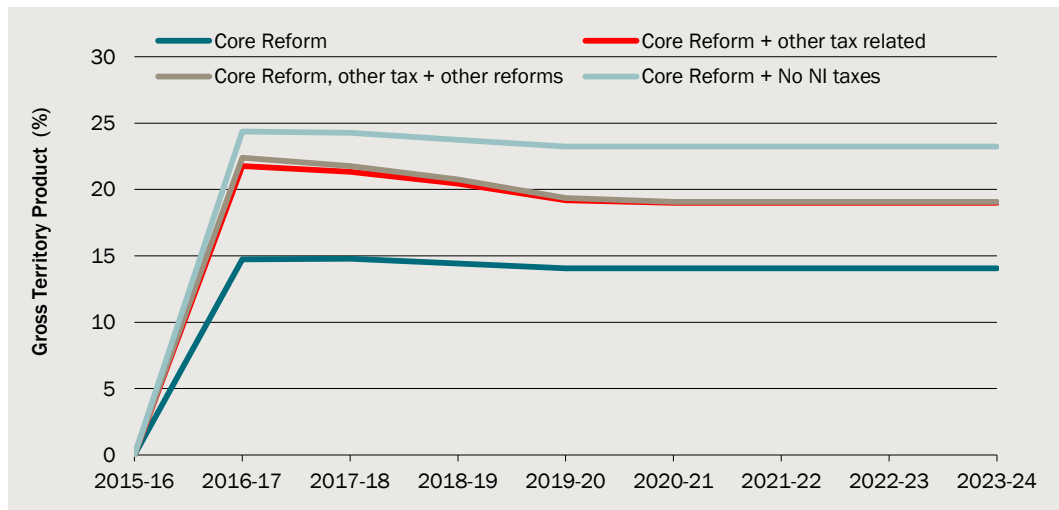
household and tourist consumption item of food. The lower rate of taxation sees lower prices and an increase in economic activity.

- Australian Customs duty and Fuel Excise — the impacts of these reforms are quite minor (the GTP impacts are observable at the first decimal point), as the taxes are either minor (Fuel Excise) or collected revenues broadly similar (import duty).
- No Norfolk Island taxes — removing the GST, import duty and Fuel Excise effectively sees prices fall and a subsequent increase in household purchasing power, which drives an increase in household consumption, employment, wages and GTP.

Note that if the other tax related reforms are implemented, then they will likely come as a ‘package’ of reforms. Chart 3 summarises the estimated impacts on GTP of the various reform packages of:

- Core Reform (income taxation, welfare and Medicare)
- Core Reform + other mainland taxes (latter comprising Superannuation, GST, import duty and Fuel Excise)
- Core reform + other mainland taxes + other reforms (latter comprising imposition of mainland minimum wage and Norfolk GBE reform)
- Core reform + no Norfolk Island taxes (latter comprising removal of Norfolk Island GST, import duty and Fuel Excise).

3 Economic impact of reform packages



Source: Norfolk Island economic model.

About this report

The Commonwealth Department of Infrastructure and Regional Development commissioned the CIE to build an economic model of the Norfolk Island economy, and then to use that model to quantify the economic impact on Norfolk Island of various reform scenarios, notably:

- extension of Australian mainland minimum wage, and market/business operations
- extension of mainland taxation (personal, company and Medicare levy) and superannuation systems
- extension of mainland social security (unemployment benefits, welfare payments, and Medicare)
- changes to the current Norfolk Island arrangements (such as removing the Norfolk Island GST and import duties, possibly in exchange for extension of mainland taxation) and implementation of a range of microeconomic reforms.

To gather data and information, and to gain an understanding of the structure and operation of the economy, a CIE team visited Norfolk Island in late August 2014 to consult with stakeholders. Meetings were held with the Norfolk Island Government and bureaucracy, the Administrator, private sector businesses and individuals.

This report and the developed economic model have been generated from data made available by the Norfolk Island Administration and other stakeholders. It should be appreciated that the Norfolk Island Administration collects only limited economic data.

The CIE would like to thank all of those stakeholders who participated in the consultation process, and who provided information and data in response to questions about the performance, operation and future of the Norfolk Island economy. The CIE is also appreciative of the large effort numerous people, particularly within the Norfolk Island bureaucracy, went to in sourcing requested data.

The report is structured as follows. Chapter 1 provides an overview of the state of the Norfolk Island economy, along with an estimate of gross territory product in 2013-14. Chapter 2 details the economic model developed, and considers what the Norfolk Island economy might look like going forward (the baseline). The approach taken to modelling the tax and welfare reforms is detailed in chapter 3, while the other reform scenarios modelled are detailed in chapter 4. The economic impact on Norfolk Island of the core reform set (personal taxation and welfare) and other tax related reforms is reported in chapter 5, while the impact of the various other reforms considered can be found in chapter 6. In chapter 7 options for reform implementation and timing are considered. Some practical issues needing to be considered/resolved if mainland taxation and welfare were to be extended to Norfolk Island are also discussed in this chapter.

1 *The Norfolk Island economy*

As no formal economic statistics on Norfolk Island are compiled, assessing the size and performance of the Norfolk Island economy is not straightforward. In this chapter the performance and size of the Norfolk Island economy is reviewed, and an estimate of Gross Territory Product in year 2013-14 provided.

Overview

Norfolk Island is a small, isolated island community of fewer than 1700 permanent residents. Most goods consumed on Norfolk Island are imported via Australia or New Zealand, while tourism related services are Norfolk Island's only significant export activity. The Norfolk Island Government plays a major role in the Norfolk Island economy, providing essential and other services.

Size of the Norfolk Island economy

Although there are no formal economic statistics compiled, there have been various attempts to estimate the size of the Norfolk Island economy, including several attempts by the Commonwealth Grants Commission (CGC). These estimates vary in the methodology used and time period to which they refer.

As can be seen from table 1.1, most estimates have Norfolk Island Gross Territory Product (GTP) in the \$80–90 million per year range.¹ The main outlier is the CGC's (2006) estimate that had Norfolk Island GTP much lower at around \$62 million per year.

On a per capita basis, these estimates equate to between \$45 000-50 000 per person (or around \$32 000 per person based on the CGC's 2006 estimate). This compares with GDP per capita for Australia of nearly \$67 000 in 2013-14.

1.1 Estimates of Norfolk Island Gross Territory Product

Source	Year	Estimated Gross Territory Product	Approximate population	GTP per capita
		\$ million	No.	\$
CGC (1997)	1995-96	80.3	1 772	45 343
CGC (2006)	2004-05	62.1	1 915	32 425

¹ GTP is a measure of the value of all of the goods and services produced in the economy and is analogous to the commonly used measures of economic activity, Gross State Product (GSP) for states and Gross Domestic Product (GDP) for the nation in aggregate.

Source	Year	Estimated Gross Territory Product	Approximate population	GTP per capita
		\$ million	No.	\$
CGC (2011) – production approach	2009-10	89.5	1 815	49 300
CGC (2011) – income approach	2009-10	82.0	1 815	45 169
ACIL Tasman	2010-11	87.9	1 795	48 969

Source: Commonwealth Grants Commission (1997); Commonwealth Grants Commission (2006); Commonwealth Grants Commission (2011); ACIL Tasman, Norfolk Island Economic Development Report: Reform of the Norfolk Island Economy, Prepared for the Department of Regional Australia, Regional Development and Local Government, March 2012, p. 35.

Norfolk Island's GTP in 2013-14

The developed economic model of the Norfolk Island economy (see the next chapter) provides an estimate of Norfolk Island's GTP from both the income and expenditure sides. As can be seen from table 1.2, Norfolk Island's GTP (at market prices) was estimated to be \$68 million in 2013-14. With around 1670 permanent residents, this equates to a GTP of nearly \$41 900 per capita.

While a GTP per capita of \$41 900 might appear 'healthy', it should be noted that Norfolk Island is an expensive location. For example, it would cost Norfolk Islanders 22 per cent more to purchase a (random) basket of household groceries than households in metropolitan Sydney, and fuel is around \$1 per litre more expensive on island.

The 2013-14 GTP estimate suggests that economic activity has fallen by around 22 per cent since 2010-11.

1.2 Norfolk Island GTP

GTP from expenditure side		GTP from income side	
Component	\$ million	Component	\$ million
Consumption	45	Compensation of labour	29
Investment	0	Gross operating surplus	29
Government	22	Tax on production	2
Exports	26	Taxes on consumption	7
Imports	-33	Tariff duty	1
Net taxes	8		
Total	68	Total	68

Source: CIE.

Indicators of recent performance

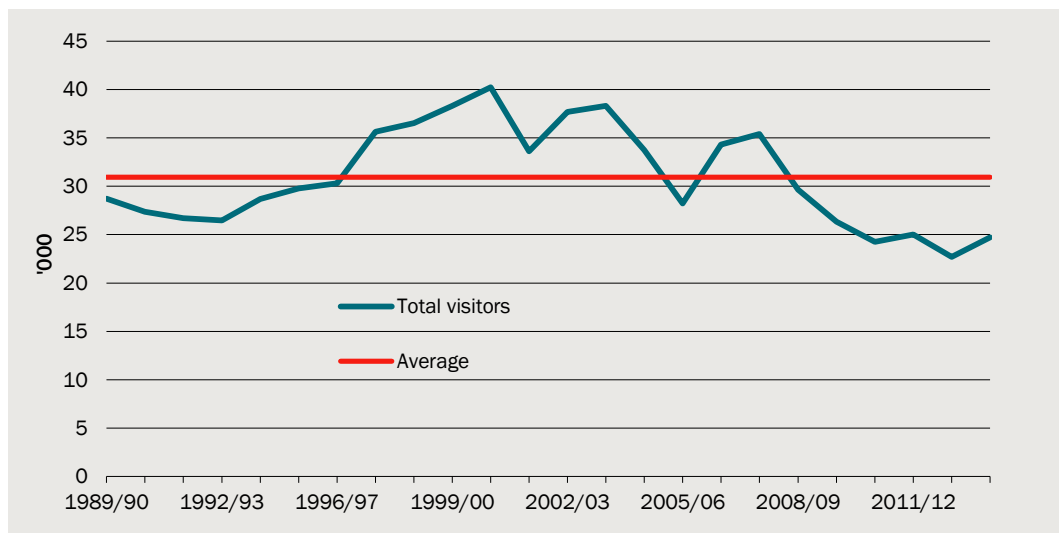
Given the different methodologies and data sources used to construct the GTP estimates reported in table 1.1, they are not necessarily comparable across time. Nevertheless, these estimates suggest that the Norfolk Island economy is unlikely to have grown significantly in nominal terms over the past 10–15 years. As the prices of goods and services will have increased over that time, this suggests a substantial decline in real economic activity.

Most available indicators point to a marked deterioration in the performance of the Norfolk Island economy over recent years.

Visitor numbers

As tourism is Norfolk Island's main export activity, the number of visitors to the island is a major driver of export performance. From chart 1.3 it can be seen that there was a strong upward trend in tourist numbers through the 1990s, followed by a significant contraction over the past 10–15 years. In the first few years of the new millennium, Norfolk Island received more than 37 000 visitors per year on average, peaking at more than 40 000 in 2000-01. By contrast, visitor numbers have been hovering around the 25 000 mark over recent years, a decline of around 35 per cent from the number of visitors in the early 2000s.

1.3 Visitor numbers



Source: Norfolk Island Government.

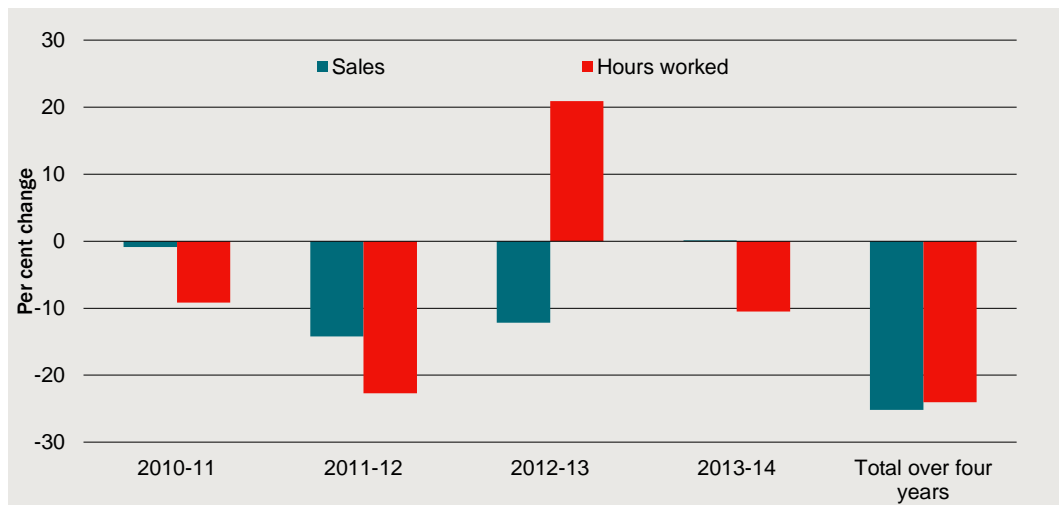
Tax receipts and hours worked

Tax collection is linked to underlying economic activity, and can therefore provide an indicator of the level of economic activity.

The Norfolk Island GST Office collects data on the total value of GST liable sales as part of the GST collection arrangements. As can be seen from chart 1.4, since 2009-10, the value of GST liable sales have fallen by around 25 per cent, or an average of 7 per cent per year. As prices are likely to have increased over this period, the volume of sales on Norfolk Island are likely to have fallen by even more.

The Norfolk Island Workers Compensation Levy is based on the number of hours worked, which is one measure of the demand for labour. Workers Compensation Levy receipts imply that the number of hours has been somewhat volatile over recent years, but has fallen by around 24 per cent since 2009-10, or around 6.6 per cent per year on average.

1.4 Value of sales and hours worked – percentage change



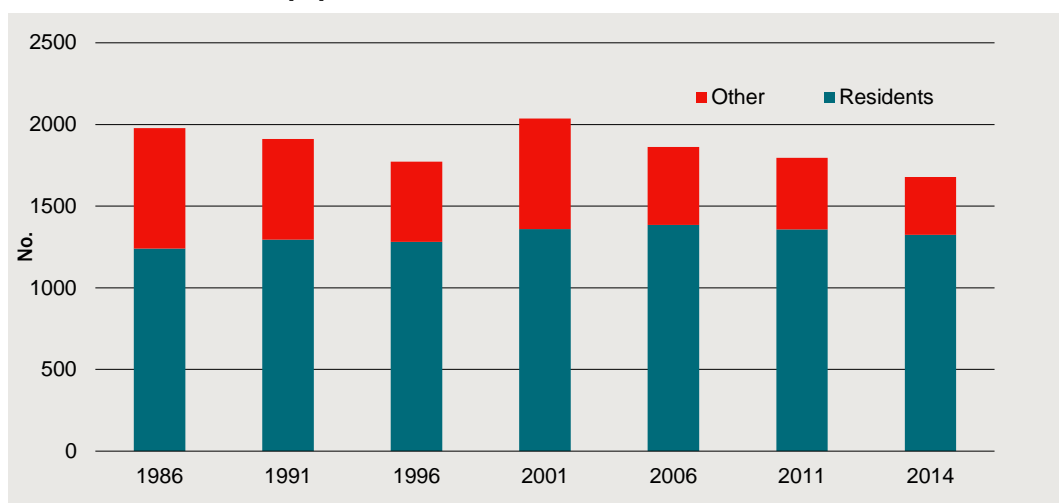
Source: Norfolk Island Government.

Population

To some extent changes in population will reflect economic conditions on Norfolk Island. With a limited welfare system, for many a lack of job opportunities will result in them leaving Norfolk Island.

From chart 1.5 it can be seen that the Norfolk Island population has declined steadily since 2001. As at September 2014, the population has fallen by around 360 people or 18 per cent since the 2001 census. The decline has mainly been in the number of permit holders and other residents, rather than Norfolk Island residents. There are currently only around half the number of permit holders living on Norfolk Island that there were in 2001. The number of permanent residents has fallen by only 2.5 per cent over the same period.

1.5 Norfolk Island – population



Note: Includes permanent residents and temporary visa holders.

Source: Norfolk Island Government.

2 *Modelling the Norfolk Island economy*

A computable general equilibrium (CGE) model of the Norfolk Island economy has been developed for the purpose of quantifying the economic impacts of extending mainland taxation and welfare to Norfolk Island and various other economic reforms.

The developed economic model

The economic model developed is based on the ORANI-G model framework, and combined with data describing the Norfolk Island economy in year 2013-14.²

Extensions were made to the model to allow simulation of the particular policy reforms being contemplated (in particular, changes to the tax regime). For example, income taxes were introduced and labour supply made responsive to post-tax income. Also, income accounting equations tracking the movement of income (generated by taxes, subsidies and dividends from government business enterprises) between sectors of economic activity, the Norfolk Island Government, Norfolk residents, and the Australian Government were introduced. The comparative static ORANI-G model was run in a sequential mode to emulate the phased introduction of reforms and generate time-paths for economic impacts.

The sectors of economic activity, factors of production, areas of final demand, and tax instruments identified in the developed model are reported in table 2.1.

2.1 Structure of the developed Norfolk Island economy model

Sectors of economic activity	Factors of production	Areas of final demand	Tax instruments and charges ^b
Agriculture, Forestry & Fishing	Capital	Household	Goods & Services Tax
Food stuffs	Labour	NI Government	Import Duties
Manufacturing		Investment	Gaming Tax
Fuel		Exports	Absent Landlord Levy
Energy (GBE)		Imports	Fuel Levy
Electricity (GBE)		Stocks	Waste Levy
Construction			Healthcare & Medivac Levy
Liquor Bond (GBE)			Workers' Compensation Levy
Trade			Business Transaction Levy

² ORANI-G is a development of the Centre of Policy Studies at Victoria University. Further details on the base model can be found at <http://www.copsmodels.com/oranig.htm>.

Sectors of economic activity	Factors of production	Areas of final demand	Tax instruments and charges ^b
Accommodation			Company Fees
Cafes & Restaurants			Land Title Fees
Lighterage (GBE)			Liquor License Fees
Transport			Tattersalls Commission
Airport (GBE)			Vehicle registration & licence
Communications (GBE)			Stamp Duty
Finance & Insurance			
Professional, technical & support services			Personal income tax
Recreation services			Company tax
Other private sector			Medicare Levy
Other NI Government ^a			
Dwellings			
Education			
Healthcare			
NI Government			
Aus Government			

^a Includes other areas of government activity/enterprise such as Cascade Cliff Rock, Museum(s), Tanalith Plant, Waste Management, Water Assurance, Broadcasting, Philatelic Bureau and the Tourist Bureau). ^b Note that fee for service type activities are excluded from 'Tax instruments and charges'. Fee for service activities are assumed to comprise company fees, crown lease rents and fees, immigration fees, pasture fees, planning application fees, and fines.

Source: CIE.

Underlying database

CGE models are extremely data intensive, and are underpinned by an input-output table of the economy being modelled. An input-output table quantifies the relationship/economic linkages between the various productive sectors of the economy and areas of final demand. It also specifies sectoral demand for the various factors of production (labour and capital), and identifies the various indirect and direct taxes and to whom that tax revenue flows. Essentially, the input-output table tells us what is produced, how it is produced, who buys it, and how it was paid for.

With a resident population of around 1700 people, Norfolk Island cannot justify the significant expense associated with developing an input-output table, nor devoting limited resources towards mining collected data/statistics to aid in a modelling exercise. This reality has meant that in some aspects, Norfolk Island is a data poor environment.

The input-output table underlying the Norfolk Island economic model has been put together using data from a wide range of sources, including:

- Norfolk Island GST Office
- Norfolk Island Customs
- Workers Compensation Fund
- Financial Statements for the various GBEs and Norfolk Island Government

- Norfolk Island Tourist Bureau
- Norfolk Island Social Services
- Norfolk Island Immigration
- Norfolk Island Administration
- private sector businesses (or business representatives)
- Norfolk Island 2014 Household Income and Expenditure Survey, and 2011 Census.

As could be expected when trying to align data from many disparate sources, it became clear during the construction of the input-output table that there appeared to be some data irregularities/inconsistencies.

This has implications for the economic modelling, as the accuracy of modelling exercises is highly dependent on the quality of the underlying database. Furthermore, and by definition, economic models are a simplification of reality and rely on numerous assumptions about economic parameters, behaviour and relationships. As such, the modelling results presented in later chapters should only be used to infer the outcome of extending mainland taxation and welfare systems etc to Norfolk Island (positive or negative) and the magnitude of such impacts (small or large). It would be inappropriate to, for example, report modelling results to the 2nd decimal point and claim that as the unambiguous impact of any taxation/welfare reforms. That is, only broad messages and trends should be taken from the modelling results.

An example of a data inconsistency — household expenditure

A key piece of required data for an economic model is household expenditure, that is, how much money are households spending on the various goods and services they consume. The 2014 Household Income and Expenditure Survey should be the obvious place for this data.

The 2014 HIES suggests that household expenditure totals \$906 per week (excluding some areas of expenditure, such as household furnishings, operation and maintenance; and medical, dental and optical expenses). With there being around 800 households, data from the 2014 HIES suggests that household expenditure accounts for \$2.33 million of the collected GST revenue in 2013-14.

The Norfolk Island Government General Revenue figures report that private sector expenditure is responsible for \$5.97 million in GST revenue, and as the GST is a tax on final demand, the \$5.97 million in GST revenue must be collected from household expenditure and on-island expenditure by tourists. It is estimated that tourist expenditure generates \$2.60 million in GST revenue. Hence household expenditure is estimated to generate \$3.37 million in GST revenue (given by \$5.97 million minus \$2.60 million).

However, from the 2014 HIES it is estimated that household expenditure generates \$2.33 million in GST revenue, well short of the required \$3.37 million. Indeed, for the GST figures to line up, it is estimated that household expenditure on GST liable goods and services needs to be around \$8.68 million greater than that reported in the 2014 HIES.

The baseline

The developed input-output table, and hence Norfolk Island model, is based on 2013-14 data.

To estimate the potential economic impacts of mainland taxation, welfare and other reforms, an appropriate counterfactual (the ‘baseline’) needs to be established for the Norfolk Island economy. The baseline represents the business-as-usual scenario — that is, what we can expect to happen in the absence of mainland reforms. It is against this baseline that the mainland taxation, welfare and various other economic reforms are simulated.

The baseline needs to encompass views about the future structure of the economy and include other (relevant) policy decisions, such as scheduled tax changes (or introduction of new taxes etc). In developing the baseline for the Norfolk Island economy, the following factors have been taken into account:

- tariff rate changes implemented during 2013-14
- changes to the Healthcare and Medivac levy implemented during 2013-14
- the introduction of a Municipal Rating system in 2014-15
- future tourist numbers and on-island expenditure
- the Norfolk Island Government budget deficit and expenditure on infrastructure, and Australian financial support
- business confidence.

The assumptions made under each of these areas is discussed below.

Tariff rate changes

On Norfolk, import duties differ across products and according to the purpose for which the product was imported. Imports for commercial use are duty free, whereas imports destined for use by households attract what can be a substantial tariff (depending on product).

Towards the end of the third quarter in 2013-14 the tariff on many household imports increased from 12 per cent to 18 per cent. While it is understood that there are no planned further tariff increases, the 18 per cent tariff is not fully reflected in the 2013-14 database (by virtue of it being higher for only the last 3 months of 2013-14). Hence going forward, there is a need to ensure that the database (and baseline) reflects the higher tariff rate on an annual basis.

Table 2.2 reports the change in tariffs on household imports used in the baseline.

2.2 Baseline tariff rate changes

Product category	Average import tariff 2013-14	Import tariff post 2013-14	Change in tariff
	Per cent	Per cent	Per cent
Building materials and supplies	13.2	18.0	36.5
Household appliances and furnishings	13.0	18.0	38.0
Consumer durables	13.7	18.0	31.4
Food and household supplies	12.4	15.4	24.6

Product category	Average import tariff 2013-14	Import tariff post 2013-14	Change in tariff
	Per cent	Per cent	Per cent
Tobacco and alcoholic beverages	62.3	62.3	0.0
Clothing and footwear	13.2	18.0	36.5
Motor vehicles	16.3	16.6	1.8
Rural and farming	12.9	18.0	39.7
Fuel	6.0	6.0	0.0
Miscellaneous	12.8	18.0	40.5

Source: Norfolk Island Customs and CIE analysis.

Changes to the Healthcare and Medivac Levy

As was the case with tariffs on household imports, the Healthcare and Medivac Levy was recently increased from (a total of) \$195 per quarter per person 18 years or older, to \$300.³ The recently increased Healthcare and Medivac Levy will not be reflected in the 2013-14 database, and hence needs to be included in the baseline. Table 2.3 shows the increase in household Healthcare and Medivac Levy costs factored into the baseline.

2.3 Baseline Healthcare and Medivac Levy changes

Component	2013-14	Post 2013-14	Change
	\$ raised	\$ raised	Per cent
Healthcare Levy	689 000	1 144 000	66.0
Medivac Levy	325 000	416 000	28.0
Total	1 014 000	1 560 000	53.8

Source: Norfolk Island Administration.

Municipal Rating scheme

The Norfolk Island Government has committed to implementing a Municipal Rating scheme in an attempt to raise more taxation revenue and to move the government's budget towards a more financially sustainable footing. Starting in year 2014-15, the Norfolk Island Government is intending to raise \$250 000 via Municipal Rates, with the amount raised increasing by \$250 000 per year until 2017-18 at which point \$1 million will be raised. Rates, presumably, will then be held constant thereafter. Table 2.4 shows the revenue raised from rates levied on residential and commercial properties and included in the baseline.

³ Note that if studying, people of age 18–25 are covered by the Healthcare and Medivac Levy but exempted from paying it. Singles/couples can also be exempted from paying the Levy based on income. Around 1300 people on Norfolk Island currently pay the Healthcare and Medivac Levy.

2.4 Municipal Rates built into the baseline

Municipal Rate revenue from	2014-15	2015-16	2016-17	2017-18 (and thereafter)
	\$	\$	\$	\$
Residential property	107 609	215 218	322 827	430 436
Commercial property	142 391	284 782	427 173	569 564
Total	250 000	500 000	750 000	1 000 000

Source: Norfolk Island Administration and CIE.

An issue concerns how will the additional \$1 million (in 2017-18 and thereafter) be used. The additional tax revenue could be used to fund an expansion in government service provision, or it could be used to reduce the budget deficit (and in so doing reduce reliance on financial support from the Australian Government). As the objective of the Municipal Rating scheme is to improve financial sustainability, as opposed to improved service provision, it is assumed that the revenue raised through rates acts to lower the required financial support from the Australian Government that would have otherwise been needed.

This issue of budget deficits is discussed further below.

Tourist numbers and on-island expenditure

The Norfolk Island economy is heavily dependent on tourism. During 2013-14 around 25 000 tourists visited Norfolk Island, spending an estimated \$24.3 million on-island (spanning accommodation, retail trade, cafes and restaurants, recreation services etc). The vast majority of these tourists arrived via air, and spent an average of 7 days on Norfolk Island. Cruise ships also, weather permitting, stop at Norfolk Island with passengers spending a day on-island.

The Norfolk Island Tourist Bureau believes that the number of tourists arriving via air will grow at 6 per cent over 2014-14 to 2016-17 (inclusive), before slowing to 3 per cent per annum thereafter. In comparison, the trend growth rate in tourist numbers (arriving via air) over the last 3 years has been 0.6 per cent per annum. It is estimated that each tourist arriving via air spends \$980 on-island.

With the current jetty and tender arrangements, cruise ships can only visit Norfolk Island under favourable weather conditions. Stakeholders suggest that there is only a 30 per cent chance that passengers of a visiting cruise ship will be able to disembark and spend a day on island. The calendar for cruise ship arrivals, combined with the 30 per cent probability of disembarkation, suggests that the number of cruise tourists visiting Norfolk Island will range between around 550–2200 between 2014-15 and 2019-20. Stakeholders suggest that each cruise passenger spends \$60 whilst on-island.

Table 2.5 reports tourist expenditure assumed in the baseline. Tourist arriving via air are held constant (at 32 186) in the years following 2019-20, which closely approximates the 25 year average of 30 846. Tourists arriving via cruise ship are held constant at 540, reflecting the 30 per cent probability of disembarkation and planned cruise arrivals in 2018-19 (the latest year for which data is available).

2.5 Tourist arrivals and on-island expenditure used in baseline

	Unit	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Tourists arriving via air	No.	26 215	27 788	29 455	30 339	31 249	32 186
Tourists arriving via cruise ship	No.	600	953	2 183	662	540	540
Air arrival on-island expenditure	\$ million	24.22	25.68	27.22	28.85	29.71	30.61
Cruise arrival on-island expenditure	\$ million	0.04	0.06	0.13	0.04	0.03	0.03
Total tourist on-island expenditure	\$ million	24.26	25.73	27.35	28.89	29.75	30.64

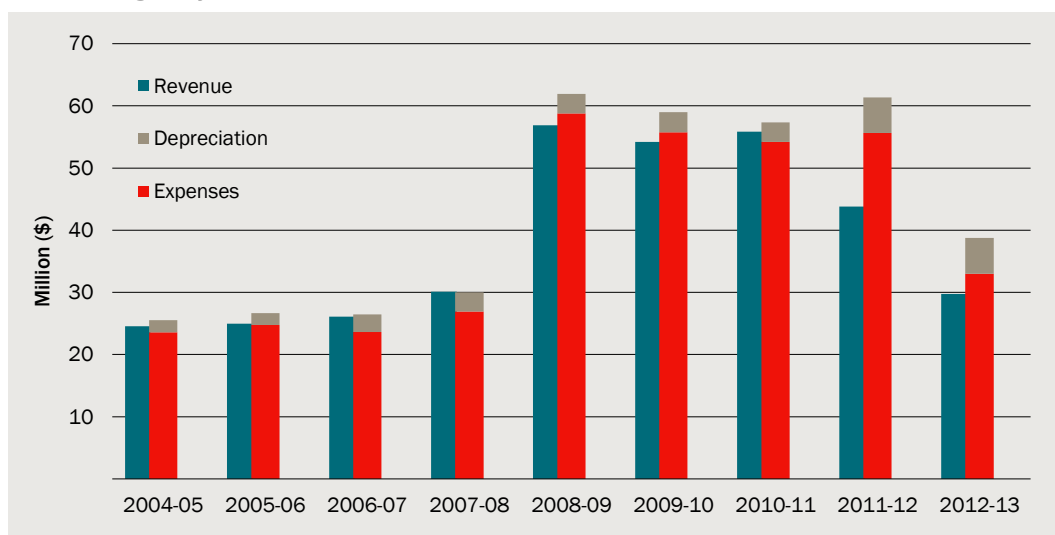
Source: Norfolk Island Tourist Bureau and CIE analysis.

Norfolk Island Government budget deficit and expenditure on infrastructure

Over the last decade or so the Norfolk Island Government and associated GBEs have been running a sizable budgetary deficit. As can be seen from chart 2.6, until recently the budget fluctuated between a deficit of \$1.9 million to a surplus of \$3.2 million when measured on a cash flow basis (revenue minus operating expenses). Over the period 2004-05 to 2010-11 the cash flow budget was \$5.1 million in surplus. In 2011-12 and 2012-13 the cash flow budget deteriorated significantly (combined cash flow deficit of \$15.1 million).

However, when depreciation and amortisation is taken into account, Norfolk Island records budgetary deficits in every year except 2007-08. Over 2004-05 to 2012-13 the budget is in deficit by some \$40.9 million.

2.6 Budgetary position of Norfolk Island Government



Note: In 2008-09 the Norfolk Island Government changed the way its financial accounts were presented. Prior to 2008-09, the accounts reported the revenue and expenses of just the Norfolk Island Administration. In 2008-09 (and thereafter) the accounts reported the revenue and expenses of the Administration and the various GBEs.

Source: Norfolk Island Administration.

For the last several years the Australian Government has been subsidising Norfolk Island. Between 2009-10 and 2013-14, the Commonwealth provided around \$28 million to the Norfolk Island Government. These transfers were (ballpark) sufficient to get the cash flow budget back into surplus. In 2014-15 the Commonwealth has allowed for

transfers to the Norfolk Island Government of up to, depending on certain milestones being achieved, \$7.5 million.

In terms of developing the baseline, of issue is whether the Australian Government is going to step in and continually fund Norfolk Island to ensure its cash flow budget is balanced. Ultimately, this is a decision for the Australian Government of the day. However, for the purpose of the baseline, it has been assumed that Australian funding moves to meet Norfolk Island budget deficits, with any additional taxation revenue raised by Norfolk (such as by the Municipal Rating scheme) acting to offset/lower the Australian funding. This baseline assumption embodies the idea that the Australian Government wants the Norfolk Island Government to be more financially sustainable.

The continued poor budgetary position has meant necessary expenditure to replenish depreciated assets and to expand the stock of infrastructure has not taken place. Indeed, the most recent Infrastructure Strategy and Capital Management Plan has identified infrastructure/capital expenditure of \$77 million being required over a 10 year period. The inability of the Norfolk Government (and tax base) to meet this necessary expenditure is not only impacting adversely on the quality of service provision (such as electricity supply and telecommunications), but also on private sector activity and development.

A case in point is the Cascade jetty. The Australian Government has committed \$13 million to improve the ability of the jetty to take containerised freight (which would substantially lower freight costs) and to facilitate cruise passenger arrivals. On this latter point, stakeholders suggest that the improved jetty, Norfolk Island owned tender crane and 4 tenders (\$1 million for the crane and \$4 million for the tenders; a co-funding condition of the \$13 million) could raise the probability of cruise passenger disembarkation from 30 to 70 per cent. Over the course of 2014-15 to 2019-20 this could see a 133 per cent increase in the number of cruise passengers visiting Norfolk Island, equivalent to over \$0.4 million being injected into the economy. This estimate is based on the current cruise ship arrival calendar. However, with an improved prospect of disembarkation, it is believed that more cruise ships would schedule a stopover at Norfolk Island, which would further increase the tourism benefits to Norfolk.

While there is no need for the Norfolk Island Government to own and operate the 4 tenders, it is believed that this is the government's preferred position. It is not immediately clear if the government (or underlying tax base) have the ability to fund the tender purchase, especially given the other funding requirements identified in the Infrastructure Strategy and Capital Management Plan, and given the fact that the government is already running a deficit of over \$9.3 million (including depreciation) in 2012-13.

The infrastructure funding requirements of the Norfolk Island Government raises the question of whether the Australian Government will step in and meet some of the infrastructure related funding needs. Once again, this is a decision for the Australian Government of the day. However, should the Australian Government decide to meet some of Norfolk Island's infrastructure costs, the challenge of building in a remote location etc will likely mean infrastructure improvements such as the Cascade jetty upgrade will not be operational for several years at best.

Infrastructure upgrades are therefore excluded from the baseline on the basis of:

- a question around the capacity of Norfolk Island to fund the upgrades itself
- if the Australian Government increased funding for Norfolk Island, it would likely be several years before expenditure took place and the improved infrastructure were operational.

The unfunded depreciation and non-funding of required infrastructure upgrades means there is a growing prospect of infrastructure failure and service collapse going forward (but any such events are excluded from the baseline).

Business confidence

The issue of whether or not to extend mainland taxation, welfare and microeconomic reforms to Norfolk Island has been under consideration for almost a decade. Faced with such uncertainty, private sector stakeholders have suggested that businesses are reluctant to make investments, and that the lack of certainty is contributing to the economic decline reported in chapter 1.

It could therefore be expected that whatever decision is made, this will provide businesses with sufficient certainty on the taxation regime that will apply for them to pursue investment opportunities should the business case exist. The important aspect here is that a final decision is made as soon as possible.

For the baseline, it is assumed that a final decision **not** to extend mainland taxation, welfare and other economic reforms to Norfolk Island is made in 2014-15. Furthermore, it is also assumed that the announced decision provides sufficient confidence to businesses to allow them to move on, which acts to arrest the recent decline in economic activity (note that the baseline increase in tourist numbers will also help to arrest the observed decline in economic activity).

3 *The reform scenarios modelled*

Extending mainland taxation, welfare and other economic reforms to Norfolk Island could see a large number of different reforms being rolled out across Norfolk. This arises as ‘mainland taxation’, for example, comprises personal income taxation, the Medicare Levy, company taxation, a different Goods and Services Tax, differing import duties and so on. And as mainland taxes are extended, it could be expected that some (now duplicated) taxes on Norfolk Island would be removed. For example, it would stand to reason that if the Medicare Levy were extended to Norfolk Island, then Norfolk’s own Healthcare and Medivac Levy would be removed.

The multitude of possible tax, welfare, and other reforms gives rise to the potential for a large number of modelling results, which can be unwieldy. The approach taken to the modelling has been to identify a core set of reforms, and then to incrementally add to this core reform set other reforms under consideration. This ‘building block’ approach also allows the impact of individual reforms to be identified. The tax and welfare related modelling scenarios conducted are further detailed below. The other economic reforms modelled are detailed in the next chapter.

Note that some of the reforms extended to Norfolk Island will in part depend on the governance model adopted. For example, if Norfolk Island retains responsibility for healthcare and education, then removing Norfolk’s Good and Services Tax (in absence of greater Commonwealth funding) is unlikely to be an option as Norfolk would need the revenue from its GST to fund its health and education services. In practice, the tax, welfare and other reforms extended to Norfolk will need to be determined in conjunction with the chosen governance model. This report does not investigate the appropriate governance model for Norfolk Island; instead, it reports only the economic impact of extending various mainland reforms to Norfolk Island. The reforms modelled should not be used to infer anything about the governance model being considered by the Commonwealth.

The Core Reform set

At the core of Australia’s reforms is inclusion of Norfolk Island in the mainland’s welfare and Medicare systems. However, participation in mainland welfare and Medicare would also necessitate participation in the mainland (personal and company) income taxation system.

The Core Reform set would see personal income and company tax being levied, and raised revenue flowing to the mainland. In return, the cost of welfare payments on Norfolk Island would be met by the mainland (with mainland welfare qualifying conditions applying), with Norfolk Islanders also being able to access unemployment benefits and the Family Tax Benefit. Medicare would necessitate a higher rate of income

taxation, offset by current medical related costs experienced by Norfolk Islanders being largely transferred to the Commonwealth.

Company and personal income taxation

The current Norfolk Island Government system of taxation does not include tax on personal income, nor on company profits.

A significant element of the Commonwealth taxation system is a progressive income tax, with increasing marginal tax rates across income brackets. Company taxation is currently set at a flat 30 per cent, with recipients of distributed dividends being able to avail of franking credits (which act to avoid double taxation of distributed company earnings). The extension of the Australian Commonwealth taxation regime to Norfolk Island could be expected to see a decrease in disposable household income, and hence lower household consumption on Island.

Company taxation

When an Australian company earns a (taxable) profit, the company will pay corporate tax on the profit at the rate of 30 per cent. The company may then decide to pay the profit to its shareholders in the form of a dividend.

Australia's dividend imputation systems allows investors who receive a dividend to take a personal tax credit (franking credit), since the company has already paid tax (at the rate of 30 per cent) on the dividend.

For example, if a company made a taxable profit of \$1000, then the company would pay \$300 in company tax, and \$700 would be available to distribute to shareholders as a dividend. Shareholders receive \$1000 from the company, comprising the \$700 dividend and \$300 in franking credits (for tax already paid on the profits). The returns from the company are included in the individual's assessable income, to be taxed at the individual's marginal rate of personal taxation. In this example, a total of \$1000 will be included in the individual's assessable income. The individual's taxation will be calculated on their total assessable income (from all sources), and then reduced by the amount of franking credits, as table 3.1 below shows. The imputation system was introduced to avoid double taxation of distributed company profits.

3.1 Company profits and individual taxation

Individual's tax liability	Amount
	\$
Wage and salary income	50 000
Dividend received from share ownership	700
Franking credit received	300
Total taxable income	51 000
Tax payable	8 302
Less franking credit(s)	(300)
Net tax payable by individual	8 002

Source: CIE.

With nearly all businesses on Norfolk Island owned by island residents, and assuming full distribution of (any) profits, then given the presence of franking credits under Australia's taxation system, for all intents and purposes the taxation of company profits can be rolled into the treatment of personal taxation (see below).

Personal income taxation

Australia's progressive personal income taxation system sees those on higher incomes paying more tax in absolute terms and as a share of their income. Table 3.2 shows Australian personal income tax brackets and rates for the year 2014-15.

3.2 Australian individual income tax rates 2014-15

Annual taxable income	Tax paid
Dollars	Dollars
0-18 200	Nil
18 201-37 000	19c for each \$1 over 18 200
37 001-80 000	3 752 plus 32.5c for each \$1 over 37 000
80 001-180 000	17 457 plus 37c for each \$1 over 80 000
180 001 and over	54 547 plus 45c for each \$1 over 180 000

Source: Australian Taxation Office.

The reported individual income tax rates exclude the Medicare Levy, which is 2 per cent of taxable income. Additionally, the tax rates reported in table 3.2 exclude the Temporary Budget Repair Levy, which is a 2 per cent levy applied to individuals with income over \$180 000. The Temporary Budget Repair Levy is scheduled to run until 2016-17 (inclusive).

To quantify the effect of the move to personal income taxation, we have sought to calculate the average amount of tax that would be paid per (working) Norfolk Islander. This is based on data on the distribution of incomes in Norfolk Island (obtained from the 2014 Household Income and Expenditure Survey) and the marginal tax rates that would apply to different people.

Data from the Norfolk Island 2014 Household Income and Expenditure Survey (HIES) indicates the distribution of income among the population.⁴ The HIES separately indicates the distribution of the following types of income:

- wage and salary income
- business and farm income
- workers compensation income

⁴ An alternative source of data is the Norfolk Island 2011 Census. We have not used the Census data because it is several years older than the HIES, and also because the census unit record was not available for analysis. Without the unit record it is not possible to determine the distribution of income accurately, in particularly relating to the coincidence of difference types of income. That is, do people with high wage and salary income generally have higher or lower business and other income?

- other income (including interest, dividends, rent, royalties, profit from sale, pension, endowments, superannuation, gratuities, gifts, etc.)

We have treated total personal taxable income as being the sum of all of these sources of income.

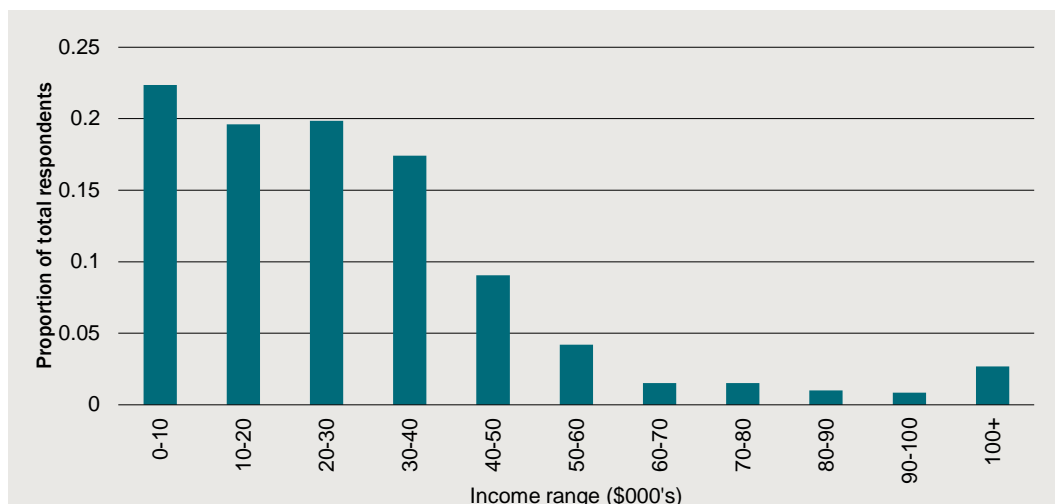
The HIES indicates the distribution of different types of income among the population. Income is reported in the survey in two forms:

- weekly income
- annual income.

We have sought to include respondents who indicated income in either form. Gross weekly income has been converted into an annual salary by assuming 48 working weeks per year.

The income distribution is presented in chart 3.3. This distribution is much more concentrated in the low-income range than the distribution of mainland incomes. The median individual has an annual income in the range of \$20 000–\$30 000. The average annual income is \$29 068.

3.3 Distribution of total personal income on Norfolk Island



Source: Norfolk Island 2014 HIES and CIE analysis.

The distribution of income among Norfolk Island residents has a substantially lower average than the distribution of mainland incomes. This has implications for taxation, because it means the rate of taxation faced by the median Norfolk Islander will be much lower than for the median mainland person. A significant proportion of Norfolk Islanders will have income below the tax-free threshold of \$18 200, and in general, most will face a lower average tax rate than mainland Australians because of lower incomes.

Having established the distribution of income on Norfolk Island, it is possible to identify the personal income tax that would be received from income-earners based on the tax rates applied under the Commonwealth income tax system.

We have calculated the anticipated tax receipts of every respondent to the Household Income and Expenditure survey. This includes the following taxes:

- personal income tax
- budget repair levy

Estimating anticipated tax receipts allows us to determine the average rate of taxation under the Commonwealth personal income tax system. This average rate can be determined in two ways, each of which has particular advantages.

Average tax rate calculation method 1

Firstly, we can take the simple average of tax rates each individual faces. That is, we determine the rate of taxation for each individual, which is:

$$\text{Individual tax rate} = \frac{\text{Tax paid}}{\text{Personal income}}$$

Then the average tax rate across all individuals is given as follows:

$$\text{Average tax rate} = \frac{\sum \text{Individual tax rates}}{\text{Number of taxpayers}}$$

This (simple) average tax rate, if applied to all taxpayers, would raise a lower level of taxation than the actual tax raised using the marginal tax rate system.

To illustrate this, consider two individuals, one with an income of \$10 000, and the other with \$100 000 in income. A marginal tax rate regime might charge the low income individual a tax rate of 0 per cent, yet charge the high income individual 20 per cent. This would collect \$20 000 in taxation. However, taking the average individual tax rate of 10 per cent (a simple average of the 0 per cent and 20 per cent rates), and applying it to each individuals' income would lead to only \$11 000 in tax receipts.

This scenario illustrates that using this method leads to an underestimation in the total amount of tax collected by a progressive taxation regime.

This calculation method estimates an average tax rate of 7.12 per cent. We do not believe this rate of taxation is suitable for use in the economic modelling because it underestimates total tax receipts and therefore leads to an overestimation of disposable income given particular wages.

Average tax rate calculation method 2

Alternatively, what is effectively a weighted average tax rate across all individuals could be calculated and used. This is determined by the following equation:

$$\text{Average tax rate} = \frac{\text{Total tax receipts}}{\text{Total income}}$$

This rate effectively weights the tax rates faced by individuals with more income more highly. This method identifies a rate of taxation that, if imposed to all individuals in the Norfolk Island economy, would lead to the correct total tax receipts. However, it overstates the rate of taxation paid by an individual with average or median income, given that higher weighting has been applied to the tax rates of high income individuals.

This method of calculation is deemed to be more appropriate as an input into the CGE model used for our analysis. It will accurately estimate the leakage from the local economy as a result of personal income tax, and lead to the correct amount of total disposable income among all households.

This calculation method produces an average tax rate of 13.55 per cent, which we deem to be a more accurate measure than that generated by method 1.

Welfare

The Commonwealth pension system is anticipated to provide payments to a larger base of Norfolk Islanders, with certain payments (such as Newstart) having no local equivalent or being rarely paid.

Table 3.4 summarises additional household income due to the transition to the Commonwealth welfare system. Note that these payments are in addition to welfare payments already received by Norfolk Islanders (and which would be taken over/funded by the Commonwealth).

The main data sources used to estimate these impacts are the Household Income and Expenditure Survey 2014, the Norfolk Island Census 2011 and estimates of the number of payment recipients supplied by the Department of Social Services.

3.4 Additional payments under Commonwealth welfare system

Payment	Eligible recipients of Commonwealth payment (before income testing)	Net income increase
	No.	\$000
Age Pension	326	883
Family Tax Benefit A	244	1 716
Family Tax Benefit B	99	329
Disability Support Pension	75	979
Newstart allowance	55	520
Other payments	88	457
Total		4 883

Note: Some individuals may receive multiple payments, however here each payment is allocated to one individual.

Source: Household Income and Expenditure Survey 2014, Norfolk Island Census 2011, Department of Social Services customer estimates and CIE analysis.

Below we have discussed the method used to estimate these net effects on income for major payment categories.

Age Pension

The Commonwealth and Norfolk Island pension have different eligibility rules and payment rates.

Some residents of Norfolk Island may already receive the Australian age pension for any of the following reasons:

- they are residing on the mainland of Australia for a part of the year
- they are eligible for Veteran's benefits
- they were a resident of mainland Australia and qualified for the pension when they applied for it, yet have since moved to Norfolk Island permanently.

These circumstances may create a situation where an individual is eligible for both the Commonwealth and the Norfolk Island pension. The Norfolk Island Administration does not allow people to receive both pensions, however recipients are not formally audited, with enforcement of the requirement being done by an honour-based system of self-reporting.

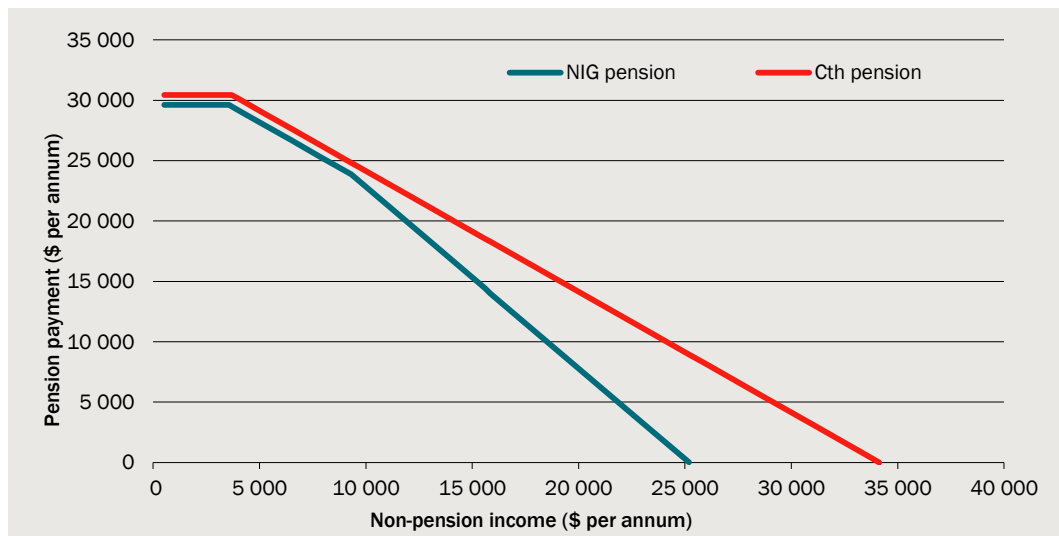
The effect on households of replacing the Norfolk Island age pension with the Commonwealth age pension is ambiguous, given that there are two counter-acting effects.

- Fewer people are eligible to receive the Commonwealth pension because the age requirement is 65, rather than 65 for men and 60 for women under the Norfolk Island pension.
- The amount of the aged pension payment is higher under the Commonwealth welfare system.

Therefore, the net effect of the change to the Commonwealth system on total household income will depend on firstly, the number of women in the 60–65 age range, and, secondly, the amount of people overall who receive the pension.

Chart 3.8 shows the difference between payment amounts under the Norfolk Island and Commonwealth pensions. It illustrates that the Commonwealth pension amount is higher, both in the sense that the average payment is higher and that a recipient may have a higher annual income (slightly more than \$34 000) before they no longer receive a pension payment due to the income test.

3.5 Comparison of payments under Commonwealth and Norfolk Island pensions



Source: Norfolk Island, Department of Social Services and CIE analysis.

Payments made under the Commonwealth's Age Pension are subject to an asset test, with payment received being reduced if the recipients assets exceed a certain threshold. We have not been able to estimate the effect of asset testing on pension payments, as the bulk of the data used for analysis of welfare and taxation has been from the 2014 Household Income and Expenditure Survey, which does not collect data on assets.

The net effect of shifting from the Norfolk Island Age Pension to the Commonwealth Age Pension is an increase in household income of \$883 488. This increase is accounted for by the following:

- the maximum rate of payment of the Commonwealth Age Pension is higher and for a given level of income, a recipient receives a greater amount of the pension after the income test is applied
- the number of recipients has increased to 237.

Our assumptions about the number of recipients of the Commonwealth and Norfolk Island pensions are shown in table 3.6. Below this is an explanation of why the number of age pension/benefit recipients has increased.

3.6 Number of pension recipients

Type of pension	With or without reforms?	Number of recipients
Commonwealth Age pension	Without	<20
Norfolk Island Age Benefit	Without	116
Commonwealth Age pension	With	237

Source: DSS customer numbers and estimates of customer numbers with reforms, Norfolk Island Administration and CIE analysis.

There are 382 people in the HIES dataset who meet the age requirements for the Norfolk Island Age Benefit. According to the same dataset 326 of these people are eligible for the Commonwealth Age Pension. However, only 116 people on Norfolk Island receive the Norfolk pension. If the Commonwealth pension system replaces the Age Benefit system on Norfolk Island then there are three possible outcomes:

- 1 roughly the same number of people receiving the Norfolk Island Age Benefit start receiving the Commonwealth Age pension
- 2 all people eligible for the Commonwealth Age Pension receive it
- 3 some proportion of people who are not currently receiving the Norfolk Island Age benefit start receiving the Commonwealth Age Pension and all those people currently receiving the benefit receive the Commonwealth pension.

The eventual outcome in terms of the number of Commonwealth pension recipients on Norfolk Island will depend on the reason why only 116 people receive the Norfolk Island Age Benefit despite there being 382 people eligible for it (in terms of the age requirement). The number of recipients is lower than 382 for the following potential reasons:

- the income test means that the individual receives no benefit
- the individual is working and thus does not feel the need to seek the age benefit (despite not earning enough to result in the income test reducing their payment amount to \$0)

- the individual is opposed to receiving welfare from the government
- some individuals already receive the Commonwealth pension.

It is unclear whether these reasons will persist for the Commonwealth Age Pension, and not just the Norfolk Island Age Pension. It is likely that individuals will have less opposition to receiving welfare from the Commonwealth Government than from the Norfolk Island Government.

Additionally, the number of people who currently receive the Commonwealth pension (less than 20 according to Department of Social Services data shown in table 3.6), is small. These people are, for our purposes, unaffected by the pension reforms because they are already eligible for the Commonwealth pension.

In the absence of a reliable explanation for the low take-up rate of the Norfolk Island Age Pension (considering the number of people eligible), we have conservatively assumed that the amount of recipients is somewhere between 116 and the total amount eligible (326). The most useful estimate of the actual amount is the estimate from the Department of Social Services of 237 recipients. Therefore, we assume that there will be 237 recipients of the Commonwealth Age pension on Norfolk Island.

The increase in total pension/age benefit payments of \$883 488 is mainly due to the increase in recipients to 237.

Family Tax Benefits

Family Tax Benefit payments are provided to help with the cost of raising children, and require that a family have a dependent child (or children) who is cared for at least 35 per cent of the time. Children applicable under this payment must be under 20 and if over 15 be undertaking secondary education.

There are two categories of family tax benefit payments:

- Family Tax Benefit A (FTB A) — applies to eligible families with children
- Family Tax Benefit B (FTB B) — applies to single parents (or families with one main income)

Eligibility for Family Tax Benefit A also includes an Energy Supplement. Both payments have an additional annual supplement payable upon lodgement of a tax return.

The Household Income and Expenditure Survey 2014 includes children 15 years old and over in the sample. This makes it unsuitable to determine a total Family Tax Benefit payment amount, as children younger than 15 are missed. Therefore, we have only used the HIES data to estimate the rate of payment after income testing and based on household composition (since the rate of payment of FTB A and B is dependent on these factors), and then extrapolated these results to include children aged 0–14.

We have estimated the number of children aged 0–14 using data from the Norfolk Island Census 2011. This data is used only as an estimate because it is several years out of date.

HIES includes 50 children aged 15 and over in the sample. We calculate the total amount of Family Tax Benefit A owing to the families of these children, which is equal to

\$278 750 per annum. This amount takes into account income testing and other modifiers to the payment amount of the Family Tax Benefit A. This amount, therefore, corresponds to a payment per child of \$5575.

The 2011 Census indicates that the Norfolk Island population includes 354 children aged 0–14. The payment per child for the families with these children is expected to be lower than the \$5575 amount estimated for children older than 15 in the HIES. We have estimate a payment rate of \$4059 per child for the 354 additional children based on the following factors:

- children aged 0–12 correspond to a lower payment rate per fortnight of \$176.82 (compared to \$230.02 for children aged 13-19 who are eligible)
- additional children beyond the first 50 (covered by the HIES) will be more likely to have reduced payments because of the effects of income testing. Income testing can include a decrease in payments associated with having additional children beyond the first.

It is straightforward to determine the effects of the first factor. The lower payment rate for younger children (77 per cent of the maximum rate for older children) implies that the payment per child will be 77 per cent of the maximum payment rate for older children. This amount is \$5411 per annum.

However, the second effect, that of income testing, is harder to estimate. We can firstly establish that the families of 50 per cent of the children included in the HIES had family income below to \$51 051 threshold, below which payments are not subject to income testing. Therefore the families of 50 per cent of the 354 children aged between 0–14 are assumed to be unaffected by income testing (and therefore receive \$5411 per child per annum).

However, we have assumed that the families of the other 50 per cent of children, which have family incomes above \$51 051, will receive on average half the amount they would receive if their income was below the income testing threshold. This amount is \$2706 per child.

Therefore the total amount of FTB A paid is the sum of the following components:

- \$328 648 paid to families of children 15 years old and over
- \$957 867 paid to families of children 14 years old and younger with family income less than \$51 051
- \$478 934 paid to families of children 14 years old and younger with family income greater than \$51 051

This yields a total payment amount of \$1 715 551 for Family Tax Benefit A.

Estimating the total payment of Family Tax Benefit B is simpler. We use the DSS estimate of 99 recipients of the payment together with an estimate of the average payment amount (given the size of the family, age of the youngest child etc.) to determine a total payment of \$328 648. There are two payment rates for Family Tax Benefit B:

- \$150.36 per week — where the youngest child is below 5 years of age

- \$105 per week — where the youngest child is between 5 and 18 years of age.

We have taken the simple average of these payment rates to determine the average rate of payment under Family Tax Benefit B.

Disability Support Pension

The most appropriate estimate of the number of recipients of the Disability Support Pension (DSP) is sourced from the Department of Social Services (DSS). An alternative data source is the Census, however, the number of people who report a disability in the census does not necessarily correspond to the number of people who are assessed to meet the eligibility requirements for the DSP.

Therefore, the estimate from DSS of 75 recipients is used. The fortnightly payment rates for the DSP are \$766 for single people and \$577.40 per person for couples. However, the disability support pension is income tested. If payments were unaffected by the income test, then Norfolk Islanders would be collectively eligible for \$1 305 205 in DSP payments. But this full amount would only be paid out if all recipients had incomes sufficiently low such as to be unaffected by the income test.

We necessarily assume a certain downscaling factor to be applied to the total amount of collective eligibility to determine the actual amount paid. In general, the downscaling factor would be as follows:

$$\text{Downscaling factor} = \frac{\text{Total amount actually paid after income testing}}{\text{Total amount population is eligible for}}$$

The total amount the population is eligible for is simply:

$$\begin{aligned} \text{Total amount population is eligible for} \\ = \text{Number of recipients} \times \text{Maximum payment rate} \end{aligned}$$

This downscaling factor is equal to 74 per cent under the current Norfolk Island welfare system.⁵

Use of downscaling factor is necessary because there is no data available that indicates the distribution of income among people who are eligible for these payments. That is, we do not know what the incomes are of each person who is eligible for the DSP. If we knew this, we could calculate the payment rate for each person based on their income, and then the total amount paid would be the sum of each person income level.

We have estimated this factor to equal to 75 per cent for the Disability Support Pension. A higher amount would be justified if fewer people would have their payments reduced

⁵ To illustrate, the amount of total eligibility for the age benefit is determined by taking the total number of recipients of various payments (for example, 116 people receive the Age Pension), multiplying that by the maximum payment rate (\$682.40 for singles and \$569.40 per person for couples). Then the downscaling factor is found by dividing the actual amount paid (known to be \$1.6 million across all payments for Norfolk Island) by the amount they are eligible for (estimated to be \$2.2 million across all payments). This yields a factor of 74 per cent.

because of their income level, whereas a lower level would be justified if more people would have their payments reduced because of their income level.

Newstart Allowance

Norfolk Island does not currently have/provide unemployment benefits, with unemployed persons often needing to leave the Island in search of work elsewhere. Hence there is little data available that could indicate the magnitude of impact to household income as a result of introducing an unemployment benefit.

We know that the Workers' Compensation Levy raised \$390 313 in revenue in 2013-14, at \$0.30 per hour. Hence in 2013-14 some 1 301 042 hours must have been worked, equivalent to around 713 full time equivalent years of employment. With a potential workforce of around 1300 people, the maximum number of unemployed persons would have been in the vicinity of 587 people, if all work was shared amongst the same 713 people. Alternatively, if work was shared equally across the entire workforce, then each person would have had paid employment for 55 per cent of the week, which would exclude the person from the Newstart Allowance (as they are employed). Hence the only available data suggests the number of unemployed would range somewhere between zero and nearly 600 people.

Based on mainland unemployment rates, it is estimated that 55 people on Norfolk Island would receive the Newstart Allowance.

The fortnightly payment rates for the Newstart Allowance are \$510.50 for single people and \$460.90 per person for couples. Given the total amount of recipients is 55 and the payments are given, we estimate that Norfolk Islanders are collectively eligible for \$693 662 in Newstart payments per annum.

However, given income testing and the potential that individuals do not quickly respond to unemployment and claim payments they are eligible for, we assume a downscaling factor of 75 per cent. That is, only 75 of the total amount for which Norfolk Islanders are eligible for is paid out.

Therefore, we estimate that the Newstart Allowance increases the income of the Norfolk Island population by \$520 246 per annum.

Other payments

We apply particular downscaling factors to different payments based on certain beliefs about the characteristics of recipients of those payments. In the absence of particular beliefs about recipients of the payment, we have used 75 per cent, which is approximately equal to the downscaling factor implied by the Norfolk Island social benefit system. The downscaling factors we use are:

- Youth Allowance — 25 per cent
 - This is a low factor due to the assumption that it is common for young people on Norfolk Island to be earning an income that would lead to them having their Youth Allowance being income tested
- Mobility Allowance — 100 per cent

- There is no income test to receive the mobility allowance
- Carer allowance — 75 per cent
- Carer payment — 75 per cent.

These payments are estimated to be less significant in magnitude than the other payments discussed above. Table 3.7 summarises our estimates of the total amount paid for each.

3.7 Summary of other welfare payments

Payment	Number eligible	Downscaling factor	Total amount paid
		Per cent	
Youth allowance	14	25	21
Mobility allowance	4	100	9
Carer allowance	49	75	113
Carer payment	21	75	314

Note: All estimates of the number of eligible recipients are sourced from DSS.

Source: Department of Social Services customer estimates for Norfolk Island and CIE analysis.

Medicare

The Australian Medicare Levy is set at 2 per cent of an individual's taxable income. Participating in Medicare would see the Norfolk Island Healthcare Levy (\$880 per person 18 years and older) and Medivac Levy (\$320 per person 18 years and older) being made redundant.⁶ It is also assumed that the Australian Government meets the costs of the Norfolk Island Hospital and, potentially through a funding arrangement with an external provider, meets the expense of Medivac services (costing \$543 498 in 2013-14).

The Norfolk Island Government incurred wage costs of just over \$46 000 in 2013-14 in administering its Healthcare Levy. With the Healthcare Levy being made redundant under Medicare, it is assumed that the Commonwealth picks up this wage cost, with that person now undertaking Medicare related tasks (of equal wage cost).

Commonwealth responsibilities

If Norfolk Island does enter into the Commonwealth tax and welfare system, it stands to reason that the Commonwealth will also assume responsibility for the Commonwealth level responsibilities of immigration and quarantine. In 2013-14 the Norfolk Island Government spent nearly \$214 000 on wages in carrying out its immigration and quarantine responsibilities.⁷

⁶ Note that there are income tests associated with the Australian Medicare Levy. For example, if a person's annual taxable income is less than \$20 542, then that person is exempt from paying the Medicare Levy. When the income tests and income of Norfolk Islanders are taken into account, the average Medicare Levy that would be paid is estimated to be 1.69 per cent. It is this average Medicare Levy that is used in the modelling simulation.

⁷ The full cost of carrying out Norfolk Island's immigration and quarantine responsibilities will likely have been higher once other operating costs (accommodation, capital upkeep,

While, strictly speaking, not a tax or welfare related reform, it is assumed that the Commonwealth takes over (pays for) Norfolk Island's immigration and quarantine responsibilities as part of Norfolk's participation in the Commonwealth taxation and welfare system.

Other tax related reforms

The following tax related reforms have also been considered:

- imposition of, or replacing Norfolk Island taxes/levies with, mainland taxes
 - Superannuation Guarantee
 - Goods and Services Tax
 - import duties
 - Fuel excise
- removing Norfolk Island taxes
 - GST, import duties and fuel excise removed and not replaced with mainland taxes.

Details of the scenario simulated under each of these other tax related reforms is provided below.

Superannuation

Under this reform the Australian superannuation system is extended to Norfolk Island. But unlike the core reforms which, due to the interrelationships of the systems, need to be introduced in an 'all or nothing' approach, superannuation is phased in on Norfolk, starting at 3 per cent in 2016-17 before reaching 9.5 per cent of wages in 2020-21.

The compulsory superannuation contribution rate is assumed to increase gradually under a phased introduction of the scheme, as shown in table 3.8.

3.8 Introduction of superannuation on Norfolk Island

	2016-17	2017-18	2018-19	2019-20	2020-21
	Per cent	Per cent	Per cent	Per cent	Per cent
Superannuation guarantee	3.0	5.0	7.0	9.0	9.5

Source: CIE.

Note that some (government and related) sectors on Norfolk Island already implement a superannuation type scheme, hence the imposition of the Australian superannuation system on Norfolk will not necessarily equate to an equivalent increase in net labour costs for all sectors. For example, it is estimated that the Norfolk Island Government and GBEs already make superannuation contributions equivalent to around 5.5 per cent of wages. The move to 9.5 per cent superannuation will have less of an impact on the total wage bill for these sectors than say the private sector, which currently does not pay superannuation.

depreciation etc) are taken into account. However, these later costs were not known. The cost of immigration and quarantine responsibilities met by the Commonwealth is therefore limited to the associated wage bill.

The impact on sectors' wage bill, is not, however, straightforward. There are two extreme outcomes, namely:

- the total wage bill rises by (up to) 9.5 per cent — superannuation payments are made with no change in wages paid to employees
- there is no change in the total wage bill — superannuation payments are made but wages paid to employees are lowered so that there is no net financial impost on the employer.

Which of the above prevails depends in part on the magnitude of the superannuation impost, the approach taken to wage negotiations, the competition for labour, and sector of the economy (private versus public).

It is hard to perceive of a situation where a sector could accommodate an (up to) 9.5 per cent increase in wage bill, even the more so when the state of the Norfolk Island economy is taken into account. The question then turns to what bargaining power employees have to avoid losing (up to) 9.5 per cent of their income in forced savings. The introduction of the Newstart Allowance strengthens labour's negotiating position, as employees have a fall back position if they are not willing to accept a superannuation induced reduction in their income.

However, 'getting by' on Newstart is not considered to overly strengthen the negotiating position of labour, and it is therefore likely that employers on Norfolk Island have superior bargaining power. The negotiating position of employers is strengthened by the fact that there are few employers on Norfolk Island, and thus workers do not have many alternative options to their current employer. Furthermore, the latest business survey suggests that some firms are already struggling to make a profit, and therefore may not be able to bear the costs of superannuation without decreasing the size of their workforce.

The assumption is made that half of the superannuation impost will be reflected in a higher wage bill (and hence born by employers), and half in lower wages (hence born by employees). Table 3.9 reports the change in wage bill and income received used in simulating the extension of the Australian superannuation system to Norfolk Island.

3.9 Impact of superannuation on wage bill and wages received

Sector	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Private						
Wage bill	0.00	1.50	2.50	3.50	4.50	4.75
Wages received	0.00	-1.50	-2.50	-3.50	-4.50	-4.75
Total wage impact	0.00	3.00	5.00	7.00	9.00	9.50
Public						
Wage bill	0.00	0.00	0.075	0.775	1.68	1.92
Wages received	0.00	0.00	-0.075	-0.775	-1.68	-1.92
Total wage impact	0.00	0.00	0.15	1.55	3.36	3.83

Sector	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Education						
Wage bill	0.00	0.00	0.00	0.00	0.325	0.56
Wages received	0.00	0.00	0.00	0.00	-0.325	-0.56
Total wage impact	0.00	0.00	0.00	0.00	0.65	1.11
Health						
Wage bill	0.00	0.855	1.84	2.83	3.815	4.06
Wages received	0.00	-0.855	-1.84	-2.83	-3.815	-4.06
Total wage impact	0.00	1.71	3.68	5.66	7.63	8.12

Note: Numbers may not add due to rounding.

Source: CIE analysis.

Goods and Services Tax

Norfolk Island's Goods and Services Tax is set at the rate of 12 per cent, and is levied on all goods and services with the major exceptions of electricity, financial and insurance services, healthcare, education, real property and goods directly imported by households. The simulation sees the Norfolk Island GST being replaced with the Australian GST. This sees Norfolk Island foregoing its GST revenue, valued at nearly \$7 million in 2013-14. The Commonwealth is assumed to meet any budgetary shortfalls. It is also assumed that the wage costs (\$74 275) met by the Norfolk Island Government in administering its own GST system is met by the Commonwealth, with that person undertaking Australian GST related activities (of equal wage cost).

Import duties

Under this reform scenario Norfolk Island's (average 33 per cent) tariff on goods imported by households is replaced by the Australian tariff (averaging 2 per cent) on all imports (that is, those goods imported by both businesses and households). This reform would see the Norfolk Island Government foregoing its import duty revenue, valued at just over \$1.1 million in 2013-14. Offsetting some of the revenue loss would be the fact that Customs related costs would now be met by the Commonwealth. During 2013-14 the Norfolk Island Government incurred wage costs of nearly \$351 000 in running its own Customs system.

3.10 Norfolk Island versus Australian tariffs^a

Product category	Norfolk Island tariff post 2013-14	Australian tariff
	Per cent	Per cent
Building materials and supplies	18.0	2.6
Household appliances and furnishings	18.0	2.6
Consumer durables	18.0	2.7
Food and household supplies	15.4	0.9
Tobacco and alcoholic beverages ^a	62.3	44.3
Clothing and footwear	18.0	4.0

Product category	Norfolk Island tariff post 2013-14	Australian tariff
	Per cent	Per cent
Motor vehicles	16.6	2.9
Rural and farming	18.0	0.6
Fuel	6.0	0.1
Miscellaneous	18.0	2.2

^a Australia has trade agreements with most of its major trading partners, which would see tariffs of zero (or very close to zero) being levied on imports from ASEAN members, Chile, Japan, New Zealand, South Korea and the United States. However, it is conservatively assumed that all imports are sourced from a country that Australia does not currently have a trade agreement with (say China). ^b The Norfolk Island import duty on tobacco ranges between 60–1000 per cent and between 20–30 per cent on alcohol; and averages 62.3 per cent on tobacco and alcoholic beverages. In comparison, the average Australian import tariff on tobacco and alcohol is 2.1 per cent. However, the Australia tariff excludes excises (as by definition, excises are not tariffs/import duties), and hence may understate the ‘tax’ levied on tobacco and alcohol products. To enable (as best as possible) a like-for-like comparison, the applicable Australian import tariff has been increased to include tobacco and alcohol excises.

Note: Australia uses the international Harmonised System to categorise/identify imports and the applicable tariff. Norfolk Island uses its own system of import categorisation, which seems to focus more on end use of the product than its type/nature. Hence there is not always a direct concordance between the Norfolk Island tariff, and that which would apply if the Australian tariff schedule were followed. The tariffs levied on the various product categories reported in table 3.10 are further aggregated to the merchandise sector level used in the economic model.

Source: Norfolk Island Customs, Australian Department of Foreign Affairs and Trade and CIE analysis.

Fuel excise

Under this scenario the Norfolk Island fuel excise of \$0.20 per litre of fuel (used by road vehicles) is replaced by the Australian fuel excise of \$0.38 per litre, with raised revenue flowing to Australia.

The higher fuel excise will see the pump price of unleaded and diesel on Norfolk Island rising by some 6.9 per cent, to just under \$2.80 a litre (all other things the same). With the fuel excise revenue flowing back to the Commonwealth, the Norfolk Island Government stands to lose its fuel excise revenue of just under \$294 000 in 2013-14.

Removing various Norfolk Island taxes

This scenario sees Norfolk Island’s GST, import duties and Fuel Excise being removed, with the Commonwealth meeting budgetary shortfalls (the Norfolk Island Government collected nearly \$8.4 million in revenue from these taxes in 2013-14).

4 *Other reforms*

Other reforms that could potentially be considered include extending the Australian minimum wage to Norfolk Island; and various microeconomic reforms that have been implemented across the rest of Australia over the past 20 years.

Minimum wage

The minimum wage on Norfolk Island is currently \$10.70 per hour. This is significantly lower than the minimum wage that applies in Australia of \$16.87 per hour. Consequently, extending the Australian minimum wage to Norfolk Island would involve a 55 per cent increase to the Norfolk Island minimum wage.

How will an increase in the minimum wage affect wages?

Estimating the impact of changes to the minimum wage on wages more generally is not straightforward. Extending the Australian minimum wage to Norfolk Island would directly increase the wage rate of those earning less than that level. It may also affect the wages of those further up the wage distribution. This could occur for a number of reasons, the most plausible of which is to preserve wage differentials in Norfolk Island that are potentially important for worker motivation and productivity. An increase in the minimum wage may also affect perceptions of fairness and increase the reservation wage (the lowest wage rate at which workers are willing to accept a particular type of job) and therefore raise the wages that employers must pay in those sectors.⁸

The impact of extending the Australian Minimum Wage to Norfolk Island on Norfolk Island wages therefore depends on a range of factors, including:

- the number of people earning less than the Australian minimum wage
- whether the increase in the minimum wage affects only those earning less than the Australian minimum wage, or also affects those further up the wage distribution — the so called ‘ripple effect’.

During consultations, most stakeholders suggested that very few people are paid the Norfolk Island minimum wage. There are, however, likely to be a significant number paid less than the Australian minimum wage.

In constructing the model of the Norfolk Island economy, we estimated average wages by industry using data from the 2014 Household Income and Expenditure survey and other sources (see table 4.1). Based on these estimates there are six private sector

⁸ Phelan, B. J. 2013, *Labour Supply Substitution and the Ripple Effect of Minimum Wages*, p. 3.

industries where average wages are currently below the Australian minimum wage (Agriculture, Forestry & Fishing, Food stuff, Trade, Accommodation, Cafes and Restaurants and Recreation services). This suggests that the wages of a significant share of private sector workers on Norfolk Island are likely to be below the Australian minimum wage.

As will be seen from chapter 5, the modelling results from the Core Reform simulation suggest that extending the mainland's income tax and welfare system will result in a significant increase in wages on Norfolk Island. Nominal wages are estimated to rise for two reasons, namely:

- the Core Reform set sees an increase in economic activity of around 6 per cent, which drives up the demand for labour, and hence wages
- the additional household wealth and expenditure sees inflationary pressure and price rises of around 4 per cent, which flows through to further increase (nominal) wages.

The Core Reform set is estimated to see an economy wide increase in nominal wages of 17 per cent. And as can be seen from table 4.1, the increase in nominal wages acts to push wages in many sectors, at the time of reform implementation in 2016-17, above the mainland minimum wage (assuming the mainland minimum wage remains constant at \$16.87 per hour). Hence if the minimum wage reform was introduced in isolation, then wage increases of up to 24 per cent could be expected in some sectors and a likely decline in economic activity anticipated. But if the minimum wage reform accompanies the Core Reform set, then the minimum wage reform is expected to only impact on wages in the Agriculture, Forestry & Fishing sector, pushing those wages up by 2.6 per cent.

These estimates could potentially understate the impact on wages for several reasons, including:

- workers earning below average wages in 'low paying industries' would require even larger pay increases to comply with the mainland minimum wage
- the wage rate of some workers in 'high paying industries'⁹ may be below the minimum wage, meaning there may be some impact on wages in those industries.

On the other hand, employees already earning above the mainland minimum wage would require a smaller wage increase (or no wage increase at all), although they may receive some wage increase due to the 'ripple effect' described above. Studies often show that minimum wage increases have a minimal impact on overall wages, although minimum wage increases are generally more modest than we have estimated above. For example, a recent review of the UK minimum wage suggested that the impact of the National Minimum Wage reaches only the 6th percentile.¹⁰

Nevertheless, we consider the direct wage increases outlined in table 4.1 are plausible in the Norfolk Island context. Unlike larger economies where there is significant variation in wages within industries (for example, the CEO of major retailers such as David Jones

⁹ Here we use the term 'high paying industries' to mean those industries where the average wage is above the Australian minimum wage.

¹⁰ Resolution Foundation, *More than a Minimum: The Resolution Foundation Review of the Future of the National Minimum Wage — The Final Report*, 12 March 2014, p. 18.

and a retail assistant on the minimum wage are both recorded as working in the ‘retail trade’ industry), there is likely to be much less wage variation within an industry in a small economy like Norfolk Island. While there may be some variation in incomes within industries, higher incomes are likely to be earned business owners, rather than wage earners. Incomes for business owners were reported separately in the survey and are therefore not included in the wage estimates above.

4.1 Private sector wages by industry

Sector	Estimated wage in 2016-17	Minimum wage reform in isolation		Minimum wage reform accompanied by Core Reform	
		Minimum wage	Required wage change	Estimated wage after Core Reform	Required wage change
	\$ per hour	\$ per hour	Per cent	\$ per hour	Per cent
Agriculture, Forestry & Fishing	13.62	16.87	23.9	16.43	2.6
Food stuffs	15.43	16.87	9.3	18.62	Na
Manufacturing	21.45	16.87	Na	25.88	Na
Fuel	21.68	16.87	Na	26.16	Na
Construction	23.74	16.87	Na	28.64	Na
Trade	16.71	16.87	1.0	20.16	Na
Accommodation	15.60	16.87	8.2	18.82	Na
Cafes & Restaurants	15.60	16.87	8.2	18.82	Na
Transport	21.57	16.87	Na	26.02	Na
Finance & Insurance	20.46	16.87	Na	24.68	Na
Professional, Technical and Support Services	24.70	16.87	Na	29.81	Na
Recreation services	20.57	16.87	Na	24.82	Na
Other private sector	17.71	16.87	Na	21.37	Na

Source: CIE analysis.

Microeconomic reforms

The microeconomic reform agenda developed as part of the Norfolk Island Economic Development Report was broadly based on the National Competition Policy (NCP) template, including the following key elements:

- implementation of the *Competition Principles Agreement 1995* agenda
- introduction of an economic regulator
- legislative reform
- tax reform

- public sector reform.¹¹

The specific actions around each of these themes are summarised in table 4.2.

4.2 Microeconomic reforms

	Specific reforms – Phase One	Specific Actions – Phase Two
Implementation of the Competition Principles Agreement 1995 agenda	<ul style="list-style-type: none"> ▪ Privatisation of the liquor bond ▪ Remove accommodation bed licence restriction on development ▪ Norfolk Island Government to cease operating in areas of direct competition with the private sector. ▪ Reform of the Telecommunications Act. ▪ Removal of any remaining restrictions on Australian residents with demonstrated financial capacity moving to Norfolk Island. ▪ Removal of any remaining restrictions on Australian residents establishing a business on Norfolk Island. ▪ Extension of all mainland consumer protection legislation to Norfolk Island. 	<ul style="list-style-type: none"> ▪ Privatisation of most remaining GBEs; the corporatisation of any remaining GBEs, such as the airport; and external price oversight and regulation of utilities. <p>Complete asset revaluation exercise of Norfolk Island Government assets to ensure appropriate provisioning to undertake capital works.</p>
Introduction of an economic regulator		
Legislative reform	<ul style="list-style-type: none"> ▪ Revision and updating of Norfolk Island legislation to improve consistency with mainland regulation. ▪ Introduction of strata title legislation to Norfolk Island is a priority action. 	
Tax reform	<ul style="list-style-type: none"> ▪ Introduction of a land tax. ▪ Reform of the alcohol taxation system to a volumetric basis, rather than a value basis. 	
Public sector reform	<ul style="list-style-type: none"> ▪ Introduction of an efficiency dividend policy for all major Norfolk Island government departments of at least 1 per cent per year in real terms. ▪ Implementation of the recommendations of the public service review. 	

Source: ACIL Tasman, *Norfolk Island Economic Development Report: Reform of the Norfolk Island Economy*, Final Report, Prepared for the Department of Regional Australia, Regional Development and Local Government, March 2012, pp. 99-103.

¹¹ ACIL Tasman, *Norfolk Island Economic Development Report: Reform of the Norfolk Island Economy*, Final Report, Prepared for the Department of Regional Australia, Regional Development and Local Government, March 2012, p. 99.

A number of these key reforms have either already been implemented or will be implemented in the near future. These reforms include:

- removal of restrictions on Australian residents with demonstrated financial capacity moving to Norfolk Island
- removal of restrictions on Australian residents establishing a business on Norfolk Island
- introduction of land tax (due to be implemented in 2014-15).

These reforms are therefore implicitly included in the baseline. Furthermore, major tax reforms (such as imposing key elements of the mainland tax system on Norfolk Island) have already been considered in previous chapters.

The remaining microeconomic reforms include:

- reforms to GBEs — while the scope to privatise GBEs is likely to be limited, there are nevertheless several reforms that could deliver significant benefits, including:
 - establishing governance arrangements that replicate private sector arrangements, such as establishing independent Boards with a clear commercial focus
 - establishing an economic regulator
- review of legislation that restricts competition.

What are the expected benefits from GBE reforms?

The ultimate aim of microeconomic reforms (including GBE reforms) is to improve economic efficiency. Currently, there is very little accountability for Norfolk Island's GBEs. While referred to as GBEs, they mostly do not operate as separate businesses and effectively amount to government service provision.

Improving the governance arrangements for GBEs is an essential to improve their accountability of GBEs to the Norfolk Island community. Improved accountability and a clear commercial focus is an essential step towards improving GBE performance.

Another key element of GBE reform would also involve establishing an independent pricing regulator. The role of a regulator is to set prices for essential services provided by a public (or private) monopoly provider. This is likely to be particularly important for services where there is no real prospect of competition in the Norfolk Island context.

Regulators generally try to set prices that reflect the 'efficient cost' of providing the service.¹²

- In the absence of price regulation, the monopoly service provider has the power to set prices above the efficient cost of providing the service. This results in unnecessarily high prices for consumers, as well as above-normal profits for the owner (often the government); inefficiencies in supply because there is no market discipline on the service provider to minimise costs and/or provide a high quality service; or a combination of the above.

¹² Efficient costs are generally defined as the cost of providing the service as efficiently as possible, including a fair rate of return on capital.

- Alternatively, where prices of essential services are a politically sensitive issue, government may set the price below the efficient cost of providing the service. This would result in over-consumption of the service, which is subsidised by taxpayers.

In Norfolk Island, some GBEs have tended to be used as a source of revenue for the government, resulting in price increases when additional revenue has been required. This has contributed to unnecessarily high prices for some essential services on Norfolk Island (this operates in the same way as a tax on those services).

Price regulation can also be used as a signal to the service provider to improve its efficiency. Regulators can set a price that require service providers to make efficiency gains in order to achieve a fair rate of return on their assets. This replicates the discipline provided by the market in competitive markets.

Price regulation must also be accompanied by reforms to the governance arrangements of GBEs to increase accountability. Following the NCP reforms, many GBEs are run by Boards (similar to private companies) that are accountable to the people through a relevant Minister.

A Productivity Commission Inquiry into National Competition Policy reforms found that:

- NCP and related reforms were a significant (and sometimes major) contributors to significant reductions in the prices of several key economic infrastructure services falling in real terms between the early 1990s and the mid 2000s
- in general, the price reductions did not appear to have come at the cost of reduced service quality. Indeed, the Productivity Commission noted that service quality has improved in some areas
- there was a pronounced improvement in the financial performance of GBEs between the early 1980s and the mid 2000s and this was attributable to NCP and related governance reforms.¹³

It is important to note that it would be necessary to both improve governance arrangements for GBEs and establish an independent price regulator to achieve the benefits of reform.

- Improved accountability with no price regulation would allow GBEs to improve their financial performance by raising prices, rather than improving productivity. Price regulation is essential to replicate the discipline provided by the market for monopoly service providers.
- Similarly, price regulation without improved accountability is likely to result in GBEs continually making losses, which must ultimately be covered from other sources of government revenue. This is effectively a government subsidy.

¹³ Productivity Commission, *Review of National Competition Policy Reforms*, Productivity Commission Inquiry Report No. 33, 28 February 2005, p. 53.

What productivity gains can be expected from GBE reform?

Productivity gains in relevant sectors were key drivers of the improved outcomes identified above, including lower prices. In sectors relevant to the Norfolk Island context, the Productivity Commission noted the following:

- in electricity generation, labour productivity more than doubled on average across Australia between 1993 and 2002 and more than trebled between 1991 and 1999 in Victoria (where reforms were introduced earliest)
- in telecommunications — where entry restrictions have been removed and an industry specific access regime and anti-competitive conduct code introduced — multi-factor productivity (MFP) increased by around 7 per cent per year between 1996/97 and 1999/2000
- in postal services — where contestability has been introduced to non-standard letter delivery — MFP increased by an average of 3.5 per cent a year between 1992 and 2002.¹⁴

While the Commission noted that it is difficult to disentangle the impacts of NCP reforms from other factors, several participants to the inquiry argued that a sizeable part of these productivity gains and ensuing broader economic benefits can be directly attributed to NCP reforms.

Moreover, the Commission noted that productivity improvements as a result of NCP reforms may be even higher than had been observed to that point because:

- the lags between reform implementation and observed improvements in productivity can be quite long
- the dynamic benefits arising from competition, particularly in terms of greater process and product innovation, are longer term benefits and may not be readily observed.¹⁵

In practice, the Norfolk Island market is likely to be too small to have any real prospect of competition, implying that Norfolk Island may not be able to capture all of the benefits that were attributable to NCP. Nevertheless, significant productivity gains may be possible with improved pricing and governance arrangements for key GBEs.

As an indicator of the possible benefits from reform, we consider it plausible that all GBEs could achieve labour and capital productivity gains of around 1 per cent per year over a five year period (starting 2016-17).

Reduced 'taxes' on essential services

As discussed above, where the price of essential services is set at a level above the cost of providing services (including a fair rate of return on assets) in order to raise government revenue, this is effectively a tax on the service. GBE reforms (including the introduction

¹⁴ Productivity Commission, *Review of National Competition Policy Reforms*, Productivity Commission Inquiry Report No. 33, 28 February 2005, pp. 45-47.

¹⁵ Productivity Commission, *Review of National Competition Policy Reforms*, Productivity Commission Inquiry Report No. 33, 28 February 2005, pp. 45-47.

of a price regulator) could be expected to reduce prices to a level that reflects the cost of providing the service.

In practice, the only GBEs that appear to be making an excessive return on assets are:

- Telecommunications — based on data provided by the Norfolk Island Administration, the telecommunications GBE appears to make a 31 per cent return on its asset base
- Liquor Bond — the liquor bond appears to make a 271 per cent return on its asset base. The liquor bond is able to achieve this excessively high rate of return as it is not subjected competition from the private sector.

In previous years, the electricity GBE has also made a significant profit that was returned to the Norfolk Island Government. However, its performance has deteriorated significantly over recent years, due partly to the increased use of solar power on Norfolk Island. Consequently, there appears to be little scope to immediately reduce electricity prices.

An independent price regulator is likely to recommend significant price reductions for those GBEs earning excessive returns on their assets. As an indicator of the potential impact, we assume that prices would fall to a level that reduced the return on assets of these GBEs to around 15 per cent, plus a 5 per cent allowance for depreciation.

We estimate this would result in:

- a 17 per cent decrease in the price of communications
- A 69 per cent decrease in the wholesale/retail margin on liquor (see table 4.3).

4.3 Impact of price regulation

	Communications	Liquor Bond
	\$'000	\$'000
Current production costs		
Value adding – capital	1 367	888
Other production costs	2 369	310
Total value of supply	3 736	1 198
Efficient production costs		
Value adding – capital	751 ^a	64 ^b
Other production costs	2 369	310
Total value of supply	3 120	375
Estimated impact of price regulation		
Change in price required to achieve efficient costs (per cent)	-16.5	-68.7

^a Based on a 15 per cent return on capital and a 5 per cent allowance for depreciation on an estimated capital stock of \$3.75 million.

^b Based on a 15 per cent return on capital and a 5 per cent allowance for depreciation on an estimated capital stock of \$322 000.

Note: There is likely to be some demand response to a decrease in prices; however, this has been overlooked for simplicity.

Source: Norfolk Island Government and CIE analysis.

We use the model to simulate the impact of these price decreases on the Norfolk Island economy more generally.

What are the costs of reform?

As well as delivering benefits, reforms can also impose costs. For example, establishing the 'efficient costs' associated with providing services can require significant resources, which would need to be funded by the Norfolk Island Government. The form of regulation used has a large impact on the cost of such an exercise. Given the size of the Norfolk Island economy a simple form of regulation, with minimal costs would be appropriate.

We also note that the mainland's legislation review program under the NCP took around ten years to complete and involved significant government resources. The benefits to the Norfolk Island economy of such reforms are likely to be modest and there is a legitimate question as to whether the benefits to Norfolk Island would outweigh the bureaucratic cost. We have not therefore estimated the (net) benefits of legislative reform for Norfolk Island.

5 *Tax and welfare reforms*

The developed model of the Norfolk Island economy has been used to simulate the modelling scenarios identified in the previous chapter. The economic impact of the core reform set and other tax related reforms is reported below. The economic impact of the various microeconomic reforms considered is reported in the next chapter.

It is assumed that reforms are announced in 2014-15, and implemented (or commenced) in year 2016-17. This would give Norfolk Island (up to) two years to prepare for the impending changes.

Economic impact of the Core Reform set

Extending mainland income taxation, welfare and Medicare to Norfolk Island represents a substantial change. On average, Norfolk households will lose 15.3 per cent of their income to taxation, but will gain some \$4.9 million in additional welfare type payments and avoid healthcare related costs of some \$5 million. The Norfolk Island Government will no longer have to fund social service type payments of over \$1.6 million, which means greater resources being available to fund unmet expenses such as depreciation and/or reducing the reliance on Australian budgetary support.

The economic impact of the core set of reforms on a number of macroeconomic type indicators over the period until 2023-24 is reported in table 5.1. While the income taxation, welfare and Medicare reforms will occur together, their impacts have been separately identified to aid analysis.

As would be expected, lowering disposable income by 13.6 per cent has a detrimental impact on the Norfolk Island economy. The taxation impacts in two ways. Firstly, it decreases disposable household income, which leads to a contraction in household consumption (around 12 per cent lower). Secondly, income taxation lowers the return to labour, and for the same post tax wage, employees need a higher wage rate. Nominal wages are estimated to be around 9 per cent higher; and as wages increase and household consumption contracts, employment falls (by around an estimated 6 per cent). With higher wages prices are expected to be 2 per cent higher.

The lower household consumption and higher wages combine to see GTP being some 6 per cent lower. The decline in GTP is not larger due to tourists, which account for around 37 per cent of the economy, not being directly impacted by the extension of mainland income tax.

Extension of the mainland welfare system to Norfolk Island is estimated to see the Commonwealth making welfare payments to Norfolk Island of around \$6.5 million per annum. This represents a net \$4.9 million increase, as residents on Norfolk already

receive welfare payments of \$1.6 million from the Norfolk Island Government. With the Commonwealth taking over welfare payments, the ‘welfare payment’ burden on the Norfolk Island Government would \$1.6 million lower.

The additional welfare transfers see a substantial (15 per cent or so) increase in household disposable income. The now wealthier Norfolk Island households can be expected to consume more, and household consumption is estimated to be some 29 per cent higher. The higher household consumption drives an 11 per cent increases in economic activity (GTP). The increased economic activity and local production sees increased demand for labour, with both employment and nominal wages estimated to rise by around 8 per cent. The increased employment and wages provides another source of gain to household income, which acts to provide a second round consumption increase. The increase in demand and nominal wages sees prices rising by around 1–2 per cent.

The increase in wages (both nominal and real) in both the Welfare payment simulation reflects a unique feature of the Norfolk Island labour market — it is isolated. This means as wages increase labour cannot (easily) enter the labour market, increase labour supply, and mitigate the wage rises. In the absence of a larger labour supply, wage rates substantially increase, which in turn brings about price rises (inflation).

Extending Medicare to Norfolk Island sees households losing another 1.69 per cent of income to the Medicare Levy, but avoiding healthcare costs of around \$3.5 million and the Norfolk Island Healthcare Levy and Medivac Levy of \$1.5 million. The Norfolk Island Government also no longer needs to subsidise the local hospital, saving expenditure of around \$2 million (in 2013-14). Having such costs met by the mainland allows Norfolk Islanders to devote spending elsewhere, which sees an increase in economic activity of 8–9 per cent.

5.1 Economic impact of the Core Reform set

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Income taxation									
GTP	0.0	-6.2	-6.1	-6.0	-6.0	-6.0	-6.0	-6.0	-6.0
Consumption	0.0	-12.6	-12.5	-12.4	-12.3	-12.3	-12.3	-12.3	-12.3
Nominal wages	0.0	9.0	9.2	9.2	9.3	9.3	9.3	9.3	9.3
Employment	0.0	-6.2	-6.1	-6.1	-6.0	-6.0	-6.0	-6.0	-6.0
Prices	0.0	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
Welfare payments									
GTP	0.0	12.0	12.0	11.7	11.5	11.5	11.5	11.5	11.5
Consumption	0.0	29.9	30.0	29.6	29.2	29.2	29.2	29.2	29.2
Nominal wages	0.0	8.7	8.7	8.5	8.3	8.3	8.3	8.3	8.3
Employment	0.0	8.0	8.0	7.9	7.7	7.7	7.7	7.7	7.7
Prices	0.0	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Medicare									
GTP	0.0	8.9	8.9	8.7	8.4	8.4	8.4	8.4	8.4
Consumption	0.0	21.5	21.5	21.1	20.7	20.7	20.7	20.7	20.7
Nominal wages	0.0	3.1	3.1	3.0	2.9	2.9	2.9	2.9	2.9
Employment	0.0	6.5	6.4	6.3	6.2	6.2	6.2	6.2	6.2
Prices	0.0	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Income taxation, welfare and Medicare									
GTP	0.0	14.7	14.8	14.4	14.1	14.1	14.1	14.1	14.1
Consumption	0.0	38.8	39.0	38.5	37.9	37.9	37.9	37.9	37.9
Nominal wages	0.0	20.8	21.0	20.8	20.6	20.6	20.6	20.6	20.6
Employment	0.0	8.2	8.3	8.1	7.9	7.9	7.9	7.9	7.9
Prices	0.0	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2

Source: Norfolk Island economic model.

Combined, the income taxation, welfare and Medicare reforms are estimated to see an around 14 per cent increase in economic activity, but a substantially larger increase in household consumption of around 38 per cent (the preferred welfare measure).

Economic impact of other tax related reforms

The Core Reform set has been simulated in conjunction with each of the other tax related reforms (comprising the mainland Superannuation Guarantee, Goods and Services Tax, import duties Fuel Excise; and removal of Norfolk Island's own GST, import duties and Fuel Excise).

For brevity, only results for the impact on economic activity (GTP) are reported (full modelling results can however be found in appendix A). The modelling results, which are presented in table 5.2, are all premised on the Core Reform set having been implemented as well. The modelling results are broadly additive. Hence the economic impact on GTP of the Core Reform set plus, for example, Superannuation in year 2023-24 would be 10.5 per cent, given by the Core Reform result of 14.1 per cent plus the Superannuation result of -3.6 per cent.

In summary, the GTP impacts of the other tax related reforms are as follows:

- Superannuation — employers experience higher wage rates, which acts to see a contraction in employment and a decline in economic activity of around 3–4 per cent (note that households would, presumably, have higher disposable income in retirement and hence lead to higher future consumption)
- Australian GST — compared to the Norfolk Island GST, the Australian GST is set at a lower rate (10 versus 12 per cent) and is approximately half the rate on the key household and tourist consumption item of food. The lower rate of taxation sees a fall in prices, leading to an increase in household purchasing power, which increases

consumption (and tourism exports), with there being an around 8–9 per cent increase in economic activity

- Australian import duty and Fuel Excise — the impacts of these reforms are quite minor (the GTP impacts are observable at the first decimal point), as the taxes are either minor (Fuel Excise) or see broadly similar revenue collected (import duties)
- No Norfolk Island taxes — removing Norfolk’s GST, import duties and Fuel excise sees prices falling by around 10 per cent on Norfolk, which acts to increase the purchasing power of households and subsequently increases consumption (and tourism exports), with economic activity being some 9–10 per cent higher.

5.2 Impact on GTP of other tax related reforms

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Core Reform	0.0	14.7	14.8	14.4	14.1	14.1	14.1	14.1	14.1
Super.	0.0	-1.6	-2.1	-2.5	-3.4	-3.6	-3.6	-3.6	-3.6
Aus GST	0.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
Aus tariffs	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Aus Fuel Excise	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
No NI taxes	0.0	9.6	9.5	9.3	9.2	9.2	9.2	9.2	9.2

Source: Norfolk Island economic model.

Required financial support from the Commonwealth

The tax and welfare reforms are typically associated with the shifting of taxation revenue and/or expenditure from Norfolk Island to the Commonwealth. For example, the imposition of Australian import duty would see Norfolk Island losing its tariff revenue, which amounted to just over \$1.1 million in 2013-14. Unless expenses are similarly reduced, then the Norfolk Island will clearly face a larger budget deficit, and hence need increased financial support from the Commonwealth. Assuming responsibility for welfare payments, healthcare etc will also impose an additional financial impost on the Commonwealth.

The need for Commonwealth financial support is also impacted by what the various reforms do to the size of the underlying Norfolk Island economy, and hence tax base. As an example, consider the extension of income taxation to Norfolk Island. With wages of around \$30 million (in 2013-14), levying a personal income tax (at an average rate of 13.6 per cent) could be expected to see a net inflow of taxation revenue to the Commonwealth of \$4 million or so. However, the modelling results suggest that income taxation will see the Commonwealth collect nearly \$2 million in taxation revenue; well below the expected \$4 million. The reason for the lower than expected revenue collection concerns what extension of income taxation does to the underlying economy (and tax base). From table 5.1 it was seen that income taxation is expected to see a contraction in GTP of 6 per cent, and a contraction in household consumption of 12 per cent. Lower household spending, and a smaller economy generally, means taxes such as Norfolk Island’s GST

raise less revenue. And if levels of Norfolk Island Government service provision are not to deteriorate in line with falling revenue, then greater budgetary assistance will be required from the Commonwealth. Hence in this example, the Commonwealth needs to send an additional \$2 million to Norfolk Island to make up for lost taxation revenue brought about by the smaller economy.

Table 5.3 provides an estimate of the net (nominal) financial impost on the Commonwealth of extending the various taxation and welfare reforms to Norfolk Island. Note that the estimated financial impost is in addition to what the Commonwealth would already be providing under the baseline. (Any capital expenditure or infrastructure provision undertaken by the Commonwealth would be in addition to these costs.)

5.3 Net financial impost of reforms on the Commonwealth

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	\$ million	\$ million	\$ million	\$ million	\$ million	\$ million	\$ million	\$ million	\$ million
Core Reform	0.0	3.8	3.7	3.7	3.7	3.7	3.7	3.7	3.7
Super.	0.0	-0.2	0.1	0.4	0.9	1.1	1.1	1.1	1.1
Aus GST	0.0	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2
Aus tariffs	0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Aus Fuel Excise	0.0	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
No NI taxes	0.0	4.1	4.2	4.3	4.3	4.3	4.3	4.3	4.3

Note: A positive number indicates an increase in Commonwealth financial support of Norfolk Island, while a negative number indicates a decrease in financial support.

Source: Norfolk Island economic model.

The net financial impacts can reflect a combination of factors, namely:

- change in the size of GTP and underlying tax base
- the taxation revenue raised from Norfolk Island is not sufficient to cover the inflow of welfare payments or meet healthcare costs (Core Reform)
- the mainland GST is set at a lower rate than that on Norfolk Island, and even though the taxation revenue lost by the Norfolk Island Government is greater than that returned to the Commonwealth, the GTP expansion effect of the lower GST sees a larger tax base and hence lower required Commonwealth funding (Australian GST)
- removing Norfolk's GST, import duties and Fuel Excise sees the Norfolk Island Government losing a large amount of revenue, and, despite an expansion of GTP, there is a sizable budget deficit that the Commonwealth meets (No Norfolk Island taxes).

It should also be appreciated that the net financial impost figures reported in table 5.3 are in nominal terms. From table 5.1 and tables A.1 to A.5 in appendix A, it can be seen that some of the reforms lead to price changes on Norfolk Island. The price changes will act to change the size of the nominal budget deficit even if there are no real changes. In the case of rising prices, as government expenses go up in line with price increases, taxation revenues do not rise enough to offset the increase in expenditure. The required Commonwealth financial support therefore increases. Allowing financial support to increase in line with inflationary pressure also embodies a Commonwealth decision that

current levels of service provision will not be allowed to diminish, and if the cost of providing that level of service increases, then so too does Commonwealth support.

6 *Economic impact of other potential reforms*

In addition to the core reforms simulated in the previous chapter, we also use the model of the Norfolk Island economy to simulate other reform scenarios identified in chapter 4. These reforms include extending the Australian minimum wage to Norfolk Island and GBE reforms.

As was the case with the Core Reforms and other tax related reforms, it is assumed that reforms implemented (or commenced) in year 2016–17.

Economic impact of minimum wage reforms

The Core Reforms are estimated to see substantial increases in nominal wages, which typically acts to raise wages on Norfolk Island above the Commonwealth’s minimum wage. It is only wages in the Agriculture, Forestry and Fishery sector that are expected to be impacted by implementing the Commonwealth minimum wage. With only one sector being affected, and only a small increase in wage rates (2.6 per cent), the economic impacts of this reform are relatively minor. As can be seen from table 6.1, the minimum wage reform is estimated to see a small contraction in economic activity and household consumption.

Nominal wages and employment are also estimated to be slightly lower. The minimum wage sees nominal wages in the Agriculture, Forestry and Fishery increasing, and the now more expensive labour results in a slight contraction in employment in that sector. In an attempt to find employment elsewhere, the now surplus labour moves to other sectors, with the increase in labour seeing a slight contraction in nominal wages elsewhere.

6.1 Economic impact of extending the Australian minimum wage to Norfolk Island

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
GTP	0.0	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Consumption	0.0	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Wages	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Employment	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Prices	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Norfolk Island economic model.

Economic impact of GBE reform

As discussed in chapter 4, we expect GBE reform would result in two separate impacts:

- a 1 per cent annual labour and capital productivity improvement (assumed to last for 5 years)
- a one-off reduction in prices for those GBEs earning an excessive return on their assets.

Table 6.2 reports the estimated economic impacts of the two streams of GBE reform.

GBEs providing services on a commercial basis make up a significant proportion of the Norfolk Island economy, and having each of these entities achieve labour and capital productivity gains of 1 per cent (per year for 5 years) could be expected to benefit economic activity. However, productivity gains mean fewer inputs are required, including labour and capital. And if there is not an alternative use for that now surplus labour and capital, then employment will decline (marginally) as will returns to capital. This will see a contraction in household consumption and GTP. Hence even though prices are lower due to the GBE productivity gains, the lack of use for those now surplus factors of production means households are not better off.

Having Norfolk Telecom and the Liquor Bond earn more commercially realistic rates of return sees an increase in both GTP and household consumption. Households, and other sectors of the economy using those services, are better off as the services provided by these GBEs are now cheaper. This leads to a 0.4 per cent expansion in economic activity, and a slight increase in employment.

6.2 Economic impact of GBE reforms

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Impact of productivity gains									
GTP	0.0	-0.1	-0.2	-0.3	-0.4	-0.6	-0.6	-0.6	-0.6
Consumption	0.0	-0.3	-0.7	-1.0	-1.4	-1.7	-1.7	-1.7	-1.7
Wages	0.0	-0.2	-0.6	-0.9	-1.2	-1.5	-1.5	-1.5	-1.5
Employment	0.0	-0.1	-0.3	-0.5	-0.6	-0.8	-0.8	-0.8	-0.8
Prices	0.0	-0.1	-0.3	-0.4	-0.5	-0.7	-0.7	-0.7	-0.7
Impact of price reductions									
GTP	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Consumption	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Wages	0.0	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4	-2.4
Employment	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Prices	0.0	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6

Source: Norfolk Island economic model.

7 Options for extending mainland taxation, welfare and microeconomic reforms to Norfolk

From chapters 5 and 6 it can be seen that the proposed tax, welfare and various other reforms are estimated to have large impacts on the Norfolk Island economy. The reforms being considered are not trivial and will profoundly affect the operation of the economy. An issue therefore confronting the Commonwealth is the speed with which (any) reforms are implemented, and the ordering of those reforms. During the consultation phase stakeholders also raised several concerns that they had with what implementation of (some of) the reforms could mean for business costs, employees' disposable income and pension payments in practice. These issues are discussed below.

Speed of reform implementation

From chapters 5 and 6 it was seen that some of the reforms have the potential to have negative impacts on the Norfolk Island economy. (However, it should be remembered that these impacts are relative to the baseline, and in the baseline there is no funding of the Asset Management Plan, which brings into question the ability of Norfolk Island to meet expected/required levels of service provision going forward.) It should also be appreciated that GTP is not necessarily the best indicator with which to gauge reforms, a better indicator is household consumption, which reflect how households are impacted by the various reforms. For example, while the Core Reform has GTP being 14 per cent higher than baseline, household consumption is 38 per cent above baseline. Hence households clearly benefit more under the Core Reform than would be indicated if the impact on GTP was used as the indicator.

Given the potential for some reforms to have adverse impacts, an issue confronting the Australian Government is the ordering and speed with which any reforms are introduced on Norfolk Island. Ideally, the welfare reforms would be introduced first (economic stimulus and safety net), followed by taxation related, and then the microeconomic type reforms.

However, it is understood that legislative arrangements mean that the core taxation and welfare reforms need to be introduced simultaneously. And if Norfolk Island is within the Commonwealth's taxation and welfare system, then defined tax rates and welfare payments need to be adhered to. It would likely be costly and administratively difficult to accommodate tax rates and welfare payments that vary by postcode. However, it may be possible to phase in some areas of reform, most notably the superannuation guarantee and minimum wage, over longer time periods so as to minimise any adverse economic impacts.

As was seen from chapter 5, the introduction of the superannuation guarantee is associated with a decline in economic activity (-3.6 per cent), an increase in unemployment (3.5 per cent), and a contraction in household consumption income (-7.6 per cent) in the medium term. (However, over the longer term it could be expected that households will have greater wealth to support higher living standards in retirement, which is clearly of benefit. Hence superannuation, a form of 'forced saving', sees the shifting of consumption from today to the future.)

One option would be to extend the period over which the superannuation guarantee is introduced (and in line with the adjustments to superannuation done in Australia). For example, if the superannuation guarantee was introduced at the rate of 0.5 per cent per year, then it would take 19 years before the (to be required) mainland rate of 9.5 per cent were achieved. However, businesses are much more likely to be able to accommodate annual wage bill increases of 0.5 per cent within normal productivity gains, and in so doing impose no (or small) financial impost on the business and whilst maintaining current employee wages. Of course, the trade-off for employees is that their savings may not be as high on retirement.

The move to the mainland minimum wage could see wages on Norfolk Island increasing in the Agriculture, Forestry and Fishery sector. It was estimated that the minimum wage reform would see GTP and employment being marginally lower if the mainland minimum wage were introduced in 'one hit' in 2016-17. One option to lessen the negative impacts would be to move to the mainland minimum wage more gradually, say over a 10 year time period (with 10 per cent of the difference between Norfolk Island and mainland minimum wage being removed each year). The minimum wage impacts would be more pronounced if the mainland minimum wage grew between 2013-14 and 2016-17.

Finally, compared to the tax and welfare arrangements currently in place on Norfolk Island, the mainland taxation and welfare system is notably different and more complex. It is hard to see businesses, employees and the wider community seamlessly moving to the mainland systems in the absence of extensive and sustained capacity building and familiarisation programs. To this end, it is recommended that, at least with respect to taxation reforms, Norfolk Island undertakes a 1–2 year 'tax dry run' process. This would see businesses and employees completing tax returns (and GST Business Activity Statements etc) but not paying mainland taxes.

Of further issue is whether the on-island accounting expertise exists to assist local businesses/employees with their participation in the mainland taxation system. Participation in the mainland tax and welfare systems will therefore require extensive support from the Australian Taxation Office and Australian Department of Social Services.

Ordering of reforms

Some of the reforms, especially the introduction of competition policy into the GBE sector and requiring GBEs to operate on a commercial basis, could be associated with labour shedding. If this occurs, then the process of adjustment will be greatly facilitated by already having a welfare system in place. Hence implementation of the mainland's

welfare system should be the first reform. And due to legislative linkages, implementation of the mainland's welfare system will require simultaneously implementing the mainland's company and personal taxation system. After that, there is some flexibility with respect to the ordering, however, the (net) impact on households' should be a primary consideration. If household consumption is used as a proxy for net impact, then the modelling results suggest the reforms should be ordered as follows:

- Welfare and taxation
- Other tax related reforms
 - Medicare
 - Mainland GST, Customs duties and Fuel Excise (implemented as a package)
 - Superannuation Guarantee (with implementation occurring over a sufficiently long time period)
- Microeconomic type reforms
 - Minimum wage (with implementation occurring over a sufficiently long time period)
 - GBE reform.

Tax over-collection for second jobs

An issue raised by stakeholders in the consultations was the potential for the Australian Tax Office (ATO) to withhold more tax than is needed where a worker has more than one job.

Two claims were made in the consultations:

- 1 income from a second job is withheld at the top marginal tax rate
- 2 the ATO over-collects income tax from individuals with second jobs and the delay between the time the income is earned (and taxed) and when it is returned via a tax return would cause hardship for people with more than one job.

The first of these matters appears to be based on an outdated understanding of the policies of the tax office in withholding tax on a second job. The present policy is to simply not allow an income-earner to claim the tax-free threshold for more than one job.¹⁶ This means that, say an individual has two jobs paying \$15 000 each, they cannot claim the tax free threshold of \$18 200 for both jobs and thus have no tax withheld.

The second matter is essentially true, however the extent of over collection is much smaller than the level cited in consultations. Table 7.1 illustrates where the ATO will over-collect or under-collect income tax for a second job. It shows that for low income individuals there will be a moderate over-collection, however tax is under-collected for higher income individuals.

¹⁶ The following page of the ATO website discusses the policies around withholding tax for individuals with multiple payers/jobs: <https://www.ato.gov.au/individuals/working/in-detail/tfn-declaration/when-you-have-income-from-two-payers/>

Note that these scenarios are constructed to show the upper end of the scale of over/under-collection, in that income from each job is roughly equal. The difference between tax withheld and the tax liability (total amount of tax calculated on annual income) is smaller where the second job generates substantially lower income than the primary job.

7.1 Tax over-collection scenarios

Total income	Income		Tax withheld		Tax liability	Tax return	
	Job 1	Job 2	Job 1	Job 2			Total
\$/year	\$/fortnight	\$/fortnight	\$/fortnight	\$/fortnight	\$/year	\$/year	\$/year
29 900	600	550	0	124	3 224	2 223	1 001
49 400	1 000	900	76	226	7 852	7 602	250
104 000	2 000	2 000	366	608	25 324	26 427	-1 103

Note: Job 1 (the primary job) is defined as the job with higher (or equal highest) income.

Source: ATO Fortnight tax tables and CIE calculations.

Pension age

A potential issue with the implementation of changes to the age benefit/pension is that the minimum age to meet eligibility requirements is different between the Norfolk Island and Commonwealth systems. Table 7.2 shows the minimum age requirement for each welfare payment.

7.2 Minimum age for Norfolk Island Age Benefit and Commonwealth Age Pension

Welfare System	Minimum age	
	Men	Women
Norfolk Island Age Benefit	65	60
Commonwealth Government Age Pension	65	65

Note: Over the period from 1 July 2017 to 1 July 2023 the Commonwealth age pension minimum age will increase from 65 to 67.

Source: Norfolk Island Administration and Department of Social Services.

The implication of this difference is that if the Norfolk Island Age Benefit was immediately replaced with the Commonwealth Age Pension, women aged between 60–65 on Norfolk Island would no longer be eligible for a pension.

This may be undesirable given that it is likely to be difficult for those who are already retired to re-enter the workforce at the age of 60–65, particularly given the employment climate of Norfolk Island. Additionally women may have acted in reliance on the fact they would receive the Norfolk Island age benefit and stopped working before 65.

An alternative means of implementation may to avoid this issue. Two alternative implantation regimes are:

- 1 women currently between 60–65 are covered, however excluding this group, the age requirement for the pension is still 65. This means that women currently aged 60 will

receive the pension, however women aged 59 will not receive the pension until they reach 65

- the minimum age requirement for the pension is gradually transitioned to 65 over a period greater than 5 years.

The amount of additional women covered by this scheme compared to immediately changing to the Commonwealth system is summarised in table 7.2. This assumes that the implementation of any regime occurs in 2015, and therefore those people aged 64 in the HIES sample are then aged 65 in 2015.

There is a total of 41 additional people eligible for the pension under the first regime and 105 additional people eligible under the second regime. The additional cost of the regimes are \$774 037 and \$2 136 045 beyond the default implementation strategy (immediate change to minimum age of 65). This cost may either be borne by Norfolk Island (funded by some tax instrument such as a temporary levy) or borne by the Commonwealth Government.

7.3 Additional cost of alternative implementation regimes for the Commonwealth Pension

Age	Women of specified age in HIES sample	Number of years receiving the pension before age 65		Additional pension paid compared to immediate transition to minimum age 65	
		Regime 1	Regime 2		
years	number	years	years	\$	\$
54	21	0	0	0	0
55	17	0	1	0	126 525
56	8	0	2	0	119 083
57	16	0	3	0	357 248
58	13	0	4	0	387 019
59	10	0	5	0	372 133
60	10	4	4	297 707	297 707
61	13	3	3	290 264	290 264
62	7	2	2	104 197	104 197
63	11	1	1	81 869	81 869
64	15	0	0	0	0
65	16	0	0	0	0
Total				774 037	2 136 045

Note: The additional amount of pension payments assumes a take up rate of 72.6 per cent.

Source: CIE.

Distribution markups

Stakeholders suggested that a potential consequence of a changing perception of Norfolk Island as no longer being an external territory is that prices for goods may increase. This may occur if Norfolk Island is no longer considered an export market by distributors and instead considered part of the domestic Australian distribution network.

It is not expected that the reforms this report is concerned with would involve a change of Norfolk Island from being an external self-governing territory to some other classification. There is no apparent legal change expected to occur to the status of Norfolk Island that would compel distributors to treat Norfolk Island as a part of the Australian domestic distribution network.

However, if perceptions of the status of Norfolk Island change, despite no legal change, then this may lead to Norfolk Island being arbitrarily included in the domestic distribution chain. If there is no change to the status of Norfolk Island, it is expected that there would be no change to the costs of supplying goods to the Norfolk Island. Therefore, distributors would only be able to change prices if they have market power. Given that there are limited options for the importation of goods to Norfolk Island, it is foreseeable that distributors could charge higher prices and on-island retailers would have little power to prevent this.

However, this does not mean that a price increase will necessarily occur. If it were the case that distributors can unilaterally determine prices, this price increase could occur without the taxation/welfare reforms.

Ultimately, whether the reforms will lead to price increases is unclear, however, if they do it will be because of a change in perceptions rather than a legal change.

A Modelling results for other tax related reforms

Table 5.2 reported the impact on GTP of the other tax related reforms. Tables A.1 to A.5 below report key macroeconomic results for the other tax related reforms of Medicare, Superannuation Guarantee, no Norfolk Island GST, Australian GST, Australian import duties and the Australian Fuel Excise.

A.1 Economic impact of Superannuation Guarantee

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
GTP	0.0	-1.6	-2.1	-2.5	-3.4	-3.6	-3.6	-3.6	-3.6
Consumption	0.0	-3.2	-4.3	-5.4	-7.2	-7.6	-7.6	-7.6	-7.6
Nominal wages	0.0	2.3	3.3	4.2	5.9	6.3	6.3	6.3	6.3
Employment	0.0	-1.6	-2.1	-2.5	-3.3	-3.5	-3.5	-3.5	-3.5
Prices	0.0	0.6	0.8	1.0	1.5	1.5	1.5	1.5	1.5

Source: Norfolk Island economic model.

A.2 Economic impact of the Australian GST

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
GTP	0.0	8.8	8.8	8.8	8.7	8.7	8.7	8.7	8.7
Consumption	0.0	8.7	8.7	8.6	8.4	8.4	8.4	8.4	8.4
Nominal wages	0.0	2.4	2.4	2.4	2.3	2.3	2.3	2.3	2.3
Employment	0.0	4.3	4.3	4.2	4.2	4.2	4.2	4.2	4.2
Prices	0.0	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5	-1.5

Source: Norfolk Island economic model.

A.3 Economic impact of Australian import duties

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
GTP	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Consumption	0.0	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Nominal wages	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Employment	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Prices	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Norfolk Island economic model.

A.4 Economic impact of Australian Fuel Excise

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
GTP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Consumption	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Nominal wages	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Employment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prices	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

Source: Norfolk Island economic model.

A.5 Economic impact of removing various Norfolk Island taxes

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
GTP	0.0	9.6	9.5	9.3	9.2	9.2	9.2	9.2	9.2
Consumption	0.0	12.5	12.4	12.2	12.0	12.0	12.0	12.0	12.0
Nominal wages	0.0	-3.6	-3.7	-3.8	-3.9	-3.9	-3.9	-3.9	-3.9
Employment	0.0	6.2	6.1	6.1	6.0	6.0	6.0	6.0	6.0
Prices	0.0	-9.7	-9.7	-9.8	-9.8	-9.8	-9.8	-9.8	-9.8

Source: Norfolk Island economic model.

Table A.6 reports the estimated impacts on GTP and consumption (welfare) of the following reform packages:

- Core Reform (income taxation, welfare and Medicare)
- Core Reform + other mainland taxes (latter comprising Superannuation, GST, import duty and Fuel Excise)
- Core reform + other mainland taxes + other reforms (latter comprising imposition of mainland minimum wage and Norfolk GBE reform)
- Core reform + no Norfolk Island taxes (latter comprising removal of Norfolk Island GST, import duty and Fuel Excise).

A.6 Economic impact of reform packages

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Core Reform									
GTP	0.0	14.7	14.8	14.4	14.1	14.1	14.1	14.1	14.1
Consumption	0.0	38.8	39.0	38.5	37.9	37.9	37.9	37.9	37.9
Core Reform + other mainland taxes									
GTP	0.0	21.8	21.3	20.4	19.2	19.0	19.0	19.0	19.0
Consumption	0.0	43.9	43.1	41.4	38.8	38.4	38.4	38.4	38.4

Reform	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Core Reform + other mainland taxes + other reforms									
GTP	0.0	22.4	21.8	20.8	19.4	19.1	19.1	19.1	19.1
Consumption	0.0	43.5	42.2	40.2	37.3	36.5	36.5	36.5	36.5
Core Reform + no Norfolk Island taxes									
GTP	0.0	24.4	24.3	23.7	23.2	23.2	23.2	23.2	23.2
Consumption	0.0	52.0	52.2	51.4	50.6	50.6	50.6	50.6	50.6

Source: Norfolk Island economic model.



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