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Modelling the Economic Effects of Population Ageing

by

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ABSTRACT

In March 2005, the Productivity Commission released a report on the *Economic Implications of an Ageing Australia*. The report describes projections for a number of economic variables including population, labour force participation rates, labour supply, employment and hours worked per week. The present paper describes a number of simulations with the MONASH model designed to extend the range of the Commission's earlier analysis. The first is a base case forecast for the Australian economy for the twenty-year period 2004-05 to 2024-25. As far as possible, it is specified so as to maintain consistency with the Commission's projections. The others are alternative forecasts for the same period in which various effects of population ageing have been removed. The alternative forecasts separately identify

- a *taste effect* due to the removal of age-related shifts in the commodity composition of household consumption,
- a *public effect* due to the removal of age-related shifts in public consumption,
- a *skill effect* due to the removal of age-related shifts in hours of employment distinguished by skill (with total hours of employment unchanged),
- a *scale effect* due to the removal of age-related shifts in total hours of employment (with the skill composition of employment unchanged), and
- a *total effect* due to the simultaneous removal of all the above age-related shifts.

To accommodate the simulations, the MONASH model itself is reconfigured such that labour by qualification group can be converted into labour by occupation according to Constant Elasticity Transformation (CET) functions. Labour by occupation in its turn can be converted into effective units of industry-specific labour according to Constant Elasticity Substitution (CES) functions. Labour of a particular skill is then distributed between occupations and industries according to relative wage rates. The scheme incorporates 67 qualification groups, 81 occupations (the ASCO minor groups) and 107 industries (the input-output classification).

JEL classification: C53, C68, J11

Key words: computable general equilibrium modelling, population ageing, labour market forecasting.

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MODELLING THE ECONOMIC EFFECTS OF POPULATION AGEING¹

by

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PART A: SPECIFYING THE SIMULATIONS

1. Introduction

In March 2005, the Productivity Commission released a report on the *Economic Implications of an Ageing Australia*. The report describes projections for a number of economic variables including population, labour force participation rates, labour supply, employment and hours worked per week. The present paper describes a number of simulations with the MONASH model designed to extend the range of the Commission's earlier analysis. The first (Simulation A) is a base case forecast for the Australian economy for the twenty-year period 2004-05 to 2024-25. As far as possible, it is specified so as to maintain consistency with the Commission's projections. The others (collectively referred to as Simulation B in this part of the paper) are alternative forecasts for the same period in which the effects of population ageing on labour supply, on the commodity composition of private consumption demand, and on the level and commodity composition of public consumption demand have been removed

2. The Labour Supply Simulation

Tables 1 to 9 show projections for a range of key variables and compares them with the corresponding values recorded during recent years. They indicate the range of

¹ This paper was originally prepared as a report to the Commonwealth Department of Industry, Tourism and Resources (DITR). The authors are grateful to the Department for financial support and for valuable comments during the life of the project. However, the views expressed in the paper are those of the authors and are not necessarily shared by the DITR.

variables over which the MONASH simulations can be considered to be consistent with the Commission's projections. For the first eight years of the forecasts, that is, for the period 2004-05 to 2012-13, it is possible to enhance the MONASH results with a Labour Market Extension (LME) which generates detailed labour market information. This circumstance is reflected in the construction of the tables.

In more detail, Table 1 shows the projected growth rates of the adult population and compares them with the corresponding growth rates recorded in recent years. The average growth rate is projected to be slightly lower in the medium term (1.37 per cent per annum between 2004-05 to 2012-13) than it has been recently (1.44 per cent per annum between 1994-95 to 2003-04), and somewhat lower in the long term (1.19 per cent per annum between 2004-05 to 2024-25). The reduction in population growth is concentrated in the 40-59 year age group. For persons aged 60 and over, the growth rate is projected to increase, particularly in the medium term.

The population projections underlying the growth rates of Table 1 are converted into labour force projections using the labour force participation rates shown in Table 2. The average participation rate is projected to remain relatively constant in the medium term (63.25 per cent in 2012-13 compared to 63.56 per cent in 2004-04 and 63.01 per cent in 1994-95), but to decline in the long term (60.06 per cent in 2024-25). The main reason for the latter result is the increase in the share of the population aged 65 years or over. For persons belonging to this age group, the participation rate is significantly lower than the average. Note, however, that the trend is offset to some extent by the quite rapid rise in the participation rates projected for this age group in both the medium and the long term. The average growth rate of the labour force (Table 3) is projected to decline steadily, from 1.54 per cent per annum in recent history to 1.30 per cent per annum in the medium term and 0.91 per cent per annum in the long term. In the medium term, the reductions are largest for persons aged 40-59. In the long term, persons aged 60 and over also suffer significant reductions.

The labour force projections underlying the growth rates of Table 3 are converted into employment projections using the unemployment rates shown in Table 4. Historically, unemployment rates have declined steadily with age for both males and females up to age 55. For persons aged between 55 and 64, the rate rose for males but

remained relatively constant for females. For persons aged 60 and above, the rate fell rapidly with age. These characteristics of the unemployment pool are projected to continue in both the medium and the long term. The average unemployment rate is projected to decline only slightly over time for both males and females. Hence the pattern of employment growth by age and sex shown in Table 5 follows closely the pattern of labour force growth shown in Table 3.

The employment projections underlying the growth rates of Table 5 are converted from persons to hours using the projections of average weekly hours per person shown in Table 6. The average hours for females are smaller than those for males of the same age in both the historical estimates and the projections. Similarly, the average hours decline with age for persons aged 50 or above in both cases. But, from Table 5, the projected growth rates for employment measured in persons are generally higher for the groups with the smaller average hours. Hence the average employment growth rate is somewhat lower when measured in hours (Table 7) than when it is when measured in persons (Table 5) for all three of the identified time periods.

Tables 8 and 9 show labour force growth rates and unemployment rates measured in hours. These estimates and projections are not used in the MONASH simulations and are included for reference.

The next step in the construction of the exogenous labour market projections for the simulations is to disaggregate the employment growth rates of Table 7 by qualification. Using data from the Labour Force Survey (LFS) and Survey of Education and Work (SEW), a multi-dimensional employment matrix (measured in hours) is constructed for each year from 1994-95 to 2003-04. The dimensions of the matrix are:

qualification level	(8 levels of highest educational attainment),
qualification field	(13 main fields of highest educational attainment),
occupation	(81 minor occupational groups),
sex	(males and females) and
age	(12 groups).

The qualification categories belong to the Australian Standard Classification of Education (ASCED) and the occupations belong to the Australian Standard Classification of Occupations (ASCO). Trends in the distribution of qualifications are estimated for each sex and age group (i.e., for 24 groups in total). The number of qualifications involved was 104 (i.e., 8 qualification levels cross-classified with 13 qualification fields). The qualification shares are then projected into the future on the basis of trend extrapolation. In particular, the changes in the shares are assumed to decline steadily up to 2012-13 and to remain constant thereafter. Selected values of the qualification shares are shown in Table 10 (for the qualification levels) and Table 11 (for the qualification fields). Note that the decline in the share of the qualification *Year 12 and below* between 2012-13 and 2024-25 reflects the very high share of this qualification for persons aged 15 to 24. From Table 7, employment growth for persons in the age group is projected to grow significantly more slowly than the average over the period in question.

Using the employment projections by age and sex underlying Table 7, and the qualification share projections underlying Tables 10 and 11, projections of employment growth (measured in hours) are determined for the 67 qualification groups described in Table 12. The results are shown as Simulation A. The number of qualification categories was reduced from the previous 104 to 67 by combining some categories into the single category *No post-school qualification*.

Projections of the amount of employment (measured in hours) attributable to the removal of population ageing were prepared for each of the 67 qualification groups by assuming that, while the population grows at the same rate, the distribution of persons by age and sex remains as it was in 2003-04. This information enables the projections for Simulation A to be converted into the projections for Simulation B as shown in Table 12.

The employment growth rates in Table 12 are treated as exogenous variables in the MONASH model. The standard MONASH database must also be complemented with two wage bill matrices for 2004-05: a qualification x occupation matrix of dimension (67 x 81) and an occupation x industry matrix of dimension (81 x 107).

These matrices are constructed using data from the Input-Output Tables, from the Employment Earnings and Hours survey and other sources mentioned previously.

The MONASH model itself is reconfigured such that labour by qualification group can be converted into labour by occupation according to Constant Elasticity Transformation (CET) functions. Labour by occupation in its turn can be converted into effective units of industry-specific labour according to Constant Elasticity Substitution (CES) functions. As already indicated, this scheme incorporates 67 qualification groups, 81 occupations (the ASCO minor groups) and 107 industries (the input-output classification). The MONASH model results are described in detail in Part B of this report.

3. The Household Expenditure Simulation

The 2003-04 Household Expenditure Survey (HES) contains information for households (6975 records), for persons (13726 records) and expenditure (492477 records) on 625 commodities. In principle, the direct effect of population ageing on household expenditure by commodity can be determined by

- (a) calculating the per capita expenditure on each of the 625 commodities by age and sex in 2003-04;
- (b) calculating the expenditures in the years 2004-05 to 2024-25 on the assumption that the population by age and sex grows as described in Table 1, and that per capita expenditure by age and sex remains constant;
- (c) calculating the expenditures in the years 2004-05 to 2024-25 on the assumption the total population grows as described in Table 1, and that both the distribution of the population by age and sex and per capita expenditure by age and sex remain constant; and
- (d) subtracting the expenditures calculated at step (c) from the expenditures calculated at step (b).

However, the expenditure records in the HES are household specific rather than person specific, and the age and sex of a household are not defined. To overcome this problem, the following algorithm was designed.

- (a) The HES describes how the 2003-04 population (population 1, say) by age and sex is distributed between 6957 households. In this distribution, each person has the same weight as the household weight.
- (b) A new population (population 2, say) is calculated in which the number of persons is the same as population 1 but the distribution across age and sex is the same as the population for 2004-05 in Table 1.
- (c) Population 2 is distributed between the 6957 household types by adjusting the household weights. In this distribution, each household type has the same number of persons of a particular age and sex as in population 1, and each person has the same weight as the household weight.
- (d) Steps (b) and (c) are repeated for populations 3 to 22 corresponding to the years 2005-06 to 2024-25.
- (e) The expenditures on each of the 625 HES commodities is then calculated for each of the 22 populations on the assumption that both the expenditure per household and the distribution of expenditure between persons within a household remain constant. Differences between the expenditures of the populations are due entirely to differences in the numbers of households of each of the 6957 types.
- (f) The direct effect of population ageing on expenditures between years 2004-05 and 2005-06, say, is then determined by subtracting the expenditures of population 2 from those of population 3.

The details of the algorithm are set out in Appendix F.

For purposes of the MONASH simulations, the HES classification of 625 commodities (classification CC625, say) requires some further processing. First, it must be converted to a classification consistent with the Australian National Accounts (ANA). The Australian Bureau of Statistics (ABS) does not publish an appropriate concordance and one had to be constructed. The first step was to aggregate the 625 commodities to 54 commodities (classification CC054) as described in Table 13. The CC054 classification is described in Table 14. In most cases, commodities belonging to CC625 were allocated to commodities belonging to CC054 by matching the HES descriptors to the ANA descriptors in Chapter 14 of *Australian System of National Accounts: Concepts, Sources And Methods* (ABS catalogue No. 5216.0, 2000 Edition). The nfd (not further defined) commodities were allocated pro rata to the

relevant CC625 constituent commodities before the allocations were made. The same procedure was adopted for the inseparable house and contents insurance commodity and, where possible, for the combined registration and insurance commodities. In the case of boats and aircraft, the constituent commodities were not separately identified and the combined commodity was divided equally between registration and insurance. For airfare inclusive package tours, one third of the commodity was assumed to be the airfare, and the remaining two thirds was split between accommodation and meals in the ratio four to one. The same ratio was used to split other (i.e., airfare exclusive) package tours.

The HES expenditure data does not include imputed rent on owner occupied housing. However the category is an important component of Household Final Consumption Expenditure (HFCE) in the national accounts and is required for the simulations. Hence total imputed rent in 2003-04 was allocated between the HES households in proportion to the estimated sale price of their dwellings, a category that is included in the HES data. In Tables 13 and 14, imputed rent is included as an additional item at the end of the classifications.

Conversely, several of the expenditure categories included in the HES are not included in HFCE and hence must be excluded from the data for the simulations. These categories appear as commodities 46 to 53 in CC054.

The next step was to aggregate the commodities of the CC054 classification to a 26 commodity classification CC026 using the concordance set out in Table 14. In CC026, the last commodity is the aggregate of non-HFCE commodities 46 to 53 of CC054. The remainder of the classification (CC025) is described in Table 15. When the aggregated HES data for CC025 was compared with national accounts data for 2003-04, they were found to be only loosely compatible. Hence, all the HFCE data in the HES was scaled to conform to the national accounts.

The revised data was then aggregated across households using the 22 sets of household weights derived via the algorithm described above. The changes in the resulting expenditure shares then represent the direct effect of population ageing on household consumption. Table 15 shows how the shares evolve over the forecast

period for the CC025 classification. For the MONASH simulation, the shares were converted from the CC025 classification to the 107-commodity classification employed in the Australian Input-Output Tables using a concordance provided by the ABS.

4. The Government Expenditure Simulation

In its report, the Productivity Commission discusses the projected effects of population ageing on government expenditure for several categories. Table 16 summarises its projections for three of them, namely, health, education and aged care. The table has been derived from unpublished data provided by the Commission as the report itself does not provide enough detail for current purposes.

The database for the MONASH model identifies Government Final Consumption Expenditure (as defined in the National Accounts) by input-output commodity. The commodity classification includes health and education, but they are not conceptually the same as the corresponding categories used by the Commission. The latter are much larger. Evidently, the Commission has included in its definition of government expenditure categories (such as transfer payments) which are not included in National Accounts definition. Aged care is a component of the commodity community services in the National Accounts. In this case, the commission's estimate of expenditure on aged care significantly exceeds the National Accounts estimate of expenditure on all components of community services. No attempt has been made to reconcile these differences quantitatively. Rather, it has been assumed

- (a) that the effects of population ageing on the National Accounts' versions of government expenditure on health and education are the same as the effects on the Commission's versions, and
- (b) that the effect on community services is the same as the effect on the Commission's version of aged care.

To do otherwise would be a major exercise and beyond the scope of the present study.

Table 1. Population Growth Rates, Persons, Australia, Per Cent Per Annum

Age and sex	1994-95 to 2003-04	2004-05 to 2012-13	2004-05 to 2024-05
Males			
15-19	0.83	0.46	0.20
20-24	-0.31	0.49	0.15
25-29	-0.06	1.33	0.67
30-34	0.32	0.07	0.46
35-39	0.35	0.33	0.61
40-44	1.62	0.49	0.42
45-49	1.31	0.61	0.38
50-54	3.39	1.82	1.03
55-59	4.50	1.29	1.02
60-64	2.64	3.86	2.46
65-69	0.90	4.49	3.05
70 and above	3.29	2.96	3.57
All age groups	1.42	1.38	1.19
Females			
15-19	0.87	0.37	0.16
20-24	-0.47	0.60	0.17
25-29	-0.12	1.36	0.66
30-34	0.49	-0.24	0.36
35-39	0.46	0.19	0.54
40-44	1.71	0.48	0.30
45-49	1.83	0.54	0.25
50-54	3.99	1.81	1.00
55-59	4.56	1.73	1.14
60-64	2.34	4.39	2.67
65-69	0.53	4.34	3.16
70 and above	2.40	2.14	2.93
All age groups	1.45	1.34	1.17
Persons			
15-19	0.85	0.42	0.18
20-24	-0.39	0.55	0.16
25-29	-0.09	1.35	0.67
30-34	0.40	-0.09	0.41
35-39	0.41	0.26	0.58
40-44	1.67	0.49	0.36
45-49	1.57	0.57	0.32
50-54	3.69	1.81	1.01
55-59	4.53	1.51	1.08
60-64	2.49	4.13	2.56
65-69	0.71	4.42	3.10
70 and above	2.77	2.50	3.21
All age groups	1.43	1.36	1.18

Table 2. Labour Force Participation Rates, Australia, Per Cent

Age and sex	1994-95	2004-05	2012-13	2024-25
Males				
15-19	56.98	58.99	59.97	60.42
20-24	87.33	84.85	83.63	83.97
25-29	93.00	90.60	88.14	87.98
30-34	93.17	91.91	89.58	87.87
35-39	92.86	91.24	89.24	86.02
40-44	92.56	90.09	88.39	85.18
45-49	91.02	88.88	87.64	85.21
50-54	85.81	85.46	85.39	83.88
55-59	72.99	73.60	74.38	73.81
60-64	48.33	50.44	52.17	52.76
65-69	16.17	21.10	26.27	29.64
70 and above	5.33	5.48	6.26	7.80
All age groups	73.67	71.38	68.86	64.38
Females				
15-19	57.50	61.39	63.74	64.00
20-24	77.34	77.31	78.00	78.64
25-29	69.81	74.39	77.01	78.51
30-34	64.12	68.42	71.66	73.83
35-39	68.13	69.17	71.85	74.78
40-44	73.01	74.31	75.75	78.78
45-49	70.51	77.78	80.50	82.49
50-54	60.19	70.11	77.44	79.07
55-59	38.34	52.55	62.96	66.89
60-64	15.88	27.87	36.73	42.96
65-69	5.69	8.66	12.94	17.35
70 and above	1.18	1.47	1.83	2.89
All age groups	52.69	55.86	57.53	55.85
Persons				
15-19	57.23	60.17	61.81	62.17
20-24	82.38	81.12	80.83	81.33
25-29	81.35	82.50	82.58	83.26
30-34	78.54	80.02	80.62	80.84
35-39	80.40	80.09	80.49	80.38
40-44	82.77	82.14	82.03	82.00
45-49	80.92	83.29	84.05	83.86
50-54	73.30	77.74	81.39	81.47
55-59	55.88	63.16	68.61	70.32
60-64	32.06	39.26	44.37	47.81
65-69	10.76	14.80	19.58	23.36
70 and above	2.88	3.19	3.80	5.15
All age groups	63.01	63.49	63.11	60.06

Table 3. Labour Force Growth Rates, Persons, Australia, Per Cent Per Annum

Age and sex	1994-95 to 2003-04	2004-05 to 2012-13	2004-05 to 2024-05
Males			
15-19	1.11	0.74	0.33
20-24	-0.73	0.39	0.15
25-29	-0.21	1.01	0.55
30-34	0.18	-0.40	0.21
35-39	0.35	0.16	0.32
40-44	1.34	0.15	0.11
45-49	1.15	0.62	0.21
50-54	3.56	1.74	0.95
55-59	4.49	1.54	1.10
60-64	2.96	4.55	2.78
65-69	3.38	7.20	4.85
70 and above	3.68	4.63	5.38
All age groups	1.11	0.94	0.69
Females			
15-19	1.53	0.93	0.38
20-24	-0.49	0.81	0.32
25-29	0.66	1.78	0.94
30-34	1.13	0.18	0.72
35-39	0.83	0.80	0.93
40-44	2.00	0.61	0.56
45-49	2.96	1.15	0.60
50-54	5.86	3.05	1.64
55-59	7.82	4.21	2.46
60-64	8.49	8.29	5.02
65-69	4.88	9.46	6.83
70 and above	4.39	4.94	6.43
All age groups	2.10	1.73	1.18
Persons			
15-19	1.32	0.84	0.36
20-24	-0.62	0.59	0.23
25-29	0.18	1.36	0.73
30-34	0.58	-0.14	0.44
35-39	0.56	0.45	0.60
40-44	1.64	0.36	0.32
45-49	1.96	0.87	0.40
50-54	4.53	2.35	1.28
55-59	5.71	2.70	1.70
60-64	4.57	5.97	3.68
65-69	3.80	7.90	5.51
70 and above	3.85	4.71	5.68
All age groups	1.54	1.30	0.91

Table 4. Unemployment Rates, Persons, Australia, Per Cent

Age and sex	1994-95	2004-05	2012-13	2024-25
Males				
15-19	21.57	16.24	15.58	15.47
20-24	14.45	9.34	9.30	9.24
25-29	10.66	6.25	5.80	5.73
30-34	8.27	4.23	4.07	4.00
35-39	7.47	4.00	3.42	3.36
40-44	6.65	3.66	3.12	3.06
45-49	5.95	3.64	3.31	3.26
50-54	7.03	3.37	3.33	3.28
55-59	10.32	4.14	3.65	3.54
60-64	12.62	4.05	3.96	3.84
65-69	2.01	1.41	1.53	1.56
70 and above	0.64	0.52	0.81	0.83
All age groups	9.81	5.55	5.16	4.97
Females				
15-19	21.51	15.07	14.32	14.24
20-24	12.09	8.43	7.89	7.84
25-29	8.09	5.67	5.26	5.22
30-34	7.90	5.33	5.03	5.00
35-39	7.35	5.06	4.23	4.19
40-44	6.11	4.69	3.89	3.86
45-49	5.71	3.90	3.68	3.66
50-54	5.77	3.16	2.67	2.60
55-59	5.73	3.28	2.28	2.20
60-64	1.80	1.68	1.58	1.58
65-69	1.17	0.91	1.01	1.07
70 and above	0.61	0.35	0.51	0.53
All age groups	8.91	5.83	5.07	4.83
Persons				
15-19	21.54	15.65	14.94	14.85
20-24	13.35	8.91	8.63	8.57
25-29	9.55	5.99	5.55	5.49
30-34	8.12	4.70	4.49	4.46
35-39	7.42	4.46	3.79	3.75
40-44	6.41	4.13	3.48	3.44
45-49	5.85	3.76	3.48	3.46
50-54	6.53	3.27	3.02	2.95
55-59	8.76	3.79	3.01	2.90
60-64	9.93	3.22	2.96	2.81
65-69	1.78	1.27	1.36	1.37
70 and above	0.63	0.48	0.73	0.74
All age groups	9.43	5.68	5.12	4.90

Table 5. Employment Growth Rates, Persons, Australia, Per Cent Per Annum

Age and sex	1994-95 to 2003-04	2004-05 to 2012-13	2004-05 to 2024-05
Males			
15-19	1.75	0.84	0.38
20-24	-0.16	0.40	0.16
25-29	0.29	1.07	0.57
30-34	0.61	-0.38	0.23
35-39	0.73	0.24	0.36
40-44	1.63	0.22	0.14
45-49	1.37	0.66	0.23
50-54	3.97	1.74	0.96
55-59	5.23	1.61	1.13
60-64	4.04	4.56	2.80
65-69	3.48	7.18	4.84
70 and above	3.66	4.59	5.37
All age groups	1.58	0.99	0.72
Females			
15-19	2.41	1.04	0.43
20-24	-0.06	0.89	0.35
25-29	0.89	1.84	0.96
30-34	1.41	0.22	0.73
35-39	1.08	0.91	0.98
40-44	2.13	0.72	0.60
45-49	3.17	1.18	0.61
50-54	6.16	3.11	1.67
55-59	8.11	4.35	2.52
60-64	8.50	8.30	5.02
65-69	4.88	9.45	6.82
70 and above	4.43	4.92	6.42
All age groups	2.45	1.83	1.23
Persons			
15-19	2.08	0.94	0.40
20-24	-0.12	0.63	0.25
25-29	0.56	1.42	0.75
30-34	0.95	-0.12	0.45
35-39	0.88	0.53	0.64
40-44	1.86	0.45	0.35
45-49	2.18	0.91	0.42
50-54	4.90	2.38	1.29
55-59	6.31	2.81	1.75
60-64	5.40	6.01	3.70
65-69	3.88	7.89	5.51
70 and above	3.85	4.68	5.66
All age groups	1.96	1.37	0.95

Table 6. Average Weekly Hours Per Worker, Australia

Age and sex	1994-95	2004-05	2012-13	2024-25
Males				
15-19	25.28	22.88	22.37	22.40
20-24	35.89	33.89	32.61	32.39
25-29	40.42	39.25	38.51	38.09
30-34	40.71	39.81	39.29	38.79
35-39	41.68	40.93	40.62	40.40
40-44	41.79	40.86	40.42	39.96
45-49	42.32	40.72	40.11	39.88
50-54	41.97	40.67	40.15	39.91
55-59	39.80	39.66	39.60	39.58
60-64	37.78	36.58	36.14	35.58
65-69	34.52	31.22	30.37	29.69
70 and above	30.87	26.91	25.38	24.66
All age groups	39.38	38.11	37.41	36.96
Females				
15-19	19.20	17.90	17.93	17.94
20-24	30.97	29.02	28.22	28.25
25-29	31.14	31.55	31.77	31.76
30-34	27.77	28.86	29.77	29.84
35-39	27.21	27.27	27.18	27.11
40-44	28.42	27.89	27.53	27.50
45-49	29.70	29.31	29.41	29.50
50-54	29.36	29.40	29.76	29.87
55-59	27.34	27.88	28.19	28.21
60-64	24.57	24.11	24.36	24.47
65-69	23.32	20.53	20.77	20.74
70 and above	22.28	18.06	17.71	17.71
All age groups	28.19	27.78	27.77	27.68
Persons				
15-19	22.30	20.37	20.12	20.14
20-24	33.57	31.59	30.49	30.39
25-29	36.36	35.76	35.36	35.10
30-34	35.38	35.11	35.09	34.72
35-39	35.50	35.00	34.61	34.23
40-44	35.86	34.99	34.46	34.03
45-49	36.90	35.36	34.97	34.80
50-54	36.87	35.55	35.15	34.99
55-59	35.44	34.77	34.27	34.10
60-64	34.20	32.13	31.15	30.47
65-69	31.44	28.04	27.17	26.29
70 and above	28.79	24.57	23.32	22.55
All age groups	34.60	33.49	32.95	32.58

Table 7. Employment Growth Rates, Hours, Australia, Per Cent Per Annum

Age and sex	1994-95 to 2003-04	2004-05 to 2012-13	2004-05 to 2024-05
Males			
15-19	0.79	0.56	0.27
20-24	-0.75	-0.08	-0.07
25-29	0.00	0.84	0.42
30-34	0.42	-0.54	0.10
35-39	0.60	0.14	0.29
40-44	1.44	0.09	0.03
45-49	1.02	0.47	0.13
50-54	3.67	1.58	0.86
55-59	5.17	1.59	1.12
60-64	3.71	4.40	2.65
65-69	2.62	6.81	4.58
70 and above	2.37	3.83	4.91
All age groups	1.29	0.76	0.57
Females			
15-19	1.73	1.07	0.44
20-24	-0.68	0.53	0.21
25-29	1.02	1.93	1.00
30-34	1.84	0.61	0.90
35-39	1.15	0.87	0.95
40-44	1.97	0.56	0.53
45-49	3.06	1.23	0.65
50-54	6.20	3.27	1.75
55-59	8.35	4.49	2.58
60-64	8.36	8.45	5.10
65-69	3.45	9.60	6.88
70 and above	2.32	4.66	6.31
All age groups	2.32	1.83	1.21
Persons			
15-19	1.19	0.79	0.35
20-24	-0.72	0.19	0.06
25-29	0.40	1.28	0.66
30-34	0.90	-0.12	0.40
35-39	0.78	0.39	0.52
40-44	1.63	0.26	0.22
45-49	1.76	0.77	0.34
50-54	4.54	2.24	1.21
55-59	6.11	2.62	1.65
60-64	4.75	5.60	3.42
65-69	2.79	7.46	5.16
70 and above	2.36	4.00	5.21
All age groups	1.66	1.17	0.82

Table 8. Labour Force Growth Rates, Hours, Australia, Per Cent Per Annum

Age and sex	1994-95 to 2003-04	2004-05 to 2012-13	2004-05 to 2024-05
Males			
15-19	0.16	0.47	0.23
20-24	-1.31	-0.09	-0.07
25-29	-0.49	0.77	0.39
30-34	0.00	-0.56	0.08
35-39	0.22	0.07	0.26
40-44	1.14	0.02	0.00
45-49	0.80	0.43	0.11
50-54	3.27	1.57	0.86
55-59	4.43	1.52	1.09
60-64	2.63	4.39	2.64
65-69	2.52	6.83	4.59
70 and above	2.39	3.87	4.93
All age groups	0.82	0.71	0.54
Females			
15-19	0.88	0.96	0.39
20-24	-1.11	0.46	0.18
25-29	0.80	1.87	0.97
30-34	1.55	0.57	0.89
35-39	0.90	0.76	0.91
40-44	1.85	0.45	0.49
45-49	2.85	1.20	0.64
50-54	5.90	3.20	1.72
55-59	8.07	4.36	2.52
60-64	8.36	8.43	5.10
65-69	3.44	9.61	6.89
70 and above	2.27	4.68	6.32
All age groups	1.99	1.73	1.16
Persons			
15-19	0.47	0.68	0.30
20-24	-1.23	0.15	0.04
25-29	0.00	1.22	0.63
30-34	0.52	-0.15	0.38
35-39	0.45	0.31	0.49
40-44	1.39	0.18	0.18
45-49	1.54	0.73	0.32
50-54	4.17	2.21	1.20
55-59	5.48	2.52	1.61
60-64	3.85	5.56	3.40
65-69	2.71	7.48	5.17
70 and above	2.37	4.03	5.23
All age groups	1.24	1.10	0.78

Table 9. Unemployment Rates, Hours, Australia, Per Cent

Age and sex	1994-95	2004-05	2012-13	2024-25
Males				
15-19	21.50	16.26	15.60	15.50
20-24	14.44	9.35	9.32	9.26
25-29	10.65	6.25	5.79	5.73
30-34	8.26	4.23	4.07	4.00
35-39	7.45	3.99	3.42	3.36
40-44	6.65	3.66	3.12	3.06
45-49	5.95	3.64	3.31	3.26
50-54	7.03	3.36	3.33	3.28
55-59	10.31	4.14	3.65	3.54
60-64	12.63	4.05	3.96	3.85
65-69	1.99	1.41	1.54	1.57
70 and above	0.62	0.52	0.82	0.84
All age groups	9.37	5.15	4.76	4.61
Females				
15-19	21.44	15.08	14.36	14.27
20-24	12.07	8.42	7.88	7.84
25-29	8.08	5.67	5.25	5.21
30-34	7.92	5.33	5.02	4.99
35-39	7.35	5.05	4.23	4.18
40-44	6.11	4.69	3.89	3.86
45-49	5.70	3.90	3.68	3.66
50-54	5.75	3.16	2.67	2.61
55-59	5.70	3.28	2.28	2.20
60-64	1.79	1.70	1.59	1.59
65-69	1.16	0.91	1.01	1.07
70 and above	0.64	0.35	0.51	0.53
All age groups	8.55	5.54	4.81	4.61
Persons				
15-19	21.48	15.74	15.04	14.95
20-24	13.42	8.95	8.68	8.63
25-29	9.70	6.02	5.56	5.51
30-34	8.15	4.62	4.43	4.39
35-39	7.42	4.35	3.71	3.67
40-44	6.46	4.03	3.40	3.37
45-49	5.86	3.74	3.46	3.43
50-54	6.62	3.29	3.07	3.00
55-59	9.11	3.86	3.13	3.01
60-64	10.71	3.43	3.19	3.03
65-69	1.82	1.30	1.40	1.42
70 and above	0.63	0.48	0.76	0.77
All age groups	9.08	5.29	4.78	4.61

Table 10. Qualification Shares, Level of Highest Educational Attainment, Australia, Per Cent

Age and sex	1994-95	2004-05	2012-13	2024-25
Males				
Post-graduate degree	2.65	4.07	4.65	5.16
Graduate diploma or certificate	1.83	2.26	2.56	2.86
Bachelor degree	11.93	14.58	15.91	17.00
Advanced diploma or diploma	5.90	7.86	8.77	9.49
Certificate III or IV	25.98	25.47	25.71	26.36
Certificate I or II	0.62	0.77	0.88	1.00
Year 12 and below	50.97	44.95	41.47	38.07
No educational attainment	0.12	0.06	0.06	0.06
All qualification levels	100.00	100.00	100.00	100.00
Females				
Post-graduate degree	1.53	2.91	3.39	3.61
Graduate diploma or certificate	3.06	4.22	4.68	4.87
Bachelor degree	14.42	18.56	20.12	20.67
Advanced diploma or diploma	8.79	10.51	11.49	12.11
Certificate III or IV	6.08	11.04	12.72	13.45
Certificate I or II	1.11	1.19	1.34	1.43
Year 12 and below	64.95	51.50	46.16	43.73
No educational attainment	0.06	0.07	0.10	0.12
All qualification levels	100.00	100.00	100.00	100.00
Persons				
Post-graduate degree	2.26	3.64	4.16	4.54
Graduate diploma or certificate	2.26	2.98	3.39	3.67
Bachelor degree	12.80	16.05	17.55	18.47
Advanced diploma or diploma	6.91	8.84	9.83	10.54
Certificate III or IV	19.06	20.12	20.64	21.19
Certificate I or II	0.79	0.92	1.06	1.17
Year 12 and below	55.84	47.37	43.30	40.34
No educational attainment	0.10	0.07	0.07	0.09
All qualification levels	100.00	100.00	100.00	100.00

Table 11. Qualification Shares, Main Field of Highest Educational Attainment, Australia, Per Cent

Age and sex	1994-95	2004-05	2012-13	2024-25
Males				
Natural and physical sciences	1.93	2.27	2.49	2.70
Information technology	1.07	2.68	3.07	3.34
Engineering and related technologies	21.30	19.88	20.04	20.65
Architecture and building	6.78	6.85	6.83	6.86
Agriculture and environmental studies	1.36	1.91	2.15	2.36
Health	1.87	2.46	2.75	3.06
Education	2.07	2.37	2.67	3.01
Management and commerce	5.69	8.49	9.74	10.67
Society and culture	3.73	4.10	4.34	4.56
Creative arts	1.15	1.70	1.93	2.10
Food, hospitality, personal services	1.97	2.26	2.42	2.54
Mixed field programmes	50.97	44.97	41.49	38.09
No educational attainment	0.12	0.06	0.06	0.06
All qualification fields	100.00	100.00	100.00	100.00
Females				
Natural and physical sciences	1.40	1.78	2.02	2.16
Information technology	0.57	1.23	1.43	1.51
Engineering and related technologies	0.94	1.09	1.20	1.25
Architecture and building	0.29	0.57	0.64	0.68
Agriculture and environmental studies	0.45	0.65	0.71	0.74
Health	9.13	9.26	9.40	9.55
Education	6.60	6.92	7.51	7.86
Management and commerce	5.75	11.23	12.88	13.55
Society and culture	5.66	9.75	11.20	11.76
Creative arts	1.85	2.70	3.05	3.20
Food, hospitality, personal services	2.32	3.20	3.64	3.85
Mixed field programmes	64.97	51.54	46.21	43.78
No educational attainment	0.06	0.07	0.10	0.12
All qualification fields	100.00	100.00	100.00	100.00
Persons				
Natural and physical sciences	1.75	2.09	2.31	2.48
Information technology	0.90	2.14	2.43	2.61
Engineering and related technologies	14.21	12.92	12.69	12.88
Architecture and building	4.52	4.52	4.41	4.38
Agriculture and environmental studies	1.04	1.44	1.59	1.71
Health	4.39	4.98	5.35	5.66
Education	3.65	4.06	4.56	4.95
Management and commerce	5.71	9.51	10.97	11.82
Society and culture	4.40	6.19	7.02	7.45
Creative arts	1.39	2.07	2.37	2.54
Food, hospitality, personal services	2.09	2.61	2.90	3.06
Mixed field programmes	55.84	47.40	43.33	40.37
No educational attainment	0.10	0.07	0.07	0.09
All qualification fields	100.00	100.00	100.00	100.00

**Table 12.1 Employment Growth Rates, 2004-05 to 2012-13,
Hours, Australia, Per Cent Per Annum**

ASCED Levels of Educational Attainment	ASCED Broad Fields of Study	Simulation		
		A	B	
Post-graduate degree	Natural and physical sciences	2.95	2.81	
	Information technology	2.74	2.66	
	Engineering and related technologies	2.66	2.51	
	Architecture and building	3.30	3.19	
	Agriculture and environmental studies	2.17	2.08	
	Health	2.32	2.20	
	Education	3.80	3.59	
	Management and commerce	3.08	2.93	
	Society and culture	2.72	2.53	
	Creative arts	2.31	2.33	
	Food, hospitality, personal services	0.00	0.00	
	Graduate diploma or certificate	Natural and physical sciences	2.82	2.90
		Information technology	2.07	1.93
		Engineering and related technologies	2.68	2.63
Architecture and building		3.39	3.51	
Agriculture and environmental studies		5.32	5.38	
Health		3.31	3.02	
Education		2.00	1.87	
Management and commerce		2.97	2.79	
Society and culture		3.45	3.24	
Creative arts		3.19	3.23	
Food, hospitality, personal services		0.00	0.00	
Bachelor degree		Natural and physical sciences	2.09	1.99
		Information technology	2.79	2.66
		Engineering and related technologies	1.96	1.90
	Architecture and building	1.03	1.03	
	Agriculture and environmental studies	1.74	1.68	
	Health	1.43	1.24	
	Education	3.22	3.03	
	Management and commerce	2.88	2.73	
	Society and culture	1.83	1.68	
	Creative arts	2.74	2.60	
	Food, hospitality, personal services	3.12	2.91	
	Advanced diploma or diploma	Natural and physical sciences	2.27	2.22
		Information technology	2.87	2.73
		Engineering and related technologies	1.50	1.42
Architecture and building		2.52	2.44	
Agriculture and environmental studies		2.14	2.01	
Health		1.56	1.41	
Education		1.11	1.12	
Management and commerce		2.99	2.84	
Society and culture		3.84	3.65	
Creative arts		2.84	2.70	
Food, hospitality, personal services		3.60	3.43	

...continued

Table 12.1 (continued). Employment Growth Rates, 2003-04 to 2013-14, Hours, Australia, Per Cent Per Annum

ASCED Levels of Educational Attainment	ASCED Broad Fields of Study	Simulation		
		A	B	
Certificate III or IV	Natural and physical sciences	3.65	3.47	
	Information technology	3.09	2.94	
	Engineering and related technologies	0.53	0.48	
	Architecture and building	0.64	0.59	
	Agriculture and environmental studies	2.94	2.83	
	Health	3.39	3.18	
	Education	3.33	3.11	
	Management and commerce	3.22	3.02	
	Society and culture	3.97	3.72	
	Creative arts	3.08	2.93	
	Food, hospitality, personal services	2.25	2.12	
	Certificate I or II	Natural and physical sciences	7.94	7.41
		Information technology	3.30	3.44
Engineering and related technologies		2.18	2.10	
Architecture and building		1.76	2.29	
Agriculture and environmental studies		1.84	1.87	
Health		4.85	4.63	
Education		0.00	0.00	
Management and commerce		2.44	2.33	
Society and culture		5.11	4.91	
Creative arts		5.23	5.45	
No post-school qualification	Food, hospitality, personal services	3.84	3.65	
	All qualifications	0.04	-0.09	
All qualifications		1.17	0.92	

**Table 12.2 Employment Growth Rates, 2004-05 to 2024-25,
Hours, Australia, Per Cent Per Annum**

ASCED Levels of Educational Attainment	ASCED Broad Fields of Study	Simulation		
		A	B	
Post-graduate degree	Natural and physical sciences	1.99	1.91	
	Information technology	1.87	2.15	
	Engineering and related technologies	1.78	1.80	
	Architecture and building	2.27	2.26	
	Agriculture and environmental studies	1.47	1.80	
	Health	1.78	1.77	
	Education	2.37	2.44	
	Management and commerce	2.07	2.15	
	Society and culture	1.75	1.92	
	Creative arts	1.92	1.87	
	Food, hospitality, personal services	0.00	0.00	
	Graduate diploma or certificate	Natural and physical sciences	2.14	2.29
		Information technology	1.43	1.75
		Engineering and related technologies	1.90	2.01
Architecture and building		2.37	2.31	
Agriculture and environmental studies		3.48	3.67	
Health		2.08	2.30	
Education		1.46	1.47	
Management and commerce		1.95	2.17	
Society and culture		2.16	2.20	
Creative arts		2.26	2.37	
Food, hospitality, personal services		0.00	0.00	
Bachelor degree		Natural and physical sciences	1.46	1.58
		Information technology	1.82	2.14
		Engineering and related technologies	1.40	1.63
	Architecture and building	0.78	1.23	
	Agriculture and environmental studies	1.25	1.51	
	Health	1.06	1.30	
	Education	2.06	2.10	
	Management and commerce	1.84	2.09	
	Society and culture	1.15	1.37	
	Creative arts	1.75	2.05	
	Food, hospitality, personal services	1.91	2.16	
	Advanced diploma or diploma	Natural and physical sciences	1.61	1.66
		Information technology	1.81	2.15
		Engineering and related technologies	1.11	1.14
Architecture and building		1.79	1.94	
Agriculture and environmental studies		1.41	1.82	
Health		1.18	1.20	
Education		1.25	0.91	
Management and commerce		1.92	2.13	
Society and culture		2.45	2.43	
Creative arts		1.81	2.08	
Food, hospitality, personal services		2.30	2.46	

...continued

Table 12.2 (continued). Employment Growth Rates, 2004-05 to 2024-25, Hours, Australia, Per Cent Per Annum

ASCED Levels of Educational Attainment	ASCED Broad Fields of Study	Simulation		
		A	B	
Certificate III or IV	Natural and physical sciences	2.38	2.40	
	Information technology	1.94	2.27	
	Engineering and related technologies	0.56	0.58	
	Architecture and building	0.50	0.73	
	Agriculture and environmental studies	2.04	2.13	
	Health	2.21	2.21	
	Education	2.12	2.20	
	Management and commerce	2.00	2.24	
	Society and culture	2.41	2.52	
	Creative arts	1.96	2.14	
	Food, hospitality, personal services	1.47	1.75	
	Certificate I or II	Natural and physical sciences	4.67	4.66
		Information technology	2.30	2.63
Engineering and related technologies		1.48	1.38	
Architecture and building		2.07	2.62	
Agriculture and environmental studies		1.57	1.73	
Health		2.94	2.90	
Education		0.00	0.00	
Management and commerce		1.78	1.67	
Society and culture		3.24	2.89	
Creative arts		3.44	3.68	
No post-school qualification	Food, hospitality, personal services	2.50	2.36	
	All qualifications	0.01	0.38	
All qualifications		0.82	0.98	

Table 13. Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
1	Rent payments	5	1.00
2	Mortgage repayments - interest component (selected dwelling)	47	1.00
3	Rate payments (selected dwelling) nfd	6	0.38
		46	0.62
4	Water and sewerage rates and charges (selected dwelling)	6	1.00
5	Local government rates (selected dwelling)	46	1.00
6	Land tax (selected dwelling)	46	1.00
7	House insurance - separable (selected dwelling)	46	1.00
8	Contents insurance - separable (selected dwelling)	37	1.00
9	House and contents insurance - inseparable (selected dwelling)	37	0.56
		46	0.44
10	Repairs and maintenance (contractors) - repainting	46	1.00
11	Repairs and maintenance (contractors) - electrical work	46	1.00
12	Repairs and maintenance (contractors) - plumbing	46	1.00
13	Repairs and maintenance (contractors) - reroofing	46	1.00
14	Repairs and maintenance (contractors) - nec	46	1.00
15	Repairs and maintenance - paint	46	1.00
16	Repairs and maintenance (materials only) nec	46	1.00
17	Loans for alterations and additions - interest component	47	1.00
18	Body corporate payments (selected dwelling)	46	1.00
19	Electricity (selected dwelling)	7	1.00
20	Mains gas (selected dwelling)	7	1.00
21	Bottled gas - excluding gas for BBQs (selected dwelling)	7	1.00
22	Heating oil (selected dwelling)	7	1.00
23	Wood for fuel (selected dwelling)	7	1.00
24	Electricity (other property)	7	1.00
25	Mains gas (other property)	7	1.00
26	Bottled gas (other property)	7	1.00
27	Heating oil (other property)	7	1.00
28	Wood for fuel (other property)	7	1.00
29	Bottled gas for BBQ	7	1.00
30	Kerosene and paraffin	7	1.00
31	Domestic fuel and power nec	7	1.00
32	Food and non-alcoholic beverages nfd	1	1.00
33	Bread	1	1.00
34	Flour	1	1.00
35	Cakes tarts and puddings (fresh or frozen)	1	1.00
36	Biscuits	1	1.00
37	Cake biscuit pudding and bread mixes	1	1.00
38	Breakfast cereals	1	1.00
39	Pasta	1	1.00
40	Rice	1	1.00
41	Cereals and pasta nec	1	1.00
42	Meat (excluding fish and seafood) nfd	1	1.00

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Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
43	Ham (including canned)	1	1.00
44	Bacon (including canned)	1	1.00
45	Sausages (not continental)	1	1.00
46	Canned meat (other than bacon and ham)	1	1.00
47	Frozen processed meat	1	1.00
48	Mince	1	1.00
49	Smallgoods	1	1.00
50	Processed meat nec	1	1.00
51	Prepared beef and veal	1	1.00
52	Beef and veal nec	1	1.00
53	Prepared mutton and lamb	1	1.00
54	Mutton and lamb nec	1	1.00
55	Prepared pork (excluding bacon and ham)	1	1.00
56	Pork (excluding bacon and ham) nec	1	1.00
57	Prepared poultry	1	1.00
58	Poultry nec	1	1.00
59	Game	1	1.00
60	Offal	1	1.00
61	Meat (excluding fish and seafood) nec	1	1.00
62	Fish and seafood nfd	1	1.00
63	Fresh fish and seafood	1	1.00
64	Frozen fish and seafood	1	1.00
65	Canned and bottled fish and seafood	1	1.00
66	Fish and seafood nec	1	1.00
67	Fresh eggs	1	1.00
68	Eggs and egg products nec	1	1.00
69	Fresh milk	1	1.00
70	Fresh cream	1	1.00
71	Cheese	1	1.00
72	Butter	1	1.00
73	Powdered milk	1	1.00
74	Yoghurt	1	1.00
75	Dairy products nec	1	1.00
76	Margarine	1	1.00
77	Edible oils and fats nec	1	1.00
78	Fruit and nuts nfd	1	1.00
79	Fresh fruit nfd	1	1.00
80	Fresh citrus fruit	1	1.00
81	Fresh stone fruit	1	1.00
82	Fresh apples and pears	1	1.00
83	Fresh berries	1	1.00
84	Fresh grapes	1	1.00
85	Fresh melons	1	1.00
86	Fresh tropical fruit (excluding bananas)	1	1.00

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Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
87	Fresh bananas	1	1.00
88	Fresh fruit nec	1	1.00
89	Canned frozen and bottled fruit	1	1.00
90	Dried fruit nfd	1	1.00
91	Dried grapes	1	1.00
92	Dried fruit nec	1	1.00
93	Nuts	1	1.00
94	Vegetables nfd	1	1.00
95	Fresh vegetables nfd	1	1.00
96	Fresh potatoes	1	1.00
97	Fresh onions	1	1.00
98	Other fresh root vegetables	1	1.00
99	Fresh tomatoes	1	1.00
100	Fresh flower vegetables	1	1.00
101	Fresh leaf vegetables	1	1.00
102	Fresh peas and beans	1	1.00
103	Fresh pumpkin	1	1.00
104	Fresh vegetables nec	1	1.00
105	Frozen vegetables	1	1.00
106	Other vegetables	1	1.00
107	Sugar	1	1.00
108	Marmalades jams and conserves	1	1.00
109	Honey	1	1.00
110	Syrups	1	1.00
111	Jellies and desserts	1	1.00
112	Potato crisps and other savoury confectionery	1	1.00
113	Chocolate confectionery	1	1.00
114	Ice confectionery (including ice cream)	1	1.00
115	Confectionery nec	1	1.00
116	Spices and herbs	1	1.00
117	Sauces and salad dressings	1	1.00
118	Spreads and dips	1	1.00
119	Other food additives	1	1.00
120	Canned spaghetti and baked beans	1	1.00
121	Canned and bottled baby foods	1	1.00
122	Frozen prepared meals	1	1.00
123	Packaged prepared meals nec	1	1.00
124	Non-alcoholic beverages nfd	1	1.00
125	Soft drinks	1	1.00
126	Packaged waters	1	1.00
127	Fruit and vegetable juice nfd	1	1.00
128	Fruit juice	1	1.00
129	Vegetable juice	1	1.00
130	Mixed fruit and vegetable juice	1	1.00

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Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
131	Tea	1	1.00
132	Coffee	1	1.00
133	Canned and packeted soup	1	1.00
134	Soy and non-dairy milks	1	1.00
135	Food drinks nec	1	1.00
136	Cordials	1	1.00
137	Unpackaged milk-based beverages	1	1.00
138	Meals in restaurants hotels clubs and related	32	1.00
139	Fast food and takeaway (not frozen)	32	1.00
140	School lunch money	32	1.00
141	Food nec	1	1.00
142	Non-alcoholic beverages nec	1	1.00
143	Alcoholic beverages nfd	2	1.00
144	Alcoholic beverages nfd for consumption off licensed premises	2	1.00
145	Alcoholic beverages nfd for consumption on licensed premises	2	1.00
146	Beer nfd	2	1.00
147	Beer for consumption off licensed premises	2	1.00
148	Beer for consumption on licensed premises	2	1.00
149	Wine nfd	2	1.00
150	Wine for consumption off licensed premises	2	1.00
151	Wine for consumption on licensed premises	2	1.00
152	Spirits nfd	2	1.00
153	Spirits for consumption off licensed premises	2	1.00
154	Spirits for consumption on licensed premises	2	1.00
155	Other alcoholic beverages nfd	2	1.00
156	Other alcoholic beverages for consumption off licensed premises	2	1.00
157	Other alcoholic beverages for consumption on licensed premises	2	1.00
158	Cigarettes	3	1.00
159	Other tobacco	3	1.00
160	Tobacco products nec	3	1.00
161	Clothing nfd	4	1.00
162	Men's clothing nfd	4	1.00
163	Men's suits	4	1.00
164	Men's coats	4	1.00
165	Men's trousers (excluding jeans)	4	1.00
166	Men's jeans	4	1.00
167	Men's cardigans and pullovers	4	1.00
168	Men's shirts	4	1.00
169	Men's underwear	4	1.00
170	Men's sleepwear	4	1.00
171	Men's T-shirts	4	1.00
172	Men's clothing nec	4	1.00
173	Women's clothing nfd	4	1.00
174	Women's trousers and skirts (excluding jeans)	4	1.00

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Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
175	Women's dresses and suits	4	1.00
176	Women's jeans	4	1.00
177	Women's coats	4	1.00
178	Women's cardigans and pullovers	4	1.00
179	Women's foundation garments	4	1.00
180	Women's underwear (excluding foundation garments)	4	1.00
181	Women's sleepwear	4	1.00
182	Women's shirts and blouses	4	1.00
183	Women's T-shirts	4	1.00
184	Women's clothing nec	4	1.00
185	Boys' clothing nfd	4	1.00
186	Boys' underwear	4	1.00
187	Boys' sleepwear	4	1.00
188	Boys' trousers (excluding jeans)	4	1.00
189	Boys' shirts	4	1.00
190	Boys' jeans	4	1.00
191	Boys' suits	4	1.00
192	Boys' coats	4	1.00
193	Boys' cardigans and pullovers	4	1.00
194	Boys' T-shirts	4	1.00
195	Boys' clothing nec	4	1.00
196	Girls' clothing nfd	4	1.00
197	Girls' underwear (excluding foundation garments)	4	1.00
198	Girls' sleepwear	4	1.00
199	Girls' dresses and suits	4	1.00
200	Girls' skirts and trousers (excluding jeans)	4	1.00
201	Girls' shirts and blouses	4	1.00
202	Girls' jeans	4	1.00
203	Girls' coats	4	1.00
204	Girls' cardigans and pullovers	4	1.00
205	Girls' foundation garments	4	1.00
206	Girls' T-shirts	4	1.00
207	Girls' clothing nec	4	1.00
208	Nappies	4	1.00
209	Infants' clothing nec	4	1.00
210	Men's hosiery	4	1.00
211	Women's hosiery	4	1.00
212	Children's and infants' hosiery	4	1.00
213	Hats and other headwear	4	1.00
214	Clothing accessories (e.g. ties gloves handkerchiefs)	4	1.00
215	Clothing materials	4	1.00
216	Haberdashery	4	1.00
217	Other clothing nec	4	1.00
218	Footwear nfd	4	1.00

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Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
219	Sports and leisure footwear nfd	4	1.00
220	Footwear nec	4	1.00
221	Men's footwear nfd	4	1.00
222	Men's sports and leisure footwear	4	1.00
223	Men's footwear nec	4	1.00
224	Women's footwear nfd	4	1.00
225	Women's sports and leisure footwear	4	1.00
226	Women's footwear nec	4	1.00
227	Children's and infants' footwear nfd	4	1.00
228	Children's and infants' sports and leisure footwear	4	1.00
229	Children's and infants' footwear nec	4	1.00
230	Dry cleaning and laundering of clothes	4	1.00
231	Clothing repairs and alterations	4	1.00
232	Footwear repairs and alterations	4	1.00
233	Hire of clothing and footwear	4	1.00
234	Bedroom furniture	8	1.00
235	Lounge/dining room furniture	8	1.00
236	Outdoor/garden furniture	8	1.00
237	Other furniture	8	1.00
238	Carpets	8	1.00
239	Floor rugs mats and matting	8	1.00
240	Vinyl and other sheet floor coverings	8	1.00
241	Floor tiles	8	1.00
242	Other floor coverings	8	1.00
243	Bed linen	9	1.00
244	Blankets and travelling rugs	9	1.00
245	Bedspreads and continental quilts	9	1.00
246	Pillows and cushions	9	1.00
247	Towels and face washers	9	1.00
248	Table and kitchen linen	9	1.00
249	Curtains	9	1.00
250	Blinds	9	1.00
251	Other household textiles	9	1.00
252	Household linen and furnishings (excluding ornamental) nec	9	1.00
253	Paintings carvings and sculptures	8	1.00
254	Ornamental furnishings nec	8	1.00
255	Cooking stoves ovens microwaves hot plates and ranges	10	1.00
256	Refrigerators and freezers	10	1.00
257	Washing machines	10	1.00
258	Air-conditioners	10	1.00
259	Dishwashers	10	1.00
260	Clothes dryers	10	1.00
261	Whitegoods and other electrical appliances nec	10	1.00

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Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
262	Non-electrical household appliances	10	1.00
263	Tableware	11	1.00
264	Glassware	11	1.00
265	Cutlery	11	1.00
266	Cooking utensils	11	1.00
267	Cleaning utensils	11	1.00
268	Glassware tableware cutlery and household utensils nec	11	1.00
269	Lawnmowers (including electric)	12	1.00
270	Gardening tools	12	1.00
271	Other hand and power tools	12	1.00
272	Mobile phones	22	1.00
273	Telephone handset (purchase)	22	1.00
274	Answering machines	22	1.00
275	Tools and other household durables nec	22	1.00
276	Household non-durables nfd	13	1.00
277	Nails screws and other fasteners	13	1.00
278	Household soaps and detergents	13	1.00
279	Household polishes	13	1.00
280	Other household cleaning agents	13	1.00
281	Household paper products (excluding stationery)	13	1.00
282	Trees shrubs and plants	25	1.00
283	Other gardening products	25	1.00
284	Swimming pool chemicals	13	1.00
285	Foodwraps (excluding paper)	13	1.00
286	Household non-durables nec	13	1.00
287	Postal charges	21	1.00
288	Fixed telephone account	21	1.00
289	Mobile telephone account	21	1.00
290	Public telephone call (not account)	21	1.00
291	Mobile phone charges (not account)	21	1.00
292	Telephone and facsimile charges nec	21	1.00
293	Pest control services	45	1.00
294	Gardening services	45	1.00
295	Private rubbish removals	45	1.00
296	Housekeeping and cleaning services (including ironing) nfd	45	1.00
297	Home help services	45	1.00
298	Housekeeping and cleaning services (including ironing) nec	45	1.00
299	Security services	45	1.00
300	Household services nec	45	1.00
301	Child care services nfd	44	1.00
302	Preschool	31	1.00
303	Formal child care services nec	44	1.00
304	Informal child care services	44	1.00
305	Carpet cleaning	45	1.00

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Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
306	Repair and maintenance of soft furnishings	45	1.00
307	Repair and maintenance of audiovisual equipment and personal computers	45	1.00
308	Repair and maintenance of household appliances nec	45	1.00
309	Repair and maintenance of tools	45	1.00
310	Repair and maintenance of household durables nec	45	1.00
311	Hire of tools	45	1.00
312	Hire of household durables nec	45	1.00
313	Audiovisual equipment and personal computer repairs insurance	37	1.00
314	Household appliance repairs insurance nec	37	1.00
315	Hospital medical and dental insurance	14	1.00
316	Ambulance insurance (separate insurance)	14	1.00
317	Sickness and personal accident insurance	14	1.00
318	General practitioner doctor's fees	14	1.00
319	Specialist doctor's fees	14	1.00
320	Dental fees	14	1.00
321	Optician's fees (including spectacles)	14	1.00
322	Physiotherapy and chiropractic fees	14	1.00
323	Health practitioner's fees nec	14	1.00
324	Medicines pharmaceutical products and therapeutic appliances nfd	14	1.00
325	Medicines and pharmaceutical products nfd	14	1.00
326	Prescriptions	14	1.00
327	Non-prescribed pain relievers	14	1.00
328	Sunscreens	14	1.00
329	Non-prescribed ointments and lotions nec	14	1.00
330	Medicines and pharmaceutical products nec	14	1.00
331	Surgical dressings	14	1.00
332	Therapeutic appliances and equipment (excluding hire)	14	1.00
333	First aid supplies therapeutic appliances and equipment nec	14	1.00
334	Hospital and nursing home charges	14	1.00
335	Hire of therapeutic appliances	14	1.00
336	Other medical care and health expenses nec	14	1.00
337	Purchase of motor vehicle (other than motor cycle)	15	1.00
338	Purchase of motor cycle	15	1.00
339	Purchase of caravan (other than selected dwelling)	23	1.00
340	Purchase of trailer	23	1.00
341	Purchase of bicycle	23	1.00
342	Motor vehicle fuel lubricants and additives nfd	16	1.00
343	Petrol	16	1.00
344	Diesel fuel	16	1.00
345	LPG and other gas fuels	16	1.00
346	Oils lubricants and additives	16	1.00
347	Compulsory registration of motor vehicle (other than motor cycle)	50	1.00
348	Compulsory insurance of motor vehicle (other than motor cycle)	38	1.00

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Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
349	Combined compulsory registration and insurance of motor vehicle (other than motor cycle)	38	0.53
		50	0.47
350	Other insurance of motor vehicle (other than motor cycle)	38	1.00
351	Compulsory registration of motor cycle caravan and trailer	50	1.00
352	Compulsory insurance of motor cycle caravan and trailer	38	1.00
353	Combined compulsory registration and insurance of motor cycle caravan and trailer	38	0.20
		50	0.80
354	Other insurance of motor cycle caravan and trailer	38	1.00
355	Motor vehicle batteries	17	1.00
356	Tyres and tubes	17	1.00
357	Motor vehicle electrical accessories (purchased separately)	18	1.00
358	Vehicle parts purchased separately nec	18	1.00
359	Vehicle accessories purchased separately nec	18	1.00
360	Crash repairs	18	1.00
361	Vehicle servicing (including parts and labour)	18	1.00
362	Driver's licence	19	1.00
363	Parking fees	19	1.00
364	Driving lessons	19	1.00
365	Subscription to motor organisations	19	1.00
366	Vehicle hire and leasing expenses (non-holiday)	20	1.00
367	Road tolls	19	1.00
368	Vehicle charges (including hire of accessories) nec	19	1.00
369	Public transport fares nfd	20	1.00
370	Rail fares	20	1.00
371	Bus and tram fares	20	1.00
372	Water transport fares	20	1.00
373	Combined bus/tram/rail/water transport fares	20	1.00
374	Public transport fares nec	20	1.00
375	Taxi fares	20	1.00
376	Air fares (excluding holiday)	20	1.00
377	Removalists charges	45	1.00
378	Fare and freight charges (excluding holidays and public transport) nec	20	1.00
379	Televisions	22	1.00
380	Satellite dishes	22	1.00
381	Television aerials nec	22	1.00
382	Video cassette recorders	22	1.00
383	Video cameras	22	1.00
384	Digital video disc players/laser disc players	22	1.00
385	Set top boxes	22	1.00
386	Video equipment nec	22	1.00
387	Radios	22	1.00
388	CD player	22	1.00

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Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
389	Integrated sound system	22	1.00
390	Amplifiers and tuner-amplifiers	22	1.00
391	Speakers	22	1.00
392	Audio equipment nec	22	1.00
393	Home entertainment systems	22	1.00
394	Audiovisual equipment and parts nec	22	1.00
395	Home computer equipment (including pre-packaged software)	22	1.00
396	TV games and computer software nfd	22	1.00
397	Computer software - games	22	1.00
398	Computer software (excluding games)	22	1.00
399	TV games and computer software nec	22	1.00
400	Blank video cassettes and video discs	22	1.00
401	Pre-recorded video cassettes and video discs	22	1.00
402	Pre-recorded compact discs and records (audio)	22	1.00
403	Audio cassettes and tapes	22	1.00
404	Blank computer media	22	1.00
405	Blank and pre-recorded media nec	22	1.00
406	Books	30	1.00
407	Newspapers	30	1.00
408	Magazines and comics	30	1.00
409	Books newspapers magazines and other printed material nec	30	1.00
410	Photographic equipment (excluding film and chemicals)	22	1.00
411	Photographic film and chemicals (including developing)	22	1.00
412	Sunglasses (excluding prescription)	22	1.00
413	Other optical goods	22	1.00
414	Studio and other professional photography	22	1.00
415	Musical instruments and accessories	22	1.00
416	Purchase of boat	23	1.00
417	Registration and insurance of boat	38	0.50
		51	0.50
418	Boat purchase parts and operation nec	18	1.00
419	Purchase of aircraft	23	1.00
420	Registration and insurance of aircraft	38	0.50
		51	0.50
421	Aircraft purchase parts and operation nec	18	1.00
422	Toys	24	1.00
423	Camping equipment	24	1.00
424	Sports equipment nfd	24	1.00
425	Fishing equipment	24	1.00
426	Golf equipment (excluding specialist sports shoes)	24	1.00
427	Specialist sports shoes	24	1.00
428	Water sport snow sport and skating equipment	24	1.00
429	Bats sticks racquets and balls for field and court games	24	1.00
430	Sports equipment nec	24	1.00

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Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
431	Above ground pool	24	1.00
432	Art and craft materials	30	1.00
433	Recreational and educational equipment nec	24	1.00
434	Gambling nfd	29	1.00
435	Lottery tickets	29	1.00
436	Lotto type games and instant lottery (scratch cards)	29	1.00
437	TAB on course betting and related	29	1.00
438	Poker machines and ticket machines	29	1.00
439	Blackjack roulette and other casino-type games	29	1.00
440	TAB - betting (excluding animal racing)	29	1.00
441	Club and casino broadcast gaming	29	1.00
442	Gambling nec	29	1.00
443	Hire of televisions	28	1.00
444	Hire of video cassette recorders	28	1.00
445	Hire of video cassette tapes and TV/computer games	28	1.00
446	Hire of sports equipment	28	1.00
447	Hire of recreational and educational equipment nec	28	1.00
448	Repair of optical and photographic equipment	45	1.00
449	Repair of sports equipment	45	1.00
450	Repair of recreational and educational equipment (excluding audiovisual equipment) nec	45	1.00
451	Health and fitness studio charges	27	1.00
452	Sporting club subscriptions	27	1.00
453	Squash court hire charges	27	1.00
454	Ten pin bowling charges	27	1.00
455	Green fees	27	1.00
456	Sports lessons	27	1.00
457	Spectator admission fees to sport	27	1.00
458	Sports fees and charges nec	27	1.00
459	Cinema fees and charges	28	1.00
460	Live theatre fees and charges nfd	28	1.00
461	Music concert fees and charges	28	1.00
462	Live theatre fees and charges nec	28	1.00
463	Dance and nightclub fees and charges	28	1.00
464	National park fees and charges	28	1.00
465	Zoo fees and charges	28	1.00
466	Art gallery and museum fees and charges	28	1.00
467	Clubs and association subscriptions (excluding sports clubs)	28	1.00
468	Cultural fees and charges nec	28	1.00
469	Day trips and other excursions	28	1.00
470	Amusement arcade machines	28	1.00
471	Culture course	28	1.00
472	Recreation course	28	1.00
473	Life education program	28	1.00

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Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
474	Culture and recreation lessons (excluding sports lessons) nec	28	1.00
475	Pay TV fees	28	1.00
476	Internet charges (account)	28	1.00
477	Internet charges (not account)	28	1.00
478	Charges for physical recreation nec	28	1.00
479	Recreational and educational services nec	28	1.00
480	Holiday air fares - Australia (less than 4 nights)	20	1.00
481	Holiday air fares - Australia (4 nights or more)	20	1.00
482	Holiday rail fares - Australia (less than 4 nights)	20	1.00
483	Holiday rail fares - Australia (4 nights or more)	20	1.00
484	Holiday bus fares - Australia (less than 4 nights)	20	1.00
485	Holiday bus fares - Australia (4 nights or more)	20	1.00
486	Holiday vehicle hire - Australia (less than 4 nights)	20	1.00
487	Other holiday fares - Australia (excluding vehicle hire) (less than 4 nights)	20	1.00
488	Holiday vehicle hire - Australia (4 nights or more)	20	1.00
489	Other holiday fares - Australia (excluding vehicle hire) (4 nights or more)	20	1.00
490	Holiday petrol - Australia (less than 4 nights)	16	1.00
491	Holiday petrol - Australia (4 nights or more)	16	1.00
492	Holiday hotel/motel charges - Australia (less than 4 nights)	33	1.00
493	Holiday hotel/motel charges - Australia (4 nights or more)	33	1.00
494	Holiday flat/house charges - Australia (less than 4 nights)	33	1.00
495	Holiday flat/house charges - Australia (4 nights or more)	33	1.00
496	Caravan park fees/hire of caravans - Australia (less than 4 nights)	33	1.00
497	Caravan park fees/hire of caravan - Australia (4 nights or more)	33	1.00
498	Other accommodation charges - Australia (less than 4 nights)	33	1.00
499	Other accommodation charges - Australia (4 nights or more)	33	1.00
500	Airfare inclusive package tours - Australia (less than 4 nights)	20	0.33
		32	0.13
		33	0.54
501	Airfare inclusive package tours - Australia (4 nights or more)	20	0.33
		32	0.13
		33	0.54
502	Other package tours - Australia (less than 4 nights)	32	0.20
		33	0.80
503	Other package tours - Australia (4 nights or more)	32	0.20
		33	0.80
504	Holiday airfares - overseas (less than 4 nights)	20	1.00
505	Holiday airfares - overseas (4 nights or more)	20	1.00
506	Other holiday fares - overseas (less than 4 nights)	20	1.00
507	Other holiday fares - overseas (4 nights or more)	20	1.00
508	Holiday motel/hotel charges - overseas (less than 4 nights)	33	1.00
509	Holiday motel/hotel charges - overseas (4 nights or more)	33	1.00
510	Other holiday accommodation charges - overseas (less than 4 nights)	33	1.00
511	Other accommodation charges - overseas (4 nights or more)	33	1.00

... continued

Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
512	Airfare inclusive package tours - overseas (less than 4 nights)	20	0.33
		32	0.13
		33	0.54
513	Airfare inclusive package tours - overseas (4 nights or more)	20	0.33
		32	0.13
		33	0.54
514	Other package tours - overseas (less than 4 nights)	32	0.20
		33	0.80
515	Other package tours - overseas (4 nights or more)	32	0.20
		33	0.80
516	Animal expenses nfd	26	1.00
517	Animal purchases	26	1.00
518	Animal food nfd	26	1.00
519	Prepared dog and cat food	26	1.00
520	Bird seed and other seeds	26	1.00
521	Fresh meat for animal food (including mince and bones)	26	1.00
522	Animal food nec	26	1.00
523	Veterinary charges	28	1.00
524	Animal minding charges	28	1.00
525	Animal fees (including registration)	28	1.00
526	Animal care and grooming	28	1.00
527	Animal health products	26	1.00
528	Animal expenses nec	28	1.00
529	Oral hygiene products	35	1.00
530	Toilet soap	35	1.00
531	Talcum powders and deodorants	35	1.00
532	Shavers hairdryers and related	35	1.00
533	Haircare products	35	1.00
534	Feminine hygiene products	35	1.00
535	Fragrances	35	1.00
536	Toiletries and cosmetics nec	35	1.00
537	Hair services nfd	34	1.00
538	Hair services (male)	34	1.00
539	Hair services (female)	34	1.00
540	Personal care services nec	34	1.00
541	Stationery equipment nfd	30	1.00
542	Pens	30	1.00
543	Paper and writing pads	30	1.00
544	Cards envelopes and forms	30	1.00
545	Stationery equipment nec	30	1.00
546	Watches	36	1.00
547	Clocks (including timers)	36	1.00
548	Jewellery	36	1.00

... continued

Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
549	Travel goods handbags umbrellas wallets and related	36	1.00
550	Ice	36	1.00
551	Lay-by (unspecified content)	36	1.00
552	Baby goods (excluding clothing)	36	1.00
553	Christmas decorations	36	1.00
554	Miscellaneous goods nec	36	1.00
555	Mortgage repayments - interest component (other property)	47	1.00
556	Loans for vehicle - interest component	48	1.00
557	Loans for holiday - interest component	48	1.00
558	Loans - interest component (excluding housing loans) nec	48	1.00
559	Interest payments on credit card purchases	48	1.00
560	Interest payments on credit card cash advances	48	1.00
561	Education fees for primary and secondary school nfd	31	1.00
562	Primary school fees (excluding school sports fees) (government) - including pre-year 1	31	1.00
563	Primary school sports fees (government) - including pre-year 1	31	1.00
564	Primary school fees (excluding school sports fees) (independent) - including pre-year 1 - Catholic	31	1.00
565	Primary school sports fees (independent) - including pre-year 1 - Catholic	31	1.00
566	Primary school fees (excluding school sports fees) (independent) - including pre-year 1 - excluding Catholic	31	1.00
567	Primary school sports fees (independent) - including pre-year 1 - excluding Catholic	31	1.00
568	Secondary school fees (excluding school sports fees) (government)	31	1.00
569	Secondary school sports fees (government)	31	1.00
570	Secondary school fees (excluding school sports fees) (independent) - Catholic	31	1.00
571	Secondary school sports fees (independent) - Catholic	31	1.00
572	Secondary school fees (excluding school sports fees) (independent) - excluding Catholic	31	1.00
573	Secondary school sports fees (independent) - excluding Catholic	31	1.00
574	HECS	31	1.00
575	Higher education institution fees nec	31	1.00
576	TAFE course fees	31	1.00
577	Fees paid to other educational institutions nec	31	1.00
578	Private education tuition fees	31	1.00
579	Rate payments (other property) nfd	6	0.25
		47	0.75
580	Local government rates (other property)	47	1.00
581	Land tax (other property)	47	1.00
582	Water and sewerage rates (other property)	6	1.00
583	Rent payments (other property)	5	1.00
584	Insurance (other property)	47	1.00
585	Body corporate payments (other property)	47	1.00

... continued

Table 13 (continued). Commodity Classification Conversion, CC625 to CC054, 2003-04

CC625	Description	CC054	Share
586	Payments for other property nec	47	1.00
587	Fees nfd	45	1.00
588	Union dues professional association subscriptions	45	1.00
589	Legal fees	45	1.00
590	Accountant and tax agent fees	45	1.00
591	Lease payments (excluding vehicle leases)	53	1.00
592	Government duties taxes and charges on financial institution accounts	43	1.00
593	Financial institution charges and fees on financial institution accounts	43	1.00
594	Duties taxes and charges on financial institution accounts nec	43	1.00
595	Fees nec - government	45	1.00
596	Fees nec - private	45	1.00
597	Alimony or maintenance payments	51	1.00
598	Cash gifts donations to charity nfd	51	1.00
599	Cash gifts donations to family or friends	51	1.00
600	Cash gifts donations to churches synagogues and related	51	1.00
601	Cash gifts donations to charity nec	51	1.00
602	Pocket money or allowance	51	1.00
603	Fines	50	1.00
604	Personal belongings insurance	37	1.00
605	Personal advertising and related	45	1.00
606	Non-holiday accommodation	33	1.00
607	Repair of miscellaneous goods	45	1.00
608	Travel insurance - selected payments	37	1.00
609	Counselling services	45	1.00
610	Delivery charges not associated with a specific good	45	1.00
611	Miscellaneous services nec	45	1.00
612	Income tax	49	1.00
613	Mortgage repayments - principal component (selected dwelling)	52	1.00
614	Mortgage repayments - principal component (other property)	52	1.00
615	Purchase of selected dwelling or other property (excluding mortgage repayments but including outright purchase deposit net of sales)	52	1.00
616	Additions and extensions	52	1.00
617	Internal renovations	52	1.00
618	Insulation	52	1.00
619	In-ground swimming pool	52	1.00
620	Outside building	52	1.00
621	Landscape contractor	52	1.00
622	Other outside improvements	52	1.00
623	Capital housing costs nec	52	1.00
624	Superannuation and annuities	40	1.00
625	Life insurance	40	1.00
	Imputed rent	54	1.00

Table 14. Commodity Classification Conversion, CC054 to CC055

CC054	Description	CC026	Share
1	Food	1	1.00
2	Alcoholic beverages (not bought and consumed on licensed premises)	3	1.00
3	Tobacco products and requisites	2	1.00
4	Clothing and footwear	4	1.00
5	Actual rentals for housing	5	1.00
6	Other services relating to the dwelling (water and sewerage rates)	7	1.00
7	Electricity gas & other fuels	8	1.00
8	Furniture, furnishings and decorations, carpets and other floor coverings, repairs	9	1.00
9	Household textiles	9	1.00
10	Heating and cooking appliances, refrigerators, washing machines, and similar household appliances	9	1.00
11	Glassware, tableware and household utensils	9	1.00
12	Tools and equipment for house and garden	9	1.00
13	Non-durable household goods including cleaning and maintenance products and articles	9	1.00
14	Health	10	1.00
15	Purchase of motor vehicles	11	1.00
16	Fuel and lubricants	12	1.00
17	Tyres and batteries	12	1.00
18	Accessories and repair and maintenance	12	1.00
19	Miscellaneous motoring expenditure	12	1.00
20	Rail, bus fares, taxi, hire car, air, sea, inland waterway	13	1.00
21	Communications	14	1.00
22	Audio visual equipment	15	1.00
23	Other major durables for recreation and culture	15	1.00
24	Games, toys and hobbies, equipment for sport, camping and open air recreation, includes hire	15	1.00
25	Flowers and garden supplies	15	1.00
26	Pets, pet food and pet products	15	1.00
27	Sporting and recreational services including hire of equipment and facilities	16	1.00
28	Cinemas, admissions, Pay TV, Television video hire, veterinary and pet services	16	1.00
29	Net losses from gambling	16	1.00
30	Newspapers, books, stationery, magazines and artists goods	17	1.00
31	Education services, pre-school, primary and secondary, post-secondary, tertiary (incl. NPIs)	18	1.00
32	Catering	19	1.00
33	Accommodation services	20	1.00
34	Hairdressing and beauty salon services	21	1.00
35	Perfume, cosmetics, soap products and other toiletries	21	1.00
36	Jewellery, watches and clocks and other personal effects	22	1.00
37	Casualty insurance of householders effects	23	1.00
38	Motor vehicle insurance	23	1.00
39	Health insurance	23	1.00

... continued

Table 14 (continued). Commodity Classification Conversion, CC054 to CC055

CC054	Description	CC026	Share
40	Life insurance and superannuation	23	1.00
41	Workers compensation	23	1.00
42	Financial services nec. – financial intermediation services indirectly measured (FISIM)	24	1.00
43	Financial services nec. - Explicit charges	24	1.00
44	Child care services	25	1.00
45	Misc services (excl child care)	25	1.00
46	Operating expenses – housing	26	1.00
47	Interest payments – housing	26	1.00
48	Interest payments – other	26	1.00
49	Income taxes	26	1.00
50	Other current taxes on income	26	1.00
51	Transfers between households and NGOs	26	1.00
52	Capital expenditure – housing	26	1.00
53	Lease payments	26	1.00
54	Imputed rent	6	1.00

Table 15. Household Expenditure Shares, CC025, Per Cent

Age and sex	2004-05	2012-13	2024-25
1 Food	11.11	11.13	11.14
2 Cigarettes and tobacco	1.72	1.69	1.64
3 Alcoholic beverages	1.92	1.89	1.82
4 Clothing and footwear	3.83	3.85	3.85
5 Actual rent for housing	4.25	4.28	4.25
6 Imputed rent for owner-occupiers	12.81	12.87	13.22
7 Water and sewerage services	0.85	0.85	0.87
8 Electricity, gas and other fuel	2.09	2.10	2.12
9 Furnishings and household equipment	5.75	5.77	5.85
10 Health	5.02	5.05	5.06
11 Purchase of vehicles	4.06	4.03	3.93
12 Operation of vehicles	5.65	5.62	5.56
13 Transport services	2.43	2.43	2.41
14 Communication	2.87	2.88	2.90
15 Goods for recreation and culture	4.45	4.42	4.38
16 Recreational and cultural services	6.23	6.18	6.21
17 Books, papers, stationary and artists goods	1.60	1.63	1.66
18 Education services	1.83	1.78	1.67
19 Catering	6.64	6.58	6.46
20 Accommodation services	1.19	1.19	1.18
21 Personal care	1.94	1.97	2.00
22 Personal effects	0.84	0.85	0.86
23 Insurance services	3.14	3.17	3.19
24 Other financial services	3.99	4.00	3.94
25 Other services	3.79	3.81	3.85
All commodities	100.00	100.00	100.00

**Table 16. Government Expenditure Growth Rates,
Australia, Per Cent Per Annum**

Period	Type	Simulation	
		A	B
2004-05 to 2012-13	Health	4.54	3.76
	Education	2.31	3.28
	Aged care	5.84	1.76
2004-05 to 2024-25	Health	4.08	3.24
	Education	2.16	2.91
	Aged care	5.13	1.53

PART B: THE SIMULATION RESULTS

1. Introduction

As discussed in Part A, we model the effects of population ageing on labour supply by comparing two economies: a basecase in which population ageing takes place, and an alternative (counterfactual) economy in which the age structure of the population remains unchanged. We model three economic effects arising from keeping the age structure of the population unchanged:

- (i) changes in the supply of labour (hours) distinguished by skill type;
- (ii) changes in the commodity composition of private consumption demand; and
- (iii) changes in the level and commodity composition of public consumption demand.

We believe it is useful to view the first of these effects (changes in the supply of labour by skill) as being comprised of two components, which we shall call the “scale effect” and the “skill effect”. The scale effect refers to the fall in total hours as population ageing causes workers to move into older age categories that have lower participation rates. The skill effect recognises that skills are unevenly distributed across age categories, so that even if population ageing were to have no effect on total hours of employment, it would still affect the supply of labour holding particular skills.

We discuss our simulation results by distinguishing the individual contributions of four factors: the scale effect, the skill effect, changes in household tastes, and changes in public consumption. To do this, we must run five counterfactual simulations:

- (i) one that only removes age-related shifts in household tastes;
- (ii) one that only removes age-related shifts in public consumption;
- (iii) one that only removes age-related shifts in hours of employment distinguished by skill;

- (iv) one that only removes age-related shifts in total hours of employment, leaving the skill composition of employment unchanged at its basecase level;
- (v) one that removes age-related shifts in household tastes, age-related shifts in public consumption, and age-related shifts in hours of employment distinguished by skill.

Results from simulation (v) tell us the total effects of population ageing. Simulation (i) isolates the effects of age-related shifts in private consumption patterns. We call this the “taste effect”. Simulation (ii) isolates the effects of age-related shifts in public consumption spending. We call this the “public effect”. Simulation (iv) isolates the scale effect. The difference between results for simulation (iii) and simulation (iv) is the skill effect.

The model is non linear, so the sum of the scale, skill, taste, and public effects will be slightly different from the sum of the individual effects, provided by simulation (v). However, as we shall see, the difference is small. Hence the effects of population ageing can be understood by considering the consequences of the scale, skill, taste and public effects in isolation.

Our simulations generate results for year 2005 – 2025. These are reported in appendix Tables A1 – E11. To facilitate our discussion of results, we concentrate on year 2025 impacts. These are reported in Tables 1 – 11. The values in the tables are year 2025 percentage deviations in the levels of the variables in the counterfactual (no-ageing) scenario away from their values in the basecase (ageing) scenario. The first four columns of Tables 1 – 11 correspond to the four population ageing effects that we model: a change in total hours supplied (the scale effect, column 1); a change in the skill composition of labour supply (the skill effect, column 2); a change in household preferences (the taste effect, column 3); and a change in the composition of government spending (the public effect, column 4). Column 6 reports the effects of all four ageing (scale, skill, taste and public) considered jointly. Because the model is non-linear, the total effect is slightly different from the sum of the individual effects reported in columns 1-4. We report the difference as a residual in column 5. The residual is small. Hence the impacts of population ageing can be understood in terms

of the individual contributions of the four factors identified in columns 1 – 4. We now discuss the results in Tables 1 – 11, proceeding column by column.

2. The Scale Effect (column 1)

Column 1 isolates the effects of age-related changes in total hours worked, while holding the skill composition of total hours at basecase values. The nature of the simulation can be seen by examining Table 1 and Tables 6 – 8. Removing the effects of age-related changes in employment causes total hours supplied to rise, relative to basecase. By 2025 employment (hours) in the counterfactual case is projected to be 5.7 per cent higher than basecase (row 9, Table 1). Recall that our aim in column 1 is to isolate the scale effect. Hence, by design, we see in column 1 of Tables 6 – 8 that employment, distinguished by qualification and field, expands uniformly by 5.7 per cent.

We assume that in the no-ageing economy investors are aware of the prospects for higher labour supply. Hence the deviation in the capital stock (row 11, column 1) almost matches the deviation in employment (row 10). However the capital deviation is slightly below the employment deviation because of the negative deviation in the terms of trade (row 23). The terms of trade decline relative to basecase because the no-ageing economy is larger than the basecase economy (row 1). With the economy larger relative to basecase, import volumes must be higher to sustain higher production (row 1) and meet higher consumption and investment demands (rows 4 – 6). Higher import volumes (row 8) must be financed via higher export volumes (row 7). Foreign demands are modelled in MONASH via downward-sloping constant elasticity demand schedules. Hence, for export volumes (row 7) to expand, foreign currency prices for our exports must decline. With foreign currency import prices exogenous, this accounts for the decline in the terms of trade (row 23). The decline in the terms of trade, in conjunction with a rise in the relative cost of capital (compare rows 22 and 18), accounts for the slower growth in capital relative to labour supply. With the terms of trade lower, in order to finance a given volume of imports, export volumes must expand by more than import volumes. This accounts for the movement towards surplus in the real balance of trade (rows 7 and 8). To stimulate export

volumes relative to import volumes, the real exchange rate must depreciate relative to basecase (row 13).

Table 2 presents results for 25 sectors. These are an aggregation of the results for 106 industries reported in Table 3. Consistent with both the expansion in aggregate activity (row 1, Table 1) and the nearly uniform expansions in the expenditure-side components of GDP (rows 4-8, Table 1), all sectors expand. From the discussion of macro results in the preceding paragraph, we know that an expansion in total hours causes the real exchange rate to depreciate (row 13, column 1, Table 1). In general, this has a favourable effect on output of industries producing export and import-competing commodities. This accounts for the favourable output rankings within column 1 of such trade-exposed industries as *motor vehicles* and *footwear*. With real consumption rising (row 4, Table 1) but population unchanged, per-capita income rises. This stimulates demand for the income-elastic commodity *ownership of dwellings*. Output of *ownership of dwellings* is 6.0 per cent above basecase by 2025. To increase the size of the housing stock, output of sectors involved in dwellings construction must also expand strongly relative to basecase. This accounts for the favourable output rankings of industries such as *ceramic products manufacturing*, *residential building*, and *sawmill products*.

Not all trade-exposed industries experience favourable output deviations. Despite the real depreciation, agricultural industries are among the lowest ranked in terms of output deviation. For example, both *sheep* and *grains* each experience a year 2025 output deviation of only 1.9 per cent, 3.6 percentage points below the year 2025 deviation for real GDP. *Sheep*, *grains*, *beef cattle*, *dairy cattle*, *pigs* and *other agriculture* use agricultural land (in addition to labour and capital) as a primary factor input. In the no-ageing case, we hold the supply of agricultural land at its basecase (with-ageing) level. As discussed above, in the no-ageing case the economy experiences a positive deviation in aggregate activity. This causes demand for output of the aforementioned agricultural industries to expand. However the expansion possibilities of these industries is constrained by the fact that they face a limited ability to substitute between land and other primary factors. This causes the price of agricultural land to rise relative to basecase. This feeds into the prices of agricultural goods. This is apparent in column 1 of Table 4, where we find agricultural industries

experiencing large positive deviations in per-unit production costs, relative to other industries. Since other industries do not use primary factors that are in fixed long-run supply, the price of agricultural goods rises relative to other domestic goods. This has a number of implications for activity in agricultural and related industries. Firstly, these industries export a relatively high proportion of their output, and export demand elasticities are high compared to domestic price elasticities. As a result, agricultural industries experience negative deviations in export volumes. This explains why the traditional export deviation (which includes agricultural exports) is below the aggregate export deviation (compare rows 15 and 7, Table 1). Agricultural commodities are also important inputs into domestic agricultural processing industries. Hence the positive deviation in agricultural commodity prices causes a positive deviation in costs for domestic agricultural processing industries. This can be seen in column 1 of Table 4, where we find industries such as *meat products*, *dairy products*, *fruit and vegetable products*, *other food products*, and *wine and spirits* experiencing comparatively high positive cost deviations. These industries face limited ability to pass on increases in costs, since much of their output is sold to price-sensitive domestic consumers and to export markets. The products produced by agricultural processing industries also tend to have relatively low income elasticities, and are thus not stimulated to the same degree as other industries by the 4.9 per cent rise in real consumption spending. These factors account for the low output ranking of industries such as *bakery products* (row 21), *poultry* (row 6), *soft drinks, cordials and syrups* (row 24), *meat products* (row 16), *other food products* (row 23), *wine and spirits* (row 26), *beer and malt* (row 25), *fruit and vegetable products* (row 18), *flour and cereal foods* (row 20), *dairy products* (row 17) and *oils and fats* (row 19).

Table 5 reports deviations in occupational employment outcomes. Employment in all occupations expands, and the dispersion of occupational employment outcomes is not large. This reflects two features of the simulation reported in column 1. Firstly, consistent with our desire to isolate scale effects in column 1, employment classified by skill expands uniformly (see Tables 6 – 8). Since we allow only limited ability for holders of particular skills to transform their labour across occupations, from a supply-side perspective, this tends to promote uniform expansion in employment by occupation in column 1. Secondly, since the dispersion of industry output deviations is not large (see Tables 2 and 3), there is little demand-side pressure for a change in

the occupational composition of the labour force. The largest occupational employment deviations are for *farmers and farm managers* (row 7) and *agricultural and horticultural labourers* (row 79). This is due to fixed land supply in the agriculture sector, where these occupations are mostly employed. For agricultural sectors to expand, they must substitute towards labour (and capital). This promotes employment of occupations used intensively in agriculture. Other occupations experiencing above average employment deviations are tradespersons, engineers and labourers. These occupations are used in mining and construction, industries experiencing above average output deviations. Among the lowest year 2025 occupational employment deviations are *food tradespersons, sales assistants, shop managers, elementary food preparation workers, and hospitality and accommodation workers*. These occupations are employed predominantly in the food processing industries and the retail trade and hospitality industries. As discussed earlier, food processing industries experience low output deviations because of input cost pressure, and markets for their products that are simultaneously price-elastic and income-inelastic. With food processing industries experiencing low output deviations, so too do the retail trade and hospitality industries. This is because margin services provided by retail trade and hospitality are important in facilitating the sale of commodities produced by food processing industries.

2. The Skill Effect (column 1)

Column (2) of Tables 1 – 11 isolates the year 2025 impact of removing age-related changes in the skill composition of the workforce, holding employment, household tastes, and government spending at year 2025 basecase levels. As is clear from Table 1, the skill effect alone has little impact on the macroeconomy. This largely follows from our assumption in column (2) that there is no age-related deviation in total hours of employment (row 9). To understand the results in column (2), the place to begin is Tables 6 – 8. These tables isolate age-related changes in the composition of employment, holding constant total hours of employment at year 2025 basecase levels. Recall that in moving from the basecase to the counterfactual case, we remove the effects of basecase age-related changes in the skill composition of employment. Table 6 isolates the effect on qualification levels. The largest positive employment deviations are experienced by workers with *no post school* and *bachelor* degrees. The

largest negative deviations are experienced by workers with *trade certificates*. In Table 7 we find the skill fields experiencing the largest positive employment deviations are *information technology*, *arts*, and *food and hospitality*. Large negative deviations are experienced by *engineering* and *education*.

Table 8 reports cross-classified trade and qualification outcomes. Table 5 reports occupational employment outcomes. The employment deviation ranking of any given occupation is largely determined by the employment deviations of skills that supply heavily to that occupation. For example, *mechanical engineering tradespersons*, *automotive tradespersons*, *fabrication engineering tradespersons*, *electrical and electronics tradespersons*, *wood tradespersons*, *printing tradespersons*, and *building and engineering associate professionals* are among the occupations experiencing the largest negative employment deviations in column 2 of Table 5. This is due to the relatively large negative employment deviations for most of the engineering skills (rows 13 – 18, column 2, Table 8). Holders of engineering skills are employed heavily in the aforementioned occupations. A similar story accounts for the low occupational employment outcomes for *school teachers* and *enrolled nurses*. In column 2 of Table 8, we see that removal of age-related changes in labour supply classified by skill results in negative employment deviations for all education qualifications (rows 37 – 41). Many holders of these skills are employed as *school teachers*. The low employment outcome for *enrolled nurses* is due to negative employment deviations in the two *health* qualifications *certificate 3 & 4* and *advanced diploma*.

Occupations experiencing the largest positive employment deviations are *hairdressers*, *accountants*, *computing professionals*, *food tradespersons*, and *finance associate professionals*. The high employment ranking of these occupations is explained by positive deviations in employment of the skills used intensively in these occupations. Firstly, these occupations are all relatively intensive in the employment of workers with *no post school* qualifications, which in column 2 experiences a 1.3 per cent employment deviation. The positive deviation in *food and hospitality cert. 3 & 4* qualifications contributes to the positive employment deviations of *hairdressers* and *food tradespersons*. Most *management* qualifications (rows 42 – 47, **Table 8**) experience positive employment deviations, and this contributes to the high employment ranking of occupations such as *accountants*, *computing professionals*,

finance associate professionals, and *intermediate numerical clerks*. The positive employment deviation experienced by *computing professionals* is also due, in part, to the positive deviation in employment of skill *information technology, bachelor* (row 9, Table 8).

Table 9 reports occupational wage deviations. There is a strong negative correlation between the occupational employment outcomes in Table 5 and the occupational wage outcomes in Table 9. This is because the results in column 2 are largely supply driven. For example, a negative deviation in engineering skills requires employment to fall in occupations that use engineering skills intensively. This is achieved via a rise in the wages of occupations that typically require engineering skills. This is useful for understanding industry results. Table 4 reports year 2025 deviations in per-unit costs, by industry. The largest per-unit cost increases, relative to basecase, are experienced by *education, mechanical repairs, other repairs, aircraft, railway equipment, other machinery and equipment, and health services*. Cost increases for these industries are due to positive wage deviations for occupations such as teachers, tradespersons, and nurses. As discussed earlier, these occupational wage rises can be traced back to negative deviations in supply of skills relating to *education and engineering, and health qualifications cert 1 & 2, cert 3 & 4 and advanced diploma*.

Some of the largest negative deviations in per-unit costs are experienced by *legal and accounting services, banking, insurance, retail trade, libraries and museums, services to finance, accommodation, non-bank finance, and personal services*. Generally, this is due to the negative wage deviations experienced by occupations such as *accountants, hairdressers, computing professionals, food tradespersons, hospitality workers, and finance associate professionals*. In turn, these negative occupational wage outcomes can be traced back to positive deviations in employment of workers with *no post school qualifications, management qualifications, and food and hospitality qualifications*. An exception is libraries and museums, which experiences a negative cost deviation because of a positive deviation in supply of workers with *arts, bachelor and arts, adv dip qualifications*.

2. Age-related changes in household preferences (column 3)

Column (3) in Tables 1 – 11 reports the year 2025 economic effects of removing age-related changes in household tastes. We do this by shifting household taste parameters away from their basecase values by amounts sufficient to offset the effects of population ageing on household budget shares. Age-related changes in household consumption have direct and indirect effects on the sectoral composition of economic activity. The direct effects are straightforward: commodities experiencing favourable (unfavourable) age-related shifts in household consumption in the basecase experience negative (positive) deviations in output when we move to the counterfactual scenario. However, we find that depreciation of the real exchange rate is an indirect effect of removing age-related shifts in household consumption patterns. This has favourable impacts on export and import competing industries.

In the basecase, the ten commodities experiencing the largest (weighted by budget share) age-related falls in household tastes are, in order of biggest decline to smallest decline: *education, motor vehicles and parts, accommodation cafes and restaurants, tobacco products, retail trade, beer and malt, petroleum and coal products, wine and spirits, banking, and electronic equipment*. In the counterfactual scenario, we remove age related changes in household tastes. Hence the industries producing the aforementioned commodities are among those experiencing the largest positive output deviations in column 3. In the basecase, the ten commodities experiencing the largest (weighted by budget share) age-related rises in household tastes are, in order of biggest rise to smallest rise: *ownership of dwellings, insurance, cosmetics and toiletries, communication services, personal services, other services, publishing and recorded media, water sewerage and drainage services, and electricity supply*. Since, in the counterfactual scenario, we remove age-related changes in household tastes, the industries producing these commodities are among those experiencing the largest negative output deviations in column 3.

Removing the effects of population ageing on household tastes has only small macroeconomic effects (Table 1, column 3). Broadly, in moving to the counterfactual scenario, the shift in household tastes is away from capital-intensive commodities.

This largely reflects the top ranking of *ownership of dwellings* among those commodities experiencing positive age-related preference shifts in the basecase. The shift in final demand away from capital intensive commodities causes the capital intensity of the macroeconomy to fall. This accounts for the negative deviation in the aggregate capital stock (Table 1, row 11, column 3). For the capital stock to fall relative to basecase, so too must investment. This accounts for the negative deviation in real investment (row 5). Since labour supply (row 9) is not affected by the removal of age-related taste shifts, and capital supply is largely unaffected (row 11) there is little change in real GDP (row 1). Since real GDP is largely unaffected by the taste shocks, the negative deviation in real investment causes the real GNE deviation (row 3) to be below the real GDP deviation (row 1). Hence the balance of trade moves towards surplus. This is facilitated by real depreciation (row 13). Real depreciation and the associated movement towards surplus in the balance of trade explains the positive deviation in export volumes (row 7) and negative deviation in import volumes (row 8). The positive deviation in export volumes causes a small negative deviation in the terms of trade (row 23). This accounts for the small fall in real GNP (row 2). Our macro closure allows real private and public consumption spending to move with real GNP. Hence, with real GNP below basecase, so too are private and public consumption spending (rows 4 and 6 respectively).

Real depreciation has a positive impact on trade-exposed sectors. This accounts for the positive output deviations of the agricultural and mining industries (rows 1 – 15, Table 3). It also has a positive impact on import-competing industries such as clothing and footwear (rows 31 and 32, table 3) and motor vehicles and parts (row 59, Table 3).

Table 5 reports occupational employment deviations. As discussed above, *education* is among the industries experiencing the largest positive output deviation as a result of removing age-related taste changes. This is reflected in the occupational results. By 2025 the three occupations experiencing the largest positive employment deviations as a result of removing age-related taste changes are *university and vocational education teachers* (row 18), *miscellaneous education professionals* (row 19) and *school teachers* (row 17). The fourth and fifth ranked occupations in terms of positive employment deviation are *hospitality workers* (row 62) and *hospitality and*

accommodation managers (row 29). This reflects the concentration of employment in these two occupations within the *accommodation cafes and restaurants*, and *retail trade* industries. As discussed above, both these industries are subject to adverse age-related shifts in household preferences in the basecase, and hence do comparatively well when these taste shifts are excluded from the counterfactual case. *Farm managers* (row 7), *agricultural and horticultural labourers*, and *skilled agricultural workers* are also among the occupations experiencing the largest positive employment deviations. Employment in these occupations expand relative to basecase as a result of positive deviations in the output of agricultural industries. As discussed above, agricultural industries gain from the real depreciation brought about by the removal of age-related shifts in preferences towards capital-intensive commodities (particularly *ownership of dwellings*). Relative to basecase, employment of *carers and aides* (row 61) is favourably affected by the positive output deviation of *education*, an industry that accounts for just over twenty per cent of employment in this occupation. Employment of *automotive tradespersons* (row 38) and *mechanical engineering tradespersons* (row 36) rises relative to basecase due to the positive output deviation of the *motor vehicles and parts* industry.

The negative employment deviations of the bottom ranked occupations are also largely a product of industry output outcomes. By 2025 *hairdressers* (row 48) has experienced the largest negative employment deviation. This is because the counterfactual case excludes the basecase age-related shifts in household preferences towards *personal services* (row 106, Table 7). The removal in the counterfactual of basecase age-related shifts in household preferences towards *ownership of dwellings* damps activity in the sectors providing dwellings construction services, in particular, *residential building* (row 75, Table 7). The negative deviation in this industry's activity accounts for the negative deviations in employment in such occupations as *structural construction tradespersons* (row 40, Table 8), *plumbers* (row 42), *final finish construction tradespersons* (row 41), *mining, construction and related labourers* (row 78) and *electrical and electronic tradespersons* (row 39). Relative to basecase, employment in the latter occupation is also lower because of the removal of age-related shifts in preferences towards *communication services* (row 87, Table 3).

4. Composition of public consumption spending (column 4)

Column (4) reports the results of removing future age-related changes in government consumption spending. As explained in Part A, we use the estimates prepared by the Productivity Commission for its report on population ageing. Broadly, the Commission projects that by 2025 age-related changes in health spending will add 16 per cent to public spending on health, age-related changes in education spending will subtract 17 per cent from public spending on education, and age-related changes in aged care will add 50 per cent to public spending on aged care. In Column (4) we remove the effects of age-related changes in public spending. The impact of this is clearest in Table 3. By 2025, the removal of age-related changes in public education spending lifts *education* output (row 99) by 7.8 per cent, relative to basecase. Removal of age-related changes in public spending on *health* (row 100) and *community services* (row 101) reduces output of these industries by, respectively, 6.8 and 16.4 per cent, relative to basecase.

In modelling the fiscal effects of age-related changes in the composition of public spending, we divide our 106 commodities into two sets: those we believe will be directly affected by population ageing, and those we believe will be only indirectly affected by population ageing. The former set consists of *education*, *health*, and *community services*. The latter set consists of all other commodities. For all simulations, in all years, the percentage change in public demand for commodity i ($xgov_i$) is given by equations of the form:

$$xgov_i = realcons + fxgov_i$$

where *realcons* is the percentage change in real private consumption spending, and $fxgov_i$ is an exogenous shift on public consumption of commodity i . Selected elements (those corresponding to age-related commodities) of the $fxgov_i$'s are only changed (relative to basecase) in columns (4) and (6). Hence, in all other columns, aggregate public consumption moves with aggregate private consumption, and the commodity-composition of public consumption is unchanged. In columns (4) and (6), age-related

changes in public consumption are implemented by shocking $fxgov_{health}$, $fxgov_{education}$, and $fxgov_{community_services}$. The shocks to these variables reflect the Commission's estimates of age-related changes in public consumption of these commodities. Public expenditure on the remaining 103 commodities continues to move with real private consumption spending. This explains why, for example, in column (4), output of *defence* and *public administration* rises by 0.3 per cent.

Changes in the commodity-composition of public spending have little effect on the economy's capital and labour endowment. This explains the absence of a deviation in real GDP (Table 1, row 1, column 4). With GDP unchanged, there is little change in real GNP (Table 1, row 2, column 4). As in all other columns, we assume that aggregate (private plus public) real consumption spending moves with real GNP. Hence, with real GNP largely unchanged in column (4), so too is aggregate consumption spending. However the net effect of: (a) removing age-related shifts in public consumption and (b) indexing the remaining elements of public consumption to private consumption, is to reduce public consumption spending by 0.6 per cent (Table 1, row 6, column 4). Since total consumption is tied to real GNP, this reduction in public consumption allows private consumption to be 0.3 per cent higher than basecase.

Age-related changes in government expenditure on *education*, *health* and *community services* generate large changes in the wages of occupations used intensively in these industries. This reflects an assumption in our modelling, and so we caution strongly against the interpretation of the wage outcomes for occupations and skills as forecasts. Recall that in each year of the basecase and counterfactual simulation, labour supply distinguished by skill is determined exogenously. Skills can be transformed across occupations in response to changes in occupational relative wages. However our wagebill data shows that holders of education and health skills are employed predominantly in a narrow range of education and health occupations. In turn, these education and health occupations are employed predominantly by the education and health industries. Hence labour market prospects for holders of education and health skills are very sensitive to changes in demand for education and health output. The sensitivity of these skills to prospects for the education and health industries is compounded by the fact that these industries face relatively low price elasticities of

demand for their output. This is because government is a major purchaser of health and education, and we model government commodity demands as price-inelastic. For example, consider government demand for health. In moving from the basecase to the counterfactual case, we remove age-related increases in government health demand. This accounts for the fall in health output (Table 3, row 100, column 4). As output of health falls, so too does demand for health related occupations. This accounts for the falls in employment in health-related occupations in column 3 of Table 4. However these occupations are used predominantly in health, and thus have few employment prospects outside of this sector. At the same time, holders of health-related skills supply their labour predominantly to health-related occupations. Hence, as demand for health output falls, suppliers of health-related skills bear much of the adjustment via lower wages. The fact that the resulting lower price of health output does not generate much increase in health demand (because demand for health is price inelastic) adds to the downward pressure on health worker wages. The resulting falls in health wages are high: *medical practitioners*, *nursing professionals*, *miscellaneous health professionals* and *enrolled nurses* experience wage reductions of around 20 per cent (relative to basecase) by 2025. This result tells us two things. Firstly, an adjustment mechanism is missing from our model. For example, we would expect the downward pressure on wages in health-related occupations to be mitigated by factors such as reduced enrollments in courses leading to the acquisition of medical skills, and reduced intake of immigrants with medical skills. For this reason, the wage outcomes cannot be interpreted as forecasts. However they do anticipate adjustment pressure. Recall that we report results as the effects of *removing* the effects of population ageing. As such, our results for health-related wages indicate a need to increase training of workers with health-related skills in order to reduce age-related cost pressures in health.

Table 1: Decomposition of year 2025 macroeconomic deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
1. Real GDP	5.5	-0.1	0.0	0.0	0.0	5.4
2. Real GNP	4.9	-0.1	-0.2	0.1	0.0	4.7
3. Real GNE	4.9	-0.1	-0.3	-0.1	-0.1	4.3
4. Real private consumption	4.9	-0.1	-0.2	0.3	-0.1	4.9
5. Real investment	4.9	-0.1	-0.8	-0.6	-0.1	3.2
6. Real public consumption	4.9	-0.1	-0.2	-0.6	0.0	4.0
7. Export volumes	5.9	-0.1	0.6	-0.4	-0.1	6.0
8. Import volumes	4.4	-0.1	-0.1	-0.6	-0.1	3.4
9. Employment (hours)	5.7	0.0	0.0	0.0	0.0	5.7
10. Employment (wage weights)	5.7	-0.1	0.0	0.1	0.0	5.7
11. Capital stock	5.3	-0.1	-0.3	-0.1	-0.1	4.8
12. Real consumer wage	-2.8	0.2	0.1	0.1	0.2	-2.1
13. Real exchange rate (a)	-2.5	-0.1	-0.7	-0.8	0.0	-4.1
14. Nominal exchange rate (b)	-1.6	-0.3	-0.7	-0.9	0.0	-3.3
15. Traditional export volume	4.7	0.2	0.8	2.0	0.3	8.0
16. Non-traditional export vol.	6.7	-0.4	0.6	-2.3	-0.3	4.3
17. Tourism volume	6.3	1.4	0.8	2.8	0.4	11.7
18. GDP deflator	-0.9	0.2	-0.1	0.1	0.1	-0.7
19. CPI	0.0	0.0	0.0	0.0	0.0	0.0
20. Government deflator	-1.8	0.7	0.4	0.6	0.4	0.3
21. Consumption deflator	-0.4	0.2	0.1	0.1	0.1	0.1
22. Investment deflator	0.1	0.1	0.0	0.3	0.0	0.6
23. Terms of trade	-1.5	0.0	-0.2	0.1	0.0	-1.5

Table 2: Decomposition of year 2025 sectoral output deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
1. Agric., forestry & fishing	3.7	0.0	0.2	-0.2	-0.1	3.6
2. Mining	6.1	0.0	0.7	1.2	0.2	8.3
3. Food processing	3.3	0.2	0.6	0.4	0.0	4.5
4. Textiles, clothing, footwear	5.4	0.2	0.0	0.2	0.0	5.8
5. Paper, printing	5.7	0.0	-0.3	-0.1	-0.1	5.2
6. Chemical, petroleum, coal	6.4	0.0	0.1	-0.5	-0.1	5.8
7. Basic metal products	6.2	-0.3	0.8	1.1	0.2	8.0
8. Transport equipment	7.8	-0.4	0.9	-0.1	0.0	8.3
9. Fabricated metal products	6.4	-0.2	-0.2	0.0	-0.1	6.0
10. Other manufacturing	6.4	-0.2	-0.2	-0.7	-0.1	5.2
11. Electricity, gas, water	5.4	-0.1	-0.7	0.1	-0.1	4.6
12. Construction	5.9	-0.2	-1.5	-0.2	-0.2	3.8
13. Wholesale trade	5.3	-0.1	-0.1	-0.7	-0.1	4.3
14. Retail trade	4.9	0.0	0.2	0.1	0.0	5.1
15. Transport, stor., communic.	5.4	0.0	-0.1	-0.1	-0.1	5.0
16. Finance, insurance	5.6	0.1	-0.2	-0.1	-0.1	5.4
17. Other business services	5.3	-0.1	-0.1	-0.8	-0.1	4.1
18. Education	5.6	-0.4	1.3	7.8	0.2	14.3
19. Health, welfare	5.5	-0.2	-0.3	-8.0	-0.4	-3.4
20. Entertainment	5.3	0.0	-0.2	-0.1	-0.1	5.0
21. Personal services	5.5	0.0	-0.9	0.3	-0.1	4.8
22. Restaurants, hotels	5.2	0.3	0.8	0.4	0.0	6.7
23. Dwellings ownership	6.0	-0.1	-0.7	0.2	-0.1	5.3
24. Public administration	5.0	-0.1	-0.2	0.3	-0.1	4.9
25. Defence	4.9	-0.1	-0.2	0.3	-0.1	4.9

Table 3: Decomposition of year 2025 industry output deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
1. Sheep	1.9	0.3	0.1	0.8	0.1	3.2
2. Grains	1.9	0.1	0.1	0.3	0.0	2.5
3. Beef cattle	3.6	0.3	0.2	0.6	0.0	4.8
4. Dairy cattle	4.8	-0.2	0.4	-1.3	-0.2	3.5
5. Pigs	2.5	0.3	0.1	1.0	0.0	4.0
6. Poultry	2.0	0.3	0.0	0.9	0.0	3.2
7. Other agriculture	3.6	0.0	0.2	-0.3	0.0	3.5
8. Agricultural services; hunting	6.0	-0.3	0.5	-1.7	-0.3	4.3
9. Forestry and logging	6.5	-0.2	0.1	-0.8	-0.2	5.4
10. Commercial fishing	5.3	0.3	0.3	1.4	0.3	7.6
11. Coal; oil and gas	5.8	0.1	0.7	1.5	0.2	8.4
12. Iron ores	6.2	0.2	0.9	1.9	0.3	9.5
13. Non-ferrous metal ores	6.5	-0.1	1.0	2.0	0.4	9.8
14. Other mining	6.6	-0.2	0.1	-1.2	-0.2	5.1
15. Mining services	6.5	-0.2	0.8	-0.2	0.0	6.9
16. Meat products	2.4	0.3	0.1	1.1	0.0	4.0
17. Dairy products	4.4	-0.2	0.3	-1.1	-0.1	3.2
18. Fruit and vegetable products	3.9	-0.1	0.0	-0.6	-0.1	3.1
19. Oils and fats	4.2	0.1	0.0	0.0	0.0	4.2
20. Flour and cereal foods	4.1	-0.1	0.2	-0.8	-0.1	3.3
21. Bakery products	2.2	-0.1	-0.1	-0.4	-0.1	1.5
22. Confectionery	4.9	-0.1	0.2	-0.7	-0.1	4.3
23. Other food products	2.8	0.4	0.2	1.1	0.1	4.6
24. Soft drinks, cordials, syrups	2.2	-0.1	-0.4	-0.2	-0.1	1.5
25. Beer and malt	3.6	0.0	4.3	-0.1	0.1	7.7
26. Wine and spirits	2.7	0.8	1.7	2.3	0.4	8.0
27. Tobacco products	5.0	0.1	3.1	-0.4	0.0	7.8
28. Textile fibres, yarns etc	4.6	0.5	0.2	1.4	0.2	6.8
29. Textile products	7.1	0.1	-0.4	-0.1	-0.1	6.5
30. Knitting mill products	3.1	0.2	-0.3	0.3	0.0	3.3
31. Clothing	4.8	0.2	0.1	-0.1	-0.1	4.9

Table 3 (cont): Decomposition of year 2025 industry output deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
32. Footwear	7.5	0.7	0.6	2.5	0.4	11.8
33. Leather and leather products	6.8	-0.3	0.6	-2.1	-0.3	4.7
34. Sawmill products	7.3	-0.2	-0.2	-0.9	-0.2	5.8
35. Other wood products	6.8	-0.2	-0.8	0.0	-0.1	5.6
36. Pulp, paper and paperboard	6.5	-0.1	0.1	-0.5	-0.1	6.0
37. Paper bags and products	5.1	0.0	-0.4	-0.1	-0.1	4.5
38. Printing; services to printing	5.6	0.0	-0.3	-0.2	-0.1	5.0
39. Publishing; recorded media etc	5.8	0.1	-0.4	0.1	-0.1	5.5
40. Petroleum and coal products	5.7	-0.1	0.4	-0.2	0.0	5.8
41. Basic chemicals	7.1	-0.1	0.5	-0.9	-0.1	6.4
42. Paints	6.9	-0.1	0.1	-0.2	-0.1	6.5
43. Pharmaceuticals etc	6.7	0.0	0.3	-1.1	-0.2	5.8
44. Soap and detergents	5.9	0.0	-1.1	-0.3	-0.2	4.5
45. Cosmetics and toiletries	6.7	0.2	-1.7	-0.2	-0.2	4.8
46. Other chemical products	6.9	0.0	0.2	-0.2	-0.1	6.9
47. Rubber products	7.2	0.0	0.5	0.1	0.0	7.9
48. Plastic products	6.2	0.0	-0.3	-0.4	-0.1	5.3
49. Glass and glass products	5.9	0.0	0.5	-0.1	0.0	6.2
50. Ceramic products	7.7	-0.2	-1.6	0.1	-0.2	5.8
51. Cement, lime and concrete slurry	6.0	-0.2	-1.2	-0.2	-0.1	4.3
52. Plaster; other concrete products	6.2	-0.2	-1.4	0.0	-0.2	4.5
53. Non-metallic min. products nec	6.6	-0.1	-0.9	-0.1	-0.1	5.4
54. Iron and steel	7.0	-0.3	0.4	-0.7	-0.1	6.3
55. Basic non-ferrous metals etc	5.8	-0.3	1.1	2.0	0.4	9.0
56. Structural metal products	6.1	-0.2	-0.5	0.1	-0.1	5.5
57. Sheet metal products	5.6	-0.2	-0.1	-0.5	-0.1	4.7
58. Fabricated metal products	6.8	-0.3	0.2	0.1	0.0	6.8
59. Motor vehicles and parts etc	8.2	-0.4	1.1	0.0	0.1	9.0
60. Ships and boats	5.2	-0.2	0.2	0.0	0.0	5.2
61. Railway equipment	5.5	-0.3	0.3	-0.3	0.0	5.2
62. Aircraft	6.8	-0.1	0.4	-0.8	-0.1	6.1

Table 3 (cont): Decomposition of year 2025 industry output deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
63. Scientific etc equipment	6.6	-0.4	0.5	-2.3	-0.3	4.2
64. Electronic equipment	6.8	-0.2	0.6	-1.0	-0.1	6.1
65. Household appliances	6.1	-0.2	-0.7	-0.2	-0.1	4.8
66. Other electrical equipment	6.4	-0.2	0.1	-0.6	-0.1	5.6
67. Agricultural, mining etc equipment	6.3	-0.2	0.0	-0.3	-0.1	5.7
68. Other machinery and equipment	6.3	-0.3	0.4	-1.0	-0.1	5.2
69. Prefabricated buildings	4.7	0.1	0.3	0.3	0.0	5.3
70. Furniture	5.8	-0.2	-0.3	-0.5	-0.1	4.7
71. Other manufacturing	6.8	-0.2	0.6	-1.2	-0.2	5.8
72. Electricity	5.4	-0.2	-0.4	0.2	0.0	5.0
73. Gas	5.4	-0.1	-0.7	-0.1	-0.1	4.5
74. Water, sewerage and drainage	5.3	-0.1	-1.4	-0.1	-0.1	3.5
75. Residential building	7.4	-0.3	-3.0	0.4	-0.3	4.3
76. Other construction	4.4	-0.1	-0.1	-0.7	-0.1	3.4
77. Wholesale trade	5.3	-0.1	-0.1	-0.7	-0.1	4.3
78. Retail trade	4.6	0.1	0.1	0.1	0.0	4.9
79. Mechanical repairs	5.8	-0.7	0.7	0.2	0.0	6.0
80. Other repairs	5.3	-0.1	-0.3	-0.1	-0.1	4.8
81. Accommodation, cafes & restaurants	5.2	0.3	0.8	0.4	0.0	6.7
82. Road transport	4.9	-0.1	0.0	-0.5	-0.1	4.3
83. Rail, pipeline and other transport	5.1	-0.1	0.1	-0.3	0.0	4.7
84. Water transport	4.3	0.1	0.7	1.2	0.2	6.4
85. Air and space transport	7.2	0.2	0.3	0.8	0.1	8.6
86. Services to transport; storage	5.3	0.0	0.0	-0.1	-0.1	5.2
87. Communication services	5.3	0.0	-0.6	-0.2	-0.1	4.3
88. Banking	5.6	0.1	0.1	-0.1	-0.1	5.7
89. Non-bank finance	5.6	0.1	0.1	-0.1	-0.1	5.6
90. Insurance	5.6	0.2	-0.9	-0.1	-0.1	4.7
91. Services to finance etc	5.5	0.1	-0.1	-0.1	-0.1	5.4
92. Ownership of dwellings	6.0	-0.1	-0.7	0.2	-0.1	5.3
93. Other property services	5.4	-0.1	-0.1	-0.4	-0.1	4.9

Table 3 (cont): Decomposition of year 2025 industry output deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
94. Scientific research etc	5.0	-0.2	-0.2	-1.2	-0.1	3.3
95. Legal, accounting etc services	5.4	-0.1	-0.2	-0.5	-0.1	4.6
96. Other business services	5.5	-0.1	-0.1	-0.8	-0.1	4.4
97. Government administration	5.0	-0.1	-0.2	0.3	-0.1	4.9
98. Defence	4.9	-0.1	-0.1	0.3	-0.1	4.9
99. Education	5.6	-0.4	1.3	7.8	0.2	14.3
100. Health services	5.4	-0.2	-0.3	-6.8	-0.3	-2.2
101. Community services	5.6	-0.1	-0.1	-16.4	-0.8	-11.8
102. Motion picture, radio etc	5.0	-0.1	0.0	-0.4	-0.1	4.4
103. Libraries, museums, arts	5.5	0.1	-0.4	0.0	-0.1	5.0
104. Sport, gambling etc	5.3	0.1	-0.1	0.1	-0.1	5.2
105. Personal services	5.5	0.3	-1.7	0.2	-0.1	4.1
106. Other services	5.5	-0.1	-0.8	0.4	-0.1	5.0

Table 4: Decomposition of year 2025 industry cost deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
1. Sheep	2.3	0.3	0.8	1.0	0.1	4.4
2. Grains	2.1	0.3	1.0	1.0	0.1	4.5
3. Beef cattle	6.3	0.5	1.1	0.9	0.2	9.0
4. Dairy cattle	8.9	-0.4	1.2	-2.0	-0.9	6.9
5. Pigs	1.6	0.1	0.6	0.4	-0.1	2.5
6. Poultry	0.3	0.0	0.4	0.2	-0.2	0.7
7. Other agriculture	7.6	-0.1	1.0	-0.6	-0.2	7.7
8. Agricultural services; hunting	2.7	-0.1	0.5	-0.6	-0.2	2.3
9. Forestry and logging	-0.6	0.3	0.3	0.1	0.0	-0.1
10. Commercial fishing	-0.2	0.1	0.4	0.2	-0.1	0.5
11. Coal; oil and gas	0.2	0.2	0.4	0.4	0.0	1.3
12. Iron ores	0.2	0.2	0.5	0.4	0.0	1.3
13. Non-ferrous metal ores	0.0	0.3	0.4	0.4	0.0	1.1
14. Other mining	-0.4	0.2	0.1	0.1	0.0	-0.1
15. Mining services	-0.8	0.4	0.3	0.1	0.0	-0.1
16. Meat products	1.5	0.1	0.5	0.2	0.0	2.3
17. Dairy products	4.1	-0.2	0.7	-1.1	-0.5	3.1
18. Fruit and vegetable products	0.5	0.0	0.3	-0.1	-0.1	0.7
19. Oils and fats	0.2	0.1	0.4	0.3	0.0	0.8
20. Flour and cereal foods	0.2	0.0	0.4	0.2	0.0	0.9
21. Bakery products	-0.6	-0.3	0.3	-0.2	0.0	-0.9
22. Confectionery	0.0	0.0	0.3	0.1	0.0	0.3
23. Other food products	1.2	0.0	0.4	0.0	-0.1	1.5
24. Soft drinks, cordials, syrups	0.2	0.0	0.3	0.0	-0.1	0.4
25. Beer and malt	0.1	0.0	0.8	0.2	0.0	1.2
26. Wine and spirits	1.4	0.0	0.7	0.1	-0.1	2.1
27. Tobacco products	0.2	-0.1	0.4	0.1	0.0	0.6
28. Textile fibres, yarns etc	0.7	0.1	0.4	0.4	0.0	1.7
29. Textile products	-0.3	0.0	0.2	0.2	0.0	0.0
30. Knitting mill products	-0.1	0.0	0.3	0.2	0.0	0.4
31. Clothing	0.0	0.0	0.3	0.3	0.0	0.7

Table 4 (cont): Decomposition of year 2025 industry cost deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
32. Footwear	0.1	0.1	0.3	0.0	0.0	0.5
33. Leather and leather products	0.6	0.0	0.4	0.3	0.0	1.2
34. Sawmill products	-0.1	0.1	0.1	0.0	0.0	0.1
35. Other wood products	-0.2	0.3	-0.1	0.0	-0.1	-0.1
36. Pulp, paper and paperboard	0.2	0.1	0.3	0.2	0.0	0.8
37. Paper bags and products	0.2	0.1	0.3	0.3	0.0	1.0
38. Printing; services to printing	-0.2	0.2	0.2	0.2	0.0	0.3
39. Publishing; recorded media etc	-0.4	-0.2	0.2	0.2	0.0	-0.3
40. Petroleum and coal products	0.9	0.2	0.5	0.6	0.0	2.2
41. Basic chemicals	0.3	0.1	0.4	0.3	0.0	1.1
42. Paints	0.1	0.0	0.3	0.2	0.0	0.5
43. Pharmaceuticals etc	0.2	0.0	0.4	0.1	0.0	0.6
44. Soap and detergents	0.1	0.0	0.3	0.2	0.0	0.5
45. Cosmetics and toiletries	-0.2	0.0	0.2	0.1	0.0	0.0
46. Other chemical products	0.0	0.0	0.3	0.1	0.0	0.4
47. Rubber products	-0.1	0.1	0.3	0.2	0.0	0.4
48. Plastic products	0.0	0.1	0.2	0.1	0.0	0.4
49. Glass and glass products	-0.1	0.2	0.2	0.1	0.0	0.4
50. Ceramic products	-0.4	0.0	-0.2	0.1	-0.1	-0.5
51. Cement, lime and concrete slurry	-0.6	0.1	-0.2	0.0	0.0	-0.7
52. Plaster; other concrete products	-0.7	0.1	-0.3	-0.1	-0.1	-1.0
53. Non-metallic min. products nec	-0.6	0.1	-0.3	-0.1	-0.1	-0.9
54. Iron and steel	0.0	0.5	0.3	0.2	0.0	1.0
55. Basic non-ferrous metals etc	0.2	0.3	0.4	0.4	0.0	1.3
56. Structural metal products	-0.3	0.5	0.2	0.1	0.0	0.5
57. Sheet metal products	-0.1	0.4	0.3	0.2	0.0	0.7
58. Fabricated metal products	-0.2	0.6	0.2	0.1	0.0	0.7
59. Motor vehicles and parts etc	0.3	0.4	0.4	0.3	0.0	1.2
60. Ships and boats	0.2	0.6	0.3	0.3	0.0	1.3
61. Railway equipment	0.0	0.8	0.2	0.2	0.0	1.2
62. Aircraft	0.2	0.8	0.3	0.3	0.0	1.6

Table 4 (cont): Decomposition of year 2025 industry cost deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
63. Scientific etc equipment	-0.5	0.3	0.2	-1.0	0.0	-1.0
64. Electronic equipment	0.0	0.2	0.3	0.3	0.0	0.7
65. Household appliances	0.3	0.2	0.3	0.4	0.0	1.2
66. Other electrical equipment	0.0	0.3	0.3	0.3	0.0	0.8
67. Agricultural, mining etc equipment	-0.1	0.7	0.3	0.2	0.0	1.1
68. Other machinery and equipment	-0.1	0.8	0.3	0.2	0.0	1.1
69. Prefabricated buildings	-0.1	0.3	0.2	0.1	0.0	0.5
70. Furniture	-0.3	0.4	0.0	0.0	-0.1	-0.1
71. Other manufacturing	0.1	0.2	0.2	0.2	0.0	0.6
72. Electricity	-0.1	0.3	-0.1	0.2	0.0	0.2
73. Gas	-0.3	-0.1	0.1	0.1	0.0	-0.2
74. Water, sewerage and drainage	0.0	0.1	-0.9	0.1	0.0	-0.7
75. Residential building	-0.2	0.2	-1.6	0.1	0.0	-1.6
76. Other construction	-0.9	0.4	-0.6	-0.2	-0.1	-1.3
77. Wholesale trade	-1.1	-0.3	0.1	-0.2	-0.1	-1.7
78. Retail trade	-1.8	-0.6	0.1	-0.5	-0.1	-2.8
79. Mechanical repairs	-1.3	1.2	0.2	-0.2	-0.1	-0.1
80. Other repairs	-0.6	1.0	0.2	0.1	-0.1	0.5
81. Accommodation, cafes & restaurants	-0.8	-0.6	0.5	-0.2	0.0	-1.2
82. Road transport	-1.0	0.0	0.1	-0.2	0.0	-1.0
83. Rail, pipeline and other transport	-0.7	0.1	0.1	0.0	0.0	-0.5
84. Water transport	-0.9	0.0	0.4	0.2	0.0	-0.4
85. Air and space transport	-0.1	0.2	0.3	0.2	0.0	0.6
86. Services to transport; storage	-0.9	-0.3	0.1	-0.3	0.0	-1.5
87. Communication services	-0.8	-0.2	-0.2	-0.1	-0.1	-1.3
88. Banking	-0.7	-0.8	0.2	0.2	0.0	-1.1
89. Non-bank finance	-0.5	-0.6	0.2	0.1	0.0	-0.8
90. Insurance	-0.9	-0.7	0.0	0.0	0.0	-1.7
91. Services to finance etc	-0.4	-0.6	0.1	0.1	0.0	-0.8
92. Ownership of dwellings	1.1	0.0	-2.4	0.2	-0.1	-1.1
93. Other property services	-0.4	-0.3	0.1	0.1	0.0	-0.5

Table 4 (cont): Decomposition of year 2025 industry cost deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
94. Scientific research etc	-1.4	-0.4	0.0	-0.1	0.0	-1.9
95. Legal, accounting etc services	-1.4	-1.0	0.0	0.1	0.0	-2.3
96. Other business services	-1.1	-0.4	0.1	-0.2	0.0	-1.5
97. Government administration	-1.6	-0.3	0.1	0.1	0.0	-1.8
98. Defence	-1.3	0.6	0.2	0.1	0.0	-0.4
99. Education	-2.8	4.0	2.9	18.2	1.5	23.7
100. Health services	-3.0	0.8	-0.4	-13.2	0.4	-15.4
101. Community services	-1.7	0.2	0.4	-4.2	0.2	-5.1
102. Motion picture, radio etc	-0.6	-0.3	0.1	0.3	0.0	-0.6
103. Libraries, museums, arts	-1.5	-0.6	0.0	0.7	0.0	-1.5
104. Sport, gambling etc	-0.3	-0.2	0.0	0.1	0.0	-0.5
105. Personal services	-0.8	-0.6	-0.4	-0.2	0.0	-2.0
106. Other services	-2.0	0.2	-0.3	-0.3	0.0	-2.4

Table 5: Decomposition of year 2025 occupational employment deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
1. General Managers & Administrators	5.7	0.3	-0.1	-0.2	-0.1	5.7
2. Miscellaneous Generalist Managers	5.8	-0.2	-0.2	-0.2	-0.1	5.1
3. Resource Managers	5.7	0.7	0.0	0.0	0.0	6.4
4. Engineering, Distribution & Process Managers	5.8	-0.1	0.0	-0.2	0.0	5.4
5. Sales & Marketing Managers	5.7	0.6	0.0	-0.2	-0.1	6.0
6. Miscellaneous Specialist Managers	5.6	-0.4	0.1	0.6	0.0	5.9
7. Farmers & Farm Managers	6.7	0.2	0.3	0.0	0.0	7.2
8. Natural & Physical Science Professionals	5.7	-1.1	0.0	-0.3	-0.1	4.3
9. Building & Engineering Professionals	5.7	-0.4	0.0	-0.3	0.0	4.9
10. Accountants, Auditors & Corporate Treasurers	5.7	1.2	0.0	-0.1	0.0	6.7
11. Sales, Marketing & Advertising Professionals	5.7	0.6	0.0	-0.2	-0.1	5.9
12. Computing Professionals	5.6	1.1	0.0	-0.1	0.0	6.5
13. Miscellaneous Business & Information Professionals	5.7	0.3	0.0	0.1	0.0	6.0
14. Medical Practitioners	5.6	-0.7	-0.1	-1.9	-0.1	2.9
15. Nursing Professionals	5.6	-0.6	-0.1	-2.2	-0.1	2.6
16. Miscellaneous Health Professionals	5.6	-0.3	-0.1	-1.6	-0.1	3.6
17. School Teachers	5.6	-1.9	0.5	2.8	0.0	7.1
18. University & Vocational Education Teachers	5.6	-0.8	0.6	3.9	0.2	9.6
19. Miscellaneous Education Professionals	5.6	-0.5	0.5	3.2	0.2	9.0
20. Social Welfare Professionals	5.6	-0.3	-0.1	-1.2	-0.1	3.9
21. Miscellaneous Social Professionals	5.6	0.0	-0.1	-0.4	-0.1	5.1
22. Artists & Related Professionals	5.7	0.7	-0.1	-0.2	-0.1	5.9
23. Miscellaneous Professionals	5.8	-0.6	0.0	0.1	0.0	5.3
24. Medical & Science Technical Officers	5.7	-0.8	0.1	-0.4	0.0	4.6
25. Building & Engineering Associate Professionals	5.7	-1.1	-0.1	-0.1	0.0	4.5
26. Finance Associate Professionals	5.9	0.8	0.0	0.0	0.0	6.6
27. Misc. Business & Admin. Associate Professionals	5.7	0.4	0.0	-0.1	0.0	6.0
28. Shop Managers	5.4	0.2	0.0	-0.1	0.0	5.6
29. Hospitality & Accommodation Managers	5.5	0.6	0.3	-0.2	0.0	6.2
30. Miscellaneous Managing Supervisors (Sales & Service)	5.7	0.1	-0.1	-0.2	0.0	5.4
31. Enrolled Nurses	5.6	-1.9	-0.1	-2.4	-0.1	1.1

Table 5 (cont): Decomposition of year 2025 occupational employment deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
32. Welfare Associate Professionals	5.6	-0.4	0.0	-2.4	-0.1	2.6
33. Miscellaneous Health & Welfare Associate Professionals	5.7	-1.4	-0.1	-2.4	-0.1	1.7
34. Police Officers	5.7	-0.5	-0.3	0.1	-0.1	4.9
35. Miscellaneous Associate Professionals	5.6	-0.1	0.0	0.3	0.0	5.8
36. Mechanical Engineering Tradespersons	5.9	-2.6	0.1	0.0	0.0	3.4
37. Fabrication Engineering Tradespersons	6.1	-1.8	0.1	0.0	0.0	4.3
38. Automotive Tradespersons	5.6	-2.5	0.1	0.0	0.0	3.2
39. Electrical & Electronics Tradespersons	5.8	-1.7	-0.2	0.0	0.0	3.8
40. Structural Construction Tradespersons	5.8	-0.2	-0.5	0.0	-0.1	5.1
41. Final Finish Construction Tradespersons	5.8	-0.1	-0.4	-0.1	-0.1	5.2
42. Plumbers	5.8	-0.3	-0.5	-0.1	0.0	5.0
43. Food Tradespersons	5.2	1.0	0.1	-0.3	0.0	6.0
44. Skilled Agricultural Workers	6.0	0.7	0.1	-0.2	-0.1	6.5
45. Horticultural Tradespersons	5.7	0.3	-0.1	0.4	0.0	6.4
46. Printing Tradespersons	5.8	-1.4	-0.1	0.0	0.0	4.4
47. Wood Tradespersons	6.0	-1.4	-0.2	-0.1	0.0	4.2
48. Hairdressers	5.8	1.3	-0.8	0.1	-0.1	6.4
49. Textile, Clothing & Related Tradespersons	5.8	-0.8	-0.1	-0.2	0.0	4.7
50. Miscellaneous Tradespersons & Related Workers	5.9	-0.5	0.0	-0.1	0.0	5.2
51. Secretaries & Personal Assistants	5.7	0.7	0.0	0.1	0.0	6.4
52. Advanced Numerical Clerks	5.8	0.6	0.0	0.2	0.0	6.6
53. Miscellaneous Advanced Clerical & Service Workers	5.8	0.4	-0.2	0.0	0.0	6.0
54. General Clerks	5.6	0.6	0.0	0.3	0.0	6.6
55. Keyboard Operators	5.7	0.7	0.0	-0.1	0.0	6.2
56. Receptionists	5.6	0.6	-0.1	-1.3	-0.1	4.8
57. Intermediate Numerical Clerks	5.8	0.7	0.0	0.0	0.0	6.4
58. Material Recording & Despatch Clerks	5.7	0.4	0.0	-0.1	0.0	6.0
59. Miscellaneous Intermediate Clerical Workers	5.6	0.3	-0.1	-0.1	0.0	5.8
60. Intermediate Sales & Related Workers	5.6	0.3	0.0	-0.1	0.0	5.6
61. Carers & Aides	5.6	0.0	0.2	-1.7	0.0	4.0
62. Hospitality Workers	5.5	0.7	0.4	0.0	0.0	6.5

Table 5 (cont): Decomposition of year 2025 occupational employment deviations (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
63. Miscellaneous Intermediate Service Workers	5.7	0.3	-0.1	-0.6	-0.1	5.3
64. Mobile Plant Operators	5.8	0.2	-0.1	-0.1	0.0	5.9
65. Intermediate Stationary Plant Operators	6.0	-0.4	0.1	0.2	0.0	5.9
66. Intermed. Textile, Cloth'g & Related Machine Operators	5.8	0.7	0.0	0.0	0.0	6.4
67. Miscellaneous Intermediate Machine Operators	6.1	0.3	-0.1	-0.1	0.0	6.2
68. Road & Rail Transport Drivers	5.6	-0.1	0.0	-0.2	0.0	5.3
69. Intermediate Mining & Construction Workers	6.1	-0.4	0.1	0.3	0.0	6.2
70. Misc. Intermediate Production & Transport Workers	5.7	0.3	0.0	-0.1	0.0	5.9
71. Elementary Clerks	5.7	0.6	-0.2	0.0	0.0	6.1
72. Sales Assistants	5.4	0.7	0.0	0.0	0.0	6.0
73. Miscellaneous Elementary Sales Workers	5.6	0.6	0.0	-0.1	0.0	6.1
74. Elementary Service Workers	5.6	0.3	0.0	-0.2	0.0	5.6
75. Cleaners	5.6	0.4	0.0	-0.3	0.0	5.7
76. Process Workers	5.8	0.4	0.1	-0.1	0.0	6.1
77. Product Packagers	5.5	0.5	0.0	-0.1	0.0	5.9
78. Mining, Construction & Related Labourers	5.8	0.4	-0.4	-0.1	-0.1	5.7
79. Agricultural & Horticultural Labourers	6.3	0.5	0.1	0.0	0.0	6.9
80. Elementary Food Preparation & Related Workers	5.4	0.7	0.1	-1.2	-0.1	5.0
81. Other Miscellaneous Labourers & Related Workers	5.7	-0.2	0.0	0.1	0.0	5.5

Table 6: Decomposition of year 2025 employment deviations by qualification (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
1. Postgraduate	5.7	-1.8	0.0	0.0	0.0	3.9
2. Graduate diploma	5.7	-0.6	0.0	0.0	0.0	5.1
3. Bachelor	5.7	1.1	0.0	0.0	0.0	6.8
4. Advanced diploma	5.7	-1.6	0.0	0.0	0.0	4.1
5. Cert. 3 & 4	5.7	-2.2	0.0	0.0	0.0	3.5
6. Cert. 1 & 2	5.7	-5.0	0.0	0.0	0.0	0.7
7. No post school	5.7	1.3	0.0	0.0	0.0	7.0

Table 7: Decomposition of year 2025 employment deviations by field (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
1. Science	5.7	-2.3	0.0	0.0	0.0	3.4
2. Information Tech	5.7	4.0	0.0	0.0	0.0	9.7
3. Engineering	5.7	-4.4	0.0	0.0	0.0	1.3
4. Architecture	5.7	-0.4	0.0	0.0	0.0	5.3
5. Agriculture	5.7	1.1	0.0	0.0	0.0	6.8
6. Health	5.7	-1.2	0.0	0.0	0.0	4.5
7. Education	5.7	-4.3	0.0	0.0	0.0	1.4
8. Management	5.7	1.8	0.0	0.0	0.0	7.4
9. Social sciences	5.7	-0.6	0.0	0.0	0.0	5.1
10. Arts	5.7	2.0	0.0	0.0	0.0	7.7
11. Food & hospitality	5.7	2.0	0.0	0.0	0.0	7.7
12. No post school	5.7	1.3	0.0	0.0	0.0	7.0

Table 8: Decomposition of year 2025 employment deviation, by field and qualification (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
1. Science, Post grad.	5.7	-5.1	0.0	0.0	0.0	0.6
2. Science, Grad dip.	5.7	-0.8	0.0	0.0	0.0	4.9
3. Science, Bachelor.	5.7	-1.2	0.0	0.0	0.0	4.5
4. Science, Adv dip.	5.7	-3.4	0.0	0.0	0.0	2.3
5. Science, Cert. 3 & 4.	5.7	-2.4	0.0	0.0	0.0	3.3
6. Science, Cert. 1 & 2.	5.7	3.0	0.0	0.0	0.0	8.7
7. Information Tech, Post grad.	5.7	3.4	0.0	0.0	0.0	9.1
8. Information Tech, Grad dip.	5.7	3.3	0.0	0.0	0.0	9.0
9. Information Tech, Bachelor.	5.7	4.2	0.0	0.0	0.0	9.8
10. Information Tech, Adv dip.	5.7	4.0	0.0	0.0	0.0	9.7
11. Information Tech, Cert. 3 & 4.	5.7	4.1	0.0	0.0	0.0	9.8
12. Information Tech, Cert. 1 & 2.	5.7	2.5	0.0	0.0	0.0	8.2
13. Engineering, Post grad.	5.7	-3.5	0.0	0.0	0.0	2.2
14. Engineering, Grad dip.	5.7	-1.5	0.0	0.0	0.0	4.2
15. Engineering, Bachelor.	5.7	0.8	0.0	0.0	0.0	6.4
16. Engineering, Adv dip.	5.7	-4.2	0.0	0.0	0.0	1.5
17. Engineering, Cert. 3 & 4.	5.7	-5.6	0.0	0.0	0.0	0.1
18. Engineering, Cert. 1 & 2.	5.7	-7.2	0.0	0.0	0.0	-1.5
19. Architecture, Post grad.	5.7	-3.0	0.0	0.0	0.0	2.7
20. Architecture, Grad dip.	5.7	-4.5	0.0	0.0	0.0	1.2
21. Architecture, Bachelor.	5.7	4.4	0.0	0.0	0.0	10.1
22. Architecture, Adv dip.	5.7	-0.4	0.0	0.0	0.0	5.3
23. Architecture, Cert. 3 & 4.	5.7	-0.9	0.0	0.0	0.0	4.8
24. Architecture, Cert. 1 & 2.	5.7	3.5	0.0	0.0	0.0	9.2
25. Agriculture, Post grad.	5.7	3.6	0.0	0.0	0.0	9.3
26. Agriculture, Grad dip.	5.7	2.9	0.0	0.0	0.0	8.6
27. Agriculture, Bachelor.	5.7	1.4	0.0	0.0	0.0	7.1
28. Agriculture, Adv dip.	5.7	5.0	0.0	0.0	0.0	10.7
29. Agriculture, Cert. 3 & 4.	5.7	-1.1	0.0	0.0	0.0	4.6
30. Agriculture, Cert. 1 & 2.	5.7	-2.0	0.0	0.0	0.0	3.7
31. Health, Post grad.	5.7	-4.3	0.0	0.0	0.0	1.4

Table 8 (cont): Decomposition of year 2025 employment deviation, by field and qualification (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
32. Health, Grad dip.	5.7	2.6	0.0	0.0	0.0	8.3
33. Health, Bachelor.	5.7	0.7	0.0	0.0	0.0	6.4
34. Health, Adv dip.	5.7	-4.5	0.0	0.0	0.0	1.2
35. Health, Cert. 3 & 4.	5.7	-2.8	0.0	0.0	0.0	2.9
36. Health, Cert. 1 & 2.	5.7	-3.1	0.0	0.0	0.0	2.5
37. Education, Post grad.	5.7	-1.2	0.0	0.0	0.0	4.5
38. Education, Grad dip.	5.7	-4.3	0.0	0.0	0.0	1.4
39. Education, Bachelor.	5.7	-1.8	0.0	0.0	0.0	3.9
40. Education, Adv dip.	5.7	-13.1	0.0	0.0	0.0	-7.4
41. Education, Cert. 3 & 4.	5.7	-1.3	0.0	0.0	0.0	4.4
42. Management, Post grad.	5.7	-1.0	0.0	0.0	0.0	4.7
43. Management, Grad dip.	5.7	1.9	0.0	0.0	0.0	7.6
44. Management, Bachelor.	5.7	2.7	0.0	0.0	0.0	8.4
45. Management, Adv dip.	5.7	1.7	0.0	0.0	0.0	7.4
46. Management, Cert. 3 & 4.	5.7	2.5	0.0	0.0	0.0	8.2
47. Management, Cert. 1 & 2.	5.7	-6.8	0.0	0.0	0.0	-1.1
48. Social sciences, Post grad.	5.7	0.1	0.0	0.0	0.0	5.8
49. Social sciences, Grad dip.	5.7	-1.6	0.0	0.0	0.0	4.1
50. Social sciences, Bachelor.	5.7	0.4	0.0	0.0	0.0	6.1
51. Social sciences, Adv dip.	5.7	-2.7	0.0	0.0	0.0	3.0
52. Social sciences, Cert. 3 & 4.	5.7	0.4	0.0	0.0	0.0	6.1
53. Social sciences, Cert. 1 & 2.	5.7	-9.4	0.0	0.0	0.0	-3.7
54. Arts, Post grad.	5.7	-5.3	0.0	0.0	0.0	0.4
55. Arts, Grad dip.	5.7	-1.0	0.0	0.0	0.0	4.7
56. Arts, Bachelor.	5.7	3.5	0.0	0.0	0.0	9.2
57. Arts, Adv dip.	5.7	2.5	0.0	0.0	0.0	8.2
58. Arts, Cert. 3 & 4.	5.7	0.4	0.0	0.0	0.0	6.1
59. Arts, Cert. 1 & 2.	5.7	1.1	0.0	0.0	0.0	6.8
60. Food & hospitality, Bachelor.	5.7	2.9	0.0	0.0	0.0	8.6
61. Food & hospitality, Adv dip.	5.7	1.3	0.0	0.0	0.0	6.9
62. Food & hospitality, Cert. 3 & 4.	5.7	2.3	0.0	0.0	0.0	8.0

Table 8: Decomposition of year 2025 employment deviation, by field and qualification (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
63. Food & hospitality, Cert. 1 & 2.	5.7	-5.2	0.0	0.0	0.0	0.5
64. No post school	5.7	1.3	0.0	0.0	0.0	7.0

Table 9: Decomposition of year 2025 real wage deviations, by occupation (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
1. General Managers & Administrators	-2.8	-1.0	-0.2	-1.5	0.0	-5.6
2. Miscellaneous Generalist Managers	-2.3	0.4	-1.5	-1.2	-0.2	-4.7
3. Resource Managers	-2.8	-1.9	0.0	-0.1	-0.1	-4.9
4. Engineering, Distribution & Process Managers	-2.3	0.2	0.0	-0.4	-0.1	-2.7
5. Sales & Marketing Managers	-2.9	-2.0	-0.1	-0.6	-0.1	-5.7
6. Miscellaneous Specialist Managers	-3.3	1.9	1.3	6.8	0.1	6.9
7. Farmers & Farm Managers	2.3	0.1	1.4	-0.2	-0.3	3.2
8. Natural & Physical Science Professionals	-2.6	2.9	0.6	-0.5	0.1	0.5
9. Building & Engineering Professionals	-2.5	0.9	-0.2	-0.8	-0.1	-2.7
10. Accountants, Auditors & Corporate Treasurers	-2.8	-4.1	-0.2	-0.5	-0.1	-7.6
11. Sales, Marketing & Advertising Professionals	-2.8	-2.0	-0.1	-0.6	-0.1	-5.6
12. Computing Professionals	-3.1	-3.2	-0.2	-0.2	-0.1	-6.7
13. Miscellaneous Business & Information Professionals	-3.0	-0.9	0.1	1.4	-0.1	-2.5
14. Medical Practitioners	-3.7	1.9	-1.0	-23.3	0.8	-25.3
15. Nursing Professionals	-3.7	1.7	-1.0	-22.9	0.8	-25.1
16. Miscellaneous Health Professionals	-3.7	0.9	-0.7	-19.7	0.8	-22.4
17. School Teachers	-3.3	8.3	5.3	35.7	3.8	49.9
18. University & Vocational Education Teachers	-3.2	5.2	4.6	30.6	1.9	39.1
19. Miscellaneous Education Professionals	-3.3	3.7	3.6	23.6	0.9	28.4
20. Social Welfare Professionals	-3.3	1.0	-0.1	-4.3	0.3	-6.4
21. Miscellaneous Social Professionals	-3.3	-1.4	-0.2	0.3	0.0	-4.6
22. Artists & Related Professionals	-2.8	-2.2	-0.3	1.3	-0.1	-4.1
23. Miscellaneous Professionals	-2.5	1.9	0.3	-1.0	0.0	-1.3
24. Medical & Science Technical Officers	-3.0	2.4	0.4	-4.4	0.1	-4.5
25. Building & Engineering Associate Professionals	-2.3	2.9	-0.7	-0.5	-0.1	-0.7
26. Finance Associate Professionals	-1.9	-2.5	-0.1	0.3	-0.1	-4.3
27. Misc. Business & Admin. Associate Professionals	-2.8	-1.4	-0.1	-0.4	-0.1	-4.8
28. Shop Managers	-4.1	-1.1	0.1	-0.7	-0.1	-5.9
29. Hospitality & Accommodation Managers	-3.9	-2.2	1.5	-1.6	-0.1	-6.3
30. Miscellaneous Managing Supervisors (Sales & Service)	-2.9	-0.5	-0.3	-0.9	-0.1	-4.6
31. Enrolled Nurses	-3.6	5.2	-0.9	-22.0	-0.1	-21.5

Table 9 (cont): Decomposition of year 2025 real wage deviations, by occupation (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
32. Welfare Associate Professionals	-3.4	1.1	0.0	-12.2	0.3	-14.1
33. Miscellaneous Health & Welfare Associate Professionals	-3.2	3.8	-0.7	-19.4	0.1	-19.4
34. Police Officers	-3.0	1.2	-1.6	0.3	-0.1	-3.0
35. Miscellaneous Associate Professionals	-3.2	0.4	0.2	2.0	-0.1	-0.7
36. Mechanical Engineering Tradespersons	-1.4	7.8	0.4	-0.3	-0.2	6.3
37. Fabrication Engineering Tradespersons	-0.6	5.9	0.2	-0.5	-0.2	4.8
38. Automotive Tradespersons	-2.8	7.3	0.4	-0.5	-0.2	4.3
39. Electrical & Electronics Tradespersons	-2.1	4.9	-1.2	-0.4	-0.2	1.0
40. Structural Construction Tradespersons	-1.8	0.6	-3.3	-0.9	-0.1	-5.5
41. Final Finish Construction Tradespersons	-2.0	0.1	-2.9	-1.2	-0.1	-6.2
42. Plumbers	-1.9	0.9	-3.2	-1.2	-0.1	-5.6
43. Food Tradespersons	-5.0	-2.9	0.4	-2.5	0.0	-10.1
44. Skilled Agricultural Workers	-1.3	-2.0	0.5	-1.4	-0.2	-4.5
45. Horticultural Tradespersons	-2.2	-0.6	-0.7	1.9	-0.1	-1.7
46. Printing Tradespersons	-1.9	3.9	-0.5	-0.2	-0.2	1.1
47. Wood Tradespersons	-1.0	4.3	-1.3	-1.1	-0.3	0.7
48. Hairdressers	-2.6	-3.4	-3.7	-0.7	0.1	-10.1
49. Textile, Clothing & Related Tradespersons	-2.2	2.7	-0.5	-1.0	-0.2	-1.2
50. Miscellaneous Tradespersons & Related Workers	-1.8	1.6	-0.2	-0.8	-0.1	-1.5
51. Secretaries & Personal Assistants	-2.7	-2.0	-0.1	0.2	-0.1	-4.8
52. Advanced Numerical Clerks	-2.4	-1.9	0.1	0.8	-0.1	-3.6
53. Miscellaneous Advanced Clerical & Service Workers	-2.3	-1.5	-0.7	-0.4	-0.1	-5.0
54. General Clerks	-3.1	-1.4	0.2	1.4	-0.1	-3.0
55. Keyboard Operators	-2.9	-2.0	-0.1	-0.9	0.0	-5.9
56. Receptionists	-3.1	-1.8	-0.3	-7.3	0.4	-12.0
57. Intermediate Numerical Clerks	-2.4	-2.2	-0.2	-0.6	-0.1	-5.5
58. Material Recording & Despatch Clerks	-2.8	-1.3	0.0	-1.0	-0.1	-5.2
59. Miscellaneous Intermediate Clerical Workers	-3.1	-1.1	-0.2	-0.2	-0.1	-4.8
60. Intermediate Sales & Related Workers	-3.2	-1.1	-0.1	-1.2	-0.2	-5.9
61. Carers & Aides	-3.3	0.8	0.9	-10.2	0.5	-11.3
62. Hospitality Workers	-3.9	-2.7	1.8	-0.4	-0.2	-5.4

Table 9 (cont): Decomposition of year 2025 real wage deviations, by occupation (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
63. Miscellaneous Intermediate Service Workers	-2.8	-0.8	-0.3	-3.9	0.1	-7.7
64. Mobile Plant Operators	-2.0	-0.5	-0.4	-0.9	-0.2	-4.0
65. Intermediate Stationary Plant Operators	-1.1	1.4	0.3	0.1	-0.1	0.6
66. Intermed. Textile, Cloth'g & Related Machine Operators	-2.4	-1.5	-0.1	-0.7	-0.1	-4.8
67. Miscellaneous Intermediate Machine Operators	-0.9	-0.6	-0.3	-0.8	-0.2	-2.8
68. Road & Rail Transport Drivers	-3.3	0.0	-0.2	-1.3	-0.1	-4.9
69. Intermediate Mining & Construction Workers	-0.6	1.3	0.2	1.2	0.0	2.0
70. Misc. Intermediate Production & Transport Workers	-2.8	-0.9	0.1	-0.8	-0.2	-4.6
71. Elementary Clerks	-2.9	-1.8	-0.8	-0.6	-0.1	-6.1
72. Sales Assistants	-4.3	-2.3	0.1	-0.9	-0.1	-7.5
73. Miscellaneous Elementary Sales Workers	-3.4	-1.9	0.1	-1.0	-0.1	-6.3
74. Elementary Service Workers	-3.0	-1.1	-0.1	-1.9	0.0	-6.2
75. Cleaners	-3.1	-1.3	0.1	-2.0	0.0	-6.4
76. Process Workers	-2.3	-0.8	0.2	-0.9	-0.2	-4.0
77. Product Packagers	-3.6	-1.4	0.2	-1.2	-0.2	-6.1
78. Mining, Construction & Related Labourers	-2.1	-0.9	-2.0	-0.9	-0.1	-6.0
79. Agricultural & Horticultural Labourers	0.4	-1.2	0.6	-0.8	-0.3	-1.4
80. Elementary Food Preparation & Related Workers	-4.1	-2.2	0.4	-6.3	0.3	-11.9
81. Other Miscellaneous Labourers & Related Workers	-2.7	0.5	-0.3	0.2	-0.1	-2.5

Table 10: Decomposition of year 2025 real wage deviations, by qualification (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
1. Postgraduate	-3.0	0.8	0.6	1.3	0.6	0.3
2. Graduate diploma	-3.1	1.5	1.1	5.1	0.7	5.3
3. Bachelor	-3.0	0.5	0.5	1.6	0.5	0.2
4. Advanced diploma	-2.8	0.3	0.2	-0.1	0.2	-2.2
5. Cert. 3 & 4	-2.4	1.3	-0.3	-1.2	-0.1	-2.7
6. Cert. 1 & 2	-2.8	-0.2	0.0	-1.0	0.1	-3.9
7. No post school	-2.7	-0.6	-0.1	-0.8	-0.1	-4.3

Table 11: Decomposition of year 2025 real wage deviations, by field (percentage deviation from 2025 basecase value)

	1. Scale effect	2. Skill effect	3. Taste effect	4. Public effect	5. Residual	6. Total
1. Science	-2.9	1.2	0.8	3.5	0.5	3.1
2. Information Tech	-2.9	-1.7	0.0	0.6	0.0	-3.9
3. Engineering	-2.3	2.2	-0.1	-0.2	-0.1	-0.6
4. Architecture	-2.2	0.5	-1.3	-0.7	-0.1	-3.9
5. Agriculture	-2.1	0.4	0.3	0.7	0.0	-0.8
6. Health	-3.4	1.4	-0.5	-15.8	0.5	-17.8
7. Education	-3.2	5.6	3.7	24.3	2.7	33.2
8. Management	-2.8	-1.5	0.0	0.0	0.0	-4.3
9. Social sciences	-3.0	0.2	0.4	1.8	0.4	-0.2
10. Arts	-2.9	0.0	0.5	4.2	0.4	2.2
11. Food & hospitality	-3.3	-1.4	0.1	-1.3	0.0	-5.9
12. No post school	-2.7	-0.6	-0.1	-0.8	-0.1	-4.3

APPENDIX A: SCALE EFFECTS, 2005 – 2025

Table A1: Macroeconomic deviations, scale effects only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Real GDP	0.0	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.1	2.3	2.6	2.8	3.1	3.4	3.6	3.9	4.2	4.4	4.7	4.9	5.2	5.5
2. Real GNP	0.0	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.8	4.1	4.3	4.5	4.7	4.9
3. Real GNE	0.0	0.3	0.5	0.8	1.0	1.2	1.5	1.8	2.0	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.9	4.1	4.3	4.5	4.7	4.9
4. Real private consumption	0.0	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.8	4.1	4.3	4.5	4.7	4.9
5. Real investment	0.0	0.2	0.5	0.9	0.8	1.0	1.4	1.7	2.0	2.3	2.5	2.8	3.0	3.2	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9
6. Real public consumption	0.0	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.8	4.1	4.3	4.5	4.7	4.9
7. Export volumes	0.0	0.2	0.5	0.5	1.1	1.3	1.4	1.6	1.9	2.2	2.5	2.8	3.1	3.4	3.7	4.0	4.3	4.6	5.0	5.3	5.6	5.9
8. Import volumes	0.0	0.2	0.4	0.8	0.8	1.0	1.3	1.5	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4
9. Employment (hours)	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.9	5.1	5.4	5.7
10. Employment (wage weights)	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.9	5.1	5.4	5.7
11. Capital stock	0.0	0.2	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	2.8	3.0	3.3	3.5	3.8	4.0	4.3	4.5	4.8	5.0	5.3
12. Real consumer wage	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-0.9	-1.1	-1.2	-1.4	-1.5	-1.7	-1.8	-2.0	-2.2	-2.4	-2.6	-2.8
13. Real exchange rate (a)	0.0	0.0	-0.2	0.0	-0.4	-0.4	-0.4	-0.4	-0.5	-0.6	-0.8	-0.9	-1.0	-1.2	-1.3	-1.5	-1.7	-1.8	-2.0	-2.2	-2.4	-2.5
14. Nominal exchange rate (b)	0.0	0.0	-0.1	0.0	-0.2	-0.2	-0.2	-0.3	-0.3	-0.4	-0.5	-0.6	-0.7	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-1.3	-1.5	-1.6
15. Traditional export volume	0.0	0.2	0.4	0.6	1.0	1.2	1.4	1.5	1.7	1.9	2.2	2.4	2.6	2.8	3.0	3.3	3.5	3.7	4.0	4.2	4.5	4.7
16. Non-traditional export vol.	0.0	0.3	0.7	0.3	1.4	1.5	1.6	1.8	2.0	2.4	2.7	3.1	3.4	3.8	4.1	4.5	4.9	5.3	5.6	6.0	6.4	6.7
17. Tourism volume	0.0	0.2	0.5	0.2	1.1	1.2	1.3	1.4	1.7	2.0	2.3	2.7	3.0	3.3	3.7	4.0	4.4	4.8	5.2	5.5	5.9	6.3
18. GDP deflator	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.7	-0.7	-0.8	-0.9	-0.9
19. CPI	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20. Government deflator	0.0	-0.1	-0.1	-0.1	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-1.3	-1.4	-1.5	-1.6	-1.7	-1.8
21. Consumption deflator	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4
22. Investment deflator	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
23. Terms of trade	0.0	-0.1	-0.1	-0.1	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-0.8	-0.9	-1.0	-1.1	-1.2	-1.2	-1.3	-1.4	-1.5

Table A2: Sectoral output deviations, scale effects only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Agric., forestry & fishing	0.0	0.2	0.3	0.4	0.7	0.9	1.0	1.2	1.4	1.6	1.8	1.9	2.1	2.3	2.5	2.6	2.8	3.0	3.2	3.3	3.5	3.7
2. Mining	0.0	0.3	0.5	0.7	1.2	1.4	1.6	1.9	2.1	2.4	2.6	2.9	3.2	3.5	3.8	4.1	4.4	4.8	5.1	5.4	5.8	6.1
3. Food processing	0.0	0.2	0.4	0.4	0.7	0.9	1.0	1.2	1.3	1.5	1.7	1.8	2.0	2.1	2.3	2.5	2.6	2.7	2.9	3.0	3.2	3.3
4. Textiles, clothing, footwear	0.0	0.2	0.5	0.6	1.0	1.2	1.4	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.9	5.1	5.4
5. Paper, printing	0.0	0.3	0.6	0.8	1.1	1.4	1.6	1.9	2.2	2.4	2.7	3.0	3.3	3.5	3.8	4.1	4.4	4.6	4.9	5.2	5.4	5.7
6. Chemical, petroleum, coal	0.0	0.3	0.6	0.8	1.2	1.5	1.7	2.0	2.2	2.5	2.9	3.2	3.5	3.8	4.1	4.4	4.8	5.1	5.4	5.8	6.1	6.4
7. Basic metal products	0.0	0.3	0.6	0.7	1.1	1.4	1.5	1.8	2.0	2.3	2.6	2.9	3.2	3.5	3.9	4.2	4.5	4.9	5.2	5.5	5.9	6.2
8. Transport equipment	0.0	0.3	0.7	0.8	1.4	1.6	1.9	2.2	2.5	2.9	3.2	3.6	4.0	4.4	4.8	5.3	5.7	6.1	6.5	7.0	7.4	7.8
9. Fabricated metal products	0.0	0.3	0.6	0.8	1.2	1.4	1.7	2.0	2.3	2.6	2.9	3.2	3.6	3.9	4.2	4.5	4.8	5.1	5.4	5.7	6.1	6.4
10. Other manufacturing	0.0	0.3	0.6	0.8	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.3	3.6	3.9	4.2	4.6	4.9	5.2	5.5	5.8	6.1	6.4
11. Electricity, gas, water	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.3	2.6	2.8	3.1	3.3	3.6	3.9	4.1	4.4	4.6	4.9	5.1	5.4
12. Construction	0.0	0.3	0.6	1.0	1.2	1.6	2.0	2.3	2.6	2.9	3.2	3.4	3.7	4.0	4.2	4.5	4.7	5.0	5.2	5.5	5.7	5.9
13. Wholesale trade	0.0	0.2	0.5	0.8	1.0	1.2	1.4	1.7	2.0	2.2	2.5	2.7	3.0	3.3	3.5	3.8	4.0	4.3	4.5	4.8	5.0	5.3
14. Retail trade	0.0	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.2	2.5	2.7	2.9	3.2	3.4	3.6	3.8	4.0	4.3	4.5	4.7	4.9
15. Transport, stor., communic.	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.3	2.6	2.8	3.1	3.3	3.6	3.8	4.1	4.3	4.6	4.9	5.1	5.4
16. Finance, insurance	0.0	0.3	0.6	0.8	1.1	1.4	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.0	5.3	5.6
17. Other business services	0.0	0.2	0.5	0.8	0.9	1.2	1.4	1.7	2.0	2.2	2.5	2.7	3.0	3.3	3.5	3.8	4.0	4.3	4.5	4.8	5.0	5.3
18. Education	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.3	2.6	2.9	3.1	3.4	3.7	4.0	4.2	4.5	4.8	5.0	5.3	5.6
19. Health, welfare	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.4	3.7	3.9	4.2	4.4	4.7	5.0	5.2	5.5
20. Entertainment	0.0	0.3	0.5	0.8	1.0	1.3	1.6	1.8	2.1	2.3	2.6	2.8	3.1	3.3	3.6	3.8	4.1	4.3	4.6	4.8	5.0	5.3
21. Personal services	0.0	0.3	0.5	0.8	1.1	1.4	1.6	1.9	2.2	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.2	4.5	4.8	5.0	5.3	5.5
22. Restaurants, hotels	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.3	2.6	2.8	3.1	3.3	3.5	3.8	4.0	4.2	4.5	4.7	4.9	5.2
23. Dwellings ownership	0.0	0.2	0.5	0.7	1.0	1.3	1.6	1.9	2.2	2.5	2.8	3.1	3.4	3.7	4.0	4.3	4.6	4.9	5.1	5.4	5.7	6.0
24. Public administration	0.0	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	2.7	3.0	3.2	3.4	3.7	3.9	4.1	4.3	4.5	4.7	5.0
25. Defence	0.0	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.8	4.1	4.3	4.5	4.7	4.9

Table A3: Industry output deviations, scale effects only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Sheep	0.0	0.1	0.3	0.4	0.6	0.6	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.7	1.8	1.8	1.9	1.9
2. Grains	0.0	0.1	0.2	0.3	0.5	0.7	0.8	0.9	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.7	1.8	1.8	1.9	1.9	1.9
3. Beef cattle	0.0	0.2	0.4	0.4	0.7	0.8	0.9	1.1	1.4	1.6	1.7	1.9	2.1	2.3	2.4	2.6	2.8	3.0	3.1	3.3	3.4	3.6
4. Dairy cattle	0.0	0.1	0.3	0.3	0.7	0.9	1.0	1.2	1.4	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.8
5. Pigs	0.0	0.2	0.4	0.5	0.8	0.9	1.0	1.2	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.2	2.3	2.4	2.4	2.5
6. Poultry	0.0	0.1	0.3	0.4	0.6	0.7	0.8	0.9	1.1	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.8	1.8	1.9	1.9	2.0	2.0
7. Other agriculture	0.0	0.2	0.4	0.6	0.8	1.0	1.2	1.3	1.5	1.7	1.8	2.0	2.2	2.4	2.5	2.7	2.8	3.0	3.2	3.3	3.5	3.6
8. Agricultural services; hunting	0.0	0.2	0.5	0.4	1.2	1.3	1.4	1.6	1.9	2.2	2.5	2.8	3.1	3.4	3.8	4.1	4.4	4.7	5.1	5.4	5.7	6.0
9. Forestry and logging	0.0	0.3	0.6	0.7	1.2	1.5	1.7	2.0	2.2	2.6	2.9	3.2	3.5	3.8	4.2	4.5	4.8	5.1	5.5	5.8	6.1	6.5
10. Commercial fishing	0.0	0.2	0.5	0.7	1.1	1.3	1.5	1.7	1.9	2.2	2.4	2.7	3.0	3.2	3.5	3.7	4.0	4.2	4.5	4.8	5.0	5.3
11. Coal; oil and gas	0.0	0.3	0.5	0.7	1.1	1.4	1.6	1.8	2.0	2.3	2.5	2.8	3.1	3.3	3.6	3.9	4.2	4.5	4.8	5.1	5.5	5.8
12. Iron ores	0.0																					

Table A3: Industry output deviations, scale effects only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
68. Other machinery and equipment	0.0	0.3	0.6	0.7	1.2	1.3	1.6	1.8	2.1	2.4	2.7	3.0	3.3	3.7	4.0	4.3	4.6	5.0	5.3	5.6	6.0	6.3
69. Prefabricated buildings	0.0	0.2	0.3	0.6	0.6	0.8	1.1	1.3	1.6	1.9	2.1	2.3	2.6	2.8	3.0	3.3	3.5	3.7	4.0	4.2	4.5	4.7
70. Furniture	0.0	0.3	0.5	0.9	0.9	1.2	1.5	1.8	2.1	2.4	2.7	3.0	3.3	3.6	3.9	4.2	4.4	4.7	5.0	5.3	5.5	5.8
71. Other manufacturing	0.0	0.3	0.6	0.6	1.3	1.5	1.7	1.9	2.2	2.5	2.9	3.2	3.6	3.9	4.3	4.6	5.0	5.4	5.7	6.1	6.5	6.8
72. Electricity	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.3	2.6	2.8	3.1	3.4	3.6	3.9	4.1	4.4	4.6	4.9	5.2	5.4
73. Gas	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.3	2.6	2.9	3.1	3.4	3.6	3.9	4.1	4.4	4.6	4.9	5.1	5.4
74. Water, sewerage and drainage	0.0	0.3	0.5	0.8	1.0	1.3	1.6	1.8	2.1	2.3	2.6	2.8	3.1	3.3	3.6	3.8	4.1	4.3	4.5	4.8	5.0	5.3
75. Residential building	0.0	0.4	0.8	1.1	1.8	2.7	3.2	3.6	3.9	4.2	4.6	4.9	5.2	5.5	5.7	6.0	6.3	6.5	6.8	7.0	7.2	7.4
76. Other construction	0.0	0.2	0.4	0.8	0.7	0.8	1.1	1.4	1.7	1.9	2.1	2.3	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4
77. Wholesale trade	0.0	0.2	0.5	0.8	1.0	1.2	1.4	1.7	2.0	2.2	2.5	2.7	3.0	3.3	3.5	3.8	4.0	4.3	4.5	4.8	5.0	5.3
78. Retail trade	0.0	0.3	0.5	0.8	1.0	1.2	1.5	1.7	1.9	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.0	4.2	4.4	4.6
79. Mechanical repairs	0.0	0.3	0.6	0.9	1.1	1.4	1.7	2.0	2.3	2.6	2.8	3.1	3.4	3.6	3.9	4.2	4.5	4.7	5.0	5.3	5.5	5.8
80. Other repairs	0.0	0.3	0.5	0.8	1.0	1.3	1.6	1.8	2.1	2.3	2.6	2.8	3.1	3.3	3.6	3.8	4.1	4.3	4.6	4.8	5.1	5.3
81. Accommodation, cafes & restaurants	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.3	2.6	2.8	3.1	3.3	3.5	3.8	4.0	4.2	4.5	4.7	4.9	5.2
82. Road transport	0.0	0.2	0.4	0.6	0.9	1.1	1.3	1.6	1.8	2.0	2.3	2.5	2.8	3.0	3.2	3.5	3.7	4.0	4.2	4.5	4.7	4.9
83. Rail, pipeline and other transport	0.0	0.2	0.4	0.6	0.9	1.1	1.3	1.5	1.7	2.0	2.2	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.2	4.5	4.8	5.1
84. Water transport	0.0	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	3.8	4.1	4.3
85. Air and space transport	0.0	0.4	0.7	1.0	1.5	1.8	2.1	2.4	2.8	3.1	3.4	3.8	4.1	4.5	4.8	5.1	5.5	5.8	6.1	6.5	6.8	7.2
86. Services to transport; storage	0.0	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	2.8	3.0	3.3	3.5	3.8	4.0	4.3	4.5	4.8	5.0	5.3
87. Communication services	0.0	0.3	0.5	0.8	1.1	1.4	1.6	1.9	2.1	2.4	2.6	2.9	3.1	3.4	3.6	3.9	4.1	4.3	4.6	4.8	5.1	5.3
88. Banking	0.0	0.3	0.6	0.8	1.1	1.4	1.6	1.9	2.1	2.4	2.7	3.0	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6
89. Non-bank finance	0.0	0.3	0.6	0.8	1.1	1.4	1.6	1.9	2.1	2.4	2.7	3.0	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6
90. Insurance	0.0	0.3	0.6	0.8	1.1	1.4	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6
91. Services to finance etc	0.0	0.3	0.5	0.8	1.1	1.4	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.4	3.7	4.0	4.2	4.5	4.7	5.0	5.3	5.5
92. Ownership of dwellings	0.0	0.2	0.5	0.7	1.0	1.3	1.6	1.9	2.2	2.5	2.8	3.1	3.4	3.7	4.0	4.3	4.6	4.9	5.1	5.4	5.7	6.0
93. Other property services	0.0	0.2	0.5	0.8	1.0	1.2	1.5	1.8	2.0	2.3	2.6	2.8	3.1	3.3	3.6	3.9	4.1	4.4	4.7	4.9	5.2	5.4
94. Scientific research etc	0.0	0.2	0.4	0.7	0.8	1.0	1.3	1.6	1.9	2.1	2.4	2.6	2.9	3.1	3.4	3.6	3.9	4.1	4.3	4.6	4.8	5.0
95. Legal, accounting etc services	0.0	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	2.8	3.1	3.3	3.6	3.8	4.1	4.4	4.6	4.9	5.1	5.4
96. Other business services	0.0	0.3	0.5	0.8	1.1	1.3	1.5	1.8	2.1	2.3	2.6	2.8	3.1	3.4	3.6	3.9	4.2	4.4	4.7	5.0	5.2	5.5
97. Government administration	0.0	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	2.7	3.0	3.2	3.4	3.7	3.9	4.1	4.3	4.5	4.7	5.0
98. Defence	0.0	0.3	0.5	0.9	1.0	1.3	1.5	1.8	2.1	2.3	2.5	2.7	3.0	3.2	3.4	3.6	3.9	4.1	4.3	4.5	4.7	4.9
99. Education	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.3	2.6	2.9	3.1	3.4	3.7	4.0	4.2	4.5	4.8	5.0	5.3	5.6
100. Health services	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.6	2.9	3.2	3.4	3.7	3.9	4.2	4.4	4.7	4.9	5.2	5.4
101. Community services	0.0	0.3	0.5	0.8	1.1	1.4	1.7	1.9	2.2	2.5	2.7	3.0	3.2	3.5	3.8	4.0	4.3	4.6	4.8	5.1	5.3	5.6
102. Motion picture, radio etc	0.0	0.3	0.5	0.8	0.9	1.1	1.4	1.6	1.9	2.1	2.4	2.6	2.9	3.1	3.3	3.6	3.8	4.0	4.3	4.5	4.7	5.0
103. Libraries, museums, arts	0.0	0.3	0.5	0.8	1.0	1.3	1.6	1.8	2.1	2.4	2.6	2.9	3.2	3.4	3.7	3.9	4.2	4.5	4.7	5.0	5.2	5.5
104. Sport, gambling etc	0.0	0.3	0.5	0.8	1.1	1.4	1.6	1.9	2.2	2.4	2.7	2.9	3.2	3.4	3.7	3.9	4.1	4.4	4.6	4.8	5.0	5.3
105. Personal services	0.0	0.3	0.5	0.8	1.1	1.4	1.6	1.9	2.2	2.4	2.7	3.0	3.2	3.5	3.7	4.0	4.2	4.5	4.7	5.0	5.2	5.5
106. Other services	0.0	0.3	0.5	0.8	1.1	1.4	1.6	1.9	2.2	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.2	4.5	4.8	5.0	5.3	5.5

Table A4: Industry cost deviations, scale effects only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Sheep	0.0	0.0	0.1	-0.1	0.2	0.2	0.1	0.2	0.2	0.4	0.5	0.6	0.8	0.9	1.1	1.2	1.4	1.6	1.7	1.9	2.1	2.3
2. Grains	0.0	0.0	0.1	-0.1	0.2	0.2	0.1	0.1	0.2	0.3	0.4	0.5	0.7	0.8	0.9	1.1	1.2	1.4	1.6	1.7	1.9	2.1
3. Beef cattle	0.0	0.1	0.2	-0.1	0.5	0.6	0.7	0.8	1.0	1.4	1.7	2.1	2.4	2.8	3.2	3.6	4.0	4.4	4.9	5.3	5.8	6.3
4. Dairy cattle	0.0	0.0	0.0	-0.2	0.2	0.3	0.3	0.4	0.7	1.2	1.5	1.9	2.4	2.9	3.5	4.0	4.7	5.4	6.2	7.0	7.9	8.9
5. Pigs	0.0	0.0	0.1	-0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.6
6. Poultry	0.0	-0.2	-0.2	-0.5	-0.3	-0.4	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.1	-0.1	0.0	0.1	0.2	0.2	0.2	0.3
7. Other agriculture	0.0	0.1	0.3	0.2	0.8	1.0	1.1	1.3	1.5	1.9	2.3	2.7	3.1	3.5	4.0	4.4	4.9	5.4	5.9	6.5	7.0	7.6
8. Agricultural services; hunting	0.0	0.0	0.0	-0.2	0.2	0.2	0.1	0.2	0.3	0.4	0.6	0.7	0.9	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.7
9. Forestry and logging	0.0	-0.1	-0.1	-0.2	-0.1	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
10. Commercial fishing	0.0	-0.1	-0.1	-0.2	-0.1	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2
11. Coal; oil and gas	0.0	0.0	0.0	-0.2	0.0	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2
12. Iron ores	0.0	0.0	0.0	-0.3	0.0	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2
13. Non-ferrous metal ores	0.0	0.0	0.0	-0.3	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	0.0
14. Other mining	0.0	0.0	0.2	-0.1	0.5	0.5	0.5	0.4	0.5	0.5	0.3	0.2	0.1	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4
15. Mining services	0.0	-0.1	-0.1	-0.1	-0.1	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.8
16. Meat products	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.1	1.2	1.3	1.5
17. Dairy products	0.0	-0.1	-0.1	-0.3	0.0	0.0	-0.1	0.0	0.1	0.3	0.5	0.7	0.9	1.1	1.4	1.7	2.0	2.3	2.7	3.1	3.6	4.1
18. Fruit and vegetable products	0.0	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.5
19. Oils and fats	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2
20. Flour and cereal foods	0.0	0.0	-0.1	-0.2	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.2
21. Bakery products	0.0	-0.1	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
22. Confectionery	0.0	-0.1	-0.1	-0.2	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0
23. Other food products																						

Table A4: Industry cost deviations, scale effects only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
87. Communication services	0.0	0.0	-0.1	-0.1	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.7	-0.7	-0.8
88. Banking	0.0	0.0	-0.2	-0.2	-0.3	-0.3	-0.2	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7
89. Non-bank finance	0.0	0.0	-0.2	-0.2	-0.3	-0.3	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.5
90. Insurance	0.0	0.0	-0.2	-0.2	-0.3	-0.3	-0.2	-0.2	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.8	-0.9
91. Services to finance etc	0.0	0.0	-0.3	-0.2	-0.4	-0.2	-0.1	-0.1	-0.2	-0.3	-0.2	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.4
92. Ownership of dwellings	0.0	0.2	0.3	0.5	0.6	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1
93. Other property services	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4
94. Scientific research etc	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.7	-0.8	-0.8	-0.9	-1.0	-1.0	-1.1	-1.2	-1.3	-1.3	-1.4
95. Legal, accounting etc services	0.0	-0.1	-0.1	-0.1	-0.3	-0.4	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.8	-0.8	-0.9	-1.0	-1.1	-1.1	-1.2	-1.3	-1.4
96. Other business services	0.0	-0.1	-0.1	-0.1	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8	-0.9	-1.0	-1.0	-1.1
97. Government administration	0.0	-0.1	-0.1	-0.1	-0.3	-0.4	-0.4	-0.4	-0.5	-0.6	-0.7	-0.7	-0.8	-0.9	-1.0	-1.1	-1.1	-1.2	-1.3	-1.4	-1.5	-1.6
98. Defence	0.0	-0.1	-0.1	-0.2	-0.3	-0.4	-0.4	-0.5	-0.6	-0.7	-0.7	-0.8	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.3
99. Education	0.0	-0.1	-0.1	-0.2	-0.3	-0.4	-0.6	-0.7	-0.8	-0.9	-1.1	-1.2	-1.3	-1.5	-1.6	-1.8	-1.9	-2.1	-2.3	-2.4	-2.6	-2.8
100. Health services	0.0	-0.1	-0.1	-0.1	-0.3	-0.4	-0.5	-0.5	-0.6	-0.8	-0.9	-1.1	-1.2	-1.4	-1.6	-1.7	-1.9	-2.1	-2.3	-2.5	-2.7	-3.0
101. Community services	0.0	-0.1	-0.1	-0.1	-0.2	-0.3	-0.3	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-1.3	-1.4	-1.5	-1.6	-1.7
102. Motion picture, radio etc	0.0	-0.1	-0.2	-0.1	-0.5	-0.5	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6
103. Libraries, museums, arts	0.0	-0.1	-0.2	-0.1	-0.4	-0.4	-0.5	-0.5	-0.5	-0.6	-0.7	-0.7	-0.8	-0.9	-0.9	-1.0	-1.1	-1.2	-1.3	-1.3	-1.4	-1.5
104. Sport, gambling etc	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
105. Personal services	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.7	-0.8
106. Other services	0.0	-0.1	-0.1	-0.1	-0.3	-0.3	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-1.3	-1.5	-1.6	-1.7	-1.9	-2.0

Table A5: Occupational employment deviations, scale effects only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. General Managers & Administrators	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.9	5.1	5.4	5.7
2. Miscellaneous Generalist Managers	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.2	2.5	2.7	3.0	3.3	3.6	3.8	4.1	4.4	4.6	4.9	5.2	5.5	5.8
3. Resource Managers	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.9	5.1	5.4	5.7
4. Engineering, Distribution & Process Managers	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.1	4.3	4.6	4.9	5.2	5.5	5.8
5. Sales & Marketing Managers	0.0	0.3	0.5	0.8	1.0	1.3	1.6	1.8	2.1	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.6	4.8	5.1	5.4	5.7
6. Miscellaneous Specialist Managers	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.4	2.6	2.9	3.2	3.4	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6
7. Farmers & Farm Managers	0.0	0.3	0.5	0.7	1.1	1.4	1.6	1.9	2.2	2.5	2.8	3.2	3.5	3.8	4.2	4.5	4.9	5.2	5.6	6.0	6.4	6.7
8. Natural & Physical Science Professionals	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.9	5.2	5.5	5.7
9. Building & Engineering Professionals	0.0	0.3	0.5	0.8	1.0	1.3	1.6	1.8	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.9	5.1	5.4	5.7
10. Accountants, Auditors & Corporate Treasurers	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.9	5.1	5.4	5.7
11. Sales, Marketing & Advertising Professionals	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.9	5.1	5.4	5.7
12. Computing Professionals	0.0	0.3	0.5	0.8	1.0	1.3	1.6	1.8	2.1	2.4	2.6	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.4	5.6
13. Miscellaneous Business & Information Professionals	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.6	4.8	5.1	5.4	5.7
14. Medical Practitioners	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.6	4.8	5.1	5.4	5.6
15. Nursing Professionals	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.4	5.6
16. Miscellaneous Health Professionals	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6
17. School Teachers	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.4	2.6	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.4	5.6
18. University & Vocational Education Teachers	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.4	2.6	2.9	3.2	3.4	3.7	4.0	4.3	4.5	4.8	5.1	5.4	5.6
19. Miscellaneous Education Professionals	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.4	2.6	2.9	3.2	3.4	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6
20. Social Welfare Professionals	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.4	5.6
21. Miscellaneous Social Professionals	0.0	0.3	0.5	0.8	1.0	1.3	1.6	1.8	2.1	2.4	2.6	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.4	5.6
22. Artists & Related Professionals	0.0	0.3	0.5	0.8	1.0	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.9	5.2	5.4	5.7
23. Miscellaneous Professionals	0.0	0.3	0.5	0.8	1.1	1.4	1.6	1.9	2.2	2.4	2.7	3.0	3.2	3.5	3.8	4.1	4.4	4.6	4.9	5.2	5.5	5.8
24. Medical & Science Technical Officers	0.0	0.3	0.5	0.8	1.0	1.3	1.6	1.8	2.1	2.4	2.6	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.4	5.7
25. Building & Engineering Associate Professionals	0.0	0.3	0.5	0.8	1.0	1.3	1.6	1.9	2.1	2.4	2.7	3.0	3.2	3.5	3.8	4.1	4.3	4.6	4.9	5.2	5.4	5.7
26. Finance Associate Professionals	0.0	0.3	0.5	0.8	1.1	1.4	1.6	1.9	2.2	2.5	2.7	3.0	3.3	3.6	3.9	4.2	4.5	4.7	5.0	5.3	5.6	5.9
27. Misc. Business & Admin. Associate Professionals	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.9	5.1	5.4	5.7
28. Shop Managers	0.0	0.3	0.5	0.8	1.0	1.3	1.6	1.8	2.1	2.3	2.6	2.8	3.1	3.3	3.6	3.9	4.1	4.4	4.6	4.9	5.1	5.4
29. Hospitality & Accommodation Managers	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.8	2.1	2.4	2.6	2.9	3.1	3.4	3.7	3.9	4.2	4.4	4.7	5.0	5.2	5.5
30. Miscellaneous Managing Supervisors (Sales & Service)	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.6	4.8	5.1	5.4	5.7
31. Enrolled Nurses	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6
32. Welfare Associate Professionals	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6
33. Miscellaneous Health & Welfare Associate Professionals	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.8	4.0	4.3	4.6	4.8	5.1	5.4	5.7
34. Police Officers	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.2	2.4	2.7	3.0	3.2	3.5	3.8	4.0	4.3	4.6	4.8	5.1	5.4	5.7
35. Miscellaneous Associate Professionals	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.6	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6
36. Mechanical Engineering Tradespersons	0.0	0.3	0.5	0.8	1.1	1.4	1.6	1.9	2.1	2.4	2.7	3.0	3.3	3.6	3.8	4.1	4.4	4.7	5.0	5.3	5.6	5.9
37. Fabrication Engineering Tradespersons	0.0	0.3	0.6	0.8	1.1	1.4	1.6	1.9	2.2	2.5	2.8	3.1	3.4	3.7	4.0	4.3	4.6	4.9	5.2	5.5	5.8	6.1
38. Automotive Tradespersons	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.7	2.9	3.2	3.5	3.7	4.0	4.3	4.5	4.8	5.1	5.3	5.6
39. Electrical & Electronics Tradespersons	0.0	0.3	0.5	0.8	1.1	1.4	1.7	1.9	2.2	2.5	2.8	3.0	3.3	3.6	3.8	4.1	4.4	4.7	4.9	5.2	5.5	5.8
40. Structural Construction Tradespersons	0.0	0.3	0.6	0.9	1.1	1.4	1.8	2.1	2.3	2.6	2.9	3.2	3.4	3.7	4.0	4.2	4.5	4.8	5.0	5.3	5.6	5.8
41. Final Finish Construction Tradespersons	0.0	0.3	0.6	0.9	1.1	1.4	1.7	2.0	2.3	2.6	2.8	3.1	3.4									

Table A9: Deviations in real consumer wages, by occupation, scale effect only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
51. Secretaries & Personal Assistants	0.0	-0.1	-0.2	-0.1	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-0.9	-1.1	-1.2	-1.3	-1.5	-1.6	-1.8	-2.0	-2.1	-2.3	-2.5	-2.7
52. Advanced Numerical Clerks	0.0	-0.1	-0.2	-0.1	-0.3	-0.4	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.2	-1.3	-1.4	-1.6	-1.7	-1.9	-2.1	-2.3	-2.4
53. Miscellaneous Advanced Clerical & Service Workers	0.0	-0.1	-0.1	-0.1	-0.3	-0.4	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-1.4	-1.5	-1.7	-1.8	-2.0	-2.1	-2.3
54. General Clerks	0.0	-0.1	-0.2	-0.1	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.2	-1.3	-1.5	-1.7	-1.8	-2.0	-2.2	-2.4	-2.6	-2.8	-3.1
55. Keyboard Operators	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.2	-1.3	-1.5	-1.6	-1.8	-2.0	-2.1	-2.3	-2.5	-2.7	-2.9
56. Receptionists	0.0	-0.1	-0.2	-0.1	-0.4	-0.5	-0.5	-0.6	-0.7	-0.9	-1.0	-1.2	-1.3	-1.5	-1.7	-1.8	-2.0	-2.2	-2.4	-2.6	-2.9	-3.1
57. Intermediate Numerical Clerks	0.0	-0.1	-0.2	-0.1	-0.4	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-1.0	-1.1	-1.2	-1.3	-1.5	-1.6	-1.8	-1.9	-2.1	-2.3	-2.4
58. Material Recording & Despatch Clerks	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.1	-1.2	-1.3	-1.5	-1.6	-1.8	-1.9	-2.1	-2.2	-2.4	-2.6	-2.8
59. Miscellaneous Intermediate Clerical Workers	0.0	-0.1	-0.2	-0.1	-0.4	-0.5	-0.5	-0.6	-0.7	-0.9	-1.0	-1.2	-1.3	-1.5	-1.7	-1.8	-2.0	-2.2	-2.4	-2.7	-2.9	-3.1
60. Intermediate Sales & Related Workers	0.0	-0.1	-0.2	-0.2	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.2	-1.3	-1.5	-1.7	-1.8	-2.0	-2.2	-2.4	-2.6	-2.8	-3.0	-3.2
61. Carers & Aides	0.0	-0.1	-0.1	-0.1	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8	-1.0	-1.2	-1.3	-1.5	-1.7	-1.9	-2.1	-2.3	-2.6	-2.8	-3.0	-3.3
62. Hospitality Workers	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.8	-0.9	-1.1	-1.2	-1.4	-1.6	-1.8	-2.1	-2.3	-2.5	-2.8	-3.0	-3.3	-3.6	-3.9
63. Miscellaneous Intermediate Service Workers	0.0	-0.1	-0.1	-0.1	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.2	-1.3	-1.5	-1.6	-1.8	-2.0	-2.2	-2.4	-2.6	-2.8
64. Mobile Plant Operators	0.0	-0.1	-0.1	-0.1	-0.2	-0.3	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-1.3	-1.5	-1.6	-1.7	-1.9	-2.0
65. Intermediate Stationary Plant Operators	0.0	-0.1	-0.1	-0.2	-0.1	-0.2	-0.3	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8	-0.9	-0.9	-1.0	-1.1
66. Intermed. Textile, Cloth'g & Related Machine Operators	0.0	-0.1	-0.2	-0.4	-0.4	-0.5	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-1.3	-1.4	-1.5	-1.6	-1.7	-1.9	-2.0	-2.1	-2.3	-2.4
67. Miscellaneous Intermediate Machine Operators	0.0	-0.1	0.0	-0.2	0.0	-0.1	-0.1	-0.2	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.5	-0.6	-0.7	-0.7	-0.8	-0.9
68. Road & Rail Transport Drivers	0.0	-0.1	-0.3	-0.4	-0.5	-0.6	-0.8	-0.9	-1.0	-1.2	-1.3	-1.5	-1.6	-1.8	-1.9	-2.1	-2.3	-2.5	-2.7	-2.8	-3.0	-3.3
69. Intermediate Mining & Construction Workers	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6
70. Misc. Intermediate Production & Transport Workers	0.0	-0.1	-0.2	-0.2	-0.4	-0.6	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-1.4	-1.5	-1.7	-1.8	-2.0	-2.1	-2.3	-2.5	-2.6	-2.8
71. Elementary Clerks	0.0	-0.1	-0.2	-0.1	-0.4	-0.4	-0.5	-0.5	-0.6	-0.8	-0.9	-1.0	-1.2	-1.3	-1.5	-1.6	-1.8	-2.0	-2.2	-2.4	-2.6	-2.9
72. Sales Assistants	0.0	-0.1	-0.2	-0.2	-0.5	-0.6	-0.8	-0.9	-1.0	-1.2	-1.4	-1.6	-1.9	-2.1	-2.3	-2.6	-2.9	-3.1	-3.4	-3.7	-4.0	-4.3
73. Miscellaneous Elementary Sales Workers	0.0	-0.1	-0.2	-0.1	-0.4	-0.5	-0.6	-0.7	-0.8	-1.0	-1.1	-1.3	-1.5	-1.7	-1.8	-2.0	-2.2	-2.5	-2.7	-2.9	-3.2	-3.4
74. Elementary Service Workers	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.2	-1.3	-1.5	-1.7	-1.8	-2.0	-2.2	-2.4	-2.6	-2.8	-3.0
75. Cleaners	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.1	-1.2	-1.4	-1.5	-1.7	-1.9	-2.1	-2.3	-2.5	-2.7	-2.9	-3.1
76. Process Workers	0.0	-0.1	-0.2	-0.4	-0.3	-0.5	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-1.3	-1.5	-1.6	-1.7	-1.8	-1.9	-2.0	-2.2	-2.3	-2.3
77. Product Packagers	0.0	-0.2	-0.3	-0.5	-0.5	-0.7	-0.9	-1.1	-1.2	-1.4	-1.5	-1.7	-1.9	-2.0	-2.2	-2.4	-2.6	-2.8	-3.0	-3.2	-3.4	-3.6
78. Mining, Construction & Related Labourers	0.0	0.0	-0.1	0.2	-0.1	-0.1	0.0	0.1	0.0	-0.1	-0.2	-0.3	-0.4	-0.6	-0.7	-0.9	-1.0	-1.2	-1.4	-1.6	-1.8	-2.1
79. Agricultural & Horticultural Labourers	0.0	-0.1	-0.1	-0.3	-0.2	-0.2	-0.4	-0.4	-0.5	-0.5	-0.5	-0.4	-0.4	-0.4	-0.3	-0.2	-0.2	-0.1	0.0	0.1	0.2	0.4
80. Elementary Food Preparation & Related Workers	0.0	-0.1	-0.2	-0.2	-0.5	-0.6	-0.7	-0.8	-0.9	-1.1	-1.3	-1.5	-1.7	-1.9	-2.2	-2.4	-2.7	-2.9	-3.2	-3.5	-3.8	-4.1
81. Other Miscellaneous Labourers & Related Workers	0.0	-0.1	-0.1	-0.1	-0.3	-0.4	-0.4	-0.5	-0.6	-0.7	-0.8	-1.0	-1.1	-1.3	-1.4	-1.6	-1.8	-1.9	-2.1	-2.3	-2.5	-2.7

Table A10: Deviations in real consumer wages, by qualification, scale effect only, percentage deviation from basecase

Real wage deviations, by qualification	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Postgraduate	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.1	-1.2	-1.3	-1.5	-1.7	-1.8	-2.0	-2.2	-2.4	-2.6	-2.8	-3.0
2. Graduate diploma	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.1	-1.2	-1.4	-1.5	-1.7	-1.8	-2.0	-2.2	-2.4	-2.6	-2.8	-3.1
3. Bachelor	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.2	-1.3	-1.5	-1.6	-1.8	-2.0	-2.2	-2.4	-2.6	-2.8	-3.0
4. Advanced diploma	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.6	-0.7	-0.9	-1.0	-1.1	-1.3	-1.4	-1.6	-1.7	-1.9	-2.1	-2.2	-2.4	-2.6	-2.8
5. Cert. 3 & 4	0.0	-0.1	-0.1	-0.1	-0.3	-0.4	-0.4	-0.5	-0.5	-0.7	-0.8	-0.9	-1.0	-1.1	-1.3	-1.4	-1.6	-1.7	-1.9	-2.1	-2.2	-2.4
6. Cert. 1 & 2	0.0	-0.1	-0.2	-0.2	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.1	-1.2	-1.4	-1.5	-1.7	-1.8	-2.0	-2.2	-2.4	-2.6	-2.8
7. No post school	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-0.9	-1.1	-1.2	-1.3	-1.5	-1.6	-1.8	-2.0	-2.1	-2.3	-2.5	-2.7

Table A11: Deviations in real consumer wages, by field, scale effect only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Science	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.7	-0.8	-1.0	-1.1	-1.2	-1.3	-1.5	-1.6	-1.8	-1.9	-2.1	-2.3	-2.5	-2.7	-2.9
2. Information Tech	0.0	-0.1	-0.2	-0.2	-0.5	-0.7	-0.7	-0.7	-0.8	-1.0	-1.1	-1.2	-1.3	-1.5	-1.6	-1.8	-1.9	-2.1	-2.3	-2.5	-2.7	-2.9
3. Engineering	0.0	-0.1	-0.2	-0.1	-0.3	-0.4	-0.5	-0.6	-0.6	-0.7	-0.8	-0.9	-1.0	-1.2	-1.3	-1.4	-1.5	-1.7	-1.8	-2.0	-2.1	-2.3
4. Architecture	0.0	0.0	-0.1	0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.4	-0.6	-0.7	-0.8	-1.0	-1.1	-1.3	-1.5	-1.6	-1.8	-2.0	-2.2
5. Agriculture	0.0	-0.1	-0.2	-0.2	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.0	-1.2	-1.3	-1.4	-1.5	-1.6	-1.7	-1.8	-2.0	-2.1
6. Health	0.0	-0.1	-0.2	-0.1	-0.4	-0.4	-0.5	-0.6	-0.7	-0.9	-1.0	-1.2	-1.4	-1.6	-1.8	-2.0	-2.2	-2.4	-2.6	-2.9	-3.1	-3.4
7. Education	0.0	-0.1	-0.1	-0.3	-0.3	-0.4	-0.6	-0.8	-0.9	-1.0	-1.2	-1.3	-1.5	-1.6	-1.8	-1.9	-2.1	-2.3	-2.5	-2.7	-2.9	-3.2
8. Management	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.6	-0.7	-0.9	-1.0	-1.1	-1.3	-1.4	-1.5	-1.7	-1.9	-2.0	-2.2	-2.4	-2.6	-2.8
9. Social sciences	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.2	-1.3	-1.5	-1.7	-1.8	-2.0	-2.2	-2.4	-2.6	-2.8	-3.0
10. Arts	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.1	-1.3	-1.4	-1.6	-1.7	-1.9	-2.1	-2.3	-2.5	-2.7	-2.9
11. Food & hospitality	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.6	-0.7	-0.8	-1.0	-1.1	-1.3	-1.4	-1.6	-1.8	-2.0	-2.2	-2.4	-2.6	-2.8	-3.0	-3.3
12. No post school	0.0	-0.1	-0.2	-0.2	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-0.9	-1.1	-1.2	-1.3	-1.5	-1.6	-1.8	-2.0	-2.1	-2.3	-2.5	-2.7

Table B9: Deviations in real consumer wages, by occupation, skill effect only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	
53. Miscellaneous Advanced Clerical & Service Workers	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.3	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-1.3	-1.4	-1.5	-1.5	
54. General Clerks	0.0	0.1	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-1.3	-1.4	
55. Keyboard Operators	0.0	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.4	-0.6	-0.7	-0.8	-1.0	-1.1	-1.2	-1.4	-1.5	-1.7	-1.8	-1.9	-2.0	
56. Receptionists	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.0	-0.1	-0.3	-0.4	-0.6	-0.7	-0.9	-1.0	-1.1	-1.3	-1.5	-1.6	-1.7	-1.8	
57. Intermediate Numerical Clerks	0.0	0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.5	-0.6	-0.7	-0.8	-1.0	-1.1	-1.3	-1.4	-1.5	-1.7	-1.8	-2.0	-2.1	-2.2	-2.2	
58. Material Recording & Despatch Clerks	0.0	0.1	0.1	0.2	0.1	0.1	0.0	-0.1	-0.2	-0.3	-0.3	-0.4	-0.6	-0.7	-0.8	-0.9	-1.0	-1.1	-1.2	-1.2	-1.3	-1.3	
59. Miscellaneous Intermediate Clerical Workers	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.7	-0.7	-0.8	-0.9	-1.0	-1.1	-1.1	
60. Intermediate Sales & Related Workers	0.0	0.1	0.1	0.2	0.1	0.1	0.0	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.1	-1.1	-1.2	-1.2	-1.1	
61. Carers & Aides	0.0	0.1	0.3	0.4	0.5	0.7	0.8	0.9	1.1	1.2	1.2	1.3	1.3	1.3	1.2	1.2	1.1	1.1	1.0	1.0	0.9	0.8	
62. Hospitality Workers	0.0	0.2	0.2	0.2	0.2	0.1	0.0	-0.2	-0.4	-0.5	-0.7	-0.9	-1.1	-1.4	-1.6	-1.8	-2.0	-2.2	-2.3	-2.5	-2.6	-2.7	
63. Miscellaneous Intermediate Service Workers	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-0.8	
64. Mobile Plant Operators	0.0	0.2	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.1	0.1	0.0	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.6	-0.6	-0.6	-0.5	
65. Intermediate Stationary Plant Operators	0.0	0.1	0.3	0.4	0.6	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.2	1.4	
66. Intermed. Textile, Cloth'g & Related Machine Operators	0.0	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.2	0.1	0.0	-0.1	-0.3	-0.5	-0.7	-0.9	-1.0	-1.2	-1.3	-1.4	-1.5	-1.5	
67. Miscellaneous Intermediate Machine Operators	0.0	0.2	0.3	0.4	0.5	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.0	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.6	-0.6	-0.6	
68. Road & Rail Transport Drivers	0.0	0.2	0.3	0.4	0.5	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.0	
69. Intermediate Mining & Construction Workers	0.0	0.1	0.2	0.3	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.1	1.2	1.3
70. Misc. Intermediate Production & Transport Workers	0.0	0.2	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.1	0.0	-0.1	-0.2	-0.3	-0.5	-0.6	-0.7	-0.8	-0.9	-0.9	-1.0	-0.9	
71. Elementary Clerks	0.0	0.1	0.1	0.1	0.0	-0.1	-0.1	-0.3	-0.4	-0.5	-0.6	-0.7	-0.9	-1.0	-1.1	-1.3	-1.4	-1.5	-1.6	-1.7	-1.8	-1.8	
72. Sales Assistants	0.0	0.2	0.3	0.3	0.3	0.2	0.1	0.0	-0.2	-0.4	-0.5	-0.7	-0.9	-1.1	-1.3	-1.5	-1.7	-1.9	-2.1	-2.2	-2.3	-2.3	
73. Miscellaneous Elementary Sales Workers	0.0	0.2	0.2	0.2	0.2	0.1	0.1	-0.1	-0.2	-0.3	-0.4	-0.6	-0.8	-0.9	-1.1	-1.3	-1.4	-1.6	-1.7	-1.8	-1.9	-1.9	
74. Elementary Service Workers	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.7	-0.9	-1.0	-1.0	-1.1	-1.1	
75. Cleaners	0.0	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.1	0.0	-0.2	-0.3	-0.5	-0.6	-0.8	-0.9	-1.1	-1.2	-1.3	-1.3	-1.3	
76. Process Workers	0.0	0.2	0.3	0.4	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.0	-0.1	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-0.9	-0.8	
77. Product Packagers	0.0	0.2	0.3	0.4	0.4	0.4	0.4	0.3	0.2	0.1	0.0	-0.2	-0.3	-0.5	-0.7	-0.8	-1.0	-1.1	-1.3	-1.3	-1.4	-1.4	
78. Mining, Construction & Related Labourers	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.0	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8	-0.9	-1.0	-1.0	-1.0	-0.9	
79. Agricultural & Horticultural Labourers	0.0	0.2	0.3	0.3	0.4	0.4	0.3	0.3	0.1	0.0	-0.1	-0.2	-0.4	-0.5	-0.6	-0.8	-0.9	-1.0	-1.1	-1.2	-1.2	-1.2	
80. Elementary Food Preparation & Related Workers	0.0	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.0	-0.1	-0.3	-0.5	-0.7	-0.9	-1.1	-1.3	-1.5	-1.7	-1.9	-2.0	-2.1	-2.2	
81. Other Miscellaneous Labourers & Related Workers	0.0	0.1	0.3	0.3	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.5	0.5	

Table B10: Deviations in real consumer wages, by qualification, skill effect only, percentage deviation from basecase

Real wage deviations, by qualification	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Postgraduate	0.0	-0.2	-0.3	-0.3	-0.4	-0.3	-0.3	-0.2	0.0	0.1	0.1	0.2	0.3	0.4	0.6	0.7	0.8	0.9	0.9	0.9	0.9	0.8
2. Graduate diploma	0.0	-0.2	-0.2	-0.1	-0.1	0.0	0.2	0.4	0.6	0.7	0.8	0.9	1.1	1.2	1.4	1.5	1.6	1.6	1.7	1.6	1.6	1.5
3. Bachelor	0.0	-0.2	-0.2	-0.3	-0.3	-0.3	-0.2	-0.1	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.7	0.7	0.6	0.5
4. Advanced diploma	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.3	0.3	0.3	0.3
5. Cert. 3 & 4	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.1	1.2	1.3
6. Cert. 1 & 2	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2
7. No post school	0.0	0.0	0.1	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6

Table B11: Deviations in real consumer wages, by field, skill effect only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Science	0.0	-0.2	-0.3	-0.3	-0.4	-0.3	-0.2	-0.1	0.1	0.2	0.3	0.4	0.5	0.7	0.8	0.9	1.1	1.2	1.2	1.3	1.2	1.2
2. Information Tech	0.0	-0.3	-0.5	-0.7	-1.0	-1.2	-1.3	-1.4	-1.4	-1.4	-1.5	-1.5	-1.5	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.6	-1.7	-1.7
3. Engineering	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.7	0.8	0.9	1.0	1.1	1.2	1.4	1.5	1.7	1.9	2.0	2.2
4. Architecture	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	0.0	0.1	0.1	0.2	0.3	0.4	0.5
5. Agriculture	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4
6. Health	0.0	0.0	0.1	0.2	0.4	0.6	0.8	0.9	1.0	0.9	0.8	0.8	0.9	1.0	1.2	1.3	1.5	1.5	1.5	1.5	1.4	1.4
7. Education	0.0	-0.1	0.0	0.3	0.6	1.1	1.6	2.2	2.7	3.1	3.5	3.9	4.3	4.8	5.1	5.4	5.6	5.8	5.9	5.9	5.8	5.6
8. Management	0.0	-0.1	-0.3	-0.4	-0.6	-0.7	-0.8	-0.9	-0.9	-1.0	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.3	-1.3	-1.4	-1.4	-1.5	-1.5
9. Social sciences	0.0	-0.1	-0.2	-0.2	-0.2	-0.2	-0.1	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.3	0.2
10. Arts	0.0	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0
11. Food & hospitality	0.0	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.5	-0.6	-0.7	-0.8	-0.8	-0.9	-1.0	-1.0	-1.1	-1.2	-1.3	-1.3	-1.4
12. No post school	0.0	0.0	0.1	0.1	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6

Table C7: Employment deviations by field, taste effect only, percentage deviation from basecase

Table with 22 columns (years 2004-2025) and 6 rows (Management, Social sciences, Arts, Food & hospitality, No post school).

Table C8: Employment deviations by field and qualification, taste effect only, percentage deviation from basecase

Table with 22 columns (years 2004-2025) and 64 rows (various fields like Science, Information Tech, Engineering, Agriculture, Health, Education, Management, Social sciences, Arts, Food & hospitality).

Table C9: Deviations in real consumer wages, by occupation, taste effect only, percentage deviation from basecase

Table with 22 columns (years 2004-2025) and 50 rows (various occupations like General Managers, Engineers, Nurses, Teachers, etc.).

Table C9: Deviations in real consumer wages, by occupation, taste effect only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
51. Secretaries & Personal Assistants	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1
52. Advanced Numerical Clerks	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
53. Miscellaneous Advanced Clerical & Service Workers	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.3	-0.4	-0.4	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3	-0.4	-0.5	-0.6	-0.7	-0.7
54. General Clerks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
55. Keyboard Operators	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1
56. Receptionists	0.0	0.0	0.1	0.1	0.1	0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3
57. Intermediate Numerical Clerks	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2
58. Material Recording & Despatch Clerks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
59. Miscellaneous Intermediate Clerical Workers	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2
60. Intermediate Sales & Related Workers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
61. Carers & Aides	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.6	0.7	0.8	0.8	0.8	0.8	0.8	0.9
62. Hospitality Workers	0.0	0.0	0.0	0.1	0.2	0.3	0.5	0.6	0.8	0.9	1.1	1.2	1.3	1.4	1.4	1.4	1.5	1.5	1.6	1.7	1.8	1.8
63. Miscellaneous Intermediate Service Workers	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3
64. Mobile Plant Operators	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4
65. Intermediate Stationary Plant Operators	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3
66. Intermed. Textile, Cloth'g & Related Machine Operators	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1
67. Miscellaneous Intermediate Machine Operators	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3
68. Road & Rail Transport Drivers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2
69. Intermediate Mining & Construction Workers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
70. Misc. Intermediate Production & Transport Workers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
71. Elementary Clerks	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.7	-0.8
72. Sales Assistants	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
73. Miscellaneous Elementary Sales Workers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
74. Elementary Service Workers	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
75. Cleaners	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
76. Process Workers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2
77. Product Packagers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
78. Mining, Construction & Related Labourers	0.0	0.0	0.1	0.1	0.0	0.0	-0.1	-0.2	-0.3	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-0.9	-1.1	-1.3	-1.5	-1.7	-1.8	-2.0
79. Agricultural & Horticultural Labourers	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
80. Elementary Food Preparation & Related Workers	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
81. Other Miscellaneous Labourers & Related Workers	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3

Table C10: Deviations in real consumer wages, by qualification, taste effect only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Postgraduate	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.6
2. Graduate diploma	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.8	0.9	1.0	1.0	1.1
3. Bachelor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5
4. Advanced diploma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
5. Cert. 3 & 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3	-0.3
6. Cert. 1 & 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
7. No post school	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1

Table C11: Deviations in real consumer wages, by field, taste effect only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Science	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.8
2. Information Tech	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. Engineering	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1
4. Architecture	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.7	-0.8	-1.0	-1.1	-1.2	-1.3
5. Agriculture	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3
6. Health	0.0	0.1	0.2	0.2	0.1	0.1	0.0	-0.2	-0.3	-0.3	-0.3	-0.3	-0.2	-0.1	-0.1	0.0	-0.1	-0.2	-0.3	-0.5	-0.5	-0.5
7. Education	0.0	-0.1	-0.1	-0.1	0.0	0.1	0.3	0.5	0.8	1.1	1.3	1.4	1.5	1.6	1.7	1.9	2.2	2.5	2.9	3.3	3.5	3.7
8. Management	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9. Social sciences	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.4
10. Arts	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.5
11. Food & hospitality	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
12. No post school	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1

Table D9: Deviations in real consumer wages, by occupation, public effect only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
53. Miscellaneous Advanced Clerical & Service Workers	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4	-0.4
54. General Clerks	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3	1.3	1.4
55. Keyboard Operators	0.0	-0.1	-0.1	-0.2	-0.3	-0.3	-0.4	-0.5	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8	-0.8	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9
56. Receptionists	0.0	-0.4	-0.8	-1.3	-1.7	-2.2	-2.8	-3.4	-4.0	-4.3	-4.8	-5.1	-5.5	-5.8	-6.1	-6.3	-6.5	-6.7	-6.9	-7.1	-7.2	-7.3
57. Intermediate Numerical Clerks	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
58. Material Recording & Despatch Clerks	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.3	-0.3	-0.4	-0.5	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8	-0.9	-0.9	-0.9	-1.0	-1.0	-1.0
59. Miscellaneous Intermediate Clerical Workers	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.2
60. Intermediate Sales & Related Workers	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.6	-0.7	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.1	-1.2	-1.2
61. Carers & Aides	0.0	-0.9	-2.1	-3.4	-4.2	-4.9	-5.7	-6.5	-7.1	-7.5	-7.8	-8.1	-8.5	-8.8	-9.1	-9.3	-9.5	-9.7	-9.9	-10.0	-10.2	-10.2
62. Hospitality Workers	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.3	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.4	-0.4
63. Miscellaneous Intermediate Service Workers	0.0	-0.2	-0.4	-0.7	-0.9	-1.1	-1.4	-1.8	-2.1	-2.3	-2.5	-2.7	-2.9	-3.1	-3.3	-3.4	-3.5	-3.6	-3.7	-3.8	-3.8	-3.9
64. Mobile Plant Operators	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8	-0.8	-0.9	-0.9	-0.9
65. Intermediate Stationary Plant Operators	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
66. Intermed. Textile, Cloth'g & Related Machine Operators	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7
67. Miscellaneous Intermediate Machine Operators	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8
68. Road & Rail Transport Drivers	0.0	0.0	-0.1	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.7	-0.7	-0.8	-0.9	-1.0	-1.0	-1.1	-1.2	-1.2	-1.3	-1.3	-1.3	-1.3
69. Intermediate Mining & Construction Workers	0.0	0.0	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2
70. Misc. Intermediate Production & Transport Workers	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.3	-0.3	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8	-0.8
71. Elementary Clerks	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
72. Sales Assistants	0.0	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.4	-0.5	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8	-0.9	-0.9	-0.9	-0.9
73. Miscellaneous Elementary Sales Workers	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.4	-0.5	-0.6	-0.7	-0.8	-0.8	-0.9	-0.9	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
74. Elementary Service Workers	0.0	-0.1	-0.2	-0.4	-0.5	-0.6	-0.8	-1.0	-1.1	-1.2	-1.3	-1.4	-1.5	-1.6	-1.7	-1.7	-1.8	-1.8	-1.9	-1.9	-1.9	-1.9
75. Cleaners	0.0	-0.1	-0.3	-0.5	-0.6	-0.8	-0.9	-1.1	-1.3	-1.4	-1.5	-1.6	-1.7	-1.7	-1.8	-1.9	-1.9	-2.0	-2.0	-2.0	-2.0	-2.0
76. Process Workers	0.0	0.0	0.0	0.0	-0.1	-0.2	-0.2	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8	-0.8	-0.9	-0.9	-0.9
77. Product Packagers	0.0	0.0	-0.1	-0.2	-0.3	-0.3	-0.4	-0.5	-0.6	-0.7	-0.7	-0.8	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.1	-1.1	-1.1	-1.2
78. Mining, Construction & Related Labourers	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.4	-0.5	-0.6	-0.6	-0.7	-0.8	-0.8	-0.8	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9	-0.9
79. Agricultural & Horticultural Labourers	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8
80. Elementary Food Preparation & Related Workers	0.0	-0.3	-0.7	-1.1	-1.4	-1.9	-2.4	-2.9	-3.4	-3.8	-4.1	-4.4	-4.7	-5.0	-5.2	-5.4	-5.6	-5.8	-5.9	-6.1	-6.2	-6.3
81. Other Miscellaneous Labourers & Related Workers	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2

Table D10: Deviations in real consumer wages, by qualification, public effect only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Postgraduate	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.4	0.5	0.7	0.8	0.9	0.9	1.0	1.1	1.2	1.2	1.3	1.3	1.3	1.3	1.3
2. Graduate diploma	0.0	0.2	0.4	0.7	1.1	1.4	1.7	2.1	2.4	2.8	3.1	3.4	3.7	3.9	4.1	4.4	4.5	4.7	4.8	4.9	5.0	5.1
3. Bachelor	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.1	1.2	1.3	1.4	1.4	1.5	1.5	1.5	1.6
4. Advanced diploma	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
5. Cert. 3 & 4	0.0	-0.1	-0.1	-0.2	-0.3	-0.3	-0.4	-0.5	-0.6	-0.7	-0.7	-0.8	-0.9	-0.9	-1.0	-1.0	-1.0	-1.1	-1.1	-1.1	-1.2	-1.2
6. Cert. 1 & 2	0.0	-0.1	-0.1	-0.2	-0.3	-0.3	-0.4	-0.5	-0.6	-0.6	-0.7	-0.7	-0.8	-0.8	-0.8	-0.9	-0.9	-0.9	-0.9	-1.0	-1.0	-1.0
7. No post school	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8

Table D11: Deviations in real consumer wages, by field, public effect only, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Science	0.0	0.1	0.3	0.5	0.7	0.9	1.1	1.3	1.6	1.8	2.0	2.2	2.4	2.6	2.8	2.9	3.0	3.2	3.3	3.4	3.4	3.5
2. Information Tech	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
3. Engineering	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
4. Architecture	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.3	-0.4	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.7	-0.7
5. Agriculture	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7
6. Health	0.0	-0.9	-1.8	-2.8	-3.7	-4.6	-5.6	-6.7	-7.7	-8.5	-9.4	-10.1	-10.9	-11.6	-12.2	-12.8	-13.4	-13.9	-14.4	-14.9	-15.4	-15.8
7. Education	0.0	1.1	2.2	3.6	5.1	6.5	8.1	9.8	11.5	13.0	14.5	15.8	17.1	18.3	19.4	20.4	21.2	22.0	22.7	23.3	23.8	24.3
8. Management	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9. Social sciences	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.5	0.6	0.7	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.7	1.8
10. Arts	0.0	0.2	0.4	0.6	0.9	1.1	1.4	1.7	2.0	2.3	2.5	2.7	2.9	3.1	3.3	3.5	3.7	3.8	3.9	4.0	4.1	4.2
11. Food & hospitality	0.0	-0.1	-0.1	-0.2	-0.3	-0.4	-0.5	-0.6	-0.8	-0.8	-0.9	-1.0	-1.0	-1.1	-1.1	-1.2	-1.2	-1.2	-1.3	-1.3	-1.3	-1.3
12. No post school	0.0	0.0	-0.1	-0.1	-0.2	-0.2	-0.3	-0.4	-0.4	-0.5	-0.5	-0.6	-0.6	-0.6	-0.7	-0.7	-0.7	-0.7	-0.8	-0.8	-0.8	-0.8

Table E9: Deviations in real consumer wages, by occupation, total effect, percentage deviation from basecase

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
53. Miscellaneous Advanced Clerical & Service Workers	0.0	0.0	-0.1	-0.1	-0.4	-0.6	-0.8	-1.1	-1.4	-1.7	-1.9	-2.2	-2.4	-2.6	-2.8	-3.1	-3.4	-3.7	-4.1	-4.5	-4.8	-5.0
54. General Clerks	0.0	0.0	0.0	0.0	-0.2	-0.2	-0.2	-0.3	-0.3	-0.4	-0.5	-0.6	-0.8	-1.0	-1.2	-1.4	-1.7	-1.9	-2.2	-2.5	-2.7	-3.0
55. Keyboard Operators	0.0	-0.1	-0.2	-0.3	-0.7	-0.9	-1.2	-1.5	-1.7	-2.0	-2.3	-2.7	-3.0	-3.3	-3.6	-3.9	-4.3	-4.6	-5.0	-5.3	-5.7	-5.9
56. Receptionists	0.0	-0.3	-0.7	-1.1	-1.8	-2.4	-3.1	-4.0	-4.8	-5.4	-6.1	-6.8	-7.4	-7.9	-8.5	-9.0	-9.5	-10.1	-10.7	-11.2	-11.7	-12.0
57. Intermediate Numerical Clerks	0.0	-0.1	-0.3	-0.4	-0.8	-1.0	-1.2	-1.5	-1.7	-2.0	-2.3	-2.6	-2.9	-3.2	-3.5	-3.8	-4.1	-4.4	-4.7	-5.0	-5.3	-5.5
58. Material Recording & Despatch Clerks	0.0	0.0	-0.1	-0.1	-0.4	-0.7	-0.9	-1.1	-1.4	-1.7	-2.0	-2.3	-2.6	-2.9	-3.3	-3.6	-3.9	-4.2	-4.4	-4.7	-4.9	-5.2
59. Miscellaneous Intermediate Clerical Workers	0.0	-0.1	-0.2	-0.3	-0.6	-0.8	-0.9	-1.1	-1.3	-1.5	-1.8	-2.0	-2.3	-2.5	-2.8	-3.0	-3.3	-3.6	-3.9	-4.2	-4.5	-4.8
60. Intermediate Sales & Related Workers	0.0	0.0	-0.1	-0.1	-0.5	-0.8	-1.0	-1.3	-1.6	-2.0	-2.3	-2.6	-3.0	-3.4	-3.7	-4.1	-4.4	-4.7	-5.1	-5.4	-5.6	-5.9
61. Carers & Aides	0.0	-0.8	-1.9	-3.0	-3.7	-4.4	-5.2	-6.0	-6.6	-7.0	-7.4	-7.8	-8.1	-8.5	-8.8	-9.1	-9.5	-9.9	-10.3	-10.7	-11.0	-11.3
62. Hospitality Workers	0.0	0.1	0.0	0.1	-0.1	-0.2	-0.3	-0.5	-0.8	-1.0	-1.3	-1.6	-2.0	-2.4	-2.8	-3.2	-3.6	-4.0	-4.4	-4.7	-5.0	-5.4
63. Miscellaneous Intermediate Service Workers	0.0	-0.2	-0.4	-0.6	-0.9	-1.3	-1.7	-2.2	-2.7	-3.2	-3.6	-4.1	-4.4	-4.8	-5.2	-5.5	-5.9	-6.3	-6.7	-7.1	-7.4	-7.7
64. Mobile Plant Operators	0.0	0.1	0.1	0.2	0.1	-0.1	-0.2	-0.4	-0.7	-1.0	-1.2	-1.5	-1.8	-2.1	-2.4	-2.6	-2.9	-3.2	-3.4	-3.7	-3.9	-4.0
65. Intermediate Stationary Plant Operators	0.0	0.1	0.3	0.3	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6	0.6	0.6
66. Intermed. Textile, Cloth'g & Related Machine Operators	0.0	0.1	0.2	0.1	0.1	-0.1	-0.4	-0.6	-0.8	-1.1	-1.4	-1.8	-2.1	-2.5	-2.8	-3.2	-3.5	-3.8	-4.1	-4.3	-4.6	-4.8
67. Miscellaneous Intermediate Machine Operators	0.0	0.1	0.3	0.3	0.5	0.4	0.2	0.1	0.0	-0.2	-0.4	-0.6	-0.8	-1.1	-1.3	-1.5	-1.8	-2.0	-2.2	-2.4	-2.6	-2.8
68. Road & Rail Transport Drivers	0.0	0.0	0.0	0.0	-0.1	-0.4	-0.6	-0.9	-1.1	-1.5	-1.8	-2.1	-2.4	-2.8	-3.1	-3.4	-3.7	-4.0	-4.3	-4.5	-4.7	-4.9
69. Intermediate Mining & Construction Workers	0.0	0.1	0.3	0.4	0.7	0.8	0.9	1.0	1.0	1.0	1.1	1.2	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.8	1.9	2.0
70. Misc. Intermediate Production & Transport Workers	0.0	0.1	0.1	0.1	-0.1	-0.3	-0.5	-0.7	-1.0	-1.3	-1.5	-1.8	-2.2	-2.5	-2.8	-3.1	-3.4	-3.7	-4.0	-4.3	-4.5	-4.6
71. Elementary Clerks	0.0	0.0	-0.1	-0.1	-0.5	-0.7	-1.0	-1.2	-1.5	-1.9	-2.2	-2.6	-3.0	-3.4	-3.7	-4.1	-4.5	-4.8	-5.2	-5.5	-5.8	-6.1
72. Sales Assistants	0.0	0.1	0.1	0.1	-0.4	-0.6	-0.9	-1.3	-1.7	-2.1	-2.6	-3.1	-3.6	-4.1	-4.6	-5.0	-5.5	-6.0	-6.5	-6.9	-7.2	-7.5
73. Miscellaneous Elementary Sales Workers	0.0	0.0	0.0	-0.1	-0.4	-0.7	-0.9	-1.2	-1.6	-1.9	-2.3	-2.7	-3.1	-3.5	-3.9	-4.3	-4.6	-5.0	-5.4	-5.8	-6.1	-6.3
74. Elementary Service Workers	0.0	0.0	-0.2	-0.3	-0.5	-0.8	-1.1	-1.4	-1.8	-2.1	-2.5	-2.8	-3.2	-3.5	-3.9	-4.2	-4.6	-4.9	-5.3	-5.6	-5.9	-6.2
75. Cleaners	0.0	0.0	-0.2	-0.3	-0.6	-0.8	-1.1	-1.5	-1.9	-2.2	-2.6	-2.9	-3.3	-3.7	-4.0	-4.4	-4.8	-5.2	-5.5	-5.8	-6.1	-6.4
76. Process Workers	0.0	0.0	0.1	0.0	0.0	-0.2	-0.4	-0.6	-0.8	-1.0	-1.3	-1.5	-1.8	-2.1	-2.3	-2.6	-2.9	-3.2	-3.4	-3.6	-3.8	-4.0
77. Product Packagers	0.0	0.0	0.0	-0.3	-0.3	-0.7	-1.0	-1.3	-1.6	-1.9	-2.3	-2.6	-3.0	-3.4	-3.7	-4.1	-4.5	-4.9	-5.2	-5.5	-5.8	-6.1
78. Mining, Construction & Related Labourers	0.0	0.1	0.2	0.4	0.1	0.0	-0.1	-0.3	-0.7	-1.1	-1.5	-1.9	-2.3	-2.7	-3.1	-3.5	-4.0	-4.5	-4.9	-5.3	-5.7	-6.0
79. Agricultural & Horticultural Labourers	0.0	0.1	0.2	0.1	0.2	0.1	-0.1	-0.2	-0.4	-0.5	-0.7	-0.8	-0.9	-1.1	-1.2	-1.3	-1.4	-1.5	-1.5	-1.5	-1.4	-1.4
80. Elementary Food Preparation & Related Workers	0.0	-0.2	-0.5	-0.8	-1.4	-1.9	-2.6	-3.4	-4.2	-4.8	-5.5	-6.2	-6.8	-7.4	-8.0	-8.6	-9.2	-9.9	-10.5	-11.0	-11.5	-11.9
81. Other Miscellaneous Labourers & Related Workers	0.0	0.1	0.1	0.3	0.2	0.2	0.1	0.1	0.0	-0.2	-0.3	-0.5	-0.7	-0.9	-1.1	-1.3	-1.5	-1.8	-2.0	-2.2	-2.3	-2.5

Table E10: Deviations in real consumer wages, by qualification, total effect only, percentage deviation from basecase

Real wage deviations, by qualification	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Postgraduate	0.0	-0.3	-0.5	-0.5	-0.6	-0.6	-0.5	-0.3	-0.1	0.0	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.8	0.7	0.5	0.3
2. Graduate diploma	0.0	0.0	0.0	0.4	0.6	1.0	1.4	2.0	2.5	3.0	3.4	3.8	4.2	4.5	4.8	5.1	5.3	5.5	5.6	5.6	5.5	5.3
3. Bachelor	0.0	-0.2	-0.4	-0.4	-0.5	-0.5	-0.4	-0.2	0.0	0.1	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.8	0.8	0.7	0.5	0.2
4. Advanced diploma	0.0	-0.2	-0.3	-0.4	-0.6	-0.7	-0.7	-0.7	-0.7	-0.8	-0.9	-0.9	-1.0	-1.1	-1.1	-1.2	-1.3	-1.4	-1.6	-1.8	-2.0	-2.2
5. Cert. 3 & 4	0.0	-0.1	-0.2	-0.1	-0.3	-0.5	-0.5	-0.7	-0.8	-0.9	-1.1	-1.2	-1.4	-1.5	-1.7	-1.8	-2.0	-2.1	-2.3	-2.4	-2.6	-2.7
6. Cert. 1 & 2	0.0	-0.1	-0.2	-0.2	-0.4	-0.6	-0.8	-0.9	-1.1	-1.3	-1.5	-1.7	-1.9	-2.1	-2.3	-2.5	-2.7	-3.0	-3.2	-3.4	-3.7	-3.9
7. No post school	0.0	-0.1	-0.2	-0.2	-0.5	-0.7	-0.8	-1.0	-1.2	-1.5	-1.7	-1.9	-2.1	-2.4	-2.6	-2.8	-3.1	-3.3	-3.6	-3.8	-4.0	-4.3

Table E11: Deviations in real consumer wages, by field, total effect, percentage deviation from basecase

Real wage deviations, by field	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1. Science	0.0	-0.2	-0.3	-0.1	-0.1	0.1	0.3	0.7	1.1	1.4	1.7	2.0	2.2	2.4	2.7	2.9	3.1	3.2	3.4	3.4	3.3	3.1
2. Information Tech	0.0	-0.3	-0.7	-0.9	-1.4	-1.7	-1.8	-1.9	-1.9	-2.0	-2.1	-2.2	-2.4	-2.6	-2.7	-2.9	-3.0	-3.1	-3.3	-3.4	-3.7	-3.9
3. Engineering	0.0	-0.1	-0.2	-0.1	-0.3	-0.4	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.6
4. Architecture	0.0	-0.1	-0.2	0.0	-0.4	-0.5	-0.6	-0.8	-1.0	-1.2	-1.4	-1.6	-1.8	-2.0	-2.3	-2.5	-2.7	-2.9	-3.2	-3.4	-3.6	-3.9
5. Agriculture	0.0	-0.1	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.5	-0.6	-0.8
6. Health	0.0	-0.9	-1.7	-2.4	-3.4	-4.3	-5.4	-6.6	-7.8	-8.8	-9.8	-10.8	-11.5	-12.2	-12.8	-13.4	-14.1	-14.8	-15.6	-16.5	-17.2	-17.8
7. Education	0.0	0.9	2.0	3.5	5.4	7.4	9.6	12.1	14.8	17.0	19.1	21.1	22.9	24.6	26.3	27.8	29.1	30.5	31.7	32.6	33.1	33.2
8. Management	0.0	-0.3	-0.5	-0.7	-1.1	-1.3	-1.4	-1.6	-1.7	-1.9	-2.0	-2.2	-2.4	-2.5	-2.7	-2.9	-3.1	-3.3	-3.5	-3.8	-4.0	-4.3
9. Social sciences	0.0	-0.2	-0.3	-0.3	-0.4	-0.4	-0.3	-0.1	0.0	0.2	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.5	0.4	0.3	0.1	-0.2
10. Arts	0.0	0.0	0.1	0.3	0.3	0.5	0.8	1.1	1.4	1.7	1.9	2.1	2.3	2.4	2.5	2.5	2.6	2.6	2.6	2.6	2.4	2.2
11. Food & hospitality	0.0	-0.1	-0.3	-0.4	-0.7	-0.9	-1.2	-1.5	-1.8	-2.2	-2.5	-2.8	-3.1	-3.4	-3.7	-4.0	-4.3	-4.6	-4.9	-5.3	-5.6	-5.9
12. No post school	0.0	-0.1	-0.2	-0.2	-0.5	-0.7	-0.8	-1.0	-1.2	-1.5	-1.7	-1.9	-2.1	-2.4	-2.6	-2.8	-3.1	-3.3	-3.6	-3.8	-4.0	-4.3

Appendix F: An Algorithm for Ageing HES Households

1. Set initial values

1.1 Define the matrix

$$A1(i,1), \quad i=1 \text{ to } 6957$$

containing HES household weights for year 1 (i.e., 2003-04). The weights indicate the number of households in the population represented by each household in the HES sample. The number of households in the sample is 6957. Each person weight for each person in a household is the same as the household weight. The number of persons in the sample is 13726.

1.2 Compute the population matrix

$$B1(t,y), \quad t=1 \text{ to } 24, \quad y=1 \text{ to } 22.$$

For $t=1$ to 11, the first index represents males belonging to the eleven 5-year age groups between 16 years and 70 years. The value $t=12$ represents males aged 71 or above. The values $t=13$ to 24 represent females belonging to the same age groups. The index y represents years from 2003-04 ($y=1$) to 2024-25 ($y=22$).

2. Recompute household weights, year 2, iteration 1

2.1 Set

$$A2(i,1) = A1(i,1), \quad i=1 \text{ to } 6957$$

$$B2(t,1) = B1(t,2), \quad t=1 \text{ to } 24.$$

2.2 For the first person belonging to household 1, revise the person weight according to

$$W2 = A2(1,1) * B1(t,2) / B1(t,1)$$

where t is demographic category (defined by age and sex) to which the person belongs.

2.3 Repeat step 2.2 for all persons belonging to household 1.

2.4 Compute the average revised person weight (WA , say) for household 1 and assign it to the household, i.e., set

$$A2(1,2) = WA.$$

2.5 Repeat steps 2.2 to 2.4 for all households, i.e., compute

$$A2(i,2), \quad i=2 \text{ to } 6957.$$

- 2.6 Compute the number of persons belonging to each demographic category on the assumption that the person weight for each person belonging to household i is given by the household weight $A2(i,2)$. Set

$$B2(t,2), t=1 \text{ to } 24$$

equal to the number of persons so computed. Then the difference

$$B2(t,2) - B2(t,1)$$

gives the amount by which the method overestimates the required number of persons belonging to demographic group t in year 2.

3. Recompute household weights, year 2, iteration n

- 3.1 For the first person belonging to household 1, revise the person weight according to

$$W2 = A2(1,n) * [B1(t,2) - \lambda * (B2(t,n) - B2(t,1))] / B1(t,1)$$

where t is demographic category to which the person belongs and λ is a control parameter.

- 3.2 Repeat step 3.1 for all persons belonging to household 1.

- 3.3 Compute the average revised person weight (WA , say) for household 1 and assign it to the household, i.e., set

$$A2(1,n+1) = WA.$$

- 3.4 Repeat steps 3.1 to 3.3 for all households, i.e., compute

$$A2(i,n+1), i=2 \text{ to } 6957.$$

- 3.5 Compute the number of persons belonging to each demographic category on the assumption that the person weight for each person belonging to household i is given by the household weight $A2(i,n+1)$. Set

$$B2(t,n+1), t=1 \text{ to } 24$$

equal to the number of persons so computed. Then the difference

$$B2(t,n+1) - B2(t,1)$$

gives the amount by which the required number of persons belonging to demographic group t in year 2 is overestimated at iteration n .

4. Set household weights, year 2

At the completion of iteration N, set

$$A1(i,2) = A2(i,N+1), \quad i=1 \text{ to } 6957.$$

5. Set household weights, years 3 to 22

Repeat steps 2 to 4 for the remaining years.

6. Increase the number of time intervals

As it stands, the algorithm is inclined to cycle rather than converge. To eliminate this behaviour, each year was divided into M separate intervals and the procedure implemented for $(1 + 21 * M)$ time periods instead of 22. For the results reported here, the parameters of the algorithm were set at $M=200$, $N=10$ and $\lambda=0.66$.

At the completion of the algorithm, the matrix

$$A1(i,y), \quad i=1 \text{ to } 6957, \quad y=1 \text{ to } 22$$

contains household weights for the years 2003-04 to 2024-25 such that

- (a) all persons belonging to a household have a person weight equal to the household weight, and
- (b) the number of persons belonging to each demographic category, when weighted by the person weights, is approximately equal to the required number contained in the original population matrix $B1(t,y)$. In no case does the error exceed 0.05 per cent of the required number.

