



**Infometrics**

**A Comparison of the Size of the  
Financial Services Industry and  
the Dairy Industry**

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**for Financial Services Council**

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# 1. A Comparison of the Size of the Financial Services Industry and the Dairy Industry

This paper compares the size of the Financial Services (finance and insurance) industry with the size of the high profile Dairy (dairy cattle farming and dairy processing) industry. A number of measures are presented: value added, employment, average earnings, gross output and total income.

## Summary

Perhaps contrary to popular perception, the Financial Services industry is larger than the Dairy industry by two commonly used measures of size – value added (or contribution to GDP) and employment. It also has higher average (mean) annual earnings. Only on the basis of gross output, is the Dairy industry larger. Gross output is intended to be a measure of the total value of the good or service supplied to the consumer. For Financial Services this definition is more like the gross margin earned by the industry (for example the difference between interest received and interest paid out for banks, and the difference between income from premiums and claims paid out for insurance) rather than total sales or turnover. On the basis of turnover the Financial Services industry is larger than the Dairy industry.

Measure (latest available data)		Dairy	Financial Services	% Difference
Value added, 2012	\$m	8,158	11,414	39.9%
Employment (filled jobs), 2014	No.	48,774	62,567	28.5%
Average earnings, 2013	\$m	51,817	83,225	60.6%
Gross output, 2012	\$m	28,690	19,264	-32.9%
Income, 2012	\$m	28,690	81,119	182.7%

\* Note that while gross output is very similar to income or sales for most industries, for Financial Services this is not the case.

## Industry Definitions

The industries used for the comparison are defined using the following ANZSIC06 categories:

### Dairy Industry

- A016 Dairy cattle farming
- C113 Dairy product manufacturing

### Financial Services Industry

- K621-K624 Central Banking and Non-Depository Financing, Depository Financial Intermediation and Financial Asset Investing
- K631-K633 Life Insurance, Health and General Insurance, and Superannuation Funds

- K641-K642 Auxiliary Finance and Investment Services and Auxiliary Insurance Services

## Value Added (Contribution to GDP)

Value added (also known as contribution to GDP) strips out the cost of intermediate inputs from the value of gross output. This avoids double counting when measuring GDP, leaving essentially the returns to primary factors of production; labour and capital, plus various indirect taxes. Table 1 and Figure 1 show value added in current prices.

Value added in dairy processing relative to that in dairy cattle farming is likely to be understated due to the bundling of returns to processing with payments to suppliers for raw milk, so there is a transfer of measured value added from processors to farmers. However, this does not affect total value added in the Dairy industry.

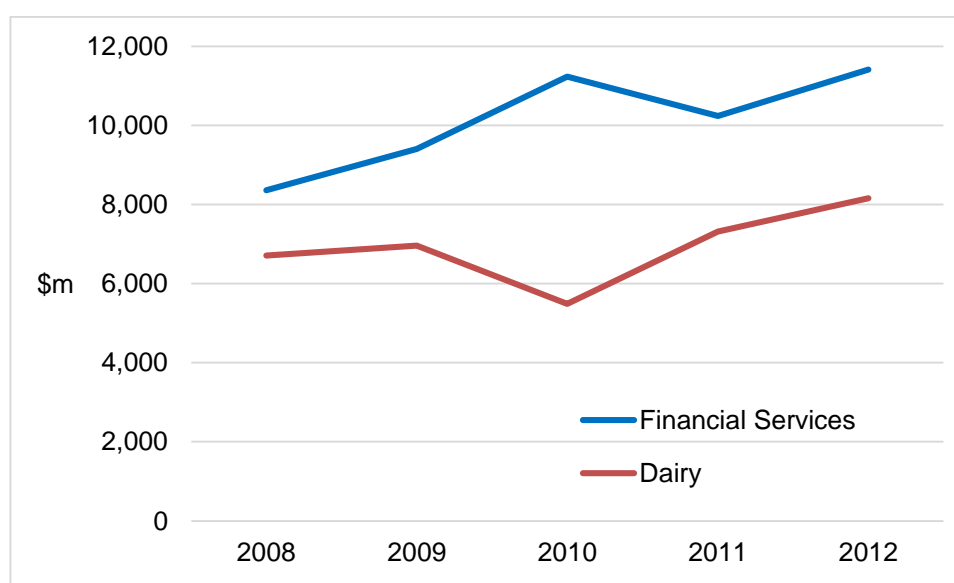
Over the five years 2008-2012 value added in the Financial Services industry expanded by 36.5% while the Dairy industry expanded by only 21.5%. As at 2012 value added in the Financial Services industry was almost 40% larger than in the Dairy industry.

**Table 1: Value Added or Contribution to GDP (\$m, March years)**

	2008	2009	2010	2011	2012
Dairy cattle farming	5,723	3,295	4,587	6,022	5,341
Dairy product manufacturing	<u>987</u>	<u>3,664</u>	<u>899</u>	<u>1,292</u>	<u>2,817</u>
Total Dairy Industry	6,710	6,959	5,486	7,314	8,158
Finance & banking	4,683	5,683	7,336	6,205	6,963
Insurance and superannuation funds	2,013	2,018	2,092	2,144	2,338
Auxiliary finance and insurance services	<u>1,663</u>	<u>1,706</u>	<u>1,810</u>	<u>1,889</u>	<u>2,113</u>
Total Financial Services industry	8,359	9,407	11,238	10,238	11,414

Source: SNZ

**Figure 1: Value Added or Contribution to GDP**



## Employment

Annual employment measured as the number of filled jobs averaged over quarterly data, is presented in Table 2 and Figure 2. The 'filled jobs' measure does not differentiate between full time and part time positions.

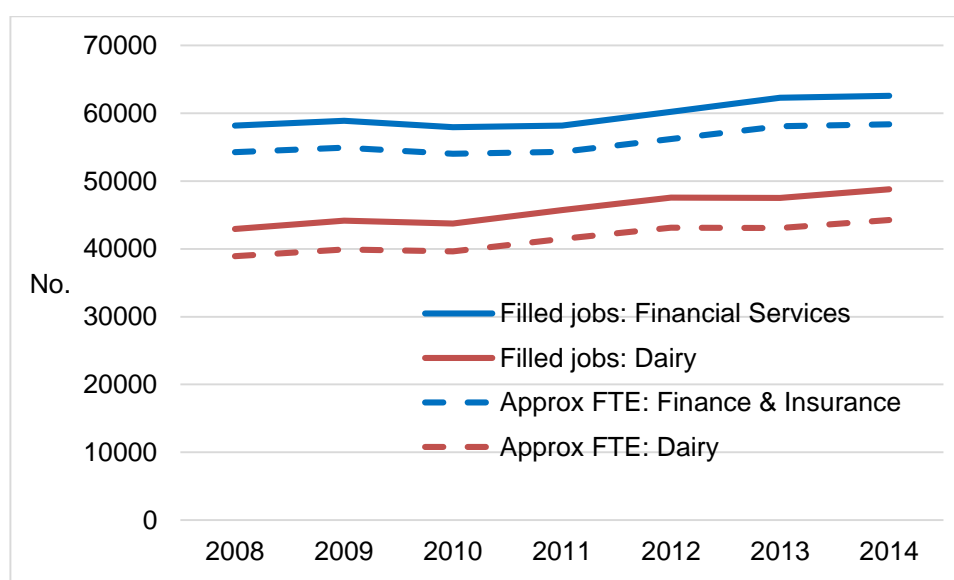
However, commissioned data from the 2013 census provides sufficient industry detail to estimate ratios of Full-Time Equivalent (FTE) employment to total employment for the various dairy and finance & insurance sub-industries. We apply these ratios to the filled jobs series for each year in Table 3. Thus there are two sources of potential error: the ratio may not be constant over time and the definition of filled jobs is not identical to the definition of employment. Hence the 'approximate FTE' label.

**Table 2: Employment (No. Filled Jobs & FTE, March years)**

	2008	2009	2010	2011	2012	2013	2014
<u>Filled jobs</u>							
Dairy cattle farming	34646	36582	35317	36362	38058	38012	38574
Dairy product manufacturing	<u>8306</u>	<u>7562</u>	<u>8422</u>	<u>9382</u>	<u>9515</u>	<u>9497</u>	<u>10200</u>
Total Dairy industry	42952	44144	43739	45743	47573	47509	48774
Approximate FTE	38919	39915	39623	41493	43129	43071	44260
<u>Filled jobs</u>							
Finance & banking	31615	32237	31707	31650	32401	34318	34429
Insurance and superannuation funds	9063	9539	9487	10166	10897	10895	11004
Auxiliary finance and insurance	<u>17508</u>	<u>17122</u>	<u>16747</u>	<u>16364</u>	<u>16930</u>	<u>17061</u>	<u>17134</u>
Total Financial Services Industry	<u>58186</u>	<u>58899</u>	<u>57942</u>	<u>58180</u>	<u>60228</u>	<u>62274</u>	<u>62567</u>
Approximate FTE	54266	54946	54051	54296	56221	58113	58383

Source: SNZ and Infometrics. Note that dairy employment excludes dairy activity on farms that are not predominantly dairy farms.

**Figure 2: Employment (Filled Jobs and FTE)**



In 2014 the Financial Services industry had 28% more filled jobs than the Dairy industry and FTE employment was 32% higher. The ratio of FTE to filled jobs averages 90.6% in Dairy and 93.3% in Finance & Insurance, suggesting that the former has a slightly higher proportion of part time jobs.

## Average Earnings

Average (mean) annual earnings in current prices are presented in Table 3 and Figure 3. The series are commensurate with the 'filled jobs' series above, so they are earnings per job.

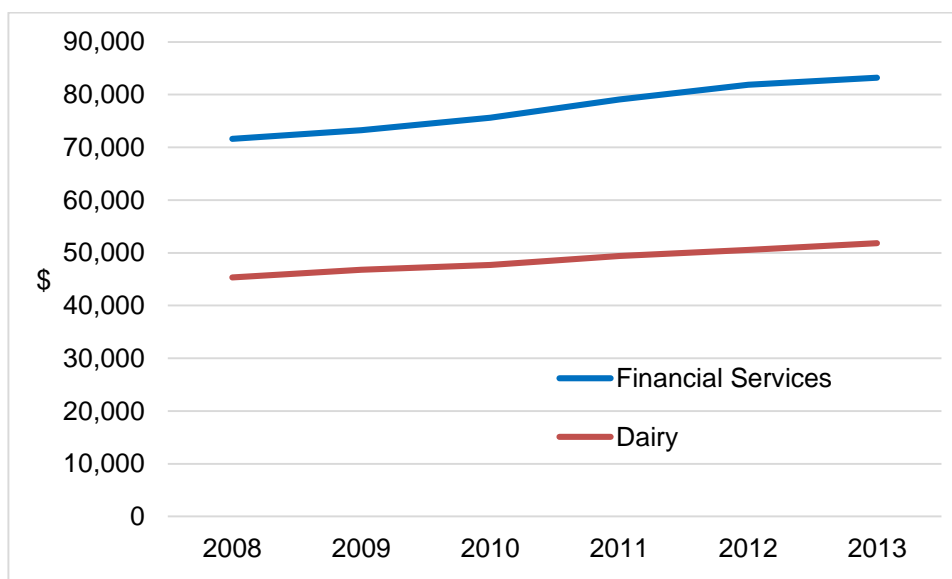
In 2013 average earnings in the Financial Services industry were almost 61% higher than average earnings in the Dairy industry.

**Table 3: Average (mean) Annual Earnings (\$, March years)**

	2008	2009	2010	2011	2012	2013
Dairy cattle farming	35,150	38,120	38,790	39,880	41,330	42,900
Dairy product & Other Food mfg	<u>57,500</u>	<u>60,160</u>	<u>61,190</u>	<u>64,170</u>	<u>65,860</u>	<u>67,850</u>
Total Dairy industry	45,320	46,825	47,713	49,391	50,539	51,817
Finance and banking	70,176	73,216	74,751	80,229	83,355	83,507
Insurance and superannuation funds	67,627	69,272	73,128	74,887	76,072	79,960
Auxiliary finance and insurance services	<u>77,652</u>	<u>76,129</u>	<u>79,587</u>	<u>79,481</u>	<u>83,071</u>	<u>85,101</u>
Total Financial Services Industry	71,621	73,233	75,637	79,067	81,904	83,225

Source: SNZ

**Figure 3: Average (mean) Annual Earnings**



Note that this data has an expanded definition of Dairy Processing which includes ANZSIC industry C119 Other Food Manufacturing. This is unlikely to have a major effect on the comparison as:

- The C119 industry is relatively small.
- Average earnings in the Dairy industry are well below those in the Financial Services industry.

## Gross Output and Income

Gross Output and Income defined according to the *System of National Accounts* (SNA) are presented in Table 4 and Figures 4 and 5, valued in current prices.

For most industries, including Dairy, gross output is the same as sales, turnover or income, but this is not the case for the Finance and Insurance industries. Broadly speaking it is defined as the gross margin. It is conceptually similar to the definition of gross output in retail trade, where the gross margin is the difference between the value of re-sold goods and their purchase cost, as there is no fundamental change in the nature of the goods as they pass through the retailer. Gross output is intended to represent the value of the good or service received by the consumer from that particular supplier. The retailer supplies the service of convenience, a range of products, advice and so on, as opposed to the good itself which comes from another supplier.

For an activity like health insurance the output of the industry is in essence a charge for the service of providing insurance, rather than its total gross revenue from premiums etc. The output measure is equal to premiums for a particular year less 'expected claims' (claims averaged over a number of years) plus adjustments to account for interest/dividends received from investments.

In principle the same argument applies to life insurance, but data limitations mean that SNZ estimates the industry's gross output – that is the service charge – on total input costs.

For the banking industry gross output is equal to the value of financial services charged for directly, plus the interest margin between loans and deposits, known in the SNA as Financial Intermediation Services Indirectly Measured (FISIM).<sup>1</sup>

Table 4 presents estimates of gross output and income. Income for Financial Services covers only the years 2010-2012. The 2012 value is labelled as provisional by SNZ, while figures for 2008 and 2009 are missing because of a lack of data for the Superannuation Funds sub-industry.

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<sup>1</sup> More detail may be found in:

[http://www.stats.govt.nz/browse\\_for\\_stats/economic\\_indicators/NationalAccounts/financial-intermediary-services-indirectly-measured-2012.aspx](http://www.stats.govt.nz/browse_for_stats/economic_indicators/NationalAccounts/financial-intermediary-services-indirectly-measured-2012.aspx)

[http://ec.europa.eu/eurostat/statistics-explained/index.php/Building\\_the\\_System\\_of\\_National\\_Accounts\\_-\\_administrative\\_sources#Financial\\_statements\\_of\\_financial\\_corporations](http://ec.europa.eu/eurostat/statistics-explained/index.php/Building_the_System_of_National_Accounts_-_administrative_sources#Financial_statements_of_financial_corporations)

Data quality notwithstanding it is clear that the total income of the Financial Services industry is much higher than its gross output. As noted above though, income in the Financial Services industry is not a measure of the good or service that consumers receive from the industry.

In 2012 the income of the Financial Services industry was 183% higher than the income of the Dairy industry, but in the same year gross output (as defined in the SNA) in the Financial Services industry was almost 33% below the gross output of the Dairy industry (equal to income for this industry).

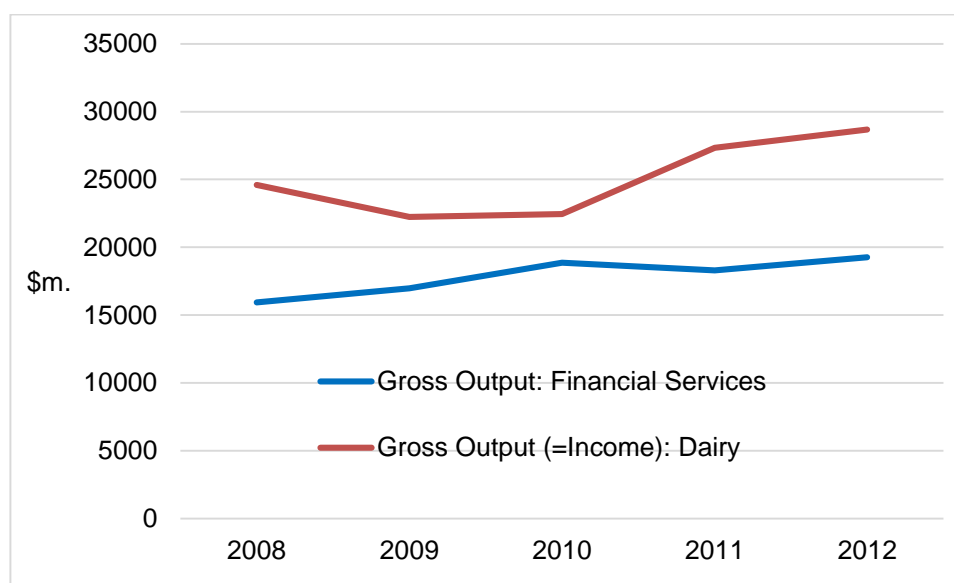
**Table 4: Gross Output and Income (\$m, March years)**

	2008	2009	2010	2011	2012
<b>Gross Output</b>					
Dairy cattle farming	10256	7422	9032	11108	10825
Dairy product manufacturing	<u>14336</u>	<u>14827</u>	<u>13424</u>	<u>16236</u>	<u>17865</u>
Total Dairy industry	24592	22249	22456	27344	28690
Finance & banking	8423	9450	11079	10102	10495
Insurance and superannuation funds	3939	4063	4215	4341	4761
Auxiliary finance and insurance services	<u>3569</u>	<u>3465</u>	<u>3560</u>	<u>3857</u>	<u>4008</u>
Total Financial Services industry	15931	16978	18854	18300	19264
<b>Income</b>					
Total Dairy industry (same as gross output)	24592	22249	22456	27344	28690
Total Financial Services Industry			64095	63118	81119*

\* Provisional

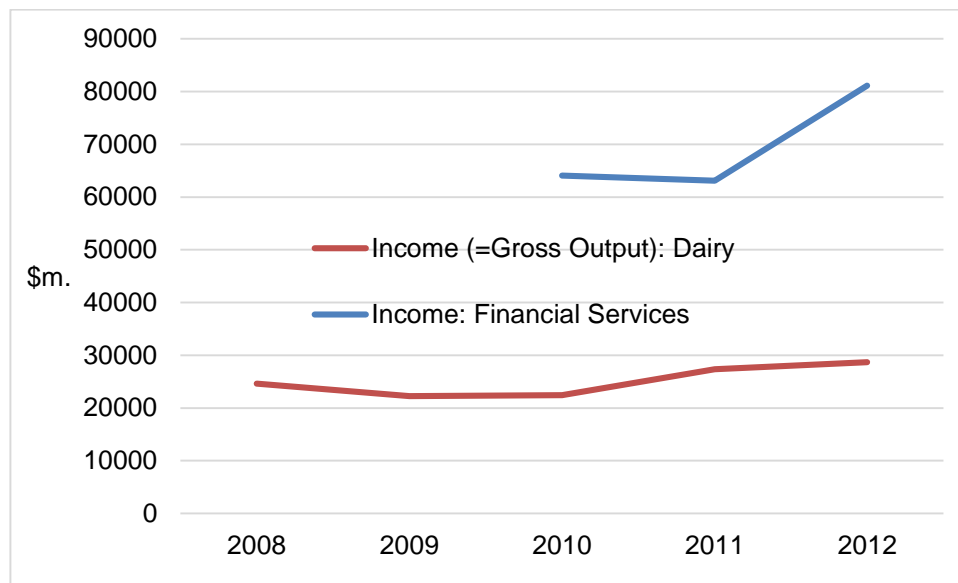
Source: SNZ, LEED & AES. FMA, Superannuation Funds Reports

**Figure 4: Gross Output\***



\* For the Dairy industry gross output is essentially the same as income or sales, but this is not the case for Financial Services.



**Figure 5: Income\***

\* For the Dairy industry gross output is essentially the same as income or sales, but this is not the case for Financial Services.