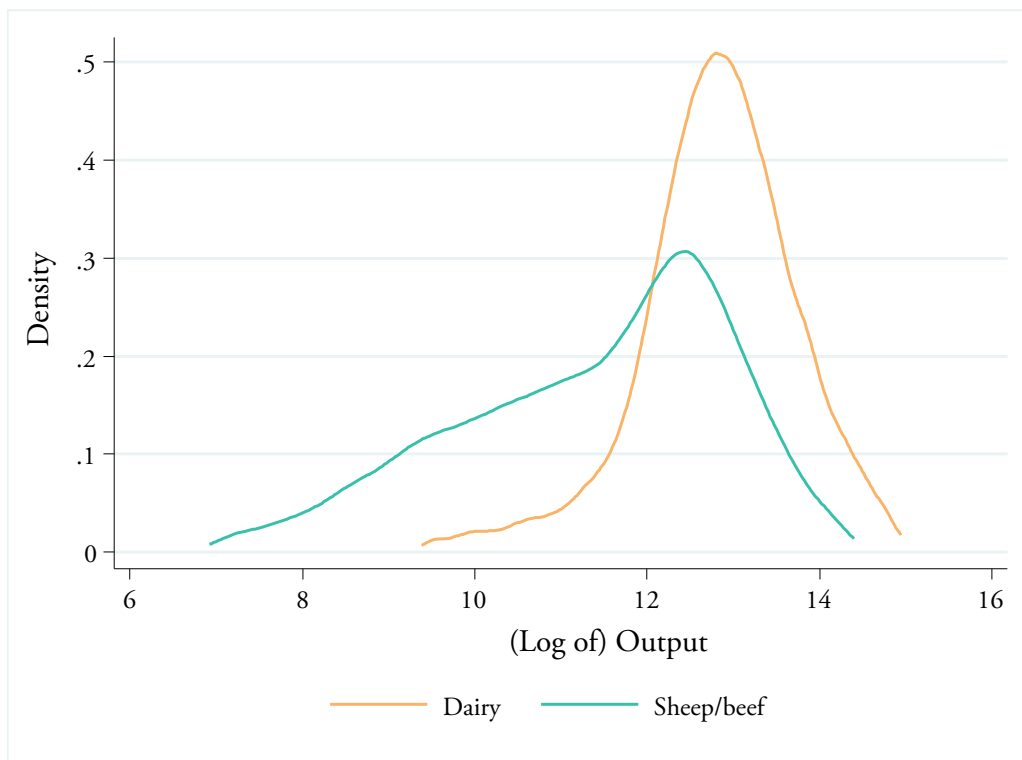


2009. Although some improvement has since been recorded, average productivity in the dairy industry remain lower than in the past,” said Dr Jaffe.

“If you’re a dairy farmer, our research shows that there’s not a financial gain to be made from doing non-dairy activity like forestry. However, sheep/beef farms get quite a lot of benefit – if you also have a few dairy cattle your average output goes up by around 4.5 percent, but you’ll be even better off if you harvest forest, which will increase your output by 6 percent, or around \$5,200 a year,” said Dr Jaffe.

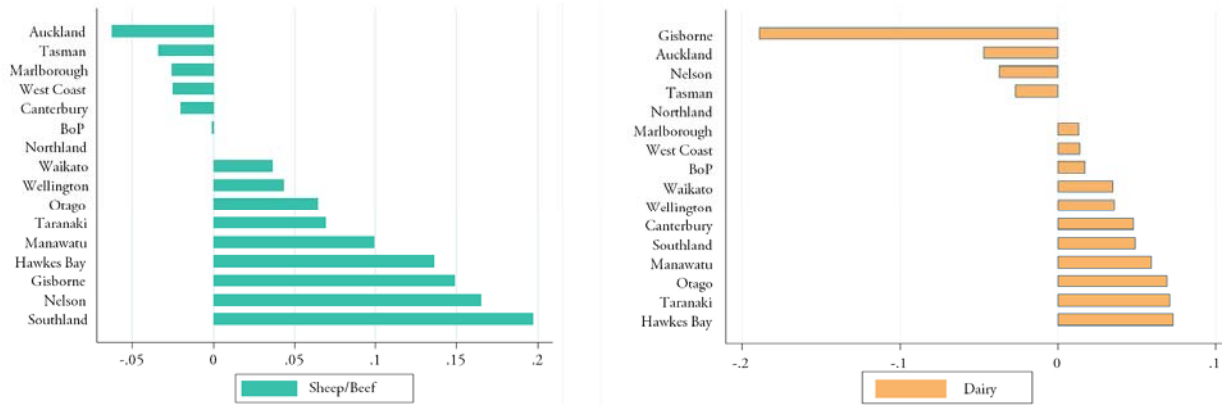
On average, dairy firms produce greater output, but also use higher inputs. Sheep/Beef farms vary more in their level of output and have a higher proportion of firms operating at a below industry average level. Dairy firms are more homogenous.

Output density across firms



“There were large differences in the productivity recorded across regional councils. We weren’t able to assess whether these arise from differences between the regions themselves because of things like preferable climate or being closer to port, or were due to differences between the firms and their management skills and access to capital,” said Dr Jaffe.

Long-term Regional Difference in Multifactor Productivity



The above graph takes Northland as a base and ranks the regions from lowest to highest productivity.

The paper includes 83,964 yearly observations from 31,920 agricultural firms. 73% of the observations are from the sheep/beef industry. The proportion of sheep/beef observations fell between 2002 and 2012, with output falling at a faster rate, resulting in dairy firms accounting for over half of the 2012 output, but for only a third of all firms.

The working paper “[Agricultural productivity in New Zealand: First estimates from the Longitudinal Business Database](#)” by Motu researchers Eyal Apatov, Richard Fabling, Adam Jaffe, Michele Morris, & Matt Thirkettle, was funded by the Kelliher Charitable Trust and the [Productivity Hub](#) under the Longitudinal Business Database Productivity Partnership programme.

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About Motu

Motu Economic and Public Policy Research is an independent economic research institute which never advocates an expressed ideology or political position. A charitable trust, Motu is founded on the belief that sound public policy depends on sound research accompanied by rigorous public debate.

Motu is the top-ranked economics organisation in New Zealand. It is in the top ten global economic think tanks, according to the Research Papers in Economics ([RePEc](#)) website, which ranks all economists and economic research organisations in the world based on the quantity and quality of their research publications.

If you would like to discuss these findings with Adam Jaffe, you can contact him on adam.jaffe@motu.org.nz or on 022 394 4501.

If you would like to receive the numbers behind any of the graphs, please reply to this email or contact Ceridwyn Roberts on 021 243 6995.