# Dairy Products and Shifts in Western Models of Food Consumption since 1950: A Spanish Perspective 

FERNANDO COLLANTES<br>Departamento de Estructura e Historia Económica y Economía Pública, Facultad de Economía y Empresa, Gran Vía 2, 50005 Zaragoza, Spain.<br>collantf@unizar.es

## Appendix

The data for 1958, 1964-5 and 1980-1 have been taken from household budget surveys (Instituto Nacional de Estadística, 1959, 1965-69, 1983-85).

For the period of 1994-2012, the data have been taken from the food consumption panel of the Spanish Ministry of Agriculture (Ministerio de Agricultura, Pesca y Alimentación, 1988-91, 1992-2006; Mercasa, 2008-13; Ministerio de Agricultura, Alimentación y Medio Ambiente, 2013). The 1987 figure in table 4 comes from this source as well. In order to estimate extra-domestic consumption in 2012, for which information is less detailed than usual, I have taken the average of two alternative estimations based on projecting the following assumptions forward onto the 2010 and 2011 data: the average size of portions consumed remained stable (upper-bound estimation), and the consumption of liquid milk evolved in line with total extra-domestic food expenditure (lower-bound estimation); the difference between both estimations is lower than two per cent.

For 1990-1 I have taken domestic consumption from the household budget survey (Instituto Nacional de Estadística, 1992-95) and have added extra-domestic consumption from the panel. Segmentation ratios in table 5 generally come from the panel, but the survey was used for a more precise calculation of the regional ratio.

In order to estimate the intakes of energy and nutrients, I have used Spanish food composition tables (mainly Moreiras et al., 2001; but also Vivanco et al., 1976, and Ortega et al., 2005). All data in table 2 are averages of two alternative (upper-bound and lower-bound) estimations constructed in order to make room for different assumptions about the precise composition of products for which information was not specific enough. The difference between both estimations is always below fifteen per cent, and commonly below ten per cent. The calorie shares in table 3 were calculated similarly, but in the case of c .1950 , additional work, based on Collantes' (2014) data about raw milk and rates of consumption change during the 1952-58 period, was required.

