



# Francqui Foundation Conference

## Long-Term Quantification in Ancient Mediterranean History

**Robert J. van der Spek (Vrije Universiteit Amsterdam), *On the efficiency of markets for agricultural products in pre-industrial societies: the case of Babylonia c. 400 – c. 60 BC.***

Under this title a research project is being carried out at the Vrije Universiteit in Amsterdam by two PhD students (ancient historians/assyriologists) and a postdoctoral researcher (economic historian) under the direction of professor J.L. van Zanden (economic historian, Utrecht) and myself. For this research we utilize a unique dataset of several thousand prices in the huge corpus of Babylonian cuneiform documents known as “the Astronomical Diaries”. These diaries contain meticulous daily reports of astral phenomena, the weather, the level of the Euphrates river, local history concerning political events, famines, plagues, good and bad harvests, and, last but not least, a detailed record of the monthly, and sometimes daily, prices of raw foodstuffs: barley, dates, cuscuta, cress, sesame, and wool. A preliminary publication of the dataset (still a work in progress) can be found here: <http://www.iisg.nl/hpw/babylon.php>. Thanks to the extent of the data, it is possible to subject it to various kinds of statistical analysis. It is our purpose to test theories concerning the measure of volatility of prices relative to the functioning of the market, as suggested by the study of K.G. Persson. For the first time it is possible to compare a dataset of prices from antiquity with prices from early modern history, to compare deviation from the mean and average prices in different societies (taking into account exogenous shocks like warfare, plagues, and the river level) and to study the interdependence and relative importance of the main constituents of the diet (in Babylonia, these were barley and dates, with harvests in Spring and Autumn, respectively).