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**Insights into the development of well-being in the very long run: Nutritional status in pre-historic and historic Europe**

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**Abstract**

For a long-run study on living conditions from pre-historic times onwards sufficient data are very rare: on the one hand no ‘conventional’ economic data exists; on the other hand no quantitative information on aspects like numeracy level or infant mortality is available in adequate amount to investigate overall welfare. Promising though is an interdisciplinary concept utilizing skeletal material as data source of mean height and applying anthropometric methods in order to determine the nutritional status. For the first time in economic history this approach is employed here in order to investigate the conditions not only for a regional case study based on one or a few sites, but in Europe in the very long run from pre-historic times onwards, i.e. the 8th century B.C. until the 18th century A.D.

The current study is based on the data of over 18500 individuals (final mean human height used as proxy). Overall, for the centuries A.D. the results of an earlier study (Koepke and Baten 2005; 2008) have been confirmed by the much enlarged data set in the current paper, indicating that there was no pronounced trend in mean height for these centuries. Yet, including the centuries B.C. we found a modest increase in the mean height of about 0.5 cm per 1000 years. However, strong variations between centuries are observable: Conditions of constrained human welfare repeatedly superseded enhanced living conditions during pre-industrial history. Nevertheless, in the long-run living conditions have been improved continuously, even prior to the Industrial Revolution.

Aspect of particular interest resulting from the very long-run time frame is the possibility to test for the impact of Roman suzerainty for the first time in economic history. Our results indicate a negative effect of Roman occupation on living conditions and improved nutritional status after the decline of the *imperium Romanum*.