**Economic Growth and the Growth of Human Population in the Past 2,000,000 Years**

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**Abstract**. Growth of human population in the past 2,000,000 years is analysed. It is shown that the growth was in three major stages: (1) 2,000,000 to 27,000 BC, (2)27,000 BC to AD 510 and (3) AD 510 to present. Each stage is described by hyperbolic distribution followed by a significantly shorter, non-hyperbolic transition to a new stage. Data show also a minor disturbance in the third hyperbolic stage. Each hyperbolic stage was prompted by a single force, the biologically-controlled force of procreation expressed as the difference between the biologically-controlled force of sex drive and the biologically-controlled process of aging and dying. The fundamental parameter describing hyperbolic growth is given by the ratio of the force of growth and of the resistance to growth. It is assumed that during transitions, this fundamental force remained the same but the resistance to growth was changing. All these three stages, and the minor disturbance in the middle of the third stage, are now described mathematically and explained. The derived parameters are used to calculate the size of the world population in the past 2,000,000 years and to fill in the gaps between data. These parameters can be used to calculate the growth rate at any time in the past 2,000,000 years. Analysis of population data and the earlier analysis of the Gross Domestic Product (GDP) per capita allow also for the evaluation of the economic growth in the past 2,000,000 years. The size of the population and the GDP values are tabulated.

**Keywords.** Growth of human population, Economic growth, Hyperbolic growth, Mechanism of hyperbolic growth

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