

**THERMODYNAMIC LAWS FOR MEASURING HUMAN CAPITAL AND DETERMINING FAIR
REMUNERATION**

Jurij Renkas

Cracow University of Economics, Cracow, Poland

ABSTRACT

Thermodynamics enables a deeper understanding of the nature of capital and understanding the complementarity of the capital and labor categories. It allows to move away from the well-known in economics but mistakenly contrasting capital and labor, while capital is perceived incorrectly as machines, devices or money. Capital and energy share a common phrase - an abstract ability to do work. The second law of thermodynamics in the basic formulation derived from Sir Kelvin is indispensable in economic considerations, because the human body has the characteristics of a heat engine, and therefore experiences spontaneous and random energy loss. Empirical studies have revealed that this loss is determined by 0.08 [1/year]. Therefore, compensation for this loss in the form of pay for work is the main idea of a fair pay system. The purpose of the study is to present the framework of the remuneration system set by the principles of thermodynamics and the principle of minimal action. In these studies, 0.08 [1/year] acquires the characteristics of a natural constant that allows the calculation of human capital and fair pay.

Keywords: thermodynamic laws, economic constant, human capital, fair pay.