

The Importance of Patenting and Technology Exports as Indicators of Economic Development

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Abstract : The patenting of inventions is the result of an organized effort to achieve technological improvement and its consequent positive impact on the population's standard of living. Technology exports, either of high-tech goods or of Information and Communication Technology (ICT) services, represent the level of acceptance that world markets have of that technology acquired or developed by a country, either in public or private settings. A quantitative measure of the above variables is expected to have a positive and relevant impact on the level of economic development of the countries, measured on this first occasion through their level of Gross Domestic Product (GDP). And in that sense, it not only explains the performance of an economy but the difference between nations. We present an econometric model where we seek to explain the difference between the GDP levels of 178 countries through their different performance in the outputs of the technological production process. We take the variables of Patenting, ICT Exports and High Technology Exports as results of the innovation process. This model achieves an explanatory power for four annual cuts (2000, 2005, 2010 and 2015) equivalent to an adjusted r^2 of 0.91, 0.87, 0.91 and 0.96, respectively.

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