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A PULL-PUSH THEORY OF INDUSTRIAL REVOLUTIONS

Abstract:

Drawing from the only two known industrial revolutions, this paper present a theory of technological/structural/industrial revolutions based on pull and push factors. Specifically, generalizing from the first industrial revolution (FIR) in Great Britain and the U.S. post-bellum economic growth (1880-1900) and second industrial revolution (SIR), we show that two fundamental conditions appear to be necessary, namely the existence of a set of new market opportunities (pull) as well as the existence of a new set of process innovations/new technologies (push). In other words, the overriding, underlying shock (i.e. the ultimate cause) must induce push and pull factors, without which the revolution in question will not occur. In the case of the first industrial revolution, we argue that the migration of 100,000-140,000 French Huguenot refugees to the shores of England, Ireland and Scotland was among the causes, while in the case of the second industrial revolution, it was the steam engine which ultimately contributed to the opening up of the West, the creation of a national market and the resulting mass production.

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Industrial Revolution, Networks, Innovation

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