Inequality and stagnation: The role of knowledge monopolization

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Abstract: Relatively low growth and investment in the global economy together with weak productivity performance despite rising innovation and rapid technological advancement in the last decades created a "growth-knowledge puzzle." Even though economic theory sees knowledge as a main driver of growth, today the link between knowledge and growth seems broken. I define "knowledge monopolization" as the power of controlling how ideas and knowledge are monopolized through ownership and control of intangible assets, including intellectual property rights and digital data. Knowledge monopolies are the firms that monopolize access to knowledge and derive their market power partly from their control and concentration of intangible knowledge items as opposed to an increase in the concentration of tangible capital. This paper develops a conceptualization of knowledge monopolization and analyzes the growth-knowledge puzzle through this new perspective. The overall aim is to outline a research agenda for the theorization of the growth-knowledge puzzle and an analysis of the channels through which intangibles in general serve to increase market power and generate rents for their owners.

1. Introduction

We have witnessed rising innovation, rapid technological change, and increased centrality of information technologies and knowledge in economic activity in the last decades. Yet, concerns about low growth trajectories of major economies and declining investment rates despite high profitability and historically low interest rates emerged even before the shocks of Covid-19 (e.g. Summers 2015, Gordon 2012, Krugman 2014, Teulings & Baldwin 2014, Bussiere et al. 2015, Gutierrez & Philippon 2016, Döttling et al 2017, Alexander & Eberly 2018, Orhangazi 2019, Durand 2021). The slowdown in productivity growth, an overall decline in business dynamism and widening income and wealth inequalities have also began to receive increased attention within this context.

A "growth-knowledge" puzzle seems to emerge where rising innovation and rapid technological advancements are taking place together with weak growth, investment, and productivity performances even though knowledge is recognized as one of the main drivers of economic growth in theory. In a sense, the conjuncture we are in today reminds of Solow's (1987) famous remark that "you can see the computer age everywhere but in the productivity statistics."

I will argue in this paper that increased "knowledge monopolization" could help us understand this puzzle, especially in regards to stagnation and inequality tendencies. "Knowledge monopolization" can be defined as the power of controlling how ideas and knowledge are used through ownership and control of intangible assets, including intellectual property rights and digital data. Hence, "knowledge monopolies" are the firms that monopolize access to knowledge and derive their market power partly from their control and concentration of intangible knowledge items as opposed to an increase in the concentration of tangible capital.

Compared with standard monopolies, knowledge monopolies' market power is not simply due to an increase in the concentration of tangible capital, but significantly depends on their control and concentration of intangible knowledge items. Furthermore, it is also quite possible that they still vigorously compete with and challenge each other.

While it is the high-tech and internet companies or the pharmaceutical industry with its direct dependence on patents that first jump to mind, knowledge monopolization is central to the functioning of a wide range of firms, such as those in retail industry (Alexander & Eberly 2018) or nondurable goods production (Orhangazi 2019) – especially for those that are reliant on global value chains for production activities.

Arrow (1996) had long ago warned that "the role of information would seem to require a new approach to the theory of oligopoly." This warning seems even more important today as leading scholars in economics are worried about a stagnation in the midst of a technological revolution. As The Economist (2021) recently highlighted, standard monopoly explanations are becoming harder to sustain as there is a shift towards oligopolies in which there is both increased market power of the top firms, as well as vigorous competition against the top firm.

Hence the main task of this paper will be to identify a research agenda through which we can understand the impact of knowledge monopolization on stagnation tendencies and income and wealth inequalities. To that end, in the next section I provide a brief overview of the recent literature on increased market power and the rise of knowledge monopolization. In section 3, I outline the channels and mechanisms through which knowledge monopolization impacts upon economies and may contribute to stagnation and inequality tendencies. After outlining a research agenda in Section 4, I conclude with a general discussion in the last section.