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In this paper, we study the coexistence of cash and electronic payments introducing some distortions in the payments markets to understand the widespread use of cash, specially in emerging countries.

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Abstract

In this paper, we study the coexistence of cash and electronic payments introducing some distortions in the payments markets to understand the widespread use of cash, specially in emerging countries. Following Lagos and Wright (2005) we model explicitly some frictions in the exchange process considering money as essential. We introduce in this theoretical framework, theft and informality (measured by tax evasion), as factors affecting cash usage and, therefore competition with an electronic payment method. In this paper, segmentation in the payments market is considered by introducing heterogeneity in the seller's side, assuming different levels of productivity to explain the preference for cash or for electronic payments. Considering the above, the provision of the electronic payment platform is modeled under three different market structures to identify the effects of the distortions comparing the results with the social planner solution. In the first case, the electronic payment platform is provided by a public firm as a free service; in the second case a private monopoly provides the platform at a positive cost, and in the third case the conditions for the existence of a mixed duopoly are derived. The existence of a public provider in the electronic payments market could lead private networks to provide these services at a lower cost than in the monopoly case, increasing the coverage of digital payments and reducing cash usage, which implies gains in social welfare. This paper gives a theoretical basis and key insights to the discussions regarding public provision of new payment services when the market is already served by private suppliers.