

# **Pro- and Anti-Competitive Effects of Certification in Markets with Asymmetric Information**

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Asymmetric information is a classic example of market failure that undermines perfectly competitive market outcomes. This issue has again recently become the focus of more detailed scrutiny in particular in markets in which consumers value not only the product or service on offer, but also care about the process of production and distribution. Such properties are, however, often hard or impossible to ascertain at the level of the retail consumption. To wit, both in Europe and in the United States produce is now often categorized as “organic,” “free range,” “sustainable,” or “local;” companies advertise their products while making reference to specific corporate philosophies or policies; and mutual funds are advertised that claim to restrict investments in companies with approved of corporate philosophies and policies. The degree to which such claims are backed up by formal certification or regulated by law varies, but a there appears to be a consensus that credible certification is welfare enhancing as it helps in overcoming informational asymmetries in the market place. In this paper we consider markets in which goods have unobservable characteristics that consumers value. We analyze the market equilibrium when a technology is available that credibly verifies the relevant attributes of products and contrast this with the equilibrium without and with (only) imperfect certification. In doing so, we are careful to consider how potential entry affects the market equilibrium.

Remarkably, even when the certification technology is perfectly accurate—and therefore is able to resolve informational asymmetries in the market place—overall welfare may decrease due to the possibility of certification when such certification is costly. The underlying rationale for this is that while the certification process admits better information and therefore increases product differentiation, it also increases the direct competition between products with desirable characteristics. The latter effect can push some high quality producers out of the certified market. These producers may instead find themselves subject to a market collapse caused by adverse selection among non-certified products. In contrast, absent any certification (or with only imperfect certification available), the increased presence of products with desirable characteristics provide a sufficiently strong positive externality to sustain an equilibrium that entails a larger number of high-quality products. Since this insight hinges on the presence of less desirable products, a way to overcome this apparent anomaly is to require minimum quality standards—an imposition that, as is well-known, can be welfare reducing itself if the costs of producing less-desirable products is sufficiently low to generate substantial surplus when traded.