# Consumer Privacy and Value of Consumer Data

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## Abstract

We analyze how the adoption of the California Consumer Privacy Act (CCPA), which limits consumer personal data acquisition, processing, and trade, affects voice-AI firms. To derive theoretical predictions, we use a general equilibrium model where firms produce intermediate goods using labor and data in the form of intangible capital, which can be traded subject to a cost representing regulatory and technical challenges. Firms differ in their ability to collect data internally, driven by the size of their customer base and reliance on data. When the introduction of the CCPA increases the cost of trading data, sophisticated firms with small customer bases are hit the hardest. Such firms have a low ability to collect in-house data and high reliance on data and cannot adequately substitute the previously externally purchased data. We utilize novel and hand-collected data on voice-AI firms to provide empirical support for our theoretical predictions. We empirically show that sophisticated firms with voice-AI products experience lower returns on assets than their industry peers after the introduction of the CCPA, and firms with weak customer bases experience the strongest distortionary effects.

**Keywords**: Data Regulation, Consumer Data, Data Governance, Firm Dynamics, Data and Finance, Internet Regulation, Competition Policy, Antitrust, Market Power

**JEL-Codes:** D80, G30, G31, G38, L20, O30

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