

David Argente

Research Statement

I am an applied macroeconomist. **My research studies how new products and technologies enter the economy, how people and firms adopt them, and how these processes affect firm growth and welfare.** My papers combine new microeconomic data, surveys, and experiments with macroeconomic theory. My work includes 17 published or accepted papers organized around three areas: product dynamics, payment methods, and the measurement and setting of prices.

1. Product Dynamics

Product innovation is a key engine of long-run growth, yet empirical work has relied largely on patents. My research shifts the focus to products, using microdata to study how their creation, destruction, and reallocation shape firm dynamics and growth.

The first step is measurement. [Argente, Lee, and Moreira \(2018, JME\)](#) pioneer linking scanner data to firm identifiers, allowing us to measure product turnover directly. Product reallocation occurs mostly within firms rather than through firm entry and exit, showing that much of firm dynamics operates through product portfolios. Product turnover is closely tied to innovation, revenue growth, and productivity, raising the question of how innovation should be measured. [Argente, Baslandze, Hanley, and Moreira \(2025, JPE, R&R\)](#) link patents to products, shifting the measurement of innovation from inputs to outputs. We show that many innovations occur without patents, while patents at large firms can serve strategic purposes.

[Argente, Lee, and Moreira \(2024, JPE\)](#) incorporate these product dynamics into an endogenous growth model in which firms introduce new products while cannibalizing existing ones. Internal and external innovation are complements, generating an innovation-obsolescence cycle that matches product and firm life cycles and amplifies the effects of innovation policy.

Understanding product dynamics more broadly requires studying (i) how firms build demand and (ii) how they reorganize product portfolios as they grow. [Argente, Fitzgerald, Moreira, and Priolo \(2025, AER: Insights\)](#) link advertising and scanner data and show that successful entrants grow mainly by acquiring customers through geographic and retail expansion. Learning about demand also shapes pricing over the product life cycle. [Argente and Yeh \(2022, REStud\)](#) document how price adjustment evolves as products age and develop a general-equilibrium model in which prices serve both profit maximization and information acquisition. Product dynamics also depend on retailer assortments. [Argente, Méndez, and Van Patten \(2026, QJE, forthcoming\)](#) combine administrative and survey data to show that retailers learn about local demand from pioneer customers who import directly and adjust their assortments. [Argente, Méndez, and Van Patten \(2026\)](#) also show that consumer imports constrain retailer market power; an import competition shock that raises the price of consumers' foreign purchases makes retailers expand assortments and raise markups. [Argente, Moreira, Oberfield, and Venkateswaran \(2025, JPE, R&R\)](#) show that product standardization allows expertise to scale across products, linking standardization to firm size, scope, and stronger responses to demand shifts.

Recently, I have extended this agenda to AI. [Argente, Trejos, Van Patten, and Yang \(2026\)](#) develop a model of personalized recommendation and apply measures of originality to raw audio files to study its effects on product innovation. Looking forward, I plan to focus on AI infrastructure. [Alvarez, Argente, Chow, and Van Patten \(2026\)](#) study the local economic effects of data centers.

More broadly, this agenda shifts the focus from firm to product dynamics and from innovation inputs to outputs, aligning empirical measurement with models of innovation and growth.

2. Payment Methods

New technologies are making payments faster, expanding access to financial services, and allowing governments to deliver transfers directly and at scale. But adoption is uneven, and reliance on digital payments creates new risks when infrastructure fails. My research studies the welfare consequences of these changes, what determines adoption, and how alternative means of payment affect resilience.

Traditionally, the welfare consequences of payment systems have been studied using cash-management or cash-credit models estimated with aggregate data. Ride-hailing provides a rare setting with purchase-level data and variation in payment access. [Alvarez and Argente \(2022, QJE\)](#) exploit the introduction and restriction of cash payments across cities to show that cash and cards are imperfect substitutes at both the intensive and extensive margins. Moreover, estimating the private welfare cost of limiting cash requires identifying demand among cash users, its shape, and the cost of adopting cashless methods; [Alvarez and Argente \(2025, REStud\)](#) combine three large-scale experiments involving about 400,000 riders with a survey to recover these objects. We estimate losses equal to 40–50% of prior cash-fare expenditure, with larger losses for poorer households.

Cash may also have social benefits. [Alvarez, Argente, and Van Patten \(2026\)](#) combine spending and outage data with surveys and a randomized information intervention to study how cash improves resilience when digital payments fail. Policymakers must weigh these against the benefits of restricting cash. [Alvarez, Argente, Jiménez, and Lippi \(2022, JME\)](#) use two quasi-natural experiments and a payment-choice model to study how cash availability affects crime and informality and evaluate cash restrictions. The private costs of strong restrictions exceed these social benefits.

Two facts emerge from this work: mixed users are widespread and rely heavily on cash, and cash and cards are imperfect substitutes. These facts motivate the study of peer-to-peer (P2P) digital payments, which combine instant settlement with digital convenience. [Alvarez, Argente, Lippi, Méndez, and Van Patten \(2025, AER, conditionally accepted\)](#) combine a dynamic adoption model with transaction and administrative-network data. The paper illustrates a central feature of my research: using empirical evidence to discipline theory and theory to interpret it. Quasi-experimental variation identifies strategic complementarities, disciplining the model of equilibrium diffusion and optimal subsidies.¹²

P2P payment systems are closely related to central bank digital currencies (CBDCs): both move payments person-to-person instantly and at scale, effectively serving as digital cash. Cryptocurrencies have also been proposed as currencies, yet rarely function as a medium of exchange. [Alvarez, Argente, and Van Patten \(2023, Science\)](#) study Bitcoin’s adoption as legal tender in El Salvador using a nationally representative household survey we designed, together with blockchain data. Despite strong incentives, payment use remained limited, highlighting adoption costs, network complementarities, and trust.

3. Price Measurement and Price Setting

Accurate cost-of-living measurement is central to welfare measurement. Poverty and inequality are often measured using nominal income, but differences in the prices households face can substantially change real resources. My work uses detailed microdata and models to measure these differences and correct price-index biases.

The first issue is household heterogeneity. [Argente and Lee \(2021, JEEA\)](#) helped establish the recent literature on inflation inequality. We construct income-specific price indexes and show that lower-income households experienced higher inflation during the Great Recession. Building on this evidence, [Argente and Dávila \(2026\)](#) develop a nonparametric welfare-accounting framework for inflation inequality.

¹The model incorporates a learning-based adoption mechanism similar to those in [Alvarez, Argente, and Lippi \(2021, AER: Insights\)](#) and [Argente, Hsieh, and Lee \(2022, REStat\)](#).

²[Argente \(2026\)](#) shows when direct and total policy responses identify welfare effects of complementarities without a structural model.

A second challenge is comparing living standards across countries and over time. [Argente, Hsieh, and Lee \(2023, **AEJ: Macro**\)](#) use barcode-level purchases in Mexico and the United States to quantify sampling, imputation, quality, and variety biases jointly. [Argente, Hsieh, and Lee \(2026, **JPE: Macro**, forthcoming\)](#) extend this approach to biases that cannot be identified from prices alone, combining detailed price and expenditure data with theory. Together, the papers show why biases must be measured jointly: because they can offset one another, correcting one in isolation can worsen the error. They also provide a practical approach for statistical agencies using existing data.

Price measurement naturally leads to price setting. Detailed price and product data reveal adjustment patterns hidden in aggregates. The learning mechanism in [Argente and Yeh \(2022, **REStud**\)](#) changes selection into price adjustment in a general-equilibrium menu-cost model, amplifying the effects of nominal shocks. Adjustment frictions in such models are difficult to identify with conventional data. [Alvarez, Argente, Cavallo, and Lippi \(2026\)](#) exploit currency changeovers, which shift adjustment costs without changing desired prices. Historical CPI microdata and high-frequency price data show more frequent but smaller adjustments near conversion, distinguishing mechanisms difficult to separate in standard data. Connecting microeconomic evidence to aggregate dynamics also motivates [Alvarez and Argente \(2026\)](#), who develop a linear-quadratic mean-field framework showing how strategic complementarities shape aggregate persistence, with applications to multiproduct pricing. We show how individual and aggregate dynamics can be combined to overcome the missing-intercept problem.

Across my research, the question determines the method. I build the data and empirical designs needed to identify the relevant economic mechanisms, and use theory to understand their aggregate and welfare implications.

Teaching Approach

Economics is most useful when it helps students understand a changing world. I bring questions from the research frontier into the classroom, often drawing on my own work, to show how economic tools help us understand new developments. As the field evolves, I adapt what I teach. Students should help shape the classroom. Their experiences across countries, industries, and professions enrich discussion and challenge assumptions. I encourage them to connect economic ideas to decisions they have faced, and I learn from those exchanges. My goal is for students to leave with a stronger understanding of economics and the confidence to apply it, question it, and continue learning.

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