

# Stéphane Dupraz

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## EMPLOYMENT

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Since 2017: Research Economist, Banque de France (Monetary and Financial Studies Division)  
Since 2017: Lecturer, Toulouse School of Economics (PhD and MSc courses in Monetary Economics)

## EDUCATION

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2011-2017: PhD Economics, Columbia University  
2010-2011: MSc Economics, Paris School of Economics  
2008-2011: Diplôme de Statisticien-Economiste, ENSAE-ParisTech

## RESEARCH (MACROECONOMICS)

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- **A Kinked-Demand Theory of Price Rigidity**

I provide a microfounded theory for one of the oldest, but so far informal, explanations of price rigidity: the kinked demand curve theory. Assuming that some customers observe at no cost only the price of the store they happen to be at gives rise to a kink in firms' demand curves: a price increase above the market price repels more customers than a price decrease attracts. The kink in turn makes a range of prices consistent with equilibrium, but a selection criterion that captures firms' reluctance to be the first to change prices—the adaptive rational-expectations criterion—selects a unique equilibrium where prices stay constant for a long time. The kinked-demand theory is consistent with price-setters' account of price rigidity as arising from the customer's—not the firm's—side, and their account of their reluctance to make the first step in changing prices. The kinked-demand theory can be tested against menu-cost models in micro data: it predicts that prices should be more likely to change if they have recently changed, and that prices should be more flexible in markets where customers can more easily compare prices. The kinked-demand theory has novel implications for monetary policy: its Phillips curve is strongly convex but does not contain any (present or past) expectations of inflation; its trade-off between output and inflation persists in the long-run; changes to the distribution of sectoral productivity shift the Phillips curve; and monetary shocks have a much longer-lasting real effect than in a menu-cost model, despite also being a model of state-dependent pricing.

- **Search Models and Kinked Demands**

I show that consumer search leads to price indeterminacy. Provided search costs are continuously distributed across consumers and there is a positive density of consumers with zero search costs, consumer search induces continuous but kinked demand curves. The kink arises from the constitutive feature of search models: consumers' imperfect information. Because consumers cannot observe a firm's price before visiting it, a firm loses customers with a price increase, but attracts none with a price decrease. The kink in demand in turn leads to price indeterminacy: a whole interval of prices is consistent with equilibrium. The indeterminacy is different from the one recently highlighted in models of labor search: it pertains to markets where prices are publicly quoted, not bilaterally bargained, and thus applies to goods markets. Just as the bilateral monopoly indeterminacy opens the door to wage rigidity, the kinked-demand indeterminacy opens the door to price rigidity.

- **A Plucking Model of Business Cycles**, with Emi Nakamura and Jón Steinsson

The dynamics of unemployment fit what Milton Friedman labeled a plucking model: a rise in unemployment is followed by a fall of similar amplitude, but the amplitude of the rise does not depend on the previous fall. We develop a microfounded plucking model of the business cycle to account for these phenomena. The model features downward nominal wage rigidity within an explicit search model of the labor market. Our search framework implies that downward nominal wage rigidity is fully consistent with optimizing behavior and equilibrium. We reassess the costs of business cycle fluctuations through the lens of the plucking model. Contrary to New-Keynesian models where fluctuations are cycles around an average natural rate, the plucking model generates fluctuations that are gaps below potential (as in Old-Keynesian models). In this model, business cycle fluctuations raise not only the volatility but also the average level of unemployment, and stabilization policy can reduce the average level of unemployment and therefore yield sizable welfare benefits.

- **Coordination under Ambiguity**

How do agents coordinate in a world that they do not fully understand? I consider a dispersed-information coordination game with ambiguity-averse agents who do not trust their models. Because distinguishing models is harder in a noisier economy, the model is one of endogenous ambiguity. Because one agent's noise is another's private information, one agent's reliance on his private information increases how much ambiguity his neighbor faces. I revisit the role of private and public information in this new light. On the positive side, I show that the equilibrium depends less on fundamentals as agents become more ambiguity averse, and not at all in the limit where they become infinitely so. I also show that, because it makes agents trust their model more, the release of public information drives the economy toward fundamentals whenever ambiguity-aversion is high enough, in contrast to the standard result under rational expectations. On the normative side, I show that the equilibrium features too much dependence on fundamentals: agents would rather live in a world that they understand better, even if it means living in a world that is less responsive to changes in fundamentals.

## SEMINARS, WORKSHOPS, AND CONFERENCES

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2017: LSE, UCL, INSEAD, TSE, Harvard Business School, San Francisco Fed, NYU, Band for International Settlements, Aix-Marseille School of Economics, Banque de France, ESSIM (discussant), SED, New Advances on Informational Frictions workshop (discussant), EEA (Young Economist Award), ECB, PSE.

## PERSONAL

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Citizenship: French.

Languages: French (native), English (fluent).

## REFERENCES

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**Michael Woodford**

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