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Working Papers:

"Wage-Price Spirals: The Contract Accelerator," *Job Market Paper*

"From Technology Disruption to Adaptation: Optimal Policies for Taxation and Retraining"

"Searching for Job Security: Occupational Choice and Skill Mismatch," with Matthew Famiglietti

"A Pendulum Model of Economic Growth," with Zhen Huo and Xiaodong Zhu

Seminar and Conference Presentations:

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Dissertation Abstract

Wage-Price Spirals: The Contract Accelerator [*Job Market Paper*]

Nominal wage indexation to prices is more prevalent during inflation spikes. It can be either explicit through contractual formulas or implicit through more frequent renegotiation. Indexation protects workers' purchasing power but transmits price increases more quickly to wages, fueling further inflation. A vast literature sheds light on this wage-price spiral, but almost always treats the prevalence and strength of indexation as fixed. In this paper, I use a novel dataset to show that indexation changes drastically across different inflation episodes. I then establish a new channel through which endogenous indexation reinforces the wage-price spiral. This channel is quantitatively important and has new implications for monetary policy.

Leveraging contract-level records from a restricted Bureau of Labor Statistics archive of major U.S. collective bargaining agreements from 1974 to 1995, I measure whether and how strongly wages adjust automatically to prices within these multi-year contracts. Explicit cost-of-living adjustment (COLA) coverage among unionized workers rose to 60 percent in the 1970s and early 1980s, before falling back to 20 percent in the 1990s. COLA adjustment is nevertheless incomplete: a 1 percent increase in prices raises wages by about 0.85 percent on average.

I explain these patterns through risk-sharing in a general equilibrium model with endogenous indexation. When signing a contract, a firm and its workers choose whether to index wages to prices and if so, how strongly. Indexation insures risk-averse workers against inflation surprises and can raise the pair's joint surplus relative to preset wages, especially when inflation is more volatile. However, full pass-through can be costly for financially constrained firms when inflation signals weak firm revenues, making partial indexation privately optimal. At the aggregate level, the share of indexed contracts becomes an endogenous state variable. A higher share steepens the Phillips curve and amplifies inflation volatility. Together, these forces generate the *contract accelerator*: higher inflation risk encourages indexation, which in turn amplifies inflation risk and further encourages indexation. Consequently, contract choice exhibits strategic complementarity, and the economy may admit multiple self-fulfilling indexation equilibria. A more hawkish policy rule lowers inflation risk and discourages indexation. It also weakens the strategic complementarity and can ensure uniqueness.

I provide causal empirical evidence for three key model mechanisms: COLA adoption rises with uncertainty; inherited COLA stock raises further adoption; and monetary policy shocks have larger inflation effects when the COLA share is high. Quantitatively, the contract accelerator raises annualized inflation by 1.10 percentage points in 1973–75 and 1.02 percentage points in 1979–81—about 14 percent across the two episodes. It also doubles the contribution of the post-Volcker rule to inflation stabilization during the Great Moderation, as the rule discourages COLA adoption.

I conclude that wage-setting arrangements are not fixed background conditions: private insurance choices reshape inflation dynamics, while monetary policy can stabilize inflation partly by shaping those choices.

From Technology Disruption to Adaptation: Optimal Policies for Taxation and Retraining

Technological progress raises aggregate productivity but generates uneven gains across occupations, making redistribution and occupational transitions important policy concerns. This paper studies the

joint optimal design of income taxation and retraining subsidies in response to technological disruption. I develop a two-sector Mirrlees framework with risky retraining outcomes and unobserved productivity. Productivity–training complementarity shapes both the efficiency gains from and the incentive costs of retraining. I estimate the retraining technology using German administrative records that track workers' retraining, employment, earnings, and occupations over time. I document strong productivity-training complementarity for short-term training. Quantitatively, under an automation shock, the constrained optimum prescribes short-term training for all manual workers, regardless of manual productivity. In contrast, laissez-faire underinvests in training due to uninsured outcome risk, and Germany's policy regime can misallocate workers in training choices due to misaligned incentives. At optimum, training expenditures amount to 0.65 percent of GDP, and moving from the actual to the optimal regime yields welfare gains equivalent to 0.33 percent of GDP.

Searching for Job Security: Occupational Choice and Skill Mismatch, with Matthew Famiglietti

Occupations differ significantly in job loss risk. Combining data from the CPS, O*NET, and the NLSY, we present three facts. First, job separation risk is heterogeneous across occupations. Second, manually (cognitively) intensive occupations feature more (less) separation risk. Third, workers with greater cognitive (manual) ability sort away from (into) manually (cognitively) intensive occupations, conditional on worker attributes. We interpret these facts through a search model with multidimensional skill sorting. The key assumption is that occupational requirements jointly determine match output and separation risk. Skill-correlated risk affects job-acceptance sets, inducing workers to sacrifice match quality for job security. This can weaken (strengthen) sorting along the manual (cognitive) dimension and generate asymmetric cross-skill sorting patterns. The decentralized economy can be inefficient, because workers value job security more than the constrained planner, generating skill mismatch. Quantitatively, the decentralized economy produces 0.56 percent less output than the planner's allocation. A simple skill-based unemployment insurance policy can restore half of the output loss.

A Pendulum Model of Economic Growth, with Zhen Huo and Xiaodong Zhu

This paper develops a "pendulum model" of economic growth to explain the recurrent oscillations between state control and market liberalization observed in major economies. We posit that policymakers face a fundamental trade-off between promoting growth and maintaining political or systemic control over the accumulation of private wealth or capital. Using a dynamic framework where a planner balances these competing objectives, we show that high growth targets endogenously generate cycles: periods of pro-market expansion are necessary to meet growth targets but inevitably increase the share of private resources, triggering a retrenchment phase to restore control. We provide empirical evidence supporting this mechanism, focusing primarily on China's post-reform history, where policy swings between "pro-private" and "pro-state" regimes align closely with the model's predictions. To demonstrate the broader applicability of the trade-off between efficiency and stability, we present supplementary evidence from the United States, illustrating similar cyclical patterns in financial regulation and credit cycles. Our findings suggest that the volatility of economic policy is not merely a response to exogenous shocks but an inherent feature of governance under binding growth constraints.