

Summarizing the Generalized-Exchange Theory

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Two venues. Building on fundamental heterogeneities that feature information asymmetries and routinized jobs, rational workplace exchange in both the large- and small-establishment venues has been derived from axiomatic preferences and technology. Each demonstrates distinct decision rules, constraints, and mechanisms of exchange. The intuitive generalization of marketplace exchange has powerful implications. Large-establishment-venue (LEV) labor pricing occurs only inside the firm; small-establishment-venue (SEV) wages default to the marketplace. The two venues are combined into a continuous-equilibrium model that microfounds meaningful wage rigidity (MWR), rent-paying job rationing, and consequential meta-externalities resulting from nominal-demand disturbances.

LEV equilibrium features unbundled exchange that results from the simultaneous optimization of employer labor pricing, consistent with $\max(\dot{Z}_j(t)/W_j(t))$, and employee on-the-job behavior, consistent with $\sup \mathbf{K}_j(t)$, at $W_j(t)=W^n_j(t)>W^m(t)$ and $\dot{Z}_j(t)=\dot{Z}^n_j(t)$. Workplace macrodynamics are rooted in employees' intertemporal calibration of their reference standards ($\mathbf{K}_j(t)$), a process governed by the rational substitution of consumption for equitable treatment by employers. The dynamic tradeoff is tracked by production-capability decisions motivated by rational profit expectations, sharply reducing the role of interest rates relative to mainstream macro modeling.

Pure profits (Π_j), the factor-income residual claimed by owners of sunk capital, are restored to the central role they played in classical thinking. Generalized-exchange macroeconomics is then able to assign, as needed, micro-coherent roles to increasing returns, proprietary technological innovations, wage cartelization, product-pricing power, hold-up problems, and fluctuations in nominal demand. Enriched profit dynamics imply a strong tendency for employee reference standards (\mathbf{K}_j) to be durable, always unchanged in response to business cycles and not unreasonably unchanged deep into the medium term. (Chapters 2 and 3) The efficiency wage (W^n_j), chronically exceeding labor opportunity costs, pushes workers off their market-supply schedule. Rational LEV work-leisure substitution is suppressed, restricting employee choice to optimizing his or her OJB.

Meanwhile, SEV employers effectively monitor workplace behavior, bundling their Workplace-Exchange Relations (WER). Labor pricing is optimized at $W_k(t)=W^m(t)$ and labor behavior at $\dot{Z}_k(t)=\dot{Z}^m_k$. Firms and workers can do no better than being market-price takers. Employees do not experience the workplace information imperfections that enable the spontaneous establishment of interpersonal/intertemporal reference standards. \mathbf{K}_k is truncated ($\mathbf{K}_k(t)=\{W^a(t)\}$, $\sup \mathbf{K}_k(t)=W^a(t)=W^m(t)$), and rational workers optimize work-leisure choice as well as their ongoing search for good (rent-receiving) employment. It is an essential fact of highly specialized economies that LEV and SEV workplaces are fundamentally different.

Involuntary job loss requires the suppression of wage recontracting and is, therefore, confined to LEV firms with their inherently unbundled \dot{Z} . If SEV labor pricing and use is not somehow government restricted, Two-venue general equilibrium (TVGE) tends to generate relatively robust total employment, while being vulnerable to socioeconomic problems rooted in earnings inequality not meaningfully grounded in inherent ability or general human capital.

Rational employment. It will comfort practitioners that, unlike market-centric modeling, LEV workplace equilibrium does not always simultaneously determine the rational wage and level of employment. The central innovation in large-firm management of labor input is the substitution of the workplace-exchange relation for market labor supply in optimizing employer-employee interaction. (Chapter 2) At least over the stationary business cycle, the labor-input schedule on its own determines the rational wage, making labor pricing demand-independent.

Profit-seeking LEV management also identifies a production schedule, with particular levels of labor hours, capital services, and material input, that is largely a function of expected product demand. Labor input is recognizably adjusted over the business cycle. Given that labor hours available for production (H_j^P) are increasing in the level of employment ($H_j^P=f(E_j)$), such that $\Delta H_j^P/\Delta E_j > 0$, rising product demand relatively quickly pushes firms to hire more workers, a process that is influenced by overtime premiums as well as physical/socioeconomic constraints on the length of the workweek. Opposite-direction adjustments (reduced workweeks, layoffs and job downsizing) were modeled in Chapter 3.

Given $W_j = W^n_j = W^h_j$, labor input that is in 1:1 correspondence to production can be measured by worker hours. Chronic wage rent combines with the substantial pool of SEV employees to produce an elastic market-supply schedule to LEV firms at their profit-maximizing wage (W^n_j). Large establishment employment determination is consistent with the GEM Project's reorientation of macroeconomics to feature powerful causation from nominal demand disturbances to same-direction changes in employment and output.

Venue linkages. In addition to the intermarket linkages retained from mainstream market-centric general-equilibrium modeling, including relative prices and elasticities that allocate various demands and supplies, the workplace and marketplace venues are connected via three mechanisms. First is the dominance of LEV labor pricing and use, generating powerful constraints on decision-rule optimization in both venues. Those restraints are rooted in the necessary rationing of both rent-receiving employment and hours worked in high-wage jobs. Second is Harris-Todaro (1970) inter-venue labor transfer (also named Lewis Transfer) that is rationally mediated by LEV wage premiums and job prospects. (Chapter 3) Third is Baumol's (1967) "cost disease" that works to reconcile sectoral unbalanced productivity growth.

Large establishments populate the dominant venue, i.e., the locus of workplaces governed by decision rules, constraints, and exchange mechanisms that rationally prices market-homogeneous labor higher than remaining (SEV) firms. The existence of LEV wages powerfully constrains the optimization of marketplace decision rules. Because job rationing must follow from the payment of wage rents, SEV workers are forced to exchange hours on the job at less preferred terms than comparable LEV employees, who are themselves frustrated by the rationed workweeks in their rent-paying jobs. (Chapter 2) That inter-venue constraint on market optimization enables the simultaneous existence of continuous general decision-rule equilibrium, the failure of markets to clear, episodic involuntary job loss, income-driven consumption, and profit-driven investment.

The venerable Harris-Todaro model is an underappreciated contribution to economic thinking that links dominant and subordinate venues via labor transfer motivated by the rational assessment of relative opportunities. The inability of many job-seekers to find work at the going (relatively high) LEV wage, despite being qualified for such jobs, is indicative of chronic market failure. Newspaper reports during the 2007-09 recession describe persons "... working two or three jobs as they looked for a good one." (*New York Times*, November 22, 2009, p.30) Such behavior, broadly accepted as unexceptional, only makes sense in the context of persistent wage rents, rationed high-wage jobs, and plentiful low-wage employment.

The remaining mechanism was identified in Baumol's insightful analysis of the dynamic interaction of two sectors with strictly different labor-productivity growth. He restricts his model to competitive wages and concludes that relative unit costs increase without limit in the low-productivity sector, pushing up relative product prices and, within a normal range of demand elasticities, shrinking the disadvantaged sector's relative size. TVGE modeling generalizes Baumol's conclusions by demonstrating that axiomatic preferences and technology produce labor rents that restrict the growth of the high-productivity sector. More general "cost-disease" problems are implicated in the generalized-exchange class of market inefficiencies, including restricted consumption, arbitrary wage inequality, chronic joblessness, and socioeconomic disruptions resulting from periodic downsizing of good jobs.

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