

Research Statement

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A variety of non-market institutions exist today, even among the most developed capitalist economies. As institutions shape an incentive structure of a society, such large cross-country institutional variations have important efficiency as well as distributional implications. My research explores the historical origins of institutional diversity, comparing mainly the United States and Japan, to illuminate its sources and consequences. Its distinctive approach is to study institutions as the endogenous outcomes of historical processes that involve the strategic interactions of players, rather than to invoke institutions as exogenously given explanations for economic outcomes. For this purpose, my research combines the tools of economic history and applied game theory, which entail extensive investments of time in historical materials as well as context-specific model building. Comparing the U.S. and Japan is of particular importance, because, while the U.S. provides the model closest to a pure market economy, Japan, as the second largest economy and the first non-western country to industrialize, offers an alternative model that is often mimicked by newly developing countries.

The Employment Systems in the U.S. and Japan, 1900-2000

One major strand of my research focuses on employment institutions in the U.S. and Japan as they provide one of the most salient examples of institutional diversity. In contrast to the short employment duration, active hiring from external labor markets, explicit and well-specified employment contracts, arms-length labor-management relations, and high intra-firm pay inequality that prevail in American firms, long-term employment relations, highly-developed internal labor markets, implicit and ambiguous employment contracts (which courts regularly find unenforceable), cooperative labor-management relations, and low intra-firm wage inequality are ubiquitous among Japanese firms. Employment laws and labor market regulations also differ greatly between the two countries but are complementary to firm-level practices, forming coherent *systems* in the respective countries. Why do we observe such contrast between the world's two leading economies? Is one system superior to the other? Will the two systems continue to persist? The primary objective of this research is to investigate the historical origins of the employment systems in the U.S. and Japan and develop a theory of institutional change and persistence informed by comparative historical observations.

In an early paper, drawing on extensive historical literature, I document the evolution of human resource management (HRM) practices in large manufacturing firms and government labor policies in the U.S. and Japan from 1900 to 1960.¹ The paper proposes a new (but informal) conceptual framework that views an employment system as an equilibrium outcome of the strategic interactions among management, labor, and government. The paper finds that HRM practices in the U.S. and Japan had evolved *in parallel* from spot contracting to longer-term contracts in the absence of major government intervention during the first few decades of

¹ C. Moriguchi, "The Evolution of Employment Relations in U.S. and Japanese Manufacturing Firms, 1900-1960: A Comparative Historical and Institutional Analysis." NBER Working Paper No. 7939, October 2000.

the 20th century. It then documents the role of the Great Depression in shifting the U.S. path of development and the impact of government regulations during WWII in the respective countries in reinforcing diverging paths. By the 1960s, it concludes, the two countries reached two very different equilibrium employment systems. This work offers a reinterpretation of existing evidence by providing a systematic and comparative review of historical evidence guided by a novel game-theoretic framework. A key insight is that, contrary to a common view, the two systems have relatively recent historical origins. In place of cultural or technological determinism, this work presents a path-dependence view of institutional development.

A subsequent paper focuses on the process of bifurcation during the interwar period in more detail.² The paper first defines “private welfare capitalism,” practiced commonly by leading firms in the U.S. and Japan in the 1920s, as a set of HRM policies including employers’ voluntary provisions of non-wage benefits, corporate training, greater employment security, and employee representation plans. Why did firms institute such costly HRM policies for their blue-collar employees? Based on detailed historical data, the paper models private welfare capitalism as implicit (i.e., not legally-enforceable or “relational”) employment contracts offered by management to improve labor productivity. It then documents how differential impacts of the Great Depression led to the breach of these contracts in the U.S., on the one hand, and the maintenance of such contracts in Japan, on the other hand, and how subsequent government interventions in the respective countries changed the rules of the game. The contribution of this work is twofold. Theoretically, although not included in the published paper (and offered as a theoretical appendix), it develops a formal game-theoretic model of private welfare capitalism and examines its efficiency and stability. Empirically, it presents new evidence using a variety of survey data and assesses the contractual nature and economic significance of private welfare capitalism in the two countries.

The above analysis suggests that the Great Depression was sufficient in destroying fledgling private welfare capitalism in the U.S. But was it necessary? Could American firms have developed HRM policies akin to the Japanese-style practices *had* the Depression not hit the U.S. economy as hard as it did? I address this question by exploiting the variation across firms within the U.S., compiling a company-level dataset of 14 leading welfare capitalists from primary and archival sources.³ I find that the breach of implicit contracts was positively correlated with the severity of the Depression’s impact experienced by firms. Moreover, I find that greater breaches of implicit contracts are associated with greater employee support for industrial unions and more explicit employment contracts concluded under the New Deal. In other words, the study suggests that the Depression was not only sufficient but also necessary to shift the U.S. trajectory. This work sheds new light on the origins of the American industrial relations system, extends my previous model to analyze explicit contract equilibrium and derive testable implications, and provides empirical tests for implicit/relational contract theory using unique historical data. Its implications have contemporary relevance, as many view

² C. Moriguchi, “Implicit Contracts, the Great Depression, and Institutional Change: A Comparative Analysis of U.S. and Japanese Employment Relations, 1920-1940.” NBER Working Paper No. 9559, March 2003, and *Journal of Economic History* 63 (3): 625-665, September 2003.

³ C. Moriguchi, “Did American Welfare Capitalists Breach their Implicit Contracts during the Great Depression? Preliminary Findings from Company-level Data.” NBER Working Paper No. 9868, July 2003, and *Industrial & Labor Relations Review* 59 (1): 55-86, October 2005.

corporate downsizing in the U.S. in recent decades also as employers' default on implicit contracts.

The economic stagnation in the 1990s in Japan posed a serious challenge to the practice of lifetime employment. Empirical studies so far, however, have found no major changes to the practice pertaining to core employees. To inform current policy debate, in a paper joint with Hiroshi Ono, I study the persistence and stability of Japanese lifetime employment from a long-run perspective.⁴ The paper redefines lifetime employment as a *set* of complementary HRM practices centering on an implicit long-term commitment between an employer and employees, and studies the formation of lifetime employment over the last hundred years. The analysis shows that it evolved gradually into a cluster of sophisticated HRM policies in response to major economic shocks, such as wars, recessions, and oil crisis, with the concomitant formation of collective bargaining laws, state welfare policies, and social norms. As a result, today's Japanese lifetime employment is deeply embedded into complementary firm-level practices and macro-level institutions, resulting in its resilience and stability.

In future work, I plan to expand this research. To test finer contract-theoretic implications using multivariate regressions, I am collecting data to increase the sample size of my company-level U.S. dataset. To overcome some of the limitations in my model, I am also developing a dynamic model that incorporates stochastic shocks as foreseen contingencies to study equilibrium paths of institutional development that depend on the realization of the shocks.⁵ I will also examine the immediate post-WWII years in Japan using company-level data, during which management and labor faced a critical juncture akin to the Great Depression in the U.S. that could have undermined implicit contractual relations but did not. Finally, I plan to extend my U.S. analysis to the recent period as the U.S. has witnessed the decline of traditional union model based on explicit contracts and the rise of nonunion model that entails more flexible HRM policies.

Income Inequality in Japan from a Comparative Historical Perspective

Another strand of my research concerns the distributional implications of institutional diversity and examines income inequality in Japan from a comparative historical perspective. Today, measured by the distribution of income before tax and transfers, Japan is one of the most egalitarian countries among the OECD countries in contrast to the U.S. that ranks among the least. When did Japan become an egalitarian society? If it is not long ago, what were the underlying forces? At the same time, there are increasing concerns among the Japanese public that income inequality is rising in recent years. What is driving the recent change? Will Japan remain an egalitarian society in the 21st century? The primary purpose of this research is to document the long-run evolution of income inequality in Japan, investigate its causes, and evaluate Japan's experience from a comparative perspective using similar data from other countries including the U.S., Britain, and France.

⁴ C. Moriguchi and H. Ono, "Japanese Lifetime Employment: A Century's Perspective" in *Institutional Change in Japan*, edited by Magnus Blomstrom and Sumner La Croix, New York; Routledge, 2006.

⁵ C. Moriguchi, "The Contractual Origins of Private Welfare Capitalism in the U.S. and Japan," work in progress.

In a paper coauthored with Emmanuel Saez, I estimate long-run series of top income shares using income tax statistics.⁶ The paper finds that the share of national income accruing to the top 1% of the population in Japan was extremely high during the 1886-1938 period, fell dramatically from 1938 to 1945, and remained low throughout the post-WWII period with a modest increase in the last decade. One of the surprising findings is that this dramatic compression of income at the top took place *entirely* during the WWII years and not during the postwar occupation. Using additional data, the paper attributes the compression primarily to wartime regulations, rather than destruction, and concludes that postwar institutional reforms made the one-time compression difficult to reverse. The paper then compares the evolution of the top 1% *wage income* shares in Japan and the U.S. Among other things, it finds a dramatic increase in the U.S. from 1970 to 2000 but little change in Japan during the same period. The comparative analysis rules out differences in technology or tax incentives as an explanation for the divergent trends, and instead suggests institutional differences such as unions and corporate governance as an important factor in determining wage inequality. This work shows that Japan's egalitarianism, too, has a recent historical origin and offers another example of path-dependence in institutional development with profound distributional consequences.

Is wage inequality rising in Japan? If so, are CEOs receiving a larger share of total compensation? In a preliminary study joint with Emmanuel Saez, using wage income tax statistics and other historical sources, I investigate the trends and determinants of top wage incomes after WWII in greater detail.⁷ I find that the top wage income share in Japan has increased sharply since 1997 for the top 0.1% group, which roughly corresponds to top executives in 5,000 largest corporations. Is this due simply to better corporate performance in recent years? Or does it signal a structural break from the past? To answer these questions, I study the long-run determinants of top wage income shares in 1951-2005 using multivariate regressions. In particular, to account for changes in government tax policies, I estimate effective marginal tax rates for various wage income groups. When completed, this work will provide new evidence using the long-run data and cast better light on current debates over rising wage inequality in Japan.

Child Adoption in the U.S. from a Comparative Historical Perspective

My new research project studies the economics of child adoption, using variations in data both across time and across countries. Adoption, as an alternative to child bearing, is a widely accepted means of forming a family in major western countries, especially in the U.S. Although recent developments in family economics have advanced our understanding of fertility decisions, there is very little economic literature that concerns child adoption. The main objective of this research is to offer an empirical and theoretical analysis of child adoption, using historical and contemporary data from the U.S. Furthermore, I compare the adoption markets in the U.S. and other countries, such as Japan and Britain, to study institutional variations across countries and their consequences for adoption outcomes.

⁶ C. Moriguchi and E. Saez, "The Evolution of Income Concentration in Japan, 1885-2002: Evidence from Income Tax Statistics," NBER Working Paper No. 12588, October 2006, revised version forthcoming in *Review of Economics and Statistics*.

⁷ C. Moriguchi and E. Saez, "The Evolution of Top Wage Incomes in Japan, 1951-2005," work in progress.

Today, adopted children comprise roughly 2.5% of all children in the U.S., and more than 20,000 children are adopted from abroad by Americans each year. Data suggest that the U.S. adopts more children per capita than any other country in the world. What is driving this demand for adoptable children? Who adopts children, and who places children for adoption? Is the number of adoptions rising in the U.S.? In a joint research project with Raquel Bernal, LuoJia Hu, and Eva Nagypal, we propose the first systematic economic analysis of child adoption in the U.S., which consists of three parts.⁸ First, using government and private survey data, we document historical trends in child adoption and estimate adoption rates per 1,000 births from 1951 to 2002 by adoption types. Creating state-level panel data, we then explore whether these trends can be explained by changes in key demographic, social, and economic variables. Second, using two complementary micro datasets (NSFG, 1973-2002, and SIPP, 1984-2004), we investigate what determines the demand for, and supply of, adoptable children by estimating the effects of various individual characteristics on the likelihood of adopting and relinquishing children. Finally, we develop a dynamic model of adoption seeking, in which women's decision to adopt is explicitly modeled as an alternative to child bearing. The model is calibrated to fit the relevant moments in the U.S. data and then used to simulate the effects of various changes on adoption, such as the progress in reproductive technology, the rise in market wages for women, and the changes in adoption laws. The main contribution of this research is twofold. Empirically, it provides new evidence on adoption demand and supply using rigorous econometric analysis and new micro data. Theoretically, it provides a formal model of adoption seeking and conducts policy experiments using computational methods.

While child adoption is a well-established means of family formation in the U.S. today, it is much less so in Japan. In fact, it was not until 1987 that the law enabling permanent transfer of parental rights from biological to adoptive parents was enacted in Japan (by comparison, the first such law in the U.S. was passed in Massachusetts in 1851). Why do we observe such contrast? In a preliminary study, I estimate adoption rates and compare the nature of adoption markets in the two countries.⁹ I find that the number of formal (i.e., legally approved) child adoptions per 1,000 births in 2000 was only 1.6 in Japan in contrast to 31.4 in the U.S. The preliminary analysis indicates that the low adoption rate in Japan is likely attributed to low demand for adoptable children, rather than low demand for children *in general* or the lack of the supply of adoptable children. Does the much lower adoption demand in Japan compared to the U.S. reflect cultural or institutional differences between the two countries? In future work, I plan to study the evolution of the adoption markets in the two countries, including adoption-related laws and the changes in stigma associated with adoption, as the outcomes of historical processes that reflect the dynamic interactions among adoptive parents, adoption agencies, and government.

⁸ R. Bernal, L. Hu, C. Moriguchi, and E. Nagypal, "The Economic Analysis of Child Adoption in the United States," NSF Grant Proposal, January 2007 (awarded for 9/1/2007-8/31/2008, award no. SES-0721137).

⁹ C. Moriguchi, "The Comparative Analysis of Child Adoption in the U.S. and Japan," work in progress.