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Program Report

Development of the American Economy

Claudia Goldin

The NBER's Program on the Development of the American Economy (DAE) includes research on labor and population, industrial organization, financial and macroeconomic history, and political economy. Yet all of its members are engaged in the "objective quantitative analysis of the American economy," the stated mission of the NBER. The NBER was established 75 years ago to inform contemporary policy debate. Wesley C. Mitchell, the first president of the NBER, was an economic historian who appreciated the need to produce data and the difficulty in doing so. He also recognized that history was essential to the policy debates of his age, and for the same reason it is essential to those of ours: it is risky and foolish to base conclusions on potentially transient phenomena. The central task of the DAE program today is precisely that which led to the formation of the NBER: informing current policy debate through the use of historical data and analysis.

This summary highlights some of the work of a subgroup of DAE researchers who have been concerned mainly, although not exclusively, with labor and population issues. How economies and regions became integrated economically (and sometimes became disintegrated) is central to several projects that emphasize the role of factor flows, particularly flows of labor, but also of capital and commodities. Some of the work deals with distributional issues, such as the roles of education and technology in affecting the wage structure. Other papers focus on how human capital investments in education and health enhance labor productivity, change labor supply, and alter longevity and the quality of life. Still others seek the causes and labor market impact of institutional change, for example government provision of social insurance and the extension of publicly provided education.

Convergence and Market Integration

Jeffrey G. Williamson, jointly with Alan Taylor and other coauthors, is engaged in research on the impact of commodity and factor flows on convergence since 1850. Their work points to two golden ages of conver-

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gence among the current OECD countries—from 1850 to 1914, and from 1950 to 1995—as well as one period when it stopped, between 1914 and 1950. To deal explicitly with multifactor theories of convergence, Williamson has assembled annual time series of purchasing-power-parity (PPP) adjusted real wages for 17 Old World (European) and New World countries.¹ Most Old World countries had far lower real wages than the New World countries did. For example, in the 1880s Sweden's real wages were 0.39, and Norway's were 0.44, of those in the New World. But just 25 years later, there was considerable catch-up, with Sweden's wage increasing to 0.56, and Norway's to 0.67, of the New World's.

Various papers in this project demonstrate that open-economy forces, often ignored in the new growth literature, explain a large share of the convergence of PPP-adjusted real wages between 1850 and World War I. According to these studies, mass migrations within Europe, and between Europe and the New World, account for a large part of the convergence. And these migrations, which were the greatest in world history, in turn were slowed by the convergence in standards of living.²

Commodity trade, as once suggested by Heckscher and Ohlin, was another major factor. World transportation costs plummeted in the late nineteenth century, and the ensuing commodity price convergence reinforced that from factor flows.³ Both fostered convergence in factor prices and labor productivity among various OECD nations. The next phase of this project explains why convergence stopped abruptly around 1914, not to resume again until 1950.

The integration of domestic labor markets is central to the work

of Robert A. Margo and Joshua L. Rosenbloom. Margo's work has explored the antebellum economy, whereas Rosenbloom's looks at the late nineteenth century. Margo has continued his longstanding work, assembling a new index of nominal and real wages at the regional level for skilled and unskilled workers from 1820 to 1860.⁴ He finds that there was considerable wage convergence within but not between regions; that differentials in wages between artisans and laborers did not widen over the period; and that the gap between farm and nonfarm wages was small.⁵ His most recent work on this project, an investigation of the price of urban housing, concludes that antebellum increases in the real wage have been overstated in the absence of a true cost-of-housing index.⁶

Rosenbloom's work, for the later period, reinforces Margo's and finds that there was substantial integration within regions, as well as among areas of the country outside the South, in the market for manufacturing workers. But he also finds that labor markets in the North and South continued to be largely separate, at least until 1920.⁷

In related work, Rosenbloom explores information flows for long-distance migrations, and finds that decentralized and informal modes of communication effectively mobilized large-scale movements of labor. It is all the more curious that integration between the North and the South was delayed so long. Rosenbloom points to mechanisms developed by northern employers to recruit European immigrants, and the absence of those mechanisms in recruiting southern labor until the 1920s.⁸

Longevity and Labor Force Participation

Dora L. Costa has written several papers on why retirement rates increased in the twentieth century. Using a unique natural experiment—the Union Army pension—Costa finds that increased wealth had a large positive effect on retirement (the elasticity of retirement with respect to the pension was 0.73). Thus, secularly rising income can explain a substantial part of increased retirement before the introduction of Social Security.⁹ Costa rules out the shift from agriculture as a major factor explaining increased retirement because farmers retired at the same rate as other workers did.¹⁰ She also rules out worsening health. For example, heart disease was almost three times as prevalent among older veterans in 1910 as around 1990. Further, in the past unhealthy people continued to work despite their poor health.¹¹

Robert W. Fogel's recent Nobel address points out that the high rates of chronic disease observed among Union Army veterans imply that degenerative disorders are not simply part of the natural process of aging but also are caused by environmental conditions. Therefore, Fogel predicts, because the environmental conditions of early life have improved, lifespans will continue to increase.¹² His Nobel address provides a fine summary of his research findings of the past 20 years.

Central to his work are the factors that increased longevity during the last two centuries. Prior to the mid-twentieth century, nutritional increases were paramount. And, in most countries, adequate nutrition has been a distributional problem, rather than one of aggregate short-

falls. Fogel's research draws on findings from economics, history, medicine, physiology, demography, and statistics, and his evidence covers centuries and continents. Although far-reaching in time, space, and methodology, his conclusions are pointed and highly relevant to current policy. His finding that chronic diseases are influenced by early environments informs economic debate regarding the future of Social Security and Medicare.

Education

Economists have long viewed education as the engine of twentieth-century growth. What has gone largely unappreciated is that 70 percent of the increase in years of schooling occurred at the secondary level. In a series of papers, I have tracked the rise of the American high school from 1900 to 1960, and created the first state-level dataset on secondary schooling.¹³ In the states outside the South, the average 18-year-old in 1910 stood only a 10 percent chance of having a high school diploma; by the mid-1930s, the median 18-year-old was a high school graduate.

I also have examined how productivity, state-level income, geographic mobility, and the wage structure were affected by the increase in education. Some of this research extends work I did jointly with Margo on the "great compression" of the wage structure in the 1940s.¹⁴ In joint work with Lawrence F. Katz, I find that increased secondary school education caused the premium to white-collar jobs to plummet between 1910 and 1930. In 1909 the average male office worker earned 50 percent more than the average production worker; by 1929 he earned only 12 per-

cent more. Increased education led to the decline of previously "non-competing" groups. We also find that "high-technology" manufacturing firms of the 1920s to 1940s hired disproportionately more high school graduates in blue-collar jobs than other firms did, suggesting that the rise of the high school fueled the increase in American manufacturing labor productivity in the mid-twentieth century.¹⁵

My research on twentieth-century education also has explored how the increase in women's college attendance and graduation affected their demographic and labor force experiences. I find that 50 percent of women who graduated from college around 1905 never had children. But women college graduates 50 years later were marrying and having children at almost the same rate as noncollege women.¹⁶ Differences in the demographic experiences of college and noncollege women now have widened again. Thirty percent of women who received a bachelor of arts degree around 1970 have not yet borne a child.¹⁷

Social Insurance

Workers' compensation (WC) was the first social insurance program in the United States. Passed by almost all states between 1910 and 1930, WC was a major victory for progressives. In a series of papers, Price V. Fishback and Shawn E. Kantor have investigated why a winning coalition that supported state intervention was formed. Fishback and Kantor find that workers were constrained in their ability to purchase private accident insurance. They insured through other, second-best means before passage of WC.¹⁸ After passage of WC, the wages of nonunion workers de-

creased dollar for expected-benefit dollar, implying that workers effectively purchased their higher benefits. Therefore, firms did not pay higher wages for nonunion workers after passage of WC, and their general support for WC was not surprising. Union members experienced smaller wage declines than nonunion workers, and thus benefited the most.¹⁹ Still, risk-averse nonunion workers, firms, and union members all gained from the passage of WC. Although the passage of WC is easily explained, the form it took among the various states (for example, benefit levels, and state-provided insurance) was the result of complicated bargaining among economic factions.²⁰

¹J. G. Williamson, "The Evolution of Global Labor Markets in the First and Second World Since 1930: Background Evidence and Hypotheses," *NBER Historical Paper No. 36*, February 1992, and Explorations in Economic History (April 1995).

²T. J. Hatton and J. G. Williamson, "What Drove the Mass Migrations from Europe in the Late Nineteenth Century?" *NBER Historical Paper No. 43*, November 1992, and *Population and Development Review* 20 (1994), pp. 1-27; "Late-Comers to Mass Emigration: The Latin Experience," *NBER Historical Paper No. 47*, June 1993, and in *Migration and the International Labor Market, 1850-1939*, T. J. Hatton and J. G. Williamson, eds. London: Routledge, 1994; A. M. Taylor and J. G. Williamson, "Convergence in the Age of Mass Migration," *NBER Working Paper No. 4711*, April 1994.

³K. O'Rourke, A. M. Taylor, and J. G. Williamson, "Land, Labor, and the Wage-Rental Ratio: Factor Price Convergence in the Late Nineteenth Century," *NBER Historical Paper No. 46*, May 1993; K. O'Rourke and J. G. Williamson, "Were Heckscher and Ohlin Right? Putting the Factor-Price-Equalization Theorem Back into History," *NBER Historical Paper No. 37*, May 1992, and *Journal of Economic History* 54 (December 1994), pp. 892-916; J. G. Wil-

liamson, K. O'Rourke, and T. J. Hatton, "Mass Migration, Commodity Market Integration, and Real Wage Convergence: The Late Nineteenth Century Atlantic Economy," *NBER Historical Paper No. 48*, June 1993, and as O'Rourke, Williamson, and Hatton, with same title, in *Migration and the International Labor Market, 1850-1939*, *op. cit.*

⁴R. A. Margo, "Wages and Prices During the Antebellum Period: A Survey and New Evidence," in *American Economic Growth and Standards of Living Before the Civil War*, R. Gallman and J. Wallace, eds. Chicago: University of Chicago Press, 1992, and "The Labor Force in the Nineteenth Century," *NBER Historical Paper No. 40*, August 1992.

⁵R. A. Margo, "Labor Market Integration Before the Civil War: New Evidence," *NBER Historical Paper*, forthcoming, and "The Farm-Nonfarm Wage Gap in the Antebellum United States: Evidence from the 1850 and 1860 Censuses of Social Statistics," *NBER Historical Paper*, forthcoming.

⁶R. A. Margo, "The Price of Housing in New York City, 1830-60," *NBER Historical Paper No. 63*, November 1994.

⁷J. L. Rosenbloom, "Was There a National Labor Market at the End of the Nineteenth Century? Intercity and Interregional Variation in Male Earnings in Manufacturing," *NBER Historical Paper No. 61*, October 1994.

⁸J. L. Rosenbloom, "Employer Recruitment and the Integration of Industrial Labor Markets, 1870-1914," *NBER Historical Paper No. 53*, January 1994.

⁹D. L. Costa, "Health, Income, and Retirement: Evidence from Nineteenth Century America," *NBER Working Paper No. 4537*, November 1993, and as "Pensions and Retirement: Evidence from Union Army Veterans," *Quarterly Journal of Economics*, forthcoming.

¹⁰D. L. Costa, "Agricultural Decline and the Secular Trend in Retirement Rates," *NBER Historical Paper No. 55*, April 1994, and Explorations in Economic History, forthcoming.

¹¹R. W. Fogel, D. L. Costa, and J. M. Kim, "Secular Trends in the Distribution of Chronic Conditions and Disabilities at Young Adult and Late Ages, 1860-1988: Some Preliminary Findings," paper presented at the 1993 NBER Summer Institute.

¹²R. W. Fogel, "Economic Growth, Pop-

ulation Theory, and Physiology: The Bearing of Long-Term Processes on the Making of Economic Policy," *American Economic Review* 84 (June 1994), pp. 369-395.

¹³C. Goldin, "How America Graduated from High School: 1910 to 1960," NBER Working Paper No. 4762, June 1994; "Appendix to: How America Graduated from High School, 1910 to 1960, Construction of State-Level Secondary School Data," NBER Historical Paper No. 57, June 1994.

¹⁴C. Goldin and R. A. Margo, "The Great Compression: The Wage Structure at Mid-Century," *Quarterly Journal of Economics* 107 (February 1992), pp. 1-34. Margo also has researched a related distributional change in "Explaining Black-White Wage Convergence, 1940-50: The Role of the Great Compression," NBER Historical Paper No. 44, March 1993, and *Industrial and Labor Relations Review*, forthcoming.

¹⁵C. Goldin and L. F. Katz, "The Decline of Noncompeting Groups: Changes in the Premium to Education, 1890 to 1950," NBER Working Paper, forthcoming.

¹⁶C. Goldin, "The Meaning of College in the Lives of American Women: The Past 100 Years," NBER Working Paper No. 4099, June 1992.

¹⁷C. Goldin, "Career and Family: College Women of the Baby Boom," manuscript in progress.

¹⁸P. V. Fishback and S. E. Kantor, "Insurance Rationing and the Origins of Workers' Compensation," NBER Working Paper No. 4943, December 1994.

¹⁹P. V. Fishback and S. E. Kantor, "Did Workers Pay for the Passage of Workers' Compensation Laws?" NBER Working Paper No. 4947, December 1994.

²⁰P. V. Fishback and S. E. Kantor, "A Prelude to the Welfare State: Compulsory State Insurance and Workers' Compensation in Minnesota, Ohio, and Washington, 1911-19," NBER Historical Paper No. 64, December 1994.



Research Summaries

Rules for Monetary Policy

Bennett T. McCallum

In recent years, the economics profession's interest in rules for the conduct of monetary policy has dramatically increased. This has occurred as analysts and central bankers have sought to avoid the inflationary bias that is induced by "discretionary" policymaking (that is, period-by-period optimization), and have come to recognize that rule-based strategies can incorporate activist responses to changing conditions. Furthermore, both analysts and practitioners increasingly have viewed rules not as constraints imposed on central banks by external agencies, such as the U.S. Congress, but as orderly and time-consistent means of operating internally—for example, as explicit starting points for consideration of current policy options.¹

During this period, various researchers—including John B. Taylor, Allan H. Meltzer, Martin Feldstein and James H. Stock, Robert E. Hall and N. Gregory Mankiw, and John P. Judd and Brian Motley²—have proposed alternative monetary rules to be considered by central banks whose policies are not strictly limited by exchange rate commitments. My own work has emphasized variants of a rule that treats nominal GNP as the target variable and the monetary base as the instrument, with base growth rates set each quarter to keep the growth in nominal GNP close to a steady noninflationary path. (Here "noninflationary" might mean 1 or 2 percent per year; for this discussion, we will treat the target trend inflation rate as given.)

In terms of the nominal GNP (or GDP) target, some critics favor traditional monetary aggregates and others prefer direct targeting of the price level, or some other weighted average of price level and real output variables. I tend to favor GDP over the monetary aggregates, because keeping its growth close to the target value will result in inflation close to the desired rate on average, that is, over a decade or so. That might not be true for M1 or M2; the recent "stability" of M2 velocity may not hold in the future. In addition, GDP seems preferable to direct price level targets, even if inflation control is the main goal for the central bank, for three reasons. First, because prices evidently react more slowly than output in response to monetary actions,³ cycling and instability are more likely with a price level (or inflation) target. Second, a smoothed path for nominal GDP is probably better suited to stabilizing output than is a smoothed path of the price level.⁴ We cannot be certain about this, because the profession has a very poor understanding of the short-run dynamic interactions between nominal and real variables, and of the magnitude and correlation of various types of shocks. But this poor understanding suggests, third, that it is more difficult to design a rule for achieving inflation targets than for GDP growth targets: the former requires an understanding of forces determining the split of nominal GDP growth into its inflation and real growth components.

Some economists, including Hall,⁵ would prefer a target that