

LEVY INSTITUTE

Conference Proceedings

THE MACRODYNAMICS
OF INEQUALITY
IN THE INDUSTRIALIZED
AND DEVELOPING COUNTRIES

October 28-29, 1999 Annandale-on-Hudson, New York



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*The proceedings consist of edited transcripts of the speakers' remarks and
synopses of session participants' presentations.*

F o r e w o r d

As an undergraduate and graduate student, when I asked my professors about inequality, I was told, “Look at the work of Alfred Marshall” because Marshall had indicated that income and wage equality would eventually come about through the evolution of capitalist markets. The markets evolved, but the equality did not occur.

I was then told, “Well, if Marshall is not good enough for you, take a look how Simon Kuznets says income equality can come about.” We all know that this did not happen either. Any rise in equality has been only a temporary phenomenon occurring during full employment years. Inequality remains.

This conference represents the Levy Institute’s commitment to intensify its research in the area of the distribution of income and wealth. It was undertaken in conjunction with the University of Texas Inequality Project, headed by Senior Scholar James K. Galbraith, and supported by the Ford Foundation.

The conference was intended to provide an overview of recent work—measurements, methodologies, results, and hypotheses—on inequality in North America, Europe, the rest of the OECD, and the developing world. We brought together a group of distinguished researchers and specialists actively involved in investigating relationships between inequality and unemployment, economic growth, and economic development. We hope that this work will improve our understanding of the causes of inequality and point to public policy options to alleviate identified problems.

Dimitri B. Papadimitriou

President

Program

THURSDAY, OCTOBER 28: INEQUALITY IN THE INDUSTRIALIZED COUNTRIES

- 8:30–9:00 A.M. REGISTRATION AND BREAKFAST
- 9:00–9:15 A.M. WELCOME
Dimitri B. Papadimitriou, *Levy Institute*
- 9:15–10:00 A.M. KEYNOTE
James K. Galbraith, *Levy Institute; University of Texas at Austin*
“Keynesian Microeconomics”
- 10:00–10:30 A.M. BREAK
- 10:30–11:15 A.M. SPEAKER
Robert Z. Lawrence, *Council of Economic Advisers*
“Inequality in the U.S. Economy: The Recent Evidence”
- 11:15 A.M.–1:15 P.M. SESSION 1. INEQUALITY IN AMERICAN WAGES: SOCIAL AND
INSTITUTIONAL CHANGE
MODERATOR: James Lardner, *U.S. News & World Report*
PRESENTERS
Patrick L. Mason, *Florida State University*
“Racial Inequality and the Rate of Return to Skill, 1967–1988”
Thomas I. Palley, *AFL–CIO*
“Accounting for Income Inequality in the U.S.: The Role of Unions, the
Minimum Wage, Unemployment, Family Structure, and
International Trade”
Michael J. Handel, *Levy Institute*
“Is There a Skills Crisis? Trends in Job Skill Requirements, Technology,
and Wage Inequality in the U.S.”
J. Bradford Jensen, *Center for Economic Studies, U.S. Bureau of the Census*
“Understanding Increasing and Decreasing Wage Inequality” (Co-author,
Andrew Bernard, Dartmouth College and National Bureau of
Economic Research)
DISCUSSANTS
William Spriggs, *National Urban League*
Barry Bluestone, *Levy Institute; Northeastern University*

1:15–2:00 P.M. LUNCH

2:00–4:00 P.M. SESSION 2. INEQUALITY IN THE OECD
 MODERATOR: Bernie Wysocki, *The Wall Street Journal*
 PRESENTERS
 Lars Osberg, *Dalhousie University*
 “Long-Run Trends in Economic Inequality in Five Countries—A Birth Cohort View”
 Kevin Lang, *Boston University*
 “Hours Constraints: Theory, Evidence, and Policy Implications” (Co-author, Shulamit Kahn, Boston University)
 David R. Howell, *New School University*
 “Increasing Earnings Inequality and Unemployment in Developed Countries”
 DISCUSSANTS
 Thomas Ferguson, *University of Massachusetts Boston*
 Stephen Rose, *Educational Testing Service*

4:00–4:30 P.M. BREAK

4:30–6:30 P.M. SESSION 3. INEQUALITY AND INDUSTRIAL CHANGE: NEW PERSPECTIVES
 MODERATOR: James K. Galbraith, *Levy Institute; University of Texas at Austin*
 PRESENTERS
 Vidal Garza Cantú, *University of Texas Inequality Project (UTIP)*
 “Inequality in the NAFTA Region”
 Pedro Conceição, *UTIP*, and Pedro Ferreira, *UTIP*
 “Inequality and Unemployment in Europe: The American Cure” (Co-author, James K. Galbraith)
 Amy Calistri, *UTIP*
 “Interindustry Wage Structures: New Evidence from the OECD”
 (Co-author, James K. Galbraith)
 DISCUSSANTS
 L. Randall Wray, *Levy Institute; University of Missouri–Kansas City*
 Brian K. MacLean, *Laurentian University*

6:30 P.M. RECEPTION AND DINNER
SPEAKER: S Jay Levy, *Levy Institute*
“Grandma’s and Grandpa’s Poor Children”

FRIDAY, OCTOBER 29: INEQUALITY IN THE DEVELOPING COUNTRIES

9:00–9:30 A.M. BREAKFAST

9:30–10:15 A.M. SPEAKER
William Darity Jr., *University of North Carolina at Chapel Hill*
“Tracing the Divide: Intergroup Disparity across Countries” (Co-author,
Ashwini Deshpande, Delhi School of Economics and Carolina
Population Center)

10:15 A.M.– 12:15 P.M. SESSION 4. MEASURING INEQUALITY IN THE WORLD ECONOMY
MODERATOR: Ajit Zacharias, *Levy Institute*
PRESENTERS
Klaus Deininger, *World Bank*
“Asset Distribution, Inequality, and Growth” (Co-author, Pedro Olinto,
World Bank)
James K. Galbraith, *Levy Institute; University of Texas at Austin*
“Measuring the Evolution of Inequality in the Global Economy” (Co-author,
Lu Jiaqing, UTIP)
Robert Summers, *University of Pennsylvania*
“The World Distribution of Material Well-Being: Consumption, Private
and Public” (Co-author, Alan Heston, University of Pennsylvania)
DISCUSSANTS
Edward N. Wolff, *Levy Institute; New York University*
Paul Davidson, *University of Tennessee*

12:15–1:45 P.M. LUNCH
SPEAKER: Joseph J. Minarik, *Office of Management and Budget*
“Lessons and Implications for Policy”

1:45–4:00 P.M. SESSION 5. DEVELOPMENT STRATEGIES: SUCCESSES AND DISASTERS
 MODERATOR: Frances M. Spring, *Levy Institute*
 PRESENTERS
 Pan A. Yotopoulos, *Stanford University*
 “Free Currency Markets, Financial Crises, and the Growth Debacle”
 Junmo Kim, *Korea Institute of Public Administration (Seoul)*
 “Korea’s Experience with Heavy Industrialization: Evaluating the
 Past Policy with Wage Data and Its Implications for the Future”
 Nancy Birdsall, *Carnegie Endowment for International Peace*
 “Education: The People’s Asset”
 DISCUSSANTS
 Michael D. Intriligator, *Milken Institute; University of California
 at Los Angeles*
 Jan A. Kregel, *Levy Institute; UNCTAD*
 Robert A. Blecker, *American University; Economic Policy Institute*

4:00–4:30 P.M. BREAK

4:30–6:30 P.M. SESSION 6. POLICY ROUNDTABLE
 MODERATOR: Frances M. Spring, *Levy Institute*
 James K. Galbraith, *Levy Institute; University of Texas at Austin*
 Pan A. Yotopoulos, *Stanford University*
 Michael D. Intriligator, *Milken Institute; University of California
 at Los Angeles*
 Edward N. Wolff, *Levy Institute; New York University*

6:30 P.M. RECEPTION AND DINNER

Speakers

JAMES K. GALBRAITH

Senior Scholar, Levy Institute; Professor, Lyndon B. Johnson School of Public Affairs and Department of Government, University of Texas at Austin; Director, University of Texas Inequality Project

KEYNOTE ADDRESS

Keynesian Microeconomics

We have all been drawn here by our concern with economic inequality. Some of us are principally concerned with poverty and the relationship of economic inequality to the proliferation of the poor; some with inequality of genders and races, with discrimination; and some, at a more abstract level, with the role of altruism and interdependence in economic life. My own concern, as I have tried to express it in my book *Created Unequal*, is with the politics of economic inequality, with the tendency of highly unequal societies to fission, to split into distinct groups on any number of categorical dimensions, to identify themselves not as a single society but as separate societies, each with its own interests and each excessively jealous of its own share of resources.

Underlying these different concerns is the fact that inequality is a quintessentially American topic. It suffuses our political culture. Although often not at the surface of our politics, it is almost always just below the surface. Over the course of this century we have come to prize the self-definition of the United States as a middle-class democracy. For that reason, the rise in inequality, which began in the early 1970s and reached a crescendo in the 1980s, was a profoundly disturbing social event, something that has motivated all of us to take up this topic, which had lain fallow in economics for many years.

There are many ways of approaching the question of why that rise in inequality happened. Reluctantly, I have come to the conclusion that, in one respect, Robert Lucas was right: There is no viable distinction between macro- and micro-economics. The only question is which should give way and which should prevail.

The allocation of resources and the distribution of income have been for most economists, most of the time, a microeconomic topic, a matter of relative supply and relative demand. Most of the literature on the change in inequality in our time has been fixed within this framework. Economists have argued over the comparative effects of trade and immigration on the relative supply of skilled and unskilled workers and the effects of technology on the relative demand. But, I would suggest, without arguing it in detail, that this has been, broadly speaking, unsatisfactory. Some economists whom I admire greatly have worked as hard as they could on the question of effects of trade and those effects are certainly present, but they are simply not big enough to account for all or even most of the changes that have occurred. The prevailing model of skill-biased technological change has simply fallen short of satisfactory correspondence with the facts when one specifies the technological change, as many economists have done, as changes in information technology and computer use.

At this conference two traditions will be strongly represented. One emphasizes structure, institutions, politics, market power, labor organization, labor rents (particularly, industry-specific labor rents), and the distribution of monopoly and oligopolistic profits. The other is associated with the work of Simon Kuznets and John Maynard Keynes. It has been confined, for the most part, to development economics in our time. In this tradition, the degree of inequality is a macroeconomic variable associated with the level of income and changes in the degree of inequality are associated with changes in economic performance.

The theoretical underpinning of some of the work to be presented here is that these two perspectives can be fruitfully combined. Roughly speaking, structural forces (which are relatively stable) determine the ordering of incomes, and macroeconomic forces (such as aggregate demand, unemployment, exchange rates, and economic growth) are the forces that tend to drive changes in the shape of the distribution itself.

I want to stress that, taken together, these two traditions form a coherent view. They are rooted in

well-established traditions of theoretical economics, tracing back on the one hand to Keynes and on the other to Schumpeter primarily, but also to Joan Robinson, Michal Kalecki, and Karl Marx. The quest to refine this view has led me to propose a three-sector taxonomy for at least the advanced economies: a K-sector supplying capital goods and technology products, with rents determined mainly by the flow of investment demand; a C-sector supplying consumption goods, with rents determined mainly by the flow of consumption demand and distribution of market power; and a large S-sector supplying services, with wages driven largely by political and social factors, which can themselves be influenced by macroeconomic performance. This taxonomy may be considered as the elements of a basic Keynesian microeconomics.

This characterization is at a fairly high level of abstraction and a great deal of empirical work is still to be done. We have approached this task in two ways. One is the construction of long and dense time series measuring inequality, mainly in manufacturing earnings, using the between-group component of the Theil statistic. Our insight (and our contribution) simply consists in exploiting semiaggregated industrial data sets to compute estimates of the changing dispersion in a great many countries over a great many years.

There are undeniably limitations to this approach. We sacrifice range since we do not cover the whole economy in the way that a sample survey would attempt to do. We also sacrifice comprehensiveness since we do not cover all sources of income. But, there are advantages to this approach. By focusing on manufacturing earnings, we narrow our scope to precisely that area on which economic theory of inequality has focused. More saliently,

focusing on the manufacturing sector allows us to multiply the cases in time and across countries. This permits us to conduct comparative work to an extent that is difficult to achieve with other sources of data.

Our second approach to the empirical work involves empirical and numerical taxonomy. We are reorganizing industrial data using statistical methods to reveal the main patterns of evolutionary change in the distribution of pay through time. Once the main patterns are identified, we attempt to isolate the historical forces that have differentiated the paths of income of different industrial groups. Some of our results will be on display in the course of this conference. We think they are illuminating and hold the potential for simplifying our understanding of the process of industrial and technological and political change in a great many countries. Both approaches are, in short, useful tools, no more than that, for a Keynesian microeconomics.

In sum, the work on which I and my colleagues are engaged is rooted in a view of economics as an empirical science, concerned above all with the search for good or useful generalizations about important policy topics. Inequality is such a topic, as is unemployment, growth, and price stability. I know that many of you who will be presenting work here bring other perspectives, other sources of data, and other methods to the table. Yet, I believe that we all share three beliefs. First, the study of economic inequality is properly and necessarily empirical; it requires a foundation in measurement and in fact. Second, it is an important and worthy focus for our work. Third, if something can be done to limit the rise in inequality and to restore the sense of ourselves as a progressive, substantially middle-class democracy, then we should probably do it.

S JAY LEVY

Chairman, Levy Institute

Grandma's and Grandpa's Poor Children

The maldistribution of income in the United States and in other highly developed economies is not a new phenomenon. For those of us who grew up in the depression years, it conjures up visions of Georg Grosz drawings of overweight plutocrats within the paneled walls of an affluent club, with cigars in one hand, champagne glasses in the other, and mounds of caviar before them, while undernourished children beg for bread outside.

The plutocrats' counterparts today—Bill Gates, Tiger Woods, Madonna—may not look like the Grosz characters, but some of them do spend vast sums on their personal consumption (although some are more modest). However, some observers of the American scene today criticize them not for consumption but for being workaholics, for being slaves to work, which allows them little time for spending and enjoying their more than ample purchasing powers.¹

If we do not blame our wealthiest citizens for depriving workers, who are the villains? Seemingly, no one wants to point a finger at *the* group that is to blame for wage earners' loss of income over the past two decades. Retirees, those pleasant gray-haired folk who no longer produce much, have been consuming a growing piece of the total economic pie; their slice increased 85 percent (measured in 1992 dollars) from 1980 to 1997. They took so much that even though workers did eke out a rise in their piece of the pie, that rise was only less than 1 percent and many of them suffered a considerable decline in standard of living. Particularly affected were workers in the two lowest income quintiles.

No one has an interest in blaming dear old grandma and grandpa for a crucial inequity in our land—least of all me. Who wants to say to grandparents, “Your lifestyle is too luxurious,” especially when most persons of working age are looking ahead to a comfortable and pleasant retirement? Also, those old folks are shrewd; they vote. For an elected or would-be elected official to point to their rapidly expanded consumption as a burden on workers would be political suicide. Better to blame free trade, high taxes, or inept public schools.

The Retiree Population

I am designating people 65 years of age and older as “retirees” and those 64 years and younger as “workers.” This categorization is rough—over 3.5 million people who have celebrated their 65th birthday are working and more than 5 million people who have retired are on the young side of this age boundary.

According to the Bureau of the Census, the decade and a half following 1980 witnessed rapid growth of households headed by a person 65 and older. These “retiree” households increased in number considerably faster than the “worker” households, those headed by a person 64 or younger. From 1980 to 1994 the older households increased 26.3 percent and the younger households 18.6 percent. These household trends closely parallel population trends. The 65 and older group increased 29.0 percent and the 18-to-64 group 15.6 percent.

I have concentrated on households and what the Bureau of Labor Statistics calls “consumer units.”² In 1997 there were 103 consumer units for every 100 households. One reason consumer units outnumber households is that they include many financially independent older people who share premises with one of their adult children or some other person who is the nominal householder. The data on consumer units provide an opportunity to observe not only the income but also the expenditures of the worker and retiree segments of the population.

Grandparent households a quarter of a century ago frequently lived below the poverty line. Such a sorry state has become relatively rare. Many smug geezers now sit at the nineteenth hole, guiltlessly sipping margaritas and martinis with no thoughts about being members of a leisure class that lives off the labors of workers. Our society cheerfully grants a license to exploit the working class to anyone who had been a member of that group for, say, 30 years. The term “rentier” is somewhat pejorative where I come from, so I will not say that we now have an enormous, largely new rentier class.

One indicator of the number of retirees is the number of people receiving Social Security old age benefits. This number has been larger and growing faster than the number of 65 and older households and consumer units; it increased 39.4 percent from 1980 to 1997. Yet a count of retirees would considerably exceed the number of Social Security beneficiaries. Many people retire before they reach 62, the age at which they become eligible for Social Security benefits. An insight into the number of early retirees

can be had by comparing labor force participation rates for different age groups. In 1997 the rate drops from 82 percent of the 45-to-54 age group to 58 percent for the 55-to-64 group. Based on this decline in labor force participation, 5.3 million persons aged 55 to 64 were retirees—consumers but not producers.³

Because of the absence of data on both the incomes and expenditures of Social Security beneficiaries, this appraisal concentrates on households and consumer units. The figures derived from the use of these two categories, which undercount the actual population of retirees, understate the cost to active workers of producing for retirees.

Because I am focusing on consumption rather than on income and wealth, I am not concerned with such calculations as the value of imputed interest income, fringe benefits, stock options, perquisites, and bequests and other transfers of assets. At one point, however, I do use income as a proxy for consumption in order to check on consumption data in a way that I believe is reasonably valid.

The Puzzling Loss of Workers' Purchasing Power

Someone hearing complaints about workers' pinched living standards might be unaware that increasing quantities of goods and services were available to the nation's consumers during the period under observation, 1980 to 1997. How these goods and services were distributed is the real concern. Indeed, the two most notable developments were the expanding size of the economic pie and the expanding size of retirees' slice. The growth of their slice was tantamount to a significant "tax" on nonretirees, which has fallen especially heavily on lower-income workers. A large portion of retirees' consumption is health care, and since most of their health care is paid for by the federal and state governments, this "tax" on nonretirees is not just a figure of speech but often an actual out-of-pocket cost.

From 1980 to 1997 the real wage of a typical employee paid by the hour declined, both before and after federal income and Social Security taxes. This decrease in purchasing power is the puzzle occupying us today. Rising productivity should have been raising the standard of living of workers generally during the 1980s. The gain in manufacturing productivity was especially gratifying. It explains why consumer goods output, as measured by the Federal Reserve index, rose at an average pace of 2.5 percent

a year from 1980 to 1997, an overall increase of 51 percent.

Even the trade deficit, a seriously burdensome drain of jobs and profits from the economy and a still unresolved and intensifying problem, brought a benefit to consumers. After 1980 consumers were the recipients of a substantial net inflow of goods from abroad. Data from the national income and product accounts (NIPA) on merchandise exports and imports indicate that real net imports of consumer goods more than doubled from 1980 to 1997. The volume of what the NIPA terms "consumer goods" rose 466 percent (in 1992 dollars) over the 17 years. Because the NIPA category does not include foods, automobiles, and petroleum (much of which are consumer products), it exaggerates the net imports of consumer goods.

The question then is, Why did working consumers' purchasing power decline despite the enormous increases in the supply of domestic and imported goods? Studies of the government policies of the 1980s other than taxation and of the widening wage and salary gap between lower- and higher-paid personnel do not yield a satisfactory explanation for the loss of real income by the majority of wage earners. Two hypotheses could explain this phenomenon. (1) The data may be so faulty that they lead to false conclusions. Vibrant debates in recent years have concerned the accuracy of the price indexes that are employed to give us real income data. (2) To a growing degree, goods and services were not available to their producers, to the workers who created them, but were floating away unnoticed into other hands—there was a leak!

I have indicated that a good place to look for the "leak" of goods and services away from wage and salary earners is retiree households. Those respectable and respected goldbricks, grandma and grandpa, were enjoying more and more of those homegrown and foreign products. Relatively few people aged 65 and older are full-time workers and most of them are not part of the labor force. Persons in that cohort constituted 2.9 percent of the labor force in 1997 and 16.5 percent of the noninstitutional population aged 16 and older.⁴ Both their number and their real per capita income have been rising during the past two decades at rates considerably faster than those of the rest of the adult population.

The declining purchasing power of the lower-income half of the population was, to a large degree, the result of the rising consumption of the

retiree cohort. Jamie Galbraith, Bob Lawrence, and others noted this morning that around 1994 the purchasing power of workers and the distribution of wage income improved. By peculiar coincidence, that was when the growth of the retiree population slowed.

The Cost of Supporting Retirees

Between 1980 and 1993 the increasing share of the economic pie consumed by people 65 and older significantly depleted the portion left for younger households. By 1993 the older cohort's 13-year gain amounted to a substantial cost to the average younger household—an estimated \$2,307 (in 1992 dollars) annually, based on the rising consumption of retiree consumer units. This burden on the working cohort was \$2,991 if we base the population of retirees on the number of Social Security beneficiaries. However, as I mentioned, the actual count of retirees exceeds the count of former workers who receive Social Security benefits, so the cost of the retiree cohort to active workers was actually over \$3,000 a year.

If we look at discrepancies in the growth of income rather than at consumption, the “leak” from wage earners to retirees seems even larger. Census Bureau data show that the total income of retiree households, with net Medicare benefits (payments less premiums) included, increased 87 percent (in 1992 dollars) from 1980 to 1997; the total worker household income rose 52 percent. From this perspective, the retiree cohort took 16 percent of the average worker household's income in 1980 and 20 percent in 1997. The increase in the retiree households' real income over the decade had the same effect on the worker households' income as a tax increase of 3.7 percent would have had. Based on this analysis, the increasing income of retirees cost workers \$3,270 (in 1992 dollars) in purchasing power in 1997 compared to 1980. If workers had kept the aforementioned \$3,000 or the \$3,270, the performance of our economy would have justified a notion that we had reached the end of economic history.

Once upon a time, when grandpa and grandma could no longer support themselves, they typically moved into the home of one of their children. The persons who were wholly or partially supporting aged parents were well aware of the cost. Feeding, clothing, and sheltering parents took a large chunk of the household budget; paying parents' doctor and hospital bills often caused a family budget crisis.

Today Social Security and pension plans enable older people to live in separate dwellings, often in some inviting climate and far from their offspring. Medicare and Medicaid pay most of their health care expenses. But their comfort is still costly for working men and women.

Many contemporary households include two adults who work hard to maintain what they regard as a satisfactory standard of living, who anxiously seek day care for their small children, and who spend little time worrying about the economic well-being of their parents. They have no notion that they are paying for their parents' food, clothing, shelter, amenities, and especially their health care. Yet those who produce little or nothing and consume goods and services of substantial value are consuming what active workers are producing—leaving less for the latter. The financial flows that cause such a phenomenon may provide an ethical basis for this distribution of consumption, but they do not alter the fact.

The task of measuring the distribution of consumption between workers and retirees is not a wholly gratifying one. Claiming that grandma and grandpa are depriving their progeny of the nice things in life evokes reactions similar to those engendered by attacks on motherhood. Nor is the task a simple one. Grandparents may contribute to their grandchildren's education and in other ways subsidize younger generations, and offspring may assume some of the expenses of their elderly parents. Many intergenerational transfers are not visible in the consumption data. For example, grandparents may provide child care and do household errands and chores. Adult offspring frequently care for ill or infirm parents. The exchange of services between generations complicates the question, Is the economic pie distributed equitably and ethically between retirees and workers?

Providing health care for the elderly would seem a *prima facie* ethical imperative unless doing so deprives young children of such services. About two-fifths of the consumption of the retiree households is categorized as being for health care,⁵ but “health care” is not clearly definable. About one-fifth of those expenditures is for nursing home care, which includes food and shelter. Food and shelter are essential for health, regardless of age, but no one claims that a hamburger at McDonald's or an omelet at home is health care. Working in a gymnasium under the supervision of a registered physical therapist is health care, but the purchase of a treadmill for home exercise may be regarded by statistical

authorities with a bent toward ghoulishness as a recreation and entertainment expenditure. Another question is, What portion of investment in new hospitals, nursing homes, medical schools, and medical research and development should be considered costs chargeable to people who may not live long enough to benefit from them?

The real cost of retirees to workers from 1980 to 1997 would have been less if the output of consumer goods and services had increased at a faster pace. Greater productivity, higher employment, or both—higher output—could have mitigated the decline in standard of living. However, I am concentrating on what occurred, not on what might have happened.

Expenditures for goods and services, including those paid for by Medicare, by the average retiree consumer unit rose \$8,767 (in 1992 dollars), from \$20,184 in 1980 to \$28,951 in 1997—an increase of 43.3 percent.⁶ During the same period expenditures of the average worker consumer unit increased \$2,166, less than 8 percent.

The gain for the retirees reflected an increase in their consumption of the goods and services produced by the workers. Conversely, workers were losing a growing volume of the goods and services that they were producing—a “leak” of expanding volume. In 1980, 17.4 percent of the average worker consumer unit’s output was consumed by retirees; by 1993 this percentage had risen to 22.4. This percentage changed little in the subsequent four years; it fluctuated a trifle and was 22.6 in 1997. Not surprisingly, this stability occurred when the retiree population ceased increasing relative to the working population. The population 65 and older was 18.7 percent as large as the 18-to-64 population in 1980. This percentage was 20.7 in 1993, 20.8 in 1997, and 20.6 a year later.

The working population in the 1980s was not uniformly affected by the retirees’ growing share of the economic pie. Economists, sociologists, and observers generally have recognized and have been pondering the implications of the growing disparity in compensation between those whose occupations demand considerable skill, education, or both and the rest of the active labor force. Although retirees’ growing share is a major cause of the stagnation in the standard of living of employees generally, some workers, by dint of guile or other skill, succeeded in shifting the burden of retirees’ consumption onto those with few skills.

Part of our economy’s relative increase in the demand for lower-paid service workers may be attributable to the growing elderly population. Older people seek more personal services than younger people, services that in many instances can be provided by persons with little skill or education. At the same time, older people buy relatively fewer automobiles and, perhaps, other products that require well-paid, skilled personnel to manufacture.

The Imperative: Vigorous Growth of Robust Enterprises

Analysts have long been appalled at the prospect of a disproportionately large retiree population relative to the worker population that is expected when the wave of baby boomers reaching retirement age crests in 2025. However, the United States and, indeed, other industrialized nations should recognize that the problem is not new, something that will burst upon us a quarter of the way into the next century. To a disturbing degree, it has been with us since 1980.

The good news is that the retiree population will grow no faster than the working-age population between now and about 2015. Assuming reasonable prosperity and rising productivity, the purchasing power of workers, even of low-paid service personnel, should grow during the next decade and a half. But farther ahead lies belt-tightening and turmoil. According to the Census Bureau’s intermediate projection, the population of persons 18 to 64 will increase less than 5 percent between 2015 and 2030. Meanwhile the 65 and older population will burgeon; it will grow almost 55 percent. Nothing like these population changes has ever occurred.

The difficulty of baking a big enough pie with a virtually stagnant labor force and a burgeoning nonproducing population cannot be overcome by strengthening Social Security and encouraging baby boomers to save for their retirement. We might augment the working population through immigration, but there seems to be little chance of that. Because the ratio of retirees to workers will remain pretty constant between now and 2015, there will not be any pressure from shortages of workers, at least arising from demographics, that might influence politicians to relax immigration barriers. And we may be able to continue or accelerate gains in productivity. Some people at this conference have suggested that we are on the verge of a new wave of gains in productivity, but

I'm skeptical. So, I think there will be a real problem. Some of the younger people here perhaps can solve it. But in any case, it seems to me that we have not reached the end of economic history.

Notes

1. Juliet B. Schor, *The Overworked American* (Basic Books, 1991).

2. Some households consist of more than one consumer unit. The Bureau of Labor Statistics defines a consumer unit as "(1) all members of a particular housing unit who are related by blood, marriage, adoption or some other legal arrangement such as foster children; (2) a person living alone or sharing a household with others, or living as a roomer in a private home, lodging house . . . but who is financially independent; (3) two or more unrelated persons living together who pool their income to make joint expenditure decisions. Students living in university-sponsored housing are separate consumer units."

3. Howard N. Fullerton Jr., "Another Look at the Labor Force," *Monthly Labor Review*, November 1993, 31 ff.

4. Fullerton, "Another Look at the Labor Force"; Bureau of Labor Statistics, *Employment and Earnings*, Current Population Reports, January 1998.

5. Bureau of Labor Statistics, "Consumer Expenditure Survey, 1987" and Daniel R. Waldo, Sally T. Sonnefeld, David R. McKusick, and Ross H. Arnett III, "Health Expenditures by Age Group, 1977 and 1987," *Health Care Financing Review, Health Care Financing Administration*, Summer 1989, 111 ff.

6. Net Medicare benefit payments are added to the Bureau of Labor Statistics data for this cohort's expenditures. Medicare is for persons eligible for Social Security; it is essentially a "retiree" program. Medicare benefit payments are not included in consumer unit income or expenditures. Funds that benefit consumers from many government aid programs, for example, unemployment compensation, public assistance, and food stamps, are included in income and are reflected in expenditures.

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Tracing the Divide: Intergroup Disparity across Countries

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I want to begin by talking about Theil's T-index and use that as a springboard to get into some of the issues I want to pursue. The T-index has some attractive decompositional properties, and they have been exploited to good effect by Jamie Galbraith and his international inequality research team at Texas. The decompositional properties have allowed Jamie and his research team to construct an alternative and more complete time series of estimates of variations in inequality in a variety of countries. This has been accomplished by considering interindustry variation in wages and by lopping off the within-industry component of wage variation in the T-index so as to arrive at a lower-bound estimate of dispersion in each of the countries that they investigate.

I would like to suggest a different application of the T-index. Instead of focusing on manufacturing variations in compensation, we consider the T-index from the perspective of variations in income or earnings across the major racial and ethnic groups within a given society. On the assumption that the identity of these groups is understood within the norms and conventions of the society in question, the T-index can be interpreted as providing a decomposition of the degree of general inequality in a society into two major components: the degree of disparity between groups and the degree of disparity within groups.

I am interested in the causal relations attributable to the T-index. If we read causation from right to left with the T-index, the extent of intergroup disparity shapes the degree of general inequality in the society. This view would make the racial or ethnic divide the deep structure driving social inequality. Intergroup cleavages would condition the overall degree of dispersion and rewards across the population, suggestive of the fundamental role of group affiliations as primary in our understanding of inequality. This may or may not be given an atavistic or even a primordial tone.

If causation is read from left to right, the degree of general inequality in the society can be viewed as

shaping the extent of disparity across the groups. Indeed, it is conceivable that the more unequal the overall distribution of income in a country, the greater the gap between its racial or ethnic groups. If rewards and benefits are hierarchically distributed across the entire occupational or social structure, there may be a greater incentive for specific groups to try to capture and hold the preferred positions. From this perspective, which is fundamentally a materialist one, racial or ethnic differences matter because class differences matter.

There are some grand questions that could be posed. Is it group difference or the level of stratification across a population that is more decisive in shaping economic disparity? Does a higher degree of intergroup inequality necessarily produce greater levels of general inequality, or is the higher degree of intergroup inequality mitigated by lower levels of within group inequality? Does a higher level of general economic inequality produce greater levels of intergroup inequality?

To add to the complexity, intergroup and intra-group variation may not operate independently. For example, an intergroup gap may prompt the implementation of a social program to redress it, which, in turn, may disproportionately benefit a comparatively well-positioned minority of the target population. In principle, the social program may reduce intergroup dispersion while accentuating intragroup dispersion in the target population.

This is precisely the charge that has been made about the operation of affirmative action on behalf of the native Malay ethnic majority in Malaysia. A numerical majority in a parliamentary democracy, the lower-income native Malays (relative to a large Chinese ancestry minority and a smaller East Indian minority) were able to inaugurate an ambitious affirmative action program called the New Economic Policy (NEP) on their own behalf in 1970, after the race riots of the late 1960s. Aznam and McDonald (1989) observed after 20 years of the NEP that "Education has been the least disputed success story of the NEP's socioeconomic restructuring" and that there was "a growing dichotomy within the Malay community between the English-educated urban born-and-bred and the Malay-educated recent arrival to the towns."

Sundaram and Shari (1985) and Nesiah (1997) echoed similar concerns, but T-index and Gini index measures of the size distribution of household income, based upon official statistics, do not display a markedly higher degree of inequality within the

native Malay (or “bumi”) population prior to or shortly after the adoption of the NEP. The same data indicate a general rise in inequality throughout the entire Malaysian population between the late 1960s and early 1970s, although such a general rise is not apparent in the Theil lower-bound estimates for inequality using wage data following the Galbraith approach. In the latter data set, the level of general inequality appears to decline slightly between 1970 and 1980, with slightly increased inequality evident only toward the end of the 1980s.

The Malaysian case poses a problem of the different implications of different data sets. Official data indicate a progressive closing of the gap between Malays and Chinese in terms of household income and male earnings between 1970 and 1988. However, evidence from retrospective work histories in the Second Malaysian Family Life Survey, taken in 1988 and 1989, indicates exactly the opposite pattern over the course of the NEP—a widening gap in male earnings with Malay men falling sharply behind Chinese men and mildly behind East Indian men. John Gallup (1997) finds there is no basis for reconciling the findings unless one is to believe that there are racial differentials in the accuracy of retrospective reports on earnings with systematic underreporting by one group and/or overreporting by the other.

At first glance, the United States may provide a superior example of decreased intergroup disparity coupled with increased intragroup disparity resulting from an affirmative action program. By any measure, the United States experienced a significant increase in the degree of general inequality between 1970 and the early 1990s. This rise is readily detectable with Galbraith’s estimate of the T-index and the Gini ratios reported by the U.S. Department of Commerce. Galbraith does not compute the T-index by race. In *Created Unequal*, Galbraith (1998) explicitly forgoes an investigation into racial, ethnic, or gender disparity with the observation that “Most of the movement in the wage structure, and most of the increase in inequality, would have occurred in the absence of a single working woman or black or Hispanic citizen.” The official Gini ratios, however, are reported by race, and they demonstrate a rise in inequality for both whites and blacks, with a more pronounced rise for blacks. The Gini ratio for white money income rises from 0.383 in 1969 to 0.444 in 1993 and for black money income from 0.411 in 1969 to 0.484 in 1993. This is a fairly spectacular increase in inequality in the United States.

But the part of the story that does not hold is the convergence, or the alleged convergence, in income or earnings between blacks and whites over the corresponding interval. Although a claim can be made that the interracial gap in earnings narrowed throughout the 1970s, in the aftermath of antidiscrimination legislation and the adoption of affirmative action measures, there is no doubt that the gap widened in the 1980s, and there is no strong evidence of renewed narrowing in the 1990s. Thus, for the last 20 years we have had rising intergroup inequality across blacks and whites and rising intragroup inequality for both blacks and whites.

Galbraith observes that this does not necessarily mean that affirmative action has failed. The story about program impact is potentially more complicated. In *Created Unequal*, he says: “Because affirmative action addresses placement and not structure, even a successful affirmative action program is not inconsistent with rising inequality between groups. The average wage of African Americans can fall relative to that of the white population, even while black representation in higher professions improves. This can happen because rising inequality generally drives down the relative wage of the majority of African American workers, who remain in occupations for whom affirmative action provides no meaningful relief or in industries that are losing ground in domestic and international markets. In fact, this is precisely what has occurred. The major changes in the manufacturing wage structure since 1970 have been catastrophic for high school educated male workers, a category covering a large part of the African American labor force. The decline in the relative wages of this large group and its black members swamps the effect of increasing average education in the African American population.”

Galbraith plainly sees changes in the degree of general inequality as moving relatively independently of the degree of intergroup disparity and thereby driving the changes in intergroup disparity. He is reading causation from left to right with the T-index decomposed to account for group differences in income. I presume he would make a similar argument about the pattern of events in Malaysia, if we had confidence about what they actually might be.

Galbraith and I share the view that preexisting structures of hierarchy tend to promote group rivalries for control over the social spoils and that macroeconomic changes will, of course, affect which groups are comparative winners and losers. But

there is an independent salience of group affiliation and allegiance that is lost in Galbraith's perspective.

For example, the persistence of the ancient Hindu caste system in India suggests that there, and elsewhere (including the United States), not to view group differences as playing a key role in structuring the degree of general inequality is to miss an important part of the story. It is fairly obvious in a country like Guyana in which there is a fairly even numerical divide between its two major ethnic groups (African ancestry and East Indian ancestry) and political parties have parallel ethnic constituencies. Whichever party wins the election gains a measure of control over the state and the attendant system of spoils, thereby dictating directly changes in intergroup and intragroup distribution of income, hence changes in the degree of general inequality. Henry (1989) has argued that in ethnically plural societies in which control over the state is intimately linked to income distribution, the old-fashioned Kuznets inverted U is rendered irrelevant; if anything, there may be a series of inverted U's alternating with the electoral cycle, simultaneously changing between group and within group inequality.

In India, with its more complex ethnic divisions, intergroup disparity is multifaceted and is bound up with historical conflict in all its manifestations. In addition to the caste system, there is the divide between Hindus and Muslims. Although I am aware of this greater range of group divisions in India, I have chosen to focus on intercaste disparity. The focus is motivated by the existence of a system of affirmative action (or "compensatory discrimination") that some refer to as the reservations system. This system is intended to favor the former untouchable castes, called the scheduled castes (SCs) in official terminology (owing to their appearance in a government "schedule" that identifies them as the beneficiaries of the program). They constitute 16 to 17 percent of the Indian population. In addition, some tribal groups, called scheduled tribes (STs), who constitute 6 to 7 percent of the population, are considered sufficiently marginalized to warrant special government action for their "upliftment."

Hindu society (roughly 85 percent of Indians are Hindus) historically has been divided into a hierarchical caste system that has evolved over the years from a relatively simple varna system to a more complex jati system. The varna system divided ancient Hindu society into five mutually exclusive, endogamous, hereditary, occupation-specific groups with a clear hierarchical ranking. The

varna affiliation determined all aspects of a person's existence, including interaction with members of other varnas. The jati system shares some of the basic characteristics of the varna system, but the sheer multitude (estimates suggest there are two to three thousand jatis) makes interaction between jatis considerably more complex. Also, jatis are not clear subsets of varnas and thus it is not uncommon to find jatis claiming a varna status that might be disputed by other jatis. This complicates any neat route to ranking the jatis systematically, assuming such a task is possible at all.

But whether it is the varna or the jati that is the frame of reference, in all its manifestations, the bottom rung of the caste system consists of the Sudra and Ati Sudra varna and their numerous jati counterparts. All menial tasks have been their "preserve." Deprived of decent education and a dignified means of earning a living, they have been subject to deprivation, discrimination, abuse, humiliation, and violence. A substantial number of these castes remain targets of the most degrading practice of untouchability, shunning by higher caste groups and forced segregation. In the past, even the shadow of an untouchable was considered polluting by higher-caste Hindus. Although formally abolished with the adoption of independent India's new constitution in 1950, the practice of untouchability continues, especially in rural India. Deprivation and discrimination continue.

The Indian government system of compensatory discrimination assigns 22.5 percent of government jobs, seats in educational institutions, and elected offices at all levels to SCs and STs. This is a constitutional commitment in India. The justification for such a policy can be found in the sustained economic and social backwardness of SCs and STs. With respect to SCs, 48 percent work as agricultural laborers, compared with 25 percent of the general population; less than 1 percent make it to professional and technical jobs; 57 percent have no schooling, compared with 35 percent of the rest of the population; 61 percent own no land and the bulk of the remainder own less than 5 acres.

One could easily conclude that 50 years of constitutionally mandated affirmative action in India has not had much effect. Raman (1995) and Nesiiah (1997) detail the poor track record of SC/ST recruitment in public employment. Also, as Galanter (1997) comments, while "preferential treatment has kept the beneficiary groups and their problems visible to the educated public, it has not stimulated widespread concern to provide for their

inclusion apart from what is mandated by government policy. . . . [T]his lack of concern is manifest in the record of private sector employment [where the reservation system does not apply].”

There is also the larger question of whether affirmative action has succeeded in integrating the most marginalized groups into the mainstream. Galanter notes that increasing SC presence in jobs and employment will eventually “weaken the stigmatizing association of SC and ST with ignorance and incompetence, but in the short-run they experience rejection in offices, hostels, and other setups into which they are introduced by preferential treatment. Resentment of preferences may magnify resentment to these groups, but rejection of them obviously exists independently of compensatory programs.”

In an exact parallel with the United States, where the assertion is frequently made that affirmative action has given “unqualified” blacks access to positions they would not otherwise hold, the question of access for those who are patently competent in the absence of affirmative action is not addressed by these critics. There is an implicit presumption that conditions without state intervention on behalf of the disadvantaged group necessarily would be fair and nondiscriminatory. But the universal persistence of racial and ethnic discrimination in labor markets in countries at all levels of development is a striking stylized fact of the modern world in the presence or absence of programs of redress for groups with inferior status.

Indeed, I am struck by Gallup’s (1997) findings of the presence of significant levels of discrimination adversely affecting the earnings of native Malay males in their contemporaneous reports on earnings despite the presence of the NEP and a high degree of native Malay control over civil service positions. Similarly, Treiman and his co-authors (1996) find, using 1980 and 1991 data, that high levels of discrimination reducing the relative earnings of blacks in apartheid South Africa despite mean average levels of schooling among blacks so low (3 years in 1980 and 4.5 years in 1991) that the need for market-based discrimination by whites to achieve exclusion would seem to be altogether unnecessary. In Brazil significant discriminatory losses for blacks and mulattos have been identified (in results derived from a 1995 survey of urban workers) despite the absence of any historical structure of legally mandated segregation or exclusion and the presence of a comparatively market-oriented economy. Moreover, there is no systematic empirical evidence to suggest that

measured degrees of in-market discrimination tend to decline over time or with economic growth. “Rejection” of the out-group would exist “independently of the compensatory program.” I doubt there would have been any improvement at all in the status of the SCs and STs in the absence of the reservations system.

Critics of affirmative action in India typically ask if the program has penetrated sufficiently deep to reach the landless majority in the villages, or has it succeeded only in creating an SC middle class that disproportionately corners the benefits of the program. Evidence on this “creaming” process in India is inconclusive. Regardless, a proper evaluation would have to be made in the context of the disproportionate impact of the development process in general and the consequent effect on intergroup and overall inequality. The same logic applies to evaluation of the alleged adverse efficiency effects of Indian affirmative action. Reservations often are seen to be responsible for lowering quality in educational institutions or performance in the workplace, but this argument assumes that both quality and efficiency in nonreserved positions are optimal or desirable. The implicit assumption is that those positions are held on the basis of pure and unvarnished merit rather than through the nepotistic connections of members of the privileged groups. Indeed, one of the ironies of this process is that the mediocre among the privileged groups tend to be the most opposed to affirmative action, in both India and the United States.

A few points are worth mentioning here. As I observed a moment ago, there is no private sector intervention officially mandated through the scheme of reservations in India. Moreover, there is some experience with reservations that predates the constitutional adoption of 1950 because individual Indian states could adopt reservations earlier and some did. The most notable is Kerala in southern India.

Malaysia’s program has probably had the most dramatic success, even though *The Wall Street Journal* at one point called it the greatest affirmative action failure in the world. It has succeeded in terms of achieving an interracial redistribution of wealth. One of the dimensions of the Malaysian program is to increase the portion of Malaysian corporations owned by native Malays. Circa 1970 about 2 percent of the shares of Malaysian corporations were owned by native Malays; by 1990 it was 20 percent or higher. How do you accomplish this? First, by

being a political majority that is at a disadvantage. Second, by being in an economy that is growing so rapidly that the value of corporate shares is going up so much that the portion of shares owned by Chinese also rises slightly over the same interval of time. The gain for both the Malays and the Chinese was at the expense of the share going to foreigners.

The whole question of reparations and redistribution of wealth on a racial basis in the United States is something that is continually ducked. Discussions at conferences like this tend to emphasize income and not wealth. And it is going to be interesting to see if Deininger's presentation on assets today really begins to move our discussion closer to addressing wealth inequality.

There are two other factors that complicate the debate over the Indian system of affirmative action. One of these comes from the macroeconomic situation that Galbraith emphasizes. The process of liberalization and privatization since the early 1990s has meant that in the future government jobs are likely to grow more slowly, if at all. Funding constraints mean that the rate of growth of government-sponsored educational institutions is also likely to be slower. As a result, two of the three arenas of affirmative action are going to be weakened as a means of equalizing opportunity. The third is the parliamentary system.

Second, in 1988 the long-pending Mandal Commission report, which recommended similar reservations for "other backward castes" (OBCs) was implemented. The announcement of its implementation resulted in one of the worst episodes of antireservations violence in recent times. In addition, fundamental upper-caste opposition to caste-based reservations surfaced openly with standard questions: Should caste be used as an indicator of backwardness, or should educational and social deprivation be measured independently of caste status? Should reservations be time bound or allowed to extend indefinitely? What if the beneficiaries exceed a certain income limit? Do not reservations fossilize cast divisions and actually create castism?

The echos from opponents to affirmative action in the United States and Malaysia are astonishing. They ask: Should affirmative action be race based or class based? Should affirmative action have a time limit? Should the benefits of affirmative action go to middle-class blacks (or middle-class Malay?) Does affirmative action consolidate

race consciousness rather than move us toward color-blindness?

Of course, the last question inverts the circumstances that necessitated the introduction of remedies for racial or ethnic disparity in the first place. Atavistic or not, in the presence or absence of remedies for intergroup inequality, the maintenance of dominant and subordinate status between groups has a universality that suggests to us the need to consider the right-to-left reading of causation in the T-index at least as seriously as the left-to-right.

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Inequality in the U.S. Economy: The Recent Evidence

I would like to present a view more current than is customary for intensive economic analysis. I do so because I want to suggest that many issues explored in academic literature, while relevant to the global situation of the 1980s, may not be as relevant to that of the 1990s. It therefore behooves us to look closely at more recent evidence to answer questions about the nature and causes of inequality in the U.S. economy.

From 1979 through the early 1990s, the inequality story is a familiar one. Regardless of whether we array data by household, by earnings decile, or by indicators of skill and education, the data suggest that in the United States the more advantaged did extremely well and the less advantaged did particularly poorly. In addition, average real wage growth in the United States was extremely sluggish; some measures, such as average hourly wages, showed actual declines over the period.

Many explanations might be offered to account for this, but three dominate the discussion. The first is the force of technological change: an acceleration in what economists call skill-bias technological change; that is, the demand for workers is disproportionately biased toward the more highly skilled. According to this view, this acceleration is attributed to increased computer use and sometimes to new management approaches that emphasize lean production techniques.

A second source of change is global forces. In the 1980s the United States ran large trade deficits, and the degree to which developing countries participated in trade with the United States increased. In theory, trade liberalization in developing countries in particular could have had the effect of increasing inequality in the developed countries. In addition, some believe that globalization actually weakened the bargaining power of labor in the United States economy.

The third source of change is institutional, such as the declining role of unions in the economy and deregulation.

Sources of change may be interrelated. For example, trade stimulates technological change, and trade could affect the weakening of union bargaining power. Instead of separating these sources, as is often done, it is perhaps more important to recognize that there was a nexus of forces that operated during the period and that these sources can be seen as the major contributors to changes in inequality.

What has happened to inequality during the past five years? What evidence could we amass to analyze how the three sources developed and contributed to inequality? I will look at the three sources of change, then will turn to the consequences of those changes: Did these sources, which are seen as the major explanatory variables in the 1980s, have the same effect during the last five years? Finally, I will reflect on what I have discussed in the first two parts of the talk.

The Sources of Change

We begin with trade. The picture of the trade deficit reflects the Asian crisis and, in 1997, a major increase in the trade deficit. A second related phenomenon is the trend in internationally traded goods prices, especially for imported oil, which have fallen relative to the core consumer price index. Clearly, the evidence shows low import prices.

International trade will have a large negative influence regardless of whether pressures from trade are measured by quantity or price. A potential explanatory variable will be that the prices of goods from developing countries will have fallen more than they have domestically, thereby putting downward pressure on relatively labor-intensive industries.

We tend to think that imports from developing countries would reflect that their products require relatively less-skilled labor than products from developed countries. Yet the prices of manufactured goods from developed and developing countries show that prices of imports of manufactured goods from both are down. The evidence, then, shows relatively low import prices, and particularly low prices for products from developing countries. Indicators therefore suggest that trade is putting downward pressure on industries that are relatively labor intensive.

The second driver in the picture is technological change, of which one indicator is the productivity rate. Over the past three years, there has been

a noteworthy acceleration in productivity growth. Business sector productivity was up 1.5 percent in 1997, 2.4 percent in 1998, and 3 percent in the year preceding the middle of 1999. Therefore, we can see clear signs of an acceleration in technological change if it is measured by productivity. If we insert a growth trend line of 1.3 percent going back to 1973, we see that productivity was slow to recover and was not that strong in the first part of the recovery, but that now productivity growth is well above where it was earlier in the cycle.

One factor driving productivity growth is extremely strong business fixed investment. Business fixed investment, as a share of GDP, increased a bit in nominal terms and makes up an extraordinarily high share of GDP in real terms. If you believe we have measured those computers correctly, then you also believe that we have experienced a lot of investment.

Another use of this picture is to highlight what has been happening to gross real investment in computers because, in the minds of many, this investment was a major source of growing inequality; that is, the introduction of computers somehow shifted the skill premium. We can see that such investment has risen substantially during the recent period. Other factors are captured here as well—the Internet and so on, which also rise and flourish during this period.

Some try to explain the acceleration in productivity growth looking back a few years and find that the share of computers in investment was too small to account for a major source of the productivity increase; today that is no longer true. Even net investment in computers (correcting for depreciation) has risen to the point where it can explain two- or three-tenths' point of the acceleration in productivity growth. We can see, then, that the second driver of productivity growth also has been very powerful during this expansion.

We do not have pictures to show what is occurring on the institutional front, but we know that since 1994 union membership has further declined by about 400,000, although there was some uptick in the last year. We also know that employment in manufacturing, which had grown through the initial part of the expansion, has been declining during the second part of the expansion. This has probably been substantially related to international forces; the parts of manufacturing that have been relatively sheltered have done well because they depend on construction. For example, the glass and lumber

industries have been doing okay and the auto sector, stimulated by strong demand, has done okay. But for many of the other parts of manufacturing, from textiles to machinery, this period has been very tough and employment has declined. Another major institutional change during this period has been welfare reform. Presumably, welfare reform has increased the supply of relatively less-skilled, more-difficult-to-employ workers.

The Effects of Change

It would seem that these changes would result in a dramatic rise in inequality in the United States. Let's look at the experience. First, real income growth. Average hourly earnings, which had shown declines earlier in the period, has since 1995 finally shown some significant increases.

One concern is that wages did not appear to have risen as rapidly as productivity growth, and some have argued that this reflected a declining bargaining power of labor. I think there are problems with that analysis as it pertains to the earlier period. Productivity is often measured as output per hour in the business sector, and there is a certain deflator that is used to determine that measure. When productivity is discussed in terms of real wage increases, a consumer price index is used as a deflator. It turns out that these two price measures have deviated from one another, which has caused some measurement problems.

A more plausible measure of labor's bargaining power is its share in output. What is noteworthy is that in the first part of this expansion, we did see a decline in labor share from about 65 percent to 63 percent, but it has come back. Since 1996, labor's share in overall output has recovered almost to where it was in 1992. We can therefore deduce that wages have risen in real terms about as fast as output per hour when deflated by the same price index.

Let us now look at the return to skills in the economy. Data on the premium commanded by those who have a college degree compared to those who just left high school show that from 1979 through 1994 the education premium increased steadily for both men and women. What is interesting is that since about 1994, this premium appears to have stopped rising. I do not want to claim that we have reversed any of the inequality, but it is striking that it has stopped rising, which is a significant indicator. A more comprehensive measure of return to education, namely, weekly earnings, tells the same

story: Through 1991 the typical college graduate saw a very dramatic increase in earnings—up to 70 percent more than the high school graduate. Since that time there has been a small decline in that premium, though it certainly has remained fairly steady.

Return to education is an important indicator, growing trade with developing countries would be expected to have an impact on the return to human capital, and one of the primary measures of that return would be education.

Other measures have been compiled. For example, when the ratio of the earnings of the 90th percentile in the wage distribution to the 10th percentile rises, it means that the 90th percentile is doing relatively better than the 10th percentile. Until about 1995, that was the picture. Since that time, the 10th percentile has asserted itself and the ratio has declined somewhat. Similar stories can be told by comparing the 90th percentile to the 50th percentile and the 50th percentile to the 10th, which increased until about 1994 and then declined. We have, then, at both ends of the income distribution, no added increases in inequality and somewhat of a convergence.

Data from the Economic Policy Institute show that if we examine hourly wage growth by deciles since 1994, we see that the largest rise has been at the bottom (10th percentile) of the distribution, the second-largest rise at the 20th percentile, and the third-largest at the median. In a sense, this is a picture of growing equality. In the period prior to 1979, wage growth (as measured by family income) was stronger at the bottom of the distribution than at the top, while in the post-1979 period, the opposite is true. Since 1994 the picture has again changed. Although the story for males is quite similar (except for the 90th percentile), the story for females shows much stronger growth at the bottom of the distribution than in the percentiles above them. Looking at the wage data provides evidence, both from a skill level and a high-wage/relative wage perspective, that inequality has stopped rising.

Perhaps the most comprehensive measure of inequality is the Gini coefficient for family income. Two weeks ago the U.S. Census Bureau released new data that showed that the Gini has been basically flat, though recently there was a little downward dip. (The series does have a break; perhaps prior to the revision there was a flatness as well.) But what this measure shows is growing inequality through 1990; in more recent periods it appears as though inequality has stopped rising.

If we look at what has happened to the least fortunate during this expansion, that is, if we look at poverty rates, we also find that progress has been made since 1994. The 1998 poverty figures suggest that poverty was lower in that year than at any time since 1979. The poverty rate has fallen from 15.1 percent in 1993 to 12.7 percent in 1998. In comparison, the typical family has seen their income rise by 12.1 percent during the last five years. African-American families have seen their incomes rise by 21 percent.

The total unemployment rate moved down during the first part of the period and then rose to around 4.2 to 4.3 percent and then flattened out. Black unemployment rates declined sharply and, although they were still higher than those for whites, there has been a bit of a convergence; the same holds for Hispanics. African-American unemployment has declined from 14.3 to 7.8 percent, which is the lowest rate on record, while Hispanic unemployment fell from 11.5 to 6.5 percent.

What we are seeing, then, are changes that suggest that something very different has happened in our economy. This is the simple point that I wish to make because I feel that a lot of academic discussion needs to incorporate what has been going on in the recent period.

Reflecting on the Evidence

What might we make of this new evidence? Do we have to rethink the way we think about the world?

There might be some other explanation for what has taken place in the recent period. Maybe the forces that I have described are still operating but are being offset by other forces. The obvious candidate is the high-pressure economy, which is now closer to full employment. Indeed, we seem to have an economy that is behaving like the one in the 1960s rather than the one in the 1970s and 1980s—more like a “normal” cycle. During the current cycle, it is certainly plausible that in the tightening labor market a positive and virtuous circle can exist in which new opportunities lead to new skills acquisition. In a sense, then, productivity growth can be enhanced and we can deal with inequality as the labor market tightens. I would suggest that when we ask, “Why has it been possible to run the economy at such a low level of unemployment?” we might reflect on the very factors that we believed were causing inequality and the role they may have played.

The first is technology. The speed of techno-

logical advance, in addition to skill-bias technological change, has somehow permitted the economy to provide workers with higher real wages and subjected the economy to less inflationary pressure than might otherwise have occurred. This may well be a one-time effect.

It might be that as the economy transitions to a higher productivity level, the Phillips Curve trade-off improves. If technological change in a high-pressure economy increases the capacity to operate within that economy in a non-inflationary way, then it should be acknowledged that technological change may well have an upside in dealing with inequality.

The second factor is increased domestic and international competition. Like technology, some of this might be a one-time change. Increased international competition causes downward pressure on markets and a reduction of monopoly power, though they are not long-lived phenomena. But as a kind of positive commodity shock, international competition could have the impact of improving some trade-offs, but this would not be permanent.

The third factor is the fact that the U.S. economy has been booming during the period and that there was excess capacity in the rest of the world. Indeed, the United States still has a lot of capacity in its manufacturing sector, partly because we buy so much from the rest of the world. Capacity rates in manufacturing today, which are on the order of 79.4 percent, are rather low and certainly not in boom ranges.

One possible explanation is that the macroeconomic consequences of these forces, which have been in operation, allowed the high-pressure economy to operate in the manner it has operated. Some economists believed all along that this was possible and were wiser than many conventional economists. I put myself in the “very surprised” category.

A second possible explanation is that the trends themselves have been brought to a halt by offsetting microeconomic forces. Some changes might be trend changes and others one-time changes. For example, one of the big puzzles during the 1980s concerned the exact nature of skill-bias technological change, which may be an endogenous phenomenon that responds to incentives within the labor market. Accordingly, less-skilled workers have become relatively less expensive over time, which has led employers to wonder how they can better

utilize less-skilled workers and to think about technological changes that could assist in more completely utilizing these workers, thereby allowing them to hire fewer expensive college graduates. Such a phenomenon may well be present to some degree, but could be limited by the extent to which the boom trend could be sustained. One reason is that a collective mechanism exists in the market. Moreover, individuals on the supply side of the market may take offsetting steps by educating themselves, although the supply-side data do not much support this explanation.

There also is an explanation stemming from international trade. As competition intensifies with developing countries, those parts of the U.S. economy that are very price-sensitive to such competition or that tend to use less-skilled labor relatively intensively get hurt when engaging in head-to-head competition with developing countries. The economy eventually adjusts in one of two ways: some operations go offshore, others compete on other bases.

Over time, the economy becomes more specialized. More of what we do in the United States is “non-competing.” In the extreme, if economies were specialized to the point of producing different goods, the powerful downward pressures that usually are exerted through international trade would not operate. You therefore could see a limitation of the downward process taking place as the economy adjusts to the shock. If a whole new shock occurred, the economy might have to adopt to that as well, but the process could be exhausted over time.

Some institutional changes may have taken their toll as well. If those who were vulnerable have been eliminated from the labor pool and those who remain have real power, then, looking at bargaining power, the process might not continue; it could be exhausted. These situations are plausible but are not necessarily definitive explanations of what has occurred, although they are microeconomic in nature.

A third possibility is that our explanations were defective in the first place—that we never had a very firm grasp of what was going on in our economy in the 1980s, that there were always problems with our analyses, and that we might have to go back and rethink them in the light of more recent events. When it came to trade, it might have been possible to tell a plausible story about modest effects, but it was very difficult to

get the numbers that would tell a story about very large effects. But that is something that people have debated for a long time.

Alternative Explanations

There always have been problems with the hypothesis about skill-bias technological change. I would summarize it by asking, Why so much change and so little progress? How was it that we had changes in technology that were able to wrench the labor market so as to severely change the returns to skill (as we measure them) and education and yet, when the productivity numbers were examined, the effect could not be seen? Now the story has been turned on its head. We now see some productivity change but not the inequality in the premium. I do not know what the answers to these questions are, but I think they are worth investigating.

One hypothesis was that productivity gains occurred but we were not able to measure them. There is some plausibility for this in some cases.

Another hypothesis was that many changes occurred without corresponding productivity gains. It is not impossible, even in the twentieth century, for change to occur without progress. Indeed, it could be that all those educated people raised the demand for other educated people. They say that if you live in a town with one lawyer, she's unemployed; but if there are two, they each have plenty to do. There are many zero-sum contests in our economy, and in some sense they both get higher returns, but there's no improvement in productivity.

Conclusions

I wanted to make three points: We have some plausible explanations for inequality in the 1980s; these changes have been much more powerful in the most recent period; and what the evidence suggests, to put it simply, is that the "Gini" is back in the bottle.

This is not a reason for complacency. This is not a reason for us to say we can be happy with the economy. Much remains to be done. Unemployment rate differences and the inequality questions still remain. But from an analytical standpoint, this is a fascinating period, and I think much remains to be discussed.

I would be remiss, though, if I failed to put some policies on the table. We have seen minimum wage increases, and that tells part of the story of what has happened at the bottom end of the wage spectrum. In addition, there have been efforts to improve the functioning of the labor market. Other numerous measures have also been undertaken. I also think that the poverty picture is better than the official data suggest because these data do not reflect other policy changes, such as the earned income tax credit, which has actually had a significant impact. Because of the way the Census collects its numbers, however, it does not register in the data.

JOSEPH J. MINARIK

Associate Director for Economic Policy, Office of Management and Budget

Lessons and Implications for Policy

Policymakers draw on the research of academics, such as that presented at this conference, in order to make the right decisions about policy matters that relate to income distribution. Academics, however, tend to think of policymakers as people who take their exquisitely composed string quartet and turn it into a television jingle. But academics should think of policymakers as the people who arrange for the hall, get the financial backing, and give that string quartet a chance to reach the public.

When the current administration came into office, the fiscal situation in the United States was bad, but now the federal government has a budget surplus and is paying down the debt. That suggests to some that the federal government has a free cash flow that could be used to finance policies that could affect income distribution. In view of the fact that we have some money that arguably we can spend, unless Congress passes a tax cut, policymakers need to know what is going to give us good results. Some might argue, however, that a tax cut would be a good idea if distributed in a particular way.

The results of empirical work on income distribution issues help policymakers make decisions regarding these issues. We need to ask what the policy is trying to achieve. There are already many programs in place, especially programs aimed at providing training and education for workers. The current administration has prided itself on putting a lot of effort into targeting assistance to individuals who need it, whether that assistance consists of giving people computer skills so they can deal with skill-biased technical change or of helping individuals adjust to a plant closure. Some of the research presented at this conference, such as that on the so-called unified theory of skills bias and the effects of technological change, raises questions about whether current programs should be expanded or tossed out the window.

Policies to reduce income inequality are important because inequality can create a polarized society. The prosperous members of the society will cease to care, so long as they can have their gated

communities and keep the others out, and many government decisions, including fiscal policy decisions, tend to exacerbate the inequality. This polarization of society needs to be addressed by policymakers and academics.

Throughout this conference there has been much discussion about programs aimed at reducing inequality. The earned income tax credit has been mentioned frequently. This program is probably one of the marvels of policymaking. It has many attractive aspects. Those who argue for a higher minimum wage can get the same effect through an earned income tax credit. The credit uses public resources to increase the returns to work for those who work at low wages without having to deal with the political objections to increases in the minimum wage.

Unfortunately, in the past few years we have had serious attacks by Congress on the earned income tax credit. One was a charge of fraud and abuse in its use. A second came from Republicans who sought to alter the payment plan. They proposed paying out the credit in monthly installments in the year after the credit was earned rather than in one lump sum when tax returns are filed, as is currently done. Perhaps the best payment method would be monthly installments in the year the credit is being earned. Of course, this would lead to a problem of getting money back after it was paid out if it turns out the individual did not deserve the credit.

Opponents of the earned income tax credit state that the individual income tax is paid largely by the top 10 percent of the population; the bottom half of the population, ranked by income, pays only about 10 percent of the total income tax liabilities. They argue that the credit is bad policy, as is any policy that promotes progressive income taxation, because it reduces incentives to work. Progressivity should be a matter of concern for all who are interested in income distribution. It is possible that in the next few years a supply-side, regressive income tax cut will be passed, with negative consequences for income distribution.

Another matter of concern is the measurement of income. Returns to income and returns to capital are becoming blurred in some of the statistics with which researchers work. For example, stock option profits are reported on income tax returns on the line with wages, not on the line with capital gains. This results from the legal organization of profit-sharing and stock-option plans. Over the last

few years and in years to come, it will be hard to figure out how much of what people receive is really returns to labor and how much returns to capital and it will be hard to figure out how much of profit-sharing and stock-option plans are reported to the IRS as capital gains and how much as wages. This confusion will make it more difficult to gather data needed to understand the direction of income distribution.

Another question regarding income distribution statistics, raised by Jay Levy, concerns whether elderly persons are living by themselves or with their children. Years ago I was comparing figures from 1960 and 1970 in the U.S. Census data sets and it appeared as though many of the elderly had grown worse off. But an examination of their living arrangements showed that their incomes had increased enough so that a fair number of them had decided to spend that additional income on privacy by choosing to live alone. The lesson of this is that we must make adjustments by looking at the well-being of individuals. In this case, when one aggregates families on an intergenerational basis, one might have income distribution statistics that at first look more attractive, but if the elderly are happier because they are living independently, that has to be factored into the picture.

One also might want to look at individuals who are aging, but are not necessarily over 65 and who chose not to retire but to work part-time and ease into retirement. This would have an implication for wage distribution that we should consider.

Another issue that has been raised among policymakers and is worth discussing is the capital side of income distribution. The president has proposed a supplement to Social Security—the universal savings account—that would provide seed contributions and then matching contributions for additional voluntary contributions into pension accounts for individuals. The notion behind this proposal is that if one creates such a broad-based program, one might be able to leap the political hurdle and get into the hands of individuals who do not now have pension coverage some form of savings account that they could use to build up wealth for their retirement.

Some members of Congress have gone a step further than these contributions, which are attached to work through Social Security, and have suggested creating a capital endowment for children. One proposal would deposit funds annually into some kind of a savings account and allow them to accumulate; by the time a child reaches the age of 18 there would be enough money in the account to pay for college. Another proposal would provide lump sum payments at certain ages rather than annual payments.

One must think long and hard about whether these proposals are appropriate uses of public resources. And there are many practical problems to be resolved. But research, such as that presented during the conference, is what will help policymakers evaluate proposals aimed at reducing inequality.

Sessions

SESSION 1

Inequality in American Wages: Social and Institutional Change

MODERATOR: JAMES LARDNER

Senior Writer, *U.S. News & World Report*

PRESENTERS

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THOMAS I. PALLEY

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MICHAEL J. HANDEL

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PATRICK L. MASON

Racial Inequality and the Rate of Return to Skill, 1967–1988

There is general consensus among researchers that intraracial wage inequality and interracial wage inequality, especially between African Americans and whites, have grown since the mid 1970s. The most widely advocated explanation is the labor

quality hypothesis in which skill-biased technological change is considered the driving force that led to a rise in the relative wages of workers with higher cognitive skills. Since the average cognitive skill of African Americans is located in the lower half of the skill distribution, interracial inequality expanded as intraracial inequality expanded.

An alternative explanation is the discrimination hypothesis, which holds that interracial inequality widened because of an increase in discrimination. The increase in discrimination is attributed to losses in bargaining power and increasing unemployment during much of the latter half of the 1970s and the early 1980s and to the decline in enforcement of antidiscrimination laws and affirmative action.

The two competing explanations were evaluated using panel data on African American males and white males from 1967 to 1988. A wage equation with education, experience, cognitive ability, and race as the independent variables was estimated. The results reveal distinct periods of wage inequality. From 1967 to 1973 interracial wage inequality declined. This decline was reversed during the deep recession of 1974–75. Progress in reducing wage inequality resumed from 1975 to 1979, but once again there was a sudden retrenchment with the 1980–81 recession and then a reversal of that decline with the mild recovery of the mid 1980s. From 1985 to 1988 the average African American in the sample earned 10 percent less than an average white worker, and from 1973 to 1988 the wage penalty oscillated between 10 and 20 percent.

To support the labor quality hypothesis, the increase or stagnation in interracial inequality must be preceded by a rise in the wage premium for the relatively more-skilled workers. This is not borne out by the data. The wage premium rises associated with education and cognitive ability did not occur until the early 1980s, *after* the 1974–75 increase in inequality. Moreover, even during the 1980s, the rises in wage premiums had

only a modest effect on racial wage inequality. This evidence, the dramatic increases in inequality during recessions, and the reversals in antidiscrimination policy in the 1980s favor the discrimination hypothesis.

THOMAS I. PALLEY

*Accounting for Income Inequality
in the U.S.: The Role of Unions,
the Minimum Wage,
Unemployment, Family Structure,
and International Trade*

Several researchers have examined sources of growing wage inequality. Unfortunately, a focus on wage differentials is not sufficient for developing an explanation of the long-term patterns of inequality, since detailed data on wage differentials are available only from 1973. An alternative is to examine trends in family income inequality for which data (time series of the Gini coefficient) are available from 1947. The data show that until the early 1970s distribution of family income was becoming less skewed. From 1972 to 1980 there was a slight worsening of income distribution, which was followed by a period in which inequality did not rise. From 1982 until the mid 1990s there was a remarkable rise in inequality. Since then it appears to have stabilized at a relatively high level.

The explanation for rising inequality in family income may lie in changes in the structure of the labor market and in international trade, rather than in skill-biased technological change. These changes have shifted bargaining power away from labor and toward management and in doing so have changed the pattern of income distribution. Estimates were obtained from a variety of econometric specifications of this hypothesis. The dependent variable in these specifications was the Gini coefficient of family income and the explanatory variables were union density, unemployment rate, real minimum wage, share of families headed by a single female, and two measures of trade openness (trade openness and trade openness squared).

The model was first estimated for the entire sample period, 1968 to 1997. The coefficients on all the variables were statistically significant and had expected signs. Increases in union density

and real minimum wage tend to reduce inequality, and increases in the unemployment rate and the share of families headed by a single female tend to raise inequality. An increase in trade openness to a certain level increases inequality; but an increase in trade openness squared reduces inequality, indicating that trade can work either way, depending on the magnitude of openness.

The same model was then estimated for two periods: 1968 to 1980 and 1980 to 1997. The results were consistent with those in the first round of estimation. Union density decline accounts for 30 percent of the worsening of income inequality in the first period and 40 percent in the second. The unemployment rate accounts for only a small proportion of inequality in both periods. (This is not surprising since there is no theoretical expectation that unemployment should have a substantial effect on inequality.) The real minimum wage is far more important than the unemployment rate and accounts for 9 percent of the increase in inequality in 1980 to 1997; in the same period an increase in the share of families headed by a single female contributes 24 percent. Trade openness reduces inequality prior to 1980, but accounts for 24 percent after that. The different impact of trade in the two periods is due to a change in the pattern of trade: competition from foreign, low-wage locations increasingly affects manufacturing jobs, which are relatively better paid. Overall, the results indicate that to reverse worsening inequality would require labor law reform to make organizing easier, raises in the real minimum wage, and encouragement of trade based on international labor standards.

MICHAEL J. HANDEL

*Is There a Skills Crisis? Trends
in Job Skill Requirements,
Technology, and Wage Inequality
in the U.S.*

The available evidence does not support an increasing rate of skill-biased technological change as an explanation for the rise in inequality in the 1980s and the 1990s. For this explanation to be supported, either the growth in the relative supply of technologically skilled workers would have had to have decelerated or the growth in the

relative demand for such workers would have had to have accelerated. The explanation suffers from a timing problem because about 50 percent of the growth in earnings inequality in the lower 95 percent of the earnings distribution between 1979 and 1993 occurred between 1981 and 1983. A sufficient explanation for changing inequality will have to account for the highly nonlinear character of the trend in inequality.

It is hard to maintain that a slowdown in the growth of the supply of skilled workers is responsible for increasing wage inequality. Between 1962 and 1997 the labor force became better educated on the average and the dispersion of educational attainment declined; in other words, human capital inequalities declined. Estimates of relative supply and demand based on their past trends indicate no shortage of skilled workers for the years 1981 to 1983. Paradoxically, the widest gap between supply and demand occurred around 1995, when inequality began to stabilize.

The argument that computerization has created higher skill requirements was assessed on the basis of data available for 1984, 1989, 1993, and 1997. Regressing years of education of an individual worker on computer use, after controlling for a variety of background characteristics, shows that computer use is associated with about 1 to 1.4 years of additional education. However, when occupation is added as an additional control variable, this estimate is reduced by half. This finding can be interpreted in two ways. The first is that computer use does increase educational requirements by 6 to 12 months. The second is that workers with more education tend to be in occupations in which there is a greater likelihood of working with a computer. If the second interpretation is true, computer use cannot be considered as increasing skill requirements.

Some insight into this issue can be gained by examining whether, over time, occupations in which computer use was growing relatively faster also witnessed a relatively faster growth in educational requirements. Regression analysis based on detailed occupational and educational data shows that computer use or an increase in computer use is a good indicator of occupations that demand more in terms of educational requirements. However, since similar effects are found also during the early 1970s, when computerization was at relatively low levels, there is no strong basis for any causal interpretation.

An examination of occupational shifts shows that a number of occupations likely to be sensitive to computerization have not grown or declined as rapidly as expected by proponents of skill-biased technological change. The share of white-collar jobs in total employment has increased steadily for the past hundred years or so, but there is no evidence of acceleration in that increase in the 1980s. Similarly, while automation and computerization have led to declines in the share of certain jobs in total employment, the extent of such declines is much smaller than is usually assumed.

J. BRADFORD JENSEN

Understanding Increasing and Decreasing Wage Inequality

(Co-author, Andrew Bernard, Dartmouth College and National Bureau of Economic Research)

Research on inequality has typically relied on national data, but new insights into the forces driving inequality may be gained from regional data. At the national level, residual wage inequality (wage inequality after controlling for gender, race, age, and educational attainment) has increased steadily between 1970 and 1990. Examining the effect of changes in industrial structure on regional patterns of wage inequality can help in identifying some of the causal factors behind the remarkable growth in the national inequality.

Based largely on Census Bureau data for the benchmark years 1970, 1980, and 1990, individual-level wage equations were estimated with experience, education, and location as controls to obtain residual wage inequality for each multi-county labor market area. Strikingly, the variation across regions at any given time is much greater than the increase in inequality at the national level over time. The broad picture is that the traditional industrial centers of the country experienced sharp increases in inequality and the Southeast had much lower increases or even declines.

Regression analysis was employed to analyze the factors behind the regional variation. The explanatory variables included the share of employment in durable goods manufacturing, changes in the capital-labor ratio in the manufacturing sector,

trade openness, union density, real minimum wage, and immigration. The variable with the largest impact on inequality is the share of employment in durable goods manufacturing. Regions with expanding durable goods manufacturing employment experienced lower wage inequality and those with decreasing employment in that sector had higher inequality. The positive impact of durable goods manufacturing on wage compression cannot be attributed to skill differentials since the residual wage inequality is computed after controlling for skill differentials.

This points to the character of employers in this sector as a possible explanation. Durable goods manufacturing is concentrated in large plants owned by large companies who provide jobs with low turnover rates. Big plants have the effect of compressing wages since they tend to have standardized human resource practices. This notion is strengthened by the finding that including average plant size and measures of job creation and destruction improves the predictive power of the wage equations.

WILLIAM SPRIGGS

Popular opinion is swayed by explanations that reinforce the status quo. In a capitalist society, explanations that support capitalism appear to make more sense than alternative accounts; in a racist society, explanations that support racism appear more reasonable than explanations that do not. The popularity of the skill-biased technological change hypothesis as an explanation for inequality derives from its ideological function. It justifies employers' discriminatory hiring practices on the basis of alleged lack of skills. The hypothesis also justifies social activists' proposals for spending to develop skills. The presentations by Mason, Palley, Handel, and Jensen challenge the ideological status quo.

In the context of interracial wage inequality, the hypothesis implies that blacks are less skilled than whites and hence earn relatively less. This explanation fits well with the idea that black workers are somehow inferior. Mason challenged this notion and showed that structural and institutional factors might be responsible for the growing interracial wage disparity.

The hypothesis also favors the view that labor market outcomes are best determined by the

workings of the free market and that labor market institutions play no role in determining wage differentials. Palley shows that union density, trade policy, and minimum wage all matter for inequality. However, his treatment of families headed by a single female as an explanatory variable is perplexing since it can be considered a function of growing inequality.

Handel's work challenges the idea that there has been a growing skills gap. The decline in the dispersion of educational attainment of the labor force that he draws attention to deserves more consideration. The decline renders workers more substitutable for one another, which is quite unlike the situation in the early 1960s when there was a relatively small proportion of well-educated workers. This change can contribute to the erosion of bargaining strength and greater inequality.

Jensen said that inequality varies greatly across regions and the main factor behind the variation is the presence of large employers. This finding is problematic for the skill-biased technological change hypothesis which tends to ignore the institutional structure of the economy.

In conclusion, the criticisms advanced of the dominant explanation are valid, but this cannot be taken to mean that improving worker skills does not matter. Improving skills is important, but one should be careful in devising policies to accomplish that goal.

BARRY BLUESTONE

Richard Freeman and Larry Katz estimate that technological change accounts for a significantly smaller proportion of the growth in wage inequality for males during the 1980s and the early 1990s than is often assumed by the proponents of the skill-biased technological change hypothesis. Technological change accounts for about 7 to 25 percent, whereas de-industrialization accounts for about 25 to 34 percent, de-unionization about 20 percent, trade and immigration about 15 to 20 percent, and the trade deficit about 15 percent.

Although all of these factors did contribute to increasing inequality, it is important to recognize that what ties them together to produce this effect is macroeconomic forces. Thus, the economic recovery during the Reagan years did not lead to a reduction in inequality because during that period unions were crushed, the real

minimum wage declined rapidly, and international competition intensified. This trend of weak macroeconomic recovery without reduction in inequality persisted until 1994.

Since 1994 economic growth has been solid, the unemployment rate has fallen dramatically, and labor has regained some of its bargaining power, thus leading to a slowdown in the growth in inequality. However, to achieve a substantial reduction in inequality, solid macroeconomic fundamentals are not sufficient: institutional changes in the form of stronger unions, a higher minimum wage, an expanded earned income tax credit, and the elimination of discrimination in the labor markets are also necessary.

The need for institutional change is highlighted by the results of my recent study of earnings in Boston. The low unemployment rate has produced a participation rate for black males that is as high as that for white males. After controlling for some minor differences in human capital, there is also a convergence in wage rates between black and white males. Yet, there is a substantial gap in annual earnings between the groups. The reason for the gap is inequality in hours worked. A relatively large proportion of black men are in part-time and contingent employment. They work only about 34 hours a week on average compared to 50 hours for white males. This type of disparity can be overcome only through institutional changes.

Inequality in the OECD

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LARS OSBERG

Long-Run Trends in Economic Inequality in Five Countries—A Birth Cohort View

This study examined long-run trends in economic inequality in five countries—the United States, the United Kingdom, Canada, Sweden, and Germany—using microdata from the Luxembourg Income Study (LIS) from 1969–70 to 1994–95. The five countries differ in trends in aggregate income, poverty, polarization, and income inequality. The study concentrates on inequality within and between birth cohorts. At any point, less than 11 percent of aggregate income inequality is due to intergenerational inequality, but the experience of different birth cohorts over the period has varied

widely across countries. Equivalent income is estimated using the LIS equivalence scale. Various measures of inequality are used including the Theil statistic, the Gini coefficient, and the ratio of incomes between the top 10 percent and the bottom 10 percent of income earners. Both the poverty rate and a measure of poverty intensity are used also.

In the United States and the United Kingdom, the income of the top decile of each cohort rose dramatically compared to previous cohorts, but the income of the bottom quintile stagnated. In Canada and Sweden both the top and bottom deciles of each cohort had increasing income. Poverty increased substantially in the United States and the United Kingdom in both rate and intensity. The poverty rate decreased or remained stable in Canada and Sweden and increased slightly in Germany.

Given trends toward increasing inequality, why has there not been more discontent with the distribution of income? The answer may be that even if the average income of age cohorts is stagnant or falling, it is possible for individuals to have a rising material standard of living as long as the rate at which earnings increase with age is greater than the rate at which the average income of age cohorts shrinks. This study examines that effect by comparing the trends in equivalent income of five birth cohorts—golden agers (born 1915 to 1929), preboomers (1930 to 1945), baby boomers (1946 to 1959), generation X (1960 to 1975), and generation Y (1976 and after). The experiences of birth cohorts were very different in different countries. In Canada and Sweden, the poorest quintile in each cohort was significantly better off than the previous cohort had been at the same age, but the same is not true in the United States and the United Kingdom. However, most deciles of each cohort of Americans experienced some increase in equivalent income over this period. The experience of the top decile varied greatly: Swedes experienced only slight improvement compared to previous cohorts of that decile at the same age, Canadians fared slightly better, Americans much better, and Britons better still.

Too often researchers attribute increases in inequality solely to inexorable causes such as skill-biased technological change or the globalization of trade. But, the fact that these countries, which have had similar trends in technology and trade, have had such different trends in inequality implies that the institutional and legal context in each country is as important as technology and trade. Poverty trends are extremely sensitive to policies affecting the distribution of gains from growth. If only 10 percent of the income gains (not total income but income gains) of the top decile in the United Kingdom and the United States had been shifted through the tax and transfer system to the bottom decile, poverty in both countries in 1995 would have been substantially lower than in 1979, instead of substantially higher. As it is, those in the bottom decile in each cohort in the United States and the United Kingdom have seen no sign of economic progress, over their own lives and compared to an earlier cohort at a similar point in their lives.

KEVIN LANG

Hours Constraints: Theory, Evidence, and Policy Implications

(Co-author, Shulamit Kahn, Boston University)

In response to persistent unemployment, particularly in Europe, there have been calls for “work sharing” in the form of a legal mandated reduction in the number of hours in the workweek in hopes of spreading the available work among more workers. Implicit in these calls for hours reductions is the belief that the demand for hours of work is inelastic and independent of the number of workers who fill the hours; therefore, overall employment can be increased by reducing the number of hours each individual works. The belief that modern workers would like to reduce their work hours, as Juliet Schor argues in her book *The Overworked American*, adds to the attractiveness of this proposal. The Canadian Advisory Group on Working Time and the Distribution of Work suggested in its 1994 report that about half of sustained reductions in overtime eventually translate into employment for more workers. It recommended reducing the standard

workweek to 40 hours in all provinces and limiting paid overtime to an average of 100 hours per year.

Economists often dismiss hours reduction proposals using models in which hours are set optimally and any interference with the market must reduce welfare. These models assume that the labor market clears and there is no unemployment. However, it is difficult to see how one can evaluate programs designed to reduce unemployment using models that assume unemployment away. This study attempts to build a more appropriate methodology for studying hours reductions by employing both empirical and theoretical techniques. Empirically, it surveys the preferences of workers about the hours they would like to work. Theoretically, it examines the effects of work-sharing regulations in an environment in which market imperfections cause unemployment and hours constraints to exit.

Survey respondents were asked how many hours they work and how many hours they would prefer to work (at the same hourly rate). An hours constraint is defined as a difference between the actual and preferred hours. Hours constraints are examined to assess whether they are indicative of a problem in the labor market, particularly underemployment, and to further understanding of how the labor market functions and working hours are determined.

Survey responses in the United States and Canada reveal that the direction of hours constraints is clear: wanting to work additional hours is more common than wanting to work fewer hours. Survey responses in Europe are less clear about the direction of hours constraints. The most promising theoretical avenue for explaining hours constraints is the development of models that assume imperfect matching in the labor market and long-term contracting. This study develops a simple model of bilateral search from which the conclusion is derived that, although most workers would want to work fewer hours if given the choice, a legally mandated reduction in the workweek could worsen unemployment and reduce the well-being of workers. If these empirical and theoretical findings are correct, policymakers should be cautious about proposals to promote work sharing by requiring a shorter workweek. The survey data, at least in the United States, suggest that more people would prefer to work more hours rather than fewer hours and

the theoretical models suggest that even if people preferred fewer hours, hours constraints make it unclear that welfare-improving regulations exist.

Neither the empirical nor the theoretical case for mandating hours restrictions to reduce unemployment is compelling. Also, any analysis must consider two likely effects of mandated hours: such legislation would set the maximum time on a single job but would also undoubtedly increase the number of people who hold more than one job, and changes in required hours are likely to cause changes in wages.

DAVID R. HOWELL

Increasing Earnings Inequality and Unemployment in Developed Countries

According to the conventional wisdom, the globalization of trade and changes in technology have caused a profound shift in labor demand from the least-skilled to the most-skilled workers, generating rising earnings inequality in flexible labor markets (such as in the United States) and rising unemployment in more rigid labor markets (such as in western European countries). This hypothesis is called the “unified theory” because it attributes increasing unemployment in Europe and increasing inequality in the United States to the same global economic forces. The unified theory has led to the belief that Europe can solve its unemployment problem by dismantling policies designed to increase the living standards of low-wage and unemployed workers and that the United States can solve its low-wage problem by making workers more skilled.

If the unified theory holds true, we should expect to make the following observations. First, there should be a strong trend toward increased inequality, with the largest increases in unemployment occurring in the countries with relatively low rates of growth in earnings inequality and the most inflexible labor markets. Second, unemployment in Europe should be traceable to overly protective social policies and should be driven by the least skilled. Third, in the United States there should be a strong association between the use of new technologies, the skill mix of employment, and relative wages, and the growth in the demand for skilled

labor should be large enough to overwhelm the growth in the supply of skilled labor.

The evidence does not support the unified theory. There is no pervasive trend toward increased inequality in the industrialized world. There has been a substantial increase in the United States and the United Kingdom, but other industrialized countries have had only episodes of increasing inequality with no consistent trend. Furthermore, there has been no simple relationship between rises in unemployment and increases in earnings inequality. For example, the Netherlands, Denmark, France, and Sweden all had similar increases in earnings inequality, but the Netherlands had declining unemployment, Denmark had modestly rising unemployment, and France and Sweden had sharply rising unemployment. Belgium and Germany had declines in earnings inequality but smaller increases in unemployment than the countries with the greatest annual increases in earnings inequality after the United States—the United Kingdom, Canada, Austria, and New Zealand.

Despite the presence of generous social policies, some European countries have had unemployment rates similar to those in the United States. Unemployment in Europe is not driven primarily by the least skilled; skill-biased demand shifts affecting jobs held by prime-working-age men do not appear to be a source of the widening gap between French and U.S. unemployment rates.

Trends in the United States do not show a large and accelerating change in the skill mix of employment across industries and occupations. There is no strong statistical association between measures of the growth of the use of new technologies, the skill mix of employment, and relative wages. Similarly, the growth in the demand for skilled workers does not seem to have outstripped the growth in the supply of skilled workers; in fact, the increase in supply was greater. The United States has both higher earnings inequality and higher unemployment inequality than other nations, with the least skilled suffering the highest rates of unemployment.

The unified theory remains the conventional wisdom despite the lack of evidence to support it. Researchers should look elsewhere to explain different experiences in inequality and unemployment. Important factors include the greater range of

skills differences in the United States than in most other industrialized nations and the greater deregulation of labor markets.

THOMAS FERGUSON

The paper by Lang and Kahn was provocative, but it is too glib with respect to the work-sharing argument. Advocates of work sharing do not argue simply that reducing work hours will create jobs; they also suggest that work sharing could increase productivity by encouraging firms to invest more in machines. Evidence on what people want for hours is much less clear-cut than Lang and Kahn indicate. First, any survey of the employed will turn up a certain number of underemployed people who want to work more hours; this needs to be accounted for. Second, the evidence varies by country more than they admit. Third, workers may be concerned that their prospects for promotion would not remain the same if they accepted shorter hours, and salaried workers may believe that they would still have to complete the same workload. Fourth, workers may be concerned that they would lose benefits if they agreed to shorter hours. In short, it is difficult for any survey to determine with certainty what people really want. One thing is certain; gloomy predictions that hours reductions would have had results have proven false in the past.

Osberg's paper is excellent on the role of the state in general and the role of taxes in particular. He does a good job in pointing out the enormous increase in uncompensated risk borne by ordinary people. It is important to understand why people do not object to the increase in inequality.

Howell's paper is good in its criticism of the unified theory. It is hard to believe anyone ever pushed the theory; the timing is wrong, the numbers do not work out, and it does not work in any country.

All of these papers point to the need to examine the history of inequality more closely. People claim that redistributive approaches are not popular under conditions of worsening inequality or even in a bad stage of the business cycle, but the New Deal stands as a massive counterexample. In the New

Deal, macroeconomic policy had a huge impact on people, and it had nothing to do with how productive they were. The lesson here is that not only does macroeconomics matter, so does politics.

STEPHEN ROSE

The whole conference deals with three related questions: Is capitalism delivering the goods? Is the U.S. model the dominant and the preferable one? Is it possible to have capitalism with a human face? Since careful analysis can help us understand these questions, it is important to look carefully at these studies.

Osberg uses synthetic cohorts. He uses different people of the same age at different points in time to draw inferences about people's income patterns over their lifetime, but he does not follow real people. He does not use panel data and he does not have a good measure of social mobility. It is also very difficult to make international comparisons on standard of living. How do you compare prices? How do you compare working time?

Lang finds empirical evidence of a commitment to hard work prevalent in the United States, but it is because Americans are so committed to working hard to obtain luxuries that critiques like *The Overworked American* strike a chord.

Howell criticizes the defense the mainstream has put up against those who have documented increasing inequality. In the 1980s mainstream economists argued that there was no evidence of increasing inequality. By the late 1980s the increase in inequality was too large to be denied. The second round of defense has been that inequality is caused by skill-biased demand shift. Skill is poorly defined in the arguments. However, it is not the scientists and engineers who have been the big winners in the new economy, but the office workers—managers, sales representatives, insurance agents, financial brokers. The most skilled have had stagnant wages; the winners have been those who call the shots. One problem with Howell's paper, however, is that he seems to imply that the unemployment problem in Europe is not all that bad, but Europeans think it is bad and they are worried about the future.

Inequality and Industrial Change: New Perspectives

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Inequality in the NAFTA Region

This study examined inequality in Mexico, Canada, and the United States. Data for Mexico are taken from the Banco de Mexico and the Instituto de Estadística y Informática. The dispersion of wages is computed monthly for nine manufacturing sectors from January 1968 to June 1999. The data show no relationship between the manufacturing wage and political changes; wage inequality is stable through different presidential administrations. Oil booms and oil discoveries reduced inequality, but

the Asian and Russian financial crises had no measurable effect. Devaluations of the Mexican currency, which have been a recurring feature of the economy for the last 30 years, had the immediate effect of increasing inequality in the manufacturing sector. There is also a positive relationship between movements in unemployment and movements in inequality.

For Canada, an inequality measurement was completed for 21 manufacturing sectors from 1983 to 1999 using data from Stats Canada. Inequality has been fairly stable. For a time after the NAFTA went into effect, inequality fell slightly, but it picked up and returned to its original levels, particularly in the last years of Brian Mulroney's administration. Even though changes in unemployment were not highly correlated with changes in inequality, over time the two moved in the same direction. Inequality tended to begin to rise when the inflation rate peaked. As in Mexico, devaluations had the immediate effect of increasing inequality in the manufacturing sector.

For the United States, a measure of inequality is computed for 18 manufacturing sectors from 1947 to 1999 using data from the U.S. Census Bureau and the Department of Labor. Manufacturing inequality declined under President Johnson; rose under Nixon, Ford, and Carter; declined under Reagan; and then picked up under Bush. It has tended to rise with the price of oil. There is a high correlation between unemployment and wage inequality in the United States; both have declined since 1993.

**PEDRO CONCEIÇÃO AND
PEDRO FERREIRA**

Inequality and Unemployment in Europe: The American Cure

(Co-author, James K. Galbraith)

Some economists hold that high unemployment in European countries is caused by their generous social welfare system and rigid wage structure and

that low unemployment in the United States is caused by its flexible wage structure and willingness to tolerate high inequality in wages and incomes. This view implies that inequality is higher in the United States than in Europe. This is generally true when the United States and individual European countries are compared, but not when the European Union is considered as a single economy. Unemployment within Europe is not consistent with the view. Unemployment tends to be higher where inequality is greater. Countries with the weakest social welfare systems and the highest inequality, such as Spain, tend to have the highest unemployment. The relevant factor in Europe is not too generous social systems within countries, but the absence of a continental system of redistribution that would transfer income from the wealthier to the poorer countries.

This study makes two innovations in examining the relationship between unemployment and inequality. A methodological innovation is the use of the Theil index to construct a long and dense time series of inequality. A substantive innovation is to look at Europe as a continental economy, not just as separate national economies. A measure of inequality in manufacturing earnings within the countries of Europe from 1970 to 1992 is computed using the Structural Analysis Database of the OECD.

A cross-country correlation between industrial earnings inequality and unemployment is consistently positive in every year. There is an even stronger correlation between unemployment and the ratio of the average manufacturing wage to per capita GDP. In every country, as the ratio rose, so too did unemployment. The rise in unemployment in the 1980s and 1990s was tightly linked to differences in per capita GDP across countries. There was a modest convergence in per capita GDP across countries, implying that preexisting differences in income levels, not unemployment, have been the cause of rising inequality. The high-income, low-inequality countries of Europe tend to have a more diverse industrial structure than lower-income countries. Low inequality in high-income countries is therefore not generally a question of specialization in a narrow class of high-productivity sectors, but rather of egalitarian pay structures across high- and low-productivity sectors, both of which rich countries have in abundance.

The United States has higher inequality than any individual country in Europe, but intracountry

inequality numbers ignore the large intercountry differences in income that exist in Europe. There are much wider income gaps between European countries than between any two states in the United States. For example, average income in Spain is 40 percent lower than in Germany, while average income in Texas is only 15 percent less than in New York. Differences in income between the two states are fully accounted for by inequality measures of the United States as a whole. Taking wages, earnings, and transfer payments into account, inequality in the United States is probably lower than in Europe as a whole.

The true American advantage is not a flexible wage structure resulting from a tolerance of inequality or a lack of social programs but national programs of income redistribution from richer to poorer states and regions, such as a national minimum wage, Social Security, and an earned income tax credit. The European Union has no similar programs serving to redistribute income among its member states. Also, individual states are not able to pursue their own full employment policies; lower interest rates in the United States give Americans access to credit and keep spending up to full employment levels. The answer for Europe is not more “flexibility” but high minimum wages in poorer countries, lower interest rates, and the expansion of rich-country social services to poorer countries.

AMY CALISTRÌ

Interindustry Wage Structures: New Evidence from the OECD

(Co-author, James. K. Galbraith)

In 1950 Sumner Slichter found that interindustry wage differentials exist, differentials are the same for high-skilled and low-skilled employees, a rank order of industries by wage is stable over time, and these wage differentials seem to be correlated with industry profits. His findings run counter to mainstream economic theory, which supposes that labor markets are perfectly competitive and workers with similar skills should earn the same wage, regardless of industry. Slichter explained the existence of wage differentials as the result of “rent sharing,” meaning that more profitable firms share some of their rents with workers in the form of higher wages.

Early studies of interindustry wage differentials looked at them as a snapshot in time, but that view misses the importance of trends in wage differentials and what those trends reveal about wage determination. Because it is difficult to study patterns of changes in many different industries, this research uses cluster analysis to create a few small groups of industries with similar wage-change patterns. Cluster analysis minimizes the variance within a group and maximizes the variance between groups. This research also employs discriminate analysis to determine what economic factors are correlated with changes in wage differentials.

This paper examines wage changes in Germany, Japan, and Italy using data drawn from the OECD's Structural Analysis Database. Cluster and discriminate analyses are applied to time series changes in average annual earnings by industry category. Knowledge of just two external influences on the wage structure is usually sufficient for an understanding of the most important sources of interindustry wage changes and often the sources of wage changes tend to be macroeconomic rather than microeconomic factors, as mainstream economic theory predicts.

Germany's industrial wage structure resolves itself into three distinct groups—transportation industries, machinery and technology industries, and other industries. Transportation has traditionally paid the highest wages. The machinery and technology group has been second, but its position has eroded recently. Wages in machinery and technology tend to be extremely sensitive to the yen-deutsche mark exchange rate, implying that as the yen depreciates relative to the mark, wages in a particular industry come under pressure to the extent that the industry competes with Japanese exports. There is no clear statistical interpretation for much of the between-group variations, but they may be related to the investment cycle in Germany.

Cluster analysis reveals five distinct groups of Italian manufacturing industries—oil, transportation, fashion, communications and computers, and other. Oil is the wage leader, and transportation also pays above average wages. Inflation is also highly correlated with wage changes, but analysis so far has been unable to identify a time series variable that effectively accounts for much of the changes in wages. Wages in the oil group are highly correlated with refiners' acquisition price of oil.

Wage patterns in Japanese industries cluster into four groups—manufacturing and export industries, import-competing industries, oil and chemical industries, and construction industries (such as specialty, craft, and luxury items). The manufacturing and export group pays consistently high earnings, but there is not a close association between any trade or exchange rate variable and variation in wage differentials between the import-competing and export groups. Inflation, however, is closely associated with this difference. Import-competing industries, which tend to be labor intensive and which are Japan's lowest wage sector, continually lost ground in inflationary periods, most likely because this group has the least market power.

These methods are useful to researchers who want to go beyond the conventional microeconomic analysis of wage change and arrive at explanations that can be supported by close reference to the historical record. This analysis shows that Keynesian macroeconomic factors are more important in determining wage differentials than neoclassical microeconomic factors. The strength of consumer demand, interacting with the degree of monopoly power across different sectors of industry, tends to be a critical factor underlying changes in the wage and earnings structure.

L. RANDALL WRAY

Calistri and Galbraith argue that changes in degree of market power must play a role in changing industry wage differentials and that macroeconomic forces are the primary determinants of changes in market power. They are able to group industries in each country into a small number of clusters and they try to find a correlation between wage variations and macroeconomic time series data. They admit that correlation does not prove causality, but assert that a strong correlation is a reasonable indication of some sort of relationship. They attribute changes in the wage structure over time to a small number of exogenous influences. They found that movements of the exchange rate are important in Germany, wage differentials that are affected by external supply prices are important for Italy, and the differential indexation of wages across industries and the level of domestic demand are important for Japan. The conclusion is that relative wage changes are not primarily due to

characteristics of the workers, but to macroeconomic forces beyond the control of firms and their workers but potentially under the control of monetary and fiscal policy.

One problem is that although the paper demonstrates statistically significant correlations, it does not discuss how big the differentials are and how big the effect is. Also, identifying factors that may have an impact on wage differentials is just the first step. It is necessary to do a detailed institutional analysis that would determine just how inflation, for example, affects the wage bargains in Italy and why some bargaining units are not able to get full indexing of inflation.

BRIAN K. MACLEAN

Conceição, Ferreira, and Galbraith contribute to the debate on whether there is an American model for low unemployment, what it is, and whether it offers lessons for countries in Europe and Asia. The paper refutes rigidity explanations for high European unemployment. It introduces a hypothesis and evidence concerning high unemployment, especially high unemployment in high-inequality, low-income European countries. The

authors mention two findings in European countries—a positive correlation between inequality and unemployment and a negative correlation between social program levels and unemployment rates.

The authors need to state more clearly which papers they are referring to when they refute the idea that generous social programs are the cause of high European unemployment. The model with which the authors reach the conclusion that high inequality and low unemployment go together needs to be more precisely spelled out. They seem to have combined search theory with the concept of sectors in the economy that pay high rents, but it is not clear. The discussion of low unemployment in the United States is incomplete. Low interest rates and a national Social Security system do not seem to be enough of an explanation.

The authors compare inequality in the United States with inequality in Europe as a whole, but they do not specify if this is all of Europe or the single-currency area. The comparison points to the need for a critique of the single-currency area based on Keynesian or social democratic principles. One danger in the comparison, however, is that Americans may use it as ammunition to say that inequality is at an acceptable level in the United States.

Measuring Inequality in the World Economy

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KLAUS DEININGER

Asset Distribution, Inequality, and Growth

(Co-author, Pedro Olinto, World Bank)

The relationship between inequality and growth has recently figured prominently in development economics. Traditional theoretical models suggest that growth cannot take place without a significant degree of inequality and such models have often informed policy making. Recent models suggest that a significant degree of inequality can constrain growth.

A reliable picture of the inequality-growth nexus can be formed only on the basis of solid empirical evidence; unfortunately, the empirical

evidence that forms the basis for much of the discussion in the context of the developing economies is weak. First, most empirical work is based on wage data rather than household income data. Household income is more relevant because a significant proportion of members of households in the developing world are not wage and salary earners. Second, most empirical work that uses income data relies on a narrow definition of income that excludes the imputed value of nonmarket production, which is quite important in developing economies with large informal sectors and subsistence agriculture. Third, most empirical analysis employs cross-country and cross-sectional data rather than panel data, thus excluding a rigorous modeling of changes over time.

A panel data set for roughly 100 countries was developed to strengthen the empirical basis of investigations into inequality and growth. The data set overcomes the important problems mentioned above to a considerable degree and also includes information on asset inequality, as measured by inequality in the ownership of land. Data on asset inequality are important because even though most theoretical models postulate that the relationship between inequality and growth is mediated via households' access to assets, empirical tests of this relationship have relied on income distribution data rather than on asset distribution data.

Some theorists have argued that greater asset equality is harmful for long-run growth because it redistributes assets to households that are less likely to save and invest. This argument overlooks the important effects that public investment (in education, health, infrastructure), financed through progressive income taxation, can have on aggregate investment and growth. However, it has to be recognized that a minimal amount of wealth is a prerequisite for poor households to benefit from public investments; for example, without a minimal amount of wealth, poor households may not be able to make use of the access to public education. The better performance of China compared to that of India in terms of human development indexes (such as educational attainment and nutrition) can also be explained, at least

in part, by the relatively more egalitarian pattern of land ownership in China.

Regression analysis using panel data methods shows that initial asset inequality, as measured by land distribution, has a strong negative effect on growth of aggregate output; that the impact of asset inequality is strong and negative on the income growth of the poorest; and, surprisingly, that the impact on the rich is negligible.

The results as a whole have two main policy implications. First, countries engaged in structural adjustment, liberalization, and privatization must ensure that asset inequality does not worsen as a result. Governments in these countries should also maintain an appropriate regulatory framework and provide key public goods and safety nets for the poor and economically vulnerable social groups. Second, asset redistribution is more effective than income redistribution in reducing income inequality.

JAMES K. GALBRAITH

Measuring the Evolution of Inequality in the Global Economy

(Co-author, Lu Jiaqing, University of Texas Inequality Project)

Changing inequality in industrial earnings in over 70 countries reflects the changing political and economic conditions in these countries. The usefulness of data on industrial earnings may be less in countries with relatively small industrial sectors, but, by and large, this measure of inequality is quite informative. Concentrating on industrial earnings allows the development of a database that covers many countries over many years, making inter-country and intertemporal comparisons possible.

Using this database, three phases in global inequality could be identified from 1972 to 1995. The first phase runs from 1972 to 1980. Oil-price shocks of the 1970s and the policy responses to them brought about growing inequality in the oil-importing countries and declining inequality in the oil-exporting countries. The biggest increases in inequality occurred in the United States, India, Turkey, and Greece. Declines in inequality could be observed in Iraq, Iran, and Algeria.

The second phase of global inequality is 1981 to 1988. With the decline of oil prices and the debt

crisis throughout this phase, inequality in most oil-exporting countries and in most other countries widened, with China and India the major exceptions. The largest increases took place in the southern cone of Latin America, especially in Chile and Peru, two debt-ridden economies. The insulation of China and India from the world financial markets probably contributed to their relatively better performance with respect to inequality.

Global liberalization and the fall of communism in Europe in the third phase, 1989 to 1995, generally led to an increase in inequality, most remarkably in the case of Russia. Inequality also rose rapidly in all the countries on the periphery of Central Europe and in the Middle East and China. Most of Asia also saw significant increases in inequality, with the exception of Malaysia and Indonesia.

Examining associations between the inequality measure, growth, and levels of income reveals some interesting patterns. In the case of several Latin American countries, there is a positive relationship between equality and growth; growth in per capita income that is faster than the growth rate of population tends to increase equality and vice versa. The experience of the United States, Japan, and the United Kingdom suggests the opposite: a higher level of per capita income appears to be associated with a lower level of equality. This evidence suggests that the relationship between inequality and growth may be more complicated than that suggested by the traditional Kuznets hypothesis.

ROBERT SUMMERS

The World Distribution of Material Well-Being: Consumption, Private and Public

(Co-author, Alan Heston, University of Pennsylvania)

Studies on inequality tend to focus on inequalities in income, but if the ultimate interest is in inequalities in material well-being, it may be more appropriate to examine consumption. Income inequalities between countries are truly staggering. Over the period 1970 to 1990, the richest 6 percent of the world population got, on average, half of the world's income, and the poorest half got only 6 percent. However, if one takes into account the

diminishing utility of income, the degree of inequality, as measured by the Gini coefficient, becomes much smaller. Another striking feature of the contemporary pattern of income distribution is that inequality between countries is much greater than that within countries.

Detailed country-level data from the Penn World Tables and the Deininger-Squire data set can be used to estimate the size distribution of world consumption (private and public) for all individuals in the world (covering 98 percent of world population) for some benchmark years between 1970 and 1990. This measure is preferable to the commonly used measure, which is based on the assumption that all individuals within a country receive the same income or consume the same quantity of goods and services. The size distribution of world consumption allows us to make important observations, for example, the percentage of world population that consumes less than a dollar's worth of goods and services a day. Tentative estimates from this procedure indicate that the size distributions of consumption are extremely skewed toward individuals in the higher consumption brackets. However, a limitation of the estimated distribution is that it is based on the assumption that the distribution of consumption within each country is log-normal.

Tentative estimates were also derived for international inequalities in private consumption and in private and public combined using the method that ignores intracountry differences. The overall degree of inequality is similar for both measures of consumption. In 1990 the share of the low-income countries (about 58 percent of world population) in world consumption (private plus public) was only about 17 percent; the share of the high-income countries (only 16 percent of world population) was 56 percent. However, the poorest and the richest countries had a slightly smaller share in world consumption when only private consumption was taken into account.

EDWARD N. WOLFF

All the researchers in this session have developed new data sets that can stimulate further research and debate. The Penn World Tables, developed by Robert Summers and his associates, have given rise to over a thousand research papers. The Deininger-Squire data set, developed at the World Bank, and

the data set of Galbraith and his associates at the University of Texas are more recent, but promise to have several applications.

However, there is room for "truth in labeling" in all the data sets and the research based on them. Deininger attempts to incorporate asset inequality but takes only one type of asset, agricultural land, into account. The empirical analysis should, therefore, have been restricted to only countries in which agricultural land is the most important type of asset. This is arguably the case in several developing countries, but it is not so in developed countries. In the United States, for example, agricultural land constitutes only about 1 percent of the total wealth. Another problem with Deininger's analysis is that the inequality measures used are not consistent across countries. Consumption data are used for some and income data for others, thus biasing the results in an unknown direction.

The data and research developed by Galbraith and his associates are best labeled as work on manufacturing interindustrial wage differentials. It is problematic to use their measure of inequality as a proxy for overall inequality at a national level. For example, inequality in manufacturing wages and national measures based on the Current Population Surveys for the United States show significantly different trends. Inequality measures based on data from the Luxembourg Income Study of other OECD countries differ considerably in levels and trends from inequality measures based on manufacturing wages. Yet, the evidence presented by Galbraith and his associates on the link between the major macroeconomic events and inequality in manufacturing wages is quite striking.

There are some grounds for skepticism about Summers's argument that consumption level is a better proxy for welfare than income. A recent wave of research that seeks to measure poverty using consumption data has found a lower incidence of poverty than is found when conventional income measures are used. However, current consumption may be financed by drawing from savings and incurring debt. Such financing has implications for future income and hence consumption levels, and it is important to take these effects into consideration when using consumption level as a proxy for welfare. There is also room for skepticism regarding Summers's assumption that the size distribution of consumption within a country is log-normal. There is no empirical evidence to indicate that such an assumption is justified. Furthermore,

the allocation of public consumption among the population has to be done by better methods since international comparisons of inequality are likely to be sensitive to the method used.

PAUL DAVIDSON

Deininger's argument that asset inequality inhibits growth may not be historically valid. England during the industrial revolution saw concentration in land ownership, but no one would argue that growth was inhibited as a result. More recently, citizens were given equal shares in previously state-owned enterprises when communism ended. The growth performance in the formerly communist countries since then has not been strong. Issues related to valuation of assets, especially financial assets, should also be dealt with in attempts to relate asset inequality to growth performance.

Galbraith's argument that rapid growth will favor greater equality is intuitively appealing. It is worth emphasizing that the inequality-reducing effects of growth kick in only when the unemployment rate falls below a certain level. Also, although growth can reduce inequality, there are limits to the extent to which inequality can be reduced. To understand those limits, it is only necessary to

recall the Kalecki-Levy argument that propensities to consume are differentiated by kinds of income and that some inequality may be necessary to sustain saving and growth. Higher profit shares are associated with higher investment rates and higher investment rates generally lead to higher growth rates. It may also be the case that the inequality-growth relationship may differ according to which of the economic sectors—primary, secondary, or tertiary—dominate a given economy.

Summers's preference for consumption levels as a proxy for current material well-being may be justified, yet careful thought must be given as to what is to be included in the category of consumption. There are reasons to think that the conventional national income and product accounts definition of consumption may not be appropriate. Conventional accounts include purchases of consumer durables as current consumption. However, if one takes the notion that what really counts is the utility derived from consumption, then only the depreciation charges for consumer durables should be included in current consumption. Similarly, several items of public consumption, such as educational services, have characteristics of investment goods. Undifferentiated treatment of consumption as a proxy for welfare is therefore likely to be problematic.

Development Strategies: Successes and Disasters

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PAN A. YOTOPOULOS

Free Currency Markets, Financial Crises, and the Growth Debacle

Many explanations of the Asian economic crisis of 1997 have been offered. The “disequilibrium in fundamentals” hypothesis holds that macroeconomic imbalances in combination with faulty monetary and fiscal policies were responsible. However, the affected Asian economies had solid fundamentals according to all evaluations until the outbreak of the crisis. The

“crony capitalism” hypothesis holds that a lack of appropriate regulatory oversight and control was responsible. While this hypothesis has some merit, it cannot explain the timing or severity of the crisis.

The crisis in the miracle economies of Malaysia, the Philippines, South Korea, and Thailand was characterized by sharp currency devaluation, large declines in asset values, and dramatic declines in output. These three crucial aspects of the crisis can be explained by the “currency substitution” hypothesis. This hypothesis states that there is a tendency for soft currencies in the global economy to undergo systematic devaluations that are independent of the fundamentals of the economy and are related to the position of the currency in the continuum of hard (reserve) to soft (not held as assets) currencies. The Asian economies hit with the crisis had soft currencies. In a free-currency market, such as that adopted by these countries, a precautionary motive creates an asymmetric demand for hard currency. The asymmetry implies that soft currencies will depreciate systematically, while hard currencies will fluctuate based largely on fundamentals.

Devaluations tend to produce collapses in asset values. More important, the currency substitution hypothesis implies that there will be a systematic misallocation of resources in soft-currency countries. Devaluation can lead to a shift in the composition of national output toward tradables, in which factor productivity may not be as high as it is in nontradables. This can explain why devaluations and financial crises often have dramatic effects on the real economy. Empirical testing using a sample of about 70 countries for benchmark years between 1970 and 1985 lends reasonably good support to the hypothesis.

The policy remedy for countries with soft currencies to avoid systematic devaluations due to asymmetry in demand is rationing, that is, restrictions on converting the soft currency into hard currency for precautionary purposes. While contemporary conventional wisdom dismisses exchange rate controls as a valid policy option, it should not be forgotten that the most remarkable phase of growth in the world economy, from 1950 to 1970, was characterized by the existence of those controls.

JUNMO KIM

Korea's Experience with Heavy Industrialization: Evaluating the Past Policy with Wage Data and Its Implications for the Future

The heavy and chemical industrialization strategy followed in South Korea since the 1960s (known as the HCI) was criticized by several economists from its inception as generating microeconomic inefficiencies and a distorted industrial structure. However, studies of the HCI conducted within the disciplines of business studies and political science have generally hailed the HCI as a policy success. An assessment of the strategy and its impact on the country's industrial structure was undertaken using detailed wage data drawn from the Occupational Wage Survey published annually by the Korean Ministry of Labor.

With data from 1971 to 1991, cluster analysis was used to classify industries into groups that are internally similar in wage growth. Interestingly, the industries targeted by the HCI formed a coherent group. The other clusters identified were the labor-intensive group, the skilled labor group, and the services group. Discriminant analysis was used to identify macroeconomic forces underlying wage growth in the different groups. Cumulative wage growth appears to be primarily related to investment growth; a secondary factor is an index of the difference between the Korean and the international interest rate (proxied by the LIBOR).

The relationship between wage growth and investment growth found in Korea is similar to that found in most industrialized countries: industries that employ relatively more skilled labor and industries targeted by the HCI earn industry-specific labor rents large enough to pay relatively higher wages to their workers. This suggests that the HCI strategy did not distort the industrial structure, as feared by the economists. The results also indicate that the long-term loans at cheap interest rates provided to industries targeted by the HCI protected them from the turbulence in world financial markets. A similar benefit could not be derived by other industry groups. However, closer analysis shows that the preferential treatment of the industries in the HCI group in this respect did not contribute to the formation of labor rents. Overall, the results suggest that the HCI strategy was successful in transforming Korea into an industrialized economy

without generating microeconomic inefficiencies and a distorted industrial structure.

The past success of the strategy does not ensure that it can be continued into the future unchanged. As Korea is a developing economy, its heavy industries face a problem of a limited domestic market. The serious overcapacity problem can be resolved only through structural changes and corporate governance reforms.

NANCY BIRDSALL

Education: The People's Asset

The relationship between inequality in education and general inequality in developing countries should be examined for four important reasons. First, the distribution of assets, especially the special asset of education, matters for growth and for poverty reduction. Second, educational inequality contributes greatly to income inequality. Third, there is a vicious cycle in which income inequality leads to educational inequality, which in turn leads to income inequality. Fourth, differences in policy over time and across countries can make a difference in the extent to which the vicious cycle is operating.

Cross-sectional data on inequality and per capita GDP growth show that developing countries vary considerably in terms of the inequality-growth nexus. Low-income South Asian countries had low growth and low inequality, and middle-income Latin American countries had low growth and high inequality. East Asian countries were unusual in that they had high growth and low inequality; a more equitable redistribution of land and higher educational levels were responsible for this special feature.

Some recent empirical research in development economics has suggested that education is irrelevant for growth. However, if the distribution of education is taken into account, this suggestion can be rejected. Cross-country growth regressions that include the distribution of education as an explanatory variable show that the distribution of education has a more pronounced effect on the income growth of the poor than average educational level has on average income growth. This implies that improvement in educational opportunities for the poor can significantly reduce poverty.

In developing countries, educational inequality plays a major role in sustaining a "destructive" type

of inequality that persists across several generations. This type of inequality is distinct from a “constructive” inequality that is associated with periods of rapid growth and significant upward and downward mobility. Comparisons between Latin America and East Asia show that the educational inequality between rich and poor households is much higher in the former region. More disturbing, the gap between rich and poor households is higher in the 1990s than it was in the 1980s in several countries. Since the incremental increase in income due to education is much higher in the developing countries, the differential access to education strongly affects the distribution of labor income. Poorer households often cannot afford to send their children to school, and, since the children’s chances of success at school are relatively low, are also less motivated to do so.

Econometric investigations have been conducted for a large number of countries on the relationship between the income and schooling of parents and children’s schooling. The sensitivity of this link—called a mobility index—to a few macroeconomic and policy variables was also examined. The results show that developed financial markets and quality of primary education are crucial in explaining how upwardly mobile children are. They also suggest that public spending on education in general (including secondary and higher education) is not as important as spending on primary education and the quality of primary education for determining upward mobility.

MICHAEL D. INTRILIGATOR

Yotopoulos’s hypothesis that under flexible exchange rates soft currencies will depreciate systematically can be thought of as an internationalized version of Gresham’s law. The policy proposal of exchange rate controls is counter to the IMF-World Bank wisdom and forces a rethinking of that wisdom. A Tobin tax on foreign exchange transactions may be helpful in quelling speculative trading in currency markets. The main problem with a Tobin tax, however, is the sharing of the proceeds from it; attempts to devise a plan that is satisfactory to the major countries have been unsuccessful.

Kim debunked some of the criticisms of South Korea’s industrialization policy. Not only were the anticipated microeconomic inefficiencies small or nonexistent, the policy succeeded in transforming

Korea from a relatively underdeveloped economy to a major industrialized power. The government policy of providing cheap, long-term credit for key industries is nothing other than a form of government planning. Gerschenkron pointed out long ago that the need for government planning is inversely proportional to the level of economic development, and his observation is still true. However, some of South Korea’s current problems may be due to unnecessary government involvement.

Some thoughts on Russia, as a transition economy in crisis, can be added here. In Russia GDP has declined by about 50 percent and the number of people in poverty has skyrocketed from 2 million in 1992 to 60 million today. The reason for the unprecedented economic and human costs was the acceptance by the Russian government of the Washington consensus that macroeconomic stabilization, liberalization of markets, and privatization of state enterprises would ensure a smooth transition to a market economy.

A successful transition requires other ingredients as well and their omission was responsible for the Russian debacle. The institutions of the socialist economy were destroyed, but they were not replaced with the institutions of a capitalist economy, such as well-defined private property rights, a banking and financial system with an appropriate regulatory framework, a commercial code, and legal institutions. The lack of these institutions is responsible for the corruption and criminalization that is under way in contemporary Russia. The fostering of active competition in product markets is also required to prevent the conversion of state monopolies into private monopolies. In contrast to Russia, China had a successful experience because of judicious policies that modernized agriculture, attracted direct foreign investment, and created an entrepreneurial spirit by fostering township and village enterprises.

JAN A. KREGEL

Yotopoulos’s theory is incomplete in that it does not explain how currencies differentiate themselves into soft and hard currencies. Models of currency markets during the Bretton Woods era concentrated on the current account or flow variables such as income because under the Bretton Woods system current account balances or flow variables dominated currency markets. Models that did include the capital account did so without recognizing the stock

implication of capital account adjustments. However, in the 1980s accumulated debt became a serious problem and capital flows began to dominate the international financial system. Because stock variables now dominate flow variables, those fundamentals that are linked to the current account have only a weak effect on currency fluctuations. Demand for foreign exchange now stems not only from the need to finance current account transactions, but also from the desire to hold it as an asset.

Once this is recognized, it is useful to adopt the Keynes-Minsky analysis of how people decide to take positions, how those positions are financed, and how the methods of financing affect the real economy. If a foreign currency is an asset to be held, it makes sense for money managers to hold all foreign currencies to an equal degree because diversification reduces risk. The basic difference, then, is between the currency that serves as the unit of account and all other currencies rather than between soft and hard currencies.

The recent history of international monetary arrangements also indicates that to serve as a reserve currency, a currency must be something more than just desirable as an asset. Within the context of the archetypal fixed exchange rate system, the gold standard, the pound sterling played the role of the reserve currency because the rest of the world was indebted to Britain. Although Britain generally ran a trade deficit, it enjoyed a current account surplus because of the more than compensatory effect of net interest payments to Britain owing to the favorable international investment position of Britain. The dollar's case is more complex. Although the United States enjoyed a foreign surplus for a brief period after the Second World War, it soon went into deficit. Although the dollar's parity with gold remains unchanged, all the other currencies revalued with respect to the dollar. A reserve currency thus became quite similar to a soft currency. The dollar reversed its position and reemerged as a reserve currency because of the global trend toward a system of flexible exchange rates.

Interest rate differentials also can affect the status of a currency as soft or hard. For example, before the 1994 crisis the Mexican peso could be considered a hard currency relative to the dollar because of interest rate differentials, yet after the onset of the crisis it became a soft currency and suffered severe devaluation. Overall, the factors at work behind investors' decisions to hold or discard a particular currency are varied and the distinction between soft and hard currencies itself is endogenous.

ROBERT A. BLECKER

Yotopoulos's recommendation of exchange rate controls as a long-term policy to avert financial market failures rather than as a desperate measure in a crisis situation is a remarkable contribution. This policy may be necessary to promote long-run growth and efficiency. However, the mechanisms of implementing it still need to be worked out. An implication of Yotopoulos's analysis is that the appreciation of a hard currency such as the dollar has real effects on the country's economy. The chronic tendency of the dollar to become overvalued has led to mounting trade deficits and a shift in the composition of employment toward nontradable services, which have lower wages than export-oriented industries. An appropriate exchange rate can therefore have an effect on wage inequality in the United States.

The overall thrust of Kim's analysis of the HCI is quite on the mark. However, his analysis is incomplete because he paid attention only to wages, to the exclusion of other variables such as profits or productivity. Kim's assertion that the absence of correlation between the interest rate differential and cumulative wage growth in different industries could be interpreted as indicating the unimportance of credit subsidies as sources of industry-specific rents is also questionable; credit subsidies can directly influence investment that contributes to such rents.

Birdsall's analysis highlights the link between educational inequality and income inequality. The neoliberal macroeconomic policies that have been followed in Latin America over the last 20 years have contributed to worsening educational gaps between the rich and the poor. Fiscal austerity and tight monetary policies have led to slashing outlays for social expenditure such as education and to lower economic growth. However, improving the educational system and directing more educational resources toward the poor will not by themselves be sufficient. Poor families often cannot afford to send their children to school and poor children often do not have the incentive to stay in school. Furthermore, under the current neoliberal economic regime there may not be enough employment growth to provide jobs for the newly educated. If the neoliberal development strategy as a whole is not challenged, better education will not make a significant difference.

Policy Roundtable

MODERATOR: FRANCES M. SPRING
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PRESENTERS

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JAMES K. GALBRAITH

It is fair to say that we are experiencing a crisis of globalization. It is really no longer possible to assert with confidence that liberalization per se is a good thing. Financial liberalization in particular does not work in small, developing countries. Crashes follow with great predictability, with real economic consequences, and the recovery is not swift. The economics profession in the 1980s and 1990s promoted export-led industrialization as a matter of industrial choice. But that choice implies specialization, and specialization based principally on foreign investment, while it may be efficient, also makes one vulnerable to the stoppage of capital flows, to shifts in sectoral demand, to technological change, to creative destruction, and to the next guy on the block who comes along with a lower-cost operation.

Global integration, moreover, as a universal strategy means that one is basically committed to

conforming to the global pattern of the wage structure. If that global pattern is toward rising inequality, as it has been in the 1980s and 1990s, then that will be true not only at the global level, but at the level of each open industrial economy. Stabilization requires, therefore, that something be done to stabilize financial flows and particularly exchange rates.

The problem of inequality must be addressed at the global level, at the regional level, and at the national level. At the global level, one should be sympathetic to the view that it is time to replace the leading personnel at the International Monetary Fund on the grounds that there is a need for new people and new policies—a clean slate. But perhaps it is beyond the capacity of an organization like the IMF to make changes in people and policy. At the global level, the most important thing may be some consciousness that the policies of the United States and Europe, as the leading global economies, have an enormous influence over stability and instability in the developing world, particularly through interest rate policies. The Asian crisis was, at least in part, precipitated by the very small rise in interest rates in March of 1997. If we are to have an open, global system, we must recognize the reciprocal responsibilities that type of system entails.

Perhaps regional stabilization systems would work better. The Federal Reserve, although it operates within one country, acts as such a system across regions of the United States. The European Central Bank could, by changing its operating rules, acquire a stabilizing function if the governing authorities of Europe are willing to take responsibility for the poor countries of Europe. They have the capacity to do something about the poor countries and some framework of accountability might emerge. In Asia the situation is more difficult, but the Japanese did propose an Asian monetary fund that would be accountable for the performance of the peripheral economies of Asia. Creation of that fund was blocked by the United States. It would have been a pragmatic and sensible idea, reflecting, in fact, the successful experience of the Treasury Department in limiting the damage done to Mexico in 1994 by getting a big

loan in place at an early date. At the national level, the case to point to is China. China has followed a path of controlling capital flows to stabilize financial flows internally.

PAN A. YOTOPOULOS

Research presented during the conference showed that when countries devalue, inequality increases. For example, within a year after devaluation in 1997, Korea lost 18 percent of its gross domestic product and the poor suffered most. Similar patterns occurred in the Philippines, Thailand, Indonesia, and Malaysia. However, Korea is better off today than many other nations affected by the financial crisis; it is showing signs of a comeback, with growth increasing by 5 or 6 percent this year.

What is needed is a reexamination of the global system. There was a lot of discussion of the international financial system immediately after the crisis, but as time passes it is discussed less. None of the plans thus far presented for reforming the system would do much good. Yet, there are some things that can be done, and one is to make sure that crises do not become endemic.

As long as policymakers hold to the belief that free markets always increase competition and make for stronger firms, stronger businesses, stronger banks, and stronger currencies, there will always be problems. More competition can be better, but not in an incomplete market (a free market in credit). A credit auction attracts people with defaulting portfolios who are willing to pay high interest rates. They take big risks, but expect big returns. But big risks sometimes come out wrong.

Just as nonsensical is a system that allows a free currency market to convert soft currencies into hard ones. The result is a situation in which the foreign exchange rate becomes the financial tail that moves the development dog. Most policymakers know better, but it is still done.

MICHAEL D. INTRILIGATOR

Five points relevant to policymaking should be emphasized. The first is a methodological issue—the interpretation of inequality. The problem of central importance is not inequality per se but poverty. Inequality and poverty are often confused, but they are distinct. Inequality may actually help

growth or it may hurt growth, but poverty always hurts growth.

The second refers to categories of analysis with regard to international comparisons. Research, including much of that presented during the conference, tends to divide the world into the two categories of developed and developing countries, but there should be a three-way division—industrialized, developing, and transition economies. These are three distinct types of economies that require different strategies for growth, and it is a mistake to put transition economies with developing economies. Contrary to the hypothesis that holds that developing economies grow at a faster rate than industrialized economies so that economies converge, there is polarization rather than convergence in the world. With only a few exceptions in Asia, the poorer countries are growing at a slower rate than the richer countries.

Third, income research should consider costs, or outgo, as well as income. For example, the lack of national health insurance reduces income in the United States; someone with a comparable income in another OECD country does not have the same health care costs. Health care, educational, and other costs must be considered when comparing national incomes. Governments could give people more income and security by providing health insurance, education assistance, or even direct grants to offset those costs.

Fourth, policy for transition economies should focus on institutions, competition, and government. China is the model to follow; Russia is the model to avoid. Developing economies should take note of the successful outcome of China's policies of land reform, especially agricultural reform, and small loans to poor people. Fifth, the forgiveness of the poorest nations' debt by the creditor nations would be a big step forward in addressing the human dimensions of the poverty problem.

EDWARD N. WOLFF

A dimension of inequality that has not received as much attention as income inequality is wealth inequality. Statistics on the net worth of households show that in the United States wealth inequality has increased even more rapidly than income inequality. Since 1989 net worth has remained constant or declined for all but the

richest 10 percent, and median wealth has actually declined.

There has been much talk about widening participation in the stock market in the United States, but stock ownership is still highly concentrated. The richest 10 percent of households still own about 85 percent of all stock; about 45 percent of all households own some stock, but only about 30 percent own stocks worth more than \$5,000 and only about 25 percent own stock worth more than \$10,000. Home ownership has essentially stagnated since 1975. The 1 percent increase in home ownership can be attributed to an increase in mobile home ownership. The boom in housing construction is fueled by second and third home purchases.

Household debt as a percentage of net worth has risen from about 11 or 12 percent at the beginning of this decade to about 15 percent today. Debt as a percentage of income is now around 100 percent. News reports often attribute this increase in debt to credit card debt, but the real increase has come from mortgage debt. Mortgage debt as a percentage of the value of homes

has grown from about 20 percent at the beginning of this decade to over 40 percent today. Also, contrary to news reports, people are not mortgaging their homes to buy stocks but to maintain their normal consumption levels despite a decline in household income. Median household income fell 8 or 9 percent between 1989 and 1993 and has just come back to where it was in 1989.

The poor have always struggled, but now we are seeing the middle class struggling as well. If we really want to help people, we must adopt a serious income policy to redistribute wealth and provide more income support. Some of the supports that existed in the past are needed. Less than a third of unemployed workers now receive any kind of unemployment benefits, but 30 years ago 60 or 70 percent did. The welfare system has also been dismantled. Essentially, the safety net has been pulled out from under people. Also needed are programs that promote home ownership by providing heavily subsidized mortgages for lower- and middle-class families. Philanthropy is not the answer. It was tried in the nineteenth century and it failed. The only real solutions are income policies.

Participants

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