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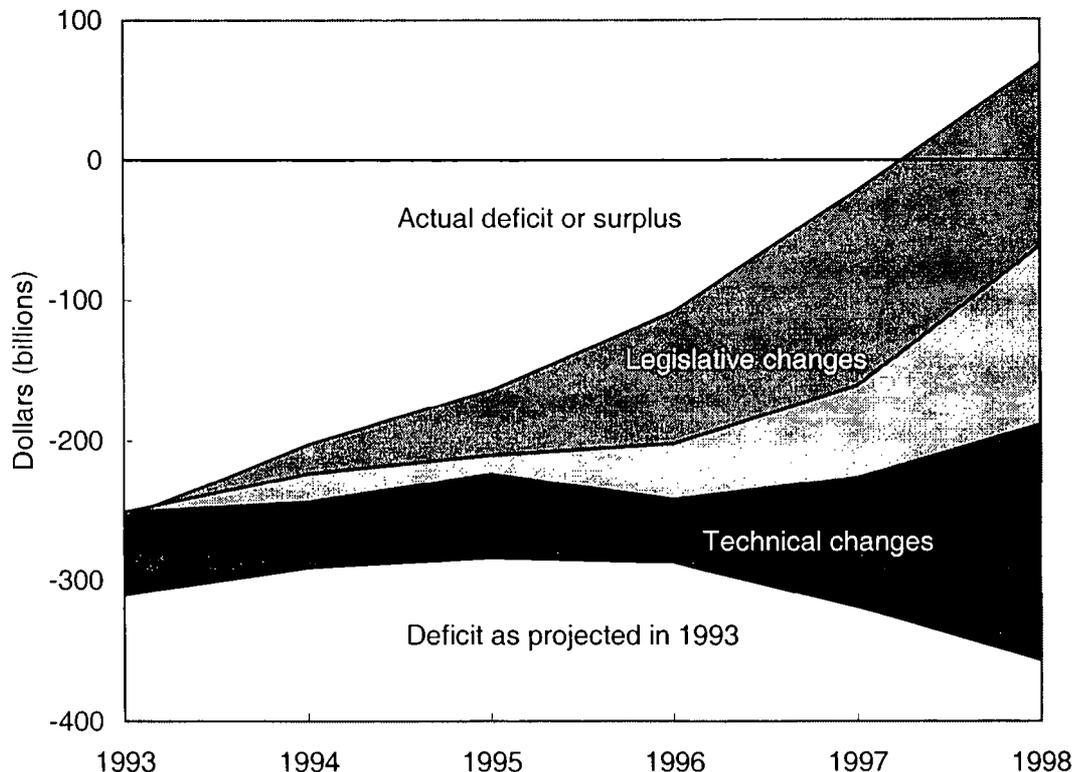
WEEKLY ECONOMIC BRIEFING OF THE PRESIDENT OF THE UNITED STATES

Prepared by the Council of Economic Advisers
with the assistance of the Office of the Vice President

February 4, 2000

CHART OF THE WEEK

Actual Deficits or Surpluses Compared with 1993 Projections



The Congressional Budget Office's 1993 budget projections showed the Federal budget deficit worsening to \$357 billion in 1998. In fact, the budget was in surplus by \$69 billion. CBO estimates that \$130 billion of this swing resulted from legislative changes, \$127 billion from better economic performance, and \$169 billion from changes in technical factors (such as overall trends in health care costs that affect Medicare, or the weather, which affects farm programs).

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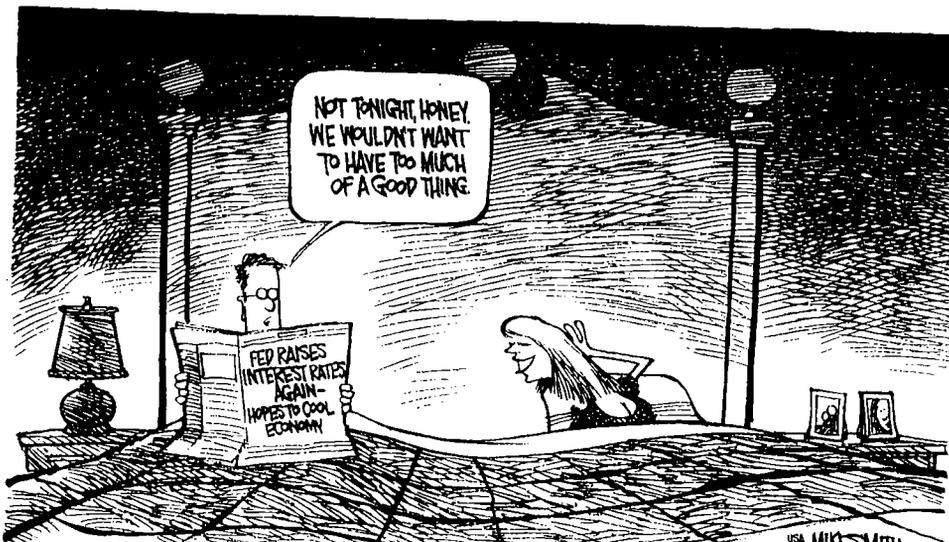
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POOR SUSAN, SHE MARRIED AN OFFICIAL OF THE FEDERAL RESERVE.

USA MIKE SMITH
By Mike Smith, Los Angeles, Calif. for HCA TODAY

CURRENT DEVELOPMENT**GDP Scorecard: Fourth Quarter 1999**

Real GDP is estimated to have increased at a 5.8 percent annual rate in the fourth quarter of 1999 with strong growth in consumption, inventory investment, exports, and government spending. Growth over the four quarters of 1999 is estimated to have been 4.2 percent. Inflation—as measured by the price index for GDP—increased at a 2.0 percent annual rate in the fourth quarter, but only 1.6 percent over the whole year.

Component	Growth*	Comments
Total consumer expenditures	5.3%	Fourth-quarter consumption grew at the same rate as during the previous four quarters, and the saving rate fell further.
Equipment and software	4.9%	Growth was the weakest it has been in over a year. Investment in computers rose at only a 27 percent annual rate, well below the 46 percent pace over the previous 4 quarters. Motor vehicle investment fell.
Nonresidential structures	-5.3%	Spending has fallen in each of the past 4 quarters.
Residential investment	-1.2%	Housing starts peaked in the first quarter, and have come down since. Because housing starts remain high relative to what would be predicted based on demographics, this is not likely to be a growth sector.
Inventories (change, billions of 1996 dollars)	\$65.4	Some of this very large inventory buildup may have been to buffer against feared Y2K disruptions. Nevertheless, final sales growth was strong enough to keep the inventory-to-sales ratio from rising.
Federal purchases	16.0%	Large gains were estimated in both defense and nondefense categories.
State & local purchases	4.4%	The fourth-quarter gain was similar to the pace over the previous four quarters. The surplus of state and local governments—about \$46 billion over the most recent 4 quarters—has doubled over the past 2 years.
Exports	6.9%	Fourth-quarter growth was slightly better than the pace of the previous 4 quarters and may reflect emerging strength among our trading partners.
Imports	10.6%	About 40 percent of this large increase in imports was for capital goods. Another 30 percent of the increase was accounted for by consumer goods.
*Percent real growth in the fourth quarter at annual rates (except inventories). This advance estimate is subject to substantial revision—especially for exports, imports, and inventories, where the estimates are based on only 2 months of data.		

ARTICLE

The 2000 *Economic Report of the President*

The 2000 *Economic Report of the President* will be released February 10. This article summarizes and highlights the chapters of the accompanying annual report of the Council of Economic Advisers.

Chapter 1: Sustaining a Record-Breaking Expansion.

This overview chapter describes how the Administration's policy strategy of investing in people and technology, opening international markets, and maintaining fiscal discipline has paid off in a record-breaking expansion. In addition, it contrasts this expansion with previous expansions and examines the question of whether we are in a new economy.

An expansion that is not just longer. Several features of this expansion are distinctive and heartening. First and foremost, the structural budget deficit shifted from deficit to surplus (rather than either growing or remaining large as in previous long expansions). This fiscal prudence has contributed to an investment-led expansion as relatively low real interest rates have spurred strong investment in technology and high-tech equipment. In addition, productivity growth has strengthened as the expansion has matured (typically it slows down); core inflation has declined despite falling unemployment (typically inflation rises with low unemployment); and capacity has roughly kept pace with output growth (typically capacity utilization rates increase more).

Rethinking inequality. The two-decade-long trend toward greater inequality has ended. Between 1993 and 1998, household incomes grew between 9.9 and 11.7 percent for each quintile of the income distribution. Since 1994, workers with only a high-school degree and those who have completed college have seen similar earnings growth; hourly wage growth for the lowest deciles has matched those in the top deciles. At the same time, however, the forces previously seen as causing greater inequality—technological change, the internationalization of the economy, and fiscal restraint—have never been stronger. Instead of aggravating inequality, however, rapid productivity growth and openness to trade have helped us to operate and sustain a high-employment economy, with opportunities for all. Deficit reduction has been compatible with more careful targeting of spending to increase funding for education, training and the Earned Income Tax Credit.

A New Economy? Since the previous cyclical peak in 1990, growth in GNP per capita has matched the 2.1 percent annual pace recorded for the century as a whole. Data from the past 5 years suggests, however, that we may have done better than just return to the good old days, and that the future could be even more prosperous. The challenge is to sustain this progress with the policy framework that has worked so well—maintaining fiscal discipline, investing in people and technology, and opening international markets.

Chapter 2: Macroeconomic Policy and Performance

This chapter provides a review of macroeconomic developments in the past year as well as the Administration's economic forecast and the near-term outlook for the economy. It also examines in detail the stock market boom, the changing nature of the business cycle, and the high investment economy.

A record-breaking year. A number of measures besides growth, unemployment and inflation show how strongly the economy performed in 1999. For example, the employment-to-population ratio of 64.3 percent topped last year's record. The proportion of American households owning their own homes climbed to a new high of 66.8 percent in 1999. Sales of new and existing homes also broke new ground last year and 16.8 million cars and light trucks were sold, the most ever.

The stock market boom. The bull market that began in 1995 is already the strongest since the 1930s and the sixth strongest in the last 200 years. The real return to stocks has averaged nearly 24 percent per year during the last 5 years, with technology stocks performing especially well in the past 2 years. No one has a definitive explanation for this run-up in stock prices, but the chapter analyzes two possibilities: a reduction in the equity premium owing to reduced costs of diversification and greater tolerance toward stock market risk; and improved prospects for future productivity growth related to investments in intangible capital and new technologies.

The end of the business cycle? Business cycles moderated in the second half of the 20th century, owing in part to fundamental changes in the economy, as well as changes in monetary and fiscal policy. For example, more cyclically sensitive sectors like manufacturing now account for a smaller share of employment and output than earlier this century, and volatile inventory stocks are less important.

The high-investment economy and productivity. The acceleration in productivity growth, from 1.4 percent per year between 1973 and 1995 to 2.9 percent per year since 1995, has been fueled by increases in real business investment—especially computers—along with increased productivity in the computer-producing sector. This pickup in productivity growth has supported real wage gains and temporarily lowered the unemployment rate consistent with stable inflation (the NAIRU), helping keep inflation in check.

The Administration forecast. Growth in real GDP is projected to moderate to 2.9 percent and 2.6 percent in 2000 and 2001, respectively. Although the 2000 figure was slightly above the consensus of professional forecasters when the GDP projection was finalized in November, it is now slightly below. Productivity is projected to grow an average of 2.1 percent per year over the next 4 years, similar to the average rate of growth since the last business-cycle peak. The unemployment rate is expected to remain at 4.2 percent for 2000, and then to edge upward slowly, reaching 5.2 percent in 2003—the middle of the range consistent with stable inflation in the long run. Inflation—as measured by the CPI—is projected to remain roughly stable over the 11-year projection horizon.

Chapter 3: Technology and the American Economy

This chapter examines the technological change that has driven growth in this expansion and in this century at the industry level. Technological change has created new industries and altered the competitive landscape of the American economy. Just as Ford changed manufacturing earlier in the century with his invention of the assembly line, today computers and information technology are changing how firms operate in our economy.

Growth in telecommunications and information technology. Two examples of these trends are evident in the telecommunications and information technology industries. The computer and telecommunications industries contributed between 21 and 31 percent of GDP growth in each of the years from 1995 to 1998. Investment in communications equipment grew by 13 percent annually from 1993 to 1998, spurred on in part by new investments by wireless phone companies that now serve more than 69 million subscribers. Computer usage in the home has also been rising, as has usage of the Internet. A recent survey found that more than 118 million Americans had access to the Internet, and more than 74 million were actively using this new communications medium.

The effect of information technology on the firm. Information technology has vast potential to enhance the economy's productivity and make firms more efficient. For example, one company found that by moving marketing and support functions online, it saved more than \$300 million per year in operating costs. Use of information technology to support business-to-business e-commerce is also becoming increasingly important, as firms are finding new ways to use information technology to organize markets for selling industrial products like steel or conducting auctions among potential suppliers of customized parts. By one estimate, business-to-business e-commerce is expected to grow from \$43 billion in 1998 to over \$1.3 trillion by 2003.

Supporting new innovations. As technology becomes increasingly vital to our knowledge-based economy, a crucial task of government is to provide appropriate support for research and development. New technologies can create benefits with large spillovers to society, but firms may underinvest in R&D because they cannot appropriate the full benefits of that investment. By supporting research in a broad and balanced national R&D portfolio, the \$43 billion investment in the 21st Century Research Fund proposed for fiscal 2001 has the potential to yield significant benefits in years to come.

Enhancing competition. Government can promote competition by changing the regulatory framework within which industries operate, as it did with the Telecommunications Act of 1996, which reduced barriers to entry in local telephone markets. Local competition is growing rapidly, and new entrants now account for 6 percent of revenues in these markets.

Chapter 4: Work and Learning in the 21st Century

This chapter analyzes how the nature of work has changed dramatically over the past 100 years and the challenges these changes pose for current policy. In 1900 over 40 percent of the work force was in agriculture, and another 28 percent was in manufacturing. Services, broadly defined, accounted for the remaining 31 percent. Today, agriculture accounts for less than 3 percent of employment, while the service-producing sector dominates with over 75 percent. The change in the industrial mix has been associated with a technological revolution—one that has touched the majority of jobs and put a premium on a new set of skills, including those related to the new information technologies.

The rising importance of skills and education. In 1940, 41 percent of whites and 12 percent of African Americans had completed high school. By 1998 both groups enjoyed about an 88 percent completion rate. Despite these impressive gains, it appears that in recent decades the demand for skilled workers outpaced the supply. The rise in the demand for basic computer skills illustrates this change. In 1984 about a quarter of all workers were using a computer at work, by 1997 that proportion had risen to virtually half. In fact, most jobs in today's labor market that are available to workers without a college degree require the ability to perform basic tasks involving reading, writing, or arithmetic, the use of computers, and the interpersonal skills to serve customers effectively. Only 8 percent of the jobs available to non-college graduates require none of these skills. Further, a sharp increase in the wages of college graduates relative to those without a college degree provides indirect but striking evidence of rising demand for workers with higher level skills. In 1999 male college graduates working full time were earning 68 percent more per week than comparable male high school graduates, and 147 percent more than those who had not completed high school. These figures are up from 29 and 57 percent, respectively, in 1979.

Growth in opportunities. This chapter also analyzes the increasing opportunities for women, minorities, and persons with disabilities. For example, through most of the 1960s and 1970s, the median full-time, full-year woman worker earned about 60 cents for every dollar earned by her male counterpart. More recently, this figure has been about 75 cents on the dollar (73 cents in 1998 in the series cited in the report). Women's earnings are even closer to men's when factors such as education and experience are held constant, but evidence of discrimination still exists.

Policy challenges. The challenge for public policy in the 21st century will be to develop an appropriate set of education and training policies: one that creates a framework of lifetime learning within which workers can acquire and maintain both the basic skills and the more technical skills they need in the new labor market. The last part of the chapter discusses the appropriate role of government in fostering this objective and Administration initiatives such as Head Start, the Technology Literacy Challenge, and the Workforce Investment Act.

Chapter 5: The Changing American Family

This chapter discusses how the opportunities and challenges facing American families have changed over the last hundred years as the increase in the number of dual-earner and single-parent families has eclipsed the traditional one-breadwinner, one-homemaker family. In particular, the chapter looks at the balance between the rewards of work and the needs and rewards of family time.

Key trends. The chapter identifies three important trends that have shaped the American family over the past century. First, 60 percent of females are now in the labor force, up from 20 percent in 1900. Second, increases in divorce and out-of-wedlock births mean that 28 percent of children now live in one-parent families, up from less than 10 percent in 1900. Finally, life expectancy has increased from less than 50 to well over 70 years, so that concern for their own retirement and care of elderly relatives are increasingly concerns of families today.

Increasing diversity across families. Traditional one-breadwinner, one-homemaker married couples have been declining as a share of all families (from 67 percent in 1952 to 27 percent in 1999). Dual-earner married couples, by contrast, now account for roughly half of all families, up from a fifth at mid-century. The share of families headed by a single householder is now 23 percent, up from 13 percent 50 years ago. Among these family types, the median income of dual-earner couples has always been higher than that of the others, and the gap has widened over the past half-century. The median income of married couples in which the wife has no earnings is less than three-fifths that of dual-earner married couples; the median income of families headed by single females is a little more than a third that of dual-earner married couples.

Increased educational attainment and greater labor force participation of wives have been particularly important in raising the incomes of dual-earner couples. Three-fifths of married mothers with earnings have at least some college (up from 22 percent in 1969). And 79 percent of married mothers with at least some college worked (up from 53 percent in 1969). Single mothers are also working more, but with lower average educational attainment, their earnings are lower.

Challenges: The “money crunch” and the “time crunch.” Despite favorable income gains in the current expansion, many families experience a “money crunch” that makes it difficult to meet basic family needs. The money crunch affects poor and possibly also non-poor families, now that a car, a telephone, and perhaps even a computer are near-necessities and families have to set aside funds to educate their children and, increasingly, to take care of their aging parents. A second challenge families face is the “time crunch”: a shortage of time to devote to family needs, because the increased participation of parents, especially mothers, in the labor force reduces time at home. The chapter’s discussion of the money and time crunches includes a discussion of Administration policies to address them—including the Family and Medical Leave Act, expansions of the EITC, and the child care and long-term care initiatives.

Chapter 6: Opportunity and Challenge in the Global Economy

This chapter describes the importance of global economic integration in producing unprecedented prosperity in the United States and much of the rest of the world. It focuses on the role of technology and policy in driving integration, as well as the benefits and challenges globalization brings.

The fall and rise of the global economy. Trade and, to a much lesser extent, investment links were well established a century ago, but both deteriorated during the interwar period. Over the past 50 years, however, international trade and investment have risen sharply. Economic globalization—the worldwide integration of national economies through trade, capital flows, and shared production arrangements—has never before been as broad or as deep as today. U.S. trade (exports plus imports) has amounted to nearly 25 percent of GNP in recent years, its highest point in at least a century. Global capital flows have soared even more dramatically. Cross-border transactions in bonds and equities have exploded, amounting to about 223 percent of GNP in the United States in 1998, compared with only 9 percent of GNP in 1980.

The forces behind globalization. Technological improvements—in transportation, communications, information technology, and other areas—have reduced the costs of doing business internationally. In 1930, for example, a 3-minute phone call from New York to London cost \$293 in 1998 dollars. By 1998, one widely subscribed discount plan charged only 36 cents for a clearer, more reliable 3-minute call. Such improvements have also increased the range of possible commercial transactions, particularly in financial markets. Policy has also played an active role in reducing barriers to trade and investment. Since the creation of the GATT in 1948, import tariffs on industrial products in industrial countries have dropped by about 90 percent. Especially since the 1970s, many countries have decided to remove restrictions on capital flows.

The benefits of a global economy. Globalization raises living standards. It improves efficiency, promotes innovation, encourages technology transfer, and otherwise enhances productivity growth. Through trade, countries can shift resources into their most internationally competitive sectors. Recent studies show substantial wage premiums in U.S. jobs supported by goods exports—on the order of 15 percent. Consumers also enjoy less expensive and more varied products. Global capital flows can help countries invest more effectively. Foreign direct investment, as well as trade, can help spread international best practices.

The challenges of globalization. International economic integration, like other sources of growth, involves tradeoffs. Even as the nation benefits overall, some industries and their workers may find themselves facing sharp international competition. Moreover, global capital flows help promote growth, but can disrupt economies when they reverse course. Sound policy can help ensure that the benefits of economic integration are shared as widely as possible.

Chapter 7: Making Markets Work for the Environment

Economic growth brings abundant benefits but it can also unleash a wide array of environmental problems. Fortunately the same economic dynamism that gives rise to these problems also provides the income and the know-how needed to address them. The challenge in addressing environmental problems lies in harnessing the power of markets to deliver continued economic growth and foster sound environmental practices.

Environmental problems through the 20th century. In 1900, one of the most common environmental problems was the accumulation of horse manure on city streets, which posed public health problems. While the automobile eventually solved this problem, it brought others in its wake. Over time, other environmental problems became apparent, often reflecting a growing and changing economy. Concerns about pesticide use, burning rivers, and smog-filled skies brought more attention to environmental problems culminating in the 1970 Earth Day, which spurred new legislation. While these laws' traditional, usually inflexible, regulatory approaches improved environmental quality since 1970, they also carried significant costs. By 1990, the costs of environmental pollution control had reached \$125 billion annually.

The U.S. experience with market-based approaches. In light of the higher costs of traditional regulations, innovative efforts to address environmental problems through market-based incentives—such as emissions permit trading and emissions charges—have been pursued to achieve environmental goals at lower cost than traditional approaches. The experiences with tradable permit programs, including efforts to reduce local air pollutants, the lead content of gasoline, and acid rain-causing sulfur dioxide, illustrate the substantial cost-savings from market-based approaches. Compared with a traditional regulatory approach, the sulfur dioxide trading program has achieved annual cost-savings of up to \$1 billion. Phasing down lead in gasoline resulted in an extraordinary reduction in lead emissions: 1997 lead emissions were 50 times lower than 1970 emissions. Charging households for each unit of solid waste set out for collection reduces waste sent to landfills. None of the market-oriented approaches undermined the achievement of environmental goals. More cost-effective attainment of environmental goals depends in large part on the design of markets tailored to the specific characteristics of an environmental problem.

Applying these lessons to climate change. Perhaps the leading environmental challenge of the 21st century will be to address the risks associated with global climate change. The characteristics of the climate change challenge create great potential for emissions trading and similar flexibility mechanisms to reduce greenhouse gas emissions. Lessons drawn from our domestic experience support the Administration's advocacy of rules that would promote an efficient international trading system. Expanding the number of countries participating in trading would both reduce the costs of U.S. compliance with its Kyoto target and promote technology transfer to and investment in developing countries.

Conclusion: A Century of Change: New Opportunities For The Future

The conclusion draws together the report's findings on how the 20th century was one of dramatic growth, change, and new opportunity. Technological innovation, globalization, and demographic shifts were key drivers of those changes, creating new industries, altering the nature of work, and reshaping the typical family.

A look back. At the turn of the century, fewer than 10 percent of homes had electricity. Fewer than 2 percent of people had telephones. A car was a luxury for only the wealthy. Health and sanitation problems, such as typhoid fever spread by contaminated water, were common. One in 10 children died in infancy. Average life expectancy was just 47 years. 80 percent of children lived in a family with a breadwinner-father and homemaker-mother. Fewer than 10 percent lived in single-parent homes. Widowhood was far more common than divorce. Fewer than 14 percent of Americans graduated high school.

More than 40 percent of the work force worked on farms. Average income per capita, in 1999 dollars, was about \$4,200. About 80 percent of women worked at home or on the farm. Only about 30 percent of workers were employed in services, which made up just 2 percent of U.S. exports. International trade equaled about 15 percent of GNP, but there was relatively little integration of national economies through investment and production arrangements.

The American economy today. Infant mortality has dropped by more than 90 percent over the course of the century. Life expectancy has increased by about 30 years. Typhoid, cholera, smallpox, and polio have been dramatically reduced or even eliminated through improved sanitation and the widespread use of vaccines. Average income per capita is now \$33,740, more than eight times what it was in 1900. Just 3 percent of the labor force now work on farms. More than 40 percent of employment is in industries that use information technology intensively. Services account for half of the 20 million new jobs created over the last 7 years and about 29 percent of exports. More than 80 percent of Americans over 25 have finished high school, and almost a quarter have graduated college.

Women now graduate high school and college at slightly higher rates than men. Over 75 percent of women aged 25-44 are in the work force. Women and minorities work in a broad range of industries that previously were closed to them. The "typical" family has been redefined. Some 28 percent of children now live in single-parent families; another 44 percent live in families where both parents work for pay. Only 24 percent of children live in what used to be the typical model of a breadwinner-father and homemaker-mother.

Looking ahead. Americans today are more prosperous and have more choices than ever before. But these new opportunities have also brought new challenges for policymakers—such as helping prepare workers for the increasingly global, competitive, technology-driven economy; and helping families cope with the competing demands of work and family.

BUSINESS, CONSUMER, AND REGIONAL ROUNDUP

Inventory Management Helps Make Economy More Stable. Since 1984 the variability of quarterly real GDP growth has been only half that of the preceding 25 years. Changes in all major components of GDP have contributed to the increase in stability, with inventory investment and consumer spending contributing the most, according to a New York Federal Reserve Bank study. Increased stability in inventory investment has been the most important contributor, possibly due to structural changes in inventory management. For example, just-in-time ordering methods enable firms to decrease the lead time in which they must purchase materials, thereby allowing them to react more quickly to unexpected shifts in demand and avoid extreme fluctuations in inventories. Increased stability in residential investment over these two periods was also found to have had a stabilizing effect. Regulatory and structural changes in the 1980s (such as the elimination of interest rate ceilings on deposits) very likely contributed to the sector's stability, largely by enabling banks and other financial institutions to stabilize the supply of funds for housing investment.

Study Examines Impact of Taking Leave. While the Family and Medical Leave Act legally guarantees 92 million workers the right to spend needed time with family members, it cannot guarantee how leave-takers are treated upon their return to the workplace. A recent study found managers who had taken leaves of absences in the early 1990s received significantly fewer promotions and smaller salary increases than managers who had not done so, even after controlling for performance ratings. The study found that there was no greater penalty attached to a family leave (which might be viewed as voluntary) than to sick leave. Also, women managers who took leaves of absence were not punished more severely than their male counterparts. (However, 89 percent of the leave-takers were women, indicating penalties did apply primarily to them.) The study notes that wage penalties incurred by women taking job-protected family leave were relatively small, particularly in comparison with the wage penalties associated with career interruptions—though the two are not strictly comparable.

Congregations Provide Social Services. Over one-third of religious congregations indicated in a recent survey that they might apply for government money to support human services programs, such as grants and contracts provided by government agencies implementing "charitable choice" provisions. Currently, 57 percent of congregations surveyed participate in social service projects. However, only a small minority administer their own programs. The majority either support projects run by other organizations or work in collaboration with other organizations. Congregations are more likely to engage in activities that address the immediate needs of individuals for food, clothing, and shelter than in projects or programs that require sustained involvement to meet long-term goals. The study also found that very large congregations, predominantly African American congregations, Catholic congregations, and theologically liberal or moderate Protestant congregations expressed the greatest interest in the proposed charitable choice provisions.

INTERNATIONAL ROUNDUP

World Bank Launches Global Emissions Trading Prototype. The World Bank recently launched a \$150 million Prototype Carbon Fund (“PCF”)—the world’s first global emissions trading fund intended to address climate change. Using contributions from four European governments and nine primarily Japanese companies, the PCF will fund cleaner technologies in developing and transitional economies to reduce greenhouse gas emissions. After verification by an independent party, these reductions will be transferred to the Fund’s contributors in the form of emissions reduction certificates. Depending on the rules developed at the next climate change negotiations at The Hague in November 2000, these certificates may eventually be used to satisfy future greenhouse gas emissions limits. The World Bank, which will aid in negotiating a price for the emissions reductions, hopes to establish prices of roughly \$20 per ton of carbon reduced. This price, which is consistent with a range of abatement cost estimates made by the Administration, would allow industrialized countries to comply with their emissions limits at a reduced cost while simultaneously offering developing and transitional countries an opportunity to gain advanced technology and a new source of revenue. The PCF has already identified several potential projects and plans to begin operations in April 2000.

New Rice May Save Millions of Lives. Scientists at the Swiss Federal Institute of Technology’s Institute for Plant Sciences have developed a new rice strain that could save millions of lives and improve maternal and child health in developing countries by increasing the iron and Vitamin A content of the rice grain. This development, which results from genetically modifying rice grains, should help alleviate Vitamin A deficiency, which afflicts 124 million children worldwide, causes over 1 million childhood deaths each year, and is the single most important cause of blindness among children in developing countries. In related research, the International Rice Research Institute, using traditional plant breeding techniques, has developed a rice high in iron and zinc. According to the World Bank, between 40 and 50 percent of children under age 5 in developing countries are iron deficient.

RELEASES THIS WEEK**Employment and Unemployment******Embargoed until 8:30 a.m., Friday, February 4, 2000****

In January, the unemployment rate was 4.0 percent; it was 4.1 percent in December. Nonfarm payroll employment rose by 387,000.

Leading Indicators

The composite index of leading economic indicators increased 0.4 percent in December following an increase of 0.3 percent in November.

NAPM Report on Business

The Purchasing Managers' Index declined 0.5 percentage point to 56.3 percent in January. (A reading above 50 percent indicates that the manufacturing economy is generally expanding.)

MAJOR RELEASES NEXT WEEK

Productivity (Tuesday)
Retail Sales (Friday)

U.S. ECONOMIC STATISTICS

	1970- 1993	1999	1999:2	1999:3	1999:4
Percent growth (annual rate)					
Real GDP (chain-type)	3.0	4.2	1.9	5.7	5.8
GDP chain-type price index	5.2	1.6	1.3	1.1	2.0
<u>Nonfarm business (NFB) sector:</u>					
Productivity (chain-type)	1.7	N.A.	0.6	4.9	N.A.
Real compensation per hour:					
Using CPI	1.0	N.A.	1.2	2.1	N.A.
Using NFB deflator	1.5	N.A.	2.9	4.4	N.A.
Shares of Nominal GDP (percent)					
Business fixed investment	11.4	12.6	12.6	12.7	12.5
Residential investment	4.5	4.4	4.5	4.4	4.4
Exports	8.2	10.8	10.7	10.8	10.9
Imports	9.2	13.5	13.4	13.8	14.1
Personal saving	6.6	1.7	1.8	1.5	1.4
Federal surplus	-2.8	N.A.	1.3	1.4	N.A.

	1970- 1993	1999	November 1999	December 1999	January 2000
Unemployment Rate (percent)	6.7**	4.2**	4.1	4.1	4.0
Payroll employment (thousands)					
increase per month			257	316	387
increase since Jan. 1993					20790
Inflation (percent per period)					
CPI	5.8	2.7	0.1	0.2	N.A.
PPI-Finished goods	5.0	3.0	0.2	0.3	N.A.

**Figures beginning 1994 are not comparable with earlier data.

New or revised data in **boldface**.

Employment and unemployment data **embargoed until 8:30 a.m., Friday, February 4, 2000.**

FINANCIAL STATISTICS

	1998	1999	December 1999	January 2000	Feb. 3, 2000
Dow-Jones Industrial Average	8626	10465	11246	11281	11013
Interest Rates (percent per annum)					
3-month T-bill	4.78	4.64	5.20	5.32	5.46
10-year T-bond	5.26	5.65	6.28	6.66	6.49
Mortgage rate, 30-year fixed	6.94	7.43	7.91	8.21	8.25
Prime rate	8.35	8.00	8.50	8.50	8.50 ^P

^P As of February 3, 2000, the prime rate at a number of banks has moved to 8.75 percent.

INTERNATIONAL STATISTICS

Exchange Rates	Current level	Percent Change from	
	February 3, 2000	Week ago	Year ago
Euro (in U.S. dollars)	0.989	-0.0	-12.8
Yen (per U.S. dollar)	107.9	2.9	-4.0
Major currencies index (Mar. 1973=100) (trade-weighted value of the U.S. \$)	94.58	1.0	2.6

International Comparisons ^{1/}	Real GDP growth	Unemployment rate	CPI inflation
	(percent change last 4 quarters)	(percent)	(percent change in index last 12 months)
United States	4.2 (Q4)	4.0 (Jan)	2.7 (Dec)
Canada	4.2 (Q3)	6.9 (Nov)	2.6 (Dec)
Japan	1.0 (Q3)	4.6 (Nov)	-1.1 (Dec)
France	2.9 (Q3)	10.7 (Nov)	1.3 (Dec)
Germany	1.3 (Q3)	9.0 (Nov) ^{2/}	1.2 (Dec)
Italy	1.2 (Q3)	12.1 (Apr)	2.1 (Dec)
United Kingdom	1.8 (Q3)	5.9 (Sep)	1.8 (Dec)

U.S. unemployment data **embargoed until 8:30 a.m., Friday, February 4, 2000.**

^{1/} For unemployment data, rates approximating U.S. concepts as calculated by the U.S. Department of Labor, Bureau of Labor Statistics.

^{2/} Rate for unified Germany.

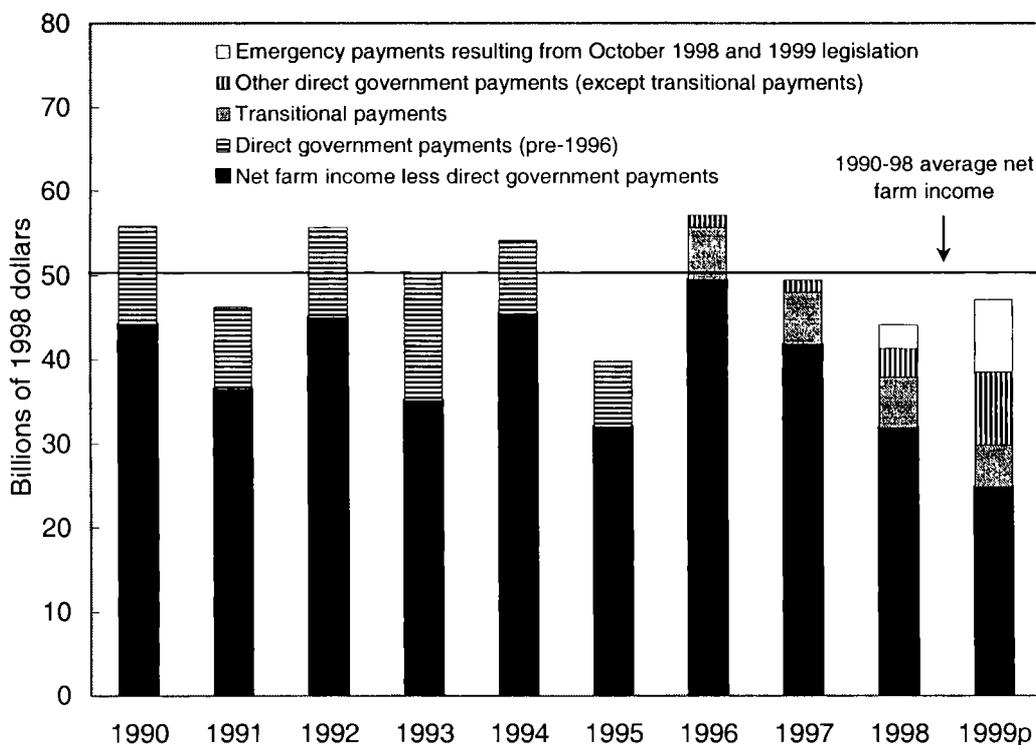
WEEKLY ECONOMIC BRIEFING OF THE PRESIDENT OF THE UNITED STATES

Prepared by the Council of Economic Advisers
with the assistance of the Office of the Vice President

December 17, 1999

CHART OF THE WEEK

Net Farm Income in the 1990s



In 1999, net farm income excluding direct government payments (the black part of the bars) was well below its average level for the 1990s. However, direct government payments excluding the emergency payments legislated in October 1998 and 1999 would have substantially moderated the effects of the 1998-99 decline in market income. With those emergency payments included, farmers were substantially shielded from the effects of market forces in 1998-99.

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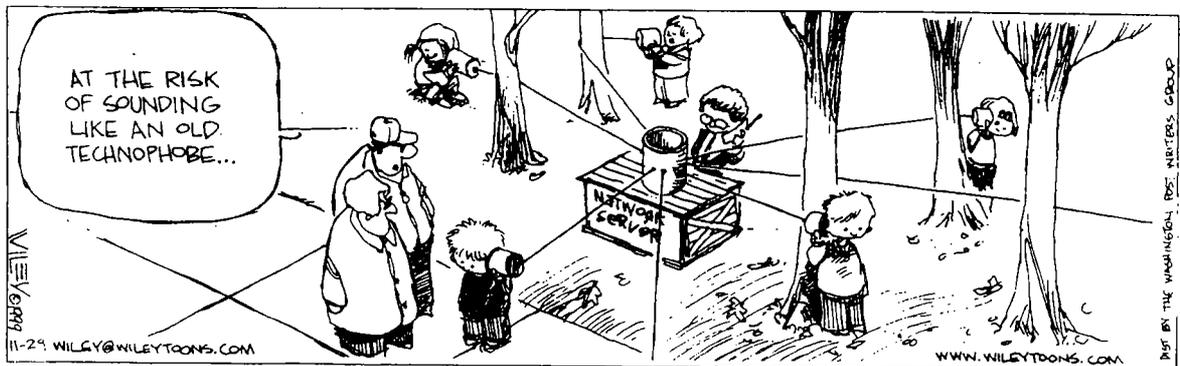
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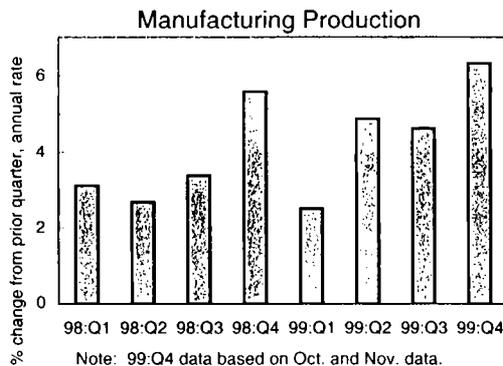


MACROECONOMIC UPDATE

More Strong Growth in the Fourth Quarter

The fourth quarter is shaping up as another of strong growth (around 4¾ percent at an annual rate) with low and stable inflation.

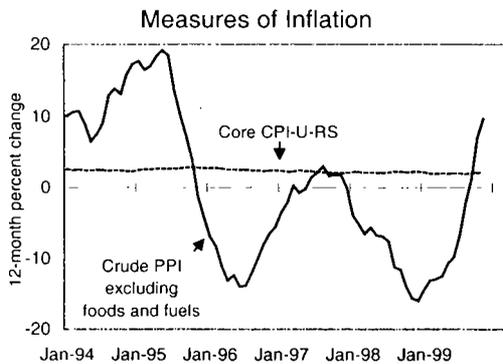
The labor market. Payroll employment grew by an average of 250,000 per month in October and November, and total hours of production workers have increased at a 2½ percent annual pace thus far in the fourth quarter. Adding trend growth in productivity (probably around 2¼ percent at an annual rate), these hours could support GDP growth of about 4¾ percent at an annual rate.



Production. Data on production are also robust. Manufacturing industrial production has grown at a 6¼ percent annual rate so far in this quarter—which promises to be the strongest quarterly increase in 2 years (see upper chart). The acceleration may reflect exports to improving foreign economies.

Spending. Spending data remain fragmentary. Solid data are available for consumer spending—where fourth quarter growth appears to be about 4¾ percent at an annual rate. Consumer sentiment is fluctuating around the high plateau at which it has persisted for most of the year. One worry is that some of the fourth-quarter spending may represent advance hoarding to buffer against potential Y2K disruptions. If so, the first quarter of next year may be weak.

Inflation. With the exception of energy and tobacco prices, consumer inflation remains low and stable. Core consumer prices rose just 2.1 percent during the

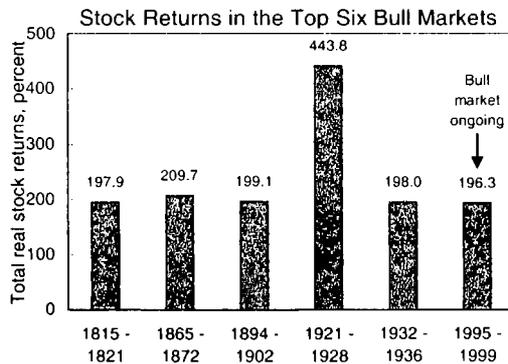


past 12 months—down slightly from the year-earlier pace. However, some inflationary risk is on the radar screen: the rise in oil prices may get passed through to other goods, and a strengthening world economy may lead to higher import and export prices over the next year. Both influences may be pushing up prices at the earlier stages of processing. For example, the index for crude materials excluding foods and fuels has increased 10 percent over the past year—a dramatic acceleration from a 16 percent decline during the year-earlier period (see lower chart).

SPECIAL ANALYSIS

Trying to Make Sense of the Bull Market

In the exceptional stock market of the last 5 years, investors have earned an annual real return of over 24 percent—the highest 5-year average real return since 1936. Already, this market ranks as the sixth best of all U.S. bull markets of the last 200 years, based on the total real return to stocks (see upper chart). Although some economists remain puzzled by the exuberance of markets, others argue that

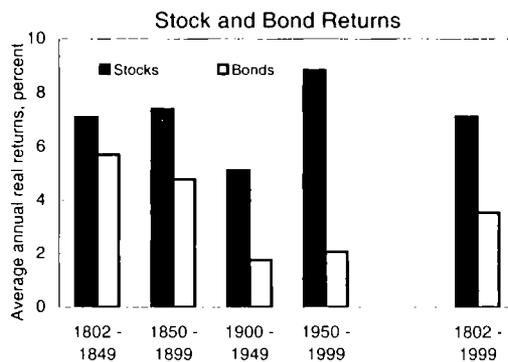


changes in the economy help reconcile the stock market performance with economic theory.

Stock valuation in theory. Owning a stock provides an investor with the right to a share in the corporation's future profits. Hence, the stock's price should equal the discounted value of future profits. Future income is discounted to reflect two factors: the

opportunity cost of waiting (equal to the return on a safe asset such as a Treasury bond) and the premium that compensates the investor for the greater riskiness of stock returns relative to bond returns. Strong growth in profits paid as dividends and falling real bond rates appear to explain part, but not all, of the nearly 200 percent increase in stock prices over the last 5 years.

A declining equity risk premium? Investors demand a higher return on stocks than on bonds because stocks tend to be riskier than bonds over horizons of a few



years or less. What is surprising to economists is how large the equity premium has been, particularly in the last 50 years (see lower chart). The additional volatility of stock returns over that of bond returns does not appear large enough to justify this 7 percentage point premium, unless investors are extraordinarily risk-averse or their investment horizon is very short. One possible explanation

for the recent run-up in stock prices, therefore, is that investors have re-evaluated the risks associated with holding stocks and have bid up stock prices until the rate of return on stocks has come down enough to reflect a new, lower equity risk premium.

A new economy? A second possible explanation for the strong performance of the stock market is that investors may have raised their forecasts of future growth in profits, based on an improved outlook for productivity growth. According to

some models, holding other influences on stock prices constant, a one-half percentage point increase in the expected growth of future profits implies an increase in stock prices of up to 50 percent. Importantly, what is relevant for stock prices is not whether long-run growth trends have in fact changed, but only that investors perceive that they have. In the event that economic developments do not meet these expectations, investors will bid stock prices back down.

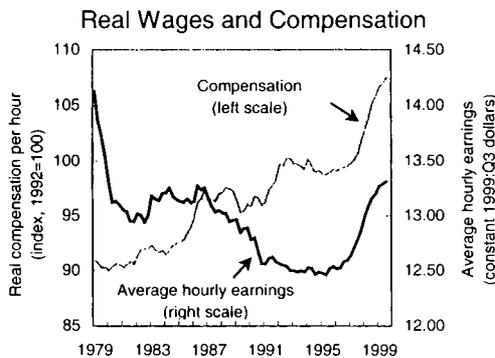
Conclusion. The truly exceptional performance of the stock market over the last 5 years is partly attributable to strong increases in profits and a fall in real bond rates. Other factors, including a more tolerant attitude toward risk and an increase in expected productivity growth, may also be boosting stock prices. A remaining question is whether these and other influences that have helped power the bull market have nearly played themselves out, in which case the stock market should cool, or whether we can expect more years of rapid increases in stock prices.

ARTICLE

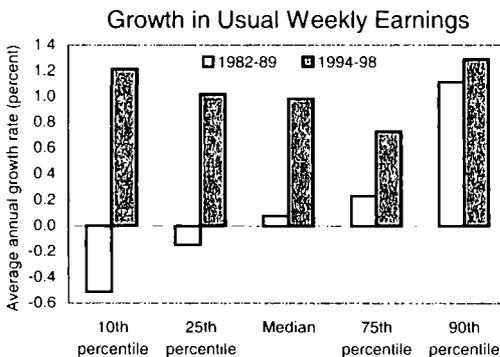
Inequality in the 1990s: Is the Gini Back in the Bottle?

After increasing since the late 1970s or even earlier, many measures of income and wage inequality have remained stable since 1993-94. Interestingly, the usual suspects for the increase in inequality—globalization, technological change, and de-unionization—appear to have proceeded apace even as the rise in inequality has been arrested.

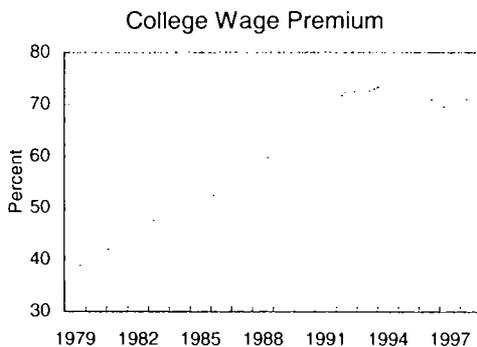
Trends. A range of indicators that showed sluggish wage growth and rising inequality from the early 1970s to the early 1990s appear to have turned around recently.



Real wages and labor's share. Both average hourly earnings and nonfarm real compensation per hour have increased sharply in the past few years (see upper chart). The share of income received by workers in the form of compensation has shown no long-term trend relative to capital's share (and has increased some since 1996).



Income and earnings inequality. Various measures of income inequality (including the index of income concentration known as the Gini coefficient) rose substantially between the mid-1970s and the early 1990s. But inequality has changed little since then. In this expansion, both wages and household income have increased roughly in the same proportion at different points in the income distribution. This contrasts with the 1980s expansion, when the gains were concentrated among higher income households and higher wage workers (see middle chart).



The college wage premium. After shooting up sharply in the 1980s, the wage premium earned by workers with a college degree has stabilized (see lower chart). The average weekly earnings of full-time workers with

college degrees, which in 1979 were about 40 percent higher than those of workers with a high school diploma, have been about 70 percent higher in the 1990s.

The paradox. The apparent trend shift in measures of inequality might not be surprising if the major forces adduced to explain the rise in inequality in the 1980s were not still operating in the 1990s. But they appear to be.

- Globalization. In the 1980s the increase in trade, particularly with developing countries, was seen as reducing demand for relatively less-skilled workers. Yet in the 1990s globalization has increased even more rapidly. For example, the sum of imports and exports as a share of GDP averaged under 19 percent in the 1980s and over 22 percent in the 1990s.
- Technological change. According to many, an even more important source of the increased relative demand for skilled workers in the 1980s was technological change, such as the broader application of computers and new management approaches emphasizing leaner and more flexible production. Yet in the 1990s, technological change seems to be even more rapid, as evidenced by the strong investment in computers and information technology, and the surge in productivity growth.
- Institutional and structural changes. In the 1980s, de-unionization and deregulation weakened the bargaining power of workers and the declining share of manufacturing in employment reduced high-wage opportunities for less-skilled blue-collar workers. Yet in the 1990s, union membership has continued to decline and, after rising through 1997, manufacturing employment has fallen.

Analysis. There are several plausible reasons why inequality has not been affected by these forces in the same way recently as it was in the 1980s.

- The high pressure economy. Tight labor markets generate increased employment opportunities for less skilled workers and may also launch a virtuous circle in which new opportunities lead to new skills and higher productivity, which in turn may allow for labor markets to operate at higher levels without upward pressure on prices.
- Feedback from globalization and technology to the economy. Ironically, the forces that were seen as working toward increased inequality may have helped to achieve a high pressure economy. First, lower import prices help keep inflation low; imports also reduce pressures on domestic capacity. Second, positive shocks to productivity from technological change allow firms to pay higher wages without having to raise prices. And third, it could be that a more competitive economy is less inflation-prone.

- The trends themselves may have been brought to a halt by offsetting microeconomic forces. Skill bias is not divinely ordained, and firms may increasingly find ways to employ relatively less-educated workers more effectively as their relative wages decline. Second, the pressure on employment patterns and wages from globalization may diminish as U.S. firms either exit from low-wage activities or learn how to compete using competitive strategies that offset cheaper foreign labor costs. Similarly, declining union membership may mean that those who remain are in areas with continued bargaining strength.

Conclusion. The halt to rising inequality is surprising in light of the usual explanations for why inequality increased in the first place. However, there are some plausible explanations for this development. While the macroeconomic explanation implies that inequality could reverse in the face of higher unemployment, the microeconomic considerations suggest that we may have a more resilient economy and may finally be reaping the benefits of having adjusted to some major structural challenges. Claims that globalization and rapid technological change inevitably increase inequality need to be re-appraised.

BUSINESS, CONSUMER, AND REGIONAL ROUNDUP

The Impact of Changes in Financial Services Industries on Cities. Financial services firms have been an important source of jobs, income, and tax revenue in cities, especially in central business districts. A recent study observes that, as of 1996, 8.5 percent of employment and 14.5 percent of earnings in 88 of the largest central cities were in financial services. Some cities, such as Hartford, Wilmington, and Jersey City, are highly specialized in financial services, with approximately 20 to 30 percent of city employment in this sector. In many larger cities—including New York City, Chicago, Boston, and San Francisco—over 10 percent of the jobs and 20 to 30 percent of the residents' earnings are found in financial services. The study finds that, especially in banking, heavy investments in information technology such as the automated teller machine, telephone calling centers, on-line banking and the in-store supermarket branch have led to decreases in employment, especially for lower-skilled workers. Mergers and acquisitions have concentrated banking assets in a number of core banking metropolitan areas, with Charlotte and New York currently in dominant positions. Geographic concentration is less noticeable in other sectors. For example, mutual fund assets have actually become less concentrated, with New York's share falling from 40 to 24 percent between 1986 and 1996.

Racial Digital Divide Extends Beyond Income Differences. The latest digital divide data from the Commerce Department show that in 1998 African American and Hispanic households were approximately half as likely to have computers at home and roughly two-fifths as likely to have Internet access than white households. While computer ownership and Internet access for all groups have soared, the racial/ethnic divide has also grown. Because computer and Internet use are correlated with income and education, some of the divide reflects lower average household income and lower average educational attainment among African Americans and Hispanics. However, a recent RAND analysis of the 1997 survey data finds that a digital divide persists even after controlling for education, income, location of residence, sex, and age. In other words, racial and ethnic characteristics appear to exert an independent and important influence on home computer access and network use.

Assessing the Costs of Student Loans. A recent report from the Department of Education demonstrates how budget rules mandated by the Credit Reporting Act of 1990 tend to obscure program costs for student loans. Under such rules, estimates of subsidy costs for student loans are calculated on a present value basis while estimates of Federal administrative costs reflect actual spending in a given year. When both subsidy and administrative costs are calculated on a net present value basis, the report concludes that providing a student with a \$10,000 subsidized loan costs \$1,407 whereas the government makes \$411 when the same loan is provided directly to the student. This difference reflects the interest received on repayments of the direct loans, which more than offsets the higher administrative expenses of direct loans.

INTERNATIONAL ROUNDUP

Japan's Tenuous Recovery. Although output grew at an annual rate of around 5 percent in the first half of the year, recent data suggest that Japan's economic recovery has not yet fully taken hold. Last week, preliminary data showed that real GDP fell at a 3.8 percent annual rate in the third quarter. This week, the Bank of Japan's quarterly Tankan survey showed that while business sentiment improved somewhat, companies still had excess inventories and planned to further reduce investment in plant and equipment. Large enterprises, for example, planned to cut capital spending by 11 percent in the 1999 fiscal year; furthermore, many of these enterprises reported that they had too many workers, which bodes poorly for a revival in consumer confidence. Japan's Economic Planning Agency also cautions that high unemployment, weak private demand, and a sustained decline in business fixed investment remain obstacles to full economic recovery, despite recent improvement in exports, industrial production, and company profits.

Trade Unions to Unite. On January 1, 2000, a new international organization of trade unions will be launched, incorporating 16 million members in 800 unions from 140 countries. The organization, called Union Network International (UNI), will be the world's largest grouping of individual trade unions, and will cover a range of non-manufacturing sectors, including commerce, electricity, finance, media, entertainment, postal, private health care, telecommunications, and tourism. The organization is pressing for an overhaul of the WTO and for trade agreements to incorporate international core labor standards, including the right to organize into unions. UNI intends to use the latest communications technology to build networks with affiliates and to give union members a more effective voice with governments, multinational corporations, and international institutions.

Food Gap to Increase in Low-Income Countries. For 67 low-income developing countries, the food gap—defined as the shortfall between a) domestic food production plus commercial imports and b) the level required to meet minimum nutritional requirements—is estimated to be 15 million tons in 1999, according to a new USDA report. Global food aid shipments for 1998/99 are estimated at roughly 9.5 million tons, almost two-thirds of the shortfall. However, the distribution of this aid is not necessarily based on nutritional need; for example, only 23 percent of food aid goes to Sub-Saharan Africa, covering just 20 percent of the region's food shortfall. Distribution is likely to become more important over the next decade. The food gap for the 67 countries is expected to increase 54 percent to 23 million tons, with Sub-Saharan Africa accounting for 70 percent of the gap in 2009. The total number of people whose food consumption fails to meet nutritional requirements is projected to grow 13 percent to nearly 1 billion; however, the growth in Sub-Saharan Africa will be 40 percent, so that 60 percent of the region's population will be food deficient in 2009.

RELEASES THIS WEEK

Housing Starts

****Embargoed until 8:30 a.m., Friday, December 17, 1999****

Housing starts decreased 2 percent in November to 1.600 million units at an annual rate.

U.S. International Trade in Goods and Services

The goods and services trade deficit rose to \$25.9 billion in October from \$24.2 billion in September.

Industrial Production and Capacity Utilization

The Federal Reserve's index of industrial production increased 0.3 percent in November. Capacity utilization was unchanged at 81.0 percent.

Retail Sales

Advance estimates show that retail sales rose 0.9 percent in November following an increase of 0.3 percent in October. Excluding sales in the automotive group, retail sales rose 0.4 percent following an increase of 0.8 percent.

Consumer Price Index

The consumer price index increased 0.1 percent in November. Excluding food and energy, consumer prices rose 0.2 percent.

MAJOR RELEASES NEXT WEEK

Gross Domestic Product (Wednesday)
Advance Durable Shipments and Orders (Thursday)

U.S. ECONOMIC STATISTICS

	1970- 1993	1998	1999:1	1999:2	1999:3
Percent growth (annual rate)					
Real GDP (chain-type)	3.0	4.6	3.7	1.9	5.5
GDP chain-type price index	5.2	1.1	2.0	1.3	1.1
<u>Nonfarm business (NFB) sector:</u>					
Productivity (chain-type)	1.7	3.1	2.7	0.6	4.9
Real compensation per hour:					
Using CPI	1.0	3.9	2.8	1.2	2.1
Using NFB deflator	1.5	4.7	2.9	2.9	4.4
Shares of Nominal GDP (percent)					
Business fixed investment	11.4	12.5	12.6	12.6	12.8
Residential investment	4.5	4.2	4.4	4.5	4.4
Exports	8.2	11.0	10.7	10.7	10.9
Imports	9.2	12.7	12.9	13.4	13.8
Personal saving	6.6	2.6	2.2	1.8	1.5
Federal surplus	-2.8	0.5	1.1	1.3	1.4
<hr/>					
	1970- 1993	1998	September 1999	October 1999	November 1999
Unemployment Rate (percent)	6.7**	4.5**	4.2	4.1	4.1
Payroll employment (thousands)					
increase per month			103	263	234
increase since Jan. 1993					20043
Inflation (percent per period)					
CPI	5.8	1.6	0.4	0.2	0.1
PPI-Finished goods	5.0	0.0	1.1	-0.1	0.2

**Figures beginning 1994 are not comparable with earlier data.

New or revised data in **boldface**.

FINANCIAL STATISTICS

	1997	1998	October 1999	November 1999	Dec. 16, 1999
Dow-Jones Industrial Average	7441	8626	10397	10810	11245
Interest Rates (percent per annum)					
3-month T-bill	5.06	4.78	4.86	5.07	5.23
10-year T-bond	6.35	5.26	6.11	6.03	6.31
Mortgage rate, 30-year fixed	7.60	6.94	7.85	7.74	7.86
Prime rate	8.44	8.35	8.25	8.37	8.50

INTERNATIONAL STATISTICS

Exchange Rates	Current level	Percent Change from	
	December 16, 1999	Week ago	Year ago
Euro (in U.S. dollars)	1.017	0.1	N.A.
Yen (per U.S. dollar)	103.0	0.5	-10.9
Major currencies index (Mar. 1973=100) (trade-weighted value of the U.S. \$)	93.26	0.2	1.1

International Comparisons ^{1/}	Real GDP growth	Unemployment rate	CPI inflation
	(percent change last 4 quarters)	(percent)	(percent change in index last 12 months)
United States	4.2 (Q3)	4.1 (Nov)	2.6 (Nov)
Canada	4.2 (Q3)	7.2 (Oct)	2.3 (Oct)
Japan	1.0 (Q3)	4.7 (Oct)	-0.7 (Oct)
France	3.0 (Q3)	11.0 (Sep)	0.8 (Oct)
Germany	1.2 (Q3)	9.0 (Oct) ^{2/}	0.8 (Oct)
Italy	0.8 (Q2)	12.1 (Apr)	1.8 (Oct)
United Kingdom	1.8 (Q3)	5.9 (Aug)	1.2 (Oct)

1/ For unemployment data, rates approximating U.S. concepts as calculated by the U.S. Department of Labor, Bureau of Labor Statistics.

2/ Rate for unified Germany.

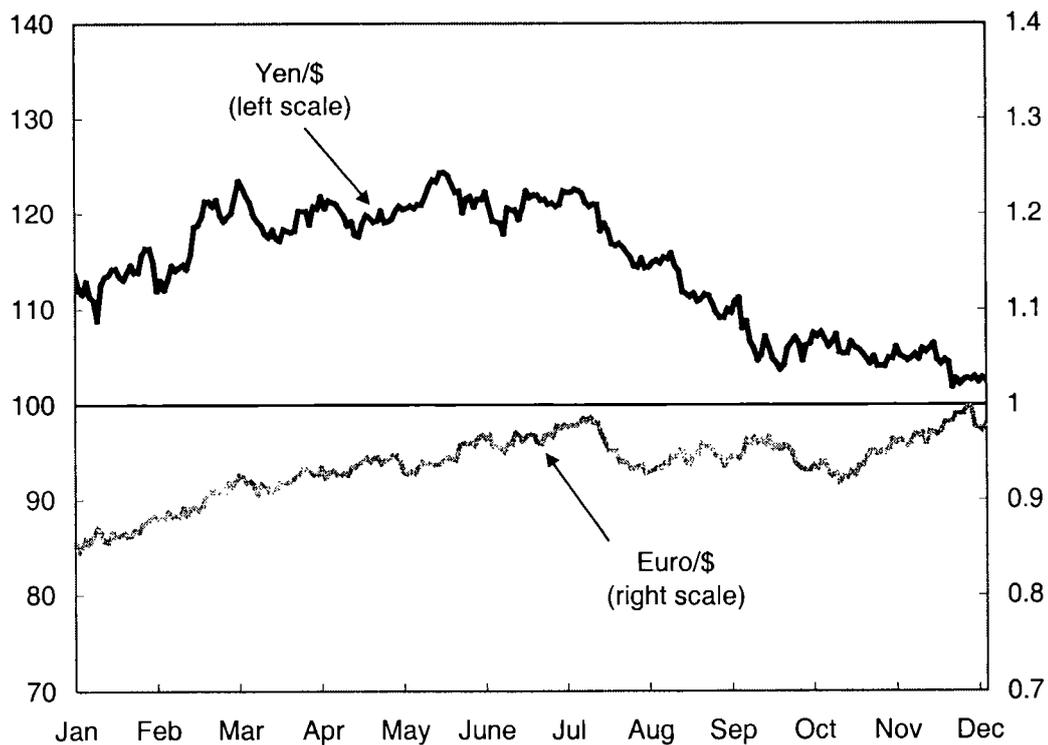
WEEKLY ECONOMIC BRIEFING OF THE PRESIDENT OF THE UNITED STATES

Prepared by the Council of Economic Advisers
with the assistance of the Office of the Vice President

December 10, 1999

CHART OF THE WEEK

Convergence of Exchange Rates in 1999



The euro is nearly at parity with the dollar while the yen is nearly at parity with the penny.

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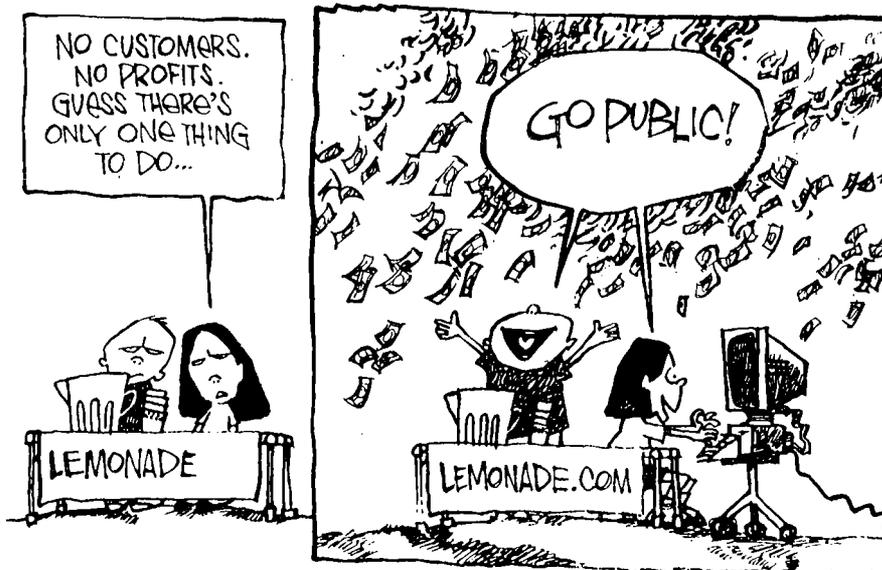
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CURRENT DEVELOPMENT

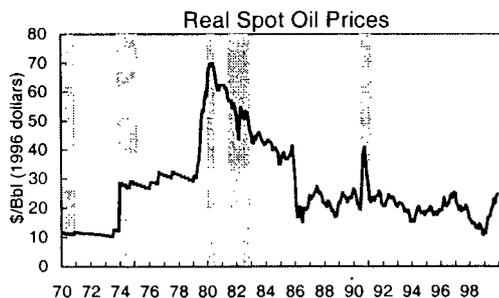
Have Oil Prices Reached their Peak?

At the end of last year, real oil prices hit their lowest point in over 25 years. Since then, rising demand and falling supply have pushed crude oil prices back up. As of yesterday, the price stood at \$26 per barrel for West Texas Intermediate crude oil. Prices of refined products, like gasoline, have followed the same general trend. A key issue for the United States economy in the next year is whether oil prices have peaked or whether further increases are expected.

Supply. One of the reasons for the increase in oil prices is a reduction in supply. After oil prices fell below \$12 a barrel at the end of last year, the major OPEC countries agreed to production targets to limit the supply of oil and thereby increase the price. Analysts generally believe that the major OPEC countries have stuck to the agreed upon limits. In addition, Iraq cut off oil exports in November, reportedly to protest a shortening of the renewal period of the "Oil-for-Food" program from 6 months to 2 weeks.

Demand. Shifts in demand have also influenced oil prices. The Asian crisis and slow world growth dampened demand for oil last year. Since then, economic recoveries in Asia and in parts of Europe have combined with the booming U.S. economy to push up world oil demand this year. In addition, there is some anecdotal evidence of stock building of oil and refined products in preparation for possible Y2K-related disruptions. Demand is expected to remain strong next year.

Outlook. Futures prices for oil imply that markets expect oil prices will fall next year. Two factors support this view. First, most Administration experts agree that the New Year will not generate widespread disruptions in the flow of oil.



Notes: Price is West Texas Intermediate
The gray bars represent U.S. recessions.
October-December 1999 data are estimates.

Moreover, Mexico, Venezuela, and Saudi Arabia recently announced that they would make up any Y2K-related shortfalls. Second, there are reasons to suspect that OPEC desires lower prices than those seen today. High oil prices encourage non-OPEC high-cost suppliers to increase production, cutting into OPEC's profits. In addition, high prices threaten the integrity of the cartel by making

production in excess of agreed upon targets more profitable.

Interestingly, none of the Blue Chip forecasters expect that rising oil prices will seriously threaten the current economic expansion, despite the experiences of the 1970s and early 1990s when oil price hikes were associated with economic downturns (see chart). This view seems justified because, relative to overall

prices, the price of oil is much lower today than the peaks reached in the 1970s and the early 1990s. Unlike past oil price increases, this one was preceded by a decline in oil prices. Moreover, the energy intensity of the economy has fallen steadily for the last 50 years, suggesting that the U.S. economy may be less vulnerable to oil price shocks. Arguably, only a precipitous spike in oil prices would pose a significant risk to the economy.

ARTICLE

A Closer Look at Skill-Biased Technical Change

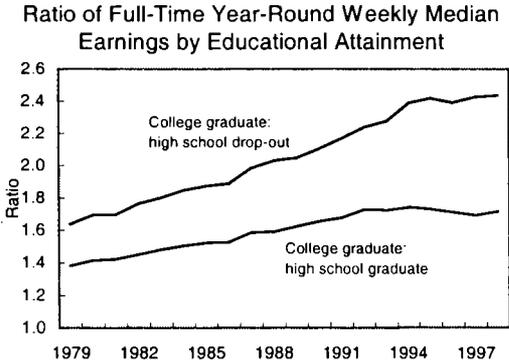
One common explanation for the increase in wage inequality in the United States from 1979 to the early 1990s is technical progress that has shifted labor demand toward more highly skilled workers relative to the less skilled—so called “skill-biased technical change.” Research is beginning to provide insights into how information technology (IT) affects the workplace and the demand for skills.

Findings. Case studies of individual firms have shown how companies use IT to change the way they conduct business. These studies find that successful IT investment is often coupled with changes in business strategy and organizational structure. A recent study provides broad supporting evidence based on survey data on about 400 large U.S. firms during the mid-1980s to the mid-1990s. The two key findings are:

- IT interacts with organizational structure and worker skills. Controlling for industry and firm size, firms that invest more in computer equipment also tend to have a decentralized workplace organization (including broader job responsibilities for line workers, more decentralized decisionmaking, or more self-managing teams) and employ higher-skilled or more educated workers. One reason for combining IT and a decentralized workplace may be that IT can put greater information in the hands of front-line workers who may be better able to make day-to-day decisions than upper-level managers. This increased role for front-line workers in turn may raise the importance of skills and education for job performance.
- These interactions affect productivity. Firms with high levels of IT investment, workplace decentralization, and more highly skilled workers tend to have higher productivity than those with lower levels. Moreover, firms that use IT intensively without instituting organizational changes often experience little if any productivity gains. This helps explain the apparent lag (during the 1980s and early 1990s) in the effect of IT on productivity in the United States, since it has taken time for firms to redesign their organizations to take advantage of their IT investments.

Other evidence. Trends in the economy over the last 25 years dovetail with the case-study and firm-level evidence. Impressive advances in the underlying science and engineering of IT have increased the capabilities and reduced the costs of this technology. As a result, real investments in IT have grown at double-digit rates for several decades. Meanwhile, decentralized workplaces appear to have become more common. The skill levels of the work force have also been rising, at least according to measures such as the proportion of college graduates in the work force. Until 1994, the demand for more educated workers outpaced supply, raising the wages of more-skilled workers relative to less-skilled workers (see chart). Earnings growth since 1994 has been much more evenly distributed.

Implications and conclusion. Based on evidence from large firms, IT and IT-enabled organizational change appear to be important factors in raising the demand for skilled workers. Of course, IT can reduce the demand for skills in some cases. For example, computer-assisted scanning devices for final sales or



inventory control may require lower average skills by retail clerks, and an automated teller machine may completely replace a bank teller. Nonetheless, it seems apparent that new technology and organizational change are making the acquisition of education and skills increasingly important for getting and keeping well-paying jobs. This highlights the importance of ensuring that students

learn the basic skills needed in the information economy: higher-level math, reading, and writing skills, personal skills such as the ability to work effectively in groups, and a knowledge of computers.

ARTICLE

Saving the Planet while Cutting Taxes

The Administration has proposed a domestic greenhouse gas tradable permit program for 2008 to 2012 subject to the ratification of the Kyoto Protocol. Recent analysis indicates that how the program is implemented will affect energy company shareholders and taxpayers, and could also affect the costs to society of achieving the Kyoto target.

Effects of the tradable permit program on energy prices. Implementing a tradable permit program would require industries covered by the program to restrict their greenhouse gas emissions to comply with the Kyoto Protocol emissions target. Abating greenhouse gas emissions involves costs associated with investing in new technologies, fuel-switching, and other ways to reduce emissions. As the energy sector becomes more competitive over the next decade, the costs of controlling emissions will be reflected in consumer prices. For example, the Administration's economic analysis of the Kyoto Protocol found that a tradable permit price of \$23 per ton of carbon would increase energy prices to consumers by about 5 percent in 2010, but this increase could be largely offset through the implementation of the Administration's electricity restructuring proposal.

To "grandfather" or to auction? A key question in implementing a tradable permit system is the allocation of permits. For example, the government could give away permits to firms ("grandfathering"); alternatively, the government could sell permits to firms through auctions. Importantly, the price of energy paid by consumers is likely to be the same in either case. Permits will be scarce, and the price of energy will reflect the cost of buying a permit or taking abatement measures regardless of how the permits were originally distributed. Producers who receive free permits will be like owners of particularly low-cost oil wells when oil prices go up: they will sell at the market price and reap windfall profits. In contrast, an auction allows the government to capture the value of the permits, because competition should lead companies to bid away almost the full value of any potential windfall profits from owning the permits.

Grandfathering would result in the giving away of permits valued in the tens to hundreds of billions of dollars annually. Because these firms can pass on most of the cost of reducing emissions to consumers, the grandfathering of permits would provide these firms with significant windfall profits, and allow them to enjoy higher profits under climate policy than without climate policy. However, if the government sells permits it would receive revenues in the tens to hundreds of billions of dollars annually. While energy firms would have lower profits under an auction, the permit revenues could be recycled back into the economy through tax cuts. Recent research has found that such revenue recycling could reduce the costs to society resulting from the use of greenhouse gas permits by up to 80 percent.

Effects of permit allocation on energy industries. One paper evaluated the effects of grandfathering and auctioning on energy industries. Giving away permits to energy industries would significantly increase equity values while selling permits would lower equity values. An alternative is to follow a hybrid approach that combines elements of grandfathering and auctions. It is estimated that grandfathering 5 to 15 percent of the permits to energy firms while auctioning the remaining permits would be sufficient to ensure that these firms' equity values would be the same under climate policy as they would be without climate policy. Furthermore, since most of the permits would be auctioned, such an approach would still provide significant revenues to the government.

Conclusion. The type of permit allocation does not affect energy prices. It can however, significantly influence the impact of climate policies on energy industries as well as the costs to society. A hybrid system of grandfathering and auctioning permits could preserve energy industries' profits and equity values while providing sufficient government revenues to finance tax cuts or for other purposes.

BUSINESS, CONSUMER, AND REGIONAL ROUNDUP

Midwest Feels the Heat of a Strong Economy. After suffering from a weak labor market during the 1970s to early 1990s, labor market conditions in the Midwest have improved significantly. In fact, the Midwest's unemployment rate (3.4 percent in October of this year) has been the lowest among the four regions for every month since April 1991. As a result, business executives in the Midwest report that their most difficult problem is "finding good help at current wage offers." A recent study by the Federal Reserve Bank of Chicago suggests that the region's tight labor market will continue. One reason the study cites is slow work force growth caused by continued net-migration out of the Midwest. Another reason is the region's strong economy, which has propelled growth in labor demand, particularly for workers with high levels of education and skills. The study mentions possible public policy responses including encouraging migration to the region, improving education and training, continued welfare-to-work efforts, improving access to transportation and information about jobs for inner-city residents, and encouraging businesses to move to the central cities, where labor markets are typically not as tight.

The Gains from Telecommuting. In May 1997, more than 21 million Americans did some work at home as part of their primary job, according to a recent report. Lower prices and expanding access to mobile phones, laptops, e-mail, and the Internet have made it easier for people to work at home. The report finds that telecommuting provides benefits both to employees and businesses. Workplace flexibility reduces time spent commuting and may help workers balance work and family responsibilities. Not surprisingly, working parents take advantage of telecommuting more than childless workers; in fact, married women with children under the age of 6 had the highest home work rate at nearly 24 percent. Evidently, employers find that offering the option of telecommuting is a way to attract and retain employees and reduce absenteeism. In a 1998 study of large companies, 33 percent allowed employees to work off-site on a regular basis and another 14 percent said they were considering it.

Beige Book Reports Continued Growth. Reports from most Federal Reserve Districts indicated continued moderate to strong economic growth in October and November. Consumer spending picked up over the Thanksgiving weekend, after being hampered by warm weather earlier in November. Manufacturing activity continued to advance in most Districts. Commercial real estate markets remained strong in most parts of the country. Home sales have slipped. Agricultural conditions were mixed, and low prices persist for grains and some other commodities. Oil and gas drilling has increased. Bank lending has declined for residential mortgages but risen for consumer loans. Labor markets remain tight in all Districts. The pace of wage and salary increases did not appear to be accelerating generally, although there were some reports of larger recent salary increases in some industries and regions. Prices appear to be mostly steady at the retail level. Although prices of industrial goods were reported to be mostly steady in a majority of Districts, prices of some goods have been on the rise.

INTERNATIONAL ROUNDUP

€1 = \$1 = ¥100? Last week, the yen soared to its strongest level against the dollar in 4 years despite interventions by the Japanese government, while the euro tumbled to its weakest level since its introduction at the beginning of the year, briefly dropping below parity with the dollar. Economic statistics released this week may help curb these trends in the yen and the euro. After growing soundly in the first half of the year, the Japanese economy contracted at an annual rate of nearly 4 percent in the third quarter, according to data released on Monday. Indicators suggest that the outlook for the fourth quarter is similarly dismal, which should dampen upward pressure on the yen. Turning to the euro, unemployment and other indicators released this week indicated improved economic prospects in Germany, suggesting a brighter outlook for the Euro-region. The euro has climbed back above parity and is currently at around \$1.02.

New Alliance to Produce Global Framework for E-business. The United Nations and the world's leading computer and software companies have joined together to unify technical standards for the exchange of electronic business information, a move that may revolutionize business on the Web. Currently, most Web documents are stored and transmitted in a computer language known as HTML (Hypertext Markup Language). HTML is easy to learn and is adequate for simple data display, but it limits the types of information that can be represented. A new, more sophisticated language known as XML (Extensible Markup Language) holds the promise of broadening how the Internet can be used. For example, standardized XML specifications would allow an emergency room physician to transfer a wider variety of patient records from distant hospitals into a local database. The public-private alliance aims to create a single global XML standard so that firms in different industries can exchange electronic business data, thereby lowering the barrier of entry to electronic business, particularly with respect to small and medium-size enterprises and developing countries.

Better Ways to Cut Pollution. Developing countries are cutting industrial pollution by combining the power of local communities, markets, and the media to police discharges from private companies, according to a recent World Bank report. The report argues that controlling pollution through traditional regulations entails high enforcement costs and often yields disappointing results. The report presents evidence suggesting that market incentives and public information may provide much better outcomes. Seven highly populated regions in Colombia, for example, instituted a system that charges a flat levy for every ton of specified pollutants discharged into the nation's waterways. In the first 6 months of the plan, discharges of biochemical oxygen demand (BOD) into the Rio Negro River fell 52 percent, and discharges of total suspended solids fell 16 percent. The Indonesian PROPER program, in which regulators publish ratings of plants based on their environmental performance, provides an example of the power of public information disclosure. In an 18-month period, PROPER induced the pilot group of factories to reduce their water pollution by 40 percent.

RELEASES THIS WEEK

Producer Price Index

****Embargoed until 8:30 a.m., Friday, December 10, 1999****

The producer price index for finished goods rose 0.2 percent in November. Excluding food and energy, producer prices were unchanged.

Productivity

Nonfarm business productivity rose 4.9 percent at an annual rate in the third quarter. Manufacturing productivity rose 3.9 percent.

MAJOR RELEASES NEXT WEEK

Consumer Prices (Tuesday)

Retail Sales (Tuesday)

Industrial Production and Capacity Utilization (Wednesday)

U.S. International Trade in Goods and Services (Thursday)

Housing Starts (Friday)

U.S. ECONOMIC STATISTICS

	1970- 1993	1998	1999:1	1999:2	1999:3
Percent growth (annual rate)					
Real GDP (chain-type)	3.0	4.6	3.7	1.9	5.5
GDP chain-type price index	5.2	1.1	2.0	1.3	1.1
<u>Nonfarm business (NFB) sector:</u>					
Productivity (chain-type)	1.7	3.1	2.7	0.6	4.9
Real compensation per hour:					
Using CPI	1.0	3.9	2.8	1.2	2.1
Using NFB deflator	1.5	4.7	2.9	2.9	4.4

Shares of Nominal GDP (percent)

Business fixed investment	11.4	12.5	12.6	12.6	12.8
Residential investment	4.5	4.2	4.4	4.5	4.4
Exports	8.2	11.0	10.7	10.7	10.9
Imports	9.2	12.7	12.9	13.4	13.8
Personal saving	6.6	2.6	2.2	1.8	1.5
Federal surplus	-2.8	0.5	1.1	1.3	1.4

	1970- 1993	1998	September 1999	October 1999	November 1999
Unemployment Rate (percent)	6.7**	4.5**	4.2	4.1	4.1
Payroll employment (thousands)					
increase per month			103	263	234
increase since Jan. 1993					20043
Inflation (percent per period)					
CPI	5.8	1.6	0.4	0.2	N.A.
PPI-Finished goods	5.0	0.0	1.1	-0.1	0.2

**Figures beginning 1994 are not comparable with earlier data.

New or revised data in **boldface**.

PPI data **embargoed until 8:30 a.m., Friday, December 10, 1999.**

FINANCIAL STATISTICS

	1997	1998	October 1999	November 1999	Dec. 9, 1999
Dow-Jones Industrial Average	7441	8626	10397	10810	11135
Interest Rates (percent per annum)					
3-month T-bill	5.06	4.78	4.86	5.07	5.10
10-year T-bond	6.35	5.26	6.11	6.03	6.14
Mortgage rate, 30-year fixed	7.60	6.94	7.85	7.74	7.84
Prime rate	8.44	8.35	8.25	8.37	8.50

INTERNATIONAL STATISTICS

Exchange Rates	Current level	Percent Change from	
	December 9, 1999	Week ago	Year ago
Euro (in U.S. dollars)	1.016	1.4	N.A.
Yen (per U.S. dollar)	102.6	-0.1	-13.1
Major currencies index (Mar. 1973=100) (trade-weighted value of the U.S. \$)	93.05	-0.8	0.1

International Comparisons "	Real GDP growth	Unemployment rate	CPI inflation
	(percent change last 4 quarters)	(percent)	(percent change in index last 12 months)
United States	4.2 (Q3)	4.1 (Nov)	2.6 (Oct)
Canada	4.2 (Q3)	7.2 (Oct)	2.3 (Oct)
Japan	1.0 (Q3)	4.7 (Oct)	-0.7 (Oct)
France	3.0 (Q3)	11.0 (Sep)	0.8 (Oct)
Germany	1.2 (Q3)	9.0 (Oct) ^{2/}	0.8 (Oct)
Italy	0.8 (Q2)	12.1 (Apr)	1.8 (Oct)
United Kingdom	1.8 (Q3)	5.9 (Aug)	1.2 (Oct)

1/ For unemployment data, rates approximating U.S. concepts as calculated by the U.S. Department of Labor, Bureau of Labor Statistics.

2/ Rate for unified Germany.

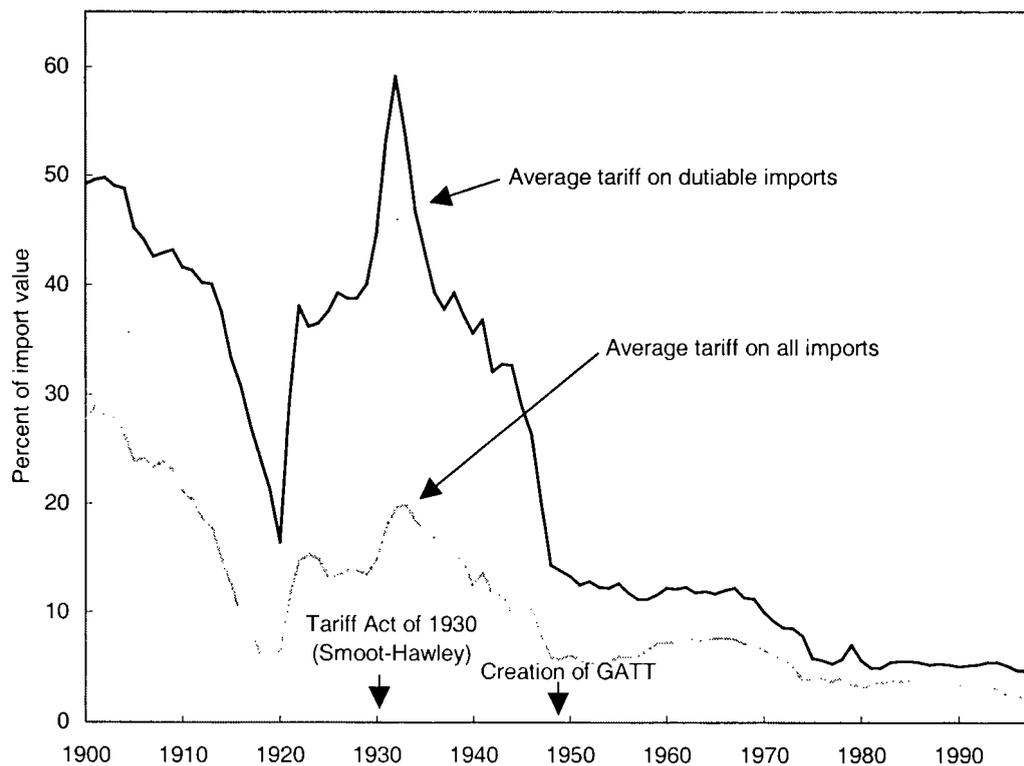
WEEKLY ECONOMIC BRIEFING OF THE PRESIDENT OF THE UNITED STATES

Prepared by the Council of Economic Advisers
with the assistance of the Office of the Vice President

November 19, 1999

CHART OF THE WEEK

U.S. Tariff Rates, 1900-1998



Until the rounds of multilateral trade negotiations after World War II, U.S. tariff rates were quite high. Tariffs on dutiable imports reached almost 60 percent under the Smoot-Hawley tariff act. By 1998, however, the average tariff rate was 4.7 percent on dutiable imports and 2.0 percent on all imports.

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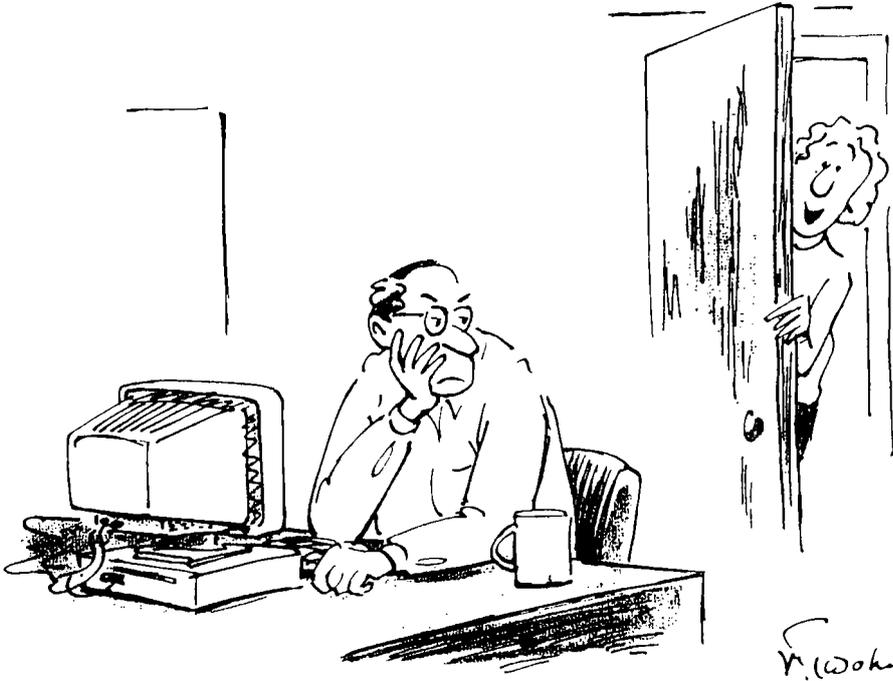
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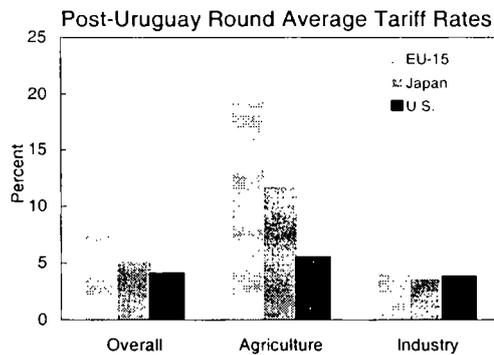
"Any intellectual property yet, honey?"

SPECIAL ANALYSIS

Who Is the Most Open of Them All?

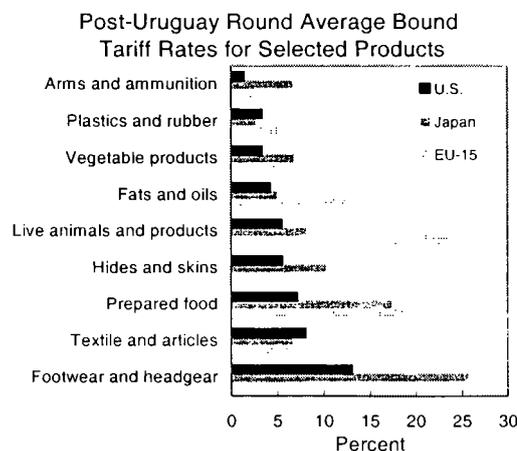
Through successive GATT/WTO rounds, world tariffs have been reduced from an average of 40 percent in 1947 to roughly 4 percent today. However, tariffs still exhibit wide variation, both across countries and across sectors within a country. One motivation for U.S. participation in negotiating lower tariffs at the WTO is that, on average, our rates are lower than those of our major trading partners. It also turns out that although we have a few products with very high tariff rates, we have fewer high tariffs than Japan or the European Union.

Uruguay Round commitments. At the WTO, the United States has committed to “binding” its overall MFN tariff rates to an average of 4.1 percent. This



compares with 5.1 percent for Japan and 7.4 percent for the EU (see upper chart). These differences are due mainly to the higher protection accorded to agricultural products elsewhere: 19.5 percent in the EU and 11.7 percent in Japan, compared with the much lower 5.5 percent in the United States. Rates for industry (manufacturing products) are much more uniform.

Highly protected sectors. The lower chart compares the average tariff rates for several product groups, ranked by the degree of protection received in the United States.



The footwear industry is the most protected U.S. sector, with an average rate of 13 percent for the combined footwear, and headgear product group. While this exceeds the EU rate of 8 percent, it is much lower than the Japanese average of 26 percent. The textile and apparel industry, another highly protected sector in the United States, has an average tariff of 8.0 percent, similar to the average for the EU (7.9 percent) and above that for Japan (6.6 percent).

Distribution of tariff rates. As averages may conceal as well as reveal, it is also useful to examine the dispersion of tariff rates. Out of roughly 10,000 tariff rates recorded for each group of countries, 66 percent of the U.S. tariffs are 5 percent or lower. By contrast, 54 percent of EU tariffs and 59 percent of Japanese tariffs are 5 percent or under. While both the EU and the United States have 98 percent of

their rates at or below 20 percent, only 94 percent of Japanese rates lie in this range.

Who has the highest of them all? The United States actually has a few products whose tariff rates exceed any in Japan or the EU. Seven tobacco products have rates above 300 percent, and five peanut products have rates over 100 percent. The highest EU rate is 89 percent (also for a tobacco product) while the highest Japanese rate is 60 percent. However, the United States has fewer of these high-rate categories than either the EU or Japan. While the United States has only 170 categories with rates between 20 and 60 percent, the Europeans have 242 such categories and the Japanese 514.

Tariff peaks are costly. From a purely economic perspective, tariff-induced economic costs rise with the square of the tariff rates, as a rough rule of thumb. Thus a 2 percent tariff is four times as inefficient, and a 3 percent tariff is nine times as inefficient as a 1 percent tariff. Because businesses and firms make production decisions based on price signals, distorting prices by putting 10 percent tariffs on some, but not all, products is probably more inefficient than applying an across-the-board 5 percent rate.

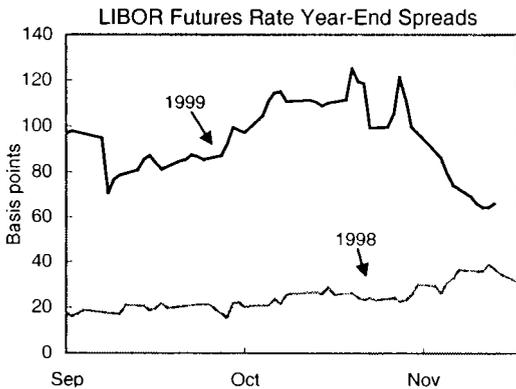
Possible benefits. While economic arguments point to evening out tariff peaks, there may nonetheless be important political reasons for preserving them. Granting high protection to a few politically sensitive sectors may allow more tariff reductions in other sectors, resulting not only in lower overall protection, but also in greater economic benefits.

SPECIAL ANALYSIS

Y2K Effects in Financial Markets

Financial sector disruptions both here and abroad have been a central concern related to the coming century date change. The smooth and efficient operation of financial markets and the banking sector relies on the extensive use of computers for record keeping, financial accounting, and electronic transactions. Studies by the Federal Reserve and the President's Council on Year 2000 Conversion report that federally insured financial institutions are very well-prepared for the year 2000 date change. Data from banks and financial markets provide additional information on the preparations underway and the magnitude of anticipated Y2K-related disruptions to the financial system.

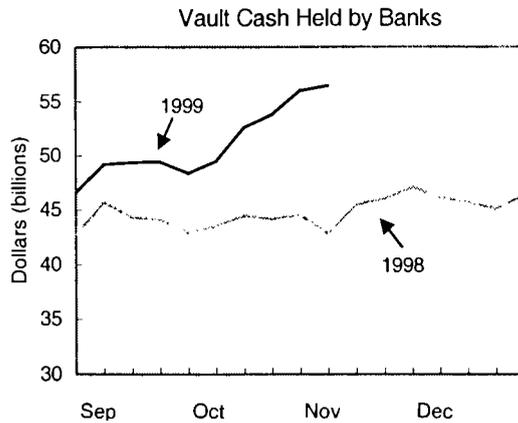
Year-end interest rate indicators. One measure of expected Y2K disruptions is the premium lenders receive for providing funds around the end of the year. This is measured in the chart by the difference between the rate on futures contracts in one important market for deposits running from mid-December to mid-January



and the average of the rate on contracts running from mid-November to mid-December 1999 and the rate on contracts running from mid-January to mid-February 2000. The spread on year-end 1999 contracts has been running well above the spread on comparable year-end 1998 contracts at comparable times a year ago and reached a peak of 120 basis points in October. Partly as a result of Fed actions to assure markets that ample

liquidity will be available at year-end, and partly as a result of a general easing of concerns regarding Y2K-related risks to financial markets, this spread has fallen to about 65 basis points. Other comparable year-end premiums (on fed funds futures and Treasury repurchase agreements) are even smaller. Evidently, market participants generally expect that Y2K disruptions will have only minor repercussions on financial markets.

Banks are building up stockpiles of vault cash. In addition to its role in soothing concerns over year-end liquidity, the Federal Reserve has also acted to ensure that sufficient quantities of cash are available to the public at year-end. It is widely believed that many people intend to withdraw abnormally large amounts of cash near the end of the year as a precaution against Y2K-related failures at banks and ATMs. In anticipation of this rise in demand for cash, the Fed increased the value of its order for currency through September by over 50 percent from the previous year. It has also implemented measures making it easier for banks to order and take delivery of cash. Starting in September, banks began building up their holdings of vault cash, which now stand about 30 percent



higher than at the same time last year (see chart). One of the reasons this build-up started so early is that armored carriers are normally in short supply during the Christmas shopping season. So far, however, public holdings of currency are running at normal levels. Evidently, the public plans to wait until the last minute to get its Y2K cash.

Conclusion. Indications from banks and financial markets suggest that the combined efforts by government agencies and private financial institutions to prepare for Y2K have been successful overall. Financial markets appear to expect relatively minor century-date change disruptions.

ARTICLE

Patents and Innovation in the On-line World

Three recent lawsuits raise the question of how Internet-based companies' ability to patent their business processes would affect on-line competition.

Background. On October 13, priceline.com sued Microsoft for infringing on its patent for a sales mechanism that allows buyers to submit price bids to sellers for airline tickets and other products. Then, on October 21, Amazon.com sued barnesandnoble.com for infringing on its patent for a purchasing method that allows customers to buy products with a single mouse click. Finally, on October 22, Trilogy Software alleged that CarsDirect.com infringed on its patent for a method that allows shoppers to customize their purchases by choosing among a variety of options. These companies might have decided to bring their suits in any case, but the legal environment may also have changed following an appeals court decision last year that some commentators have interpreted as possibly making it easier to patent business processes.

The economics of patents. An Internet company would want to patent a business practice for the same reason that a pharmaceutical company would want to patent a new drug—to gain a competitive advantage. Moreover, without some protection against competitors' simply appropriating an innovation, companies would have little incentive to invest in R&D. Society's decision to offer patent protection involves a trade-off between the costs of granting temporary monopoly power and the benefits from stimulating more innovation. Patents are inappropriate in cases where the costs clearly outweigh the benefits. For example, "natural laws," such as the laws of physics, are not patentable. On economic grounds, this would be justified to the extent that they are so inextricably embedded in a wide variety of innovations that the costs of their being monopolized would most likely be huge. Finer gradations than simply granting or denying a patent are also possible (for example, restricting the scope of a patent based on the novelty of the innovation). Once again, the economic decision is whether the benefits of encouraging innovation outweigh the costs of monopolization.

The case for on-line business process patents. Five years ago, no one sold products on-line. The first electronic commerce companies had to adapt standard business practices like the use of credit cards to the on-line environment. But they also had to develop new solutions to new problems. Amazon.com, for example, developed its patented, streamlined purchasing process, because it believed that it was losing sales by requiring customers to enter billing and credit card information with each purchase. However, such investment may be difficult to protect from imitators without patent protection. One reason is that imitation may be easier in cyber space than it is in the physical world, where other barriers, such as start-up costs, can provide protection even without a patent. For example, the New York Times invested \$350 million for a printing press to print the first

page of the newspaper in color. On-line, the ability to display color graphics is an integrated part of web browsers like Netscape's Navigator and Microsoft's Explorer.

The case against on-line business patents. Ironically, the case for limiting the patenting of on-line business processes draws on many of the same features of e-commerce as the case for expanding the scope of such patents. The fact that all on-line business practices are new means that a large number are potentially patentable. Restricting access to these innovations could seriously hamper the on-line world's famously frenetic pace of innovation and growth and might provide too great an advantage to the early holders of broad patents. In the extreme, it could amount to the physical equivalent of building a fast food restaurant while having to pay one party for the use of a drive-through window, someone else for incorporating a playground, and another for the very idea of running a fast food restaurant.

Finally, even though conventional barriers to entry like start-up costs may be low, the on-line world may have barriers of its own. One might be the importance of reputation. As the number of processes for facilitating sales (such as 1-click shopping) grows, the job of an on-line merchant may well become amalgamating components so as to make accessing the merchant's core product easier. The use of specific processes will become less important than having a reputation for providing an easily accessible site. Gaining a reputation for being the first to develop and incorporate new services might provide a powerful incentive for research and development even in the absence of patent protection.

Conclusion. On-line companies are looking to protect their investments in developing innovative business practices. The challenge for policymakers is to determine whether the unique characteristics of the on-line world call for striking a balance between the costs of granting a temporary monopoly and the gains from stimulating greater innovation that is different from the balance that is embodied in current patent law and practice.

BUSINESS, CONSUMER, AND REGIONAL ROUNDUP

FCC Issues High-Speed Internet Access Decision. Yesterday, the Federal Communications Commission adopted rules to promote competition in providing high-speed Internet access by directing local telephone companies to share their telephone lines with other access providers. This decision will enable competitive carriers to provide Digital Subscriber Line (DSL)-based services over the same telephone lines simultaneously used by the incumbent phone company for basic telephone service, a technique referred to as "line-sharing." Incumbents are already using line sharing technology to offer basic telephone service and DSL services over the same line. Now customers can use an alternative provider of high-speed Internet access without having to purchase a second line. The FCC's Order is intended to ensure that as many companies as possible will be able to deploy new technologies on a faster, more cost-effective basis, and should benefit residential and small business customers.

Lending to Minority Home Buyers Is up, but So Are Denials. Home-purchase lending to low-income and minority households has expanded faster than lending to other borrowers in recent years, according to a new Federal Reserve study. For example, the number of conventional (non-government backed) home-purchase loans extended to low-income borrowers increased by 75 percent between 1993 and 1998, compared with a 52 percent rise among upper-income borrowers. At the same time, however, an increasing proportion of mortgage applicants, including low-income and minority applicants, have been denied. The study concludes that increased lending for subprime and (especially) manufactured-home mortgages plays a key role in explaining both the increased availability of credit to lower-income borrowers and the recent rise in denial rates for conventional home-purchase loans. (Subprime mortgages are those that exceed the level of credit risk that the government-sponsored enterprises Fannie Mae and Freddie Mac are willing to accept; manufactured homes are assembled in a factory and transported to the purchaser's site.) These mortgages are oriented toward lower-income and relatively less-creditworthy buyers and thus tend to be characterized by higher denial rates. Such mortgages were 14 percent of all conventional home-purchase mortgages in 1998, up from 5 percent in 1993.

EITCs Spread to States and Now to Counties. Last month, Montgomery County, Maryland, enacted what appears to be the first county "EITC" in the nation—a refundable tax credit equal to 10 percent of the Federal EITC. Eight states currently have refundable credits (Colorado, Kansas, Maryland, Massachusetts, Minnesota, New York, Wisconsin, and Vermont) and three states have non-refundable credits (Iowa, Oregon, and Rhode Island). Seven of these 11 states have enacted or expanded their state credits since 1997. Most state credits range in generosity from 5 percent to 27 percent of the Federal EITC, although some offer higher credits in certain circumstances. Families in Wisconsin and Minnesota, for example, may be eligible for credits of up to 43 percent and 46 percent, respectively, of the Federal EITC. States finance their credits mainly through general funds, although states can use their TANF block grant to cover a portion of the cost of refundable credits.

INTERNATIONAL ROUNDUP

ILO Concludes That Child Labor Can Be Reduced. In a recent report on the achievements of the International Program for the Elimination of Child Labor (IPEC), the International Labor Organization suggests that eliminating child labor is a feasible objective. Major accomplishments of the IPEC include introducing an innovative process of workplace monitoring along with social protection for affected children and their families, intensifying efforts to target the worst forms of child labor, and expanding IPEC in Africa. The report estimates that 130,000 working children directly benefited from the program during 1998-99, including 16 percent who were withdrawn from work or trafficking, 11 percent who were removed from hazardous working conditions, and 20 percent who went into the formal education system. One notable success was a workplace monitoring system introduced in the Bangladesh garment industry in 1995, at a time when 43 percent of factories employed children. By 1998, this percentage had fallen to 5 percent. An estimated 250 million children aged 5 to 14 are engaged in economic activities worldwide. Seventy percent are in the agricultural sector, but the worst injury and illness rates are found in construction, mining, and transport.

Assessing Developing Countries' Telecom Reform. Liberalization of telecommunications policies in developing countries since the 1980s has substantially improved industry performance, and the more radical has been the reform, the greater has been the improvement, according to a recent study. The paper notes that a monopoly is likely to exist, at least temporarily, in the early stages of liberalization, and it advises countries to control monopolistic behavior in order to benefit consumers and the national economy. However, good regulation may be too expensive for some countries. Hence, the study recommends that developing nations create joint regional authorities to regulate telephone companies. This approach would allow the regulator to develop specialized expertise at a scale that a lone developing country cannot afford; it would also allow the regulator to use information about technology, costs, and demand in one country to detect inefficiencies in another country.

U.S. Tax Burden Is Low among OECD Countries. New estimates released by the Organization for Economic Co-operation and Development show that in 1997 the United States continued to have one of the lowest ratios of tax revenues to GDP among OECD countries. Revenues collected at all levels of government were 29.7 percent of GDP in the United States, compared with rates in excess of 45 percent in Sweden, Denmark, Finland, Luxembourg, Belgium, and France. Sweden (51.9 percent) was the lone country whose general government revenue exceeded 50 percent of GDP. Only Mexico, Korea, Turkey, and Japan had tax shares lower than the United States', with Mexico's 16.9 percent the lowest of all. Between 1965 and 1997, revenues as a share of GDP increased from 28 to 42 percent in the European Union 15, compared with a rise from 25 to 28 percent in the North American countries (the United States, Canada, and Mexico).

RELEASES THIS WEEK**U.S. International Trade in Goods and Services**

The goods and services trade deficit was \$24.4 billion in September; it was \$23.5 billion in August.

Housing Starts

Housing starts in October were virtually unchanged from September at 1.628 million units at an annual rate. For the first 10 months of 1999, housing starts are 3 percent above the same period a year ago.

Consumer Price Index

The consumer price index increased 0.2 percent in October. Excluding food and energy, consumer prices also rose 0.2 percent.

Industrial Production and Capacity Utilization

The Federal Reserve's index of industrial production increased 0.7 percent in October. Capacity utilization rose 0.3 percentage point to 80.7 percent.

MAJOR RELEASES NEXT WEEK

Advance Durable Shipments and Orders (Tuesday)
Gross Domestic Product (Wednesday)

U.S. ECONOMIC STATISTICS

	1970- 1993	1998	1999:1	1999:2	1999:3
Percent growth (annual rate)					
Real GDP (chain-type)	3.0	4.6	3.7	1.9	4.8
GDP chain-type price index	5.2	1.1	2.0	1.3	1.0
<u>Nonfarm business (NFB) sector:</u>					
Productivity (chain-type)	1.7	3.1	2.7	0.6	4.2
Real compensation per hour:					
Using CPI	1.0	3.9	2.8	1.2	2.2
Using NFB deflator	1.5	4.7	2.9	2.9	4.4
Shares of Nominal GDP (percent)					
Business fixed investment	11.4	12.5	12.6	12.6	12.8
Residential investment	4.5	4.2	4.4	4.5	4.4
Exports	8.2	11.0	10.7	10.7	10.9
Imports	9.2	12.7	12.9	13.4	13.9
Personal saving	6.6	2.6	2.2	1.8	1.5
Federal surplus	-2.8	0.5	1.1	1.3	N.A.

	1970- 1993	1998	August 1999	September 1999	October 1999
Unemployment Rate (percent)	6.7**	4.5**	4.2	4.2	4.1
Payroll employment (thousands)					
increase per month			129	41	310
increase since Jan. 1993					19794
Inflation (percent per period)					
CPI	5.8	1.6	0.3	0.4	0.2
PPI-Finished goods	5.0	0.0	0.5	1.1	-0.1

**Figures beginning 1994 are not comparable with earlier data.

New or revised data in **boldface**.

FINANCIAL STATISTICS

	1997	1998	September 1999	October 1999	Nov. 18, 1999
Dow-Jones Industrial Average	7441	8626	10714	10397	11036
Interest Rates (percent per annum)					
3-month T-bill	5.06	4.78	4.68	4.86	5.08
10-year T-bond	6.35	5.26	5.92	6.11	6.06
Mortgage rate, 30-year fixed	7.60	6.94	7.82	7.85	7.69
Prime rate	8.44	8.35	8.25	8.25	8.50

INTERNATIONAL STATISTICS

Exchange Rates	Current level	Percent Change from	
	November 18, 1999	Week ago	Year ago
Euro (in U.S. dollars)	1.030	-1.3	N.A.
Yen (per U.S. dollar)	105.9	1.2	-12.8
Major currencies index (Mar. 1973=100) (trade-weighted value of the U.S. \$)	93.16	0.6	-0.6

International Comparisons "	Real GDP growth	Unemployment rate	CPI inflation
	(percent change last 4 quarters)	(percent)	(percent change in index last 12 months)
United States	4.1 (Q3)	4.1 (Oct)	2.6 (Oct)
Canada	3.7 (Q2)	7.5 (Sep)	2.5 (Sep)
Japan	0.9 (Q2)	4.7 (Sep)	-0.2 (Sep)
France	2.1 (Q2)	11.0 (Sep)	0.7 (Sep)
Germany	0.6 (Q2)	9.1 (Sep) ^{2/}	0.6 (Sep)
Italy	0.8 (Q2)	12.1 (Apr)	1.8 (Sep)
United Kingdom	1.8 (Q3)	5.9 (Jul)	1.1 (Sep)

1/ For unemployment data, rates approximating U.S. concepts as calculated by the U.S. Department of Labor, Bureau of Labor Statistics.

2/ Rate for unified Germany.

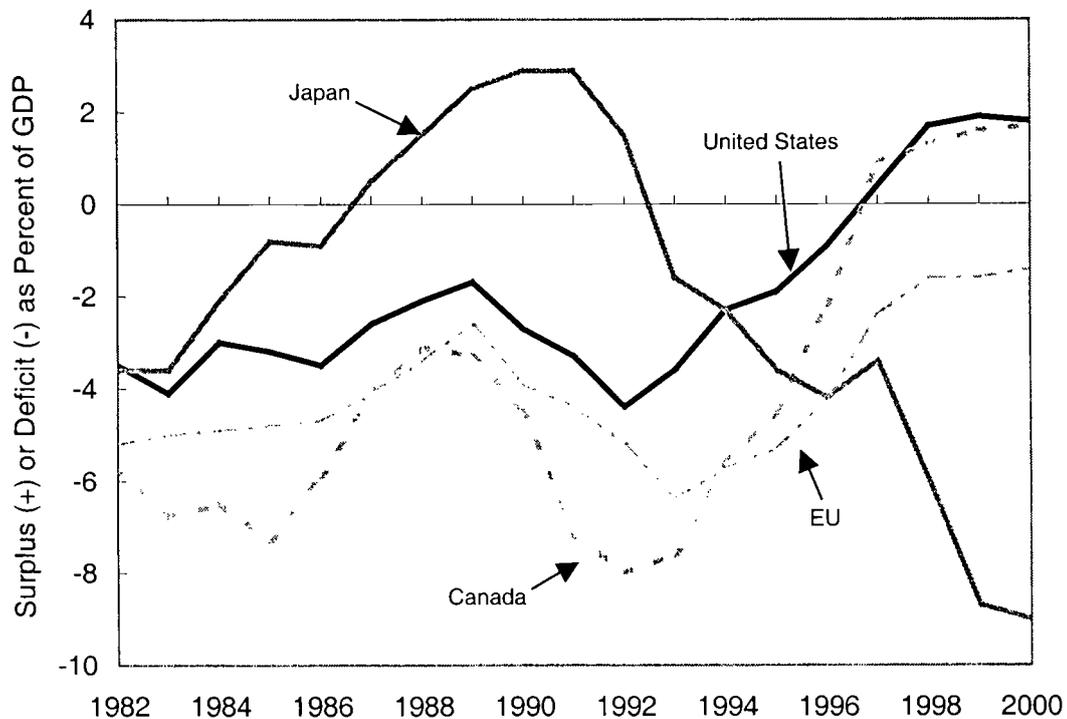
WEEKLY ECONOMIC BRIEFING OF THE PRESIDENT OF THE UNITED STATES

Prepared by the Council of Economic Advisers
with the assistance of the Office of the Vice President

November 5, 1999

CHART OF THE WEEK

Fiscal Balances Generally Improving Outside of Japan



Data for 1999 and 2000 are projections

The government balance sheets of many industrialized countries improved markedly over the last decade, except in Japan where they have gone from a sizable surplus of about 3 percent of GDP to a deficit of about 9 percent of GDP. Only part of the deterioration in Japan's budget position is related to its macroeconomic performance: OECD estimates of Japan's structural deficits (deficits adjusted for the state of the business cycle) show a similar trend.

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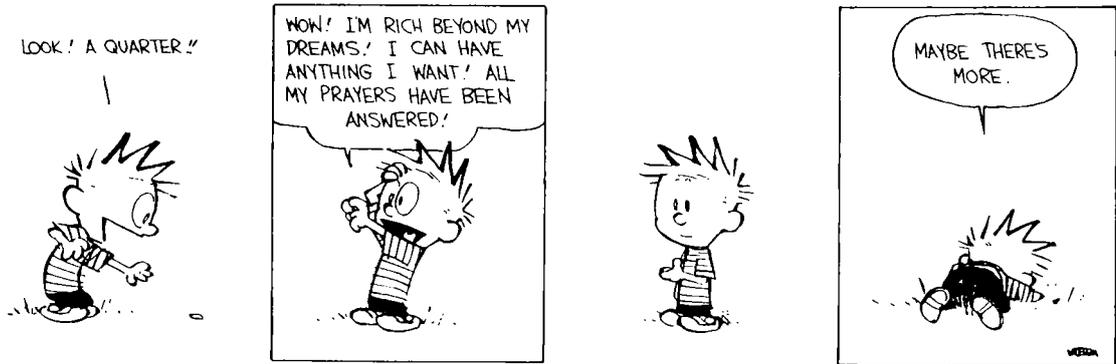
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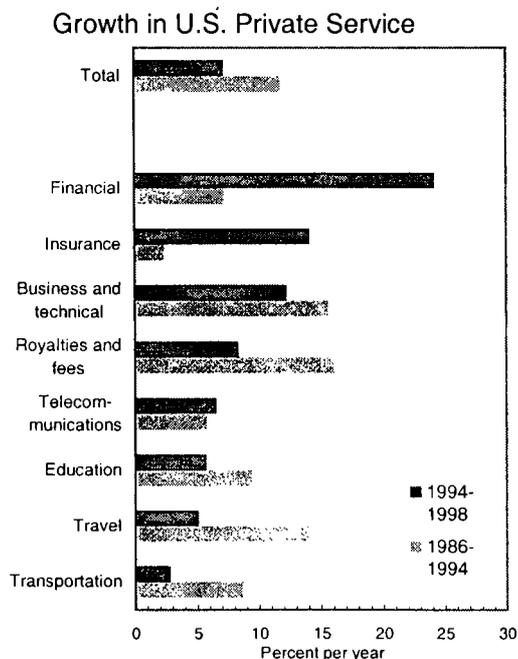
SPECIAL ANALYSIS

U.S. Service Sector Poised to Gain from New WTO Round

The CEA has prepared a report on America's interest in the WTO. The report finds that the trading system has played a central part in opening foreign markets, establishing an effective rule of law, and promoting economic development internationally. A key finding is that services are becoming increasingly important to the U.S. economy and that U.S. firms are highly competitive in global markets and stand to gain from additional market access.

Background. The Uruguay Round, which concluded in 1994, brought trade in services into the multilateral trading system by creating the General Agreement on Trade in Services (GATS). The GATS covered all traded services (except most air transport services) but did not open markets fully. Nevertheless, it provided a framework for ongoing liberalization. Post-Uruguay Round negotiations have yielded additional commitments in financial and basic telecommunications services, opening up new opportunities in areas in which the United States is competitive. Moreover, countries agreed to begin a new round of negotiations on services no later than January 1 of next year.

Services account for a large and growing share of U.S. economic activity. Services accounted for about 55 percent of U.S. GDP in 1998, up from 32 percent in 1950. U.S. service exports have also grown dramatically, at a rate exceeding that of merchandise exports. Service exports accounted for about 29 percent of total exports last year, up from 17 percent in 1950.



U.S. services are highly competitive in the global market. In 1998, the United States accounted for over 18 percent of all commercial service exports, ranking first in the world. The top five categories of U.S. private service exports, ranked by export value, were: travel services; transportation services; royalties and license fees; business, professional, and technical services; and financial services. Recent data on U.S. exports suggest areas of potential gain from the GATS:

- Between 1994 and 1998, total U.S. exports of private services increased from \$186 billion to \$246 billion, a 7 percent annual growth rate (see chart). The top gainers were

financial services which increased about 24 percent per year; insurance services which grew about 14 percent per year; and business, technical, and professional services which grew about 12 percent per year. For the most part, these types of service exports have experienced more rapid growth since 1994 than they did during the period in which the Uruguay Round was negotiated.

- In the post-Uruguay Round period, U.S. exports of travel and transportation services grew less rapidly than they did in the earlier period. The slowing of growth in U.S. exports of travel and transportation services reflects a number of factors: most aviation services were not covered under GATS, these markets are more mature, and the growth slowdown in many Asian and European economies.

Services agreements provide first steps toward potential gains. As a leader in the global services market, the United States is highly competitive in many areas of services and stands to benefit from future negotiations to open markets.

SPECIAL ANALYSIS

Gun Industry Innovation and Gun Violence

Faced with limited growth opportunities in the market for hunting and sporting firearms over the past two decades or so, gun manufacturers have turned to the development and marketing of increasingly lethal pistols. This development has contributed to an increase in the economic and societal costs of gun violence.

The changing market for firearms. Major (non-criminal) sources of demand for firearms include military and police purchases, hunting and sport shooting, and self-protection. Into the mid-1960s, rifles and shotguns accounted for more than two-thirds of all civilian firearm purchases. While the total U.S. production of civilian firearms has fluctuated in the range of 3.3 to 7.8 million guns per year since then, the mix of guns produced has changed along two dimensions:

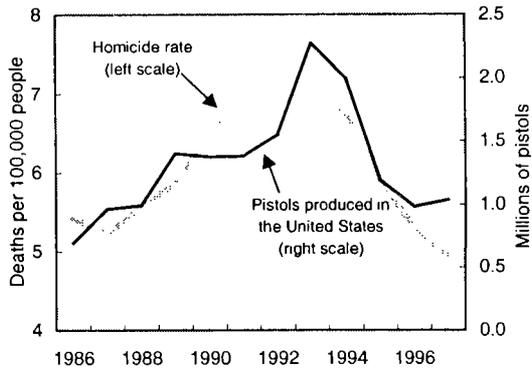
- More handguns. With the declining importance of demand for hunting and sporting guns, in part because of increased levels of urbanization, rifles and shotguns have declined, while handguns have increased as a share of all guns available for sale. The number of hunting licenses issued by states dropped 11 percent between 1982 and 1997 and target-shooting participation has been flat in recent years. Handguns represented more than 40 percent of guns available for sale in every year between 1980 and 1997 and more than half of guns available for sale in some years.
- More pistols. Within the handgun category, pistols (which carry their extra cartridges in a magazine usually located in the handle of the gun) became more important than revolvers (whose rotating cylinder functions as both the magazine and the chamber). Pistols typically hold more rounds than a traditional six-shot revolver and can be fired more quickly.

Lethal innovation. With limited demand growth and a growing stock of existing firearms (well-maintained guns are highly durable), the gun industry appears to have viewed the development of pistols as an area where innovation and product differentiation might boost sales. U.S. pistol production doubled in the late 1980s, and pistols represented 74 percent of handgun production in 1998. In addition to increasing the production of pistols relative to revolvers, manufacturers have increased the magazine capacity of pistols (allowing more bullets to be fired between reloadings) and their caliber (allowing more deadly bullets to be used). Finally, to cater to the self-protection market and with the enactment of concealed-carry laws in some states, manufacturers have tried to develop smaller but still powerful weapons that can more easily be concealed. Although these innovations may have contributed to an increase in pistol sales for a time, pistol production has recently fallen back to mid-1980s levels.

Social costs. The industry's innovations have had important consequences for the social costs of gun violence. In addition to being a factor in increased rates of

unintentional death and suicide, handguns are the primary weapon used in homicide. In 1998, over 80 percent of all firearm-related homicides involved a handgun—while handguns represent only about a third of all guns in existence.

Firearm Homicide Deaths and Pistol Production



The increased prevalence of pistols shows up in the crime statistics as well. In 1989-90, only 3 or 4 of the top 10 guns that were used in crimes and traced by the Bureau of Alcohol, Tobacco, and Firearms were pistols, but this number rose to 7 to 9 in 1992-95. Firearm homicide death rates rose into the early 1990s with the increased production of pistols, but both have since declined sharply (see chart). The increasing prevalence of pistols may

also account for research findings such as the increase in the average number of wounds per gunshot victim in the late 1980s and the increase in the caliber of bullets recovered in autopsies into the early 1990s.

Conclusion. Limited demand for traditional hunting and sporting guns has led gun producers to pursue product innovations that have raised the economic and social costs of gun violence. The challenge for public policy is to create incentives that would encourage the industry to pursue innovations that would reduce the cost of gun violence, such as the development of child safety locks or reliable “smart guns” that could only be fired by their owners.

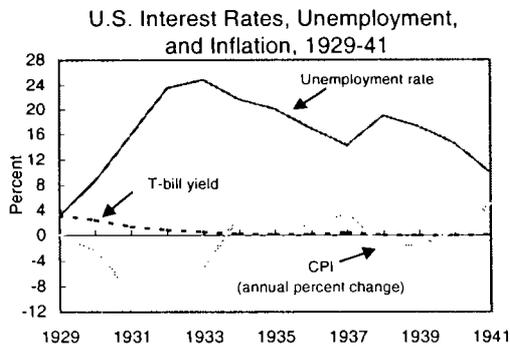
ARTICLE

The "Liquidity Trap" and Monetary Policy

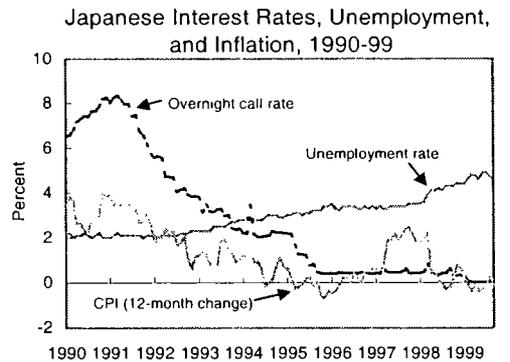
Monetary policy primarily affects the economy through the control of short-term interest rates. But what if an economy were in a recession and interest rates were already near zero? Monetary policy would be unable to push interest rates below zero—and thereby stimulate the economy—because people can always hold currency yielding a zero interest rate. Economists refer to this situation as a "liquidity trap." A recent Federal Reserve conference explored the policy implications of liquidity traps.

Liquidity traps in practice. The Great Depression in the United States provided a clear example of a liquidity trap. In the early 1930s, the unemployment rate exceeded 20 percent (see upper chart). The Fed brought Treasury bill rates to

nearly zero percent, but was then unable to lower rates further. This constraint likely increased the severity and duration of the Depression.



The Japanese recession of the 1990s provides a more recent, albeit less dramatic, example of a liquidity trap. The unemployment rate in Japan has more than doubled since 1993 and consumer price inflation, which had been running at about 3 percent per year in the early 1990s, turned to deflation (see lower chart). The Bank of Japan reduced overnight rates to below 1 percent 4 years ago and reduced them again to below 0.1 percent earlier this year, but it has been unable to cut rates further because of the liquidity trap. This has likely delayed Japan's recovery.



The potential for a liquidity trap in the United States. Research presented at the conference suggests that the likelihood of an economy finding itself in a liquidity trap depends in part on the average rate of inflation. Over the last 40 years, the inflation rate in the United States averaged about 4 percent and short-term rates averaged about 6-1/2 percent, providing monetary policy with a sizable cushion to lower rates in an economic downturn. In contrast, if the average inflation rate were zero, short-term interest rates would likely average around 2-1/2 percent, leaving the Fed with little room to reduce rates in a recession. Some economists have therefore argued that the Federal Reserve should aim for an average inflation rate a few percentage points above zero.

Implications. One way to avoid or lessen the impact of the liquidity trap is for monetary policy to move quickly and decisively at the first signs of recession or deflation in order to avoid a severe downturn. A firm commitment to continue with a zero-interest-rate policy until the economy has fully recovered may also help restore confidence and bring down long-term interest rates. However, if interest rates are near zero, other policies may be needed. Some economists have argued that a central bank could attempt to bid down the exchange value of its currency through massive purchases of foreign exchange, thereby boosting net exports. Another approach would be to use stimulative fiscal policies designed to substitute for monetary policy when interest rates are near zero.

BUSINESS, CONSUMER, AND REGIONAL ROUNDUP

Study Finds Benefits from High-Quality Childcare. Low-income children who received high-quality child care at a young age scored better on tests into early adulthood and were more likely to have attended college relative to those who did not receive such care, according to a recent evaluation of the Abecedarian Project. The 57 children from low-income families who received full-time high-quality childcare from infancy to age 5 had higher average scores on cognitive tests at ages 12, 15, and 21, were twice as likely to be in school at age 21, and were more than twice as likely to have attended a 4-year college or university. The study provides evidence that early childhood education can significantly improve scholastic success and educational attainment of poor children well into early adulthood.

Americans Lacking Adequate Life Insurance. A significant share of American couples approaching retirement do not possess adequate life insurance, according to a recent study. The study uses survey data from nearly 2,300 couples aged 51 to 61 in 1992. It finds that nearly one-third of wives and more than 10 percent of husbands would have suffered reductions in living standards of 20 percent or more had their spouses died in the year of the survey. A striking finding of the study is that households most vulnerable to economic hardship resulting from the death of a spouse do not adequately protect themselves against this risk.

Beige Book Reports Strong but Slowing Growth. Most districts continue to report strong economic growth but some slowing is noted. Manufacturing activity continues to advance in almost all districts and for most industries. Although four districts report some slowing in consumer outlays, spending generally remains strong and most retailers are expecting increases in holiday sales from last year. Real estate and construction are still robust in most districts, though there are signs of some moderation in activity. The mining and energy industries are showing signs of recharging. In terms of agriculture, most of the country is having a good harvest. Labor markets remain tight across the country, with numerous districts reporting continued difficulty in finding and retaining qualified workers. Many districts report a pickup in wage increases, but overall prices remain stable with some notable exceptions: Increases in prices were noted for some manufacturing inputs, health care, memory chips and construction materials. By contrast, low prices continue to weigh heavily on some important segments of the agricultural sector.

INTERNATIONAL ROUNDUP

New Polls on Global Corruption. A report released by Transparency International, a global anti-corruption organization, indicates that of 99 countries included in its survey, officials in Cameroon are perceived to be the most corrupt and those in Denmark the least. The survey included business people, risk analysts, and the general public. The United States ranked 18th best on the "Corruption Perceptions Index," little changed from its rank in the past 2 years. Although many major industrial countries do well at combating corruption at home, companies based in these countries often pay bribes while doing business abroad, according to a survey of respondents from 14 emerging markets. Among 19 leading exporting countries, companies from China were viewed as the most likely to pay bribes in order to win business overseas, while those from Sweden the least. The United States ranked in the middle of the "Bribe Payers Index".

EU Adopts Cuts in Agricultural Export Subsidies. Responding to financial constraints in the Common Agricultural Policy (CAP) budget, the European Commission has started to cut export subsidies for certain agricultural products. Last Thursday, the EU decided to cut certain milk product subsidies up to 7 percent and subsidies for sugar used in certain products will be cut up to 4.5 percent. More cuts are expected with the total amount of cutbacks likely to be around 200 million euros (\$192 million), according to EU officials. However, even with these cuts, the European Union remains one of the largest users of export subsidies and the U.S. has stated that the elimination of export subsidies is a priority in the next round of WTO negotiations.

Nissan Plans Radical Restructuring. The Japanese car company Nissan has unveiled a radical corporate restructuring plan which is likely to include massive job cuts and dramatically reduce its number of suppliers. Nissan has been losing money in recent years and is currently operating at only 53 percent of capacity. Earlier this year, Nissan formed an alliance with Renault and Nissan's new chief operating officer is an executive from Renault. The goal of the restructuring plan is to reduce costs by 1 trillion yen (\$9.5 billion) by 2002 and return Nissan to profitable growth. Many features of this plan are at odds with traditional Japanese employment and management practices. The plan foresees the closure of five plants and the elimination of 21,000 jobs, of which 16,500 are in Japan. Nissan has stated that the reduction in employment will take place through a combination of attrition, an increase in part-time employment, spin-off of non-core businesses, and early retirement. In another change from traditional Japanese practices, Nissan plans to establish a performance-based career advancement program in Japan.

RELEASES THIS WEEK**Employment and Unemployment******Embargoed until 8:30 a.m., Friday, November 5, 1999****

In October, the unemployment rate was 4.1 percent; it was 4.2 percent in September. Nonfarm payroll employment increased by 310,000.

Leading Indicators

The composite index of leading indicators fell 0.1 percent in September, following no change in August.

NAPM Report on Business

The Purchasing Managers' Index fell 1.2 percentage points in October to 56.6 percent. (A reading above 50 percent indicates that the manufacturing economy is generally expanding.)

MAJOR RELEASES NEXT WEEK

Producer Prices (Wednesday)

Retail Sales (Friday)

Productivity (Friday)

U.S. ECONOMIC STATISTICS

	1970- 1993	1998	1999:1	1999:2	1999:3
Percent growth (annual rate)					
Real GDP (chain-type)	3.0	4.6	3.7	1.9	4.8
GDP chain-type price index	5.2	1.1	2.0	1.3	1.0
<u>Nonfarm business (NFB) sector:</u>					
Productivity (chain-type)	1.5	2.6	3.6	0.6	N.A.
Real compensation per hour:					
Using CPI	0.6	2.5	2.9	1.5	N.A.
Using NFB deflator	1.3	3.7	3.0	3.7	N.A.
Shares of Nominal GDP (percent)					
Business fixed investment	11.4	12.5	12.6	12.6	12.8
Residential investment	4.5	4.2	4.4	4.5	4.4
Exports	8.2	11.0	10.7	10.7	10.9
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increase since Jan. 1993					19794
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CPI	5.8	1.6	0.3	0.4	N.A.
PPI-Finished goods	5.0	0.0	0.5	1.1	N.A.

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New or revised data in **boldface**.

Employment and unemployment data **embargoed until 8:30 a.m., Friday, November 5, 1999.**

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