toxic doses. They should devote more effort to elucidating the detailed metabolic pathways, particularly of the most sensitive animals. They would discover many more examples of unique differences between the most sensitive animal, other strains of the same species, other species of rodents, and human tissues. And once it is determined that the evidence for carcinogenicity of a substance is flawed, regulations should be modified promptly. Delays in implementing good science will result in needless waste of huge sums of money and loss of credibility for the federal government.

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THE HIGH COST OF ECONOMIC MISINFORMATION

By Alan Reynolds

The Washington Post's David Broder commented recently (June 11) on a remarkable discovery he had made in Europe: "It is startling to be told," he wrote, "that no major economy is growing as fast or generating jobs as well as the United States is today." To understand this, Broder added, "you have to make a mental adjustment that I found difficult. You have to see the United States, not as most Americans do, as a nation beset by problems and maybe headed down the chute, but as a citadel of economic and political strength in a world of stumbling economies..." As Broder discovered, the facts are quite incontestable—the US economy has been far outperforming most other countries for well over a year, often for more than a decade. In the year ending April 1993, for example, industrial production was up 3.5% in the US—but down 3.8% in Japan and down 7.7% in Germany.

Yet public perceptions are quite different, as Broder observed. One suspects that this is because economic news so often emphasizes the negatives, and substitutes opinions for fact. The public is constantly barraged with dramatic statistics about the economy that are designed to be alarming. One reason is that journalism schools teach reporters that "human interest" stories grab a bigger audience than cold facts. Television cameras thus put a human face on the quite genuine suffering caused by every plant closing, even if the plant had been producing

shoddy, over-priced products. Television cannot and does not show a comparable visual picture of the larger number of better jobs being gained.

Various interest groups often have a stake in pushing misleading statistics to justify the government assistance they are seeking. They put out propaganda tracts that are often cited as "studies" by unduly innocent reporters. Estimates that are little better than wild guesses are reported as though they were solid facts. Numbers become weapons in a battle for political power. Such gamesmanship with economic statistics contributes to public gloom and cynicism.

We are told that 37 million Americans are without health insurance, that 5.9

million jobs may rush to Mexico if we lower trade barriers with a free trade agreement, that the top 1% received 70% of the income gains in the eighties, that the US has become the world's biggest net debtor, that American wages or living standards

In the eighties, by contrast, Americans once again invested in the US and so did the people of many other countries. Most of the "debt" to foreigners is really equity like the Honda plant in Ohio, or German chemical factories in New Jersey.

have been flat or falling for decades, and so on. In all such cases, the "facts" are not what they seem.

Crises Du Jour

The notion that 37 million Americans are without health insurance suggests that they are always without such insurance. In fact, this is a snapshot report on those without insurance in any given month. People may, for example, be without insurance for a few months because they lost Medicaid eligibility by taking a job, or because they are new immigrants, or because they are between college and their first job. A Census Bureau report finds that only 3.6% of Americans, mostly children, are without health insurance over a 28-month period. Some of this small number of long-term uninsured face a serious problem, but others do not. Some are relatively prosperous self-employed people, for example, who choose to "self-insure."

All sorts of misleading numbers have been put out on the North American Free Trade Agreement (NAFTA). In the presidential debates, Ross Perot claimed that over 5.9 million jobs would be at risk if Congress passed NAFTA. He got that number from Pat Choate, who directs the Manufacturing Policy Project. Choate virtually made it up. Choate added up all jobs in manufacturing industries in which labor accounted for at least 20% of total costs (which is not even true of autos), and then insinuated that these industries (even space vehicles!) might completely shut down US operations if NAFTA passed, moving to Mexico instead. Why? Because labor is supposedly cheaper in Mexico.

That is not as obvious as it sounds, but it is also irrelevant. Mexican wages and benefits in manufacturing have doubled in the past five years, in dollars, and are now about one-fifth the US average. Since the average Mexican worker produces only one-fifth as much as the US worker, labor costs per dollar produced are actually about the same in the two countries. In any case, the whole idea that US industry will suddenly discover cheap labor in Mexico is a red herring. It has nothing whatsoever to do with NAFTA, since NAFTA will not make Mexican wages any cheaper! NAFTA simply reduces US tariffs, which are already zero to 2.5% in most cases, and Mexican tariffs, which are 13-20% on many major US exports. The biggest industries on Choate's list are not protected by US tariffs anyway, so they can't be affected by NAFTA, and most of them have had soaring exports to Mexico. The main thing that NAFTA does is lower Mexican tariffs against US goods, thus expanding jobs in US export industries. Nonetheless, the fable that there are 5.9 million jobs at risk continues to circulate in the press, as though it were more solid than hot air.

US Wage Decline?

Much of the anxiety about trade reflects serious misconceptions about what has been happening to US wages and incomes. A remarkably opinionated study on NAFTA by the Office of Technology Assessment (OTA), for example, asserts that, "stagnant productivity and increasing international competition have brought real wages...back to the level of 1965." Is this true? Of course not. Measured in 1982 dollars, hourly US compensation averaged \$8.35 in 1965 and \$12 in 1992a 44% increase. The contrary impression

is largely caused by deflating weekly wages by the pre-1983 consumer price index, which counted higher mortgage rates as inflation. If we still used that pre-1983 consumer price index today, real wages would look terrific now because mortgage rates have seldom been lower.

Those who claim US wages have fallen for decades also exclude all benefits, though both the quality and cost of pension and health benefits have been soaring. They often use weekly or annual rather than hourly wages, which dilutes the average with part-time and summer jobs. Another common trick is to compare current real wages with those of 1973, when price controls grossly understated inflation, and thus overstated real wages. Another distorting factor is that a growing proportion of US workers earn no wages at all-nearly a third have been promoted into salaried positions, or have become self-employed, and are therefore excluded from wage data.

"By almost any measure," claims the OTA report, "living standards for most Americans have fallen over the past several decades." By any conceivable measure, this is utter nonsense. The best measure of living standards is real consumption per capita. By this gauge, US living standards have increased by 2.1% a year for several decades, and were above that trend from 1984 to 1989.

Economic Inequality

When we aren't reading that we have all become poorer for two decades or more, we are instead confronted by figures which suggest only the super-rich have gotten ahead. This is quite impossible because real median income has risen significantly since the 1980-82 stagflation, which means at least half of the population experienced real income gains. Yet we keep hearing claims like, "the top 1% received 70% of the income gains in the eighties." The source of this statistic is an article in the New York Times last fall, which was thoroughly debunked at the time by its mis-cited source, the Congressional Budget Office (CBO). For one thing, the alleged wind-

fall for the rich measures "the eighties" as starting in 1977, which is not just an innocent mistake. The accelerating inflation of 1978-80 reduced real incomes for practically everyone except the top 1%, which probably meant those who were speculating in gold and real estate. Second, there were two big cuts in the capital gains tax in 1978 and 1981, which made it attractive to "realize" capital gains by selling assets. Since the Congressional Budget Office estimated capital gains income from tax returns, and failed to properly adjust the gains for inflation, these increased realizations resulted in a bulge of reported income at the top. A one-time sale of a farm or business, for example, can easily put a family in the top 1%—for a single year. Third, the cut in top tax rates from 70% to 28% made it much more attractive to be paid in cash, rather than perks, pensions and stocks options, and this too made it easier to see income in the tax returns. Investors likewise bought more taxable stocks and bonds, rather than tax-exempt municipal bonds or shelters, again making reported incomes look higher. For all these reasons and more, the notion that the "top 1% received 70% of the gains in the eighties" is pure mythology.

Debtor Nation

Another bogus "fact" that keeps coming back is the idea that the US has become "the world's biggest debtor nation." In the seventies, the US became a "net lender," meaning Americans invested more abroad than they did here-among other things, making loans to Third World nations that will never be repaid. In the eighties, by contrast, Americans once again invested in the US and so did the people of many other countries. Most of the "debt" to foreigners is really equity like the Honda plant in Ohio, or German chemical factories in New Jersey. In short, US investments abroad did poorly and shrank, while foreign investments in the US did very well and grew. The US stock market quadrupled, and bonds did almost as well. Had our stock market dropped by 60%, as Japan's did, we wouldn't be a "net debtor" anymore. But we'd be a lot poorer.

Grossly Deceptive Product

Even relatively mundane economic statistics are often reported in ways that confuse and mislead. The broadest, most comprehensive measure of the economy's overall performance, the quarterly reports on Gross Domestic Product (GDP), are watched with excessive anxiety. The GDP estimate represents a heroic attempt to measure the value of every good and service produced and sold in the entire nation—clearly an impossible task. Yet even GDP does not always tell us what we think it does. How, for example, are we to put a value on government services? Most such services are not sold, so we have no way of knowing what they are worth. Statisticians simply assume that government is worth whatever it costs, and plug that into GDP.

With the help of such short cuts, we end up with a measure of all the dollars spent on currently produced goods and services. (Trading in used goods, even houses and cars, is not counted.) This is called "nominal" GDP. To convert it into a measure of "real" growth, statisticians then have to pick one of many price indexes to account for inflation, and "deflate" nominal GDP into a real output (for example, output in 1987 dollars).

Even the cost of a college degree is counted as consumption, not investment! And the US counts government infrastructure as consumption, which is one reason US investment and savings look lower than those of other countries.

The resulting change in real GDP from one quarter to the next is then "seasonally adjusted," to account for things like summer vacations and Christmas sales. Since many retail workers always lose their jobs after Christmas, "seasonally adjusted" employment makes it seem as though they still have jobs. Moreover, converting three months into an annual rate, multiplying by four, makes small changes (including small errors) look much bigger than they really are.

In 1992, real GDP was reported as having increased by 2.1%, which was somehow called the worst economic performance in fifty years. Not true, of course, since any increase is better than none, and GDP falls in recessions. But a more interesting aspect of 1992 GDP growth was that it would have been 2.5%, not 2.1%, if defense spending had not declined in real terms. When GDP figures for the first quarter of 1993 were first reported, the increase was only 1.8%, but would have been 3.5% had it not been for further defense cuts. The reported increase was later reduced to 0.9%, which shows another reason not to get too excited about short-term GDP figures—they are changed many times.

Investment and Savings

The GDP accounts include measures of investment and savings which may be good enough for accounting purposes, but bear little relationship to the economic concepts. If a business buys cars in order to lease or rent them, that is counted as investment, but when we buy our own cars it's counted as consumption. Even the cost of a college degree is counted as consumption, not investment! And the US counts government infrastructure as consumption, which is one reason US investment and savings look lower than those of other countries.

Because the value of assets grew more rapidly than debts in the past decade, there was a sizable increase in real private net worth, which is far more important than the percent of this week's paycheck that is saved (the "savings rate"). Amazingly, though, the value of your house or stocks can double, yet have no effect at all on measured savings. To further confuse matters, some people subtract a rough estimate of depreciation (wear and tear) to arrive at "net" investment or savings. As businesses replaced \$1,000 typewriters with \$1,000 computers, for example, there was no "net" investment at all. Yet the quality of the nation's capital stock is higher, giving more bang for the buck.

Industrial Production

The Federal Reserve's monthly index of industrial production is mainly based on things that are relatively easy to count, like tons of steel or kilowatts of electricity. Like any other index number (such as the consumer price index), industrial production takes some year as the base period, then measures changes before and since. But it leaves out services and farms-which account for threefourths of the economy. It includes utilities and mining, which is more than most of us mean by manufacturing. The oil and gas industry has been depressed since oil prices fell in 1986, holding down the industrial production index—but that has helped most other industries. There is a separate index for manufacturing output, which is better for international comparisons. Japan, for example, has virtually no oil and gas industry, so it could never have the problems Texas had. The manufacturing index has risen more than 40% since 1980, even as people were writing books about the "deindustrialization of America." What they meant was that we are producing many more goods with about the same number of workers—which is what it means to increase productivity. Manufacturing directly employs fewer than 16% of all Americans, which is no more worrisome in terms of the overall economy than the drop in the percent of people working on farms or in blacksmith shops.

Jobs, Jobs, Jobs

Many reports have been written about how the growth of employment in 1992-93 has been much slower than in past recoveries, as though this is some sort of mystery. Part of the mystery disappeared with yet another revision. It now turns out that employment increased by 20.4 million from March 1983 to March 1990, then fell by 1.3 million in the 1990-91 recession, and has since risen by 1.6 million from March 1991 to May 1993. The latter increase was nearly twice as many jobs per month than previously reported. It was less dramatic than previous recoveries largely because the previous job loss (1.3 million) was much smaller than in previous recessions.

Another reason why the job gains have been relatively tepid should be obvious-defense cuts. About 800,000 defense-related jobs have been lost since 1987, with nearly two million more to be cut by 1997. That we are nonetheless expanding overall employment, while cutting so many defense jobs, is impressive. One of the least reported facts of recent years is that the percentage of working-age Americans with jobs soared from 1983 to 1989, and is still close to 62% far above the 58% average of the seventies.

Productivity

It's often said that productivity gains have been lower in the US than in other countries, and that the only way to increase real income is to raise productivity. Yet there are serious problems with both the measurement and the concept. First, comparisons with other countries involve rates of change, not levels. Real output per worker in the US is still substantially higher than in any other country. It's a lot easier to raise productivity when starting from a low level.

Second, the usual measure of US productivity growth has been held down by including financial industries. There were obvious excesses in this sector. Both Wall Street and the bank and thrift industry have been contracting, which suggests better future productivity from remaining workers. But productivity in financial services is surely underestimated, since

the speed and convenience of those services has expanded enormously with the computer revolution. In any case, the growth of non-financial productivity has been growing briskly for more than a decade, though this too is rarely reported.

Third, there is an uncomfortable tradeoff between increasing employment and increasing output per worker. The US did an amazing job of employing millions of baby boomers, new entrants (former housewives), and immigrants in the past decade or two, as well as accommodating increased demand for part-time and seasonal employment of students. Since most new workers naturally enter the job market with entry-level jobs, averaging the productivity of new and part-time workers with that of experienced workers fails to measure what is really typical. Suppose the US had a very high minimum wage in the eighties, like France. In that case there would have been far fewer entry-level jobs and, as in France, chronic unemployment of young people. But since people without jobs are not counted in the productivity figures, average productivity of the remaining, experienced workers would have looked much higher. So too would average wages, since most entrylevel jobs would not exist.

Economic statistics are complicated, almost always requiring some examination and interpretation. It's unreasonable to expect all reporters, much less the average citizen, to fully understand all the numbers being tossed about. When statistics sound particularly dramatic, skepticism is almost always in order. Since the usual bias is in the direction of making it seem like the sky is falling in order to justify new programs for this interest or that, wise consumers should assume that if some economic statistic sounds too bad to be true, it probably isn't.

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