

Overview: The Conventional Wisdom and the New Growth Theory

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Since the 1970s, the World Bank and the International Monetary Fund (IMF) have been dispensing economic advice and loan conditionality around the world. The advice seems old-fashioned and obvious:

- keep budget deficits small
 - keep inflation low
 - don't overvalue the exchange rate
 - open your economy: liberalize trade and integrate with the world economy
 - deregulate
 - with increasing emphasis, privatize
 - keep the tax system simple *and* collect taxes
 - invest in physical capital
 - invest in infrastructure
 - invest in human capital,
- and more along these lines.

This advice is based on the static theory of resource allocation, which shows that distortions reduce output below potential; on the distilled wisdom of day.-to-day experience; and on more formal econometric work.

The most important impact of the New Growth Theory, which is the banner under which the revived interest of macroeconomists in growth advances, has been to confirm this advice—and to add some refine-

ments, such as the De Long-Summers argument that machinery and equipment investment is the most productive part of investment in physical capital.

It is interesting, though, to note that the major theoretical contribution of the **New Growth Theory**, which is to emphasize the possibility of differences in long-term growth rates among countries, has drawn little support from the data.

The policy advice that flows from these empirical results is straightforward. Then why isn't it followed? Greg Mankiw gave us one important reason: that increasing growth requires current sacrifice, and that the offer of blood, sweat, and tears may help win wars but not elections.

Another response was offered by **Allan Meltzer**, who argued that the sacrifice makes no intergenerational sense, since our children will be richer than we are. Or, in Joan Robinson's words, "What has posterity ever done for you?" While that is an interesting philosophic issue, there is no question that most people would vote for policies that lead to investments with rates of return of 20 to 30 percent—the range that De Long and Summers offer—purely in terms of the benefits they would receive in their own lifetimes. After all, the payback period on an investment that returns 20 percent is less than five years.

There is another explanation for the failure to follow this simple advice: the advice is too general, and too macroeconomic.

I will focus on three of the big growth issues: human capital creation, technical change, and macroeconomic policy.

Human capital

The general advice to create human capital leaves all the detailed questions of educational reform to be settled. First, financing: individuals reap most of the returns of investment in human capital themselves, and investment in human capital is already heavily subsidized. Should more government money be invested in education across the board? Or should existing financing be redistributed?

Second, what precisely should we be doing in reforming education? Is the problem that American children attend school only 180 days per year rather than 240 days, as in Japan? Should they be doing more math and science? Should the government reduce the subsidies for liberal arts colleges and raise them for institutes of technology? Should the United States try to develop apprenticeship programs, as in Germany? And if so, should the government do that? The comments by Larry Katz and Jim Miller gave us a peek at the work that is now going on to try to answer these questions.

Third, do we have the political skills and will to bring about the needed changes? Should we try to leave all the improvement to the market, through vouchers, or will more direct intervention be needed? If the latter, how is the education gridlock to be broken?

As we academics in higher education think through the issues, we should be sobered by the fact that, among the three leading economic powers, the country with the best tertiary educational system has the worst growth record; and the two countries — Germany and Japan— with the better growth records, have better primary and especially secondary educational systems.

Technical change

There was surprisingly little discussion at this conference of the causes of the productivity slowdown, and of policies to promote technical progress. Michael Darby presented the only explanation for the decline in productivity growth in the United States, arguing that as much as one full percentage point of the decline could be accounted for by measurement problems.

Much of what he said resonated with those of us who use computers, wear digital watches with built-in calculators, and watch teenagers with Walkmen on their heads and blissful expressions on their faces. But the problems of measuring computer output that he emphasized raise another issue, which is that computers are by and large an input rather than an output, and that we should see their productivity impact on measures of final product, such as consumption. I am not aware that this has been done, but it would be worth doing.

We do not yet have an adequate explanation of the decline in multifactor productivity growth in the world economy. Trends in research and development (R&D) do not do the trick, for while civilian R&D spending has been declining as a share of gross domestic product (GDP) in the United States, R&D spending in other leading industrial countries has been increasing faster than GDP.

The technology question is crucial, for after all the shouting, the implications of the New Growth Theory are precisely the same as Solow's: technological progress is the wellspring of economic growth. Growth at the economic frontier comes more from technological progress than from the accumulation of factors of production.

What should we be doing about that? Does the United States need an industrial policy, and if so, of what sort? Should the United States support R&D activities in national laboratories? Or should we privatize the National Institutes of Health? Do we need more DARPA's and Sematechs? Should R&D spending by firms be subsidized even more than in the current tax code?

These are already issues in the 1992 United States presidential election. They are of surpassing importance, and will remain central throughout the 1990s.

Macroeconomic policy

There is a considerable body of work on both developing and industrialized countries that shows that long-term growth is lower in countries where budget deficits and inflation are higher. While important questions remain to be settled about the direction of causation in this relationship, and the mechanisms relating inflation and deficits to growth, I believe the evidence supports the view that, over the long run, cautious fiscal policy and conservative monetary policies are good for growth.

Of course, in the long run, none of us will be here. And there is a real conflict between the short and long-run growth-inflation and growth-deficit tradeoffs. In the short run, there is a Phillips curve. In the short run, tightening fiscal policy reduces growth. How then do

we reconcile the short-run and long-run relationships between inflation and growth, and fiscal policy and growth?

It is sometimes argued that the short-run relationships are irrelevant, and that the long-run relationships should guide policy. In that view, the faster a government deals with an inflationary shock, the more rapidly it gets back to the path of real GDP it would otherwise have been on, and the lower the accumulated loss of output.

But no one believes that in practice. Faced with an inflationary problem, the Bundesbank did not drive money growth to zero or less immediately, even though that would have reduced inflation more rapidly than its current policies. Faced with a recession, Japan was willing to raise the deficit in the short run, even though small deficits are better for long-run growth.

The alternative view is that the long-run tradeoff should be reflected in the basic stance of fiscal and monetary policy. When times are good, the fiscal deficit and inflation should be reduced, so that expansionary policy can be used when it is needed. On that view, which I believe, the current U.S. growth slowdown owes as much to the U.S. failure to deal with the fiscal deficit in the halcyon years of 1987 and 1988, as with the slow response of monetary policy to the gathering recession in 1990.

On this view, short-term policy mistakes can have impacts over the long term, defined as a decade. Lyndon Johnson's failure to raise taxes in 1965 or 1966 had impacts that lasted well into the next decade. Arthur Burns' monetary excesses had an impact on growth through the 1970s.

When one takes this view, the prospects for the first half of the 1990s are cause for great concern. In the United States, fiscal policy has been immobilized by the deficit, and by everyone's failure to deal with entitlement programs. In Japan, fiscal policy has been held back far too long, hostage to the long-run view that deficits are bad. One has to hope that the recently announced Japanese fiscal package turns out to be as large in practice as has been announced.

The prospects in Europe are especially problematic. France, the United Kingdom, and Italy are in or heading for recession. **Germany** failed to use fiscal policy as much as needed to pay the costs of unification, and threw the burden to monetary policy. The Bundesbank responded as it had to, with tight monetary policy. But monetary policy is a blunt tool, with long and variable lags, and excessive application of tight policies risks creating a recession. Thanks to the European Monetary System, and the insistence of the rest of Europe on fixed exchange rates, that recession will be Europewide.

The 1990s started out as the beginning of a new era. The macro-economic policies of the major economic powers will play an important role in determining whether the 1990s fulfill the promise of the end of the Cold War, of German unification, of Europe 1992, and of the worldwide shift to market-friendly economic policies.