MESSAGE FROM THE PRESIDENT

In 2004, the economic recovery from the recession of 2001 began to set down firm roots. Broad measures of economic activity showed healthy gains, with real output, for example, growing by roughly 4 percent over the year. We saw continued strength in consumption spending in 2004 and a significant acceleration in investment. At the same time, inflation has remained steady this past



year, and, just as importantly, inflation expectations have been contained.

Perhaps the key improvement in 2004 has been the long-awaited pickup in net job growth. As is well known, employment in this recovery has lagged behind the pace of other postwar U.S. recoveries, but the rate of new hiring finally accelerated in the spring. At the end of the year, employment was 2.2 million ahead of a year ago, an average gain of 184 thousand workers per month. This 1.7 percent gain comfortably exceeds the working-age population growth rate of just under 1 percent, and thus notable progress has been made toward absorbing the overhang of those who are willing to work. Yet there remains substantial anxiety among workers, especially in sections of the Fifth District.

For instance, certain industries within the manufacturing sector—particularly, the textile and furniture industries, which are largely located in the Carolinas—have been hard hit by job losses. Tens of thousands of workers in these industries have lost their jobs in the past several years, and many have little real hope of securing similar positions, since those industries are unlikely to expand their workforces in the near future. In addition, the new jobs that have been created recently in different industries for which those workers' skills are a good match often do not pay as well. The workers are looking at significant and perhaps sustained income losses.

Jeffrey M. Lacker President





The relatively bright economic picture I described earlier must seem unreal or at least irrelevant for many of the people affected by job losses. To them, the economy appears to be moving in an unhealthy direction—one in which wellpaying jobs in traditionally powerful American industries are being lost, and one in which the gap in wages between those at the top and those at the bottom of the distribution is widening.

Empirically, there is some truth to these claims. Wage dispersion *has* been growing for almost 30 years, though that trend appears to have been slowing recently, according to some measures. Also, the real wages of many workers have been stagnant or falling during this extended period of growing wage inequality. Thus, the concerns that many people have about the economy tend to be less about aggregate performance and more about distributional consequences.

The following essay in our 2004 Annual Report considers what has been causing the rise in wage inequality. It concludes that new technologies have improved the productivity of skilled workers relative to unskilled workers and thus have fueled wage inequality. Economists call such technologies "skill-biased," and they refer to their introduction as "skill-biased technical change."

Many observers have pointed to the information technology revolution as a prime example of skill-biased technical change in the late twentieth century. Computers, after all, are good at doing certain types of tasks—tasks that can be described by a "program," which is just a set of rules. And often, these tasks were previously more likely to be performed by less-skilled workers. IT-related skill-biased technological change then appears to be an important part of the explanation for rising wage inequality.

But there are other ways in which technology affects labor markets. Technological change can be disruptive. New products and new ways of producing arrive, and skills that were tied to the old ways of doing things lose value, sometimes dramatically. This is what economist Joseph Schumpeter famously called the "perennial gale of creative destruction." In this environment, some unskilled workers are doubly unlucky. First, skill-biased technological change can lower the relative demand for unskilled labor, reducing their wages relative to skilled workers. As I argued earlier, this scenario is what happened in the late twentieth century. Second, because less-skilled workers have less education, the skills they do have tend to be based on the specific experience they have accumulated. When those skills do not transfer well to other sectors, these workers are more vulnerable to long-term earnings losses should their industries suffer declines.

Given the effects of technological change on labor markets, what types of public policy responses should we pursue to ensure that all Americans have good employment opportunities? One response that has been suggested by many is to slow the pace of globalization in order to protect U.S. workers from foreign competition. But if the argument made in our essay is correct—that the growth in wage inequality has been fundamentally driven by skill-biased technological change—then trade restrictions would likely do little to achieve their intended goal. Meanwhile, they would likely lower aggregate income and overall social welfare. Instead, research suggests that a more useful approach would be to increase emphasis on education—particularly on acquiring general, broadly applicable skills early in life. Acquiring skills at a young age leads to rewards over the long term because individuals can recoup their investment in human capital throughout their working lives. In addition, such training tends to build on itself as acquiring skills early in life makes it easier to acquire additional skills later in life.

The essay's main intent, though, is not to provide detailed analyses of specific policy responses. It is, rather, to emphasize the role of technological change and the idea that the fundamental economic forces driving the increase in wage inequality are the same forces raising our general standard of living. I think the ideas put forth in the following pages provide essential insights about the factors affecting our economy—both nationally and in the Fifth District.

Mark

Jeffrey M. Lacker President

