

the supply of skills have shaped the evolution of wage inequality in the United States during the 20th century.

This leads to the next question: What is behind this steady shift in relative demand?

- One line of argument focuses on the role of international trade. Those U.S. firms that employ higher proportions of low-skill workers, the argument goes, are increasingly driven out of markets by imports from similar firms in low-wage countries. Alternatively, to remain competitive, firms must relocate some of their production to low-wage countries. In both cases, the result is a steady decrease in the relative demand for low-skill workers in the United States. There are clear similarities between the effects of trade and the effects of technological progress. Although both trade and technological progress are good for the economy as a whole, they lead nonetheless to structural change and make some workers worse off.

There is no question that trade is partly responsible for increased wage inequality. But a closer examination shows that trade accounts for only part of the shift in relative demand. The most telling fact countering explanations based solely on trade is that the shift in relative demand toward high-skill workers appears to be present even in those sectors that are not exposed to foreign competition.

- The other line of argument focuses on **skill-biased technological progress**. New machines and new methods of production, the argument goes, require more and more high-skill workers. The development of computers requires workers to be increasingly computer literate. The new methods of production require workers to be more flexible and better able to adapt to new tasks. Greater flexibility in turn requires more skills and more education. Unlike explanations based on trade, skill-biased technological progress can explain why the shift in relative demand appears to be present in nearly all sectors of the economy. At this point, most economists believe it is the dominant factor in explaining the increase in wage inequality.

Does all this imply that the United States is condemned to steadily increasing wage inequality? Not necessarily. There are at least three reasons to think that the future may be different from the recent past:

- The trend in relative demand may simply slow down. For example, it is likely that computers will become steadily easier to use in the future, even by low-skill workers. Computers may even replace high-skill workers, those workers whose skills involve primarily the ability to compute or to memorize. Paul Krugman has argued—only partly tongue in cheek—that accountants, lawyers, and doctors may be next on the list of professions to be replaced by computers.
- Technological progress is not exogenous. This is a theme we explored in Chapter 12. How much firms spend on research and development (R&D) and in what directions they direct their research depend on expected profits. The low relative wage of low-skill workers may lead firms to explore new technologies that take advantage of the presence of low-skill, low-wage workers. In other words, market forces may lead technological progress to become less skill biased in the future.
- As we saw in the Focus Box on the previous page, the relative supply of high-skill versus low-skill workers is also not exogenous. The large increase in the relative wage of more educated workers implies that the returns to acquiring more education and training are higher than they were one or two decades ago. Higher returns to training and education can increase the relative supply of high-skill workers and, as a result, work to stabilize relative wages. Many economists believe that policy has an important role to play here. It should ensure that the quality of primary and secondary education for the children of low-wage workers does not further deteriorate, and that those who want to acquire more education can borrow to pay for it.

Pursuing the effects of international trade would take us too far afield. For a more thorough discussion of who gains and who loses from trade, look at the text by Paul Krugman and Maurice Obstfeld, *International Economics*, 9th ed. (2012).