Key Points

- Potential output growth across major advanced and emerging market economies has declined in recent years. In advanced economies, this decline started as far back as the early 2000s.

- Unlike previous crises, the global financial crisis has been associated not only with a reduction in the level of potential output in advanced and emerging market economies, but also with a persistent reduction in its growth rate.

- Potential growth in advanced economies is likely to increase slightly from current rates but remain below precrisis rates in the medium term. The main reasons are aging populations and the slow increase in capital growth from current rates as output and investment recover gradually from the crisis.

- In emerging market economies, potential output growth is expected to decline further in the medium term, because of aging populations, weaker investment, and lower productivity growth as technological gaps between these economies and advanced economies get narrower.

- Reduced prospects for potential growth will raise new policy challenges such as achieving fiscal sustainability. Increasing potential output will need to be a priority in major advanced and emerging market economies.

Potential output is the level of output consistent with stable inflation (no inflationary or deflationary pressure). It is hard to estimate, and even harder to predict its future path. That is because an economy’s potential output cannot be measured directly. Over the long run, the growth rate of potential output (potential growth) depends on increases in the supply and productivity, of capital and labor. Growth of the labor supply depends, in turn, on the growth of the working-age population and changes in labor force participation rates; the pace of capital-stock growth depends on investment and the initial stock of capital. The productivity of these two factors is determined by improvements in business processes and
technological innovation. By looking at trends in regard to these factors, economists can make inferences about potential growth, even if it can’t be measured directly.

Before the crisis, potential growth began to decline in advanced economies, while it was increasing in emerging market economies. In both cases, this was due mostly to changes in productivity growth. In advanced economies, the decline reflected mainly a slowdown following a period of exceptional growth due to innovations in information technology, whereas in emerging market economies, the increase reflected mainly structural transformation and the expansion of global and regional value chains, which stimulated technology and knowledge transfers.

In the aftermath of the crisis, potential growth declined in both advanced and emerging market economies. Unlike previous financial crises, the global financial crisis has been associated not only with a reduction in the level of potential output, but also with a reduction in its growth rate. In advanced economies, potential growth declined from slightly less than 2 percent in the precrisis period (2006–07) to about 1½ percent during 2013–14, owing to reduced capital growth and adverse demographic factors not related to the crisis. In emerging market economies, potential growth declined by about 2 percentage points during this period, with lower total factor productivity growth accounting for the entire decline.

Potential growth in advanced economies is expected to increase slightly, from an average of about 1.3 percent during 2008–14 to 1.6 percent during 2015–20. This growth is well below precrisis rates (2¼ percent during 2001–07) and stems from the negative effect of demographic factors and the gradual increase in capital growth from current rates as output and investment recover from the crisis (Figure 1, panel 1).

In emerging market economies, potential growth is expected to decline further, from an average of about 6.5 percent during 2008–14 to 5.2 percent during 2015–20. The decline is the result of population aging, structural

![Figure 1. Evolution of Potential Output Growth and Its Components (Percent)](image)
constraints affecting capital growth, and lower total factor productivity growth as these economies get closer to the technological frontier (Figure 1, panel 2).

These reduced prospects for potential growth in the medium term, compared to those preceding the crisis, raise new policy challenges. In both advanced and emerging market economies, lower potential growth will make it more difficult to maintain fiscal sustainability. It is also likely to be associated with low equilibrium real interest rates, so that monetary policy in advanced economies may again be confronted with the problem of the zero lower bound if adverse growth shocks materialize.

Increasing potential output is a policy priority for advanced and emerging market economies. The reforms needed to achieve this objective vary across countries. In advanced economies, continued demand support is needed to offset the effects of protracted weak demand on investment and capital growth as well as on unemployment. Structural reforms and greater support for research and development are key to increasing supply and innovation. In emerging market economies, higher infrastructure spending is needed to remove critical bottlenecks, and structural reforms must be directed at improving business conditions and product markets and fostering human capital accumulation.
Key Points

- Private fixed investment in advanced economies contracted sharply during the global financial crisis, with little recovery since. It has generally slowed more gradually in the rest of the world.

- The weakness in business investment (the largest component of private investment) is primarily a symptom of the weak economic environment. With few exceptions, business investment has been as low as might have been expected based on the weakness in economic activity.

- A comprehensive policy effort to expand output would thus contribute to a sustained rise in private investment.

The disappointing performance of private fixed investment has featured prominently in the public policy debate in recent years. In advanced economies, private fixed investment has declined by an average of 25 percent since the global financial crisis compared with precrisis forecasts. The slump has been broad based, encompassing both residential (housing) and nonresidential (business) investment. Private investment in emerging market and developing economies has also slowed in recent years, following a boom in the early- to mid-2000s, but more gradually than in advanced economies.

The weakness in business investment is primarily a symptom of the weak economic environment. Although business investment contracted more severely following the global financial crisis than in historical recessions, the contraction in output was also much more severe, implying a broadly normal comovement of business investment and output. Business investment has deviated little, if at all, from what could be expected, given the weakness in economic activity in recent years (Figure 1). Firms have reacted to weak sales—both current and prospective—by reducing capital spending. Business survey responses provide complementary evidence to the chapter’s analysis, with firms often reporting lack of customer demand as the dominant factor limiting their production.

Beyond weak economic activity, financial constraints and policy uncertainty have also held back business investment in some economies, particularly in southern Europe. Confirmation of these additional factors at play comes from the chapter’s analysis of investment decisions by different types of firms. Investment by firms in sectors that rely more on external funds, such as pharmaceuticals, has fallen more since the crisis than investment by other firms. And firms whose stock prices typically respond more to measures of aggregate uncertainty have cut back more on investment, even after the role of weak sales
is accounted for. This suggests that, given the irreversible and lumpy nature of investment projects, uncertainty has played a role in discouraging business investment.

A comprehensive policy effort to expand output would thus contribute to a sustained rise in private investment. Fiscal and monetary policies can encourage firms to invest, although such policies are unlikely to return investment fully to precrisis trends. Additional public infrastructure investment may also be warranted (in economies with clearly identified infrastructure needs, efficient public investment processes, and economic slack) to spur demand in the short term, raise supply in the medium term, and thus “crowd in” private investment. Structural reforms, such as those to strengthen labor force participation, could also increase the outlook for potential output and thus encourage private investment. Finally, to the extent that financial constraints hold back private investment, there is also a role for policies aimed at relieving crisis-related financial constraints, including through tackling debt overhang and cleaning up bank balance sheets.

Figure 1. Real Business Investment in Advanced Economies: Actual and Predicted Based on Economic Activity (Percent deviation of investment from spring 2007 forecasts)

Sources: Consensus Economics; Haver Analytics; national authorities; and IMF staff estimates.
Note: Prediction based on historical investment-output relation and postcrisis decline in output relative to precrisis forecasts. Shaded areas denote 90 percent confidence intervals.