NEW DELHI—India expects its economy to grow at 7.4% in the current fiscal year, a growth rate that rivals China’s, reflecting a strengthening recovery but also a recent radical revision in the way the country calculates its gross domestic product.

The country’s upbeat growth figures—and the revised calculations that underpin them—provoked confusion and jubilation in roughly equal measure. The figures were released Monday by the Indian statistics ministry.
“Those of us who follow India closely are really struggling to make sense of this,” said Eswar Prasad, professor at Cornell University and former Asia economist at the International Monetary Fund. “Essentially the numbers just don’t quite seem to add up.”

The first growth estimates produced using the new methodology showed growth in the previous fiscal year, which ended in March, well above what was originally announced: 6.9% instead of 4.7%. The size of the economy was relatively unchanged. That revision seemed difficult to square with the events of that year, in which the threat of tighter monetary policy by the U.S. Federal Reserve roiled emerging markets and provoked emergency intervention by India’s central bank.

Still, if India can outpace China, it would mark a comeback for the South Asian nation, whose economy had until recently appeared to have lost its shine amid corruption scandals and gaping trade and budget deficits. Last month, the World Bank predicted India would overtake China as the fastest-growing major economy in the next two years.

It would also provide a political boost to the government of Prime Minister Narendra Modi, who won a landslide electoral victory last year after pledging to revive the economy and drive development so India could catch up with its richer neighbors. For the final three months of 2014, the third quarter of India’s fiscal year, gross domestic product grew 7.5%, the statistics ministry said, buoyed by accelerated growth in government spending and financial services.

The Indian statistics ministry was careful Monday to play down any notion of a horse race with Beijing. “There is no comparison,” said Ashish Kumar, director general of the Central Statistics Office, since China’s economy is several times larger than India’s. “We are not here in a beauty contest.”

Shubhada Rao, chief economist at Mumbai-based Yes Bank, said the revised data, considered alongside other indicators of continued frailty, “do not add up in terms of the extent of improvement” in GDP.

Late last month, the statistics ministry said it was updating the base year used as the reference point for measuring price changes and incorporating more-comprehensive data into its GDP calculations, which aim to measure the country’s total economic output. The ministry also shifted its focus to GDP computed at market price, not at factor cost, as its main indicator of economic expansion. Market-price GDP gauges activity by adding up consumers’ and firms’ spending, whereas factor-cost GDP tabulates producers’ costs.
Monday’s data included new estimates for the current fiscal year as well. Growth in the three months that ended in September was revised to 8.2% from 5.3%. And in the quarter before that, the official growth rate was changed to 6.5% from 5.7%, indicating substantial acceleration between those two quarters instead of a slight slowdown.

The latest figures, which describe the economy’s performance since Prime Minister Modi took office in the spring, also seem much stronger than what other data imply. Mr. Modi has taken some steps to improve the business environment and streamline bureaucratic procedures. Indian companies announced $64 billion in new investment projects in the fourth quarter of 2014, by one estimate—the highest level in four years.
But they don’t appear to be putting big money on the table yet. Exports in December shrank 3.8% in dollar terms from a year earlier.

Financial constraints are a major reason investment hasn’t picked up. Corporations are burdened with debt and banks are reluctant to lend. Finance officials have said the government budget for the coming fiscal year, which will be unveiled at the end of this month, will likely include substantial investments in railways, roads and housing to compensate for weak investment by private firms.

Such indications of subdued activity have vexed economists trying to understand the new, peppier GDP figures. “We are still trying to connect the dots,” said Dharmakirti Joshi, chief economist at the Mumbai-based rating agency Crisil. He said that for him, the main difficulty for forecasting future growth is that different indicators now paint divergent pictures of manufacturing activity. For the previous fiscal year, the government’s index of industrial production showed manufacturing activity slowing 0.8%. The new GDP data show a 5.3% jump in manufacturing for that year. “There’s a big disconnect,” Mr. Joshi said.

Vidya Mahambare, an economics professor at the Great Lakes Institute of Management in Chennai, suspects India’s growth figures for the first decade of the 2000s will eventually see big revisions as well. Under the new parameters, economic expansion during the fat years might have maxed out at 10% or even 11% instead of 9%, Ms. Mahambare said. “Whatever we thought about potential growth and business cycles—everything changes.”

For now, though, Mr. Modi’s government is spurring optimism that deep, structural obstacles to economic growth are gradually being removed. “Things are so clogged up throughout, whether you’re talking about infrastructure projects being stalled, permissions not coming in, clearances not coming in,” said Satish Reddy, chairman of Dr. Reddy’s Laboratories Ltd. , a Hyderabad-based pharmaceutical giant.

He counseled patience. “Everybody is bullish about India. Everybody has the confidence. But it just needs some time to play out and really translate into numbers,” Mr. Reddy said.

—William Mauldin
contributed to this article.

Write to Anant Vijay Kala at anant.kala@wsj.com