The euro slumped to a fresh 11-year low against the U.S. dollar Wednesday, on the eve of a key meeting at which the European Central Bank is expected to shed more light on how it will execute the bumper bond-buying program it announced in January.

The bloc’s single currency was trading around 0.9 percentage point lower against the dollar midafternoon at around $1.1068, its lowest point since September 2003. The euro also hit a seven-year low against sterling Wednesday, of £0.7248.

“It ultimately comes down to the fact that we have one central bank that is aggressively easing and one that looks like it will hike rates and that’s what’s driving the move,” said Peter Kinsella, a currency strategist at Commerzbank in London, referencing expectations that the U.S. Federal Reserve will start raising rates this year.

Over the longer term, Peter Dragicevich, a currency strategist at Commonwealth Bank of Australia, said he also expects the trend to continue. “Barring a sharp and unanticipated faltering in the U.S. economy, we expect the euro [against the dollar] to remain heavy,” he said.

The euro has now fallen almost 8.5% against the greenback this year and it has dropped by almost 14.5% over the past six months. ICE’s U.S. Dollar Index, which measures the dollar’s strength against a basket of other currencies, rose to yet another 11-year high Wednesday morning.
The euro’s persistent weakness comes despite figures showing that retail sales in the eurozone rose for the fourth straight month in January and at the fastest rate in more than nine years, which supported stocks. After a mixed start to the session, the Stoxx Europe 600 was around 0.2% higher on the day mid afternoon. Germany’s DAX 30 and France’s CAC 40 were trading 0.5% and 0.6% higher respectively. London’s FTSE was unchanged on the day.

Back in currency markets, India’s rupee briefly rose to a one-month high against the dollar in earlier trade after the country’s central bank surprised markets with a cut to its key lending rate for the second time this year.

It trimmed its main repurchase rate by 0.25 percentage points to 7.5%, citing weakness in parts of the economy as well as favorable inflation figures and structural overhauls included in the government’s proposed budget. Indian stocks traded slightly higher Wednesday morning after the Reserve Bank of India move and the rupee’s rise proved temporary.

Market participants said the central bank was buying U.S. dollars and selling rupees after the rate move, to keep the rupee from strengthening too sharply.

In Poland, meanwhile, the central bank slashed its main interest rate by 50 basis points to 1.50%, the lowest on record, in response to persistent declines in consumer prices.

After the rate decision, the zloty rose to 3.7584, its highest level against the dollar since late January. The central bank later said that the cut was the last in its current easing cycle, as the Polish economy continues to grow briskly.

Write to Josie Cox at josie.cox@wsj.com