In the fourth quarter of 2020, the inflation-adjusted GDP grew (seasonally adjusted annual rate, according to the first, “advance” estimate) by 4.0 percent over the quarter before. The year 2020 saw a real rollercoaster of economic activity, with the new estimates showing a drop of 5.0 percent in the first quarter (when the coronavirus first revealed itself), a drop of 31.4 percent in the second quarter, and then an increase of 33.4 percent in the third quarter before the increase at the end of last year. This pattern left the GDP still below the level of the first quarter of 2020, and even further below the fourth quarter of 2019. Growth occurred in exports and in business investment, consumption, housing, and inventories, while government spending at all levels shrank. Imports grew faster than exports, so trade on net detracted from growth. It appears likely that the economy was losing some momentum over the course of the fourth quarter, but the coronavirus relief legislation enacted in December probably provided a push for early this year.

2. WEEKLY JOBLESS CLAIMS FALL

New claims for unemployment insurance declined last week. The drop (not seasonally adjusted) included 101,498 in the regular state program, and another 20,472 in the federal Pandemic Unemployment Assistance program. These are favorable numbers, subject to some turbulence because of the expiration of the federal program late last year and a possible flow back into the program earlier this month. State Unemployment Insurance continuing claims, reported with a lag, also showed a decline (in the previous week). Thus, the data show a move in a downward direction from a very high base.
New coronavirus cases and hospitalizations both continued to decline in the last week. Deaths, which are of course a lagging indicator, moved essentially sideways.
The favorable downward movements of cases and hospitalizations have set off some enthusiastic reactions, and they are good news. They should not lead us to forget that the levels of these indicators remain dangerously high. Even today's reduced seven-day average of cases is almost triple the summer peak. Hospitalizations remain over 100,000, and some local hospitals and their staffs remain at or near the breaking point. The level of deaths remains half again as high as it was at the peak of the initial outbreak, when our health care providers were just learning how to treat the sufferers from this novel disease.

Declarations of victory are therefore premature—and especially because of the emergence of multiple new mutations of the virus. In a process of natural selection, viruses mutate, and mutations that are more transmissible naturally spread faster. In recent weeks, three mutations have been identified. One, originating in South Africa, is known as **B.1.351**. It has already been identified in the United States, in at least two persons who had no contact with one another and no international travel. This is a clear indication that the South Africa mutation is in community spread in this country. The South Africa mutation appears to be more readily transmissible than the original virus, and may also be able to infect persons who previously contracted the original virus. Because of its greater transmissibility, the South Africa virus has become predominant in South Africa and in some other African countries, and has led to rising caseloads there. The existing Pfizer and Moderna vaccines provide protection, but may be less protective against the South Africa virus than against the original strain. Moderna says that it is tailoring a booster shot to fight this mutation. The South Africa virus also appears to be resistant to a monoclonal antibody drug supplied by Eli Lilly. This mutated virus has caused considerable concern.

A second mutation, known as **B.1.1.7**, was identified in the United Kingdom, and contributed to the recent spike in infections there. It is also more transmissible, and evidence suggests that it may be more lethal as well. It, too, is present in the United States. The UK virus does not appear to be any more capable of defeating the Pfizer and Moderna vaccines.
Yet a third mutation, known as \textit{P.1}, appears to have originated in Brazil. It has been detected in Minnesota.

So long as the virus continues to spread, it will continue to mutate. And so long as it continues to mutate, some mutations will increase its transmissibility. And some mutations may allow the virus to evade existing vaccines. The process is described as a race between the virus, on the one hand, and both efforts to slow its spread (such as masking and social distancing) and efforts to create immunity (including vaccines but also infections followed by recovery). One can imagine a nightmare scenario that would follow from new and efficient mutations. “Pandemic fatigue” and a rush to reopen activity could facilitate that result.

4. VACCINE NEWS

In some good news, the \textit{Novavax} vaccine was found to be 89.3 percent effective in trials in the UK, after less-successful trials in South Africa found 49.4 percent, or less than borderline, efficacy. In this supply-constrained environment, any additional vaccine that could add to production would be welcome. The firm is pleased that given these trials their vaccine has shown efficacy against the original strain and the UK and South Africa mutations.

Meanwhile, Johnson & Johnson expects to reveal its trial results next week. J&J has massive manufacturing capacity, and its vaccine does not require special refrigeration and is administered in a single dose—which makes distribution much simpler, especially over longer distances and to less-densely populated areas. The federal government has a purchase commitment of 100 million doses, with an option for 200 million more.

5. THE NEW ADMINISTRATION’S CORONAVIRUS TASK FORCE BRIEFING

The new coronavirus task force held its first \textit{briefing} on Wednesday. The task force announced expansion of the approved potential population of persons to administer vaccine injections to include retired doctors and nurses, with practitioner licenses to be accepted across state lines. They also announced that it would be acceptable for persons who received a first dose with one of the two approved mRNA vaccines (Pfizer and Moderna) to receive the second dose of the other, and that second doses could be administered within six weeks, rather than at precisely three or four. The federal government will release all of its vaccine short of a two-to-three-day inventory, and pledged to announce its deliveries to the states well in advance, making it easier for the states to schedule administration efforts. It will acquire more “low dead space” syringes that will allow the extraction of six doses from the Pfizer vials that with conventional syringes would yield only five. And they held open the option of invoking the Defense Production Act to deal with any bottlenecks in the delivery and administration of the vaccines.

6. FOCUS ON REOPENING: BRAZIL – VACCINATIONS

After several months in mid-to-late 2020 during which COVID-19 cases and deaths declined in Brazil, the country is now amid a second wave of infections spurred by \textit{two variants} of the virus. A strained healthcare system and fatigue with social distancing measures has contributed to over 215,000 COVID deaths, second only to the US. Some COVID fatalities have recently been due to asphyxiation because of a \textit{lack of oxygen} and other essential supplies in hospitals.
The politicization of the COVID-19 response, and now the vaccination campaign, has delayed Brazil’s purchases of vaccine supplies and slowed immunization efforts. Last week, lagging other Latin American countries that had already started giving shots, Brazil authorized both the Oxford-AstraZeneca vaccine and a Chinese vaccine from drug maker Sinovac. The Chinese vaccine, which was tested widely in Brazil, reported an efficacy rate of 50 percent, not only fueling public skepticism about the vaccine but also spurring preferences to wait for an American or European shot. Despite a proven track record of handling other health crises, such as AIDS and Zika, and a robust public health care system, the Brazilian president’s consistent undermining of public health officials and open refusal to take a vaccine has led to a breakdown in the logistics planning that is needed to launch an effective vaccine program.

One bright spot, however, based on data from the International Monetary Fund, was Brazil’s fiscal policy response to COVID-19 in 2020, which (as a percentage of GDP) was on par with that of some advanced economies, including Germany. While most measures expired at the end of 2020, Brazil’s relief programs included direct cash transfers to the poor and unemployed and expanded eligibility of its welfare program (Bolsa Familia). Businesses that protected employment were also eligible for tax breaks and additional lines of credit. These income support measures sustained the most vulnerable populations and reduced poverty in the short-term.

Yet the withdrawal of the huge fiscal package, the ongoing second wave of COVID-19 cases, and logistics and vaccination resistance drastically reduce the likelihood of achieving broad based immunity in the country by the end of 2021.