



## BOX V.1

# SOCIAL TURMOIL, UNCERTAINTY, AND ECONOMIC ACTIVITY: EVIDENCE, TRANSMISSION CHANNELS, AND POLICY IMPLICATIONS

This box presents a summary of the evidence on episodes of social turmoil and the channels through which they can affect economic activity. It also summarizes the resulting implications for economic policy.

The main facts that are highlighted in this literature review are, first, that the economic implications of the turbulence are limited when duration is brief. However, the costs increase considerably if the disturbances are longer-lasting and begin to affect consumer and business confidence. In this context, monetary policy becomes less effective than other stimulus measures, such as an expansion of fiscal policy.

### **Turmoil and economic activity: Evidence**

There is a lot of heterogeneity in the types of social protests worldwide, their institutional contexts, and their underlying objectives. A first difference is the level of violence, ranging from peaceful protests to armed conflicts. A second difference is the political context, with some unfolding in a democracy, others under a dictatorship, and still others in a transition between the two. Finally, the underlying objectives can include anything from sectoral demands, income redistribution to deep political changes.

Despite this heterogeneity, the literature identifies some common elements in terms of the economic implications of social protests. First, the effects on economic activity have been fairly limited when the duration of the protests has been brief, even when accompanied by violence. Based on a sample of 90 countries in the 1974–2003 period, Jong-A-Pin (2009) shows that the effects of protests increase with duration. In another study, based on annual data for 183 countries in 1980–2010, Bernal-Verdugo, Furceri, and Guillaume (2013) find that in the short term, the effects of strikes and protests are between 0.3 and 0.6 points of lower annual growth. At longer terms, the effects remain moderate to the extent that the reforms adopted after the crisis improve governability and stability.

A specific example of a violent, but short-lived social disturbance is the recent case of France and the yellow vests movement, which began in November 2018. Over the course of nearly two months, there were violent demonstrations throughout the country, which were triggered by increases in gasoline costs and other redistributive demands. Despite the intense violence in Paris and other regions of the country, the short duration prevented the macroeconomic effects from becoming significant. The estimated cost was just 0.1 percentage points (pp) of lower growth in terms of quarterly GDP (IMF, 2019).

At the other extreme, the literature indicates that the macroeconomic costs of social protests can increase considerably if the violence continues over an extended period. Examples include the protests that occurred in several countries in North Africa and the Middle East in 2010, during the so-called Arab spring. In several of these cases, the violence lasted for months and even years, with major consequences for economic activity. In Tunisia, GDP suffered an average annual loss of 5.7 pp between 2011 and 2013 (Matta, Appleton, and Bleaney, 2016).

Khandelwal and Roitman (2013) study 11 episodes of political regime change in low- and middle-income countries, which were accompanied by massive protests. For these episodes, which include Argentina 2001–03, South Korea 1980–81, and South Africa 1990–94, the authors find that the loss in annual growth ranged from 1 to 7 pp, and the economies took up to five years to recover their historical long-term growth pace. The authors also show that inflation can increase due to the depreciation of the local currency. In five of the eleven cases studied, strong currency depreciations of 10 to 100% led to an increase in annual inflation of 7 to 17 pp. In the remaining six cases, the exchange rate did not depreciate substantially, and inflation only fluctuated 1 to –3 pp.

### **Turmoil and economic activity: Channels**

There are at least three channels through which violent social turmoil can have real effects on economic activity.

A first channel, which operates in the short term, has to do with the disruption of production chains due to vandalism, looting, communication blackouts, and so forth. At the firm level, this has a direct impact on the main inputs: employment is affected because workers cannot get to their jobs or cannot do so regularly; physical capital is affected to the extent that the firm experiences looting or vandalism. At the level of the total production network, even businesses that do not experience losses in terms of capital or employment can face difficulties if the firms that supply their intermediate goods are weakened.

A second channel is uncertainty, which can have effects in both the short and medium terms if the turmoil is longer-lasting. Measuring uncertainty is not trivial. The literature uses indirect measures, such as the use of certain words alluding to uncertainty in newspapers and magazines; or through the dispersion of economic forecasts. In both cases, the uncertainty measures are found to be countercyclical: they rise when economic activity falls, and they also rise in response to bad news such as wars or terrorist events (Bloom, 2014). It has also been documented that when uncertainty rises, the number of firms facing adverse conditions increases suddenly and unexpectedly. This is known in the literature as rare disasters (see, for example, Gourio, 2012; Bloom et al., 2018; Kent and Phan, 2019). The next section addresses in more detail the mechanisms through which uncertainty shocks have adverse consequences for economic activity.

The final channel is related to the impact on long-term growth, which is associated with changes in political institutions generated by the events. Acemoglu and Robinson (2012) offer an optimistic perspective, arguing that to the extent that these events bring about a better distribution of political and economic power, they can lay the foundations for robust and sustainable economic growth. On the other hand, Aguirre (2016, 2019) shows that under certain conditions, violent conflicts can lead to institutional change in the other direction, reducing long-term growth.

### Real effects of an uncertainty shock

As mentioned, various studies document how uncertainty generally spikes in response to events like those occurring in Chile since mid-October. The literature identifies two mechanisms through which this type of shock can affect economic activity, over and above the initial effects that caused uncertainty to rise.

The first mechanism operates through the increased benefits of waiting, in terms of decisionmaking by both businesses and households. On the firm side, the “wait and see” option becomes more advantageous for decisions on investment, hiring, capacity expansion, etc. If there are fixed costs or costs associated with backing out of a decision after the fact, the wait-and-see option is even stronger. On the household side, this option applies to the purchase of durable goods like houses, automobiles, furniture, etc. Moreover, heightened uncertainty regarding labor market conditions fosters cautious behavior on the part of families, who reduce their consumption and thereby contribute to a drop in aggregate activity under nominal rigidities (see, for example, Ravn and Sterk, 2017; Der Haan et al., 2017; Bayer et al., 2019). Thus, the individual decisions of many firms and households to reduce spending can imply a brake on aggregate investment, employment, and consumption.

The second mechanism is the effect on spreads. In the presence of risk aversion and an expansion of the set of possible tail events, there is an increase in default risk (bankruptcy), which raises spreads. This can amplify the brake on aggregate demand mentioned in the preceding paragraph.

Identifying and quantifying the real effects of an uncertainty shock poses important challenges, since it is possible that causality runs in the other direction—that is, the increase in uncertainty could be caused by the drop in economic activity. To address this, the literature incorporates structural approaches or the study of natural experiments. One example of the latter method is Baker and Bloom (2013), who use data on 60 countries between 1970 and 2012 for events such as natural disasters, terrorist attacks, or spontaneous political shocks that could not have been predicted. Using the associated volatility component in the stock market as a predictor of GDP growth in the periods following the event, they find that nearly half of the drop in aggregate output was associated with these events. Another important finding is that the more persistent the uncertainty shock, the larger the real effects.

### Conclusions

The increase in uncertainty deriving from violent social unrest affects the traditional mechanisms through which monetary policy operates, which can reduce its effectiveness. In such situations, other macroeconomic stimulus tools that have a more direct impact on aggregate demand will be more effective. One example is countercyclical fiscal policy, as recently announced by the government.