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Temporary Price Controls as a Second-Best Option to Control Sudden Spikes in the Prices of Basic Necessities

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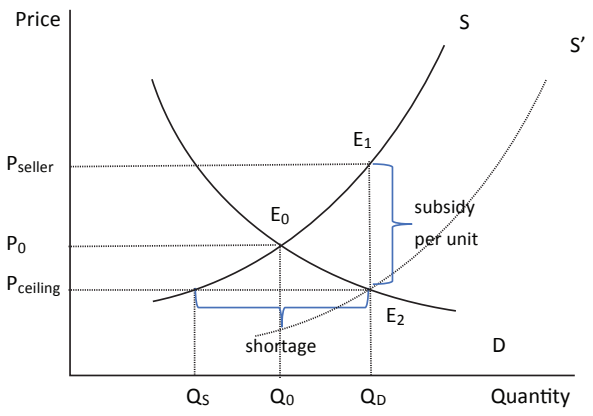
Given rising inflation, governments around the world may be considering price controls. While inefficient in most cases and often costly, price controls may be warranted under certain circumstances to avoid sudden price spikes in staples, such as food items and fuel. Short-term price controls may play an important role in keeping inflation expectations in check. Such controls need to be carefully designed. In most cases, they should be temporary and limited to goods that make up a large share in the overall consumption expenditure, especially in that of poor households. Direct transfers to poor households and firms, once the relevant digital infrastructure is in place, are a better alternative to alleviate the pain from the price shocks without distorting price signals or subsidizing the wealthy.

The Theoretical Case for Well-Designed Price Controls

Governments impose price controls for a number of reasons. For example, price floors (minimum prices) are sometimes used to favor certain producers or to protect industries seen as strategic. However, the most common practice is the use of price ceilings (maximum prices) to keep prices of goods deemed to be basic necessities, such as staple food items and fuels, low to protect consumers. Basic economic theory suggests that binding price ceilings will result in shortages because producers will not be willing to produce as large a quantity of the good at that price as consumers will demand. However, shortages can be avoided through subsidies paid to the producer or to the consumers.

The effect of producer subsidies on shortages is illustrated in figure 1. A binding price ceiling would result in a shortage as demand (D) exceeds supply (S) at that price. This shortage can be avoided if producers are compensated with a subsidy, shifting the supply curve from S to S'. In order to meet demand, the per unit subsidy would far exceed the difference between the price ceiling and the market equilibrium price, resulting in substantial public expenditures. This converts the question of price control to a public expenditure problem.

Figure 1. Price Ceilings Can Result in Shortages, Which Can Be Corrected with a Subsidy



Source: Authors' illustration.
Note: D = demand; E = equilibrium; P = price; Q = quantity; S = supply.

Standard economic thinking views price controls as mostly inefficient because they result either in market shortages or substantial public expenditures. Moreover, the subsidy will necessarily benefit the well-off as well as poor households. For goods such as gasoline, the subsidy may even be regressive (benefit the better-off more than the not-so-well-off) if richer households spend a larger share of their income on the good than poorer ones. For that reason, direct cash payments to poor households are considered a more efficient policy than subsidies. A case in point is the approach taken by Indonesia, which replaced a costly fuel subsidy with a cash transfer program.

In some situations, however, price controls may constitute an efficient market intervention. One example would be an effort to curb monopolistic market power, the rationale behind price controls on medicines in most advanced economies. A case can also be made for keeping price volatility in check. Cash transfers to the poor are usually very static. So sudden spikes in the price of staple foods or fuel could still lead to widespread impoverishment. Moreover, cash transfers can be inflationary. Unexpected bottlenecks in several crucial sectors have been widely blamed for increased inflation during the second half of 2021. Given the concerns that higher inflation can become entrenched, short-term price controls may play an important role in keeping inflation expectations in check.

The Actual Practice of Price Controls in the East Asia and Pacific Region

This Research & Policy Brief examines the extent and nature of price controls in developing countries in the East Asia and Pacific (EAP) region as a case study to assess whether or not they may have played a role in lowering headline inflation. Figure 2 shows the number of price-controlled product categories for 11 countries in the region in comparison to other emerging markets and developing economies (EMDEs). The median number of price controls on food and beverages in EAP is 10, twice as high as the median for EMDEs (excluding the EAP countries). Similarly, the median number of price controls set on energy-related products is significantly higher in the 11 EAP countries than the rest of the EMDEs. Within the EAP countries, Malaysia and the Solomon Islands have the highest number of price controls on food items, while within the rest of the EMDEs Tunisia has the highest number of price controls (40).

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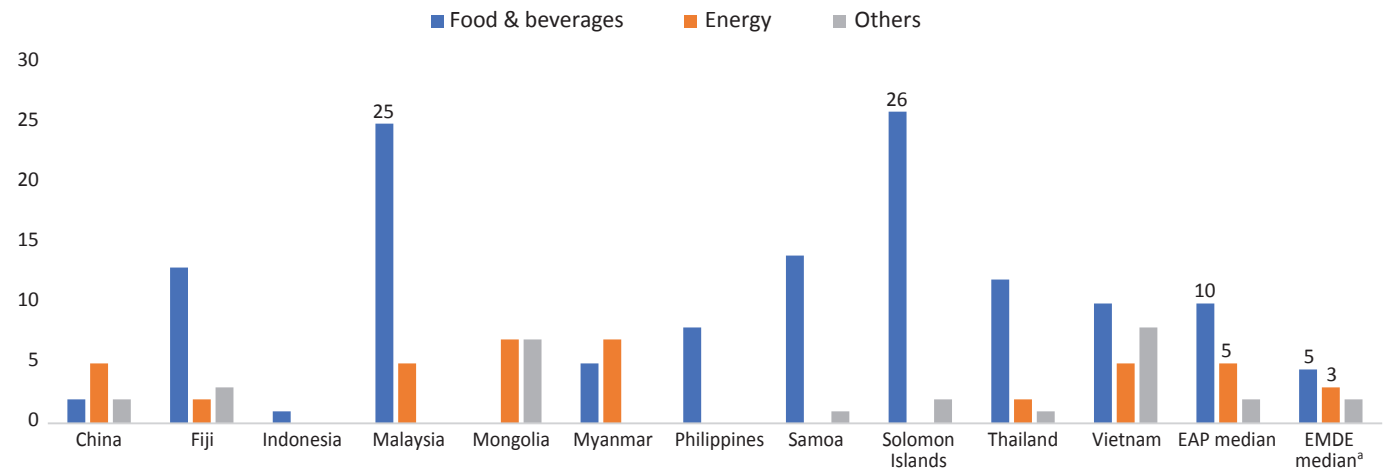
Figure 2. Price Controls in East Asian and Pacific Countries Vary by Number and Type.

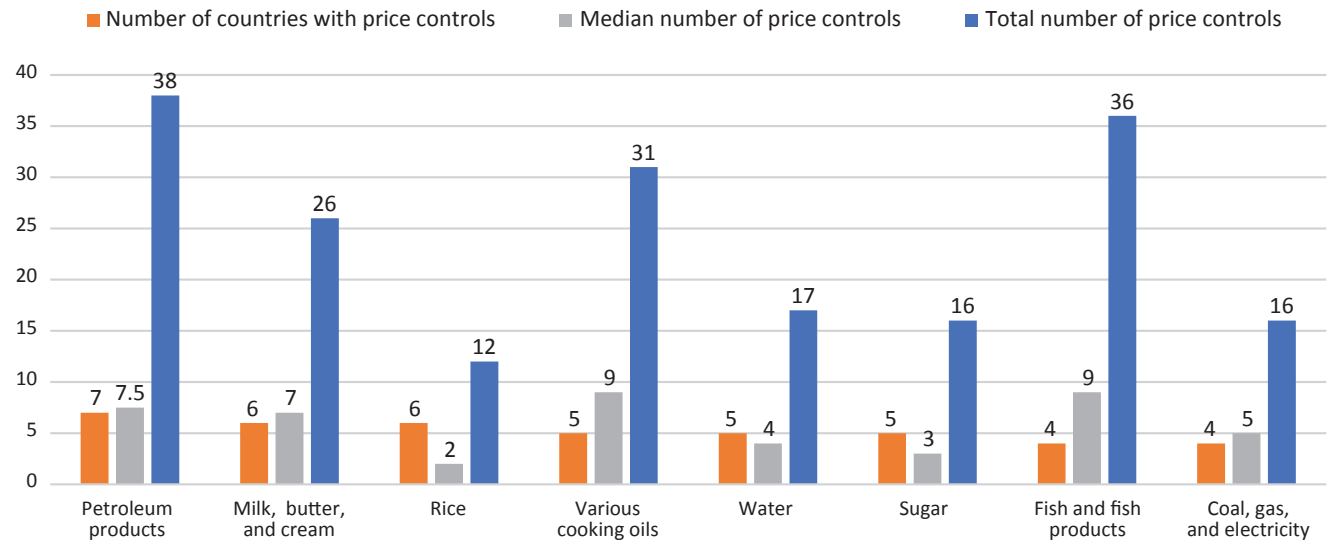


Source: Authors' compilations based on Global Economic Prospects January 2020 and inputs from country economist.
Note: EAP = East Asia and Pacific; EMDE = emerging markets and developing economies.
a. The EMDE median excludes the EAP countries.

Looking more closely at the 11 EAP countries, figure 3 shows the aggregate number of price controls by more detailed product categories. The figure presents the number of countries with any controls, the median number of controls in countries that have at least one such control, and the total number of controlled prices in all 11 countries. Controls for petroleum products dominate, for both the number of countries and total number of controls, while only four countries have price controls on coal, gas, or electricity. Controls on food and beverages are more varied. The highest number of countries have price controls on dairy products (milk, butter, and cream) and rice. Relatively few countries control the price of fish and fish products. Overall, controls cover a wide array of products.

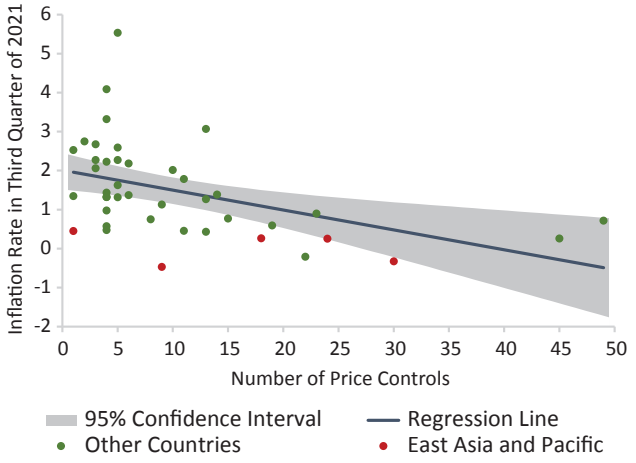
The Brief next examines whether the relatively large number of price controls in EAP may have played a role in its subdued inflation during the second half of 2021, and whether such a negative relationship between price controls and inflation does exist. To shed light on this question, the inflation rates in the third and fourth quarter of 2021 were regressed on the number of price controls for a subset of countries for which consistent data on both measures are available. Reliable inflation numbers are available for 42 countries, of which 5 are in the EAP region. The parameter estimates on the number of price controls turned out to be highly statistically significant. For inflation in the third quarter of 2021, each price-controlled item is estimated to have reduced inflation over the three-month period by 0.076 percentage points (the average inflation for that period is around 1.8 percent). The corresponding number of the last three months of 2021 is 0.065 percentage points, but at a lower level of statistical significance. Figure 4 illustrates the third quarter results. The five included EAP countries lie entirely below the regression line, suggesting that some other factors are at play. However, the negative relationship holds at the global level.

Figure 3. Prices of a Wide Variety of Products Are Controlled in East Asia and Pacific.



Source: Authors' compilations based on Global Economic Prospects January 2020 and inputs from country economist.

Figure 4. Price Controls Helped Tame Inflation at the Global Level, although Not in the East Asia and Pacific Region



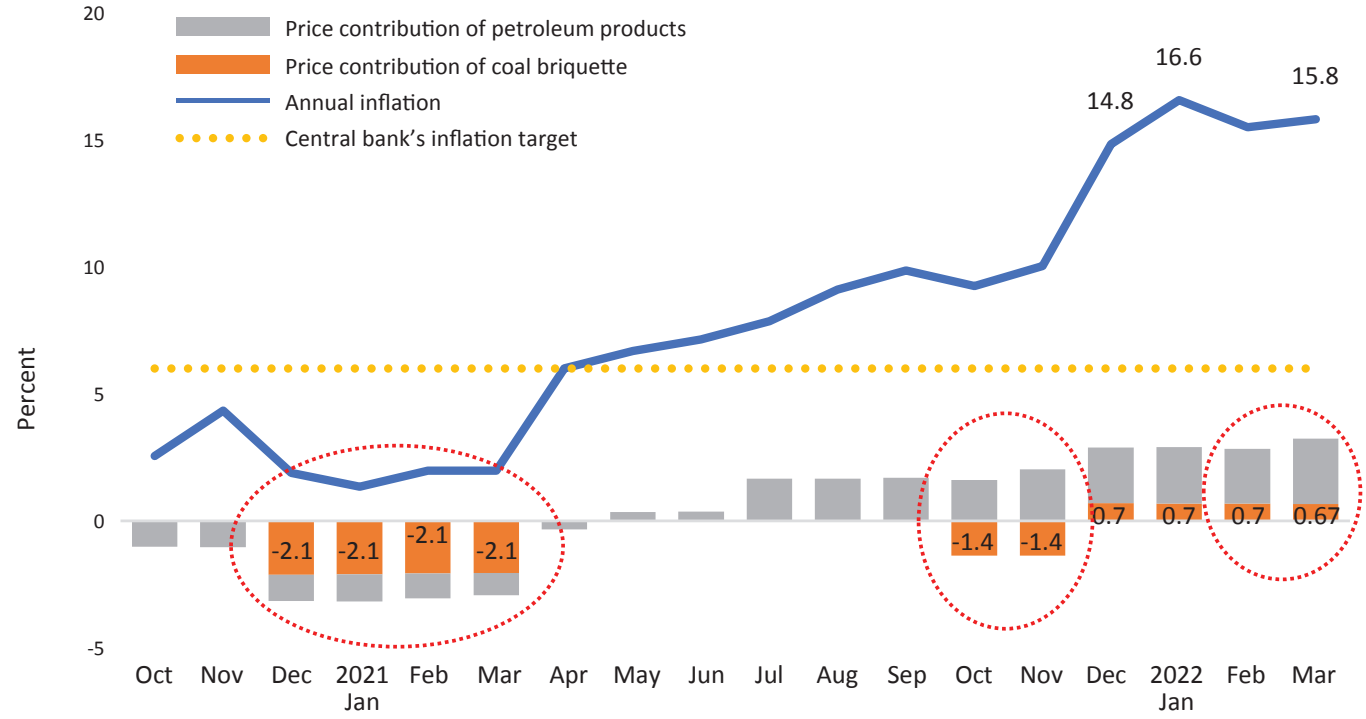
Source: Authors' calculations based on Global Economic Prospects January 2020 and IMF data.

A Case Study of Energy Price Controls in Mongolia

It is also instructive to look at a particular case study. In Mongolia, price control on energy— specifically, coal and petroleum products—had significant but varying implications for price volatility. As of March 2022, headline inflation had accelerated to 14.4 percent nationwide and had reached 15.8 percent in the capital of Ulaanbaatar. The higher price of coal briquettes and petroleum products contributed 3.2 percentage points to that rise. From December 2020 to March 2021, the administered price of coal briquettes in Mongolia was reduced by 75 percent as part of the measures to support households amid strict mobility restrictions related to the COVID-19 pandemic. While the temporary price reduction eased the inflationary pressure in Ulaanbaatar by 2 percentage points during these months, it created a lower base effect for the following year when the price was returned to its regular level (figure 5). To limit the volatility caused by this base effect and continue supporting households during the winter months, the price of coal briquettes has been halved since October 2021. Nevertheless, given that the price of coal briquettes remains higher than its level a year ago, it contributed 0.7 percentage point to headline inflation in Ulaanbaatar as of March 2022. As for the price of petroleum products, although it is not completely administered, tax reductions and subsidies for petroleum importers kept domestic prices in check until mid-2021. However, the contribution of the fuel price to headline inflation in Ulaanbaatar quickly turned positive and reached 2.6 percentage points by March 2022 amid rising global oil prices and the adoption of a new arrangement whereby the domestic price would follow a six-month moving average of the global oil price. While the arrangement of a six-month moving average could smooth domestic price volatility and reduce the cost of subsidy under a strict price control option, it is unfortunate that the timing coincided with rising global prices amid heightened geopolitical risks.

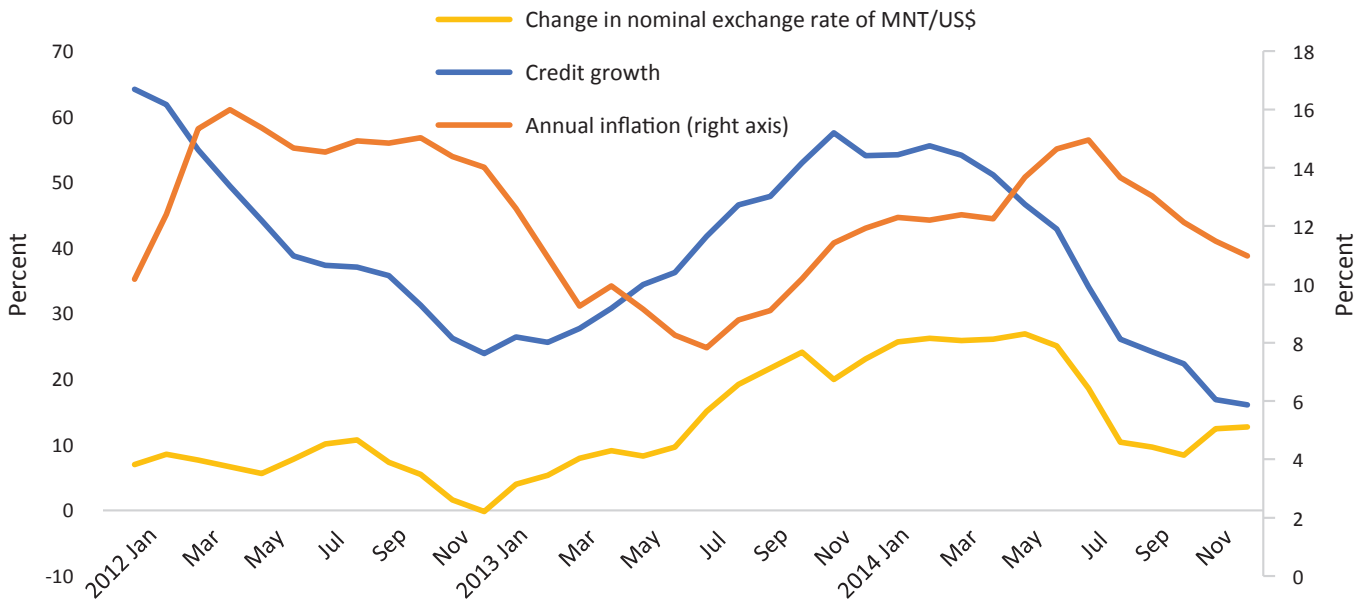
An earlier initiative at price control, which was enacted from 2012 to 2016, eased inflationary pressures in the short term but contributed to significant macroeconomic imbalances and costs to the Central Bank of Mongolia. Under the Price Stabilization Program, the central bank provided soft loans amounting to 5.3 percent of GDP (MNT 17 trillion, equivalent to US$632 million) to key producers to ensure sufficient supply of key products including meat, flour, fuel, and construction materials. While the program is estimated to have eased the supply-related factors of inflation (headline inflation declined from around 15 percent in 2012 to around 8 percent in mid-2013), together with the other quasi-fiscal measures, it contributed to rapid credit growth, increased demand for

Figure 5. Despite Pandemic-Era Controls, Price Rises in Energy Added to Inflation in Mongolia



Source: National Statistics Office, Bank of Mongolia, and World Bank staff estimations.
Note: Central bank targets inflation at 6 percent within a band of ±2 percent.

Figure 6. Price Controls Enacted in Mongolia before the Pandemic Eased Inflationary Pressures in the Short Term but Contributed to Significant Macroeconomic Imbalances and Costs



Source: Bank of Mongolia and World Bank staff estimations.
Note: MNT/US$ = Mongolian tughriks to US dollars.

imports, depreciation of the nominal exchange rate, and demand-driven inflationary pressures in the years that followed (Doojav 2020).[1] In fact, credit growth accelerated to nearly 60 percent (year on year) in 2014. As demand for imports exceeded exports, the nominal exchange rate depreciated by 79 percent during 2013–16, the central bank's foreign exchange reserves declined from US$4.1 billion in 2012 to US$1.3 billion in 2016, and inflation reached 15 percent in mid-2014 (figure 6). Moreover, according to KPMG (2018), one-third of the price stabilization program was recorded as loss for the central bank. Finally, several administrative flaws, including weaker transparency and scrutiny of only a narrow group of debtors, also impaired implementation, KPMG concluded.

Discussion and Conclusion

The bottom line is that while inefficient in most cases, under certain circumstances price controls may be warranted to avoid sudden price spikes in basic necessities. Two considerations stand out. First, with the exception of gasoline, most such products, like staple foods and cooking fuels, make up a larger share in the consumption basket of poorer households than richer ones. An abrupt and large increase in the prices of these products would thus hit poor households particularly hard, throwing them deeper into poverty. In the absence of highly dynamic social protection programs, price ceilings, while costly to the public purse, constitute an effective measure of protection.

Second, since such goods make up a large part of the overall consumption basket, sudden price spikes will feed directly into higher inflation. If inflation expectations are not well anchored, this may result in a permanently higher rate of inflation, with all the associated efficiency costs—including those stemming from the contractionary monetary policies needed to bring prices back down to previous levels.

That said, caution needs to be exercised when implementing price controls. They run the risk of incurring high efficiency costs due to price distortions and may lead to unaffordable fiscal costs. In the absence of subsidies, they can lead to severe shortages and possibly the emergence of black markets. Except in monopolistic situations, they should not be used to fix prices below their long term, or average, equilibrium market price. Price ceilings should be set at levels that prevent sudden temporary price spikes but that are nonbinding (that is, above the market price) in normal times. They should also be limited to goods that make up a large share in the overall consumption expenditure, and especially in that of poor households. In any case, direct transfers to poor households and firms, once the relevant digital infrastructure is in place, would alleviate the pain from the price shocks without distorting price signals or subsidizing the wealthy.

Notes

[1] In addition to the Price Stabilization Program, the central bank engaged in other quasi-fiscal activities totaling MNT7.2 trillion (US$3.9 billion using an average exchange rate or 32.6 percent of GDP) during 2012–16.

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