Economic Viewpoint

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When weak economic growth rhymes with high inflation
Some exceptions to consider

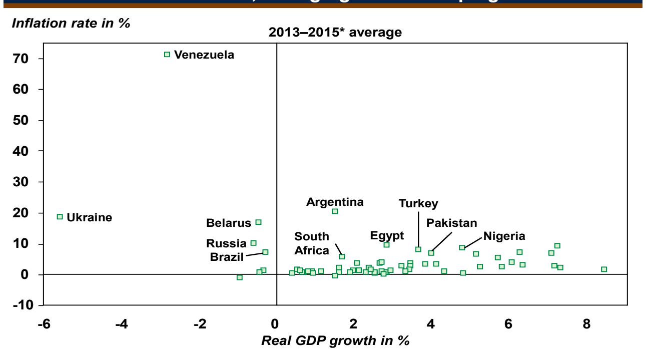
In the last few years, questions about the risk of deflation in several countries—including the United States and the euro zone—often popped up. The drop in commodity prices has undoubtedly fuelled things, but the underlying problem in these countries has been the difficulty in generating sufficient economic growth. Sustained economic growth, coupled with a low unemployment rate, usually coincide with a higher inflation rate. That said, some countries continue to grapple with high inflation rates despite weak economic growth. This *Economic Viewpoint* presents and analyzes some exceptional cases and revisits various inflation-generating mechanisms. This makes us question whether these mechanisms could potentially push up inflation in advanced countries, or inspire new monetary policy tools, such as direct money creation (helicopter money).

EXCEPTIONS

Most countries have recorded weak inflation rates in recent years. Those that are experiencing higher inflation generally posted faster economic growth, in keeping with the laws of supply and demand. If demand outpaces production capacity, prices are adjusted upwards. This rule is not the case for every country, however (graph 1). Between 2013 and 2015, a particular exception was Venezuela where the average annual drop in GDP of about 3% per year coincided with average annual price increases of more than 70%. Other countries like Ukraine, Belarus, Russia and Brazil also had high inflation rates despite their economic downturns. Another group of countries was identified that also presents exceptional cases where economic growth was positive, but weak, and where inflation rose higher than in other growing nations, including Argentina, South Africa, Egypt and Turkey.

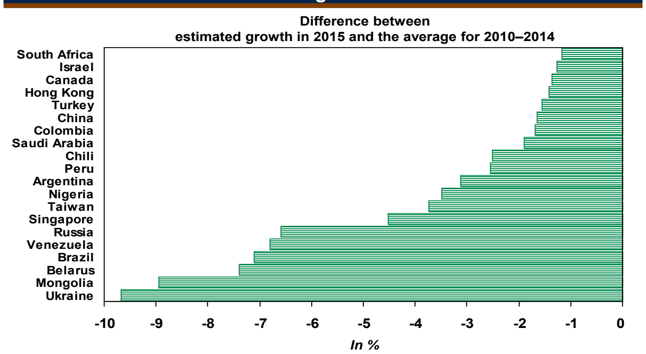
Even if inflation seems abnormally high in certain countries, the rate could still trend downwards in response to a drop in economic growth. Several countries grappled with a downturn in economic growth in 2015 when compared to the average in previous years (graph 2) and inflation could be expected to move in the same direction. Yet, inflation ramped up instead in several countries (graph 3 on page 2). This was clearly the case in Venezuela, Ukraine, Argentina and Russia. This phenomenon was also seen in Brazil, Chili, Colombia and Peru, but to a lesser extent.

Graph 1 – Link between economic growth and inflation in the main advanced, emerging and developing countries



* The points in the graph represent the economic growth/inflation combinations in each of the main advanced, emerging and developing countries. Only the names of the most relevant countries are mentioned in the graph.
Sources: International Monetary Fund and Desjardins, Economic Studies

Graph 2 – Several countries posted a sharp drop in the pace of economic growth in 2015



Sources: International Monetary Fund and Desjardins, Economic Studies

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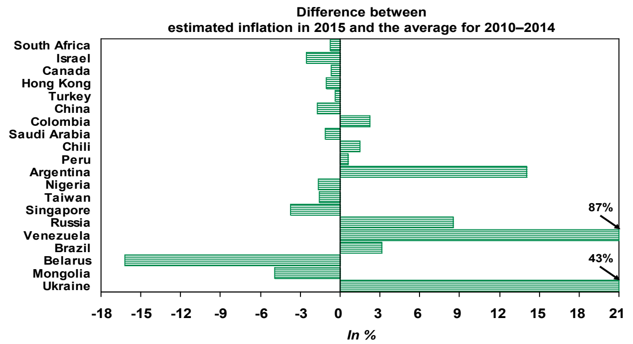
Graph 3 – Several countries showing negative growth are in the grips of accelerating inflation…



Sources: International Monetary Fund and Desjardins, Economic Studies

AN ANOMALY AFFECTING EMERGING AND DEVELOPING COUNTRIES

During the period studied, the cases in which inflation appeared to be too high in relation to economic activity involved emerging and developing countries. This does not mean that advanced nations are immune from such a phenomenon, but still, the probability is much lower.

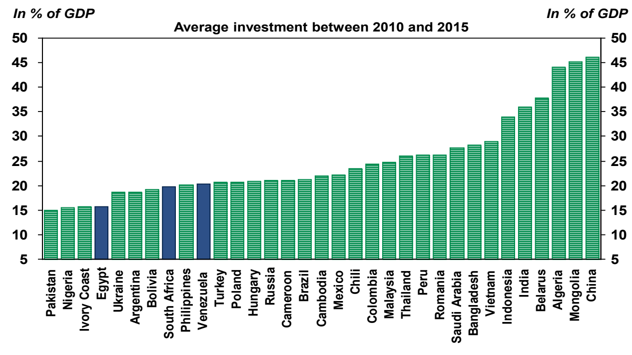
Part of the explanation may lie in the fact that most advanced countries have for many years adopted a monetary policy that targets a weak inflation rate. The inherent credibility of this type of policy may give these countries an edge compared to emerging and developing nations, mainly by keeping the inflation expectations of economic agents at low levels. And yet inflation expectations have a huge influence on price changes, regardless of the pace of economic growth. Higher and more unstable expectations can therefore give the impression that the relationship between inflation and economic growth does not work in certain countries.

PERMANENT STRUCTURAL IMBALANCE BETWEEN SUPPLY AND DEMAND

The abnormally high inflation rate in certain countries however may stem from more fundamental causes, such as the structural imbalance between supply and demand over the long term. In some ways, an expanding supply may never be enough to keep pace with demand, a situation that is consistent with strong sustainable inflation, regardless of the pace of economic growth.

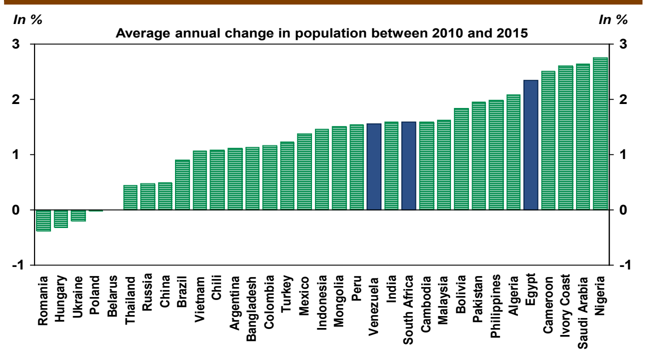
Analyzing changes in the variables that determine supply and demand over the long term is one way to detect an imbalance. Therein, investment can point to supply growth while demographics may fuel demand. By analyzing these two variables in the main emerging and developing countries, Egypt stands out as a fine example of a country that has had high inflation with weaker-than-average investment in the last few years and faster population growth (graphs 4 and 5). The same has been seen in Venezuela and in South Africa, albeit to a lesser extent.

Graph 4 – Investment rate in the main emerging and developing countries



Sources: International Monetary Fund and Desjardins, Economic Studies

Graph 5 – Demographic growth in the main emerging and developing countries



Sources: International Monetary Fund and Desjardins, Economic Studies

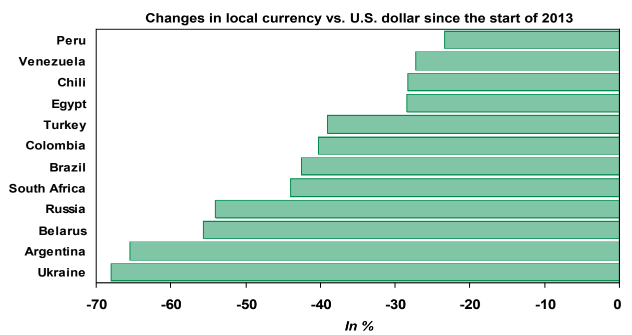
Nigeria, Pakistan and Ivory Coast remain the extreme cases, however. The investment rates in these countries are among the weakest, while their populations are among the fastest growing demographics. Nigeria and Pakistan are also dealing with high inflation (graph 1 on page 1) but, unlike the aforementioned exceptions, these countries have had a more sustained economic growth.

MOVEMENTS IN EXCHANGE RATES

The foreign exchange market was highly volatile in the last few years, and this could also help explain the atypical inflation in some countries. When a depreciation in the exchange rate occurs, the cost of imported goods rises, thereby causing inflation to accelerate. An exchange rate depreciation can also push up the price of local goods if manufacturers can sell their products abroad for more money. Not all prices rise however, and some react more strongly than others. For example, the cost of food items is usually quicker to adjust, and within a much broader range. And yet food usually takes up more room in the consumption basket of people living in emerging and developing countries, a situation that tends to strengthen the link between foreign exchange movements and inflation in these countries.

Since the start of 2013, the countries where inflation is abnormally high have all experienced sharp currency declines, suggesting that this mechanism was central to the phenomenon (graph 6). Depreciation exceeded 50% in Russia and Belarus, while Argentina and Ukraine recorded a 60% loss. These four countries are among the most atypical cases in terms of the relationship between inflation and economic growth from 2013 to 2015. Oddly enough, Venezuela, which is the most atypical case, suffered a much more modest drop in its exchange rate.

Graph 6 – Exchange rate depreciation in countries with atypical inflation



Sources: Datastream and Desjardins, Economic Studies

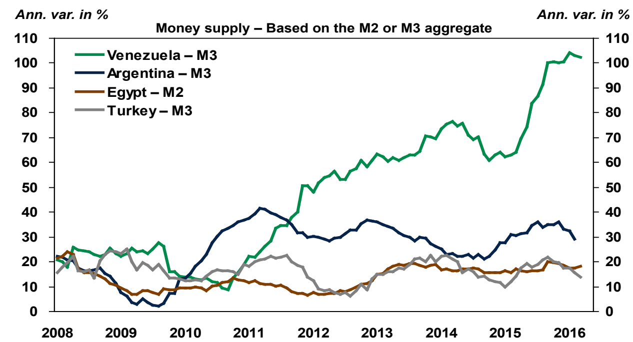
CREATING MONEY

This brings us to one last mechanism that can trigger abnormally high inflation: creating money. This mechanism refers to the monetary authorities' capacity to increase the quantity of money in the economy; this can be achieved by instituting a highly accommodating monetary policy, but this usually means more sustained economic growth. Money is than created by increasing credit. Another more direct way for central banks to increase the money supply is to send funds to the government to help it shoulder its expenses.

To understand how creating money affects inflation, imagine a situation in which everyone's financial resources suddenly doubled. This would drive up demand dramatically, but since the quantity of goods and services produced would roughly stay the same, the prices would simply adjust and rise quickly. More specifically, the neutrality of money, a basic economic principle, argues that if there is no increase in output, prices will double. This also means that the level of economic activity would stay the same.

Venezuela is a good example of how the creation of money triggered high inflation. In 2015, the annual growth of the money supply in this country reached 100% (graph 7), mirroring the inflation rate. The bulk of this avalanche of money is widely seen as the result of the central bank's direct involvement in financing the public deficit.

Graph 7 – Venezuela, in particular, experienced rapid money supply growth



Sources: Datastream and Desjardins, Economic Studies

Among the other countries studied, Argentina is the runner-up in terms of money creation, but it's still far behind Venezuela. The money supply in Argentina grew by 30% last year, reflecting the country's inflation rate. High-than-normal monetary growth was also seen in Egypt and Turkey, which had growth rates of about 20%, while the inflation rate posted a much weaker figure. An increase of the production may have limited the impact of monetary expansion on prices. In fact, both countries recorded somewhat stronger economic growth than the other cases studied. Another possibility: the metric used to track monetary growth may also include financial assets that are not necessarily available to purchase goods and services, and as such may not accurately reflect the impact this may have on inflation. In fact, there are several definitions for money: what we call monetary aggregates (M0, M1, M2, M3). Some only include the most liquid assets, such as cash and/or demand deposits, while others also include term deposits and other forms of less liquid savings.

LESSONS DRAWN FROM THESE EXCEPTIONS

In an environment where few people seem to be concerned about a rebound by inflation, the fact that several countries are dealing with rapidly rising prices despite their weak—even negative—economic growth means that we have to broaden our examination of the mechanisms that generate inflation. In truth, it may not solely be dependent on changes in economic activity and oil prices.

One might think that advanced countries are at little risk of seeing soaring inflation, as observed in several emerging and developing nations. Stricter management of monetary policies and a stronger anchoring of inflation expectations undoubtedly give these countries a leg up. Even exchange rate movements could have a limited impact on inflation in advanced countries while they have had a significant impact in several emerging and developing nations in recent years. The advantage for advanced countries most likely lies in the makeup of the consumption basket. This can also be reinforced by the stronger anchoring of inflation expectations and better management of the monetary policy. In an *Economic Viewpoint*[1] published in March, the pass-through effect of currency changes on inflation in Canada was estimated at about 7%.

Having a long-term vision on the fundamentals of inflation is also important. Any persistent imbalance between supply and demand could lead to higher sustained inflation. The threat in the advanced countries would probably not stem from faster population growth, but from a lack of investment instead. On another note, the aging of the population, which mainly affects the advanced countries, could cause surprises if the ratio of labour participants, usually aged between 15 and 65, shrinks to much. This could seriously impact the capacity to increase production, while total population, even an elderly one, still has substantial needs.

Lastly, Venezuela is proof that an overly interventionist central bank that allows the money supply to grow too rapidly can generate very high inflation. The discipline usually displayed by the central banks in advanced countries reduces this risk significantly. That said, the scope of the easing measures instituted thus far could raise some doubts. Such measures could potentially lead to higher inflation, especially if the central banks wait too long before winding them down once the economic environment improves.

The fact that, in practice, central banks can easily generate high inflation should at least ease concerns about deflation. In addition, a growing number of analysts are in fact suggesting that direct money creation could be the next weapon of choice for central banks that are struggling to drive up prices using their current tools. Japan, which has strived to overcome deflation since the 1990s, is a potential candidate. If a central bank uses this tool, it could end up directly financing the government or distributing cash to consumers, which is how the often-evoked image of a helicopter spewing bank notes was born. That said, this option must continue to be the subject of careful consideration, especially regarding the perfect amount that would only slightly increase the inflation rate.

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[1] Desjardins, Economic Studies, *Economic Viewpoint*, “Could inflation accelerate sharply due to the weak Canadian dollar?”, March 7, 2016, www.desjardins.com/ressources/pdf/pv160307-e.pdf?resVer=1457371524000.