

## **Presentation of the book *Inflation in Emerging and Developing Economies: Evolution Drivers and Policies***

Center for Latin American Monetary Studies (CEMLA)  
March 19, 2019.

**Remarks of Daniel Chiquiar**  
Director of Economic Research  
Banco de México

### ***Introduction***

It is my pleasure to provide some comments on the book that Mr. Kose has presented here at CEMLA today. I thank Manuel Ramos Francia for kindly inviting me to participate in this event which I find of great relevance due to the contribution of the book for monetary policy, both for practitioners and academics. The sheer breath of its results is astounding, covering a number of different aspects of inflation, using data for dozens of economies, both advanced and emerging and developing, and uncovering relationships between inflation and inflation expectations outcomes with a large variety of country level indicators. Such a deep analysis clearly increases our understanding of the inflationary process, but since it also implies that it was necessary to study how the global economy evolved in the past 50 years and to have good data, the authors had to take into account the business cycles, the oil crises in the seventies or the global financial crisis of 2008, so a great contribution is the accounting of the global environment of the last decade. Also, structural changes had to be taken into consideration, such as deregulation or globalization. Additionally, changes in fiscal positions and monetary regimes had to be considered to understand the behavior of inflation.

With respect to the data, the analysis contained in the book is based on a comprehensive database of inflation measures as well as key drivers of inflation. It encompasses information on headline, core, energy and food CPI, PPI inflation and GDP deflators for 175 countries (34 advanced economies, 141 emerging market and developing economies, of which 27 are low income countries) for years 1970-2017. The database also includes headline CPI inflation expectations, in addition to information on inflation targets, indicators of central bank independence, fiscal rules, country-level demographics, exchange rate regimes, international trade and financial openness and even in some cases rainfall rates. Having such a considerable amount of information in one place, eases the difficult work to gather information from different sources and allows researchers to implement different approaches they might want to take right away, either at world, region or country level, facilitating multiple kinds of comparisons. This becomes more relevant in the case of studies related to emerging market and developing economies, in which the task of data gathering typically turns out to be more difficult. Apart from the analysis, it would be very important contribution of the book if the database is made available for researchers worldwide.

For us at the Mexican Central Bank the research agenda proposed in the book is particularly relevant for several reasons:

- We are an example of a country which adopted inflation targeting, and whose average inflation has declined dramatically from 69.88% in the period 1980-1989 to 4.64% over the period 2000-2019. However, the recent spike in inflation, which reached 6.77% in December of 2017 highlights the possibility described in the book, that keeping inflation low in the future might be as difficult as it was to bring inflation down.

- The dynamics of inflation in Mexico over the last two years also highlight the importance of global shocks, in that case commodity price shocks, to domestic inflation.
- Furthermore, long term expectations, while well anchored, are still above the inflation target, thus we are keenly interested in research that explores the determinants of inflation expectations.

### ***Summary and Notable Results***

The book covers a lot of ground. It provides a very solid account of how inflation has behaved in a large number of countries, contrasts results among advanced economies and emerging economies, and within this last group, it analyzes inflation in low income countries as well. The authors describe the behavior of different measures of inflation (for example headline, core or producer prices). They also evaluate the degree of synchronization of these measures, the changing importance of global and domestic factors in explaining the inflation of different countries, the behavior of inflation expectations and their degree of anchoring, as well as the evolution of exchange rate pass-through over time. Furthermore, they assess the effects of world food price spikes during 2007 and 2010 on poverty, accounting for the consequences of public policies that tried to dampen the effects on domestic prices, not always in a successful way.

In particular, the papers in this compilation contain a number of results that are very significant and interesting in my view. I will highlight a few of these, as well as challenges for the literature as a whole that stem from my reading of this book:

- The book shows that **disinflation** in the past 50 years has occurred across countries and that it has been reflected in headline, core, and energy and food inflation. Another feature of the disinflation process has been a decline in inflation volatility, measured as the time-varying volatility of trend and cyclical inflation. Inflation **synchronization** has also increased and broadened. In other words, headline inflation has been more synchronized around the world in the last decade and a half than in the previous decade and a half, and in the recent period there has been increased synchronization among all kinds of inflation measures, while beforehand this phenomenon was evident mainly for tradable-goods inflation. Also, there has been a decline in **inflation expectations** over the past three decades, which plays an important role in maintaining inflation trends at low levels even when the economy is affected by temporary shocks.
- The above results are product of several important long term structural changes. In general, according to the findings of the book, inflation has, on average, been lower and declined in countries that **have been more open to trade**, that have had (or have switched to) **inflation targeting regimes**, that have had more independent and **transparent central banks**, and more **open capital accounts**. Also **lower public debt ratios** are related to inflation anchoring, especially among emerging market and developing economies. Although these results do not necessarily imply a causal link, they are indicative about important mechanisms possibly at work. First, the fact that for emerging market and developing economies debt ratios matter suggests that fiscal dominance is always a possibility lurking in the background and thus high debt ratios reduce the long-term credibility of the monetary authority, and second, that trade openness potentially makes the economy more resilient to shocks, more than it makes it more exposed to shocks. Although the evidence is less

conclusive, other factors that may contribute to lower inflation and represent an interesting research agenda are: reforms in the labor market oriented to decrease its regulation and, population aging and digitalization of services (electronic sales have been growing quickly, accompanied by price transparency and increased competition).

- In the econometric estimates, the authors take advantage of the large data set gathered in the book, and apply an innovative Factor-Augmented Vector Autoregression (FAVAR) model to analyze the influence of **global and domestic factors** as drivers of global and domestic inflation.
  - The results show that the contribution of global shocks to global inflation variation has evolved over time. **The contribution of supply shocks to global inflation variability has receded over time while that of global demand and oil price shocks has strengthened.**
  - With regards to domestic inflation, domestic shocks have accounted for about three-quarters of domestic inflation variation, the most important being domestic supply shocks. Since 2001 the role of domestic supply shocks on domestic inflation has declined while that of global demand and oil price shocks has increased. **The results suggest policymakers need to build resilience to global shocks.**
- Regarding the **exchange rate pass-through to inflation**, it is remarkable that a FAVAR is used along with a strategy combining sign and short-term restrictions to identify the underlying structural shocks that trigger currency fluctuations. Moreover, it is shown that there are some country-specific characteristics that influence its behavior over time and across countries. For example, in inflation targeting economies the pass-through is lower compared with non-inflation targeting economies, also the lack of exchange rate flexibility can amplify the pass through. Another important phenomenon is that exchange rate pass-through to inflation has decreased over the past years. An important result in this sense is that policy makers would do well **to identify the underlying shocks that originate the exchange rate fluctuations**, as the pass-through rate apparently depends on the sources of the shock. In general, domestic factors account for about two thirds of currency movements in advanced economies and more than a half in emerging and developing economies. **A domestic shock is generally associated with a larger pass-through than a global shock.**
  - It could be useful to generate a set of additional shock measures that allow the reader to contrast the macroeconomic dynamics of commodity importers vs exporters, of countries subject to competition from global trade forces such as the China shock vs. those not directly exposed, and of countries more or less exposed to shocks to global financial conditions.
- The authors also notice that world **food price** variations have also affected inflation dynamics given the long run relation that must hold between foreign and domestic prices. In particular, world food price spikes during 2007 and 2010 allow us to learn valuable insights. For instance, uncoordinated trade policies exacerbated the initial adverse shocks and its outcome on global food prices, as seen in rice markets in 2010, where domestic prices increased above world prices. Consequently, well-intentioned policies that aimed to reduce the effects on the most vulnerable groups

could lead to even worse effects on poverty. In this context, international cooperation is required in order to respond in the best possible way to unexpected shocks. These considerations are particularly important in an era of heightened awareness about poverty and inequality and in the context of large risk of shocks to these prices.

### ***Future Research Agenda***

The analysis in the book, and the database it is based on, provide an excellent departing point for further research. In this regard, some of the topics for a research agenda could be the following:

- For example, it would be useful to have a better understanding of the relationship of wages dynamics and prices. Recently we have heard about the Phillips Curve puzzle: the fact that a strong labor market does not seem to be translating into higher inflation. A better understanding between wage-setting and price-setting would be helpful for central bankers.
- Additionally, the study of inflation now demands that we look more closely into the impact of new payment technologies, digitalization of services and e-commerce developments, since they may be game changers for price setting.
- This is related also to the importance of competition for price formation, and therefore market competition is an additional topic that could be looked into.
- Taking into account that the book has also pointed out the importance of food price shocks, some of them driven by weather shocks, it would be interesting to look into the impact of climate change on prices of agricultural products and the design of policies to mitigate the impact.

### ***Challenges***

Finally, having described some of the main results of the analysis presented in the book, I have some thoughts to share regarding the implications of the key takeaways.

- First, in a world with low inflation, policy makers should not forget about the value of keeping inflation low and stable, and they should not take for granted the strength of institutions that allow for such behavior of inflation.
- We are facing more and more concern about inequality and distributional impacts of public policies. In the case of inflation, the implication is straightforward: inflation harms poorer households disproportionately, and therefore, it should be in the interest of policy makers to keep inflation low and stable.
- Additionally, we can use the results from the book to remind ourselves that what seems to have allowed countries to keep inflation under control includes trade openness and capital account openness, apart from a strong independent and transparent central banks together with sound public finances. This implies that we should continue to work in these directions.
  - Mexico is an open economy and has benefited from its integration with the rest of the world. Its commitment with trade openness was made clear recently with the negotiations towards a new agreement with Canada and the U.S.
  - In a related thought, the findings of the book seem to suggest that even when we are tempted to implement measures that could protect the poor, such as protectionist measures on food items, policies may turn counterproductive.
  - Regarding the strength of the Central Bank, we have benefited from the autonomy that the Constitution grants us and have continuously worked

to increase transparency. In fact, recently the Central Bank has implemented new measures to improve its transparency, such as the simultaneous publication in English and Spanish of our monetary policy decisions and their corresponding minutes, the identification of dissenting members of the governing board in each decision and the full release of meeting transcripts three years after such meetings.

***Conclusion***

To conclude, I would like to take this opportunity to commend the multiple contributors to this book and especially the coordinator of this endeavor, Mr. Kose, for this broad analysis and the construction of a very solid and comprehensive database, both of which will serve as pillars for future research in this area.

Thank you.