

Technical note August 2nd, 2022

Turning points, recessions and expansions report from 1980 to 2020

The Mexico Business Cycle Dating Committee (CFCEM -by its initials in Spanish) is an independent entity that operates under the auspice of the Mexican Institute of Finance Executives (IMEF -by its initials in Spanish).

- Its mission is to identify the turning points that mark the beginning of recessions and expansions that make up the Mexican Business Cycles.
- The determination of turning points is based on the available statistical evidence from which consensus or majority agreements are established.
- The CFCEM only pronounces on cycle phases for which there are sufficient and definitive information.
- The CFCEM does not pronounce on economic policy issues or any other economic subject different to the determination of economic cycles and their turning points.
- The period from 1980 to 2020 was analyzed based on the classical approach. Six recessions and five expansions were identified resulting in five complete cycles and one incomplete one.

	Recession			Expansion			Cycle
Cycles from	Start	End	Duration	Start	End	Duration	Duration
1980		(Trough)	(months)		(Peak)	(months)	(months)
1	December	June	19	July	September	27	46
	1981	1983		1983	1985		
2	October	December	15	January	November	95	110
	1985	1986		1987	1994		
3	December	May	6	June	September	64	70
	1994	1995		1995	2000		
4	October	January	16	February	June	77	93
	2000	2002		2002	2008		
5	July	May	11	June	May	120	131
	2008	2009		2009	2019		
6	June	May	12	June			
	2019	2020		2020			

Turning points of the Mexican Business Cycles, 1980-2020

• The committee will remain vigilant to identify turning point dates once sufficient statistical information is available.

Technical note

The Mexico Business Cycle Dating Committee (CFCEM) is an independent entity that operates under the auspices of the Mexican Institute of Finance Executives (IMEF). It was established on February 3rd, 2021 and is made up by seven specialists, each with an extensive experience in economic analysis, research, and management of statistical and econometric techniques.¹ Their participation in the CFCEM is probono and strictly in a personal capacity, with total independence from the institutions with which each member is related or have been related professionally. The CFCEM is governed by its own rules and only its seven technical members participate in the decision of dating the cycles, although the National President of IMEF acts as president of the Committee for organizational purposes and logistical support.

The members of the Committee are:



Gabriel Casillas Olvera.

Ph.D., Texas A&M University. (Econometrics, monetary theory, and macroeconomic analysis)



María de Lourdes Dieck Assad.

Ph.D. University of Texas at Austin (Econometrics, planning and economic development)



Luis Foncerrada Pascal.

Ph.D., Universidad Autónoma Metropolitana (Applied Macroeconomics and Fiscal Policy)



Graciela González Farías.

Ph.D., North Carolina State University. (Multivariate Analysis, Time Series and Spatial Statistics. SNI Level III*)



Jonathan Heath.

Ph.D. (ABD), University of Pennsylvania. (Monetary theory and macroeconomic analysis)



Gerardo Leyva Parra.

Ph.D., Cornell University. (Statistical measurement, economic growth and development)



Pablo Mejía Reyes.

Ph.D., University of Manchester (Applied macroeconomics, growth, and economic cycles. SNI Level III*)

*See note at the end of this document.

¹The immediate precedent of the CFCEM lies in the "Proposal to create a committee for dating the business cycles in Mexico" made up by a Technical Group of Experts for the design of a Committee for Dating the Mexican Business Cycles, which was summoned by the INEGI (https://www.inegi.org.mx/contenidos/investigacion/grupos/doc/GTDCFC_2020.pdf). On December 16th, 2020, INEGI and IMEF signed an agreement for IMEF to integrate and install the Committee for Dating the Mexican Business Cycles.

The CFCEM **mission** is to create and maintain an up-to-date chronology of Mexico's economic cycles. To achieve this objective, the Committee has decided to adopt the **classical approach** which defines cycles as **sequences of recessions and expansions**, marked by sustained declines or increases in economic activity, respectively.

Specifically, a recession is associated with the downward phase of the cycle in which economic activity goes from a local maximum level, called peak, to a local minimum, called trough. While an expansion corresponds to the rising phase of the cycle in which economic activity transitions from a trough to a peak. In this sense, a cycle can be measured from the peak that marks the beginning of a recession to the next peak that marks the end of the expansion that follows; or from the trough that marks the beginning of an expansion to the valley that marks the end of the subsequent recession.

It is important to point out that for the purposes of the CFCEM, an expansion refers to the growing direction of the economic activity and does not imply any relationship with the level of the previous peak so that it may or may not recover the level of economic activity lost in the immediately preceding recession and vice versa. Given that the CFCEM has adopted the classical approach of the economic cycles, the corresponding dating is made upon the irregular-cycle-trend series, that is, the **seasonally adjusted series** of the variables under consideration.

Also, it is worth mentioning that the CFCEM makes its analysis mainly, although not exclusively from **monthly time series**, for which it uses various indicators published by INEGI, Instituto Nacional de Estadística y Geografía (Mexico's national statistics agency). Such is the case of Mexico's GDP monthly proxy (IGAE), and its fifteen subsector breakdown, the System of Coincident and Advanced Cyclical Indicators (SICCA) and its components, which in addition to IGAE include the industrial production and retail sales monthly reports, as well as the number of permanent members at the Mexican Social Security Institute (IMSS), Retail Net Sales Index in Commercial Establishments and the unemployment rate and partial unemployment. The Committee also relies on information from the GDP quarterly proxy at the state level (ITAEE) and on variables from the System of Cyclical Indicators (SIC), such as the Urban Unemployment Rate and Total Imports (in addition to a set of variables in common with the SICCA). Likewise, when considered necessary, the CFCEM analyses other related economic variables. For example, aggregate demand, foreign trade, or public finances when these can provide elements of context to support decisions regarding the location in time of the turning points.

To support its work, the Committee goes beyond the cyclical indicators offered by INEGI and uses **various multivariate statistical techniques and dating algorithms**, as well as the **economic analysis** of the available time series for the variables of interest. In the process of dating the cycles, the Committee focuses on identifying the beginning (peak) and end (trough) of each recession, so that the intervals corresponding to the expansions are obtained as a complement. Since the exact dates of the beginning and end of a recession or an expansion are not available, the CFCEM has adopted the convention that recessions begin the month that follows the month of the peak, or end in the month of the trough. In a similar way, expansions begin the month following the month of the trough and end in the peak month.

As part of the work process, each member of the Committee presents their own estimates of turning points to the rest of the group, so that when there are differences of opinion about any of them, a collective deliberation process begins until an agreement is reached. The Committee's determinations are made based on solid evidence, from which debates are established in which the different arguments are presented until **consensus or majority agreements** are reached and it only pronounces on cycle dates for which sufficient and definitive information is available. When the information is preliminary or insufficient and it is foreseeable that new information may appear that could change the agreements, the Committee prefers to wait to have the necessary elements and **not rush its decisions**. This imply

that the Committee does not pronounce on potential recessions or expansions until they are over. It is also important to mention that the CFCEM **does not intend to explain the causes** of recessions or expansions. Nor does it give an opinion on issues of economic policy or on issues of the economic situation or any other issue outside of those strictly related to the dating of economic cycles.

Consistent with what other similar committees in other countries tend to do, the CFCEM characterizes recessions in terms of three criteria: **depth**, **duration**, **and diffusion** (Shiskin, 1974). **Depth** refers to the vertical distance between the peak and the trough, so it reflects the magnitude of the drop in economic activity. In this sense not every drop or series of drops in economic activity qualifies as a recession. **Duration** is the number of months between the peak and the trough, so some drop episodes may be too brief to be considered a recession. **Diffusion** has to do with the extent to which the drop in economic activity occurs in a shared or generalized manner among most activities and sectors.

Diffusion is especially important because a recession assumes not only that economic activity falls significantly for a long enough time, but also that this fall is not concentrated in only a few activities, even if they have an important weight in the total economy. This relatively **synchronized character of the downward movement** of different economic activities during a recession or upward during an expansion, plays a central role in the definition of the classical cycle offered by Burns and Mitchell (1946), who indicate that a cycle "... is made up of expansions occurring at the same time in numerous economic activities, followed by recessions, contractions, and widespread recoveries...". It is also convenient to rescue here the observation of Burns and Mitchell in terms that, although economic cycles are recurring phenomena, this does not imply that they are periodic, that is, that they occur as a rule every certain number of years.

The CFCEM considers that the criterion frequently used to declare a "**technical recession**", **based on two consecutive quarters with a negative change in GDP is inappropriate**, since it only rests on a strictly temporary consideration, that is, on duration, leaving out the criteria of depth and diffusion that are inherent to a meaningful and useful definition of a recession, as mentioned above. In this sense, the existence of two consecutive quarters with drop in the quarterly GDP, although it may indicate a greater probability of a recession, is not actually a necessary or sufficient condition to declare its existence (Achuthan and Banerji, 2004).

References

- [1] Achuthan, Lakshman and Anirvan Banerji (2004). Beating the business cycle: How to predict and profit from turning points in the economy. New York: Doubleday (a division of Random House).
- [2] Burns, Arthur F. and Wesley C. Mitchell (1946). Measuring business cycles, Nueva York: National Bureau of Economic Research.
- [3] Shiskin, Julius (1974). "The changing business cycle". New York Times, December 1, 1974, New York.
- [4] "Proposal to create a committee for dating the business cycles in Mexico", made by the Technical Group of Experts for the design of a Committee for Dating the Cycles of the Mexican Economy, which was convene by INEGI) (https://www.inegi.org.mx/contenidos/investigacion/grupos/doc/GTDCFC_2020.pdf)

*Note:

SNI Level III. SNI is the acronym in Spanish for the National System of Researchers and the way it is more commonly known. It was created on July 26, 1984 by presidential agreement to acknowledge the work of people dedicated to producing scientific knowledge and technology. The recognition is granted through peer evaluation and consists of granting the appointment of national researcher. The distinction symbolizes the quality and prestige of scientific contributions.

The distinctions granted by CONACYT, recently named CONAHCYT (National Council of Humanities, Sciences and Technologies) through the SNI are classified into the following categories and where appropriate, levels:

- I Candidate for Researcher or National Researcher.
- II Researcher or National Researcher with levels 1, 2 and 3.
- III Researcher or National Emeritus Researcher.

(Source: https://conahcyt.mx/sistema-nacional-de-investigadores/andhttps://conahcyt.mx/
wp-content/uploads/sni/marco_legal/Reglamento_Sistema_Nacional_de_Investigadores_10_agosto_
2022.pdf).