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The Metrics of Growth: Evaluating Economic Development and Its Measurements

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ABSTRACT

Economic growth, measured by the increase in a country's total production of goods and services from one year to the next, is seen as a benchmark for evaluating government administration and the well-being of its population in many countries. In Mexico, 2019 appears to have been a year of zero growth. This paper attempts to analyze some economic concepts related to economic growth and how to measure it in order to have a broad framework for considerations to assess the extent to which it is appropriate to hold a government like Mexico's accountable for economic growth, or the lack thereof, in the first year of its administration.

Keywords: Economic Growth; Economic Growth Models; Economic Development

INTRODUCTION

For months, there has been a debate in Mexico about whether the Gross Domestic Product (GDP) trend this year will reach real growth of between 1 and 2 percent, whether it will be lower, or whether there will be, or indeed already is, an economic recession. The debate questions the current government's ability to achieve economic growth in its first year in office. It is assumed that failure to



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achieve such growth would be a sign of the failure of its policies during the period and of investors' lack of confidence in those policies and in the government.

Those debating the issue—journalists, political analysts, and politicians—base their arguments on the forecasts of various national and international financial institutions regarding economic performance in 2019. Their experts use complex econometric models to forecast the trend of two fundamental economic variables: the Gross Domestic Product (GDP) in pesos and one of the national price indices calculated in Mexico, the consumer price index or the producer price index. The data that feeds these models comes from the National Institute of Statistics and Geography (INEGI). Since GDP estimates are quarterly and price indices are monthly, the annual forecasts have been changing with estimated data throughout the year. Although everyone believes they understand the terms of the debate and apparently has already formed an opinion on the matter, in my opinion there is a certain amount of misunderstanding on the matter, and perhaps we can contribute to addressing this lack of understanding by analyzing the economic concepts involved and, in particular, the figures that measure these concepts.

1. Economic measurement

The production of goods is measured in physical units of the goods themselves and their selling price at the end of a period. In the case of a company that produces a specific good, this measurement is immediate and easy to calculate. The product's price includes the cost of all raw materials, wages paid to employees and workers, capital expenditures, taxes, and the entrepreneur's profit.

But the same is not true of a country's total production . The fact that different goods and services are produced prevents their physical calculation—you can't add



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apples and oranges—and total production is then restricted to monetary measurement. A basic problem is that when the production of all goods and services is added together, raw materials are included, which at some point become finished products. Their cost is included in the final product. So, there is, from the outset, the problem of counting the same product twice. National accounts therefore define the Gross Domestic Product as what is produced in a given period, without adding the cost of raw materials or inputs. This total must equal, in accounting terms, the income received by workers in the form of wages, by employers in the form of profits, and by the State in the form of taxes.

The prices at which goods or services are measured individually are those that occur at the time of purchase and sale. Since these purchases and sales occur throughout the period under consideration, the prices of these goods are likely to rise or fall during that period. Thus, to obtain an approximate value for the physical measurement of production, the most common economic technique is to discount the inflation rate, branch by branch of production, thus obtaining a "deflated" total GDP, known as real GDP.

If we compare this annual calculation with that of the previous year, we can estimate whether the production of goods and services increased, decreased, or remained the same. If it increased, we can say there was economic growth; if it remained the same, there was stagnation; and if it decreased, there was a decrease or recession.

Measuring the production of goods and services over a given period, usually a year, requires a complex methodology that became established after World War II with the creation of the United Nations (UN). It involved defining measurable and



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theoretically sound concepts and was applied to a majority of countries interested in having more or less precise and reliable measurements. There is a UN *Manual of National Accounts* , which most member countries accept and apply to calculate their accounts so that economies can be compared with one another.

Gathering information for a country's national accounts for a given period is a complex process that includes administrative records and surveys, which in turn can be censuses or samples. Data collection is conducted by branch or economic sector. The most difficult sectors are the agricultural and services sectors. The former because agricultural cycles tend to differ from the fiscal year, requiring the use of aerial photographs to estimate the likely harvest of each crop. The latter because services differ greatly in their characteristics, and consequently, the method of collecting them is subject to diverse samples and interpretations. In general, valid information requires accuracy, timeliness, and reliability. However, this entire process always involves a certain degree of error, generally attributable to human factors.

Regarding price indices, there are also several definitions and coverages. The most widely used in Mexico currently is the National Consumer Price Index (INPC). Its coverage is national, and the prices it captures have a basket composed of all goods consumed in Mexico, but the specific weighting corresponds to a base year and an average consumer. In the case of the index used to deflate GDP, it is a price index, which is fundamentally different. The basket used corresponds to national production, and the weightings by sector are also different, in a base year. What a price index captures is the average price variation relative to the base year.



Thus, deflated GDP is relative to the base year of the deflator index. If only the annual variation in the index is taken, it would be relative to the previous year. This GDP is then called GDP at constant prices for a given year or real GDP.

Another fundamental economic indicator used to explain growth is *investment*. This concept is prone to numerous misunderstandings, even in economic accounting, as it can be interpreted in various ways, such as the purchase of stocks or financial instruments, the purchase of existing companies, or, most importantly, the purchase of *capital goods* for production. Furthermore, investment can take time to mature, that is, to begin producing goods or services, depending on the sector in which it is made.

To conclude this section, it should be noted that collecting annual information takes time after the end of the reference year. And it cannot be considered definitive until the figures for all sectors are complete and reviewed.

2. Growth and cycles

Another issue is why and how the economy reproduces or expands. To explain economic production, what factors intervene, how the process occurs and how the economic value of that production is determined, there have been several theories for centuries. The oldest (19th century) is that of the German philosopher Karl [Marx \(1885\)](#) - derived from the theories of the English financier David Ricardo - which explains how the economy reproduces and expands by dividing the economic sectors into three. In the mid-20th century, the American economist Robert Solow (1957) proposed a macroeconomic model in which production is explained by the intervention of labor and capital and growth or expansion is the responsibility of a factor external to the model, technological change. The Solow model raises the



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possibility that the economy reproduces equitably by paying each factor its contribution to the product. That is, supply and demand, or *equilibrium*, was fulfilled, but *growth* was subject to an external factor. Towards the end of the twentieth century, American economists Paul [Romer \(1986\)](#) and Robert [Lucas \(1988\)](#) integrated *technological change* into their respective growth models, so that there is an additional productive factor, which is *human capital*, that makes growth possible.

In short, since the 19th century, it has been known that production in each sector of an economy depended on the availability of physical capital and labor, and that growth depended on investment in physical capital, or accumulation. But the unanswered question was what could motivate greater investment? That is, to grow the economy on a broader scale. The 20th-century solution to this question was *technological change*, which, in principle, promises to reduce costs and/or improve product quality in each sector.

But regardless of the advances in economic theory, the real economy in all countries has always experienced annual increases or decreases, and even crises, with some frequency. All of this gave rise to the idea of *economic cycles*, which were recorded and even predicted with some accuracy, once an adequate and reliable economic indicator was invented.

The economists' question, then, was why the economy was in crisis? Although, the correct question should perhaps have been why the economy wasn't in permanent crisis. It must be borne in mind that in a free-market capitalist economy, the economic decisions about what to produce, how much to produce, and for whom to produce, correspond to entrepreneurs and workers on the production side and



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individual consumers on the consumption side, who only reach agreements through the market, and whose decisions, in the end, are loaded with subjective elements. Thus, the fact that the economy manages to function in perfect *balance* across all its sectors and also grow should be considered a miracle. But this isn't the case; in reality, economies grow (with imbalances), and after a period of growth or boom, there is a ceiling beyond which no progress is made, and adjustment is imminent. The economy declines, reaches a lower limit, and begins to grow again. The benefits of growth may be unequally distributed, as may the losses of degrowth. They are the most vulnerable sectors of society who almost always benefit little at one stage and lose a lot at the next.

Of all the economic crises recorded in various countries over time, the one that stood out for its depth and potential for expansion to the rest of the world was the 1929-33 crisis, which originated in the United States. The way out of this crisis occurred thanks to state policies of an economic nature inspired by the theories of the British John M. [Keynes \(1935\)](#) . His underlying approach is that the engine of the economy is demand and that the state is the main demander, both of consumption and investment, and it is up to the state to stimulate the economy by expanding its spending, even at the cost of going into debt, when there is unemployment of the productive factors capital and labor, that is, in conditions of crisis or recession. Keynes's theory was adopted with some difficulty because it proposed a way out of the crisis that, although it did not threaten the structure of the capitalist system, placed the state as the governing center of the economy through economic policies of that nature.

3. State interventionism and neoliberalism



The Keynesian approach, while theoretically sound, was not, however, truly new. The economies of Japan, Germany, France, and the United Kingdom—as Ha-Joon [Chang rightly points out in *Kicking Away the Ladder* \(2002\)](#)—had managed *to develop* thanks to the economic policies of their respective states.

In the 20th century, these ideas spread throughout the world, resulting in varying degrees of state intervention and giving rise to what was known as the "Welfare State," adopted by, among other countries, the Labour government of Clement Atlee in the United Kingdom after the Second World War, as Ken Loach recounts in the documentary film *The Spirit of '45*. This model was also practiced in some Latin American countries, which was called the "Import Substitution" model or "State-Led Growth."

The ideas of state intervention in the economy challenged original English liberalism. The functions inherent to any state, such as military defense, public security, the administration of public finances, the provision of public services, and in many cases, public health and education, require large amounts of current spending and investment that must be financed by the various types of taxes paid by citizens and businesses established in each country. The state should restrict itself to this—in the opinion of Adam Smith, the Scottish philosopher and founder of economics as a science in the 18th century, any further state intervention in the economy is useless or even harmful, [Smith stated in *The Wealth of Nations* \(1776\)](#). That is, free market forces should decide how much and how to produce and consume, guided only by the individual selfishness of each participant.

This thinking, renewed in the 20th century by neoliberals, as Fernando Escalante narrates in *Así principio todo* (2018), was only able to recover ground lost by state



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interventionism until the rise in academia of Milton Friedman and his followers of the monetarist current in the sixties and seventies of the last century and in the politics of Ronald Reagan in the United States and Margaret Thatcher in the United Kingdom in the eighties.

In essence, monetarist neoliberal thinking posits that virtually any level of unemployment is "frictional," and any policy aimed at ending it causes inflation. The dilemma, in conclusion, was clear: either GDP growth (full employment) with inflation, or no GDP growth (unemployment) without inflation. And the monetarists proposed zero inflation at all costs—in other words, *stability*, which would provide certainty to domestic and foreign investors. Some might rightly wonder why no growth implies unemployment. The answer is very simple: the working-age population grows at a similar rate to a country's total population, and if physical production doesn't grow at least at that rate, there will be a percentage of people who can't find work and have no income. The demand that there should be economic growth in a country like ours is really that there should be more *paid employment*.

4. Economy and Politics

Turning to the field of economic postulates, one of the most notable books is [*Economics of Good and Evil* \(2011\) by Czech economic historian Tomas Sedlacek](#), in which he argues that all economic science is political and that Friedman's postulate that so-called "positive economics must be objective" is itself a political judgment. He understands economic narrative as an articulated attempt to convince a certain conglomerate or social group of people with certain economic ideas. In his view, even mathematical models have political content.



From the early 1980s to the end of the second decade of this century, neoliberal economic thought dominated economics as a science and economic policy in many countries. In practice, this has meant a profound shift in the way economic policy is conducted, especially in Latin American countries.

In Mexico's case, a *structural reform* program was adopted that, in short, resulted in a reduction in state participation in the economy, the sale of state-owned enterprises, the liquidation of development banks (or the change in their function), and the independence of the central bank. Importantly, the state lost control and management of economic policy instruments, namely, credit facilities for production promotion, differentiated interest rates, the exchange rate, guaranteed prices for basic agricultural products, and subsidized prices for disadvantaged sectors. These instruments were managed by various state institutions: CONASUPO (National Commission for the Promotion of Agricultural Development), the Bank of Mexico (Bank of Mexico), development banks, the energy production and sales companies PEMEX (Mexico), and the CFE (Federal Commission for the Promotion of Agricultural Development).

Let's look a little further back. Since its initial attempt at industrialization, Mexico has faced a problem that experts call "*external constraint*." This problem was addressed by authors such as the Argentine Raúl [Prebisch \(1959\)](#) in the late 1950s and the British Anthony [Thirlwall \(1979\)](#) in the 1970s. The problem is that, given the structural differences between developed and underdeveloped countries, any attempt by the latter to expand their economy and try to catch up with the former faces the restriction of generating foreign currency (US dollars in our case) through exports, in sufficient quantities to import the investment goods that growth



demands. Having a trade surplus was impossible given the type of goods these countries exported, so the dilemma was inescapable: either grow with an external deficit or stop growing with an external balance. The solution in Mexico's case was a chronic external deficit with chronic external debt, while waiting for the industry to mature that would allow the country to export and generate a surplus. Internally, a similar dilemma was faced regarding fiscal revenues and expenditures. To promote growth without affecting taxpayers, the State used two mechanisms: it taxed PEMEX's production and exports (and thereby decapitalized the company), but since this was not enough, public debt increased.

The results of structural reforms in Mexico have indeed been favorable to public finances: inflation has been controlled, the public deficit has been reduced, and an external surplus has been achieved. This was called *macroeconomic stability*. But in terms of growth in production, employment, education, and health care, the results have been completely contrary to what the Mexican neoliberals had promised: there has been no growth in either production or formal employment, and health care and education have not improved but rather worsened, according to all national and international indicators.

One undoubtedly important element is that the common thread running through neoliberal reforms was state deregulation of economic activities. In Mexico, this led to the 1994-95 crisis and the destruction of the Mexican banking system. In the United States, this same policy led to the 2008 crisis, which spread worldwide.

Another factor to consider in Mexico's case was the stringent credit policy for productive activities, which resulted in a lack of financing for private sector investment for several years, up to the present.



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Finally, before the arrival of the new government in Mexico, previous governments established several locks on state economic policies: NAFTA for trade policy, the zero-deficit rule for public revenue-spending policy, and the myth that public debt should not be increased because it would anger the "rating agencies" (an invention of the new neoliberal era).

5. The Government in its first year and Economic Growth

In Mexico, every first year of a six-year administration has seen low economic growth, stagnation, or recession, measured in terms of real GDP. From 1970 to 2018, the best first year, 1989, was for Salinas with 4.2 percent (annual real GDP), followed by Echeverría in 1971 with 3.8 percent, López Portillo in 1977 with 3.4 percent, Calderón in 2007 with 3.1 percent, and Peña Nieto in 2013 with 1.4 percent. Stagnation occurred in Fox in 2001 at 0.0 percent. Recession occurred in De la Madrid in 1983 at -4.2 percent, and Zedillo in 1995 at -6.2 percent. Each period may have a different explanation, but they all have in common: the first year always sees austerity in public spending and a degree of indecision among private investors.

This time, there is also a clear international trend toward stagnation or even recession, reflected in the decline in international trade in major countries. Mexico is not exempt from this external influence.

CONCLUSIONS

Taking into account all of the above, the correct question is not why isn't the Mexican economy growing in 2019? But rather why should it grow?

There is austerity in public spending, a global recession, and government fears of public deficits and debt. To top it all off, the *experts* ' dire predictions aren't based



on truly real figures but on forecasts that reveal certain biases about economic performance, for which they blame the president and his cabinet, even though they themselves complain that they don't want interventionism or regulation. This isn't the first time this has happened, nor will it be the last; that's politics.

In November of this year, two surveys were widely distributed in national newspapers in Mexico. The results show that a majority of respondents (58% in one and 68% in the other) perceive that their economic situation has improved this year compared to the previous year. This indicates that, on an individual level, a majority of people perceive (subjectively or objectively) that there has been an increase in their economic *well-being* .

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