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Alicante, December 2021

The new inflationary situation leads CYPE to analyse the evolution of construction costs for the 2018-2021 period, as well as the main causes of price increases and the criteria adopted in the updates of the CYPE construction cost database Generador de precios and Open BIM Cost Estimator.

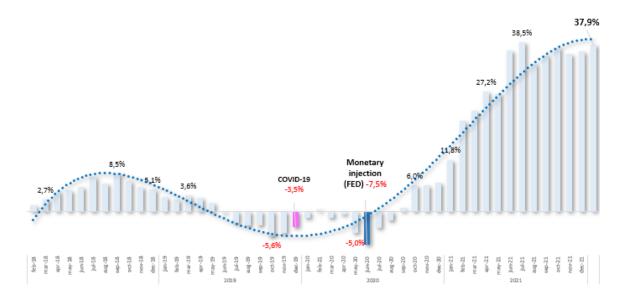
In a market with controlled inflation, determining the prices of a commercial tariff or a price bank is not overly difficult, however, when we are in a turbulent market situation, with price increases of more than 10 % per month for some raw materials, we enter an inflationary period which makes it difficult to determine market prices in the short and medium term.

Study of price increases in recent years

In the construction industry, the cost of items is affected by the increase in the price of raw materials, energy costs and labour costs.

In order to determine prices in the construction industry, CYPE has been studying the evolution of international prices for various types of work since 2018. The following graph illustrates the evolution and trend in average prices for the countries included in the CYPE construction cost database Generador de precios and Open BIM Cost Estimator, expressed as a percentage of January 2018 prices.





The following conclusions can be drawn from the graph:

1. From the first quarter of 2019, prices gradually started to decline, reaching a percentage value of -5.6% in September 2019.



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- 2. From May 2019 to July 2020, prices decreased slightly, with an average value of **-3.2%**, reaching a value of **-7.5%** in May 2020.
- 3. In May 2020, the United States Federal Reserve (FED) injected an unprecedented amount of money into the commercial banking system, from this date onwards, prices rose steadily from a low of -7.5% to a disturbing increase of 38.5% in June 2021.

This leads us to conclude that over the last twelve months, prices have **increased** more than they have in the **last twenty years**.

Leading causes of the rise in inflation

There are several reasons for the current inflation, among which we highlight the three that we consider most relevant:

1. Increase in money supply or currency in circulation

The indebtedness of states during the COVID 19 pandemic has led the major central banks, most notably the Federal Reserve and the European Central Bank (ECB) to put an **unusual amount of money supply into circulation**, resulting in an artificial stimulation of the economy and, consequently, an **inevitable rise in prices**.

According to the Federal Reserve's own data, the volume of dollars in the US financial sector increased from USD 15.3 trillion at the end of 2019 to USD 19.1 trillion in November 2020, which means that in less than a year, the money supply has grown by almost 25%. This is money ready to be spent in the real economy when consumption picks up.

2. Restoring confidence

After the COVID 19 lockdown, investors and consumers have partly regained **confidence in the market**, as well as a sense of having overcome a state of uncertainty.

3. General shortage of supply: genuine or artificial

The increase in consumerist appetite caused by the COVID 19 lockdown, aggravated by a policy of **induced shortage** in industries with monopolistic capacity, has led to a situation where supply is scarce in relation to demand. This situation has led to a spiralling increase in the **price of energy**, some **raw materials**, and **freight rates**, resulting in an **uncontrolled rise in inflation**.

Criteria adopted in Generador de precios

In this context, the **CYPE construction cost database** is constantly updated, based on product and/or material prices provided by manufacturers and/or suppliers. However, when there is a significant rise in prices caused by inflation, it is not feasible to **immediately adjust** prices to the market, even by the manufacturers themselves who have to bear the continuous increase in the costs of raw materials, workforce and/or energy.



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In an inflationary situation, Generador de Precios allows the prices to be adjusted to the construction market by means of adjustment parameters that depend on the volume of the job (built surface) and the current market conditions, which users can select in the initial "Cost breakdowns" screen according to the market situation:

Sustained recession, Moderate recession, Sustained growth, Moderate growth and On the rise.

In the case of an inflationary situation, users must select the **Moderate growth** or **On the rise** options depending on the level of inflation.

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