



## BOX I.3:

### **Margins: recent trajectory and inflation outlook**

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Inflation has risen in Chile and the world in recent months. The causes and their importance vary among economies, including: high demand, in a context of costs affected by disruptions in production chains; increases in the cost of transportation and commodities; and a reduced labor supply. In this context, doubts have arisen as to whether higher inflation could also reflect an above-average pass-through of costs to prices, i.e., an increase in companies' sales margins that goes beyond the business cycle. This box uses firm-level microdata to test this hypothesis for the Chilean economy.

Sales margins are defined as the ratio of sales prices to marginal production costs and have an average value that depends on the demand faced by the company and its production structure. In the presence of nominal rigidities that slow down price adjustments, it is to be expected that in the presence of shocks that involve increases in production costs, margins will fall. If the increase in costs is due to higher demand pressures, then the fall in margins is related to increases in activity. On the other hand, if the increase in costs is due to shocks on the prices of inputs and production factors, the fall in margins is related to a fall in activity.

[Bauducco et al. \(2022\)](#) show that, in Chile, the narrowing of margins has been mostly associated with increases in activity and, most recently, they are below their historical average (figure I.21). It also shows a significant drop during 2021, associated with the strong increase in demand in a context of eased pandemic-related restrictions and household support policies.

If the determinants of average margins remain stable, margins will tend to go back to that value. Thus, margin compression is associated with increases in margins and future prices, both at the firm level and in the aggregate, over horizons of up to two years ([Bauducco et al. \(2022\)](#)). It is to be expected that, given the current low level of margins, their normalization will lead to inflationary pressures in the future. These adjustments are broadly consistent with those implicit in the inflation forecasts in this Report, given the expected evolution of the economy (figure I.21)<sup>1/</sup>.

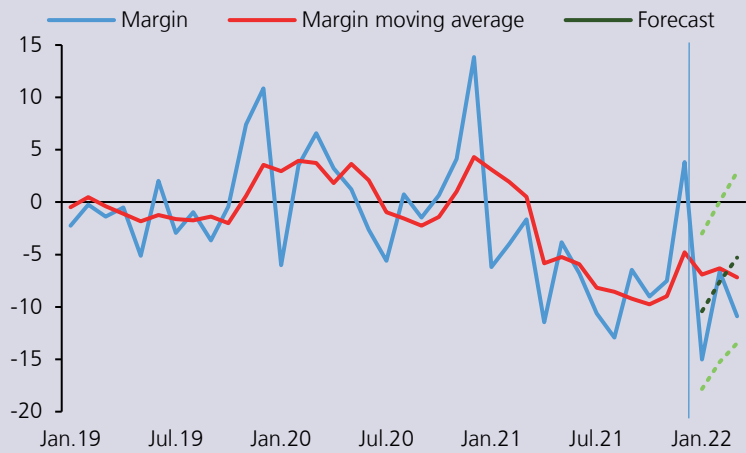
It is important to mention some nuances regarding this assumption. In the first place, the behavior of businesses is assumed to be in line with historical patterns. This, however, could occur in a more accelerated manner, for example due to the effect that higher inflation expectations may have on the frequency of adjustment of company prices, which could push up inflation in the short term. Second, margin estimates assume production structures being stable over time. However, the changes brought about by the pandemic in some sectors, such as trade, could alter the validity of this assumption. Third, margin decompression associated with lower demand could be at least partially delayed by margin reductions resulting from increases in production costs caused by global factors. Finally, it is important to clarify that the verification of lower margins in the current context is not indicative of lower profits on the part of businesses, as these also depend on other factors, such as sales volumes. In fact, as shown in the [Financial Stability Report of the first half of 2022](#), during the past year the profits of the larger-scale companies showed very substantial increases.

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<sup>1/</sup> Figure I.21 shows that the effective aggregate margin is within the confidence interval of a projection based on an autoregressive vector with data up until the end of 2021—which uses as macroeconomic explanatory variables the Imacec, the CPI, the nominal exchange rate, and the MPR—and is therefore in line with the recent evolution of the main macroeconomic variables.



**FIGURE I.21 MARGINS (\*)**  
(percent)



(\*) Blue line shows weighted median of the differences with respect to the margin mean; red line shows moving 3-month average of this variable. Dotted line shows out-of-sample projections for 2022 for the margin, estimated with a VAR(12) that includes margin, Imacec, CPI, and nominal exchange rate, with all confidence intervals at 90% significance. Source: Central Bank of Chile based on SII.