Why have profit margins increased?

As explained in the article «The trend in listed company profits: bullish but volatile» in this *Monthly Report's* Dossier, a large proportion of the increase in earnings reported by listed companies in the US and the euro area can be explained by the historically high levels of profit margins (defined as the ratio between earnings and sales). This rise, however, has not been evenly distributed across all sectors and firms. It is therefore important to analyse the factors underlying this trend.

One of the factors that determines the price companies can charge for their products is the degree of competition. For instance, when there are fewer competitors in the market, companies have more power to charge higher prices and can therefore obtain higher margins. Besides the number of competitors, the degree of competition also depends on factors such as the barriers to entry in the market (regulatory, economic, technological, etc.), the sector's degree of concentration, the market growth or how successful antitrust authorities are in preventing collusion between firms. Consequently, many of the factors affecting the degree of competition can vary depending on the sector in which the company operates.

In addition to these factors, companies can also implement strategies to improve their competitive position and thereby increase margins. Two ways to improve a firm's competitive position are product differentiation and production process improvements, two lines of action which have recently received a boost thanks to new technologies and globalisation.

Product differentiation helps to make demand less sensitive to price increases (i.e. it becomes more inelastic), which in turn allows firms to set higher margins. Products can be differentiated in several ways. One of these, at least in the short term, is through advertising campaigns so as to increase brand awareness for the product. Another way to differentiate the product is through innovation; i.e. improving the features and/or functions of an already existing product. If successful, product innovation can create a company-specific demand, thereby increasing consumers' willingness to pay and consequently profit margins.[1]

Innovation can also make a company's production process more efficient, which can push down production costs and result in higher profit margins if the competitors fail to innovate at the same pace. One study published recently uses data from a large sample of Spanish companies between 1990 and 2008 and analyses the relation between innovation and firms' markups. Specifically, the paper finds that product innovations increase markups by 5.1% on average, while production process innovation is associated with an average 3.8% increase in markups. Therefore, it is not surprising that margins are generally higher in the most innovative sectors, such as the pharmaceutical and information and communication technologies (ICTs) sectors.

Globalisation has also contributed to the increase in profit margins. Many firms have taken advantage of technological advances and the progressive reduction of barriers to trade to expand into new markets. The economics literature suggests that exporting firms enjoy a markup premium.[2] With regards to product differentiation, a large amount of empirical evidence also indicates that exporting firms tend to differentiate their products more and/or export higher quality goods (whose demand is more inelastic). Globalisation has also contributed to a reduction in production costs and an increase in firms' size.[3] This is partly because companies that internationalise their activities are usually more competitive but also because global competition forces firms to continue making their production processes more efficient and to innovate so as to differentiate their products.[4] For instance, many firms, especially those which already had a strong presence in the advanced economies, have taken advantage of technological advances and improvements in transportation to split their operations between several countries, creating global production chains that result in considerably lower production costs. This has given them a huge competitive advantage, making it easier for them to enter new markets and develop a business model that is very difficult for other competitors to emulate.

1. See Cassiman, B. and Vanormelingen, S. (2013), «Profiting From Innovation: Firm Level Evidence on Markups», Working paper, IESE Business School.
2. See De Loecker, J. and Warzynski, F. (2012), «Markups and Firm-Level Export Status», American Economic Review 102(6) and Cassiman, B. and Vanormelingen, S. (2013), «Profiting From Innovation: Firm Level Evidence on Markups», Working paper, IESE Business School.
3. The number of multinationals has more than doubled over the past 25 years: from 36,000 in 1990 to 81,000 in 2013, see McKinsey Global Institute (2015), «The new global competition for corporate profits».
4. See Altomonte, C. *et al.* (2014), «Internationalization and innovation of firms: evidence and policy», Special paper, Centre for Economic Performance; Cassiman, B. and Vanormelingen, S. (2013), «Profiting From Innovation: Firm Level Evidence on Markups», Working paper, IESE Business School; Forlani, E. *et al.* (2016), «Unraveling Firms: Demand, Productivity and Markups Heterogeneity», Centre for Economic Performance; Hallakyand, J. C. and Sivadasanz, J. (2009), «Firms' Exporting Behavior under Quality Constraints», Working paper, National Bureau of Economic Research; Manova, K. and Zhang, Z. (2012), «Export Prices Across Firms and Destinations», The Quarterly Journal of Economics 127, and Mayer, T., Melitz, M. and Ottaviano, G. (2016), «Product Mix and Firm Productivity Responses to Trade Competition», Discussion Paper, Centre for Economic Performance.

Moreover, since the financial crisis, the effects from the business cycle have added to the more structural factors. In a downturn, two opposing forces can affect profit margins. On the one hand, as demand falls, firms tend to compete via prices, which squeezes margins. In an economic recession, however, less competitive firms tend to exit the market, while others are forced to increase their profit margins so as to cover their fixed costs. This second force seems to have prevailed over the past few years.[5] A recent study examining a large sample of Spanish firms presents evidence to support this argument and concludes that part of the increase in profit margins observed since the crisis is due to a reduction in competition in some markets.[6] Another factor that has pushed up margins over the past few years has been the firms' fear of losing access to external financing or not being able to meet financial costs. Several studies show that companies which are more dependent on external financing or more leveraged also tend to set larger markups.[7]

To sum up, over the past few years both cyclical and structural factors have boosted profit margins. While the cyclical factors are likely to fade away over the coming years, structural factors, such as technological advances and globalisation, seem to have a long way to run. Both globalisation and technological progress are undoubtedly positive factors that contribute to economic growth and welfare. Nevertheless, we need to follow closely the extent to which this increase in profit margins is the result of comercially successful products or the result of less competition.

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5. For a more detailed explanation of the countercyclical nature of company markups, see Rotemberg, J. and Woodford, M. (1991), «Markups and the Business Cycle», NBER Macroeconomics Annual, and Rotemberg, J. (2008), «Cyclical markups», The New Palgrave Dictionary of Economics.
6. See Montero *et al.* (2015), «Heterogeneity of markups at the firm level and changes during the Great Recession: the case of Spain», Working Paper Series, Bank of Spain.
7. See Chevalier, J. and Scharfstein, D. (1996), «Capital Market Imperfections and Countercyclical Markups: Theory and Evidence», The American Economic Review, Vol. 86, and Gilchrist *et al.* (2013), «Inflation Dynamics During the Financial Crisis», Mimeo. For Spanish firms, see Montero, J. and Urtasun, A. (2014), «Price-cost mark-ups in the Spanish Economy: a microeconomic perspective», Working Paper Series, Bank of Spain.