

## Arbitrage Opportunities and Event impacts on Spanish Increase Capitals

**Manuel Verdú**

University of Valencia, Faculty of Economics, Department of Financial Economics, Spain  
*maverhe@alumni.uv.es*

**Óscar Carchano**

University of Valencia, Department of Financial Economics, Spain  
*oscar.carchano@uv.es*

**Jose Emilio Farinós**

University of Valencia, Department of Corporate Finance, Spain  
*jose.e.farinos@uv.es*

When a capital increases with Preferential Subscription Rights (PSR) starts, there is a special condition in the market since there are two ways to acquire a company stock, either with the direct purchase of it in the stock market, or its acquisition by exercising the PSR. This situation may lead to the existence of arbitrage opportunities, i.e. the cost of both routes may not coincide, and investors may obtain certain profits by exploiting this difference. In this sense, **Gil *et al.* (2006)** stated that new shares are undervalued compared to old ones. Moreover, **Marzal and Montes (2000)** claimed that arbitrage opportunities do exist in the market. On the other hand, the announcement of a capital increase (as well as the events related to this process) incorporates very relevant information to the market, so it would be possible that such announcements would affect the price of the shares. Thus, **Guirao (2001)** stated that there were significant abnormal returns in the five days following the announcement of a capital increase.

Thereby, the objective of this study is to analyse the existence of arbitrage opportunities in equity issues with rights of Spanish companies, as well as the impact of their related events on the share price. The results obtained will be replicated for different classifications of capital increases, taking into account different characteristics. It should be noted that, as far as we know, this is the first work in which, for the same sample, both the existence of arbitrage opportunities and the impact of capital increase events are analysed.

This paper uses data from 395 equity issues with rights carried out between 2001 and 2019 (both inclusive) by 111 Spanish companies listed on the Spanish Continuous Market (MC) and, for the first time, from companies listed on the Alternative Stock Market (MAB), where smaller companies are listed. In order to detect possible arbitrage opportunities, the strategy of acquiring new shares through the purchase and subscription of PSRs, and shorting shares through *Contracts for Differences* (CFDs) is analysed. The results are calculated, firstly, without taking into account the costs of carrying out these operations and, secondly, by adding these costs. An alternative strategy is also analysed for the case where it is not possible to take short positions on the company stock. On the other hand, to analyse the effect of the announcements related with the increase capital in the short and the long terms, the methodology *Event Study* is used.

The results obtained point out to the existence of arbitrage opportunities in the capital increases with rights studied, as well as the existence of significant abnormal returns generated by some announcements. These results aim to the fact that the behaviour of the shares is more efficient when the capital increases are secured, and when there is the possibility of taking short positions in the market. Therefore, these results can serve to issue recommendations to both, the regulator and the issuing companies, in order to improve the efficiency of the capital increase processes.

*Keywords:* seasoned equity offerings, abnormal returns, opportunity of arbitrage, event study

- Consuelo Riaño Gil, Fco. Javier Ruiz Cabestre and Rafael Santamaría Aquilué (2006). “The role of the liquidity on the relative valuation of the new shares with difference of the economic rights.” *Spanish Journal of Finance and Accounting* 35, no. 132 (2006): 817-836.
- José Yagüe Guirao. “El efecto de las ampliaciones liberadas en el valor de las acciones.” *Spanish Journal of Finance and Accounting* 30, no. 107 (2001): 11-38.
- José Luís Sarto Marzal and Ricardo Murillo Montes (2000). “El arbitraje entre acciones y derechos de suscripción en la bolsa española”. *Bolsa de Madrid* no 93 (2000): 39-43.