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Editorial

The new European Journal of Management & Business Economics, EJM&BE

Enrique Bigne (Editor)

The former *Revista Europea de Dirección y Economía de la Empresa* is celebrating its 25th anniversary in 2016. Congratulations to all of you who have contributed to this outstanding achievement! My special thanks to the two previous editors-in-chief, Professor Varela and Professor Barroso. I wish to extend my congratulations to all of the contributors in any kind. Editorial board members, reviewers and authors must go back their heads and see their milestones achieved over the last 25 years.

Many changes have emerged in the last 25 years. Let me focus on two important issues affecting knowledge diffusion. First, digitalization is part of our common daily tasks for researching and delivering relevant academic contributions. As discussed in Bigné (2015), digitalization opens new windows for researching worldwide not only facilitating access to new sources, but also by adding new topics of study, such as websites, online comments, aggregators, data and information. Beyond the topic itself, issues such as key words and meta-tags are playing a key role in finding out the literature and papers of interest. Digitalization is a notable tool in preparing new manuscripts and also for reviewing and interaction among the agents of the stakeholders. Second, internationalization is gaining presence in many journals, and the frontiers for publishing are becoming increasingly fuzzy. In this change, economic integration, increasing international exchanges among researchers, and, again, digitalization have contributed over the last 25 years.

Being older is synonymous of experience. Indeed, former REDEE has achieved a salient position in publishing papers on management and business economics. Nevertheless, experience per se does not always predict success. An adaptive perspective must recognize the changes and challenges in any field, pursuing a better performance. This is what the new EJM&BE attempts to achieve.

We celebrate our 25 anniversary with two main changes that attempt to adapt the vast experience of REDEE to the new challenges of digitization and internationalization.

First, the name of the journal has been changed into English, aiming to reflect the new internationalization approach of the journal. From now on is published in English, although some papers were published in English in the recent years. Regardless of the Spanish relevance as a language in many parts of the world, most of the queries, high impact papers and advanced conferences are using English as a working language. EJM&BE will target a broad segment, and both, authors and researchers will benefit from it. Authors will obtain higher impact than in the past. By its hand, researchers will find out easily papers published in this journal.

Second, EJM&BE aims to be highly internationalized. Such goal claims for three interrelated milestones: international editorial board, papers from different countries and authors from different countries. The Editorial Board is now composed by academics from Spain (7), other European countries (9), United States (4) and Brazil (1). This current issue publishes a paper based on Senegal as a good example of the path to the internationalization.

Let's congratulate us for the achievements of the past, with a new effort towards internationalization and digitalization knocking our doors. I hope you will enjoy this new issue of the European Journal of Management & Business Economics.

Reference

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Article

Hedging foreign exchange rate risk: Multi-currency diversification

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ABSTRACT

This article proposes a multi-currency cross-hedging strategy that minimizes the exchange risk. The use of derivatives in small and medium-sized enterprises (SMEs) is not common but, despite its complexity, can be interesting for those with international activities. In particular, the reduction in the exchange risk borne through the use of natural multi-currency cross-hedging is measured, considering Conditional Value-at-Risk (CVaR) and Value-at-Risk (VaR) for measuring market risk instead of the variance. CVaR is minimized using linear programmes, while a multiobjective genetic algorithm is designed for minimizing VaR, considering two scenarios for each currency. The results obtained show that the optimal hedge strategy that minimizes VaR is different from the minimum CVaR hedge strategy. A very interesting point is that, just by investing in other currencies, a significant risk reduction in VaR and CVaR can be obtained.

Introduction

Over the last few decades, changes in exchange rates have been a major risk for companies around the world. This is particularly true for firms with foreign currency-based activities, such as imports and exports, and corporate cash flows. Thus firm value is dependent on exchange rates, rendering the management of foreign exchange rate risk an important corporate objective and activity. It is accepted that a firm exhibits exchange rate exposure if its value is affected by changes in exchange rates (Adler and Dumas, 1984). The main hedging motives are the minimization of the impact of foreign exchange rate fluctuations on the variability of the firm's operational cash flow and the reduction of the probability of financial distress and bankruptcy (Hagelin, 2003; Solomon & Joseph, 2000). This and other similar problems have been widely analyzed in the related literature. It is not only corporations that exhibit exchange rate exposure. Individuals can also be affected; for example, when they apply for a multi-currency mortgage.

Both corporations and individuals wish to protect themselves and reduce the risk in an effective way. While in many cases it would clearly be more effective to hedge a long currency position using currency futures, there are situations where currency cross-hedging may be appropriate. A medium size company that operates in two or three countries with different currency simultaneously can reduce its income risk by engaging in a hedging activity of assets correlated with the foreign rate. The use of derivatives in small and medium-sized enterprises (SMEs) is not very common (Pennings and Garcia, 2004) and becomes more complicated because of their nature. Given this complexity, multi-currency cross-hedging can be more appropriate.

In general, cross-hedging is a hedging strategy where future contracts on different deliverable instruments are used. Corporations and individuals that have exposure to two or more currencies simultaneously can use cross-hedging. An efficient approach to hedging this risk exposure is to first exploit the natural cross-hedge that arises from the non-zero correlation between the different currency exposures, and then to use derivatives to hedge the residual risk.

There are different ways to measure the risk to hedge. The classical measurement of risk is the variance, but nowadays researchers and practitioners tend to focus on Value-at-Risk (VaR) and Conditional Value-at-Risk (CVaR) as market risk measures. The VaR of a portfolio is the lowest amount which the loss will not exceed with probability $1-\alpha$. CVaR is the conditional expectation of losses above the VaR.

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VaR became very popular due to the fact that Basel Committee assumed VaR as a risk measurement and that the regulatory capital for a loan is correlated to its marginal contribution to VaR. However, the use and acceptance of CVaR have increased because, in contrast to VaR, it meets expected properties. It informs us about how much we could lose if the portfolio return falls beyond VaR. Moreover, it is a convex risk measurement which makes it easy to use to set optimal strategies in optimization problems. Alfaro-Cid, Baixauli-Soler, and Fernández-Blanco (2011), Baixauli-Soler, Alfaro-Cid, and Fernández-Blanco (2010) and Baixauli-Soler, Alfaro-Cid, and Fernández-Blanco (2011) used several risk measures and different approaches to solve classical portfolio optimization problems, and, among other conclusions, they showed that using the variance as risk measure provides the same results than using CVaR. Therefore, using both simultaneously in multiobjective problems is not recommended.

In this context, the main aim of this paper is to establish the reduction in the exchange risk borne through the use of natural multi-currency cross-hedging considering VaR and CVaR as measures of market risk. For this, the mid exchange rates for 10 developed market currencies against the euro from January 1999 to December 2009 were used.

The approach presented in this paper is useful for implementing a multi-currency hedge strategy and it contributes to the literature in several ways. Firstly, it combines the use of VaR and CVaR as measures of risk with the use of multi-currency cross-hedging as instrument of hedging. The majority of papers in the literature use variance and derivatives, mainly current futures, for these purposes. Secondly, the approach of minimum hedge ratio and the mean-risk hedge are used. Thirdly, a multiobjective genetic algorithm is proposed to determine a mean-VaR hedge ratio.

The paper is organized as follows. The second section explains the determination of the hedge ratio and considers different measures of risk. The third section sets out the methodology to compute the mean-CVaR and mean-VaR hedge ratios. The fourth section describes the multiobjective genetic algorithm used to obtain mean-VaR hedge ratio. The fifth section presents the data and empirical results. Finally, the last section summarizes the main findings of the research.

Hedging the foreign exchange risk

The hedge decision requires us to establish both the optimal hedge ratio and the risk measure that needs to be reduced.

Optimal hedge ratio

Suppose that there is a set of two currencies with returns r_0 and r_1. Cross-hedging implies that a short (long) position in a currency is used to hedge a long (short) position in the other, assuming that both currencies are positively correlated. Cross-hedging could exploit the correlation with more than one currency in order to reduce the hedge portfolio risk. In the case of n currencies the hedge portfolio return can be expressed as,

$$r_h = r_0 + \sum_{i=1}^{n} h_i r_i \tag{1}$$

where r_0 represents a long or short position in a currency, r_i represents a long o short position in a currency i in order to hedge and r_h represents the hedge portfolio return. One of the most important issues in hedging refers to the determination of the optimal hedge ratios, h_i. The optimal hedge ratio depends critically on the particular objective function to be optimized and the measure of risk considered. Depending on the objective function the problem to solve is single-objective, since the risk of the hedge portfolio return is minimized, or multiobjective, because the risk and the expected return of the hedge portfolio are minimized/maximized simultaneously.

The most widely used optimal hedge ratio is the so-called minimum-variance (MV) hedge ratio. This is a single objective problem where the risk, measured with the variance, is minimized. This MV hedge ratio is derived by minimizing the variance of the hedged portfolio and it is quite simple to understand and estimate. Nevertheless, the MV hedge ratio ignores the expected return of the hedged portfolio and so, in general, the MV hedge ratio is not consistent with the mean-variance framework. To make this hedge ratio consistent with the mean-variance framework, it is necessary to include the expected return on the hedged portfolio in the objective function explicitly (Chen, Lee, & Shrestha, 2008). Under return-risk hedge ratios, expected return and risk of the hedged portfolio are considered. Companies determine the expected returns and risk, and as a consequence, the optimal hedging is obtained. When variance is used to measure risk, this approach is called mean-variance hedge ratio.

Measures of risk to hedge

The different measures of portfolio risk can be characterized in several ways. The most important characteristics refer to the coherence of the proposed measure and to its ability to deal with the asymmetry of the returns function distribution.

Following Artzner, Delbaen, Erber, and Heath (1999), a risk measurement can be viewed as a single number $\rho(r)$ assigned to the distribution of the portfolio return r. It is said that a risk measurement is coherent if it satisfies four properties: monotonicity, translation invariance, homogeneity and subadditivity. Standard deviation and CVaR satisfy the four properties while VaR satisfies three of them but it does not satisfy subadditivity under certain conditions. An optimization problem that includes non-coherent measures is usually ill-posed, in the sense of Hamard (Alexander, Coleman, & Li, 2006), which means that it does not have a single and exact solution.

Risk measures can be also classified in symmetric and asymmetric measures. Symmetric measures are those that do not take into consideration the asymmetry of the return function distribution, such as variance or standard deviation. Their use is only appropriate when those functions are normally distributed or, at least, symmetric. Asymmetric risk measures are those that take into consideration the skewness and kurtosis of the return function distribution (Harris & Shen, 2006). Among them, VaR and CVaR.

Some of the advantages of VaR are that it takes into account the asymmetric risk, a temporal period and a confidence level. VaR can be defined as the maximum expected loss within an investment horizon of n days with an error probability of α%. By definition, VaR is a quantile of the probability distribution of the portfolio value. Let $f(r_h)$ be the probability distribution function of the future portfolio return and α the significant level (usually 1% or 5%), VaR is implicitly defined in the following equation,

$$\int_{-\infty}^{\mathrm{VaR}} f(r_h)dr = \alpha$$

VaR can be computed by using an analytic method or Delta Normal, a Montecarlo method or a historical simulation method. The analytic method assumes that returns are normally distributed and that VaR is proportional to the variance. In the Montecarlo method, simulations are carried out to generate returns assuming that the return distribution function is known and not necessarily symmetric. Finally, the historical simulation method does not make any assumption regarding the return distribution function. It is based on the idea that past behaviour is a good predictor of future behaviour. In this work VaR si computed by using a historical simulation method. The portfolios are built following Eq. (1), using the historical return series. The same probability of occurrence ($1/T$) is assigned to every day and, ordering the returns r_h in decreasing order, VaR is chosen as r_h^* in the position αT.

Following, Alfaro-Cid et al. (2011) and Baixauli-Soler et al. (2011), we use a multiobjective genetic algorithm to obtain the optimal hedge ratios when VaR is considered as objective function to minimize. CVaR is a risk measure that has many of the advantages of VaR and quite a few less disadvantages. CVaR takes into account asymmetric risk, a temporal period and a confidence level. Rockafellar and Uryasev (2000) propose CVaR as a coherent risk measure, it deals with the kurtosis and skewness of the return distribution function and exact solutions may be found for an optimization problem. CVaR is defined as the average of all losses exceeding the VaR and it is computed as the expected value of r conditional on exceeding the VaR,

$$\text{CVaR}_\alpha = \frac{\int_{-\infty}^{\text{VaR}} r_h f(r_h)dr}{\int_{-\infty}^{\text{VaR}} f(r_h)dr} \tag{2}$$

CVaR is closely linked to VaR. We compute CVaR by using a historical simulation method, as in VaR case. That is, we obtain CVaR from the entire distribution of historical returns, as the sample mean of $r_{h,j}$ lower than VaR.

$$\text{CVaR}_\alpha(r_h) = (\alpha T)^{-1}\sum_{j=1}^{\alpha T} r_{h,j} \tag{3}$$

It can be demonstrated that CVaR is consistent with the minimum variance approximation. See, for example, Baixauli-Soler et al. (2010). Under the historical simulation the CVaR and VaR hedge ratios may be different. Given that risk minimization turns the optimization problem in a *well-posed problem* if CVaR is used, or *ill-posed problem* if VaR is used, we use a linear programming or a multiobjective genetic algorithm to obtain optimal hedge ratios depending on whether CVaR or VaR is used to measure risk.

Methodology

Mean risk hedge ratio problems

The mean-VaR hedge ratio for cross-hedging a long position with long or short positions in other currencies can be obtained by solving the following multiobjective problem:

$$\begin{aligned} &\underset{h}{Min}\quad \text{VaR}_\alpha(h) = \inf\{r_h | F(r_h) \geq \alpha\} \\ &\underset{h}{Max}\quad r_h = r_0 + \sum_{i=1}^{n} h_i r_i \end{aligned} \tag{4}$$

As it is known, portfolio optimization problems attempt to obtain the smallest risk value for a given return, or the highest return for a certain risk level. Logically, using VaR as a risk measure, the optimization problem is a typical ill-posed problem, in the sense of Hamard (Alexander et al., 2006), because VaR is difficult to optimize for discrete distributions since is non-convex and has multiple local extrema.

In contrast to VaR, Rockafellar and Uryasev (2000, 2002) demonstrate that, in the case of discrete random variables with T possible outcomes, it is possible to linearize CVaR by introducing a vector of auxiliary variables. CVaR is replaced by a linear function in the objective function. Then, the mean-CVaR hedge ratio for cross-hedging a long or short position with long or short positions in other currencies can be obtained solving the following linear problem.

$$Min\text{CVaR}_\alpha(h) = \underset{\text{VaR},h,z}{Min} \; -\text{VaR} + \frac{1}{\alpha T}\sum_{j=1}^{T} z_j$$

s.t.

$$z_j \geq -r_0 + \sum_{j=1}^{T} h_i r_{ij} + \text{VaR} \quad \forall j = 1, \ldots, T \tag{5}$$

$$\bar{r}_0 + \sum_{i=1}^{n} h_i \bar{r}_i \geq r_h^*$$

Consequently, in our research we have run multiobjective genetic algorithms to minimize VaR (problem (4)) and linear programmes to minimize CVaR (problem (5)). In particular, we have considered two scenarios for each currency: (i) to hedge a loan in a foreign currency with loans or deposit accounts in the rest of the currencies; (ii) to hedge a deposit in a foreign currency with loans or deposit accounts in the rest of the currencies.

Multiobjective genetic algorithm

The GA implementation is based on ECJ (http://cs.gmu.edu/~eclab/projects/ecj), a research evolutionary computation system in Java developed at George Mason University's Evolutionary Computation Laboratory (ECLab). In this work the SPEA2 package of ECJ was used for the multiobjective aspect of the optimization (Zizler et al., 2001), since it has shown better performance than other multiobjective techniques in various benchmark problems. A detailed description of the algorithm used can be found as well in Baixauli-Soler et al. (2010).

The two objectives to maximize are set to the expected return and to the inverse of the VaR. Multiobjective GA requires to fix some parameters before running the algorithm. In this case, the GA implementation uses tournament selection with a group size of 7, all individuals undergo crossover in each generation and 5% of them suffer mutation. The population size used was 1000 individuals that evolved along 50 generations. The archive size was set to 100.

Every possible solution under evaluation (called *individual*) is represented as a vector of n integers $(h_1^{GA}, h_2^{GA}, \ldots, h_n^{GA})$, where n is the number of currencies available to hedge.

The evaluation of individuals follows this flow. First, portfolio returns are calculated as

$r_{h,j} = r_{0,j} - \sum_{i=1}^{n} h_i^{GA} r_{i,j}$, $\forall j$, where $h_i{}^{\text{GA}}$, is the weight assigned to currency i, n is the number of currencies available in the hedge portfolio and r_{ij} is the return of currency i at time j.

Once the historical series of portfolio returns is calculated, it is sorted in descending order. The 0.01-quantile is fixed to the element occupying the position 0.01 T in the sorted series.

The expected return can be computed as $E(r_h) = (1/T)\sum_{j=1}^{T} r_j$ where T is the number of observations per currency.

Finally, VaR is calculated as the expected return minus the 0.01-quantile of the historic return series.

Data and empirical results

The data set has been obtained from the Bloomberg Database. The mid exchange rates for 10 developed market currencies (GBP, AUD, CAD, JPY, NZD, NOK, SGD, SEK, CHF and USD) are measured against the EUR for the period of 01/01/1999 to 31/12/2009; that

Table 1
Summary statistics.

	%Return	Variance	Skewness	Kurtosis	B–J	$\%VaR_{99\%}$	$\%CVaR_{99\%}$
Panel A: Long position							
GBP	2.07	0.258	0.111	3.48	1443.4	1.355	1.783
AUD	−1.61	0.544	0.853	11.37	15,738.3	1.739	2.593
CAD	−1.56	0.423	−0.004	1.34	214.2	1.718	2.060
JPY	0.07	0.630	−0.412	4.77	2794.3	2.174	2.979
NZD	−0.99	0.599	0.442	3.05	1199.1	2.022	2.396
NOK	−0.57	0.191	0.403	4.20	2172.6	1.128	1.503
SGD	0.25	0.339	−0.045	11.83	16,692.2	1.410	1.879
SEK	0.70	0.185	−0.023	5.41	3489.9	1.257	1.677
CHF	−0.67	0.081	0.135	10.70	13,632.4	0.853	1.199
USD	1.71	0.410	0.179	2.17	576.7	1.628	1.954
Panel B: Short position							
GBP	−2.07	0.258	−0.111	3.48	1443.4	1.489	1.839
AUD	1.61	0.544	−0.853	11.37	15,738.3	1.980	3.140
CAD	1.56	0.423	0.004	1.34	214.2	1.738	2.004
JPY	−0.07	0.630	0.412	4.77	2794.3	2.036	2.670
NZD	0.99	0.599	−0.442	3.05	1199.1	2.085	2.873
NOK	0.57	0.191	−0.403	4.20	2172.6	1.327	1.711
SGD	−0.25	0.339	0.045	11.83	16,692.2	1.524	2.019
SEK	−0.70	0.185	0.023	5.41	3489.9	1.309	1.718
CHF	0.67	0.081	−0.135	10.70	13,632.4	0.706	1.139
USD	−1.71	0.410	−0.179	2.17	576.7	1.638	2.215

Return (average annual return in percentage), Kurtosis (excess kurtosis coefficient), B–J (Bera–Jarque statistic), and VaR99% and CVaR99% are the 99% 1-day VaR and CVaR computed with daily returns. Sample period: 01/01/1999 to 31/12/2009. We use Standard ISO currency abbreviations: GBP is the British pound, AUD is the Australian dollar, CAD is the Canadian dollar, JPY is the Japanese yen, NZD is the New Zealand dollar, NOK is the Norwegian krone, SGD is the Singapore dollar, SEK is the Swedish krona, CHF is the Swiss franc, and USD is the U.S. dollar.

is, a total of 2870 observations per currency. Table 1 reports summary statistics for the 10 currency series for the whole period. A long position and a short position are considered in each currency because the distribution is a non-symmetric distribution. The variance of the returns covers between 0.081 for CHF and 0.630 for JPY. The skewness coefficient is placed from −0.41 for JPY and 0.85 for AUD. The excess kurtosis coefficient ranges from 1.34 for CAD to 11.83 for SGD. Jarque–Bera test indicates that normality hypothesis cannot be accepted for all currencies. VaR and CVaR at a 99% level of confidence have been computed following the historical simulation method. It can be seen that VaR and CVaR values for long and short positions differ since the shape of the upper and lower tail are different.

Table 2 contains the hedging effectiveness of the minimum VaR and the minimum CVaR hedging strategy for the two-currency hedge portfolio. Panel A reports the minimum VaR hedge ratio and the minimum CVaR hedge ratio with their corresponding reduction in VaR and CVaR relative to the unhedged long position in each currency. Panel B reports the same information for a short position in each currency. The R-square coefficient has been computed for all two-currency portfolios and select the largest that allows us to obtain the maximum reduction in risk.

Panel A shows that two-currency minimum VaR hedging enables us to obtain a considerable reduction in portfolio VaR for nine of the currencies. This reduction goes from 10.01% for NOK/SEK to 35.50% for NZD/AUD. For SGD/CHF, the reduction is only 0.36%, which is very close to zero and due to the very low correlation of SGD with each of the other nine currencies (maximum value 0.049 with CHF). On average, the reduction in VaR is 19.94% and the hedge ratio is placed from −0.012 for SGD/CHF to −0.760 for JPY/USD. In relation to minimum CVaR hedged portfolios, there is reduction for the ten currencies which ranges from 1.22% for SGD/CHF to 33.60% for AUD/NZD. On average, the reduction in CVaR is 16.61%. The hedge ratio is placed from −0.228 for SGD/CHF and CHF/JPY to −0.788 for JPY/USD. In both minimum VaR and CVaR hedge portfolios a negative return is obtained for five of the ten hedged portfolios.

Panel B shows that, when a short position in the currency is hedged with a long position, the minimum VaR hedge portfolio exhibits a VaR reduction for ten hedged portfolios which ranges from 3.73% for SGD/CHF to 35.98% for AUD/NZD. On average the VaR reduction is 18.07%. The hedge ratio is placed from −0.600 for SGD/CHF to 0.928 for JPY/USD. In relation to minimum CVaR hedge portfolios, there is a CVaR reduction for the ten currencies, which ranges from 1.56% for SGD/CHF to 41.46% for AUD/NZD. On average, the reduction in CVaR is 17.84%. The hedge ratio is placed from −0.136 for SGD/CHF to 0.808 for JPY/USD. A negative hedge ratio of −0.136 implies that a short position in SGD is hedged with a short position in CHF, given the negative correlation between the currencies. In both minimum VaR and CVaR hedge portfolios a negative return is obtained for four out of the ten hedged portfolios.

Table 3 shows the risk reduction with minimum VaR and CVaR ten-currency hedging for a given return with regards to two hedge portfolio and total, that is, with regards to VaR and CVaR of each unhedged position in each currency. In particular, the given return is selected to be the minimum VaR and CVaR two-currency efficient portfolio. In the long scenario, the total reduction in VaR and CVaR ranges from 1% for SGD to 39.3% for AUD and from 3% for SGD to 38.4% for AUD with an average reduction of 26.4% and 23.9%. With regards to reductions in comparison to the two currency hedge portfolios, the most important additional reductions in VaR are for CAD (15.9%) and USD (21.5%), and in CVaR, for CAD (19%) and USD (24.3%). In the short scenario, the most important reductions in VaR are for AUD (42.3%) and USD (37.1%), and in CVaR, for AUD (47.8%) and NZD (38.9%). In comparing with the two-currency hedge portfolio, the most considerable VaR and CVaR reduction occur for USD (19.4% and 23.9%). The average reductions are 8.3% (VaR for long), 8.8% (CVaR for long) and 10% (VaR for short) 9.7% (CVaR for short). The number of different currencies added to the hedging portfolio is nine, except in one portfolio (CVaR-JPY long) where eight currencies are added.

Fig. 1 shows graphs corresponding to the minimum VaR and CVaR ten currency hedging for different levels of return for long AUD hedge portfolios. Also, the initial unhedged AUD position and the minimum VaR and CVaR for the two-currency hedge portfolio are plotted in each graph.

Graphically it can be observed significant reductions in VaR and CVaR for a long position on AUD with two-currency hedging

Table 2
Hedging effectiveness of minimum VaR and minimum CVaR: Two currency hedge portfolio.

Panel A: Long position							
Long	Short	Minimum VaR			Minimum CVaR		
		H	%ΔVaR	%Return	H	%ΔCVaR	%Return
GBP	USD	−0.496	−24.47	1.222	−0.396	−16.96	1.393
AUD	NZD	−0.664	−31.27	−0.953	−0.720	−33.60	−0.897
CAD	USD	−0.540	−25.08	−2.485	−0.488	−15.42	−2.396
JPY	USD	−0.760	−22.43	−1.232	−0.788	−14.07	−1.280
NZD	AUD	−0.676	−35.50	0.099	−0.696	−27.20	0.132
NOK	SEK	−0.468	−10.01	−0.898	−0.424	−13.83	−0.867
SGD	CHF	−0.012	−0.36	0.253	−0.228	−1.22	0.398
SEK	NOK	−0.396	−17.01	0.928	−0.460	−14.40	0.964
CHF	JPY	−0.272	−12.72	−0.685	−0.228	−15.11	−0.682
USD	CAD	−0.492	−20.56	2.476	−0.432	−14.27	2.382
Average		−0.478	−19.94	−0.127	−0.86	−16.61	−0.085

Panel B: Short position							
Short	Long	Minimum VaR			Minimum CVaR		
		H	%ΔVaR	%Return	H	%ΔCVaR	%Return
GBP	USD	0.456	−6.73	−1.290	0.352	−2.91	−1.468
AUD	NZD	0.736	−35.98	0.882	0.808	−41.46	0.811
CAD	USD	0.440	−22.68	2.314	0.401	−12.71	2.246
JPY	USD	0.928	−19.29	1.519	0.800	−26.10	1.300
NZD	AUD	0.768	−29.74	−0.248	0.776	−36.51	−0.260
NOK	SEK	0.464	−16.24	0.895	0.560	−12.76	0.963
SGD	CHF	−0.600	−3.73	0.155	−0.136	−1.56	−0.155
SEK	NOK	0.552	−18.75	−1.017	0.624	−19.34	−1.058
CHF	JPY	0.040	−5.67	0.670	0.201	−12.54	0.681
USD	CAD	0.512	−21.89	−2.507	0.512	−12.50	−2.507
Average		0.430	−18.07	0.137	0.489	−17.84	0.055

Panel A reports the minimum-VaR hedge ratio and minimum-CVaR hedge ratio relative to a long position in a currency. Panel B reports the minimum-VaR hedge ratio and minimum-CVaR hedge ratio relative to a short position in a currency.

Table 3
Minimum CVaR for a return given ten currecy hedging.

Long	$\#h>0$	$\#h<0$	%ΔVaR		$\#h>0$	$\#h<0$	%ΔCVaR	
			Total	Two currencies			Total	Two currencies
GBP	3	6	−26.5	−2.7	1	8	−22.1	−6.1
AUD	3	6	−39.3	−11.6	4	5	−38.4	−7.3
CAD	1	8	−37.0	−15.9	2	7	−31.5	−19.0
JPY	5	4	−27.5	−6.6	6	2	−28.1	−16.3
NZD	2	7	−39.1	−5.6	5	4	−28.3	−1.5
NOK	2	7	−17.7	−8.5	3	6	−16.7	−3.3
SGD	6	3	−1.0	−0.6	5	4	−3.1	−1.8
SEK	4	5	−19.5	−3.0	5	4	−17.6	−3.7
CHF	6	3	−18.7	−6.8	3	6	−18.7	−4.2
USD	4	5	−37.6	−21.5	2	7	−35.1	−24.3
Average			−26.4	−8.3			−23.9	−8.8
Short	$\#h>0$	$\#h<0$	%ΔVaR		$\#h>0$	$\#h<0$	%ΔCVaR	
			Total	Two currencies			Total	Two currencies
GBP	5	4	−22.5	−16.9	9	0	−13.7	−11.2
AUD	4	5	−42.3	−9.8	6	3	−47.8	−10.8
CAD	8	1	−35.9	−17.1	6	3	−31.2	−21.2
JPY	4	5	−26.3	−8.7	4	5	−29.8	−5.0
NZD	5	4	−35.0	−7.5	7	2	−38.9	−3.9
NOK	5	4	−21.6	−6.4	9	0	−19.3	−7.6
SGD	4	5	−7.2	−3.6	7	2	−3.6	−2.1
SEK	6	3	−25.7	−8.6	6	3	−25.3	−7.3
CHF	5	4	−7.7	−2.1	3	6	−16.5	−4.5
USD	5	4	−37.1	−19.4	3	6	−33.4	−23.9
Average			−26.1	−10.0			−26.0	−9.7

$\#h>0$: total number of currencies in the hedging portfolio with a long position; $\#h<0$: total number of currencies in the hedging portfolio with a short position; Total: risk reduction for minimum VaR and CVaR ten currency hedging with regard to initial VaR and CVaR of each currency; Two currencies: risk reduction for minimum VaR and CVaR ten-currency hedging with regard to VaR and CVaR of the two-currency hedge efficient portfolio minimum CVaR.

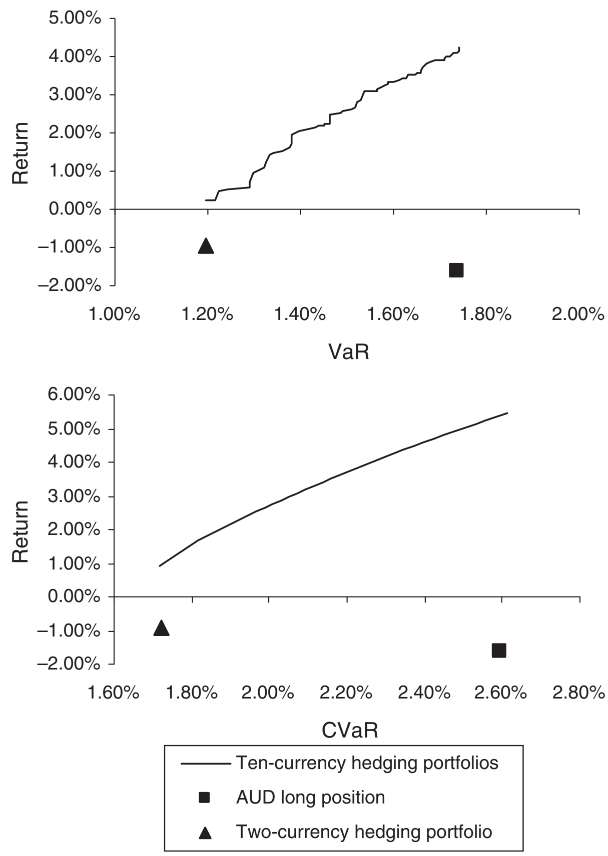

Fig. 1. Mean-VaR and mean-CVaR portfolios for a long position in AUD.

portfolio. When a ten-currency hedging portfolio is considered, the additional reductions in VaR and CVaR are small and can disappear if constraints related to long (loans) and short (deposit accounts) positions in some currencies are considered. Hence, optimal hedge ratio under the objective of minimizing risk does not depend on the number of added currencies. By contrast, optimal hedge ratio consistent on mean-risk framework is very sensitive to the number of added currencies. This implies that when an expected return is fixed a ten-currency hedging portfolio is significantly more efficient in VaR and CVaR than two-currency hedging portfolio. The AUD long position results are quite similar to the rest of currencies.

Conclusions

Movements in exchange rates are a major risk for companies with foreign currency-based activities. Different approaches, such as hedging via forwards, currency swaps, futures options and many other complex financial instruments, have been employed in order to effectively manage risk. Multi-currency cross hedging is relevant because it greatly expands the opportunity set of risk reducing alternatives.

VaR and CVaR have been used for measuring currency risk exposure because they are suitable for asymmetric return distributions. This choice is consistent with the asymmetric return distribution functions exhibited in our data set.

Our results show that the optimal hedge strategy that minimizes VaR is different from the minimum CVaR hedge strategy. The approach described in this paper could help to hedgers to obtain the optimal minimum VaR hedge strategy through a multiobjective genetic algorithm. Portfolio diversification has the potential to substitute the hedged portfolios with derivatives, which can help small and medium-sized enterprises (SMEs).

Also, we have dealt with the question of which degree of risk reduction in VaR and CVaR offers multi-currency cross-hedging. A two-currency hedge strategy can reduce VaR up to 35.98% and on average around 19% and CVaR up to 41.46% and on average around 17%. Without considering any constraint, an increase in the number of currencies to hedge from two currencies to ten implies an additional increase in risk reduction on average around 9% in both VaR and CVaR.

Furthermore, if a mean-risk framework is considered, an optimal mean-risk hedge ratio accounting for the trade-off between return and risk differs from the minimum risk hedge ratio and it is significantly more efficient as the number of currencies to hedge increases in both VaR and CVaR.

Overall, given our findings, in a multi-currency hedge strategy is not critical to consider several currencies to obtain a significant VaR and CVaR reduction in contrast with a mean-risk framework.

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Article

Corporate social responsibility: Evolution through institutional and stakeholder perspectives

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ABSTRACT

This article presents a structured review of the literature about corporate social responsibility, from the origins and evolution of the discipline, as a field of research, until the present. A review is also presented on the main contributions of authors and institutions in relation to the promotion of social responsibility, focusing on two complementary trends that have gained prominence as theoretical support: institutional theory and stakeholder approach. Some controversies and discussions generated in the years around the concept are also discussed.

Introduction

The increasing complexity and turbulence of the environment provokes that firms should develop competitive management models aimed not only at obtaining profit margins in the short term, but also to meet the balanced expectations of society and the different stakeholders involved in its activities in the long-term (Crane, Mcwilliams, Matten, Moon, & Siegel, 2008; Solano, Casado, & Ureba, 2015).

Regarding these requirements for companies, corporate social responsibility (CSR)[1] has been proclaimed in recent years as a key tool that helps companies to meet these environmental pressures as well as to improve its competitiveness as a result (Aguilera, Rupp, Williams, & Ganapathi, 2007; Boulouta & Pitelis, 2014; Carroll & Shabana, 2010). The analysis of the concept CSR reveals that for a long period of time, organizations have played a fundamental and exclusive economic function in society, contributing actively in the distribution of goods and services, and the generation of wealth and employment.

However, in recent decades, circumstances such as: (i) the growing number of corporate fiscal abuses and opportunistic strategies in the financial landscape (Sami, Odemilin, & Bampton, 2010); (ii) the increase of social inequalities reflected in the poverty, hunger or discrimination among countries (De Neve, 2009); (iii) the great power held by multinationals (Bouquet & Deutsch, 2008); or (iv) the environmental degradation accused by the planet (Lindgreen, Maon, Reast, & Yani-De-Soriano, 2012), have generated that the parties affected by firm's decisions and outcomes – shareholders, employees, unions, customers, suppliers, citizens, local community, government, etc. – the requirement of a greater commitment and responsibility from organizational activities.

Given these requirements, in accordance with the fundamentals of institutional theory (Dacin, Kostova, & Roth, 2008) and stakeholder perspective (1984), which argue that companies must gain the support of society and the various stakeholders to operate with greater freedom and guarantees of survival, companies are progressively adapting their behaviour and actions, guiding them to a greater commitment to these parts.

Considering the previous frame, this article concentrates its efforts on providing an analysis of the literature on corporate social responsibility, focusing on two main theories (institutional and stakeholder), which have helped to develop, consolidate and internalize this concept and management philosophy as a necessary and

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[1] According to the European Commission, CSR is defined as "the process of integration in the organizational activities the social, environmental, ethical and human concerns from its groups of interest with two aims: (1) to maximize the value creation for these parts, and (2) to identify, prevent and mitigate the adverse effects of firm actions on the environment" (European Commission, 2011: 6).

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crucial for organizational success. The manuscript also examines some controversy around the term corporate social responsibility and its implications for businesses today, thus providing future research lines.

Literature review: origins and foundations, moving towards a change in responsible business model

Research in social responsibility reveals that a large number of scholars have been reflecting on the raison d'etre of a company, and whether it should pursue a dual economic and social function (Friedman, 1970; Galbreath, 2010; Lozano, 1999).

Specifically, the origin of the debate on corporate social responsibility goes back to the early twentieth century, where the intensity where the intensity of increased production merges with the second phase of the Industrial Revolution highlighting Western Europe, United States of America and Japan. In this process, the consolidation of capitalism as an economic philosophy, the first proposals for a welfare state and/or labour shortages reflect some social and labour shortages in the management system (Araque-Padilla & Montero-Simó, 2006).

The situation experienced in this period led authors such as Weber (1922) and Clark (1939) to express the need to educate businesspeople towards a new framework of social responsibility. In these efforts, leading business schools, with Harvard as a reference point, and professional magazines like Fortune have joined in a common purpose: to demonstrate that executives and managers of companies, might achieve a competitive management model through responsible guidance of their actions from an economic point of view (i.e., ensuring the payment of wages for employees, suppliers responsibilities in contracts, reduction of risk for shareholders, etc.). Moreover, it is necessary from a social point of view to identify improvement aims for the common good of the community in which firms operate.

Based on these initial contributions, the first work arose in the fifties, formally defining the concept of social responsibility as '*the set of moral and personal obligations that the employer must follow, considering the exercise of policies, decisions or courses of action in terms of objectives and values desired by society*' (Bowen, 1953: 6).

With this argument Bowen, generally called the father of the term social responsibility, pointed out that companies can have a significant influence on the lives of citizens, and consequently firms should intervene in improving and solving their main economical and social imbalances. Therefore, in addition to considering the economic function, organizations should contemplate the social consequences resulting from their actions. From this work, the concept of social responsibility starts to take on increased interest as a research topic as Carroll (1999) postulates, a work which examines in detail the evolution of the concept, subdividing the decade into different key periods that have helped the progressive institutionalization of this mental attitude of responsibility between business and academia.

Among these works, it is necessary to highlight the ideas of Drucker (1954) who discusses the need to take the factor of public opinion into account in the decision making process of any organization, regardless of size or industry. According to the author, this idea is based on the experiences of multinationals such as Ford and General Motors, which in the mid-50s received much criticism from the press, media and various national regulatory institutions, due to the development of behaviours qualified as 'irresponsible', which had not considered the interest of their communities. These companies had to take further action to regain the trust of these customers (creating channels of communication, collaborating with environmental organizations, implementing a social volunteer programme for employees, etc.). With these arguments Drucker reflects that even major companies are subjected to an environment of wide social pressure, which consequently determine their actions in the market in the long term.

Regarding these ideas, in the early sixties, Davis (1960) contributed to the concept of social responsibility, suggesting that, depending on the number of agents affected by organizational actions, they must look after their interests in order to win their endorsement and support. Therefore, Davis advised that organizations that use their power without worrying about causing impact on the environment might lose the respect and trust of their stakeholders (customers, suppliers, employees, shareholders, etc.), qualities that Davis considers determinants for success and business consolidation. This idea will be developed in literature through the trend termed 'corporate constitutionalism', which contemplates the firm as a social institution that must exercise its power responsibly, with their groups' interest at heart, in order not to be punished and expelled from the market (Davis, 1960).

Since the mid-sixties, Davis (1967) frames the studies of social responsibility as a macro organizational issue that goes beyond internal and technicians' interest of any company. So far, the works published highlight how the assumption of greater responsibility on the part of the companies could improve their results in relation to particular interest groups. However, Davis' proposals suggest the need for organizational activities to be developed in line with the institutional context that surrounds and affects businesses, it being necessary to know what other companies (competitors or firms which belong in the same sector) and institutions require in economic and social terms. This process, according to Davis, is what helps companies to redefine their responsibilities and commitments regarding their agents, who make up their community.

Taking into account the previous contributions, Walton (1967) stressed that social responsibility emerges as a set of actions that managers try to implement for companies to improve their relationship with the broad range of interest groups that make up their environment. In addition, Walton (1967) made a decisive contribution to the understanding of what social responsibility is, and how it can be activated among organizations. In this regard, Walton highlights that the essential ingredient of social responsibility is the degree of voluntariness by business, because such action is not mandatory, and the decision to carry it out involves the assumption of a significant cost and risk, which can affect the success or failure of a business in a decisive way. Therefore, considering the imbalances and the investment required to develop social responsibility actions, authors like Wallich and Mcgowan (1970) added that, with regard to the viability of social responsibility action, which may ensure a company's success, and to conduct their activities without restrictions, they must maintain a balance between the economic and social interests of their stakeholders.

The contributions examined in the fifties, sixties and early seventies help academics to understand the role that social responsibility plays in the adjustment process of the company, with the environment and with stakeholders.

In the eighties, as Carroll (1999), Garriga and Melé (2004) and Lee (2008) reflect, there is a great theoretical dispersion that aims at analyzing the benefits and advantages of implementing actions in terms of social responsibility by firms.

After considering this large body of approaches, this study, unlike the study of Carroll (1999), is focused on the analysis of social responsibility from two disciplines that, although separated, have evolved in parallel, and can provide a better explanation of the need to internalize socially responsible behaviour by firms in response to environmental pressures: the institutional theory (Fernández-Allés, 2001; Meyer & Rowan, 1991; Scott, 2007); and the stakeholder theory (Freeman, 1984; Freeman, Harrison, Wicks, Parmar, & De Colle, 2010).

Contributions from institutional theory to the implementation of socially responsible behaviours

For decades organizational strategies and actions have been adapted to requirements and environmental pressures (Fernández-Allés & Valle-Cabrera, 2006). Following this argument, the response to the context in which companies operate and keep their actions and behaviours consistent with principles demanded by external and internal context is considered vital for organizational survival (Dacin, 1997; Fuenfschilling & Truffer, 2014).

This internalization process of a set of norms, beliefs, values and principles accepted by society and the community allow organizations to achieve the support and backing of their activity, which is known as legitimacy (Cruz-Suárez, Prado-Román, & Díez-Martín, 2014; Suchman, 1995). Among the advantages of the legitimation process, organizations could achieve more efficient access to resources from certain stakeholders – investor funds, support from government, increased sales and customer loyalty, access to the negotiation of contracts with different suppliers and distributors, obtaining the respect and commitment of employees, etc., as a process that helps to improve the organization's economic and financial performance (Brammer, Jackson, & Matten, 2012).

Internally, institutionalization and internalization of norms, values and social behaviours and structures arises from formal and informal processes, which take place between internal groups within the company (DiMaggio & Powell, 1991). Moreover, the external environment is considered essential with regard to the possibility of establishing a set of relationships between the company and Government laws and regulations, professional associations (licensing and certification) and other organizations, especially those that are within the same sector (Fernández-Allés, 2001).

Regarding this, DiMaggio and Powell (1983) point out that companies will adapt more efficiently to their environment and can achieve legitimacy and the benefits they derive from it if they: (i) Consider the legal and political pressure exerted externally by agencies such as the Government – coercive isomorphism – due to the fact that there is a creator and regulatory power enhancer and promoter of change rules, which inspects and punishes accordingly; (ii) Mimic the processes, practices and strategies of the most successful companies – mimetic isomorphism. In this process it could be argued that cognitive power, i.e. a set of beliefs, assumptions and explicit knowledge, codified and specialized, is a framework through which to perform organizational routines that help internalize these best practices; and finally; (iii) Collaborate with professionals, taking into account the experience and previous training of managerial personnel to generate a professional knowledge that will address the problems of the environment for firms with greater confidence – normative isomorphism (Fernández-Allés, 2001).

Although the result of the mechanisms of isomorphism implies that organizations are very similar, empirical evidence shows that those using these processes can improve their position in the market, getting their business to be perceived as desired by public institutions and the wide range of their community stakeholders (Schultz & Wehmeier, 2010).

These contributions, framed within the approach of old institutionalism, help to explain why organizations view the imitation of behaviours identified in their environment as able to ensure the legitimacy of the groups and institutions that shape it. However, the new institutional trend, conceived as neo-institutionalism, suggests that organizations and their strategies are substantially influenced by cultural factors, legal, historical and political institutions that define specific patterns of behaviour for different regions or countries (Doh & Guay, 2006; Powell & DiMaggio, 2012).

Support of this neo-institutional basis might explain what influence these factors have on the socially responsible actions undertaken by companies. Significant within this institutional contemporary framework is the theoretical support of Keim (2003), who identifies several institutions that should be considered in the analysis of the context:

(i) Formal institutions, which are constitutions, laws, policies and formal agreements created and validated by citizens from different localities and countries; (ii) informal institutions, which rule behaviour and mental models and are generated by individuals via cultural heritage, religious beliefs or policies. These rules, in the field of business, are coded as informal practices and routines. In addition, there are some key institutions for national and supranational political, legal and social legislation, from which jurisdiction specific to a particular territory or geographic area emanates. Following this classification, to examine the implementation of socially responsible behaviours among companies, the institutional environment is interpreted in contexts such as Europe and North America, traditionally marked by different historical and political factors, which affect the particular way in which respective companies make decisions about social responsibility.

Focusing the analysis on European territory, due to Spain being the country in which the research is framed, it should be mentioned that there has been a high turnover of policies at the community level by different Member States, determining the generation of a large number of legislations to harmonize laws and regulations. For example: the Maastricht Treaty, 1993; Amsterdam Treaty, 1996; Treaty of Nice, 2000 (Doh, 1999; Doh & Guay, 2006). The integration of these countries under a monetary system and common government influence can affect the reformulation of traditional relationships between businesses and Governments, aimed in this case at achieving a coherent system of welfare in these European countries (Doh, 1999). Concretely, bodies such as the European Commission, the Parliament and the Spanish Council of Ministries are positioned as expert advisors on negotiation and improvement of these collective European interests.

In terms of CSR at the European level, the elaboration and publication of the Green Book of CSR by the European Commission (2001) is highlighted as one of the prime manuscripts to promote a common framework in which responsible behaviour for entrepreneurs and managers may be developed within the European Union. Despite the importance of these European figures in the formulation of policies and procedures which promote social responsibility, according to Doh and Teegen (2002) and Doh and Guay (2006), reflect that NGOs and the general public have been two of the main promoters at institutional level to have driven the imperative to develop socially responsible behaviours in firms during recent decades. More specifically, negative ecological impacts such as discharges of toxic air pollution by companies, or socially negative impacts such as gender inequalities or the use of child labour have led to several platforms being built and to NGOs expressing their dissatisfaction, expressing the need for more regulation of these aspects. With these arguments there is a progressive institutionalization and concern by companies to develop responsible behaviour, leading to numerous studies that have attempted to demonstrate the relevance and added value of including social responsibility as a part of organizational goals (Branco & Rodrigues, 2006).

Other factors such as the financial position in the market, the level of enterprise competitiveness, or a history of political baggage in some countries, encourage firms to position themselves as complementary constraints in the course of implementing socially responsible behaviour (Campbell, 2007; Sementelli, 2005).

In response to the ideas, and the need to respond to the demands of the institutional environment, there is a significant body of work that proclaims itself as essential to social responsibility, in its ability to respond to the large number of players involved in activity that influences business performance (Freeman, 1984; Greenwood

& Anderson, 2009; Ley & Wood, 2014). This framework represents the main support of stakeholder theory.

Contributions from stakeholders theory

The development of the stakeholder perspective implies the transformation of the traditional bilateral relationship established between the firm and only some of the relevant groups, such as shareholder or owners, into alternative multilateral relationships, which include the employees, unions, customers, suppliers, the Government, investors, media, competitors or the local community (Argandoña, 1998; Bridoux & Stoelhorst, 2014).

The origin of the stakeholder concept arises from the field of business management, introduced by Freeman and defined as '*any group or individual who can affect or be affected by the decisions and the achievement of corporate objectives*' (Freeman, 1984: 25). Given the multitude of parties involved in organizational activities, such as those stated by Freeman (1984), Goodpaster (1991) and Clarkson (1995) it is necessary to differentiate between and prioritize them according to a single criterion in order to meet their expectations with a logical order. These previous works use a double distinction of stakeholders by way of consensus regarding their nature and the relationship established with the organization: (i) a primary group, which usually has a formal contract with the firm and is essential for its proper functioning (owners, shareholders, employees, unions, customers, suppliers, etc.) and (ii) a secondary group which, despite not being directly involved in the economic activities of the company and not having a contractual relationship with it, can exercise a significant influence on its activity (citizens, competitors, local community, the Government, public, etc.).

The influence, power and claims that each of these parts have on the company has been analyzed in works such as Mitchell, Agle, and Wood (1997). In this regard, a solid and broad theoretical framework has been built related to the stakeholders theory, that shows how satisfying the interests of these parties can help companies to improve their financial performance and subsequently their competitiveness and sustainability (Harrison, Bosse, & Phillips, 2010). Specifically, Goodpaster (1991), Donaldson and Preston (1995) and Fassin (2009) argue that there are different forms of analysing and studying the management of interest by companies. Thus, Goodpaster (1991) appreciates three theoretical trends that explain the behaviour of firms in relation to their stakeholders. Firstly, the strategic approach, which argues that stakeholders can facilitate or hinder the achievement of the organizational aims. Secondly, the responsibility approach, which explains how establishing a quality relationship with those groups of interest, can provide more benefits for companies through achieving their satisfaction. Thirdly, the convergent approach which stands as an intermediate trend from both previous approaches.

Additionally, Donaldson and Preston (1995) propose another three trends to examine and analyze stakeholders management with accuracy: (i) the descriptive approach, which aims to explain that companies are defined by a broad set of different interests that must be balanced, a process that can induce better or worse results; (ii) the instrumental approach, which explains how the stakeholder management of the company is an instrument or a tool to meet specific, traditional organizational goals: profitability, stability and growth and (iii) the normative approach, supported by the fact that the management and satisfaction of stakeholder interests should be the main goal to be achieved by the company, leaving economic benefits in second place.

In connection with the implementation of CSR actions according to Mitchell et al. (1997), stakeholder theory shows that the behaviour of the company will be influenced not only by agents with great power and dependence on the organization (shareholders, employees, investors, etc.), but also by other outside groups such as social and environmental activists, professional critics, the media, the press, etc.

For example, Henriques and Sadorsky (1999) found that the perception of interests and environmental demands of particular interest groups did significantly influence the level of environmental commitment adopted by companies in their practices. For these reasons, Phillips, Freeman, and Wicks (2003) proposed to adapt and modernize stakeholder's theory into a version able to capture and simplify these groups into five internal categories: financial control agents (e.g. shareholders), customers, suppliers, employees and communities in which the company operates (including competitors). Phillips also proposes six specific external groups: the Government, environmental organizations, NGOs, professional critics or experts, the media and others in general (citizens, local or those which affect or will be affected by companies). The reason why these groups may have an influence on the company, although they do not control essential resources, is explained by the legitimacy concept (Lee, 2011). In the words of Scott (2007: 45) legitimacy 'is not a commodity to be possessed or exchanged by companies, but rather a condition that reflects the cultural alignment, normative support, or consonance with the rules or laws of the environment'. This idea leads us to uncover a natural and complementary theoretical link between institutional theory and stakeholder approach, given the influence that interest groups could have on the implementation of socially responsible behaviour required of the companies by society.

On the basis of theoretical arguments presented, we can conclude that both the institutional theory and stakeholders approach represent two solid pillars to explain and analyze the incorporation of corporate social responsibility actions by firms (Fernando & Lawrence, 2014; Marano & Kostova, 2015; Verbeke & Tung, 2013) as Fig. 1 illustrates.

In this way, the institutional pillars proposed by DiMaggio and Powell (1983), reflect how the pressure on companies may condition their decisions in terms of social responsibility actions. According to Clarkson (1995), it will be necessary to distinguish and consider the influence they can further exert upon external groups affected by or affecting business activity interest. These mechanisms composing the external macro-context of the company are of great importance for companies' attention, something that will determine their survival in the market. Internally, the micro-context would consist of those domestic interest groups with links to the company, able to exercise power over decisions on social responsibility as expressed in Fig. 1.

The next section provides a structured review of the main contributions that have helped with the practical institutionalization among companies of socially responsible behaviour, facilitating its understanding and importance in the process of analyzing and responding to the pressures exerted by the environment and stakeholders of the company.

Institutionalization of corporate social responsibility

Since the seventies, international organizations such as the Committee for Economic Development (CED, 1971) have attempted to demonstrate the importance that social responsibility as a management model can exercise on growth and sustainability of companies in society. To achieve this process, CED proposes three key functions that companies must undertake to behave responsibly according to their role in society: (i) an internal function of an economic nature aimed at the distribution of products and services that will generate jobs and inject income into the community; (ii) an intermediate function that meets the expectations, values and social priorities of the stakeholders and (iii) an external function, which tries to reduce social and environmental imbalances in

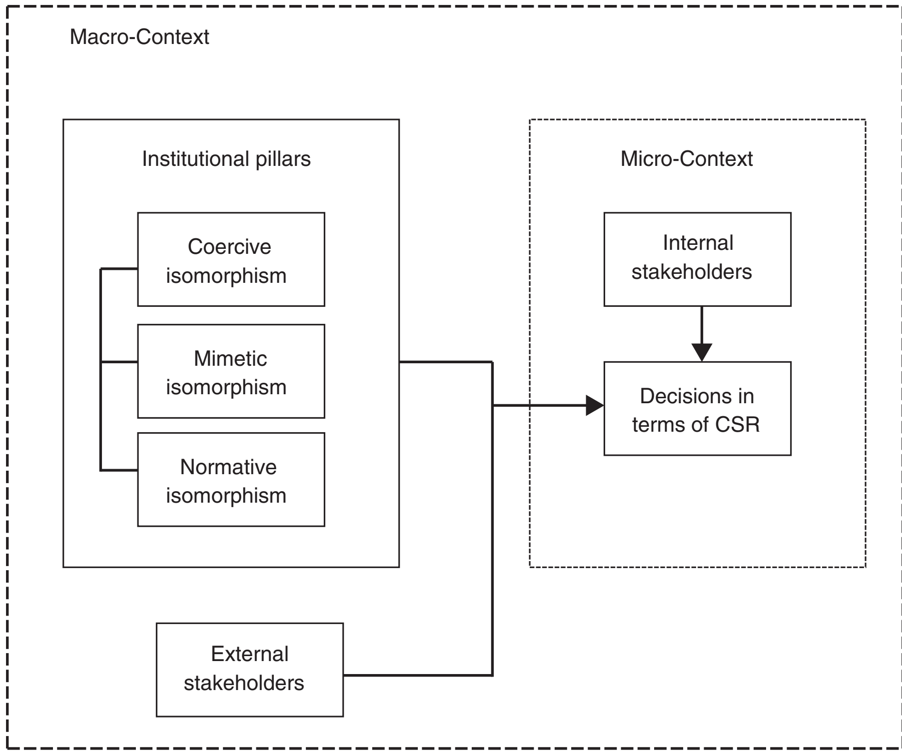

Fig. 1. Influence of institutional and stakeholder perspectives in the introduction of socially responsible behaviours.
Source: Elaborated based on DiMaggio and Powell (1983) and Clarkson (1995).

society. The characterization of these three commitments by the CED banishes simplified concepts of social responsibility that are defined only as isolated philanthropic actions or donations made by companies to legitimize their activities. Additionally, the CED proclaims that social responsibility must become a tool that helps companies to express their willingness to be part of the social and economic system in which they exist.

In the late eighties and early nineties, an international institution known as the World Commission on Environment and Development (WCED) ratified in the Brundtland Report (1987), and later at the Earth Summit in Rio de Janeiro (1992) two important elements. On the one hand, the importance of studies by academics from the early seventies on sustainable and responsible behaviour undertaken by companies and, on the other hand, the relevance of meeting the needs and aspirations of the present without compromising the resources and capabilities available in the future.

The contributions of the WCED underlies that the economic growth of companies must be underpinned by developing solutions to eliminate the main common problems that impact daily on society, like environmental contamination (pollution, non-renewable energy, lack of recycling, etc.) and social inequalities (poverty, hunger, underdevelopment within countries, etc.) in order to preserve its sustainability and responsible development. These contributions underline the need for companies to minimize their economic, social, and environmental 'triple impact' on society, in order to preserve a sustainable and balanced development within it.

In the late nineties and early twenty-first century it will be the *World Business Council for Sustainable and Development* (WBCSD) which is positioned as a global partnership dedicated to exploring sustainable development alternatives for companies, sharing knowledge, experiences and efficient practices. The power and impact of this partnership lies in its cooperation with governments, NGOs and intergovernmental organizations, running and financing the business projects of energy efficiency and corporate sustainability. According to the WBCSD (1999) CSR can be understood as a commitment of business to contribute to sustainable economic development, working with employees, their families, the local community and society at large to improve the quality of life of their groups. This definition has placed more emphasis on the need to pursue the balanced and sustainable development of enterprises, highlighting specifically facets like the defining of employees and their families as a decisive interest group as well as the community in which enterprises operate.

Other international initiatives that have helped to promote the importance of integrating social responsibility in business management are: the Principles of Global Compact promoted by the United Nations Global Compact (2000); the OECD Guidelines for Multinational Enterprises (2000); the CSR Green Book prepared by the Commission of the European Communities (2001), and the Tripartite Declaration of the International Labour Organization concerning Multinational Enterprises and Social Policy (2002). Concretely, within a European framework, the contribution of the Green Book on CSR is decisive, as prepared by the Commission of the European Communities (2001: 3), which *aims to promote corporate social responsibility at European and international level through the development of innovative practices, increased transparency and assessment tools to validate social responsibility among firms.*

In this respect the Green Book of CSR understands social responsibility as the voluntary integration by companies of social and environmental concerns in their business operations and their relationships with their partners. Additionally, according to the fundamentals of the Green Book, being 'socially responsible' does not mean only compliance with legal and statutory obligations, but also with those social duties which represent constant investment in human capital or the community in which the company participates. Therefore, this European initiative highlights the altruistic value of social responsibility actions, and its progressive support at European level.

As a consequence of the gradual increase of definitions of CSR, not only by academics but also by institutions, Van Marrewijk

(2003) emphasizes the multidisciplinary breadth and scope of CSR as well as a certain solid base of these contributions based on the support of institutional and stakeholder theories.

Therefore, Van Marrewijk (2003) understands CSR as a tailored process in which each organization should select specific sustainability goals to adapt to the changes and challenges of the environment. Similarly, McWilliams, Siegel, and Wright (2006) argue that corporate social responsibility acts as an enabler for companies involved, according to their characteristics and objectives, social and environmental actions as well as other emerging demands of society, the industry and community. The above statements highlight how the size or organizational structure of a company may affect the definition of CSR objectives.

In an attempt to extract commonalities and consensus in the literature regarding a definition of CSR, the bibliometric analysis conducted by Dahlsrud (2008) highlights that all of the definitions set up until this year have three points in common: (i) the importance given to the stakeholders; (ii) the voluntary degree of CSR actions by companies and (iii) the reference to these actions representing a set of social, economic and environmental obligations, and the association of these commitments with sustainable development. According to Dahlsrud after analyzing 37 definitions of CSR, there is no description arising out of optimum performance derivative actions on social responsibility, and how those can affect the decision making of the company. Additionally, the analysis of Dahlsrud shows that issues such as globalization, the new dynamic and competitive context in which business operates, the new actors and international laws are changing the expectations that society places on businesses and altering the way of citizens' lives. From the work of Van Marrewijk and Dahlsrud it can be extracted that the term CSR has evolved in parallel with the environment and the expectations of society in business. Taking into consideration the conclusions of the previous authors, and in line with the stakeholders and institutional approaches, this research promotes as a most suitable the definition of CSR by the European Commission (2011) which understood CSR as *the process of integration in the organizational activities of social, environmental, ethical and human concerns from their interest groups, with two objectives: (1) to maximize value creation for these parts, and (2) to identify, prevent and mitigate the adverse effects of organizational actions on the environment*. The conceptualization of the European Commission highlights the importance of stakeholders, the need to create value for them as well as to respond to environmental or institutional pressures, trying to prevent the consequences of organizational actions.

After this review of the concept CSR, we can state that there is no consensus on the definition of social responsibility. Additionally, a coherent and consistent pattern is appreciable in the conceptual proposal regarding CSR in the literature, describing a phenomenon increasingly latent in society, although there are still no tools or guidance on how to manage its effects. Indeed, there remains a distinct need for continuing to analyze the impacts of CSR on organizational performance.

Conclusions, discussion and future lines

The review and analysis of the literature reveals the importance of carrying out socially responsible behaviour as a strategy of legitimation and survival for companies, basing this process on the basis of two main approaches such as institutional theory and the stakeholder approach. So far, many studies have reported the separate importance of these theoretical approaches where the relevance of socially responsible actions are concerned. Nevertheless, these works do not conclude that these approaches can act as complementary and may provide a significant degree of explanation of why companies adopt social responsibility practices, and the value derived from these actions for the stakeholders. Using this double theoretical approach, it can be argued that response to pressures and economic, social, ethical and environmental requirements of different stakeholders of the company that make up its environment, help to increase organizational competitiveness.

However, despite the evidence and theoretical advances, there is a high heterogeneity and inconsistencies regarding the measurement of actions and results derived from an empirical point of view. In the meta-analysis made by authors such as Allouche and Laroche (2005), Moneva and Ortas (2010) and Orlitzky, Schmidt, and Rynnes (2003) a number of limitations can be extracted that represent opportunities for future contributions in the field of corporate social responsibility at theoretical and empirical terms:

(i) The lack of a single theoretical framework, which contributes to the theoretical dispersion phenomenon, is difficult to study and further research can begin prior contrasted with a support;
(ii) The use of a wide variety of population (sizes, sectors, countries), which avoid the generation of inferences in statistical terms;
(iii) Methodological shortcomings in measuring the impact of social responsibility actions on financial performance. Considering that CSR represents an intangible construct or latent variables of great complexity in its measurement, it is very difficult to find practical tools to provide an efficient support by researchers to compare the results of these actions on the profitability and performance of the company;
(iv) The need to analyze the longitudinal basis of the relationship between social responsibility activities and performance indicators. The reason is that these social actions, until they are perceived and treated as actions that create value for stakeholders, requires a ripening period, which necessitates measuring this reaction in a large temporary space, which can be about two or three years.

Regarding the limitations exposed, it is necessary to continue exploring the external and internal effects of CSR actions in tangible variables (economic and financial results), and intangible variables (innovation, intellectual capital, organizational reputation). Within these intangible effects, it will be extremely relevant to examine how corporate social responsibility can generate shared value. According to Porter and Kramer (2011), the term-shared value involves creating economic value in a way that also creates value for society by addressing its needs and challenges. Considering the approaches reviewed in the current article, the concept of shared value is implicitly related to the essence of institutional perspectives and stakeholders, trying to provide a value in response to the needs and requirements of society and stakeholders. This value must go beyond the actual economic value, trying to create social and environmental value, helping companies to set goals that can ensure sustainability and an adequate future for all its citizens.

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Article

Taxation of capital gains and Lock-in effect in the Spanish Dual Income Tax

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ABSTRACT

The aim of this paper is to study the possible change in the individual behaviour of the Spanish taxpayers about the willingness to declare capital gains, *Lock-in effect*, as a consequence of variations in the marginal rate. To do this, a two stages model is proposed to analyze which variables affect both the probability, and the amount, of capital gains declarations. The empirical analysis was performed using the Spanish annual personal income tax return sample from IEF-AEAT (Institute of Fiscal Studies and the Tax Department) for the periods 2006 and 2007, corresponding to the years before and after the reform that introduced a Dual Income Tax in Spain, with a flat tax rate for capital gains tax. The main results show that a 1% increase in the capital gains tax rate reduces the probability of declaring capital gains by around 7.51% (2006) and 8.19% (2007), and the amount of capital gains by around 3.91% (2006) and 5.79% (2007).

Introduction

The well-known *Lock-in effect* on the realization of capital gains *(Lock-in)* is caused by the rate taxation on these incomes.[1] Specifically, there is an inverse relationship between the marginal rate and the realization of capital gains, as shown in theory, taxpayers had a lower desire to realize such gains when the marginal rate payable on these gains was higher. Therefore, investors can temporarily paralyze the realization of capital gains in order to lower their tax bill, which can lead to welfare loss in three ways. Firstly, investors would not be able to carry out an adequate diversification of their investment portfolios as a result of the tax treatment given to each investment (Auerbach, 1988). Secondly, there is a decrease in potential in terms of State tax collection, as these gains are not realized and therefore do not give rise to taxation (Feldstein, Slemrod, & Yitzhaki, 1980). Thirdly, high marginal rates can cause a possible lock-in effect on the realization of future investments (Daunfeldt, Ulrika, & Niklas, 2010; Jacob, 2013; Meade, 1990).

In the last century, modern societies have shown a greater interest in financial markets, thereby increasing the percentage of individual shareholders and therefore promoting potential capital gains. This phenomenon has made the capital gains tax take on special relevance for investment, as well as for financial investment and planning decisions (Jacob, 2013).

Previous studies obtained a negative correlation between the realization of capital gains and the marginal rate applied to them, as economic theory shows, although the results have certain differences. On the one hand, they emphasize the analyzes conducted with cross-sectional data, in which the transitional effect of the behaviour of realization of capital gains is studied, whose results show a greater than one elasticity (Daunfeldt et al., 2010; Feldstein et al., 1980; Jacob, 2013; Minarik, 1981); while on the other hand, in studies based on time series data the permanent effect of taxation is estimated, achieving elasticity values between −0.1 and −0.9 (Auerbach, 1988; Ayers, Craig, & John, 2007; Burman & Randolph, 1994; Gillingham & Greenlees, 1992; Jones, 1989).

Furthermore, the personal income tax of Spanish individuals (hereinafter PIT) underwent a major reform in 2007, both in its structure and main elements. In particular, the reform by Law 35/2006 implements a dual tax rate, which represents an important quantitative change to taxation of capital gains. These have changed to a progressive tax rate if capital gains are generated in a period shorter than one year, and a proportional rate of 15%, for those gains generated in a period of time longer than one year; to a proportional rate of 18% regardless of the time taken to be generated. This change

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[1] Proof of this is the extensive literature on the subject: Ayers et al. (2007); Constantinides (1983); Dai, Edward, Douglas, & Harold (2008); Daunfeldt et al. (2010); Hendershott et al. (1991); Holt and Shelton (1962); Jacob (2013); Klein (1999); Reese (1998); Seltzer (1951).

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in taxation of such income causes a change in its effective rate, and therefore, it is expected to produce effects on the behaviour of taxpayers regarding their realization and amount. Therefore, we consider it appropriate to examine how taxpayers behave to changes in the marginal rate of capital gains caused by changing from a progressive rate and/or fixed rate to a fixed rate regardless of the time when those gains were generated, as a result of the application of the dual reform, both in its realization and quantification.

In addition, an important aspect of this study is the inclusion of micro-data of PIT for the years 2006 and 2007, prepared jointly with the State Agency for Tax Administration (AEAT) and the Institute of Fiscal Studies (IEF), which has the information in the tax return form made by the taxpayer; unlike most research done on the taxation of capital gains, which uses data at business or stock market level to study the possible lock-in effect of capital gains. The advantage of this database is that it allows us to obtain information on the capital gains declared by the taxpayer, as well as the marginal rate which would correspond to each fiscal year, in addition to relevant socio-economic information at individual level. Furthermore, the empirical estimation is performed using a two-stage model in order to avoid sample selection errors. To do so, in the first stage, the probability of obtaining capital gains depending on the marginal rate applied by each taxpayer is calculated and subsequently the factors that influence the amount of capital gains are analyzed, with special relevance on the marginal rate.

After this introduction, the main differences are described in the second section, in terms of taxation, which the implementation of the reform of 2007 on taxation of capital gains involves. Below, the model used in the empirical analysis is described. The fiscal micro-data are presented in the fourth section. The results are given in the fifth section, and finally, the work ends with the conclusions in the sixth section.

Taxation of capital gains in 2006 and 2007

As mentioned in the introduction, the taxation of capital gains suffered a wide change in setting the tax rate applying to this type of income. Therefore, under current legislation for fiscal year 2006, Law 46/2002, it can be obtained that capital gains in a period shorter than one year (short-term capital gains), were taxed in the general tax base, together with other income (income from work, economic activities and returns on capital assets), by applying the appropriate progressive rate.[2] By contrast, those gains which were generated in a period longer than one year (long-term capital gains) were taxed in the special tax base at a proportional rate of 15%.[3] Therefore, this situation generated clear incentives to maintain capital gains for longer than a period of one year, thus benefiting from the proportional tax rate, since the corresponding progressive rate would in any case always be superior.

In addition, capital losses of a given year could be compensated with the gains of the same fiscal year and even with capital losses corresponding to the four previous years.[4]

However, the entry into force of Law 35/2006 implied the introduction of major changes in the structure of the Spanish PIT. More specifically, it is moving towards the structure of dual models, establishing two distinct bases. On the one hand, the general base which includes most of the income taxed by PIT, subject to a progressive rate,[5] and on the other hand, the savings base that taxes both the income generated by investment capital and equity gains[6] at a proportional marginal rate of 18% regardless of the period in which these two returns were generated, so there is no differentiation between short and long term equity gains. This type of dual model differs from the pure dual structure defined by Sørensen (1994, 1998), which does not specifically tax all capital income (assets, non-financial investment capital and equity gains from non-transfer assets) at a proportional rate, as well as not aligning the proportional marginal tax rates and the minimum of the progressive rate and regarding income from economic activities, it does not differentiate the part of the income from the working source and the income from capital. However, with this reform, the previous incentive to maintain capital gains over a period exceeding one year disappears and is also detrimental to capital gains realized over a period of time longer than one year, taxing them 3 percentage points higher (15–18%). Reduction or amortization coefficients applicable to the resulting capitals are also removed, which is a relevant issue, as depending on the year in which the asset was acquired, it could get a reduction of up to 100% of the resulting gain.

Therefore, from the entry into force of the new law, capital gains obtained once this regulation was implemented, cannot benefit from these reduction coefficients. However, these reduction or amortization coefficients can be applied to the portion of the capital gains that were generated from the purchase date until January 19, 2006,[7] not being applicable to the rest of the period.

Finally, an important issue which led to this reform was the announcement with time in advance to reorganize and plan the taxpayer's assets and equity elements prior to the reform and increase in tax rates in many cases. Specifically, the Law was published on November 29, 2006, with prior announcement. Therefore, this effect produces a possible reorganization and transformation among different sources of income as stated by some authors (López-Laborda, Vallés, & Zárate, 2014).

Empirical model

Each fiscal year, taxpayers can choose to realize or not capital gains, and therefore are taxed or not for realizing them. This choice is an issue of censorship in the empirical estimation, so the probability of realizing gains has to be estimated for any taxpayer in the first stage and then the factors and to what extent they affect the amount of gains realized have to be determined, if performing the realization effectively occurs. The so-called two-stage models can incorporate these two sequences. The implementation of the two stage model proposed by Heckman (1979) enables to solve two problems in the estimation. On the one hand, data censorship and on the other hand the data sample selection caused by restricting the sample in the second stage only to those taxpayers who declare a capital gain. The proposed model by Heckman consists of estimating a "probit" model in the first step, to obtain the probability of

[2] The progressive rate corresponding to fiscal year 2006 is made up of five brackets, with a marginal rate which goes from 15% to 45% (15–24–28–37–45%).

[3] Capital gains generated in a period shorter than one year could offset each other in 2006. They can also compensate with the rest of income that make up the General Tax Base with a limit of 10% of the positive balance of other income. Therefore, short and long term gains and losses could not be compensated with each other in 2006. In 2007, capital gains and losses not arising from the transfer of assets can offset up to a limit of 25% of the sum of returns of the General Tax Base. In 2007, capital gains and losses could be offset regardless of the time in which they were generated.

[4] Capital gains generated by the transfer of the main residence, on the condition that the amount obtained would be invested in another main residence, were exempt both in 2006 and 2007.

[5] The progressive rate for 2007 is composed of four brackets, 24–28–37–43%, although one of the most significant aspects of the reform is the change introduced in the personal minimum and family minimum, which changes from being a reduction in the tax base to a deduction in the gross tax payable.

[6] There are some equity gains which are included in the general base, which among others are prizes obtained from games or raffles; subsidies or aid granted to the main residence or public subsidies for owners of Spanish Historic Heritage.

[7] Fulfilling certain requirements under the ninth transitional provision of Law 35/2006 of PIT.

realization of capital gains, and from the results of this estimation, in the second stage capital gains effectively realized are regressed depending on some determinants.

Following the proposal of Jacob (2013) the estimation of the *probit* model would be as follows in Eq. (1):

$$Share_i = \beta_0 + \beta_1 X_i' + \varepsilon_i \tag{1}$$

where $Share_i$ represents the probability of realizing capital gains at some point in time for each taxpayer "i" and X_i' is a vector of independent variables which affect this probability.

From the results obtained in the previous step, a regression model is estimated using Ordinary Least Squares[8] in order to obtain the elasticities on the realization of capital gains, introducing the *Inverse of Mills* ratio to isolate the sample selection problem of the previous regression.

$$Gains_i = \alpha + \alpha_1 \prime Z_i' + \alpha_2 InvMills_i + \varepsilon_i \tag{2}$$

if $Share_i = 1$where the dependent variable $Gains_i$ represents the monetary value of the capital gains realized for any taxpayer "i"; Z_i' includes a set of variables that affect the amount of realization of capital gains. Finally, *InvMills* includes information of the 1st stage, avoiding bias in the selection.

Databases

To carry out the empirical study we used Annual Samples of PIT for the years 2006 and 2007, the years before and after the reform in Spain. The processing of the annual samples is the result of the collaboration between the Tax Agency and the Spanish Institute for Fiscal Studies. The unit of analysis is personal income tax returns, with a geographical area covering the entire territory of the Spanish common system of taxation. In total, the database contains 964,489 (1,351,802[9]) with 352 observations (358) variables, for 2006 (2007), representing a total of 17,840,783 (18,702,875) tax returns, where in each case the contents of the variables are the values corresponding to the boxes of the tax returns submitted each year shown on model 100.

The variables[10] that were incorporated into the analysis are detailed below. In the first place, a dummy variable *Share* was defined as an approximation of those taxpayers with private participation in some assets and consequently, with some probability of realizing capital gains at some point in time. Following the proposal by Jacob (2013), this variable takes value 1 if the following conditions are met: that the taxpayer's tax return shows income from capital[11]; if the taxpayer obtains returns on capital assets,[12] thus including the possibility of selling property assets; and finally, if the taxpayer makes capital gains in the short or long term. In all other cases this variable is zero.

The construction of the marginal rate variable *(Tmg)* shows certain methodological problems, as capital gains are taxed in two differentiated bases in both fiscal years. Therefore, we proceeded to calculate a marginal rate weighted depending on the percentage of capital gains that are taxed at one rate or another. In short, we adapted the proposal shown in Onrubia and Sanz (2009) with the following modifications:

$$Tmg_i^{POND} = \frac{GAN^{GEN}}{GAN} Tmg_i^{GEN} + \frac{GAN^{ESP/AHO}}{GAN} Tmg_i^{ESP/AHO} \tag{3}$$

where GAN_i represents the total capital gains declared by a taxpayer for a particular year, while GAN^{GEN} and $GAN^{ESP/AHO}$ are capital gains taxed in the general base and special savings base for 2006 and 2007, respectively. Finally Tmg^{GEN} and $Tmg^{ESP/AHO}$ include the marginal rates of the general base, the special and savings base.

Additionally, a set of control variables was used. In particular, the following:

- *High income:* dummy variable that takes the value one if the taxpayer exceeds 100,000 euros of income and zero value in other cases.
- *Low income*: dummy variable that takes the value one if the taxpayer does not reach 10,000 euros of income, being value zero otherwise.
- *Wage Activity:* dummy variable that takes the value one if the taxpayer receives income from economic activities higher than those generated by income from personal work and will take the value zero in any other circumstances.
- *Children:* dummy variable that is equal to the unit if the taxpayer has at least one child, while it will be zero in the absence of children.
- *Joint:* it is a dummy variable that contains information about the type of income tax return, so that it takes the value one for joint taxation and zero for individual taxation.
- *Rent:* dummy variable whose value is equal to one if the taxpayer actually receives income from real estate and will be zero otherwise.
- *Sex:* variable dummy with a value of one in the case of the taxpayer being male and it will take the value of zero if it is a female.
- *Age*: it is a discrete variable which gives the age of the taxpayer.
- *Decile:* it is a discreet variable which takes values between 1 and 10 and represents the decile to which the taxpayer belongs to depending on his/her taxable income.
- *Activity*: dummy variable, which take the value one if the taxpayer obtains income from economic activities and zero otherwise.
- *Capital*: dummy variable, which is built as proxy of the taxpayer's wealth, so that it will take the value one if the taxpayer has capital income higher than 100,000 euros or zero otherwise.
- *Net capital gains:* continuous variable, which shows the value of taxpayers capital gains[13].

Tables A.1 and A.2 below show the main statistical descriptions and correlations between variables.

The proposed model for empirical estimation is as follows:

$$\begin{aligned} Share_i = \beta_0 &+ \beta_1 Tmg_i + \beta_2 Decile_i + \beta_3 High\ Income_i \\ &+ \beta_4 Act\ wage_i + \beta_5 Sex_i + \beta_6 Age_i + \beta_7 Children_i \\ &+ \beta_8 Activity_i + \beta_9 Capital_i + \beta_{10} Low\ Income_i \\ &+ \beta_{11} Joint_i + \varepsilon_i \end{aligned} \tag{4}$$

[8] Other specifications were estimated, in particular a Multinomial Logit to analyze the realization of net capital gains compared to not realizing them or to obtaining net capital losses; but due to the characteristics of the database used, its estimation is not possible, since the number of taxpayers with capital losses is insufficient compared to those who obtain net capital gains.

[9] The sample size is calculated for both years considering an error in the means of the *Income* variable of less than 1.1%, with a confidence level of 3 per thousand. For more information see Picos, Pérez, and González (2009, 2011).

[10] Table I from the Annex shows the correlations for 2006 and 2007.

[11] In 2007, there is an exemption for the first 1500 euros in dividends, in order to compensate for double taxation of dividends, which are not listed on the return form. The investment income includes a series of income such as: interests, dividends, other assets and insurance contracts. Following Jacob (2013), interests are included, so as not to exclude potential holders of financial assets that could generate a possible capital gain, because those taxpayers with income from capital have some probability to own shares, as households tend to distribute their assets among risk-free ones.

[12] It refers to returns from rents, as well as allocations of incomes and losses specified in the PIT.

[13] This variable shows a series of limitations due to the database limitations of the database used. In particular, it was necessary to include net equity gains, that is, once the losses were compensated. This limitation is due to no having separate information regarding equity gains and losses for 2007. However, due to the fact that you are taxed for this concept, it was thought convenient to opt for this definition.

$$\begin{aligned} Gains_i = {} & \alpha_0 + \alpha_1 Tmg_i + \alpha_2 High\,Income_i + \alpha_3 Low\,Income_i \\ & + \alpha_4 Act\,wage_i + \alpha_5 Age_i + \alpha_6 Children_i + \alpha_7 Sex_i \\ & + \alpha_8 Rent_i + \alpha_9 Gross\,Income_i + \alpha_{10} Joint_i \\ & + \alpha_{11} InvMills_i + \varepsilon_i \end{aligned} \tag{5}$$

if $Share_i = 1$

The weighted marginal rate is included to analyze the impact of the realization of capital gains in qualitative and quantitative terms. Beforehand, it is expected that the coefficient relative to this variable is negative, i.e., that it negatively influences the decision of realization of capital gains at a given moment (Burman & Randolph, 1994). However, the realization of capital gains in turn depends on income (Auerbach, Burman, & Siegel, 2000; Poterba, 1987) and financial experience (Calvert, Campbell, & Sodini, 2009a, 2009b; Dhar & Ning, 2006), since those investors with a high degree of financial knowledge and with a high income tend to have a lower response to novices in finance (Jacob, 2013). On the other hand, financial knowledge may be related to individuals who do not have income from economic activities and with a low gross income. The absence of proxy indicators that allow us to calculate the financial expertise of the taxpayer, i.e., the individual‘s educational level, degree of work occupation or knowledge about investments, has led us to the use of *Gross Income* and the variable *Capital* as an approximation thereof, since some correlation between the two variables is observed in the financial literature (Dhar & Ning, 2006).

High income and low income are analyzed as control variables to determine the influence of the taxpayer‘s income level. In addition, *Wage Activity* is included in order to understand the significance of the difference in obtaining the source of income by the taxpayer.

Furthermore, the variables *Joint* and *Children* are included to analyze the effect that the family and household size have (Calvert et al., 2009a, 2009b); while *Age* represents the life cycle hypothesis, according to which adult individuals should be more likely to realize capital gains and of a greater amount than young people (Daunfeldt et al., 2010). Finally, the *Sex* variable is introduced as an explanatory factor of possible differences in behaviour of the realization of capital gains between men and women.

Eq. (4) contains control variables that affect the probability of being a potential taxpayer with capital gains (Campbell, 2006; Jacob, 2013; Van Rooij, Lusardi, & Alessie, 2011). Specifically, the *Decile* variable is included to control the probability that effectively a capital gain will be realized in terms of income and wealth, so that those individuals who are in a high decile of income distribution show a higher probability to maintain their assets than those who are in lower deciles of income distribution (Campbell, 2006). Moreover, economic activities *(Activity)* has been taken into account as a proxy of having businesses and/or companies.

On the other hand, the variable $Rent_i$ reflects the fact that the taxpayer "*i*" obtains returns on capital assets, and therefore beforehand, we expect there is a greater chance to keep the assets in the portfolio and not realize capital gains or realize them at a lower amount. The literature shows how most investment portfolios of households are made up of capital assets and bank assets (Campbell, 2006). Although it is worth noting that in the particular case of the configuration of Spanish household portfolios, the participation of capital assets as the main investment source stands out significantly (Domínguez-Barrero & López-Laborda, 2012).

Results

This section presents the main results. The following Table A.3 shows the estimated probability of realization of capital gains for both 2006 and 2007 periods, following the proposal of Eq. (3). Each column represents the estimated coefficients based on the probit model for each fiscal year, thus reflecting the determinants on the decision to realize any capital gain by the taxpayer. Among the main factors that have a positive influence on the decision for both years are: the *Decile* variable, obtaining income (*high income* and *low income*), *Age*, number of *Children*, the importance of the business activity *(Activity)* and the percentage of income from economic activities in relation to wage income *(Wage Activity)*. By contrast, among the variables that influence negatively are *Sex*, obtaining gains from *Capital* and submitting a *Joint* income tax return.

The elasticities obtained from the estimation of the *probit* selection model are presented in Table A.4. The highest value corresponds to the taxpayer's *marginal rate* variable in relation to realizing capital gains or not, being slightly higher in 2007 (−8.19%) compared to 2006 (−7.51%), therefore, taxpayers had a higher sensitivity to the realization of capital gains in 2007. This phenomenon, which goes against the initial approach of the theory, shows that the lower the tax rate, the lower the sensitivity or elasticity, and can be explained by the increase in the proportional marginal rate these capital gains had in 2006 (15%) to 2007 (18%); and the announcement of the reform well in advance so that taxpayers could carry out adequate tax planning, as well as changes made in the reductive or amortization coefficients. Next, the *Decile* Variable is highlighted, which shows that how belonging to a higher decile leads to a greater realization of capital gains, although there are no major differences between the two years. The remaining variables have relatively low elasticities, the most important being the *Age* variable, which showed a distinct influence between the two years, this difference may suggest that the impact of the Life Cycle Theory on consumption and savings has greater impact in the year 2007. That is, the higher the age, the higher the probability of realizing capital gains with a fixed tax rate on capital gains, which is characteristic of a model of dual taxation on income, compared with varying rates.

Below, in Table A.5 the results of the OLS estimation are shown for both years, 2006 and 2007. Since the main objective of this paper is to analyze how the tax rate affects capital gains, we will start presenting the estimated results for the marginal rate. The coefficient associated with the weighted marginal rate is negative, therefore, it is indicating that of the individuals who have decided to realize capital gains, the amount realized is lower when the taxation of capital gains is higher, being this phenomenon more pronounced in 2007 than in 2006. This result is consistent with previous literature both in the USA (Auerbach & Siegel, 2000; Auten & Clotfelter, 1982; Bogart & Gentry, 1995; Burman & Randolph, 1994) as in more recent studies in Europe, highlighting the case of Sweden (Daunfeldt et al., 2010) and Germany (Jacob, 2013).

The elasticity of the weighted marginal rate is −3.91% (−5.79%) for 2006 (2007). This implies that a 1% increase in the taxation of capital gains reduces the amount of realization of capital gains by 3.91% (5.79%) respectively. Clearly, we can see how there is a difference between the two years, mainly due to taxation of capital gains in both tax systems, which causes increased sensitivity in the amount of realization of capital gains in 2007 compared to 2006. This result seems to indicate that the tax rate and fiscal changes resulting from the reform explain to a large extent the variations in the amount of capital gains carried out by the taxpayer. The estimates of the marginal rate elasticity with respect to capital gains have higher values compared to the transitional elasticities obtained by Auten and Clotfelter (1982), Burman and Randolph (1994), Auerbach and Siegel (2000) and Ayers et al. (2007) for USA. Similarly, the results are also higher than those reported in the range of elasticities of time series studies (Auten & Cordes, 1991; Bogart & Gentry, 1995) and cross-sectional studies using tax data (Daunfeldt et al., 2010). However, they lie within the intervals provided by Jacob (2013) in which an approximation is carried out and with data similar to that followed in this work.

With regard to non-tax variables, we find that income has a positive and significant effect on the realization of larger amounts of capital gains, that is, with increasing income the taxpayer tends to realize a higher capital gain, being this effect higher in 2007, resulting elasticity of capital gains with respect to taxable income the most important factor, after the marginal rate. However, those taxpayers who have low incomes made smaller amounts of capital gains, although in 2007 the effect was the opposite. On the other hand, those taxpayers who obtain a very high income (more than 100,000 euros) show a negative effect on capital gains, and this effect was again higher in 2007. The possibility of getting rents influences both periods negatively and getting higher income from business activities than work income implies a negative (positive) elasticity in 2006 (2007). In sum, the results obtained are the expected ones, based on the literature (Auten & Clotfelter, 1982; Burman & Randolph, 1994; Daunfeldt et al., 2010).

Household characteristics that present positive elasticities with respect to the amount of capital gains realized are *Age* and *Joint* for the 2006 financial period. On the contrary, in the 2007 period the variables *Sex*[14], *Children* – are lower in relation to other studies (Jacob, 2013) – and *Joint* have negative elasticities, which are all less than 1%. A comparative analysis of the results obtained in previous studies shed some disparity between those made in the USA (Auten & Clotfelter, 1982; Burman & Randolph, 1994) and European ones, the latter being closer to the results of this work (Daunfeldt et al., 2010).[15]

Finally, the inverse of the Ratio of Mills has a positive and statistically significant coefficient different from zero, which implies that the empirical model does not have sample selection problems and consequently, the parameter estimates do not produce a bias for both 2006 and 2007.

Conclusions

The effect of the tax rate on the realization of capital gains has generated great interest in the United States (see among others: Auerbach & Siegel, 2000; Auten & Clotfelter, 1982; Bogart & Gentry, 1995; Burman & Randolph, 1994) and more recently in Europe, in the case of Sweden (Daunfeldt et al., 2010) and in the case of Germany (Jacob, 2013).

The main objective of this paper is to analyze the *lock-in* effect that the tax rate could cause on the probability of realization or not of capital gains and its amount if it occurs, declared in income tax return, after the reform carried out on this tax in 2007, at which time a model of dual income tax was first introduced in Spain. This tax design structure taxes independently almost all capital gains at a fixed rate of 18%, unlike the previous model that taxed differentiating the period of time in which they were generated, more than one year at a fixed rate of 15%, less than one year at a progressive rate (15–45%). The database used in the work corresponds to the annual samples of taxpayers' PIT, which collects taxpayers' tax for the pre and post reform years 2006 and 2007. The existence and the possible use of tax data enables to obtain very reliable results, collecting the set of total respondents and the possibility to analyze how this tax will affect their behaviour both on the realization or not of capital gains and the amount.

The results of the work suggest that a high taxation level of capital gains is associated with a lower amount in the realization of capital gains, once individuals have decided to realize them, as stated by the theory. Specifically, the elasticities obtained after the reform show how the effect of taxation on capital gains increased compared with the previous year, in which the marginal rate influenced more prominently in the amount of realized capital gains. In addition to the changes that have taken place on marginal rates, changes in reductive and amortization coefficients are considered relevant changes as a possible explanation for the results. The results also confirm previous studies in both the United States and Europe and suggest that high taxes on capital gains generated a greater Lock-in effect on capital gains, both in their realization and amount.

As for non-tax variables, the positive influence of *taxable income* and *age* is highlighted, as well as obtaining *rents* and income from *economic activities*. On the contrary, being *female* and the *number of children* has a negative influence. These results are those expected with respect to the theory. However, they have certain differences with those obtained in USA, although they are closer to studies at European level.

Finally, we mention the limitations of this study, mainly related to the database used because in the first place, it provides information about the gains and losses on a net basis, this is once capital gains and losses are compensated with each other. Secondly, there is no information about the wealth or asset portfolio composition of the taxpayer. Thirdly, it is not possible to differentiate long-term gains from short-term gains for fiscal year 2007. Finally, when working with fiscal data, it is also not possible to control tax evasion, which could condition the results obtained.

Appendix A.

Tables A.1–A.6

[14] In the case of the *Sex* variable, the result differs from that obtained in another work which analyzes the influence of this variable (Daunfeldt et al., 2010).

[15] The main difference between both studies with respect to age can be explained by the different tax designs imposed by differentiated legislative treatment between USA, Sweden and Spain.

Table A.1
Descriptive statistics.

Variable	2006				2007			
	Media	Standard deviation	Min	Max	Media	Standard deviation	Min	Max
Share	0.8853048	0.318654	0	1	0.2175009	0.4125462	0	1
Tmg	0.2333914	0.1283445	0.15	0.45	0.1861856	0.0247287	0.18	0.43
Low Income	0.2128799	0.4093436	0	1	0.1987767	0.3990797	0	1
High Income	0.0143083	0.1187586	0	1	0.0137817	0.1165837	0	1
Act wage	0.0997206	0.2996273	0	1	0.1060096	0.3078501	0	1
Children	0.3836231	0.4862681	0	1	0.3787379	0.4850729	0	1
Joint	0.2692982	0.4435954	0	1	0.2520162	0.4341707	0	1
Rent	0.2630238	0.4402755	0	1	0.0801759	0.2715654	0	1
Sex	0.6058895	0.488659	0	1	0.5957742	0.4907418	0	1
Age	46.3514	16.22243	0	99	46.47461	16.24064	0	99
Gross Income	23,870.61	93,290.49	0	5,810,000,000	24,126.89	13,100,000	0	158,000,000
Decile	5.499944	2.87225	1	10	5.49983	2.872281	1	10
Act dummy	0.1744088	0.3794609	0	1	0.1680544	0.3739147	0	1
Capital	0.0149769	0.1214604	0	1	0.2913846	0.454404	0	1
Gains[a]	2394.73	84,456.86	0	55,300,000	1724.655	124,000	0	158,000,000

Source: Own compilation from data of Spanish Personal Income Tax Return 2006 and 2007.

[a] The values for those taxpayers who earn greater than 0 winnings are: an average of 13,877.43 euros, with a total of 3,078,629 taxpayers for 2006 and 10,639.35 euros, with a total of 3,038,126 taxpayers for 2007

Table A.2
Correlations of variables 2006 and 2007.

	Share	Tmg	Low Income	High Income	Act Wage	Children	Joint	Rent	Sex	Age	Gross Income	Decile	Act_dum	Capital	Gains
Share		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tmg	0.00		−0.03	−0.04	0.01	0.01	0.00	−0.06	0.04	−0.18	−0.01	−0.01	0.01	−0.09	−0.01
Low Income	0.00	0.00		−0.09	0.04	−0.11	−0.07	−0.08	−0.15	0.06	−0.04	−0.68	0.02	−0.07	−0.01
High Income	0.00	−0.09	−0.09		0.05	0.03	0.00	0.12	0.06	0.05	0.16	0.26	0.06	0.08	0.09
Act wage	0.00	0.02	0.02	0.05		0.07	0.07	0.04	0.06	−0.06	0.01	−0.05	0.07	−0.07	0.00
Children	0.00	0.04	−0.12	0.03	0.08		0.13	−0.04	0.02	−0.33	0.01	0.14	0.07	−0.01	0.00
Joint	0.00	−0.02	−0.07	−0.01	0.07	0.15		−0.06	0.29	0.12	0.00	0.05	0.13	0.02	0.00
Rent	0.00	−0.15	−0.08	0.12	0.05	−0.03	0.06		−0.05	0.19	0.02	0.16	0.04	0.02	0.01
Sex	0.00	0.02	−0.15	−0.01	0.06	0.01	0.30	0.03		0.00	0.02	0.18	0.12	−0.04	0.00
Age	0.00	−0.25	0.07	0.05	−0.05	−0.32	0.14	0.32	0.02		0.01	−0.01	−0.01	0.04	0.01
Gross Income	0.00	−0.04	−0.06	0.27	0.02	0.02	0.00	0.52	0.02	0.02		0.09	0.01	0.02	0.98
Decile	0.00	−0.09	−0.69	0.27	−0.02	0.15	0.05	0.18	0.18	−0.01	0.14		−0.01	0.13	0.03
Act_dum	0.00	0.00	0.18	0.06	0.63	0.07	0.14	0.07	0.11	0.00	0.02	0.01		−0.09	0.00
Capital	0.00	−0.01	0.02	−0.01	0.02	0.02	0.02	0.00	0.00	0.00	−0.01	−0.03	0.06		0.01
Gains	0.00	−0.04	0.00	0.19	0.01	0.00	0.00	0.03	0.00	0.01	0.96	0.07	0.02	0.00	

Source: Own compilation from data of Spanish Personal Income Tax Return 2006 and 2007.
Note: The variables corresponding to the 2006 correlations are below the diagonal and 2007 above.

Table A.3
Results probit.

	2006	2007
Tmg	−17.3118[a] 0.1129	−21.161[a] (0.1563)
Decile	0.4012[a] (0.0032)	0.3909[a] (0.0024)
High Income	1.7367[a] (0.0273)	2.2840[a] (0.0322)
ACT wage	0.0439[a] (0.0177)	0.1619[a] (0.0165)
Sex	−0.0902[a] (0.0117)	−0.1519[a] (0.0098)
Age	0.0073[a] (0.0003)	0.0191[a] (0.0003)
Children	0.0207[a] (0.0124)	0.0305[a] (0.0101)
Activity	0.0647[a] (0.0146)	0.1374[a] (0.0147)
Capital	−0.1509[a] (0.0189)	−0.6555[a] (0.0135)
Low Income	0.52037[a] (0.0163)	0.8305[a] (0.0105)
Joint	−0.1664[a] (0.0110)	−0.2574[a] (0.0095)
Constant	0.7821[a] (0.0344)	14.203[a] (0.0413)

Source: Own compilation from data of Spanish Personal Income Tax Return 2006 and 2007.

[a] Significant with a confidence level of 99%. The values given in parentheses are robust standard errors.

Table A.4
Elasticities of probit.

	2006	2007
Tmg	−7.5137 (0.0635)	−8.1986 (0.0735)
Decile	3.6472 (0.0288)	3.2101 (0.0197)
High Income	0.0411 (0.0007)	0.0449 (0.0007)
ACT wage	0.0072 (0.0029)	0.0256 (0.0026)
Sex	−0.0903 (0.0117)	−0.1351 (0.0088)
Age	0.5643 (0.0249)	1.3267 (0.0201)
Children	0.0131 (0.0078)	0.0173 (0.0057)
Activity	0.0186 (0.0042)	0.0344 (0.0036)
Capital	−0.0037 (0.0005)	−0.0285 (0.0059)
Low Income	0.1831 (0.0056)	0.2464 (0.0031)
Joint	−0.0741 (0.0048)	−0.0968 (0.0035)

Source: Own compilation from data of Spanish Personal Income Tax Return 2006 and 2007.

Table A.5
Results OLS.

	2006	2007
Tmg	−2.71e+07[a] (387,718.2)	−3.30e+07[a] (953,884)
Low Income	−276,687.4[a] (24,492.29)	382,532.7[a] (17,383.84)
High Income	−6,400,961[a] (225,799.5)	−9,217,887[a] (466,569.2)
ACT wage	−192,270.5[a] (34,373.5)	10,135.85[a] (33,109.65)
Children	−316,096.8[a] (20,336.18)	−330,296.3[a] (25,508.35)
Joint	122,828.8[a] (18,139.7)	−67,267.76[a] (23,392.52)
Rent	−241,207.4[a] (19,350.4)	−267,629.7[a] (3,307,694)
Sex	−526,317[a] (19,598.66)	−595,022.4[a] (20,289.17)
Age	2,306.826[a] (550.4034)	18,173.99[a] (915.89)
Gross Income	0.9295648[a] (0.0108063)	0.9542498[a] (0.02241)
Mills	2,169,212[a] (33,211.98)	2,565,300[a] (77,059.03)
Constant	1,822,187[a] (55,616.93)	2,277,170[a] (79,544.21)
R-squared	0.939	0.9577

Source: Own compilation from data of Spanish Personal Income Tax Return 2006 and 2007.

[a] Significant with a confidence level of 99%. The values given in parentheses are robust standard errors.

Table A.6
Elasticities (OLS).

	2006	2007
Tmg	−3.919646 (0.06477)	−5.796014 (0.16014)
Low Income	−0.028336 (0.00257)	0.0475635 (0.00216)
High Income	−0.254532 (0.00884)	−0.4247158 (0.02126)
ACT Wage	−0.01578 (0.00284)	0.0010699 (0.00349)
Children	−0.084288 (0.00546)	−0.1073914 (0.00857)
Joint	0.023209 (0.00347)	−0.0146713 (0.00505)
Rent	−0.075663 (0.00605)	−0.0391116 (0.00478)
Sex	−0.233275 (0.00871)	−0.3228303 (0.01169)
Age	0.088087 (0.02103)	0.8859635 (0.0427)
Gross Income	2.867809 (0.03156)	3.55983 (0.07864)
Mills	1.27105 (0.02197)	1.064873 (0.03066)

Source: Own compilation from data of Spanish Personal Income Tax Return 2006 and 2007.

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Article

Knowledge acquisition for SMEs first entering developing economies: Evidence from Senegal

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ABSTRACT

As developing economies have weak institutional environments, and these are highly distant from SMEs' home conditions in developed economies, those firms entering into developing economies should acquire new knowledge resources for a successful entry. In this paper, we analyze the type of knowledge required by SMEs to enter a foreign market, the alternative sources for acquiring that knowledge, and the specific challenges associated with the case of SMEs from developed economies in their first entry in developing economies. In our empirical work, we examined the specific case of Spanish SMEs entering Senegal as a first incursion in developing economies. This work shows evidence of usefulness to contribute to literature. Specifically, we found that the key knowledge is that which is specific to the target market, rather than the general knowledge about internationalization. In addition, we provide a matrix that summarizes the most appropriate sources to acquire each type of knowledge in the light of the main challenges identified: myopic managerial thinking, inflexible managers, absence of a culture of cooperation, and relevant knowledge embedded in local networks of the host market.

Introduction

Research on internationalization to developing markets is not new, but the focus has been made on multinationals (MNCs) (e.g., Demirbag, Glister, & Tatoglu, 2007; Meyer, Estrin, Bhaumik, & Peng, 2009). Few research works have been published that explicitly address the case of small and medium-sized enterprises (SMEs) from developed economies entering developing markets (Hilmersson & Jansson, 2012; Jansson & Sandberg, 2008). However, research conclusions from MNCs may not be always valid for SMEs because of their specific characteristics. In particular, SMEs are firms with 250 and fewer employees, which are independent, not integrated in a corporate group or being a spin-off firm from a large MNC, so not having parental resources and decision-making support (Spence & Crick, 2006). Thus, one can easily consider that there is not much room for those SMEs to play an important role in serving those growing but almost unknown developing markets, mainly acknowledging that SMEs typically have far fewer resources (Knight & Kim, 2009) and are likely less experienced in foreign markets than MNCs. However, the emergent interest in these markets among SMEs is a fact. This is encouraged by the standstill of many developed economies, and by a growing number of developing countries with good economic perspectives and a better business climate (World Bank, 2014).

As developing markets are institutionally weaker and different from developed ones (Choi, Kim, & Kim, 2010), firms from more advanced economies internationalizing toward developing markets would be an extreme case of the classic liability of foreignness when entering foreign markets (Petersen, Pedersen, & Lyles, 2008). According to Petersen et al. (2008), a critical component of this liability is the gap between the knowledge the firm possesses and the knowledge the firm needs to accomplish the foreign venture, being this gap greater in cases of distant institutional host markets. As SMEs tend to possess far fewer resources than MNCs, they would face higher challenges to acquire the knowledge needed for a successful entry in developing economies.

Focused on this topic, on the one hand, some research works have already advanced our understanding about the type of

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knowledge firms need in their internationalization process in order to be successful (e.g., Eriksson, Johanson, Majkgard, & Sharma, 1997; Cuervo-Cazurra, 2011; Johanson & Vahlne, 2009): general knowledge about internationalization – market-nonspecific knowledge, and that about business, institutions, and opportunity recognition in the host country – market-specific knowledge. Furthermore, Hilmersson and Jansson (2012) found that, in the emerging market entry process, the kind of experiential knowledge that has a significant uncertainty-reducing effect is that related to the host country, and not the one about international operation which is a market nonspecific international knowledge. Besides, they found that the greater the degree of specificity of the experiential knowledge, the greater is its uncertainty-reducing effect.

On the other hand, some scholars have focused their research efforts on the alternative sources of knowledge to the traditional learning by doing approach or experiential learning. For example, Fernhaber, McDougall-Covin, and Shepherd (2009) found that international knowledge may be sourced externally, including from alliance partners, venture capital firms, and firms in close proximity (i.e., spillovers); and Bruneel, Yli-Renko, and Clarysse (2010) found as alternative sources the management team's pre-start-up international experience (i.e., congenital learning), and interorganizational learning from key exchange partners (customers, suppliers, investors, etc.). Both research works confirmed substitutive interrelationships among different learning mechanisms, as they found that firms with limited internationally experienced managers benefited most from alternative international knowledge sources. However, an understanding of the specific key knowledge SMEs from developed economies need to entry into developing economies and particularly how each type of knowledge could be appropriately acquired in such an institutionally peculiar settings is necessary. Thus, this research aims to analyze the type of knowledge SMEs need to succeed in their first entry in developing economies, and the most appropriate source for acquiring each type of knowledge due to the specific challenges they face.

Thus, the present work can significantly contribute to the literature. First, no article has been published that attempt to assess systematically type of knowledge required for internationalization and sources for acquiring that knowledge. We discuss the relevance of each type of knowledge in internationalizing toward developing economies and whether each source of knowledge is convenient or may play a key role in bridging each type of knowledge gap in this specific context for the particular case of SMEs. Second, this paper builds on the premise that the appropriateness of the alternative sources to acquire each type of knowledge will depend on the specific challenges encountered in a given developing economy by SMEs, which possess less nurtured resources than large firms to deal with them. Specifically, we examine challenges previously identified in the literature and stemming from the peculiarities of the emerging countries, as well as others that emerge from the developed countries and from the interaction between the pairs of countries involved. Later on, we identify the appropriate sources of knowledge to acquire each type of knowledge.

The remainder of this paper is organized as follows. We theoretically identify the different types of knowledge required in the internationalization process of firms and the sources for their acquisition. Then, we focus on the specific challenges that the acquisition of each type of knowledge entails when internationalizing to developing economies. Next, we describe and justify the methodological aspects of our empirical approach, a qualitative method based on a specific case study: Spanish SMEs entering Senegal as their first incursion in developing economies. Among other conditions, this case is especially suitable for our research as institutional and linguistic distance between these two countries assure the potential challenges in the process of knowledge acquisition. The discussion section is focused on contributing to the development of SME's internationalization theory by illustrating and emphasizing the key elements – i.e., knowledge requirements, challenges, and sources – and potential relationships in our particular context (Doz, 2011): developed economy SMEs' first entering developing economies. Finally, we conclude highlighting the main results, implications, and limitations of our study, pointing future research directions.

Theoretical background

Knowledge requirements in foreign market entries

According to the understanding-based theory of the SMEs internationalization (Lamb, Sandberg, & Liesch, 2011), the basic understanding of the external expansion (state 1 out of four) by an owner-manager corresponds to considering internationalization as confronting opportunities, this is overcoming the unfamiliarity and uncertainties associated with prospective international markets. Owners-managers at stages 2, 3, and 4 are focused on price competitiveness of products, products distinctiveness, and products philosophy, respectively. This implies that owners in stage 1 start internationalization by seeking knowledge and being well-informed about the nuances within different international markets. In fact, from the international business literature, knowledge is considered a critical determinant of international expansion of SMEs (Fletcher & Harris, 2012). Eriksson et al. (1997) highlighted that firms, irrespective of their size, need to develop three types of knowledge to internationalize successfully: (1) internationalization knowledge, about how to manage the increase in complexity and diversity associated with the overall foreign expansion; (2) foreign business knowledge, about clients, markets, and competitors abroad; and (3) foreign institutional knowledge, about government institutional frameworks, rules, norms, and values prevalent in foreign countries. Also, Johanson and Vahlne (2009) have highlighted that "recognition of opportunities" is a subset of knowledge that denotes the most important element of the body of knowledge that drives the internationalization process. Thus, we will study this type of knowledge separately.

All this knowledge needed for a successful internationalization, can be classified according to two relevant knowledge characteristics: tacitness and specificity. On the one hand, based on tacitness, Johanson and Vahlne (1977) have distinguished two categories: (1) objective knowledge, the one that can be taught – i.e., how to obtain FOB or CIF prices; and (2) experiential knowledge, the one that can be acquired mainly through learning by doing – i.e., how to manage the complexity and diversity of international business. Objective knowledge is basically explicit and can be acquired quickly and ease because it is available in datasets (i.e., market statistics, information about competition laws, product approval requirements, and technical standards of the foreign market). Experiential knowledge is highly tacit and is considered to be critical in firms' internationalization processes. On the other hand, based on specificity, it is pertinent to differentiate between: (1) context-free knowledge that can be applicable to any foreign market; and (2) context-bounded knowledge, that is, market-specific knowledge. The specific characteristics of the four types of knowledge according to these two classifications are described below.

Internationalization knowledge

It relates to firm-specific general knowledge about how to manage the internationalization process, as well as to the firm's capability and resources to engage in international operations. According to Eriksson et al. (1997), a firm's experience of organizing internationalization, means knowing what knowledge is required in different situations and different settings connected with internationalization, and where to seek this knowledge. Accumulated experience in internationalization is neither specific to a country nor to a mode of entry – e.g., general export procedures, awareness of country differences. Internationalization knowledge also comprises the knowledge that enables the firm to deal with procedures such as financing, shipping and forwarding or processing paperwork (Shamsuddoha, Ali, & Ndubisi, 2009). In relation to tacitness, this knowledge is mainly tacit as it is difficult to teach and it can only be acquired through experience or imitation (Knight & Liesch, 2002).

Business knowledge

According to Eriksson et al. (1997), this relevant type of knowledge refers to experiential knowledge about clients, the market, and competitors located in the host country. This knowledge is idiosyncratic to every location where the firm operates, as industry structure may differ across markets. Foreign market knowledge can be considered critical when firms internationalize to relatively unknown developing economies, so being also needed for internationalization success. Although this experiential knowledge is mainly tacit, it could partially be explicit in memos, report, and pertinent datasets. These secondary sources of information represents an opportunity for knowledge acquisition in a first foreign market entry.

Institutional knowledge

It relates to how business is done in the foreign country (Petersen et al., 2008), and therefore it is market-specific. Some of the rules, customs, and practices are explicit and relatively easy to comprehend and adopt. On a deeper level, how the game is played is influenced by the values and cultural assumptions of the foreign country (Zaheer, 1995). These differences tend to be implicit, making them more difficult to uncover (Petersen et al., 2008). They are also more socially imprinted upon the individual: hence foreigners find differences in values and cultural assumptions much harder to notice and accept than differences in practices (Schein, 1985). Institutions can be broadly defined as regulative – e.g., laws, rules, normative – e.g., shared values and norms, and cognitive elements – e.g., common business practices – that provide stability and meaning to social life (Scott, 2001).

Opportunity recognition knowledge

This knowledge refers to the information and data the firms need to appropriately manage the process of international opportunity recognition and assessment. Some facets of the opportunity recognition process are based on individual and firms qualities – e.g., entrepreneurial alertness (Baron & Ensley, 2006) and entrepreneurial orientation (Chandra, Styles, & Wilkinson, 2009), respectively – and so they are context-free. Others facets are linked to the host country context – e.g., customers and industry knowledge. This context-specific knowledge is key to identify the existence of unsatisfied market needs or under-employed resources that can be allocated more efficiently, to envision new suitable and efficient ways to attend the market and to evaluate such idea in terms of market acceptability, financial viability, and availability of resources (García-Cabrera & García-Soto, 2009). Thus, some of this knowledge is context-free while some is specific to each host country. According to the knowledge tacitness, opportunity recognition knowledge is only explicit to some extent, basically on the facet which is country specific. As in today's world information and data are abundant and freely available, entrepreneurs with entrepreneurial alertness will have the opportunity to access the required information to discover business opportunities in a particular foreign market.

Table 1
Classification of external sources of knowledge.

		Actors involved	
		Firm	Person
Nature of the link	Tie source	Business network	Social ties
	Non-tie source	Spillovers (from other firms, trade promotion agencies or entrepreneurs in the region)	

Source: Prepared by the authors.

Knowledge sources for the internationalizing SME

Traditionally, learning by doing has been a pivotal aspect of the internationalization process of firms (Johanson & Vahlne, 1977, 2009). Over time, knowledge about foreign markets may reduce perceptions of the cost of further internationalization, which may lead to more intense commitment to those markets (Eriksson et al., 1997). Although this experiential learning of the firm can be the cornerstone of the knowledge sourcing for the firm's internationalization, it is conceptually relevant, when considering a given new foreign market entry, to distinguish between previous experience and the one the firm can acquire while prospecting or operating in the target market, hereafter, learning by doing in the host country. In addition to experience as an internal source of knowledge, extant literature highlights the existence of external ones. External sources of knowledge include the different alternatives for international knowledge to be sourced outside a firm's organizational boundaries. In the particular case of young SMEs, external sources of knowledge are likely important to overcome liabilities of foreignness (Fernhaber et al., 2009). Consistent with Ellis (2011), we have developed a comprehensive schema for classifying external sources of knowledge in three different types depending on two variables: (i) the actor involved, the firm or its manager; and (ii) the nature of the link, tie or non-tie sources of knowledge (Table 1). We discuss all these categories of sources of knowledge below.

Previous experience

Firms can acquire knowledge at home before their first international experience such as knowledge to manage complexity, developed by having multiple operations at home and knowledge to manage differences in competitive conditions, developed by operating in business-to-business industries (Cuervo-Cazurra, 2011). Besides, prior international experience of firm's top management team can also be a source of international knowledge (Michailova & Wilson, 2008) being this termed inherited or congenital knowledge (Bruneel et al., 2010). Thus, previous experience, as a source of knowledge, is related to the transfer of know-how from one market to another or from previous markets in general to a new one. Although the positive effects from market to market in terms of learning seem not to be concordant with the important role ascribed to market-specific knowledge in the Uppsala model (Petersen & Pedersen, 2002), it is difficult to exclude some sort of scope economies with respect to learning about foreign market environments when interacting with firms that are psychically distant (Casson, 1995). However, problems may occur for entrant firms if inappropriate inferences are made from one market to another (Evans & Mavondo, 2002). Recently, Perkins (2014) have found that, for MNCs investing in a new host country, similarity of prior institutional experience significantly prolong survival; in contrast, firms with institutional experience unrelated to the target country's regulatory environment, experience learning penalties and are six times more likely to fail. In this respect, O'Grady and Lane (1996) point to managers overestimating the similarities between neighboring countries. Even countries that share language, historical, and legal traditions often have very different institutions that do not allow the simple transfer of business practices and attitudes across borders.

Learning by doing in the host country

According to Zhou (2007), SMEs can learn while exploring business opportunities in the target market, especially when facing new projects such as starting business operations abroad. Indeed, firms can conceive foreign markets as places where they can create new knowledge while exploring, not just by solving problems once operating abroad (Gabrielsson, Kirpalani, Dimitratos, Solberg, & Zucchella, 2008; Kuemmerle, 2002; Zhou, 2007). For example, market scanning and information utilization, "trial and error", or the forward-looking perspective to anticipate rising opportunities in the marketplace, result in an increased level of market knowledge by pursuing new market opportunities (Matsuno, Mentzer, & Özsomer, 2002; Zhou, 2007).

Business networks

Business networks refer to firms that use tie sources of knowledge with other entities, either home or host. A business network includes actors engaged in a wide variety of interdependent relationships (Johanson & Vahlne, 2009) which let firms learn from their partners (distributors, consultants, competitors, etc.). For example, home business networks let SMEs acquire knowledge to manage differences in institutional environments by allying to a foreign firm at home (Cuervo-Cazurra, 2011); host business networks let SMEs learn about market and institutional local conditions because of host partners involvement in that country (Chetty & Campbell-Hunt, 2003). Additionally, existing business relationships, because they may help identifying and exploiting opportunities, could have a considerable impact on the specific market a firm will decide to enter.

Social ties

This external source of knowledge refers to people that use proactively the relationship with others as a way to acquire knowledge (Ojala, 2009). An important idea in the social network and entrepreneurship literatures is that social ties serve as conduits for the spread of information about new opportunities (Aldrich & Zimmer, 1986). As information about opportunities diffuses unevenly through society, benefits arise for those who are among the first to recognize them, especially in the international context (Harris & Wheeler, 2005).

Spillovers

The term *spillover* is used to describe the transfer of knowledge across economic players (De Clercq, Hessels, & van Stel, 2008) without having to pay for it in a formal market transaction (Acs, Audretsch, & Feldman, 1994). Thus, firms can benefit from non-tie sources of knowledge as they can acquire knowledge from other firms through informal interactions when they are located in the same geographic proximity. The extant literature on firms' internationalization has highlighted the free transfer of knowledge about foreign markets and operations (Kneller & Pisu, 2007). These spillovers are relevant for SMEs, especially the younger ones, which often lack internal export knowledge or experience (Acs et al., 1994). But there are different types of established organizations in the territory that possess that knowledge: other firms enrolled in international business, government agencies and private consultancies that promote internationalization. Spillovers occur because of different channels including not only business cooperation and social ties (previously examined) but also informal interactions, transfer of employees, demonstration, and imitation effects (De Clercq et al., 2008; Fernhaber et al., 2009). The role of government agencies and other export promotion organizations must be highlighted as they offer specific information about the institutional context in the host country.

Besides, spillovers from other entrepreneurs can also be a form of non-tie sources of knowledge. This is the case of people that benefit of other nearby entrepreneurs or managers through informal interactions. These spillovers allow businessmen and entrepreneurs to acquire knowledge from other entrepreneurs or managers. This idea is related to the one proposed by De Clercq et al. (2008) who suggested the existence of spillover effects from the total entrepreneurial activity in a particular country. Specifically, people can access to knowledge from these nearby entrepreneurs by different spillover channels. For example, when entrepreneurs are exposed to stories and cases of the discovery and exploitation of entrepreneurial opportunities, they gain access to knowledge likely to prove useful when encountering unsatisfied market needs or under-employed resources that can be allocated more efficiently (Levie & Autio, 2008). Such examples endow entrepreneurs with an understanding of what is possible and what is feasible, making them more alert to opportunities and more able to tangibly assess and exploit opportunities (Fiet, 2000).

Entering into a developing economy: challenges in the process of knowledge acquisition

Once the specific characteristic of every type of knowledge and peculiarities of the different sources of knowledge have been examined, we will focus on the particularities of developing economies that may condition how SMEs would acquire each type of knowledge when entering into a developing economy.

Developing economies are characterized by "High levels of uncertainty in business environment; volatility and rapid developments in consumer demand; not always stable political systems; legal systems relatively weak; important role of social networks in exchange" (Choi et al., 2010:304). Institutional environments in these developing economies provide both challenges and potential benefits to foreign firms. Challenges stem from institutional voids (i.e., imperfect markets) and institutional uncertainty (i.e., changing rules, corruption). Institutional voids refer to imperfections in the market mechanisms caused by the lack of appropriate market supporting institutions (Khanna & Palepu, 1997), while institutional uncertainty is created by the expectation that the institutional rules governing businesses could change unpredictably (Henisz, 2000). These contextual conditions suppose a big challenge for SMEs from developed economies not accustomed to institutional weaknesses and certainly increase the costs of doing business there. However, potential benefits to foreign firms also emerge from developing economies with underdeveloped institutions. For example, market opportunities may compensate for the high costs of transaction and transformation, because early movers may have greater advantages in institutionally underdeveloped economies than in more advanced countries (Isobe, Makino, & Montgomery, 2000). So, weak institutions might be seen as the flipsides of the same coin. Companies that aspire to succeed in developing economies must take into account the particular institutional conditions (Meyer et al., 2009).

Taking these institutional peculiarities into account, certain considerations become relevant when analyzing the particular case of SMEs from a developed economy entering a developing one for the first time. First, although firm's previous experience could be a relevant source of internationalization knowledge, it could be a trap in the case of market-specific knowledge acquisition – i.e., business, institutional, and opportunity recognition knowledge. According to Perkins (2014), experience in specific markets generates a myopic managerial thinking that potentially prohibits adaptation to dissimilar institutional environments. Therefore, being flexible and

Table 2
Research framework: knowledge sources by types of required knowledge.

<table>
<tr><th rowspan="2">Sources of knowledge</th><th colspan="4">Knowledge requirements</th></tr>
<tr><th>Internationalization</th><th>Business</th><th>Institutional</th><th>Opportunity recognition</th></tr>
<tr><td>Previous experience</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Learning by doing in the host country</td><td colspan="4" rowspan="2">The appropriateness of each source to acquire each type of knowledge will be contingent on the specific challenges</td></tr>
<tr><td>Business networks</td></tr>
<tr><td>Social ties</td><td></td><td></td><td></td><td></td></tr>
<tr><td>Spillovers</td><td></td><td></td><td></td><td></td></tr>
</table>

Source: Prepared by the authors.

open-minded can be a challenge to deal with prior experience when first entering in developing economies.

Second, firms often cannot access solid intelligence due to the lack of well-developed statistical agencies that collect, analyze, and disseminate economic and social information relevant to the decision-making processes, both at macro and micro levels in developing economies. There is limited information about the market and competition (Acs & Amorós, 2008) – i.e., business knowledge. So, entrepreneurs cannot make reliable assessments and compare alternative scenarios in order to make the best decision to be successful. Therefore, the procedure to identify and evaluate a business opportunity by entrepreneurs in developed economies may not be applicable in developing contexts with insufficient information available on economic and competitive variables – i.e., opportunity recognition knowledge. For example, firms can use opportunity discovery versus deliberate/systematic search. Although the second option is the most used by firms with prior international experience (Chandra et al., 2009), it can be difficult to apply in the absence of suitable information.

Third, in a developing economy institutions are more informal than formal, and therefore, they are not written. This implies that much of the relevant institutional knowledge is embedded in networks only accessible for those inside the network or through interpersonal relations, a reality that impairs foreigners not party to those structures (Tracey & Phillips, 2011). Thus, we can assume that SMEs face strong challenges in the process of knowledge acquisition. Such challenges are likely to be especially notable for tacit market-specific knowledge.

Taking all the above into consideration, we can expect that different types of knowledge require different suitable ways for SMEs to acquire them when facing their first entry in developing economies – i.e., according to their specificity and tacitness; in addition, the appropriateness of each source will depend on the specific challenges encountered at entering, as it is summarized in Table 2.

Methodology

Research context

According to the research objective, we must focus on SMEs from developed economies first entering developing economies. Notice that these firms must lack experience in previous developing economies, albeit they could have previously expanded into foreign developed economies.

It is also important to establish a single setting (from a particular developed economy to a particular developing one) to control for linguistic, geographic, psychic, and institutional distances. These distances affect both the required knowledge and the set of challenges to appropriately acquire the needed knowledge. For example, knowledge acquisition to gap institutional distance is easier when both countries have a common language, and provider special challenges when they have had a colonial relationship that have become a liability. In choosing the specific pair of countries, the stock of foreign direct investment (FDI) and international trade data have been discarded as these data reflects mainly the high amount of investment by large MNCs, masking SMEs' reality. Instead, we have established three key conditions to get a suitable research context: (1) developed economy with SMEs' recently investing in developing economies; (2) high institutional, but also linguistic distances that assure the challenges discussed above; and (3) investor economy without an extensive tradition in internationalization into the particular developing economy, discarding the possibility that SMEs' could have enter being supported by large and well-established companies. Thus we investigated the entry of SMEs from Spain into Africa, specifically Senegal.

Research design

We combined existing ideas in theory with field qualitative information from our specific case in order to identify the key elements and their relationships that permit theoretical development (Doz, 2011). To that aim, we gather information from several experts in order to get a richly textured description of our specific case and find empirical regularities as previous authors have made in the IB literature (e.g., Pananond, 2007; Sinkovics, Sinkovics, & Yamin, 2014). Experts participating in this study are consultants from Spain and Senegal with offices in one or both countries and with an extensive experience on facilitating SMEs' internationalization to Africa and Senegal in particular. The choice of consultants as experts to obtain the empirical evidence that support this work, rather than interviewing directly the internationalizing SMEs, is based on two arguments. First, this decision offers the opportunity to access to richer and more objective information because of the wider experience of consultants who have advised, and many times accompanied, several different firms. Second, asking the internationalizing firm means basing on the manager's view and memories of the situation faced by its firm the first time they enter Senegal. Those memories could be distorted by the subsequent experience in Senegal and in other developing economies where the particular firm could have entry afterwards. Thus, consultants' perspective is expected to be more aseptic and, therefore, more valid for the purposes of this research.

Specifically, experts are from four public agencies, and two private consultant organizations. As public and private organizations may have client-SMEs with different profiles and needs, they would cover all the spectrum of SMEs asking for help to internationalize toward Senegal. In addition, as these consultants have deep experience with a wide range of Spanish SMEs trying to internationalize to different countries (or to SMEs from different countries trying to entering Senegal), their information about the topic under study, is rich and comprehensive, as they can compare between different settings when helping researchers to identify the peculiarities

Table 3
Key informants: composition of the sample.

Participants	A	B	C	D	E	F
Organization description	Trade and economic promotion agency of the Government of a particular region of Spain that has a key role as a political, economic, and logistical platform to Africa	Public Consortium mainly integrated by the Spanish Ministry of Foreign Affairs and Cooperation	Private consulting service company with extensive experience in facilitating firm's internationalization, especially toward West Africa	Private consultant specialized in internationalization processes with extensive experience in Africa	Economic and Cultural Office of the Senegalese Embassy in Spain	Economic and Commercial Office of Spain in Dakar
Services offered	Funding Specialized technical advice International tendering search and advice Direct and reverse trade missions Home partner search for collaborative arrangement in foreign markets	Advertising the business opportunities that the African continent offers to Spanish firms Advising on the appropriate trade promotion organism Organize meetings and workshops with Africans business experts Objective information about the reality on each African country, coping with negative prejudices and overestimation of business opportunities	Accompaniment, transport, translation, and interpretation during the field visit Studies and research on specific markets Local partner search and partnership development in informal contexts Finding public and/or private funding lines and collaborating in the formulation of proposals for submission Lobbing support and handling corruption	Advice on how to minimize known risks Accompaniment, transport, translation and interpretation during the field visit International tendering advice Market selection research Tax advisory services	Promote investment opportunities for Spanish firms in Senegal Facilitation Information on the legal environment in Senegal	Identification of potential partners Scheduling of meetings with local firms Customized Information on foreign markets and trade opportunities Reverse trade missions Logistics support services Database with business opportunities in Senegal for Spanish firms
Interviewed expert	External promotion manager	Head of the Business and Economy Department	Chief Executive Officer	Chief Executive Officer	Head of the Economic Office	Head of the Economic Office
Expert experience advising Spanish SMEs entering Senegal	Since 2000, over 17 projects, 75% FDI, 15% exporting, and 10% tendering	Since 2010, approx. 10 projects, 60% exporting, 30% tendering, and 10% FDI	Since 2008, approx. 20 projects, 50% FDI, 10% exporting, and 40% tendering	Since 2004, approx. 12 projects, 75% exporting, and 25% FDI	Since 2013, over 20 projects combining FDI, exporting, and tendering	Since 2011, over 25 projects combining FDI, exporting, and tendering

Source: Prepared by the authors.

involved in the particular case of Spanish firms entering Senegal. Table 3 offers details about the participating organizations in this study, albeit their anonymity is preserved. Also, information about the experience of the interviewed expert in each participating organization is provided in terms of years of experience helping Spanish SMEs entering Senegal, approximate number of SMEs advised by them, and mode of entry of those firms.

The empirical work followed five stages. First, we identified the key experts. Second, we conducted face-to-face interviews in order to gather information about: (i) knowledge requirements of Spanish SMEs in their entry in Senegal as a first incursion in developing economies; (ii) challenges to successfully identify and acquire that knowledge; and (iii) the most appropriate sources of knowledge for each type of required knowledge. Third, the compiled information was categorized according to the above threefold structure. From this analysis and the extant literature, we prepared a questionnaire to get experts' assessment on a four-point Likert scale for each identified knowledge requirement, challenge, and source of knowledge. Forth, this questionnaire was sent by e-mail to the experts. Finally, all the gathered information was analyzed and compared, and relationships among variables were identified.

The fieldwork took place in two phases. The qualitative interview phase took place from February to May of 2014, while the quantitative evaluation phase was carried out in October 2014. Table 4 shows information about general profile of the clients entering Senegal of each particular trade promotion agency or consultant.

With respect to the geographical origin, ten years ago, the established Spanish firms in Senegal were a few SMEs from the Canary Islands, the closest Spanish region to Senegal. Nowadays the interests in this market came from all over the country. As we can observe in Table 4, many SMEs entering Senegal have previous experience in developing and/or developed foreign markets while some others SMEs are facing their first international entry ever. Some of them are interested in international expansion due to the 2007 worldwide crisis effects on domestic market and operate in service sectors such as agriculture, energy, water, consultancy, pharmaceutical, machinery, architecture, and civil engineering. A few are entrepreneurial people planning to startup in Senegal or MNCs that use a small affiliate firm located in Spain as a springboard to invest in Senegal. Among all these firms contacting our experts for support, our study is focused on Spanish SMEs entering

Table 4
General profile of clients entering Senegal by participants.

Participants	A	B	C	D	E	F
Clients' characteristics	Any type of firms in terms of size, age, and industry from the region. Mainly service sector and Spanish traditional industries	Spanish SMEs from all size and age, mainly operating in the renewal energy, water, and tourism sectors	Financially strong and well established SMEs, mainly from the construction industry, and SMEs in other sectors in the region With high interest in doing opportunistic business in Africa, but without knowledge resources for international-ization	Well established Spanish SMEs from all type of industries Before the crisis of 2007, trading companies exporting goods from Europe to different African markets Since the crisis: mainly construction companies and young entrepreneurs in high tech markets	SMEs or entrepreneurial people that are planning to invest in Senegal Some MNCs that use an affiliate firm located in Spain as a springboard to invest in Senegal Industries: energy, construction, pharmaceutical, machinery, transportation, water, sanitation services, agriculture, etc.	Ten years ago mainly Canary SMEs, nowadays any type of firms in terms of size, age, and industry
Clients' previous expansion	Few firms with national scope Some experienced international companies, but not in developing markets Some with previous experience in Africa	Exporting SMEs looking for their first entry into an African market	No international experience First entry into an African market	Very few with previous expansion at a national level Some with previous experience in foreign markets, even in Africa Most trying their first entry into an African market	No information on the SMEs' background	SMEs experienced in international markets, frequently with an export manager
Clients' main demands	Funding and financing Trade missions	Funding and financing Advice on the appropriate African market and sector Searching for partners to make businesses Invest procedures Reliable local partner search	No clear demands Sometimes just get introduced to the right local person to make a short-term good business	Accessing to public funding Taxation issues Sometimes just get introduced to the right local person to make a business Market selection research	Information about the conditions of Senegal, legal system, border facilitation How to establish a representative or a joint-venture with a Senegalese partner Very few get introduced to the right local person to cooperate	Exporting firms look for knowledge about: market conditions, payment methods, business culture, etc. Investors look for knowledge about: taxation, labor market, and laws and enforcement

Source: Prepared by the authors.

Senegal as a first incursion in developing economies. To facilitate data analysis and to make it more systematic we used templates. Table 5 provides experts assessment using a Likert scale of the specific knowledge requirements, challenges, and sources of our focused SMEs. Qualitative information and experts statements are introduced in our discussion. Nonetheless, the discussion that is shown below does not correspond to the declarations of a particular expert. Instead, it is the result of our comprehensive analysis of the gathered information.

Discussion

SMEs' knowledge requirements to enter developing economies

According to the research objective, this discussion is focused on SMEs from a developed economy first entering into a developing market, hence experienced SMEs in this type of markets are not considered. As focused SMEs lack this experience, their knowledge requirements are wide-ranging – i.e., internationalization, business, institutional, and opportunity recognition, as experts have confirmed. This general fact gives support to previous literature. However, not all types of knowledge have the same relevance when SMEs try to succeed entering a developing market for the first time, as it can be observed in Table 5, and it is discussed in detail below.

Internationalization knowledge

The experts identify, especially for internationally unexperienced SMEs, a wide lack of internationalization knowledge about managing complexity, how to plan the entry, how to deal with procedures and paperwork (taxation, financing, shipping, etc.), how to market the firm's products and services abroad, or managers' proficiency in foreign languages, among other common issues when internationalizing to a new foreign country. Although many SMEs may lack such knowledge, it is considered by experts less relevant than market-specific knowledge when first entering a developing economy such as Senegal (see Table 5). However, experts highlight a specific internationalization knowledge which is really relevant

Table 5
Knowledge requirements, challenges, and sources.

Items	Experts					
	A	B	C	D	E	F
SMEs' knowledge requirements						
Internationalization knowledge						
How to manage the complexity of operating in different locations	2	3	3	2	2	2
Foreign languages	2	2	3	3	3	3
How to market the firm's products and services abroad	2	3	3	2	2	2
How to deal with procedures and paperwork (taxation, shipping)	2	2	3	3	2	2
How to plan the international entry	n.d.[a]	2	3	3	2	2
Awareness of market-specific knowledge required	3	4	4	3	4	3
Where to seek the required knowledge	4	4	4	4	3	4
Business knowledge						
About clients in Senegal	4	4	4	2	4	3
About the distribution channels in Senegal	4	4	4	3	4	3
About local and foreign competitors in Senegal	4	4	4	3	4	3
Institutional knowledge						
Laws, policies, and regulations in Senegal	3	4	4	4	4	3
Cultural values in Senegal	3	4	4	3	4	4
Common business practices in Senegal	4	4	4	3	4	4
How to differentiate commissions from corruption	n.d.	n.d.	4	3	4	4
Opportunity recognition knowledge						
Information and data to identify international opportunities	4	4	4	4	3	4
Entrepreneurial alertness	2	4	4	3	3	3
Challenges to access to required knowledge						
Myopic managerial thinking	3	3	3	3	4	4
Lack of Senegalese country information in statistical agencies	2	2	2	3	1	2
Lack of financial resources to study the Senegalese market	2	3	3	2	n.d.	2
Relevant knowledge embedded in Senegalese networks	3	4	3	3	3	3
Senegalese business networks locked to foreigners	1	3	3	3	2	1
Absence of a culture of cooperation in Spain	4	4	4	4	n.d.	2
Overconfidence when dealing with Africans	n.d.	2	2	3	2	1
Considering Africa as a single reality	n.d.	3	4	3	3	3
Not flexible managers or firms in Spain	n.d.	n.d.	3	4	n.d.	3
SMEs' knowledge sources						
Experience (learning by doing)						
Experience of managers before working for the firm (inherited knowledge)	n.d.	n.d.	2	2	n.d.	2
Experience at home while managing the business	2	2	2	4	2	1
Experience in other developed countries	3	2	2	3	n.d.	2
Experience in Senegal while exploring the business opportunities	4	3	4	4	4	4
Business networks						
With Spanish firms at home	2	2	2	1	2	1
With Spanish firms in Senegal	2	2	1	2	3	3
With Senegalese firms in Spain	n.d.	n.d.	1	1	1	1
With Senegalese firms in Senegal	1	2	2	1	3	3
With private consultants	n.d.	2	2	1	n.d.	3
Social ties						
Relationship with Spanish people	2	3	3	4	4	1
Relationship with Senegalese people in Spain	n.d.	3	1	2	n.d.	4
Relationship with Senegalese people in Senegal	n.d.	3	2	2	n.d.	1
Spillovers from other firms and managers at home						
Spanish firms enrolled in international business in Senegal	2	n.d.	1	3	4	3
Spanish government agencies that promote internationalization	4	4	4	3	n.d.	3
Senegalese government agencies that promote internationalization	n.d.	n.d.	n.d.	n.d.	3	n.d.

[a] n.d., expert had not enough information to assess the item.
Source: Prepared by the authors.

in the case of unexperienced Spanish SMEs: the mere awareness of the need of acquiring market-specific knowledge, and the sources to find this knowledge. For example, expert B frequently advises those SMEs on the appropriate trade promotion organism to get the required support.

Business knowledge

All experts highlighted the relevance of knowing the competitive structure of each particular industry in the specific developing country – e.g., potential clients, most-used channels of distribution, foreign competitors, etc., that is, business knowledge. Actually, SMEs entering Senegal are frequently advised by experts about the developing market-specific risks and transaction costs within each industry in order to prevent failure risk. Our experts agreed on the relevance of business knowledge since SMEs' are unaware of these risks which are almost inexistent in developed economies but are frequent and of great relevance to make successful business in these countries (e.g., in the case of Senegal is relevant, in the commercial sector, knowing how to fix the terms of the price of a container; in the construction industry, how to assure the payment; in public tenders, how to manage the execution of the project in case of winning).

Institutional knowledge

Concerning this type of knowledge, there is a consensus about the high relevance of regulative, normative, and cognitive institutions. It is obvious that managers need to know about laws, policies, and regulations in the specific country, but the most important issue, in Senegal, is not the instability and insufficient legal framework, as managers could expect, but the enforcement of law. This weakness combined with the relevant role of normative and cognitive institutions in business activities (Puffer, McCarthy, & Boisot, 2010) makes institutional knowledge really relevant for western entrants in Senegal, as highlighted by expert E.

From a normative perspective, the relevance of developing a trustable personal relationship just to open the possibility of an ulterior business relation is highly unknown. According to expert C, being able to keep informal talks about recent historical events or popular football leagues in Senegal can be critical for a further fruitful business relationship. Also, experts E and F highlighted the cultural distance in terms of time conception, since business in Senegal goes much slower. With respect to cognitive institutions, a key issue is how accessing a relevant partner to make the business in the host country. For example, in Senegal is very difficult to identify the suitable firm or partner and being successful introducing yourself to directly offer the deal; you need a trustable intermediary instead. This intermediary will expect a benefit from the business, so they will prevent the actual contact unless receiving the expected earnings. Also, a thorny issue is the fact that government officials and corporate managers expect to receive anything of value to, for instance, expedite transactions. This is culturally acceptable in Senegal, according to experts, and even legal in many developing countries (Cavusgil, Knight, & Riesenberger, 2014). In words of expert F: "As Senegalese people are mainly Muslims, so a giving culture, any favor is rewarded with money". Thus, institutional knowledge is of an extreme importance for a first entry in this economy.

Opportunity recognition knowledge

Experts highlighted the relevance of monitoring the right data and information to identify business opportunities in Senegal and also of possessing entrepreneurial alertness to recognize where and how business could be profitable. Nevertheless, both knowledge requirements could be good complements, but also good substitutes. For instance, considering all the information provided by experts, we have identified two managers' profiles according to their entrepreneurial alertness. First, some managers have a high level of alertness and identify business opportunities in Senegal without much information and formal desk research. They are able to recognize and assess those opportunities while talking and informally negotiating with business people in Senegal, without strategic analysis. They usually ask participant D to get introduced to the right local person to make a business, and then proceed in an adventure manner, just guided by their entrepreneurial flair. Second, others managers have less entrepreneurial alertness and therefore require information and data relevant to recognize and assess different business opportunities. For example, some managers in this group systematically search for competitive tenders and biddings in these countries to identify business opportunities stemming from development cooperation funds.

SMEs' challenges in the knowledge acquisition to enter developing economies

Based on the review of extant literature we identified four main challenges that SMEs face in the knowledge acquisition process when entering into a developing economy: (1) myopic managerial thinking that potentially prohibits adaptation to dissimilar institutional environments; (2) lack of well-developed statistical agencies that collect, analyze, and disseminate economic and social information in developing economies; (3) relevant institutional knowledge embedded in local networks; and (4) local business networks locked to foreigners. Our study corroborates the existence of these challenges, albeit experts suggest that only two out of the four are really relevant when Spanish SMEs enter Senegal as the their first developing foreign market: the myopic managerial thinking and the existence of knowledge embedded in local networks. Also, they suggest the existence of additional challenges of high relevance – i.e., absence of a culture of cooperation in Spain, considering Africa as a single reality, and not flexile managers or firms in Spain; and challenges of medium relevance – i.e., SME's lack of financial resource to study the host market and the overconfidence when dealing with Africans. This suggests that challenges in the knowledge acquisition process when entering into a developing economy for the first time are contingent upon the countries involved. We provide details about these challenges below.

Relevant challenges for Spanish SMEs first entering Senegal

With respect to *myopic managerial thinking*, our experts notice the existence of a relevant group of SMEs that take the decision of internationalizing to Senegal as an alternative path to survive the Spanish context of crisis. Many of these SMEs without any previous internationalization experience look for new markets with favorable competitive conditions, and erroneously these unexperienced SMEs consider African countries as such. Specifically, experts highlighted that Spanish SMEs tend to consider that internationalizing to African developing economies, particularly to Senegal, is less demanding than toward developed economies where competitive conditions are tougher. From their view, African developing economies are characterized by a low offer of competitive products and services. Also local competitors can be almost ignored since they are expected to lack competitive advantages. So, these unexperienced SMEs assume they will easily succeed with the same or even worse products and services than they commercialize in their home developed economies. But this is not true. Expert D highlights that "Africans are a little tired of Europeans trying to sell them bad products". Expert C advises: "Not because you pay a commission you spontaneously get the business in Senegal, you must also offer a good product or service". Expert B warns about the damage of the common thought "In Africa, everything must still be done". For example, foreigners from colonial countries can be highly established with competitive products and services, such as French MNEs in Senegal. They have socialized to African cultures and they know how to adapt and compete there. Also, products and services commercialized in developed countries cannot be always transferred without adaptation to developing markets. Hence, these SMEs face a relevant challenge in the process of knowledge acquisition: myopic managerial thinking.

Also, as literature suggests, firm's previous experience in foreign developed countries could be also a trap for the acquisition of market-specific knowledge – i.e., business, institutional, and opportunity recognition knowledge. Indeed, this previous experience may potentially obstacle SME's adaptation to dissimilar institutional environments (Perkins, 2014). For example, experienced SMEs in host developed economies would consider that having a high level of technology and competitive products and services are the key resources for entering into a new market. But this is not true in the case of Senegal. In this country firms must pay attention to personal relationships, to the development of trust between the parties, and to relationships continuity. Also, experts warn about the temptation of doing business in the short term or without allowing local partners to be part in the business. For instance, just exporting and selling a container of goods could be a suitable way to get a first contact with a new foreign market as the gradual approach to internationalization suggests (Gabrielsson et al., 2008; Kuemmerle, 2002), but these managerial practice will likely lead to failure in Senegal. Indeed, expert B notices that Senegalese aspire to develop their firms while interacting with Western SMEs. Expert C clearly remarks that internationally experienced Spanish SMEs face problems to adapt to the Senegalese context. Again we refer to the myopic managerial thinking for the particular case of experienced SMEs. In this particular case previous experience could be a liability.

Also, our empirical study corroborates the existence of a relevant challenge related to the *knowledge embedded in local networks*. As institutions are more informal than formal, and therefore, they are not written, much of the relevant institutional knowledge is embedded in networks only accessible for those inside the network. This was recognized by all the experts, being especially notable for tacit market-specific knowledge.

Furthermore, additional relevant challenges to those identified in our review of extant literature were identified. First, the *absence of a culture of cooperation in Spain*, where SMEs have traditionally embarked in entrepreneurial projects mainly in isolation. Thus, there is no a strong tradition in cooperative projects to facilitate the internationalization process. To this respect expert C highlights that if alliances are relevant to successfully carry out internationalization projects, this relevance maximizes in the case of a first entry into developing economies. Indeed, experts have witnessed real-life cases of successful SMEs' internationalization to these economies based on a collaborative project including suppliers, manufactures, distributors, and other relevant actors. The collaborative projects allow firms to be less dependent of knowledge embedded in local networks and to make safe and efficient transactions in the unknown and uncertain host country context.

Second, *considering Africa as a single reality* must be recognize as a relevant challenge. There exist the common and wrong belief that Africa is just one reality and that this continent provides firms just one different context where operate. Experts C, D, E and F warn about this fallacy that make firms to take unsuitable decisions. On the contrary, each country has a different political system, culture and institutions, different level of natural resources, and different challenges in their path to economic and social development.

Finally, a third relevant challenge identified by experts is the existence of *not flexible managers or firms in Spain*. Expert F exposes this idea while comparing business people from different countries: "In Senegal a Chinese or an Indian do not make questions about the legal faith or the enforcement of law because they adapt well to uncertainty of legal environments, but for Spaniards and Europeans this ambiguity is a real defy". As a result of the lack of flexibility to assimilate the local specific knowledge about business, the Spanish managers try to enter the market interacting with local firms on the ground of their own culture and way of doing business, as expert C highlights. Expert D has noticed that Spanish managers think that "What is different is negative", and so they do not accept the existing dissimilarities. Consequently, they make decisions with the aim of reducing risks, for instance choosing exports instead of foreign direct investment. An additional example is provided by expert C with respect to SMEs' rejection to allocate a part of their budget to pay intermediaries' commissions, so refusing to play using the common rules of the game in these countries.

Challenges of medium relevance for Spanish SMEs first entering Senegal

The empirical analysis also shows the existence of another set of challenges faced in the knowledge acquisition process when Spanish SMEs enter in Senegal as a first incursion in developing economies, being these challenges of medium or medium to low relevance. However, according to experts, these challenges can be a great obstacle for SMEs from other developed countries entering Senegal or for Spanish SMEs entering into other developing economies.

First, the *lack of country information in statistical agencies* can be an important difficulty. This obstacle has been identified by previous literature as in developing countries there is limited information about markets and competition (Acs & Amorós, 2008) due to the lack of well-developed statistical agencies that collect, analyze, and disseminate economic and social information. However, ten years ago Senegal started up a statistical agency offering information to foreigners. Expert F highlights that Senegal offers more information to potential investors than any other African country, albeit less than a Western country such as France or Spain. Also, in the absent of some particular and relevant public information, SMEs might develop their own market research to access to solid intelligence relevant to the decision-making processes.

Second, SMEs' *lack of financial resources to study the host country market* due to the small size of this group of firms must be highlighted. With respect to this challenge, experts notice that Spanish SMEs mainly use the opportunity discovery process based on unplanned visits and informal contacts to sell their products or make single transactions, rather than deliberate and systematic searches based on the compilation of information on economic and competitive variables. This strategy to identify business opportunities is consistent with Chandra et al.'s (2009) findings about the highest use of deliberate search by firms with prior international experience, which does not correspond with the majority of the Spanish SMEs entering Senegal. In addition, some Spanish SMEs have this previous international experience and choose the deliberate search as a way to identify business opportunities and organize the implementing of the business in Senegal. But these firms usually have the resources to access to the required knowledge. Expert C asserts that these SMEs with economic resources use them to solve the problem of accessing to relevant knowledge. They either make research to study the target market or they hire specialized export managers with experience in that market. Thus, experts do not perceive as a challenge the lack of SMEs' resources. They identify different ways SMEs can use to explore the market to get the required knowledge that will vary according to the SMEs' profile.

Third, another challenge of medium relevance is the *overconfidence when dealing with Africans*. According to experts, overconfidence and arrogance when assessing African developing markets, as well as the existence of negative prejudices hamper fruitful interactions between host and local actors. This can be common when Western firms entry into developing countries. However, according to expert F, there is no overconfidence in the case of Spanish SMEs entering Senegal, but only a certain perception that businesses in Senegal are easier than in other countries. Expert E remarks the existence of a modern and voluntary cooperation based on an equal relationship, where the non-existence of liabilities associated to a past colonial affiliation clearly reduce the relevance of this potential challenge. Expert D, however, tells about a reciprocal and equal overconfidence from both parts, so he also disregards the single direction suggested by this challenge. In his opinion, there exist negative prejudices from each part: "The Spaniards believe that as the other part is African, they can go there, make business, earn a lot of money, and come back home... but the Africans consider that Spaniards come to Africa to cheat them, so they must cheat first". Although these thoughts are continually decreasing between these two countries, they can endure in some people.

A fourth and final challenge, which has been recognized by previous literature, is the existence of *local business networks locked to foreigners* (Tracey & Phillips, 2011). However, all the experts in our case study agree that Senegal is a country that shows openness to foreignness, albeit they recognize that the intermediary action is a prerequisite to be accepted in a network. Also, Expert C remarks that the local market shows a clear will to make business with Spanish people, being this will higher than the prevailing when interacting with managers from other nationalities. Spaniards perceive this preference for making business with them. The low relevance of this last challenge in our particular case of study seems to be founded in the Senegalese general openness to foreignness, combined with the lack of arrogance of Spaniards when interacting with them, which is valued by locals.

Knowledge sources used to enter into developing economies

Besides the traditional internal source of knowledge, which is the firm's own experience, we have discussed the external sources that allow international knowledge to be obtained outside SMEs' organizational boundaries: business networks, social ties, and spillovers. We will refer to them below for our specific case under study.

Previous experience

Concerning previous experience, needless to say that the richer the previous experience developed by the firm managing complexity at home or even in previous international expansion activities, the better the firm's readiness to cope with the challenge of entering a new foreign market. For example, the internationally experienced SME will know about the basic of internationalization knowledge like knowing how to market abroad, what type of information will required and where can it be obtained. Nevertheless, it has been proven by Perkins (2014) that previous experience is useful whenever the firm is entering a new institutionally similar market; but it is a liability when the firm tries to enter a new institutionally distant market, which is our case. The information obtained from our case study suggests that this can be so because previous experience would give no information on the real key knowledge which is market-specific. Therefore, this previous experience will not be useful at all to cope with the lack of key business and institutional knowledge and it could even become a liability. Nonetheless, experts C and D, highlighted that some Spanish firms entering into Senegal did not have any international experience or even some are firms focused in the local/province level market that are looking for foreign markets to achieve survival in a crisis situation. So, for the case of Spanish SMEs entering into Senegal, previous international experience is not of higher relevance to acquire the key required knowledge.

Learning by doing in the host country

With respect to firms' experience acquired while exploring the business opportunities in the specific foreign market, in our case Senegal, it must be highlighted that this is one of the most relevant source of knowledge for Spanish SMEs according to our experts. In fact, all experts agreed on the need of Spanish managers to travel to Senegal several times to assess the business opportunity and to evaluate the different entry strategies for the best opportunity exploitation, as they currently do. According to expert F, market research in countries like Senegal is not possible to be done just as a desk research, like you do when entering EU or other developed countries. Indeed market studies are not useful unless they are firm-, industry-, and market-specific, and only a tiny group of internationally experienced SMEs carry out this kind of research when entering Senegal. In words of expert D: "There is no such thing as a manual for Africa", which highlights the relevance of learning by doing in each African country.

Business networks

Concerning the use of business networks, according to experts there is a low to moderate use of these tie alliances albeit they are of high relevance to acquire the market-specific knowledge. The alliances used in this case are of three types. First, SMEs could be collaborating with other Spanish firms at home, which are being promoted by the government according to expert A. Expert B found, for example, architects and engineers cooperating in groups of economic interest and hiring together an expert who will look for tenders. This type of alliances is also common in specific sectors like tourism, as expert D pointed. Second, Spanish SMEs would also cooperate with other Spanish firms already established in Senegal. Actually expert F highlighted the useful role that the *Asociación de Empresarios Españoles en Senegal* is playing. Finally, the last common type of alliance is the one that ties a foreign entrant with a local partner. This is the type that we would expect to produce better results in terms of the acquisition of the key market-specific knowledge. Nevertheless, only the experts E and F agreed on qualifying the use of these alliances as moderate, the rest assessed this type as of a low use. According to expert F, you need a Senegalese partner not only to capture relevant business and institutional knowledge, but also to make business possible. For example, if you want to export your products to Senegal, you should know that to do this successfully you have to cooperate with a Senegalese company; otherwise you will have to find a Lebanese ally because Lebanese has a long tradition and has the control of most of the imports in Senegal. Otherwise, you have to look as an ally to a freight forwarder.

Special mention deserves the formal alliances with Spanish private consultants specialized in international expansion toward Africa. Expert F highlighted that many unexperienced SMEs choose to get the support of an expert and some others with resources even hire an export manager to facilitate the development of the process. In expert C's opinion, there is no culture of considering this type of private specialized firms as a strategic resource to rely on in the medium- to long-run. Some unexperienced Spanish firms will contract a specific accompaniment to a particular meeting, for example, and then think that they can do the rest by themselves. Afterwards many of them will fail. This resource could help SMEs accessing to the right person in an informal context that otherwise is difficult to get.

Social ties

In relation with social ties, which refers to people that use proactively the relationship with others as a source of knowledge (Ojala, 2009), we must distinguish two important sources of knowledge: the relationship with Spanish people and the potential relationship with a Senegalese living in Spain. On the one hand, according to expert B, many entrepreneurs choose to enter Senegal because of a personal relationships, this could be connected with the idea of spillovers, because the higher the number of firms doing business in a particular foreign country from a specific region the greater the possibility in the region to build a personal relationship that could somehow connect your firm with that foreign market. On the other hand, because we can find many Senegalese living and working in Spain, some firms uses a contact with a Senegalese to develop a good business in Senegal, as expert F has pointed. Social ties, according to all experts, are a relevant source of knowledge useful to get general information and interest in the particular country and even to contact to key people in that country.

Spillovers

Spillovers from other firms and managers at home that has already succeeded doing business in Senegal is recognize as an important source of knowledge used by Spanish SMEs according to expert E. Besides, expert D put forward that some SMEs get everything organized to enter in Senegal just imitating good ideas of some firms already established there. But no doubt that in experts' opinion, the most important source of freely available information to help internationalization in general is Spanish government agencies that promote internationalization. Spanish government agencies are doing a tremendous effort to improve the implication and commitment of the Spanish firms in foreign market in general, like ICEX, or even in Africa, like Casa África. For instance, sometimes an entrepreneur has chosen Senegal because he/she decided to participate in a commercial mission organized by any public export promotion agency. They freely advise SMEs on, for instance, the potential risk associated with certain business practice. Expert F usually gives valuable information on the specific risk of doing business in Senegal and general information on taxation, legal and labor issues, etc.

Conclusions

This paper analyzes the types of knowledge SMEs from a developed economy require for a first entry in a developing economy ever, the most used sources for acquiring that knowledge, and the challenges they face in this knowledge acquisition process. Evidence from our qualitative study of the case of Spanish SMEs entering Senegal as their first entry in a developing economy offers preliminary support to some knowledge requirements, sources of knowledge, and challenges identified by previous literature. Also, this work helps discriminate the relevance of each type of knowledge, knowledge sources and challenges that SMEs face when entering a particular developing economy for the first time. As a result, contributions are offered to the international business literature. First, our empirical work suggest that the relevance of each type of knowledge, challenge, and sources involved in the process of knowledge acquisition is contingent upon the specific pair of countries involved. It is not just a question of national culture and institutions of the home and the host country, nor the specific distances between them, that of course are relevant. It is also a matter of the affinities and feelings between the parties. Hence, research in the international business field focused on this topic could benefit from the analyses of various cases involving different developing–developed country combinations before general models can be proposed to explain this phenomenon.

Second, with respect to knowledge requirements, our work suggests that it is market-specific knowledge and particularly institutional, opportunity recognition, and business ones, the types of knowledge that are really relevant when entering a developing market for the first time. The specific content of knowledge to be acquired will depend on the particular home and host countries. However, because SMEs are frequently unaware of the market-specific risks and transactions costs within each industry in a given developing market, as these risks and costs are almost inexistent in developed economies, being advised about these aspects of the business knowledge can be considered of high relevance to enter any developing country.

As far as challenges encountered by SMEs concerns, our work suggests that they are particularly contingent upon the context. They can be related to the home country – e.g., myopic managerial thinking, inflexible managers, or absence of a culture of cooperation, to the host country – e.g., relevant knowledge embedded in local networks, and to the specific combination of countries, albeit these latter did not show to be relevant in our case – e.g., local business network locked to the particular foreign country, overconfidence between the international partners. All these challenges hamper SMEs' awareness of the market-specific knowledge required. So, although we started this work with the premise that the key element for succeeding in foreign markets is the appropriate access to the required knowledge, in the case of the first entry in developing economies, our results disregard this premise. We have found that there is a previous challenge for some SMEs: to get beyond the understanding of firm's internationalization as a simple extension of the home business abroad. This could be suggesting that there is an additional way of managers understanding of the internationalization, which is previous to the four understandings uncovered by Lamb et al. (2011) for SMEs. For these authors, the first phase would be understanding internationalization as confronting opportunities. In this phase, owners focus on seeking knowledge and being knowledgeable about the nuances within different international markets. Our phase 0 of understanding is caused by a mix of challenges that are specific to the particular context under study.

Regarding knowledge sources, our study puts forward that each source of knowledge is useful to access to certain types of knowledge (Table 6). For example, learning by doing in the host country through market research is only useful when this research is firm-, industry-, and market-specific, so that it is extremely difficult to generalize across industries even within a given country. As a consequence market research carried out just as a desk research is not useful to acquire market-specific knowledge (e.g., business or institutional knowledge). Also, in cases where there exist people from a given developing market living in the SMEs' country of origin, as well as a high number of firms doing business in such developing market from the same home country, social ties become a relevant source of knowledge useful to get general information about the given developing country. Nonetheless, SMEs not always use the most appropriate sources of knowledge. This could be prevented by the challenges discussed above. This fact generates a gap between the appropriateness of each source of knowledge and the use that SMEs make of them, as it was found in the case of Spanish SMEs entering Senegal as their first incursion in developing economies.

Implications

This work can be useful for academics to propose the appropriate practical suggestions in the areas of public policy and private investors. First, export promotion organizations should take into account that they are specialized in the offer of different and complementary services that SMEs need when first entering into developing economies. So, our work suggests that public agencies and consulting firms should cooperate and coordinate their offers toward SMEs in order to assist them in their internationalization. Also our findings can help those agencies to adapt the services offered according to the relevance of each required knowledge, and the potential challenges SMEs can face. This is relevant as these managers could be in a very basic phase of internationalization understanding. Second, SMEs should be concerned not just about the host market conditions in a developing economy, but also about their own readiness to face the internalization process. So, some of them could find useful to be open to nearby managers that have previously succeeded in these type of markets.

Table 6
Suitability of knowledge sources to acquire the different types of required knowledge.

Sources of knowledge	Knowledge requirements			
	Internationalization	Business	Institutional	Opportunity recognition
Previous experience	Very useful	Not useful/a liability	Not useful/a liability	Could help/a liability
Learning by doing in the host country	–	Useful	Useful	Very useful
Business networks	Not need/could help	Could be useful	Could be useful	Very useful
Social ties	Not useful	Very useful	Very useful	Very useful
Spillovers	Could help/useful	Not useful/could help	Not useful	Very useful

Source: Prepared by the authors.

Limitations

Because the case study is based on the information gathered from export promotion organizations and private consultants that support Spanish SMEs entering Senegal, the information may be biased to firms that have decided to request those professional services. Therefore, in a case study focused on SMEs as the unit of analysis, both alone and accompanied firms should be included. Also, although our choice of SMEs from a particular developed economy entering a particular developing one as their first incursion in developing economies offers a suitable context to analyze the phenomenon under study, that choice risks any possibility to generalize the results. Further studies will benefit from the use of larger samples and alternatives methodologies that let comparisons among firms facing different linguistic, geographic, and institutional distances when first internationalizing to a developing economy.

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