

Entrepreneurship and Capital Returns in the Portuguese Overseas Empire (From the Great Depression to Decolonization)

Abstract:

The integration of financial markets was a facet of the increasing globalization of the worldwide economy. The worldwide consumption of the tropical crops can explain the spread of corporations in colonial empires throughout the first half of the twentieth century. The focus in this paper is the business perspective of corporations that operated in Portuguese overseas territories: Distance, climate, lack of trained local labor force, and other difficulties related with cultural differences, represented higher risk and higher capital rewards. Using the Lisbon Stock Exchange daily bulletins for the period coming from the Great Depression to Decolonization, this paper estimates the capitalization index of corporations operating in the Portuguese overseas territories. The finding that it was higher than the average index of the Lisbon Stock Market as a whole must be interpreted in the context of the role of entrepreneurship and businesses in overseas territories, particularly their contribution for economic growth from the perspective of studies on globalization.

Key Words: Tropical business, Colonial Corporations, Capital Rewards, Lisbon stock Exchange.

From the Great Depression to Decolonization: The Equity Return Premium in the Portuguese Overseas Empire

1. Introduction

This paper presents the first empirical estimations of rewards received by people who invested in portfolio of corporations operating in the Portuguese overseas from the Great Depression to Decolonization. As far as globalization was improving capital flows and market integration throughout the twentieth century, direct investment in regions out of Europe deserve to be studied as commanded by private independent decisions on risk and profit perspectives that were intended to maximize rewards for capital owners and savers in diversifying the destinations for capital outflows.¹ A main factor for entrepreneurial good performance has been the capacity for exporting domestic knowledge to wild regions that were short of capital. Good reputation in exploiting sources of information on the available market opportunities was a pivotal item in designing the capacity of formulating difficult decisions and in considering the challenges of a permanently changing world.² Sometimes businesses abroad could reap super-profits, or even monopolistic profits, in spite of distance, because of more flexible access to resources and more learning.³

The available literature tells on how European investors and corporations have preferred culturally-close environments for their business initiatives, because local cultures may bring difficulties to entrepreneurship in unfamiliar environment. As (Platt, 1986) says, the preferred regions where to invest were those having European culture and administrative control, what makes colonial territories very interesting for such a purpose. So, capital moved “to sparsely peopled areas where conditions for rapid growth along familiar Western lines were exceptionally favorable”.⁴ The same happened with investors in Portuguese offshores. It is

well-known that capital flows moved especially to European colonial territories. From this perspective, this means that rationality imposed that risk should be minimized to defend investors and entrepreneurship initiatives, and knowledge transfer led to entrepreneurial activity during this period rather than simple colonial exploitation.

This is the first paper on the investment rewards for the corporations that were listed in the Lisbon Stock Exchange and operated in the Portuguese overseas empire. Evidence on the presence of joint stock companies and private capital in the Portuguese colonies abounds.⁵ In one way or another, Portuguese economic historians are unanimous in signaling the presence of economic groups in the Portuguese mother country, although careless on its presence in the Portuguese colonial territories.⁶

There is a widespread and spirited discussion on the character of colonial businesses. Marxist and Imperialistic approaches point to exploitation against colonial investment.⁷ The globalization studies identify internationalization of capital as a consequence of the increasing integration of the world economy, thanks to the improving technology that provided better and more efficient transportation, implying proximity and decreasing information costs.⁸ However, this approach considers only macro-economic perspectives.⁹

This paper departs from different hypotheses because those methodologies lead to misunderstanding corporations, by forgetting their microeconomic views in conceiving their businesses. The views from strategic management suggest that entrepreneurship, international business, and investors' expectations command the flows of capital to new regions.¹⁰ In Portugal nobody discussed the perspective of investors in terms of the cost of the capital that was required for these firms to operate in African offshores. The proposal of this paper is to elect investors' perspectives in what concerns their rewards. For this purpose all corporations operating in the Portuguese overseas territories that were listed in the Lisbon Stock Exchange

were considered for the period coming from the Great Depression to decolonization in 1974-75, in the aftermath of the 25th April military revolution that followed the first oil shock difficulties. Individual businesses also existed, but corporations were the most representative actors. How much was the reward achieved in investing in the Portuguese offshores is the important question to be checked in this article, because one may see this exercise as the discovery of the equity return premium that investors required to risk their available capital in start-ups and other entrepreneurial activities in those endeavors, instead of applying it in alternative risk-free applications.

In this paper the evaluation covers the four decades from 1930 to the end of the Portuguese rule over these territories (1974). What was the capitalization that was required by investors to accept to risk their entrepreneurial abilities in the Portuguese empire, far away from the Portuguese motherland territory in Europe? Unknowns on the territories, severe tropical climate, the lack of local public utilities, the absence of local trained labor force, the need of moving European employees to head local activities, and the difficulty of assuming management decisions at distance, were surely great problems to be equated and solved. The larger the difficulties and the risk, the higher the required equity return premium, because the comparison was done with the rewards that free-risk assets could provide. For these reasons it is expectable that the equity return premium for those who invested in the Portuguese offshores has been higher than the equity return premium for the investors in activities at the motherland. How much higher was the equity return premium obtained from corporations operating in the Portuguese colonies, in comparison with the equity return premium obtained from the corporations operating in the motherland?

In estimating the rewards that corporations' performance on the Portuguese overseas territories could offer to investors, this paper presents robust information on compensation for

risk. The estimates may contribute for global discussions on the foreign direct investment appraisal. The Portuguese historical evidence is also a case study to help global discussion on the Portuguese and African economic growth, prosperity and poverty, because “The Portuguese (...) sailed around the /African/ coast and eliminated differences in knowledge at a time when gaps in incomes were very small compared with what they are today”.¹¹ Portugal was a pioneering colonizer because of her role in the Discoveries, and was the last European country to decolonize (1974-75).¹² It is important to assess the extent to which the presence of private corporations in Portuguese colonies was a decisive instrument for the government colonial administration. Moreover, the Portuguese empire was large enough to be a representative case study.

2. Material and methods.

In the twentieth century, the old dreams to build a rich and powerful Portuguese nation returned to the fore of political discussions and projects of political parties. This empire was to be based on the Portuguese continental territory and on the vast and rich overseas territories. The Portuguese project to establish a continuous colonial strip from the Atlantic to the eastern coast of Africa failed because of the British interests in central Africa.¹³ Even so, the Portuguese colonial empire that resulted from the Berlin Conference and from the British Ultimatum to Portugal in 1890 consisted of vast and unexplored possessions in Guinea (36,000 km²) and (particularly) in Angola (1,247,000 km²) and Mozambique (784,000 km²).¹⁴ In the early twentieth century Africa was a coveted continent for all the European countries, especially after the 1918 consequences of WWI. The defeat of Germany and the Ottoman and Austro-Hungarian empires led to considerable adjustments in colonial control and borders.

Economic development of colonial territories as a road to prosperity and economic growth became a fundamental blueprint of the Portuguese Monarchists. The Republican Party also subscribed to this enthusiasm for the role of colonies in material progress and prosperity.¹⁵ Later on, Salazar's political regime also supported these projects of the Portuguese learned class and political parties of the day, on how to manage this fourth colonial empire. Pragmatism and a fascination with modernity were hallmarks of the epoch in Portugal, and Corporations emerged as the institutional framework to achieve business progress in Africa.¹⁶ The Berlin Conference established the borders for the European colonial empires in Africa in the 1880s. It adopted the principle of effective occupation as the main rule to legitimate international claims in colonization. Historical arguments were useless, because effective settlement and administration were required for this purpose. As a result, overseas businesses became a new profitable sector and came into fashion very suddenly. The juridical environment for national and foreign direct investment that prevailed in the Portuguese motherland was extended to her overseas territories, and tropical businesses began flourishing there.¹⁷ The administrative seizure of those territories through settlement and effective occupation can explain corporations' rush to the African colonial territories.¹⁸

By giving concessions to special Portuguese joint-stock companies in Mozambique,¹⁹ the so-called *Companhias Majestáticas*, in a region where a Portuguese administration did not yet exist, the government transferred the responsibility for establishing a Portuguese administration and authority in the territory to those *free-standing companies* during the period of the concession.²⁰ The private incentives to invest capital depended upon the new opportunities stemming from the needs to finance local central-state expenditures, on the one hand, and the political support from the Portuguese government, on the other.²¹ The

government also minimized public expenditure by allowing religious missions to provide education and health care.

As Lu and Beamish observe,²² small and medium enterprises (SMEs) welcome "liabilities of foreignness". They represent imperfect markets, as they were only beginning to open toward the world, and the Portuguese government was defining the rules for those economic connections. As the European presence was very sparse, the rules had to be built from the ground up. Newness and foreignness demanded adaptation to local conditions.²³ Companies could seek higher returns from exporting local resources. Investment hazards and market condition fluctuations were serious problems in addition to the usual costs in globalization.²⁴ Of course, they knew they would face high levels of risk. Many corporations would provide state-of-the-art technologies and engineering abilities, in particular. One can see that investment in Africa increased a great deal in the twentieth century, regarding the number of new joint-stock corporations operating there. Of course they also benefited from the government rule over those territories, which represented a positive externality for businesses. In the last years of the nineteenth century, the largest territories (Guinea, Angola, and Mozambique) were carefully visited and inspected by geographers, who mapped and described them under the surveillance of the Lisbon Society of Geography,²⁵ thanks to scientific expeditions carefully planned for this purpose, while rebelled tribes were submitted thanks to military campaigns. Public goods received by companies from the government include all these aspects, particularly peace, as well as a juridical background definition, the existence of courts for conflicts arbitration, and material facilities. In the early twentieth century these facilities were scarce, because the main government aim was to fund regiments to protect southern Angola and eastern Mozambique borders from German attacks on the eve (and throughout) the First World War.²⁶ Only after the War was it possible to launch a program of administration, thanks to the appointment of colonial governors, *altos*

comissários, who were awarded with larger functions and decision autonomy from the Lisbon government, to begin the implementation of settlement policies in order to seize the most interior and remote zones.²⁷ Urbanization was another aim, as well as communications, schooling, and health-care provision. The 1920s, however, were disappointing times in what concerns the behavior of the colonial stuffs. Because of agricultural mechanization in the American continents, the formidable production increase for the global world supply, led to risible prices in the context of the Great Depression market surpluses.²⁸ In Lisbon pricing was carefully watched thanks to the foundation of a Stock Exchange for commodities, where a vitrine exhibited samples and quotations of these commodities, for the people to trade in.²⁹ Normalcy was retaken in the early thirties. Salazar's government pursued policies that always aimed at preserving the Portuguese empire³⁰. Not only could the overseas territories offer an escape for emigration when cyclical fluctuations afflicted the motherland economy and other destinations were closed-door outlets, but could also be a good source of revenue for mainland traders and investors.³¹ Statistical information began being published in annual yearbooks, which is an indicator of high political interest of the Portuguese government for administration management, a decisive aspect in public goods provision, from corporations' perspectives.³² These are good financial and institutional reasons to begin this paper in the 1930s decade.

The expression "colonial business" was a catch-all legal phrase that embraced more than "business". Alliances between firms point to "several benefits including the minimization of transaction costs, increased market power, shared risks and better access to key resources such as capital and information". The overseas empire had a significant impact on the mother country as it joined, on the one hand, a small European territory, and on the other hand, a collection of much larger territories geographically dispersed from the middle of the Atlantic – Azores Islands – to the Indonesian archipelago - East Timor.³³ In the twentieth century, the

economic growth of the motherland was accompanied by these overseas territories economic growth, particularly after the Second World War.³⁴ Adding to the policies defined and implemented by the successive national governments in overseas territories, two additional types of organizations helped to mold those overseas regions to the European financial template. Religious missions always walked hand in hand with the national political forces to Christianize and educate local populations.³⁵ However, private companies and corporations had a central role here as well.³⁶ They always sought to obtain profits from all of their efforts, independently of the places where they implanted their activities. In spite of this selfish view, they brought significant improvements to consumption, standards of living in Africa, and elsewhere, and also to the mother country in Europe.

It was amazing the path of growth in Portuguese overseas territories during the period that was elected for this paper (1930-1974). In any case the guerrilla operations did ever affect the urban centers and the main production areas, while the military spending was launching Keynesian multiplicative effects on the economies.³⁷ In such a short period of time, which lasted for less than half a century, there was a herculean change in infra-structures, modernization, economic growth, and development. According to (Valério; Tjipilica, 2008), the Angolan GDP per capita index multiplied 5-fold between the immediate post-World War II period and the late 1950s, stagnated for a while in late 1950s, and resumed its growth in the 1960s, more than doubling until decolonization. The Mozambique U-shaped character of the GDP per capita index in the 1930s and the first half of the 1940s was a consequence of the Great Depression and the Second World War, respectively. Its growth between the mid-1940s and the early 1970s was similar to the Angolan. The worst consequences of the overseas war seem to have occurred in São Tomé and Príncipe. There was a specialization in one only crop – cacao – and its GDP per capita stagnation in the 1960s and early 1970s is related with “the

boycott on Portuguese products by countries that actively opposed the Portuguese colonial policy”.³⁸

3. Theory.

There are many studies that develop methodologies for predicting the equity return premium.³⁹ The Capital Asset Pricing Model is very attractive because it uses one only explanatory variable – the market average return – although this still requires the estimation of the particular level of risk of the issuer (β_i),

$$R_i = R_{free} + \beta_i \cdot (\bar{R}_{market} - R_{free}),$$

considering the surplus resulting from the difference between the cost of risk-free debt (R_{free}) and the average risk premium of the market (\bar{R}_{market}).

In this paper the methodology for this purpose of estimating the capitalization index and the equity return premium is as defined at (Dimson, Marsh, e Staunton, 2002).⁴⁰ According to the estimations presented for sixteen countries that are considered in this book, it is concluded that the world average Cost of Capital is about 5 per cent, an estimation that motivated these authors to label their book as *The triumph of the optimists*, to stress how much well-succeeded they were in the twentieth century. The book notes that 4 of the 16 analysed countries (the USA, Japan, Germany, and France) comprise 85 per cent of the global capital equity. They conclude for «The triumph of the Optimists», because investment in equities of the sample throughout the twentieth century has proved to be the most rewarding, everywhere. The known theoretical models are not yet able to supply reliable figures for future values of the ERP. These reasons led the whole financial industry to base

their estimates for the Cost of Capital on the single historical analysis that has been conducted by Ibbotson Associates⁴¹ for the US market since this country registered a time-series that runs uninterrupted from the beginning of 1926. However, the Ibbotson figure sounds to be exaggerated, not only for the US market but also for other countries, and that suggests that the best each country can do is to develop its own data base of stock returns and extend it backwards as much as possible to improve the quality of the estimate. This is another positive contribution to be expected from this paper.

On the psychological front, the development of Prospect Theory by Tversky and Kahneman (1992) allows to bring some explanation of market behavior. This is what Benartzi and Thaler (1995) did in noting that investors care more about the *returns* obtained than about the *value* of their portfolios. Since losses are particularly painful, some investors do not evaluate returns everyday but only at large intervals of time, avoiding the useless pains due to temporary losses. So, those investors evaluating their portfolios everyday require a large risk premium to hold shares instead of bonds, but those taking large time intervals between evaluations have smaller probabilities of losses and require smaller risk premium. This means that there may exist a large bunch of different risk premiums in the market and such values may change along the time, according to the average time horizon of evaluation of investments, and according to the business sectors.

There is large historical evidence on the existence of Portuguese and foreign companies operating in the Portuguese offshores. Their presence comes from the pre-World War I decades when globalization led to the capacity of investing in economic activities in other continents.⁴²

The Portuguese dominance over this empire was related to joint-stock companies operating within the realms of agricultural plantations and livestock raising, mining, felling and carrying timber, shipping, transportation (for mail, passengers, and goods), insurance, and

banking.⁴³ Shipping and insurance were the two sectors where established firms decided to expand their activities to colonial endeavors, as vessels were already plying coastal waters and shipping required insurance for the cargoes. Together with local colonial crop production, these activities profited from the favorable geographic positioning of the African offshores on the sea routes from northern Europe to Brazil and other South American territories, and to Asia. Commerce, ports and railway construction, telegraphs and telephones, water, gas and fuel provision, banking, and industrial activities were very active sectors of economic activity in the Portuguese empire. An example of a special role is banking.⁴⁴ On another front, Diamang is a special case, in Angola, after 1956.⁴⁵ All annual reports are available at the Historical Archive of the Portuguese Central Bank, *Banco de Portugal*, in Lisbon. For other sectors of activity one can also consider that geographic expansion for market-seeking investment would broaden the customer bases of established firms, as local populations had a low standard of living for demanding their products, but the rising number of Portuguese settlers and the rising standards of life throughout the century were increasing the demand for all kinds of goods and services.⁴⁶ The desire for new production conditions might also have been a force driving the companies to the Portuguese colonies. Small territories seem to have been unattractive to private investment, and, as a result, most of the private companies and corporations were concentrated in Angola and Mozambique, but farming prospered in the tiny archipelago of *São Tomé e Príncipe* because of cocoa and the international market for chocolate, and some of the farms are listed in the Lisbon Stock Exchange.⁴⁷

For foreign firms, the existence of a colonial linkage between a territory and a European partner provided special safety in terms of available knowledge on the locally dominant political organization, respect for established juridical aspects, governmental administrative practices or contract regimes.⁴⁸ For Portuguese firms, the overseas empire had also these advantages, but it presented the same uncertainty in what respects the ability to interpret the

fitness of the business in global markets, the capacity to control it at distance, or the possibility of performing in a different environment where tropical diseases were dangerous, particularly malaria. It was quite similar the need of sending confident staff, and the planning for training local employees.

Appendix 1 details the list of the sampled colonials, yearly. The number of corporations operating in the Portuguese offshores listed in the Lisbon Stock Exchange varied from year to year, and the statistical information that is recorded in the daily bulletins shows that stock transactions were sparse. Table 1 presents the sampled colonial corporations among the total number of corporations listed in the Lisbon Stock Exchange (and their distribution by sectors of activity). The sample that was elected among the listed colonials includes all those that had frequent transactions recorded in the daily bulletins.⁴⁹ Navigation and shipping companies were among the largest, *Companhia Nacional de Navegação* and *Companhia Colonial de Navegação*. Their existence was quite related with the existence of the empire and its geographical spread for three continents, just reflecting the character of business opportunities that were involved. Important sectors of activity were mining (including the diamonds company in Angola after 1956), farming (plantations of tropical crops and husbandry),⁵⁰ electricity production and distribution,⁵¹ oil distribution,⁵² and industrial activities (mainly sugar refining and alcohol production).⁵³ The sample does not include the two banks listed in the Lisbon Stock Exchange, *Banco de Angola* and *Banco Nacional Ultramarino*. Both were issuing banks, *Banco de Angola* for Angola, *Banco Nacional Ultramarino* for the other remaining territories. The decision to not include them results from the huge weight they represented in the sample, commanding the evolution of the index. Most of the colonial corporations (including railway companies) were small-pocket organizations when compared with these two banks, and this paper aims to discuss the equity return premium for private colonial investment given the risk that was involved in those ventures

and in those geographical endeavors. Moreover, the inclusion of the two banks does not make sense, because both were headquartered in Lisbon, and had intense activity in the motherland. Their inclusion would command the results and masquerade the real performance of colonial business throughout this period. These conclusions stem from the accomplishment of the colonial index estimations, with and without them.

Table 1 – Number of colonial corporations listed on the Lisbon Stock Exchange, total number of corporations listed on the Lisbon Stock Exchange, Total equity listed, and equity of colonial corporations as percentage of GDP, for the period 1930-1973.

	1930	1935	1940	1945	1950	1955	1960	1965	1970	1973
Total nº of Listed Corporations	112	98	104	104	110	123	132	137	136	145
Banks	10	9	8	10	11	11	12	13	12	17
Insurance	15	15	17	18	17	20	19	20	24	25
Textile industries	4	4	5	5	5	5	5	5	5	4
Railways	4	4	4	5	3	3	2	0	0	0
Utilities	0	0	0	0	0	0	0	17	12	12
Colonials	33	24	23	21	23	28	24	33	33	34
Others	46	42	47	45	51	56	60	49	50	53
Sampled Colonials	15	12	13	12	16	18	18	17	24	15
Total Equity listed in the LSE (000 000 PTE)	948	1031	1059	1727	3251	5897	9353	13318	23331	35822
GDP mp (000 000 PTE)	18239	19785	1990	39989	56092	70572	88994	135681	212358	342817
Total Equity as % of GDP	5,20%	5,21%	5,30%	4,32%	5,80%	8,36%	10,51%	9,82%	10,99%	10,45%
Equity of Colonials in the total listed equity	13,50%	8%	21,40%	33,40%	34,70%	33,2%	25,50%	13,80%	12,90%	4%

Source: Daily Bulletins of the Lisbon Stock Exchange, BVL Historical Archive.

In the stock market of a small country such as Portugal, the number of the colonials was only superseded by the number of “other corporations” in the table, which mainly covers the industrial companies. Table 1 proves that total equity listed in the Lisbon Stock Exchange represented 5% of GDP before WWII, 4% in 1945, and increased to almost 11% until the eve of Decolonization.

The evolution of the total number of listed companies in the Lisbon Stock Exchange is U-shaped: From 112 they decline below 100 during the Great Depression of 1929-33, and retake after then to reach almost 150 on the eve of the Carnation Revolution of April 1974. The same happens with the number of listed corporations having their business activities in the Portuguese overseas territories: The table provides evidence on the U-shaped evolution of the total number of corporations operating in the Portuguese offshores that were listed in the Lisbon Stock Exchange. From 33 by the end of the 1920s, they declined from then until the end of the Second World War. The European reconstruction brought better international market opportunities to the consumption of tropical goods and the resumption of colonial businesses until the end of the 1950s, when independence movements began preparing international support for the colonial wars in the three largest African territories (of Angola in 1961, Guinea in 1962, and Mozambique in 1963). The Portuguese political decision to fight and control the colonial wars brought confidence again to invest in the overseas companies, and 34 were listed on the eve of the revolution that was accepting to decolonize. The entrepreneurs’ confidence on this political and military context still led to concentrate 24% of the listed firms in the Lisbon Stock Exchange in the colonial business sector, during the 1960s and early 1970s period.

The number of these listed corporations in the Lisbon Stock Exchange was small but significant. They represented 30% of the listed firms in the early 1930s, when the global

economy was recovering from the Great Depression problems and the international trade lethargy. This was the time for returning to a normalcy in what respects the prices of tropical goods such as coffee, cotton, and sugar. This ratio declined to 20% during the Second World War as well as in the period 1945-1950. In spite of the Portuguese neutrality in the conflict, the War was a difficult time. The interruption of transports in the Atlantic Ocean because of submarine war afflicted businesses in the offshores. The conflict also led the government to adopt self-sufficiency policies, based on the local agricultural supplies. The 1950s were more hopeful. In spite of the global trend for decolonization after the Second World War, the business enthusiasm for the Portuguese colonial sector recovered and reached a 23% concentration of the total number of listed corporations in the Lisbon Stock Exchange in 1960, while the public goods provision was improved.

During the whole period the government defended the idea that Portugal was not a colonizer, but a cohesive nation made of diversified citizens that lived in territories spreading throughout all continents of the earth, from northern mainland in Europe to east Timor in Asia, using the same language, having the same political rights, framing the Portuguese national brotherhood under a same flag. The youth coming from the overseas territories who graduated in Portuguese universities contested this official philosophy, and founded political movements to claim for the independency of Guinea, Cape Vert, Angola, and Mozambique. In the Portuguese historiography, 1961 is considered as a dramatic year and a real turning point for the Portuguese economy. The peaceful environment that prevailed in the Portuguese overseas was dramatically interrupted by guerrilla actions, which were implemented particularly in Angola and Guinea. The Portuguese government reaction was immediate in sending large military resources for fighting against this pretension to preserve the empire. Military fighting was also beginning in Mozambique in 1963, adding a third front to the colonial wars. The political project of the Portuguese government to assure normalcy in

everyday life in those territories was successful, particularly in urban centers. Moreover, the public goods provision was tremendously improved thanks to the needs of building a fashionable road network in order to move large regiments of troops, and install the army throughout the territories. The military engineering helped in many technical aspects, such as water provision and electricity, while education (including high-schooling and universities) and hospitals were spreading throughout denser urban networks. In spite of all the government efforts, the equity of the colonials in the total listed equity increased from 13% to 35% between 1930 and 1950, and declined to 4% until 1973.⁵⁴

4. **Results. Discussion.**

For this paper the methodology for building the share capitalization and the equity return premium replicates as close as possible the BVL-General index of the Lisbon Exchange, as in (Costa, Mata, Justino, 2012).⁵⁵ Everyday a single value was computed based on the closing prices of all the shares of the sampled companies operating in overseas territories. Also, all corporate events affecting the price of any share beyond market sentiment are taken into account through proper adjustments either in the numerator or the denominator of the formulae.

The source of information used is the series of daily bulletins published in paper form by the Lisbon Stock Exchange and available at the Library of (nowadays called) Euronext Lisbon.⁵⁶ However, only one day per week was used in order to reduce the computation burden. The selection led to the use of every Wednesday – except if it was a bank holyday – in order to minimize potential weekend effects upon the observed prices. Since the index covers all shares listed, the sample had to be modified and the index adjusted whenever one company entered the market or left it:

For the case of a new company entering the market, the index did not consider the first day of quotation but only added its capitalization on the second day of the time series:

$$I_{t+1} = I_t \cdot \frac{\sum_1^n (\text{Capitalisation}_i)_{t+1}}{\sum_1^n (\text{Capitalisation}_i)_t} \quad \left\{ \begin{array}{l} t = \text{first day of a new company} \\ t + 1 = \text{second day of the new company} \end{array} \right.$$

where the denominator already includes the capitalization of the new company on the first day of trading. Of course, for the first day, the numerator excludes the capitalization of the new company in order to reduce the index variation to simple changes in the sentiment of the market.

$$I_t = I_{t-1} \cdot \frac{\sum_1^{n-1} (\text{Capitalisation}_i)_t}{\sum_1^{n-1} (\text{Capitalisation}_i)_{t-1}}$$

When a company left the market by any reason, the denominator excludes that company for the computation of the index on the first day, already without the old company:

$$I_t = I_{t-1} \cdot \frac{\sum_1^{n-1} (\text{Capitalisation}_i)_t}{\sum_1^{n-1} (\text{Capitalisation}_i)_{t-1}} \quad \left\{ \begin{array}{l} t = \text{first day without the old company} \\ t - 1 = \text{last day of the old company} \end{array} \right.$$

This index measures the total return of the market including the yield due to cash dividends paid out by some of the companies in the sample. To include this impact of the dividend, the numerator of the formula was expanded to include the total amount of cash dividend outflow

from that firm on the first Wednesday after the payment day. But, for all other days, only the sum of capitalizations without those paid dividends were used in the formula:

$$I_t = I_{t-1} \cdot \frac{\sum_1^n (Capitalisation_i)_t + N_j \cdot D_j}{\sum_1^n (Capitalisation_i)_{t-1}}$$

$$\left\{ \begin{array}{l} t = \textit{first Wednesday after dividend pay - out} \\ t - 1 = \textit{the previous Wednesday} \end{array} \right.$$

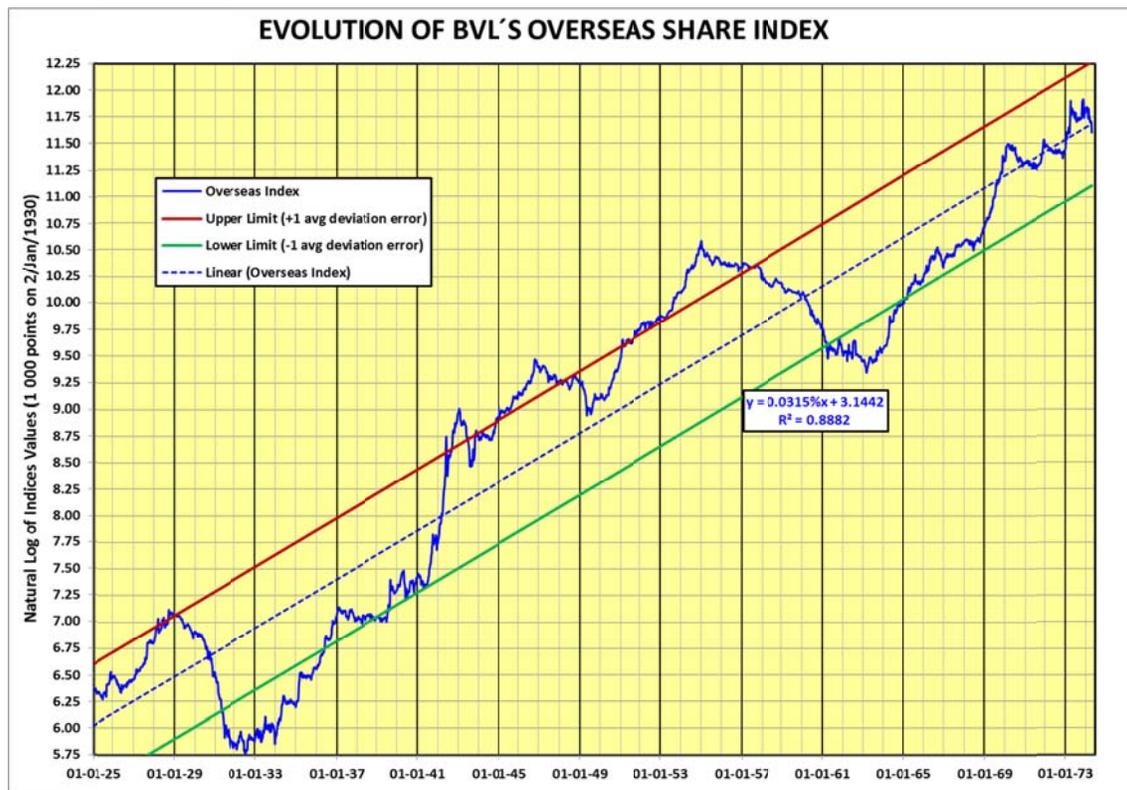
Unfortunately, the market did not offer trades of shares for all listed companies on every day. That is, there was frequent lack of quotations along the analyzed time window. However, the daily bulletin also discloses the best Bid and the best Ask prices after each particular auction⁵⁷. So, as a second best solution, the following methodology was adopted:

- when no trades had occurred, the average between Bid and Ask was used as a proxy for the real traded price
- when only the Bid or the Ask was available, that single value was used as that proxy
- when none of the 3 values were present on one Wednesday, the value from the previous Wednesday was used
- however, if two or more Wednesdays in a row occurred, that company was temporarily excluded from the sample according to the rules referred above for new entrants and old companies leaving the market.

The capitalization index includes all returns on capital (assets value variation, interest and profits distributed by companies to their owners).

According to this methodology, Figure 1 presents the obtained results for the overseas capitalization share index at the Lisbon Stock Exchange. To better assess the main peaks and lows, the Figure also considers the band of the one average deviation error.

Figure 1 - Lisbon Stock Exchange (BVL): Index for shares of firms operating in overseas territories for the 1930-1974 period.



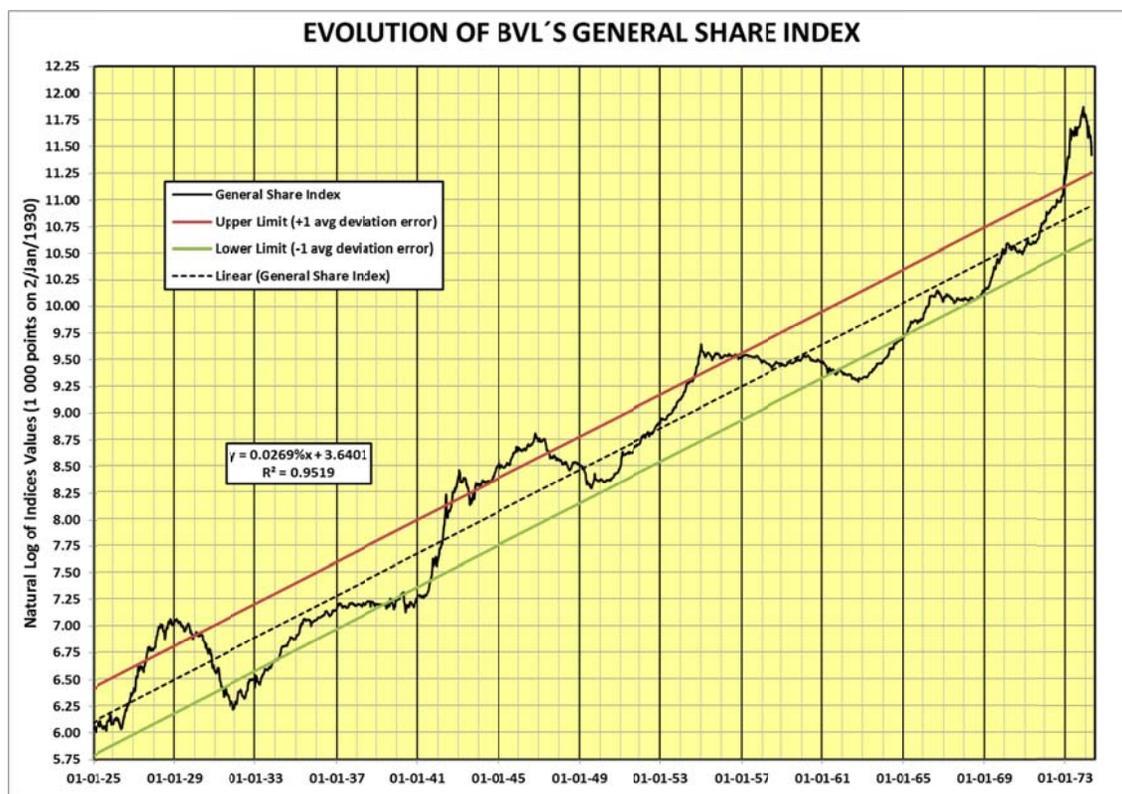
Source: Daily Bulletins of the Lisbon Stock Exchange. Weekly data. Logarithmic prices. Basis on 3/Jan/1930 = 1000 points.

The positive trend of the estimation reveals optimistic conclusions. A linear adjustment provides an average daily compound growth rate of 0.0315%, as a reward for the capital invested in the colonials. Of course rewards fluctuated according to the short-run conditions, and there were periods that provided rewards below this rate, while other phases provided

rewards above this average, allowing the identification of the main boom and bust periods. The number years on or above the average is the same as the number of years below. In considering the fluctuations that are not contained within a one average deviation error band, 1933-36, and 1961-65 were the main busts. Two events are certainly associated with them: The Great Depression, and the colonial wars, respectively. The Great Depression affected the prices of tropical foodstuffs, and the period of 1933-36 was recovering from the lows of 1932 but did not reach the one average deviation error floor. To better assess its meaning, the estimations were extended to 1925, which reveal the positive performance of the first half of the 1920s, globally described as “the foolish twenties”. In a global perspective the colonial corporations were small and price-taker corporations. The 1961-65 period experienced the effects of war on the expectations for the future of the empire, as three military-fighting fronts were open in the 1961-63 years, when positive expectations supported the recovery from the 1963 lows, to reach the one average deviation error floor in 1965. As for booms, Figure 1 identifies 1942-47 (with a hesitation in 1943) and 1953-58 as the best times. They certainly are associated to the military turn that made possible the forecasts and the achievement of the Allied victory, which was followed by a collective euphoria, and to the effects of the foreign aid through the Marshall Plan program that lasted until 1953.

To better appreciate the BVL’s overseas share index⁵⁸ it was also estimated the BVL’s general share index (for all shares listed in the main market of the Lisbon Stock Exchange), which is presented in Figure 2. Both indexes are a novelty, in terms of the available literature.

Figure 2 - Lisbon Stock Exchange (BVL): The BVL’s general share index for the 1930-1974.



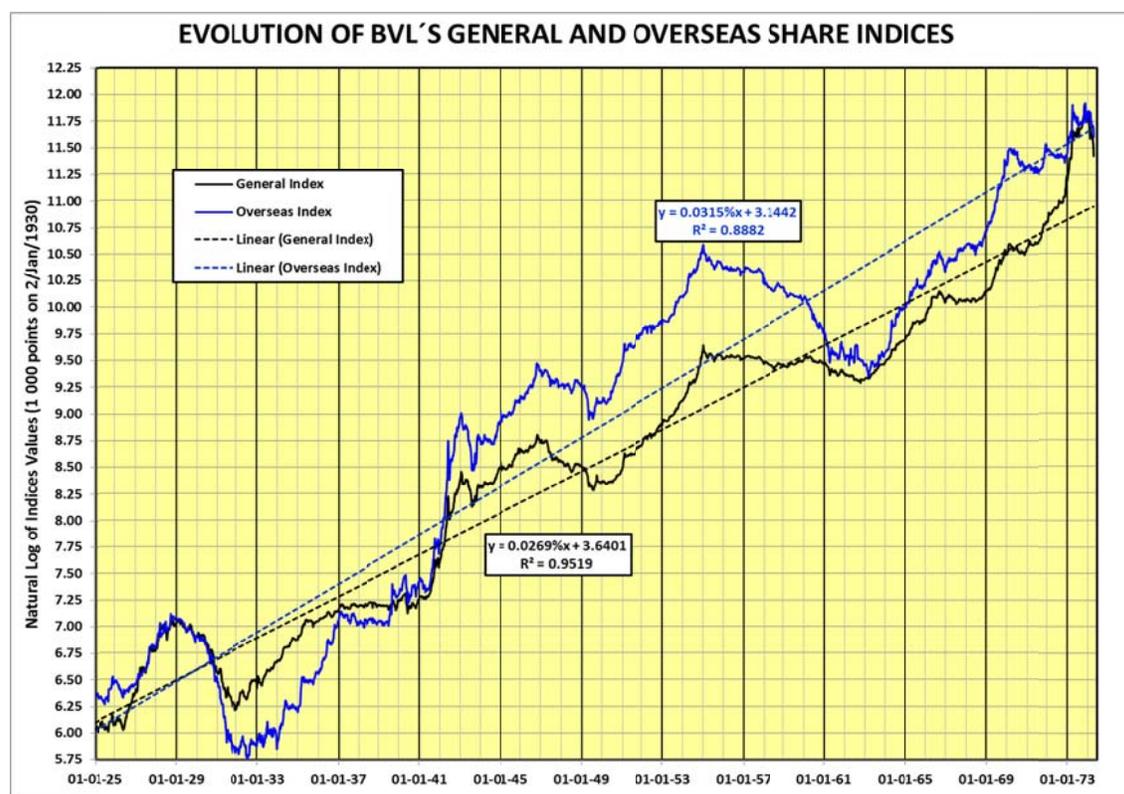
Source: Daily Bulletins of the Lisbon Stock Exchange. Weekly data. Logarithmic prices.
 Basis on 3/Jan/1930 = 1000 points

Figure 2 also shows a rising behavior from the Great Depression times to 1974, the year when the political regime was thrown down because of the 25th April Carnation Revolution, the military putsch that put an end to the colonial wars and implemented their decolonization. The operations in the Lisbon Stock Exchange were suspended, and the stock market would remain closed for a long time.⁵⁹ The BVL's general share index fluctuations contained in a narrower one average deviation-error band prove that it is less volatile than the overseas share index. The identification of busts selects the same periods, but having shorter durations, as they are contained in the 1932-34 and 1962-64 years. As for booms the identification selects the same periods, 1943-47 and 1954-58, and one more boom in 1973-74, which did not occur in the overseas index. This boom may have to do with the character of the political regime,

which implemented a political openness under the new Prime-minister Marcelo Caetano's governance (the so-called *Primavera Marcelista*), but which was not influencing the overseas index, indicating that all this political openness claiming for the end of the colonial war, was leaving large uncertainty on the empire continuation as well as on the future of the corporations performing there.

To better compare the capitalization general share index and the overseas share index Figure 3 presents both of them simultaneously.

Figure 3 - Lisbon Stock Exchange (BVL): Index for shares of firms operating in overseas territories for the 1930-1974 period, and the BVL's general share index for the 1930-1974.



Source: Daily Bulletins of the Lisbon Stock Exchange. Weekly data. Logarithmic prices. Basis on 3/Jan/1930 = 1000 points.

In examining the two, a main result comes clear: They moved together, they were quite close until 1941, but tended to take off to larger differences as time went on. Looking at Figure 3 it is easier to check again that the overseas index was more volatile.

Linear adjustments prove the steeper character of the overseas share index, in comparison with the general share index evolution. For investors in colonials, the rewards' daily compound growth rate was 0.0315%, while for share investors in general it was 0.0269%.

This difference may seem quite small, but in fact it is very relevant when properly examined in annual perspective. Table 2 presents the estimation of both rewards, weekly and annually.

For investors in colonials, the rewards weekly compound growth rate was 0.252%, while for share investors in general it was 0.201%. For investors in colonials, the rewards' annual compound growth rate was 13.13%, while for share investors in general it was 10.49%. This means that the annual reward compound rate difference between colonials and all corporations in general (including the colonials) was 2.65%.

Table 2 – Extra premium for overseas corporations' shareholders in the 1930-1974 period

EXTRA PREMIUM FOR OVERSEAS CIAS			
		GENERAL	OVERSEAS
$\mu =$	weekly	0.201%	0.252%
	annual	10.49%	13.13%
Difference μ (p.a.)		2.65%	
<i>Due to</i>	<i>More Volatility (p.a.)</i>	1.08%	
	<i>Less Liquidity (p.a.)</i>	1.56%	

This is a very important conclusion.

This means that the cost of capital for the corporations operating in the overseas territories was higher than for corporations in general. This higher cost of capital is related with higher

prospective risk that was expressed by investors in considering the character of tropical businesses, because of facing a different environment, different local cultures, scarcity of trained labor force, large distances for efficiently implementing business and management, or any other reasons such as political fearing, or independency expectations.⁶⁰ These factors can explain that a higher equity return was required as a higher premium to launch colonial ventures instead of alternative capital applications. If these corporations were surviving successfully, this means that the higher rewards reflect they reached higher productivity performances to reward the riskier investment. In fact, entrepreneurial initiative, coupled with European technology and management abilities, could be combined with extensive and fertile land, as well as abundant and cheap local labor force.⁶¹ The less abundant availability of capital, locally, can also explain the higher remuneration for shareholders, as capital was a decisive production factor in tropical regions, where other productive resources were so much more abundant.⁶² Table 2 estimates that 1.08% of the 2.65% annual reward compound rate difference was due to the higher volatility, and the remaining 1.56% annual reward compound rate difference was due to less liquidity.

The consequences of these estimations for the Portuguese historiography cannot be traced here. Out of any kind of prejudice, this paper leaves this objective information to be interpreted in the context of discussions on globalization, risk, and colonial contributions for studying the modern economic growth.⁶³ According to economics and National Accounting definitions, the *national income* corresponds to the total income from the remuneration of productive factors, including the remuneration of labor (wages) and return on capital (rents, interest and profits distributed by companies to their owners), as estimated in this paper. There is equivalence between national income and GDP, if depreciation and direct taxes⁶⁴ are deducted from national income.

5. Conclusion

Historians have long discussed the role of colonial empires for capital investment. Some interpretations have been based on the imperialism approach, and adopt an ideological prejudice to conclude that colonial investment was mainly based on colonial exploitation for local labor force.⁶⁵ A business-centered view was added to embrace a business-oriented look made up of private independent decisions based on defending firms' interests toward diversification and maximization of profits. The capitalization indexes are objective measures for the estimation of the cost of capital involved in corporations. In Guinea, São Tomé and Príncipe, Angola, and Mozambique not only were there local branches of Portuguese motherland established firms, but also many free-standing companies or new ventures purposely-created to operate in these colonial offshores, carrying national and international flows of capital to those regions.⁶⁶ Their businesses were run in the overseas territories and not in the motherland, which means that the evidence presented is conclusive. Successful firms operating overseas had no significant operations in Portugal and concentrated mostly in Angola and Mozambique. The fact that they had operations overseas tells us a lot on the empire and changes within it during the analyzed decades. The more successful firms had more expansive operations, just in the overseas territories and not in Europe. In short, the estimated results substantiate and support the reached conclusions.

Their names evoke the region of operation or the business they addressed, and their annual reports frequently identify crossed-capital participations. The net result of those private corporations has never been studied, and this paper helps to investigate some of the consequences of the cost of capital in Portugal and in those former colonial countries in terms of the economic value-added and diffusion of corporate culture. Long-term goals of most of the corporations operating in the empire may have ended in 1974, but the legacy of market

rules to sub-Saharan territories was made available, entrepreneurship in novelty was learned, and decentralized leadership was experienced.

The basic finding of this paper is that the BVL's share capitalization index was much higher for firms having their businesses in the Portuguese overseas territories than for the whole set of listed firms (and so, much higher than for those whose businesses were limited to the motherland territory in Europe).

The capitalization index represents the shareholders' rewards for their invested capital and risk, and those rewards contribute for the national income. Thanks to this measure for the investment success in these decades, both in the overseas empire and in Portugal as a whole, it is possible to suggest that from the Great Depression to Decolonization, there was a positive engagement in entrepreneurship initiatives, corporations' businesses and Western management culture while increasing levels of GDP per capita were achieved in the Portuguese overseas territories. The results are robust and particularly relevant in considering the current economic growth of these countries and the current difficulties of economic growth in Portugal.⁶⁷ The corporations performing in the overseas territories successfully provided higher returns to their shareholders, in comparison to the whole sample of corporations listed in the Lisbon Stock Exchange. Given the fact that the majority of companies operating overseas disappeared when the former Portuguese colonies became independent, was the premium calculated above sufficient to compensate the company for losses and goodwill after withdrawal? This is a question for a next paper.

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Appendix

Appendix

COMPANIES LISTED IN LISBON AND SAMPLED FOR THE OVERSEAS INDEX

1925		1926		1927		1928		1929		1930		1931		1932		1933		1934			
Weight in the Gen Index																					
NP of Companies																					
Agr. Cazezeng	10.45	Agr. Cazezeng	8.51	Agr. Cazezeng	6.79	Agr. Cazezeng	7.08	Agr. Cazezeng	5.93	Agr. Cazezeng	2.29	Agr. Cazezeng	1.35	Agr. Cazezeng	0.94	Agr. Cazezeng	0.90	Agr. Cazezeng	0.90	Agr. Cazezeng	0.90
Agr. Ganda	17.14	Agr. Ganda	17.69	Agr. Ganda	23.37	Agr. Ganda	30.13	Agr. Ganda	15.38	Agr. Ganda	14.60	Agr. Ganda	4.53	Agr. Ganda	1.48	Agr. Ganda	4.21	Agr. Ganda	3.42	Agr. Ganda	3.42
Agr. Neves	13.43	Agr. Neves	13.27	Agr. Neves	13.53	Agr. Neves	17.27	Agr. Neves	15.39	Agr. Neves	15.39	Agr. Neves	4.07	Agr. Neves	5.07	Agr. Neves	5.07	Agr. Neves	5.07	Agr. Neves	5.07
Agr. Principe	0.64	Agr. Principe	0.50	Agr. Principe	0.48	Agr. Principe	0.61	Agr. Principe	0.51	Agr. Principe	0.34	Agr. Principe	0.17	Agr. Principe	0.18	Agr. Principe	0.18	Agr. Principe	0.18	Agr. Principe	0.18
Agr. Ultramarina	18.43	Agr. Ultramarina	7.34	Agr. Ultramarina	9.36	Agr. Ultramarina	10.04	Agr. Ultramarina	10.27	Agr. Ultramarina	8.47	Agr. Ultramarina	3.89	Agr. Ultramarina	3.59	Agr. Ultramarina	3.04	Agr. Ultramarina	2.74	Agr. Ultramarina	2.74
Agr. Colonial	7.79	Agr. Colonial	20.24	Agr. Colonial	29.34	Agr. Colonial	57.05	Agr. Colonial	52.81	Agr. Colonial	28.78	Agr. Colonial	7.26	Agr. Colonial	3.07	Agr. Colonial	3.07	Agr. Colonial	3.07	Agr. Colonial	3.07
Assucar Angola	13.90	Assucar Angola	7.28	Assucar Angola	7.46	Assucar Angola	16.31	Assucar Angola	17.90	Assucar Angola	16.65	Assucar Angola	16.99	Assucar Angola	22.69	Assucar Angola	35.35	Assucar Angola	53.74	Assucar Angola	53.74
Boror	22.23	Boror	22.17	Boror	22.65	Boror	29.16	Boror	29.77	Boror	21.89	Boror	9.80	Boror	5.02	Boror	7.00	Boror	8.31	Boror	8.31
Cabinda	7.84	Cabinda	7.79	Cabinda	8.70	Cabinda	9.65	Cabinda	7.53	Cabinda	3.81	Cabinda	0.89	Cabinda	0.70	Cabinda	0.89	Cabinda	1.09	Cabinda	1.09
Col. Buzi (1)	15.81	Col. Buzi (1)	10.46	Col. Buzi (1)	11.47	Col. Buzi (1)	15.13	Col. Buzi (1)	12.65	Col. Buzi (1)	9.07	Col. Buzi (1)	6.21	Col. Buzi (1)	5.56	Col. Buzi (1)	6.59	Col. Buzi (1)	6.34	Col. Buzi (1)	6.34
Col. Buzi (2)	14.83	Col. Buzi (2)	8.98	Col. Buzi (2)	11.22	Col. Buzi (2)	14.88	Col. Buzi (2)	12.20	Col. Buzi (2)	8.72	Col. Buzi (2)	6.21	Col. Buzi (2)	5.56	Col. Buzi (2)	6.59	Col. Buzi (2)	6.34	Col. Buzi (2)	6.34
Com. Moçambique	0.97	Com. Moçambique	0.97																		
Congo Port.	0.15	Congo Port.	0.15																		
Nac. Navegação	20.86	Nac. Navegação	18.38	Nac. Navegação	19.51	Nac. Navegação	30.83	Nac. Navegação	38.35	Nac. Navegação	33.15	Nac. Navegação	19.17	Nac. Navegação	10.72	Nac. Navegação	8.06	Nac. Navegação	7.99	Nac. Navegação	7.99
Sul de Angola	1.88	Sul de Angola	1.45	Sul de Angola	1.17	Sul de Angola	1.98	Sul de Angola	1.45	Sul de Angola	1.45										
Zambézia (1)	11.64	Zambézia (1)	22.76	Zambézia (1)	22.76	Zambézia (1)	32.94	Zambézia (1)	20.62	Zambézia (1)	13.15	Zambézia (1)	8.62	Zambézia (1)	6.99	Zambézia (1)	7.40	Zambézia (1)	6.21	Zambézia (1)	6.21
Zambézia (2)	1.88	Zambézia (2)	2.00	Zambézia (2)	3.57	Zambézia (2)	3.57														

Notes:

¹ Foreman Peck, 2001.

² Jones, 1996.

³ Hennart, 2007, 425.

⁴ P. 101.

⁵ The studies produced until now focus on the political (and military) aspects of the empire, and on the ethnographic descriptions of those territories. It is also known that during Pombal's eighteenth-century government trade corporations were created aiming at an increasing economic integration with Brazil. That corporate model seems to have been extrapolated to other territories of the Portuguese empire to complement the Portuguese state in the task of running large slices of the empire. Duarte, 2000.

⁶ Reis, 1993.

⁷ Lenine, 1913. Wheeler, 1971.

⁸ Foreman-Peck, J, 1995, 1999.

⁹ O'Rourke, 1999.

¹⁰ Zahra, S. A., Ireland, R. D., and Hitt, M. A., 2000, pp 925-50.

¹¹ Acemoglu; Robinson, 2012, pp. 53-54.

¹² Bethencourt, and Ramada Curto, 2007.

¹³ Royal Commonwealth Society, 1962.

¹⁴ Alexandre, 1979.

¹⁵ Laíns, 1998 (a).

¹⁶ Lisbon Stock Exchange Historical Archive. Lisbon Overseas Historical Archive. Banco de Portugal Historical Archive.

¹⁷ Mata, 2007 .

¹⁸ Foreman-Peck, 2001a.

¹⁹ Wilkins, 1998.

²⁰ *Companhia de Moçambique* is a good example: Duarte, 2000.

²¹ For the role of tribal power in Mozambique and local rebellions see Garrett, 1907, p. 214.

²² Lu, J; Beamish, P. W., 2001, pp. 565-86.

²³ Miller, 1983, pp. 770-91.

²⁴ Bordo, 2003.

²⁵ *Sociedade Portuguesa de Geografia*.

²⁶ All financial documents on these military campaigns are available at the Lisbon Overseas Historical Archive *Arquivo Histórico do Ultramar*.

²⁷ The action of *altos comissários* such as Norton de Matos and Vicente Ferreira in Angola is frequently remembered.

²⁸ Ministério do Comércio, Indústria e Agricultura, 1933.

²⁹ "From the two large lateral entries for the people one can see a large floor and a frontal semi-elliptic balcony for the brokers. Back, on a stage, will be located the blackboards for writing the quotations". Associação Industrial Portuguesa, 1930, p. 64.

³⁰ Cardoso, 2012.

³¹ Laíns, 1998.

³² Note, however, that the first demographic censuses were only organized in 1940, and their quality for remote countryside regions is much lower than for *civilized* regions, a terminology that was used in these documents.

Instituto Nacional de Estatística, Lisbon.

³³ Boxer, 1969. Bethencourt and Curto, 2007.

³⁴ Valério, N; Tjipilica, P., 2008.

³⁵ Asiedu, 2002, pp. 107-19.

³⁶ The project cannot embrace the less measurable impacts such as education, health care, transport infrastructures in the overseas territories, etc.

³⁷ Laíns, 2004.

³⁸ Valério, N; Tjipilica, P., 2008, p. 1780.

³⁹ Fama and Schwert (1977), (1981); Rozeff (1984); Keim and Stambaugh (1986); Campbell and Schiller (1988); Fama and French (1988), (1989).

⁴⁰ Dimson; Marsh; Staunton (2002).

⁴¹ Ibbotson Associates, several years.

⁴² Mata, 2007.

⁴³ On colonial banking see Nunes et al., 2011.

⁴⁴ The issuing bank *Banco Nacional Ultramarino* and the unique case of *Banco de Angola*, a completely private corporation, are very illustrative. Valério, et al. (2011).

⁴⁵ It was given so many powers that this company had an independent police force to fight against smuggling of diamonds, easily unearthed in the geographic areas whose concession was granted to the company.

⁴⁶ Cassis, 1997 states the same aspects, globally.

⁴⁷ Although history attributes to India the underlying motivation for the extraordinary project of the Portuguese discoveries from the beginning of the 1400s – to by-pass the Italian cities that supplied Europe with spices imported from India – it was not in the Portuguese State of India that private companies played a significant auxiliary role to the state. Macau probably deserves a different and independent study, as it always (even today) operated as an entry and exit door for China to trade with the outside world.

⁴⁸ Mata, 2007.

⁴⁹ Some of them even benefited from foreign capital investment. For global explanations see Jones, G; Schröter, H., 1993.

⁵⁰ Cotonang was a cotton cultivation in Angola, using Belgium-Portuguese capital, founded in 1926. Riots and revolt against the company labor conditions in 1961 have been pointed out as the beginning of the colonial war.

⁵¹ *Hidroeléctrica do Revué*, at Mozambique, listed since 1957.

⁵² *Fina do Lobito*, at Angola, listed since 1958.

⁵³ *Companhia Agrícola do Cassequel*, at Angola, listed since 1937.

⁵⁴ This is their contribution to the index.

⁵⁵ Which estimates the average cost of capital and the equity return premium for all firms listed in the Lisbon Stock Exchange for the period 1978-2011.

⁵⁶ After the Lisbon Stock Exchange joined the Euronext group of Exchanges, in February 2002, this is the legal name adopted by this Portuguese affiliate.

⁵⁷ Mind that the Stock Exchange used the Roll Call system of trading during this period, where each listed share was called once at a time and a single equilibrium price was discovered after confrontation of all the orders carried by the brokers for that particular asset. The prices of those orders closest to that equilibrium but already excluded from trading produced the daily Bid and Ask prices.

⁵⁸ Including those corporations operating in the overseas territories, the so-called *colonials*.

⁵⁹ Costa; Mata, 2011.

⁶⁰ Jones, 2005.

⁶¹ Higgins; Toms, 2011.

⁶² Jones, 1994.

⁶³ Hertner; Jones, 1986.

⁶⁴ Taxes levied directly on income from labor and capital.

⁶⁵ Luxembourg, 1913. Lénine, 1917. Wheeler, 1971. Smith, 1979. Acemoglu, 2012.

⁶⁶ Wilkinns, 1996.

⁶⁷ Krugman, 2009.