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# Returns on Investments during the Colonial Era: The Case of Congo

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## ABSTRACT

### Returns on Investments during the Colonial Era: The Case of Congo

Before the First World War a global wave of foreign direct investment materialised. Belgium participated in it on a global scale but after the War a shift towards the Belgian colony (Congo) was observed. With regard to these colonial investments, it is commonly argued that higher (expected) profit rates were a strong incentive, although others propose that the colonial powers actually lost money on their overseas possessions. We measure ex-post performance in terms of the time weighted rate of return by making use of a new database on Congo stocks. We demonstrate that, as far as the Congo sample is concerned in comparison with the Belgian sample, returns on Congo stocks were much higher, at least until country risk became a reality (1955-1960).

*JEL Classifications* : O16 G15 F21

*Keywords* : Stock Exchange, Returns, Congo, Colonialism, Financial Markets, Development Economics

## RÉSUMÉ

### Rendement sur les investissements durant la période coloniale: le cas du Congo

Une vague globale d'investissements se matérialisa avant la Première Guerre Mondiale. La Belgique y participa sur une échelle globale mais après la guerre on observa un glissement vers la colonie Belge. En ce qui concerne les investissements coloniaux, on prétend généralement que des taux de profits (escomptés) plus élevés constituaient un stimulus puissant bien que d'autres avancent que, en réalité, les puissances coloniales perdirent de l'argent dans leurs possessions d'outre-mer. Nous mesurons la performance ex-post en termes de temps pris pour le rendement en utilisant une nouvelle banque de données sur les actions (bourses) Congolaises. En ce qui concerne l'échantillonnage Congolais et comparé à l'échantillonnage Belge, nous montrons que les rendements sur les actions Congolaises étaient beaucoup plus hauts, au moins jusqu'au moment où le risque dans le pays devint une réalité (1955-1960).

*Mots clefs* : bourse, rendement, Congo, colonialisme, marchés financiers, économie du développement.



## INTRODUCTION

From the very early days of capitalism, Belgium was making foreign investments across the world. Belgian companies such as *Cockerill* and *Vieille Montagne* were already investing abroad before 1850. Towards the end of the nineteenth century, a first global wave of foreign direct investment (FDI) materialised, followed after the First World War by a concentration on colonial trade. In the case of Belgium, this meant a shift of focus towards Congo. After the Second World War, and especially from the 1970s, a new global wave of FDI occurred in which Congo would, for that matter, only participate up until 1960, when the country gained independence. This particular type of FDI, namely investments in colonies, gave rise to the so-called cost-of-empire debate. In the present article, we consider this issue from the perspective of investors on the basis of returns on stocks, making use of a brand new database on colonial stocks.

The article is organised as follows. Section one highlights the relevance of the returns on investments on Congo stocks and discusses the issue at hand in the light of the cost-of-empire debate. Section two briefly introduces the historical settings of Congo during the colonial era<sup>1</sup>. Section three offers an overview of available data and the methodology used. In section four, we compare the total sample of Congo with Belgian data of the same period. We divide the Congo colonisation period in two parts, one before the First World War and one from the end of the First World War until 1960 (Congo independence). We discuss first the stock price index, which allows us to identify important events and significant moments within each period. Section five continues the discussion but concentrates on the total return on Congo stocks, whereas section six discusses the dividend yield. Section seven summarises and concludes.

## SECTION 1

Various economic motives (in addition to non-economic ones) behind globalisation waves have been identified, including hunger for new markets, raw materials and higher profits. Ultimately, always most theories assume that one of the principal driving forces behind FDI is the prospect of higher profit than could be achieved in the home country, given that investors can demand a country risk premium when investing

<sup>1</sup> There is an extensive literature on the Congo economy. For a general overview, see Ndaywel è Nziem, *Histoire générale du Congo*. For the period after the Second World War see Bertieaux, *Aspects de l'industrialisation en Afrique Centrale*.

abroad. Of course, the higher (ex ante) expectations hypothesis does not automatically imply that higher ex post profit rates were actually realised, so that the entire issue remains open to debate and empirical scrutiny. History shows that country risk can become a harsh reality, though it need not, of course, necessarily materialise. However, as far as colonial possessions are concerned, the debate is still ongoing whether the institutional settings were actually beneficial to the home countries. Some observers, including Hobson<sup>2</sup>, assume that FDI in colonial possessions yielded higher profits than other FDI. Others, like Fieldhouse, question this assumption, arguing that it makes little difference whether or not the foreign country invested in is a colony or not<sup>3</sup>, thus giving rise to the cost-of-empire debate.<sup>4</sup> The higher-profit rationale behind FDI waves still persists today. Proving or disproving it requires detailed empirical investigation of as broad a range of datasets as possible.

In the present article, we examine one particular case, namely foreign investments in the Belgian Congo during the colonial era from 1885 to 1960. The Belgian Congo was not the only place where Belgium made FDI. Before the First World War, the bulk of Belgian FDI went to countries such as Russia, China, Argentina, Brazil, and Egypt. The concentration of FDI on colonial possessions dates from between the end of the First World War and 1960, the year of Congo's independence. Congo is typically a country where the international settings for foreign investment are to a great extent controlled by the investor. While we believe the country represents an interesting case for study, we remain well aware that it could in fact be a special case among others.

This contribution ties in well with an important field of historical study, namely the comparison between returns on investments in colonial countries and returns on domestic investments. However, empirical research into this issue has thus far been limited to a handful of countries, including France.<sup>5</sup> As we have previously pointed out, this is a rather special area of scientific investigation, as colonial investments represent a particular kind of geographically diversified investment. It also goes without saying that this research question is just one among many others in the field of colonial history, as the multiple effects of colonialism go far beyond the return-on-investment issue. Indeed, there is growing awareness among scholars that performance cannot be measured merely in terms of profit rates. Notwithstanding these reservations, we feel the issue at hand is an important one, as it has particular bearing

<sup>2</sup> Hobson, *Imperialism*.

<sup>3</sup> Fieldhouse, *Les empires coloniaux*.

<sup>4</sup> Marseille, 'L'investissement privé dans l'empire colonial'.

<sup>5</sup> Marseille, *Empire Colonial et Capitalisme Français*.



on the colonial evaluation debate. It is often asserted in the literature on the financial evaluation of colonialism that colonies tended to cost the home country money rather than generate a profit for it. Indeed, this was one of the main arguments put forward by such free-trade economists as Bright and Cobden in the nineteenth century, and it was reiterated during the 1930s when many colonies required financial assistance from the home countries. Congo was indeed at the point of financial collapse during these years and huge subsidies from Belgium were required in order to survive. Exports diminished from 1,5 billion BEF (in 1930) to 667 million BEF (in 1932).<sup>6</sup> State income diminished from 690 million BEF to 380 million BEF during the period 1929-32, as state income was highly dependent on export taxes, which declined from 234 million BEF to 65 million BEF for the same period.<sup>7</sup>

Although performance of investments can be evaluated and compared in different ways, we propose that time-weighted rate of total return<sup>8</sup> on stocks is one of the most accurate measures available.<sup>9</sup> This implies that only stock-quoted companies are taken into account, which is justifiable, as most of the major enterprises involved were indeed quoted. Similarly, approaching the issue from a relative point of view, we argue that comparing the rate of return on Congo stocks with that on domestic Belgian stocks provides insight into investment performance. Of course, considering only the performance of stocks does not take into account all the additional effects of colonisation on the production structure of the home country and the profits of the investors. Thus, although even if the rate of profit in colonial ventures would be lower than in the home country, it is still possible that larger profits accrue to the investor because of cheaper raw materials and additional investment opportunities caused by the availability of these cheaper raw materials. In the case of Belgium, due to colonial products Belgium succeeded in developing quite a lot of high performing companies in several sectors of the economy such as the diamond industry, the non ferrous industry and the maritime sector with companies such as *Compagnie Maritime Belge*, *Metallurgie Hoboken Overpelt*, and *Diamant Boart*. Taking all these additional effects into account is rather difficult and is not considered within this paper.

In view of the methodology applied, the examination of Congo stock returns is an issue that goes beyond its particular relevance to FDI and colonialism. Considered from a total different angle, it is also of interest to the field of finance,

<sup>6</sup> Stengers, *Combien le Congo a-t-il coûté à la Belgique?*, p. 98.

<sup>7</sup> *Ibid.*, p. 101.

<sup>8</sup> This is a measure of the compound rate of growth in a portfolio. Also referred to as the "geometric mean return". It is the geometric mean, not the arithmetic mean, that gives the average rate of return over the entire investment period.

<sup>9</sup> Broquet, Cobbaut, Gillet and Van den Berg, *Gestion de Portefeuille*.

where the central research issues concern such aspects as risk premiums, average rates of return through time and geographical diversification strategies. Thus far, most studies in the field have examined return on stocks on the basis of US data. However, the US institutional settings and historical evolution diverge from those of many European countries, as the American economy was not confronted in the same way with the devastating consequences of two World Wars.<sup>10</sup> As a consequence, returns and risk premiums that emerge from US data would appear to be too high to be suitable as universal benchmarks. This explains why there have been loud calls for other than American data. In fact the greater the number of case studies, the more accurate our overall insight.<sup>11</sup> The Congo sample can help in this respect, as it adds another database to our knowledge. Yet, just as the US data refer to a particular institutional setting, so too do the Congo data. Indeed, the Congo had two essential characteristics. Besides the institutional framework of colonialism, the country's economy was a raw-materials economy and therefore highly cyclical, displaying greater volatility in stock prices than many other countries.

Our research was made possible by the well-kept stock quotation lists of the Brussels Stock Exchange. Indeed, during the colonial era after 1889, more than 200 stocks of Congolese colonial companies were quoted on that stock exchange in addition to over a thousand Belgian ones. The Brussels and Antwerp stock exchanges were, for that matter, the only ones in the world where Congo stocks were traded; Congo had no stock exchange of its own.

## SECTION 2

Belgian capitalism was at the forefront of the industrial revolution in Europe during the nineteenth century. Measured by industrial output per head, it ranked second behind Britain.<sup>12</sup> Very soon, it became one of the top-five foreign investors. The most favourite nation for Belgian FDI before the First World War was Russia, with several hundred Belgian companies investing there. In the meantime, Belgium's King Leopold II pursued his own policy: he acquired Congo at the 1885 International Conference of Berlin as a personal colony, which he intended to exploit in the same way as the Netherlands exploited Java, called *Raubwirtschaft*<sup>13</sup>, with assistance from a number of domestic and international capitalists. In 1908, after overwhelming international protests against his brutal colo-

<sup>10</sup> Goetzmann and Jorion, 'Global Stock Markets in the XXth Century'.

<sup>11</sup> Dimson, Marsh and Staunton, *Triumph of the Optimists. 101 Years of Global Investment Returns*; Idem, 'Irrational Optimism'.

<sup>12</sup> Bairoch, 'International Industrialisation Levels from 1750 to 1980', p. 286.

<sup>13</sup> Frankel, *Capital investment in Africa: its course and effects*, p. 34.

nial regime in Congo, the Belgian State took over.<sup>14</sup> Before 1902, Belgian companies had not shown a great deal of interest in Congo, with the exception of (mostly Antwerp) trading companies involved in the exploitation of its natural resources. Some of these companies, including *Abir (Anglo-Belgian Indian Rubber Company)* (1892) and *Société Anversoise de Commerce au Congo* (1892), were highly profitable. Others, such as the *Compagnie du Congo pour le Commerce et l'Industrie* (1886), took a long-standing interest in the Congo and would become the leading colonial holding company for the whole period.<sup>15</sup> One of the daughter companies of *Compagnie du Congo pour le Commerce et l'Industrie* was *Compagnie du Chemin de fer du Congo* (1889), which would construct the first rail link in Congo, between Matadi (Atlantic Ocean) and Stanley-Pool (Kinshasa; Leopoldville). This was crucial for the exploitation of the colony.<sup>16</sup> Moreover, *Compagnie du Katanga* (1891), another daughter company of the *Compagnie du Congo pour le Commerce et l'Industrie*, soon began prospecting the rich mining province of Katanga. The very moment it became clear that Katanga was one of the richest mineral regions in the world, the major Belgian holding companies (or "mixed banks" as they were then called) appeared on the scene, as did foreign capital. At the forefront stood *Société Générale* (1822), the largest Belgian holding company. Together with Leopold II, it founded the "three companies of 1906", namely *Union Minière du Haut-Katanga*, *Forminière*, and *Compagnie du Chemin de Fer du Bas-Congo au Katanga*. They divided between them the mining rights in the region of Katanga and Kasai, while the *Compagnie du Chemin de Fer du Bas-Congo au Katanga* was involved in railway construction too.<sup>17</sup> Indeed, as Katanga was about 2000 kilometers from the Atlantic Ocean, connecting the region with the Atlantic harbours was a question of survival for the Congo export economy. By creating the companies of 1906, Leopold II wanted to safeguard his interests in the light of the Belgian take-over. At the same time, by introducing British and American capital,<sup>18</sup> he hoped to gain more international support for his cause. A few years earlier, in 1902, the Belgian group of Empain had already been involved in another railway company in Congo, called *Compagnie des Chemins de Fer du Congo supérieur aux grands Lacs Africains*, in the northeastern part of the Congo.<sup>19</sup> 1906 marked the definite start of Belgian holding capitalism's investments in the Congo.<sup>20</sup>

The colonial period up until the First World War would appear merely to have been a prelude to evolutions as they unfolded in the post-war era. From 1920 to 1960, Congo's export economy developed rather quickly, requiring substantial

<sup>14</sup> Cattier, *Étude sur la situation de l'état indépendant du Congo*.

<sup>15</sup> Serruys, *Un demi siècle d'activité coloniale 1887-1937*.

<sup>16</sup> Goffin, *Le chemin de fer du Congo*.

<sup>17</sup> Katzenellenbogen, *Railways and the Copper Mines of Katanga*.

<sup>18</sup> Daniël Guggenheim (from *Utah Copper Company*; *Kennecott Copper Company*) and Thomas Fortuné Ryan (from the group *Aldrich-Ryan*) got directly involved (Stengers, *Congo: mythes et réalités*, p.177).

<sup>19</sup> Migeot, *Histoire de la Compagnie des Chemins de Fer du Congo Supérieur aux Grands Lacs Africains*.

<sup>20</sup> Depelchin, *De l'état indépendant du Congo au Zaïre contemporain*, p. 123.

foreign investments, which were financed almost exclusively with Belgian capital. The Congolese economy experienced several booms (the 1920s, the Second World War, the 1950s), but also had to endure periods of severe depression, such as during the 1930s, when it was affected extremely strongly by the cyclical downturn in the world economy.<sup>21</sup>

<sup>21</sup> Jewsiewicki, *The great depression*.

After some initial difficulties, *Union Minière du Haut-Katanga* became very profitable after the First World War. It developed into the dominant firm in the country, accounting for the bulk of export income and state income out of taxation.<sup>22</sup> Congo's mineral wealth could be compared with that of the oil-rich Middle East. The country produced enormous amounts of copper and other minerals. Many other highly profitable mining companies were established, such as *Geomines (Compagnie géologique et minière des ingénieurs et industriels Belges)* (1910), the diamond concern *Société Minière du Bas Congo (Sibeka)* (°1919), mining companies as *Compagnie Minière des Grands Lacs Africains (Milacs)* (1923), and gold producer *Société des Mines d'Or de Kilo-Moto* (1926). These companies mined vast amounts of gold, diamonds, cobalt, copper, tin, tantalite, columbite, uranium and other resources. They acted as regional growth centres around which arose many other types of firms, including food producing ranches (e.g. *Elakat* and *Grelco*), breweries (*Brasserie de Léopoldville*, *Brasseries du Katanga*), construction materials (*Société des Ciments du Congo*, *Société des Ciments du Katanga*), textiles (*Texaf*, *Usines textiles de Léopoldville*), electrical power concerns (e.g. *Sogefor* and *Sogelec*), and chemical companies (e.g. *Sogechim*). Furthermore, Belgium imposed the cultivation of a number of compulsory crops. Many tropical products were introduced, which local farmers were obliged to produce for exports. This led to the establishment of some well-known companies, including palm oil producer *Huileries du Congo Belge* (1911, *Lever Brothers*<sup>23</sup>) and cotton producing company *Cotonco* (1920). The Congo economy was thus moulded by Belgium into a typical export-oriented economy, which is illustrated by the fact that the transport system was entirely geared to exportation, even though, as an unintended side effect, this was conducive to the country's unification. Congo generated huge profits for the companies involved, which contrasted strongly with the general welfare level in the country: the African peasant sector was highly underdeveloped and wages were extremely low by Belgian standards, although there were differences in this respect between companies.

<sup>22</sup> Lekime, *La mangeuse de cuivre*.

<sup>23</sup> Fieldhouse, *Unilever overseas*.

In 1928, one of the biggest ever mergers took place, as *Société Générale* took over *Banque d'Outremer*, which had itself acquired control over the biggest Congo holding company, the *Compagnie du Congo pour le Commerce et l'Industrie*. From this moment on, *Société Générale* would be one of Europe's largest banks, controlling more than half of Congo's economy.<sup>24</sup>

Although there were several thousands small companies in Congo, the larger concerns very much dominated the market. Most of the latter were quoted on the stock exchange.<sup>25</sup> At the end of 1928, not long before the Wall Street Crash, the market capitalisation of Congo stocks was BEF 26.38 billion. Of this amount, BEF 17.26 billion had been generated by five companies, *Union Minière*, *Minière des Grands Lacs Africains*, *Compagnie du Katanga*, *Geomines*, and *Compagnie du Congo pour le Commerce et l'Industrie*. Congo stocks represented a large proportion of the totality of stocks quoted. At the same time, market capitalisation for Belgian stocks (i.e. with main activity in Belgium) amounted to BEF 68.63 billion,<sup>26</sup> whereas Belgian GDP was about BEF 72 billion. This represents a total (Belgian and Congo) market capitalisation value of BEF 95.01 billion of which Congo stocks represented 27.7 per cent, with the Big Five accounting for 65.4 per cent of the Congo total.

By the end of 1955, total market capitalisation amounted to BEF 98.94 billion (Congo stocks), with the biggest five companies holding BEF 67 billion (*Union Minière*, *Compagnie des Chemins de Fer Katanga-Dilolo-Léopoldville (K.D.L.)*, *Compagnie du Katanga*, *Petroles au Congo*, *Compagnie du Congo pour le Commerce et l'Industrie*). The corresponding amount for Belgian stocks was BEF 125.93 billion.<sup>27</sup> This means a total (Belgian and Congo) market cap value of BEF 224.88 billion in which Congo stocks represented a 43.9 per cent share, with the Big Five accounting for 67.7 per cent of the Congo total. This strong performance was in part due to the fact that, during the Second World War, the Congolese economy had been very productive,<sup>28</sup> supplying abundantly raw materials for the Allied forces. Moreover, after the War, a Ten Year Plan (1949-59)<sup>29</sup> was implemented that resulted in unprecedented growth rates. The country's economy was diversified and its infrastructure modernised. The story ends rather abruptly in 1960, though, when Congo became an independent state.

<sup>24</sup> Van Themsche, 'Comment la Société Générale gérait-elle son "empire économique" au Congo Belge?'

<sup>25</sup> Lemoine, 'Finances et Colonisation'.

<sup>26</sup> Brussels Stock Exchange, *Cours authentique de la Bourse de Bruxelles*.

<sup>27</sup> This includes colonial companies operating in Ruanda-Urundi. Their contribution to market capitalisation is, however, marginal. In fact, after the First World War Belgium obtained Ruanda-Urundi (as part of the division of the former German East African colonies between the allied powers)

<sup>28</sup> Académie royale des sciences d'Outre-Mer, *Le Congo belge durant la seconde guerre mondiale*.

<sup>29</sup> Van Themsche, *Genèse et portée du Plan decennal du Congo belge (1949-1959)*.

### SECTION 3

Although the performance of companies can be measured by comparing net profits with overall equity, we prefer to use as a measure companies' evaluation by the stock exchange. Indeed, performance as measured by the profit rate meets with several pitfalls, as the requirement of reliable data is not fulfilled. In previous times, there were no official accounting standards. Many problems arise out of underestimated profits, and manipulated or erroneous depreciation policies. By contrast, stock price indicates ex ante expectations, whereas total return as measured by the time-weighted rate of return provides quite an accurate picture of the extent to which investors have realised expected company performance.

Total rate of return as measured by the geometric mean represents the sum of capital gains and dividend yield over time. It gives us an annual rate of return over a certain time period, comparing the start value and the end value; it is indifferent from fluctuating yearly returns and thus referred to as the time-weighted rate of return. Rather small initial differences can result in great divergences over longer time periods. Take for example a real return of 6 per cent over a 20-year period; it will multiply initial investment with 3.2. However, if real return turns out to be 8 per cent, initial investment will have multiplied by 4.6 after a 20-year period. Thus, the total rate of return captures different payout policies of firms. If a company pursues a different policy and, for example, displays a low payout ratio, this will reflect in higher capital gains. Indeed, if a company has a low payout ratio this should result in a higher stock price, providing expected future dividends remain the same. Considering dividends and capital gain together, this implies that a company with substantial reserves will exhibit high stock prices, so that return rates will reflect the true value of the investment. Nevertheless, the total rate of return will not reflect the real value of a firm at any given moment, as inaccurate expectations may also have an impact on the total return ratio. Considered over longer periods of time, however, these inaccurate expectations are offset against each other. Thus, the total return ratio can be a rather accurate measure for assessing whether such investments were more profitable than others. Compared to the geometric mean, the arithmetic mean will be influenced by outliers, causing volatility. Consequently, it will always be higher, save for the exceptional (and non-realistic) case in which all returns should be equal. The greater the volatility, the more pronounced the difference between the geometric and the arithmetic mean.

Our data come from the (University of Antwerp based) SCOB database, which, for all quoted stocks and bonds, contains end-of-month prices, dividends and interests, numbers of shares and bonds, and ex-dividend day. All these data were obtained from the official quotation lists and checked in secondary sources, primarily the so-called *Recueil Financier*.<sup>30</sup> We calculated Laspeyres' market-capitalisation weighted price and return indices by linking monthly returns to the chain index. Thus, the index reflects the value of an investment of BEF 100 in Congo stocks at the beginning of the period indicated, adapted monthly through reinvestment in all stocks available. Whereas the price index does not contain dividends, it is a more accurate reflection of the business cycle, as it is generally assumed to incorporate expectations on future profits. The total return index at the end of a period reflects the end value of an investment made in Congo stocks.

In order to determine the total return, the geometric and arithmetic averages (together with the standard deviation) are calculated.

If  $I_t$  denotes the value of the index at the end of period  $t$ , the indices are constructed as follows:

$$I_t = I_{t-1} \cdot \left( 1 + \sum_{i=1}^{L_{t-1}} w_{it-1} r_{it} \right)$$

where  $w_{it-1}$  is the weight attached to stock  $i$ , and  $r_{it}$  is the simple return of stock  $I$ , including (excluding) dividends for the total return (price) indices. We set  $I$  equal to 100 at the beginning of each period. Weights are relative market capitalisations:

$$w_{jt-1} = \frac{P_{jt-1} \cdot N_{jt-1}}{\sum_{j=1}^{L_{t-1}} P_{jt-1} \cdot N_{jt-1}}$$

where  $P_{jt-1}$  is the price for stock  $j$  at  $t-1$  and  $N_{jt-1}$  is the number of stocks for stock  $j$  at  $t-1$ .

The methodology used is based on some commonly accepted principles.<sup>31</sup> First, total return is calculated under the assumption that investors reinvest dividends at ex-dividend day. This is quite necessary, as dividends are an essential part of return. Second, our indices are all share indices for all samples (Congo stocks or Belgian stocks), thus avoiding selection bias in the data. Third, prices are weighted by market capitalisation, so as to reflect the real situation in the stock market and to avoid distortion by the result of smaller, relatively insignificant companies. Fourth, all necessary adjustments for capital operations are made (stock splits, bonus shares, reverse splits, attribution

<sup>30</sup> The "Recueil Financier" was an annual monograph providing extensive information about all quoted companies, including administrators, production, capital changes, dividends and balance sheets.

<sup>31</sup> Dimson, Marsh and Staunton, *Triumph of the Optimists*, pp. 34-36.

and inscription rights). Fifth, using monthly data and long time periods assures that sufficient points of comparison are taken into account as well as a timeframe that is generally considered long enough to make reliable calculations. Too short a period would imply that no robust conclusions can be drawn on the return issue, as results may fluctuate significantly in the short run due to market volatility. Sixth, as inflation matters within this time period (investors were almost exclusively Belgian nationals who were paid out in Belgian Francs),<sup>32</sup> deflated time series are used, particularly for calculating returns over the entire period. Indeed, the observation period was marked by extreme monetary unrest: the Belgian currency was devalued on three occasions, and inflation (especially during the two World Wars) and deflation reigned over the economy. Seventh, as far as the increase over time is concerned, we make use of a logarithmic scale, as a nominal scale would overestimate the increase in values. A nominal value graph could after all be misleading, as the impact of an increase with, say, 100 points depends on the initial level. If the starting point is 100, then an increase by 100 points represents a 100 per cent increase; starting from 1,000, an increase by 100 corresponds to just 10 per cent. This problem can be overcome by using a logarithmic scale.

Although we report figures for the whole period (appendix 1), for the purpose of certain sections of the article, we divided the total period into two subperiods, i.e. before and after the First World War. There were two reasons for this approach. First, the pre-war era was a period of almost zero inflation, while the post-war period was one of severe monetary upheaval, necessitating deflation of the time series. Second, as mentioned earlier, the two periods differ rather a lot in terms of their institutional and economic characteristics. The notion of a Javanese-type economy differs quite substantially from the colonial mining economy that came to full development after the First World War. For both periods, a series of calculations was made, which we shall discuss in the next section.

<sup>32</sup> Although there was a Congolese Franc, this has no practical significance in the context of our research, as for the whole period 1 COF = 1 BEF. Moreover, investors were Belgian capitalists who bought and sold their shares in Belgium. See also : Banque centrale du Congo belge et du Ruanda-Urundi, 'L'évolution historique du franc Congolais dans ses rapports avec le Franc Belge'; Pluym and Boehme, *De Nationale Bank van België 1939-1971*, p.374.

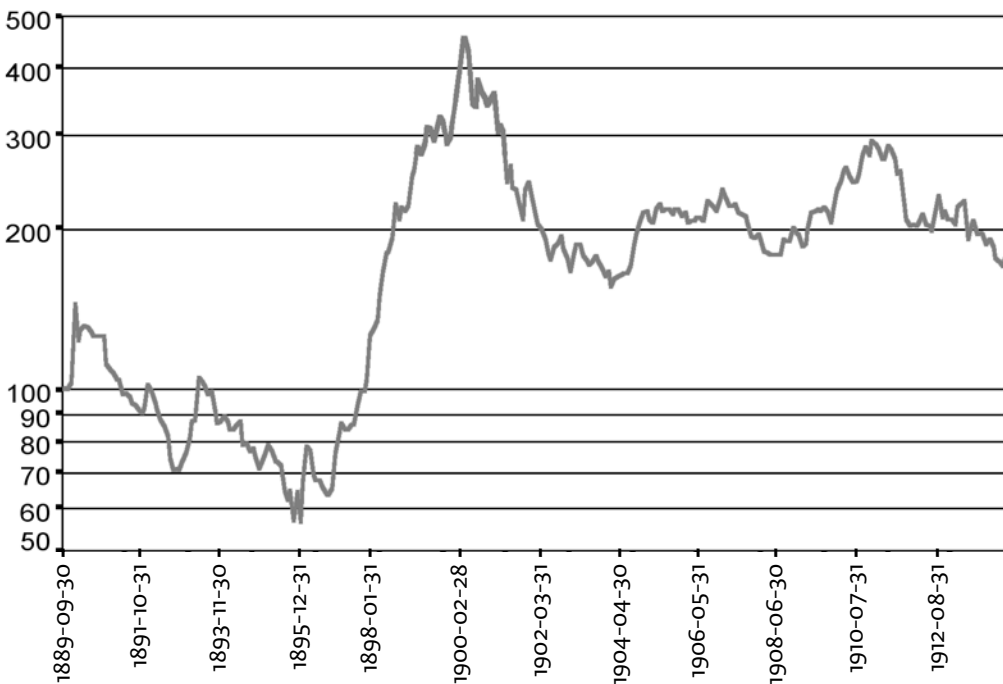


**SECTION 4**

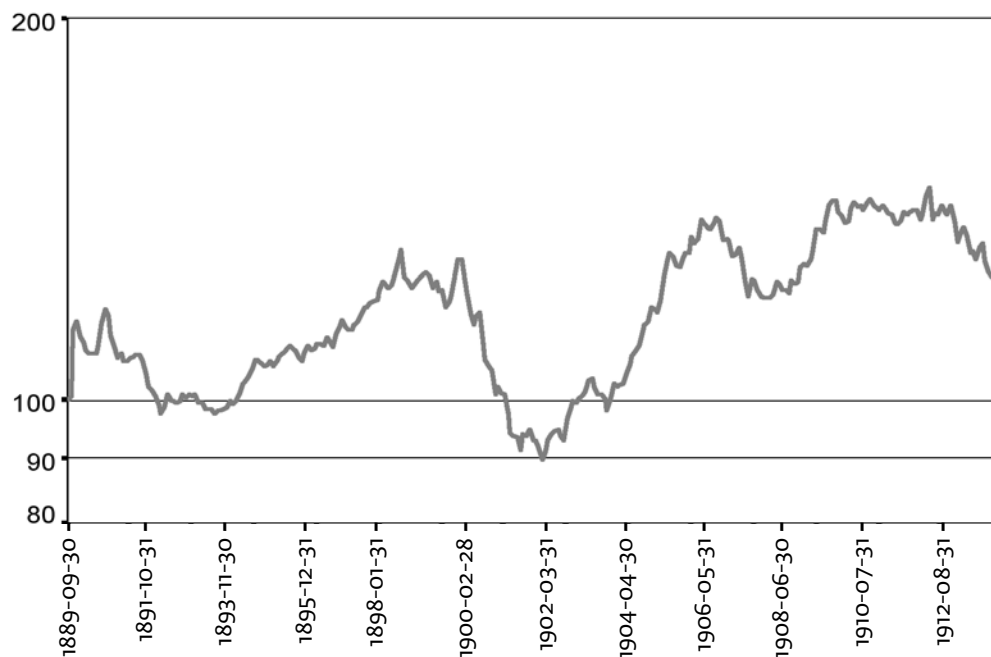
First we calculated the stock price index for the two periods concerned, which allowed us to identify important events and significant moments within each period.

As far as the pre-war period (1889-1914) is concerned, up until 1896 (graph 1) Congo stock quotations declined from nominal scale value 100 (after an initial ascent to 130) to 56. Subsequently, they increased again to reach 456 in March 1900. Compared to the Belgian case (graph 2), the rise in Congo stock prices was enormous. Within that same period, the Belgian stock price index rose from 107 (end of 1895) to 128 (March 1900). After this speculative boom period, the Congo stock price index declined to 155 by February 1904. From this moment until the outbreak of the First World War, Congo stock price evolution was much more moderate, increasing from 155 (1904) to 171 (1914).

**Graph 1. Congo stock Price Index (1889-1914)**



Graph 2. Belgium stock Price Index (1889-1914)



During the period 1889-95, after a brief rise, we see a general decline in stock prices. At the time, economic activity in Congo was hampered enormously by the lack of transport infrastructure. Activities were concentrated mainly in the rather small Atlantic region of the country. The construction of a railway between Matadi and Stanley-Pool (400 km) was seen as the solution for connecting the coastal region with Congo's mighty inland waterways.<sup>33</sup> However, building this railroad was a dangerous undertaking (more than 2,000 workers died during its construction) as well as a costly one, requiring support from the state budget. During the first ten years of the colonisation of Congo, the new-born Congo Free State faced financial collapse. Time and again, King Leopold II urged the Belgian parliament to make available financial aid. Unwilling at first, it eventually gave in to pressure from the King. Construction of the railway was essential to the evolution of the stock price index. As the project ran into difficulty, stock prices fell by nearly 50 per cent. This sensitivity was in part due to the fact that the stock index at the end of 1895 was composed of only four companies, one of which was *Chemin de fer du Congo*. The construction of the railroad ran into serious difficulties. Investors lost confidence as more time and fresh capital was required, while progress was slow. The three other companies in the stock index were *Compagnie du Congo pour le commerce et l'industrie*, *Société anonyme Belge pour le Commerce du Haut-Congo*, and *Produits du Congo*. These companies' activities were concentrated in Congo's coastal region, but they were eager to expand to the rest of the

<sup>33</sup> Frankel, *Capital investment in Africa: its course and effects*, p.374.

country (*Société anonyme Belge pour le Commerce du Haut-Congo* was already active in Upper Congo), for which they were highly dependent on the completion of the railway.

Things would change within a few years. Although there was a general rise in stock prices between 1895 and 1900, in both Belgium and Congo, the spectacular increase that occurred in Congo stock prices was due to a specific development in the country's colonial regime. From 1892, Belgium's King Leopold II virtually monopolised the Congo economy, governing the region as his private property and exploiting its rubber, copal and ivory resources in Javanese style. He granted monopoly power to two rubber companies, *Abir* (1892) and *Société Anversoise de Commerce au Congo* (1892). Due to high demand from new rubber-dependent industries, these two companies made enormous profits on rubber collected by severely exploited Congolese tappers, especially after 1896. As these two companies were at the time not quoted on the Brussels Stock Exchange, their performance is not directly reflected in the stock price index, but as other companies (especially transportation companies as *Chemin de fer du Congo* or *Compagnie Belge Maritime du Congo*) were highly profiting from their traffic the performance of the rubber companies is reflected in an indirect way.<sup>34</sup> Indeed, in 1898, the first railway between Matadi and Stanley-Pool was officially inaugurated, fulfilling the main condition for the exploitation of the interior. The railway company, known as *Chemin de fer du Congo*, was responsible for 52 per cent of market capitalisation at the Brussels Stock Exchange. By the end of 1900, it accounted for BEF 139 million out of a total of BEF 264 million. The price of its ordinary share rose from BEF 415 (1896) to BEF 2,800 (March 1900). The performance of the second major company, *Compagnie du Congo pour le Commerce et l'Industrie*, was in line with these results. The price of its capital share rose from BEF 525 (1896) to BEF 3,900 (April 1900). This is not at all surprising, as *Chemin de fer du Congo* was a daughter company of *Compagnie du Congo pour le Commerce et l'Industrie*. Thanks to the enormous amounts of rubber, ivory and copal coming from Congo, the Antwerp harbour in Belgium went through a fast developing process of international expansion, as well as the shipping company *Compagnie Belge Maritime du Congo* and the shipbuilding company *Cockerill Yards* (Hoboken, near Antwerp). The selling of ivory at Antwerp went from 46,500 kg (in 1889) up to 336,000 kg (in 1900), making it a more important place than London for the selling of ivory at the time.<sup>35</sup> The same was true for the selling of rubber where imports went from 4,600 kg

<sup>34</sup> *Abir* became quoted on the Brussels stock exchange in 1905, while *Anversoise* never became quoted in Brussels. On the Antwerp Stock Exchange, both were quoted from 27 July 1898 onward. In 1911, the two enterprises merged into *Compagnie du Congo Belge*.

<sup>35</sup> Van de Velde, *Economie Belge et Congo Belge*, p. 167.

(1889) at Antwerp up to 5.8 million kg (1901) whereas London imported only 1 million kg in 1901.<sup>36</sup> In the same manner Leopold II granted monopoly exploitation in 1901 to the *Compagnie du Kasai* for the rich natural resources of Kasai.<sup>37</sup>

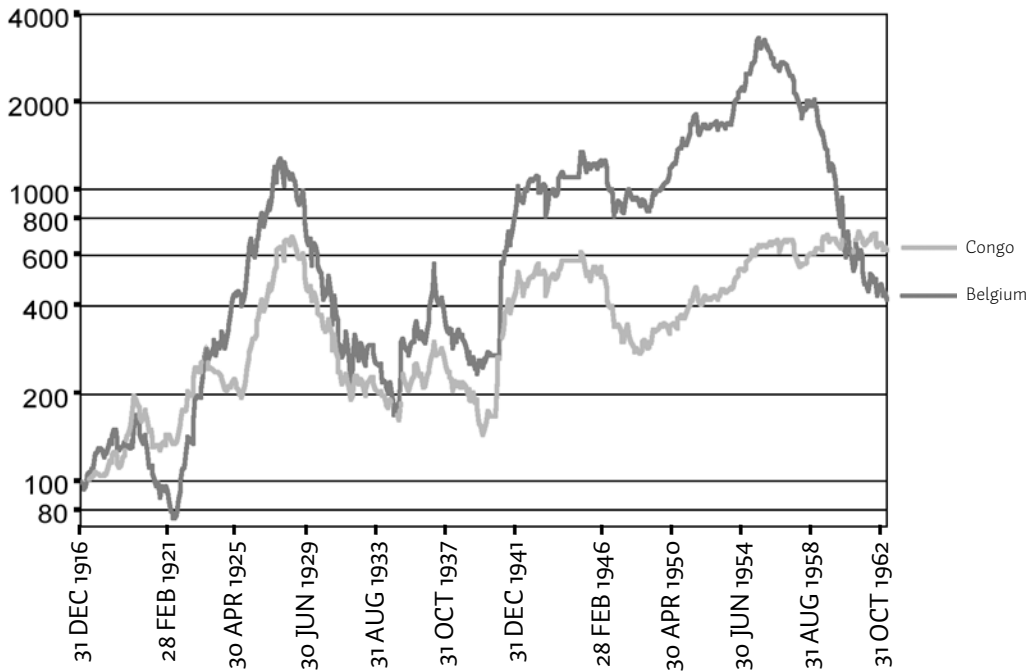
<sup>36</sup> Ibid., p. 163.

<sup>37</sup> Ascherson, *The king incorporated*, p. 198.

By 1906, when the rubber boom was coming to an end, it was already quite clear that Congo possessed enormous mineral wealth, earmarking it as one of the major raw material emporiums of the future. The most important event of the time was the foundation of the three so-called “1906 companies”, in which the Belgian holding *Société Générale* held stakes and whose boards of directors were chaired by the Governor of the *Société Générale*, Ferdinand Baeyens. Start-up investments were made, but it took rather a long time before the first results could be reported. Not long after, the First World War would confirm the value of the Congo economy and stimulate production heavily.

The stock price index for the second period (1916-62) reflects a period of more than 40 years during which Congo’s economy was strongly export-oriented, particularly in the raw materials and tropical products markets. Such export-oriented economies display greater volatility, both in the business cycle and in stock price movements, as demand for raw materials and tropical products tend to fluctuate more. Moreover, this period was marked by such catastrophic events as the World War and the great economic depression, which affected stock exchanges across the globe. The stock price index for 1916-62 reflects this evolution (graph 3).

**Graph 3. Stock Price Index (1916-1962) Congo and Belgium**  
(logarithmic scale)



After the First World War, the Congo stock price index first rose (in nominal terms) from 100 (1916) to 149 points (1918), then it fell to 87.7 (1921) before rising to its highest level of 1,279 points in May 1928 and declining again to a low-point of 219 by 1932. Although a slight recovery occurred in 1936-7, the price index was at the rather low (nominal) level of 271.70 in May 1940, at the start of the Second World War. It would soon jump to 1,037 points (February 1941), and in the years after the war it would even climb to 3,268 points by December 1955. But towards the end of 1959, it fell again to 1,085 in nominal terms.

The upward trend during the 1920s was caused by a worldwide speculative frenzy, comparable to the ICT bubble at the end of the twentieth century. Moreover, it was a period of substantial investments, where even new regions were developed, just as in the North-eastern Kivu region or the former German possessions of Ruanda-Urundi.<sup>38</sup> The crisis after 1929 had a devastating impact, as prices of raw materials fell more sharply than prices of other commodities; the Congolese economy was at the point of collapse. Workers were dismissed en masse, as the total workforce of European companies declined from 450,000 in 1929 to just 266,000 by 1932.<sup>39</sup> Wages spiralled downwards. Daily pay at *Union Minière*, one of the best paying companies, fell from BEF 25 (1930) to BEF 16 (1932).<sup>40</sup> Terms of trade deteriorated from 129.4 to 76.6<sup>41</sup> between 1929 and 1939. Many companies stopped paying dividends. A lot of them collapsed.<sup>42</sup>

<sup>38</sup> Delmotte, *De Belgische koloniale holdings*, p.65. For Ruanda-Urundi see Vijgen, *Tussen mandaat en kolonie*.

<sup>39</sup> Vandewalle, *De conjuncturele evolutie in Kongo*, p. 45; Miniserie van Koloniën, *Tienjarenplan*, p. 28.

<sup>40</sup> Vandewalle, *De conjuncturele evolutie in Kongo*, p. 34.

<sup>41</sup> *Ibid.*, p. 27.

<sup>42</sup> Bacq, *Les relations financières entre la Belgique et le Congo*.

The outbreak of the Second World War heralded a revival. During and after the Second World War, the Congolese economy experienced a tremendous boom, with growth rates approaching 10 per cent in several sectors and industrial production expanding at a rate of 12.58 per cent.<sup>43</sup> These factors explain the widening gap between Belgian and Congo stocks. Indeed, during the War, Congo became one of the major providers of raw materials for the Allied Forces.<sup>44</sup> It supplied them with huge amounts of a variety of minerals and metals, including uranium from the Shinkolobwe Mine in Katanga, that found its destination in the production of the atomic bombs.<sup>45</sup> Congo's State finances improved considerably and, although prices for war deliveries were kept very low, Congo succeeded in building up considerable reserves. These reserves were used after the war in combination with a lending programme to realise an ambitious state investment project under the 1949 Ten Year Plan.<sup>46</sup> Moreover, Congo's economy was influenced heavily by political factors. After the War, much of the capital that fled Europe for fear of a Third World War ended up in Congo. Even the Belgian government had drawn up plans to leave Belgium for Congo in the event of a new armed conflict in Europe. Moreover, Congo would subsequently continue to play its role as a provider of raw materials and tropical products during the Korean War, the Cold War and the period of strategic stockpiling by the Western powers.

By the end of 1955 the Congo stock price index had reached its highest level, the cyclical downturn of the economy caused a fall in prices. But the very moment Congo's independence came into view, Congo stocks never succeeded to gain their former levels again; contrary they declined sharply to very low levels once political unrest became heavier. Now, the direction of capital flight was from Congo to Belgium, and this trend would only be reinforced after 1960, especially after the Katanga secession and the Mulele revolt. By 1958, the period of rapid growth of the economy was no more than a memory. In 1959, considerable transfers were made to Belgium, both of short-term capital (BEF 4.2 billion) and long-term capital (BEF 7 billion).<sup>47</sup> At that time, Belgium's colonial authority was collapsing, and increasingly events were building up towards a military intervention. On the eve of Congo's independence, Belgian companies were transferring ownership to Belgium as much as possible. Just a few days after 30 June 1960, Congo began to slide towards a seemingly endless process of mutinies, foreign intervention, secession and civil war, as well as murdering of politicians (Lumumba) ending in military dictatorship with catastrophic consequences for the country's economy.<sup>48</sup>

<sup>43</sup> Lacroix, *Industrialisation au Congo*, p. 23.

<sup>44</sup> United States Department of the Interior, *Mineral Resources of the Belgian Congo*.

<sup>45</sup> Helmreich, *United States relations with Belgium and the Congo, 1940-1960*.

<sup>46</sup> Van Themsche, *Genèse et portée du Plan décennal*.

<sup>47</sup> Vandewalle, *De conjuncturele evolutie in Kongo*, p. 182.

<sup>48</sup> Van Bilsen, *Kongo, 1945-1965*.

## SECTION 5

Second, we calculated an all-share total return index (common stocks as well as preferred stocks) for the Congo companies, in an attempt to gain insight into the total return of Congo stocks as compared to the Belgian benchmark. Although here the entire period is considered, we concentrate in particular on the sub-period 1920-55, as it is the most meaningful in terms of FDI. 1955-56 was the year when the spectre of country risk emerged. In 1955 Jef Van Bilsen published his famous article stating that independence would become inevitable;<sup>49</sup> in 1956 the bishops of Congo made an official declaration the Congo had to be emancipated, and new born political parties like ABAKO stood for independence of the Congo.<sup>50</sup> From then on, gains on stocks diminished very sharply, partly due to the cyclical downturn of the economy too, but anyhow strongly influenced by political events. Congo stocks shrank below the level of the Belgian total return index.

<sup>49</sup> Van Bilsen, 'Een dertigjarenplan voor de politieke ontvoogding van Belgisch Afrika'.

<sup>50</sup> Vellut, 'Dekolonisatie van Kongo 1945-1965', p. 413.

The index (nominal values) starts when the stock of *Compagnie du Chemin de fer du Congo* was introduced at the Brussels Stock Exchange on 26 August 1889 (*Société anonyme Belge pour le Commerce du Haut-Congo* was introduced on 25 October 1890; *Compagnie du Congo pour le commerce et l'industrie* was introduced on 15 May 1891). As time went by, more and more companies invested in the colony and became quoted. Starting at 100 in 1889, the total return index would reach the level of 47,567 points by the end of August 1955. By comparison, taking the same base year, the Belgian all-return index would reach a level of only 6,867 points.

Clearly, the results are highly dependent on the period taken in consideration, as many exogenous events influenced the values quite significantly. We made a comparison over several periods, first with 1955 and then with 1960 as the end year, and finally over several other time periods, mostly on a ten-year basis.

First, calculated as geometric return (see table 1), the Congo figure is 9.6 (nominal), while that for Belgium is 6.8 (nominal) for the period 1889-1955. However, as discussed above, whenever we wish to express this in real values, the percentages are considerably lower. Of course, nominal total return makes little sense in an era of widespread inflation and deflation. Up until the First World War, this was not an issue at all, given the environment of considerable price stability. During and after

the First World War, rather devastating periods of inflation and deflation occurred, so that a calculation in real terms is called for. Using the Belgian CPI for this period, the picture changes quite significantly. Calculated as geometric return, the Congo figure is only 4.69 (real), while that for Belgium is 2.07 (real) for the period 1889-1955. If we look at the more significant period 1920-55 (table 1), the real return on Congo investments was 7.18, whereas Belgian total return amounted to only 2.87. During the heyday of colonialism, Congo stocks were extremely highly rewarding for investors. Taking into account that the period 1920-55 also covers the greatest depression of the twentieth century, the result is quite remarkable. Especially the period during and after the Second World War was highly lucrative for investors, with real rates of return of 13.79 per cent for the period 1940-55.

**Table 1. No country risk realised. Geometric mean, arithmetic average and standard deviation for Congo stocks (1955 as end year)**

Period	Real			Nominal		
	(a)	(b)	(c)	(a)	(b)	(c)
<b>Congo</b>						
1940-1955	13.79	17.03	27.41	20.41	24.86	35.21
1889-1955	4.69	8.99	31.43	9.63	14.29	33.77
1920-1955	7.18	11.70	31.66	11.96	17.78	37.73
1906-1955	3.63	7.79	30.32	10.36	15.11	34.01
1951-1955	23.26	25.13	21.50	25.08	27.14	22.52
<b>Belgium</b>						
1940-1955	6.64	9.51	24.84	12.85	16.95	33.54
1889-1955	2.07	5.02	26.10	6.89	9.18	23.93
1920-1955	2.87	5.79	24.76	7.45	11.33	31.17
1906-1955	0.61	4.33	29.51	7.15	10.12	27.29
1951-1955	17.56	18.05	10.68	19.29	20.01	13.13

(a) Time-weighted rate of return as measured by Geometric Average

(b) Average of returns as measured by Arithmetic Average

(c) Volatility as measured by the standard deviation

Source : Scob database, based on Brussels Stock Exchange, *Cours authentique de la Bourse de Bruxelles*.

Second, taking into account the realisation of country risk (table 2), the results change. For those still investing in the Congo economy, total returns fell below the Belgian total return for several periods, although for some, geometric Congo mean is still somewhat higher than that for Belgium.



**Table 2. Country risk realised. Geometric mean, arithmetic average and standard deviation for Congo stocks (1960 as end year)**

Period	Real			Nominal		
	(a)	(b)	(c)	(a)	(b)	(c)
<b>Congo</b>						
1940-1960	2.74	7.20	30.74	7.65	13.45	37.78
1889-1960	2.21	6.68	31.77	6.80	11.69	34.21
1920-1960	2.46	7.32	32.42	6.65	12.80	38.24
1906-1960	0.52	4.88	30.74	6.58	11.64	34.61
1951-1960	-4.43	0.45	31.22	-3.01	2.04	31.99
<b>Belgium</b>						
1940-1960	5.21	7.61	22.77	10.24	13.64	30.49
1889-1960	1.98	4.78	25.40	6.56	8.75	23.37
1920-1960	2.61	5.27	23.65	6.81	10.32	29.66
1906-1960	0.62	4.07	28.39	6.70	9.47	26.37
1951-1960	8.83	9.78	14.24	10.46	11.53	15.41

(a) Time-weighted rate of return as measured by Geometric Average

(b) Average of returns as measured by Arithmetic Average

(c) Volatility as measured by the standard deviation

Source : Scob database, based on Brussels Stock Exchange, *Cours authentique de la Bourse de Bruxelles*.

Third, whenever shorter time periods are considered (table 3), it is clear that geometric mean is always higher for Congo stocks, except for the very moment that country risk is realised.

**Table 3. Shorter time periods compared.**

Period	Real			Nominal		
	(a)	(b)	(c)	(a)	(b)	(c)
<b>Congo</b>						
1889-1908	6.28	10.35	32.15	6.69	10.49	30.75
1889-1914	4.52	8.32	30.54	5.50	9.01	29.19
<b>Belgium</b>						
1889-1908	5.19	5.74	10.65	5.60	5.87	7.62
1889-1914	4.32	4.83	10.38	5.29	5.56	7.50
<b>Congo</b>						
1921-1930	9.04	14.52	32.96	15.98	23.57	40.60
1931-1940	2.02	7.01	34.62	5.05	13.31	47.34
1941-1950	6.97	10.52	28.90	11.44	14.61	28.17
1951-1960	-4.43	0.45	31.22	-3.01	2.04	31.99
<b>Belgium</b>						
1921-1930	5.50	9.00	26.19	12.22	16.83	32.27
1931-1940	0.74	3.07	22.67	3.73	9.18	39.45
1941-1950	-1.13	2.23	27.40	3.01	5.81	25.76
1951-1960	8.83	9.78	14.24	10.46	11.53	15.41

(a) Time-weighted rate of return as measured by Geometric Average

(b) Average of returns as measured by Arithmetic Average

(c) Volatility as measured by the standard deviation

Source : Scob database, based on Brussels Stock Exchange, *Cours authentique de la Bourse de Bruxelles*.

As can be seen from the tables, the Congo stocks have a much greater volatility during nearly all of the subperiods, which is to be expected given that Congo's economy relies so heavily on the production of raw materials.

How can these results be explained? In the case of Congo, there are many contributing factors besides those already mentioned.

First of all, the Congo economy is comparable with economies in oil-rich regions such as the Middle East: the country's mineral and metal wealth is vast. Throughout the period examined, there were times (Second World War, Korea War) when the entire world was after minerals and metals from Congo. Although this made the Congolese economy more vulnerable to external shocks, it also provided ample opportunity for using these natural resources to further develop the country's economy. Besides mineral resources, a variety of crops and tropical products (cotton, coffee, copal...) were cultivated on the country's major plantations. Many of these crops were in high demand and could be supplied at competitive prices. From some of these natural resources, other kinds of activity could develop, such as the diamond industry or non-ferrous minerals processing.

Second, the institutional settings of the Congo economy were, to a large extent, shaped to suit the needs of the colonial power. The distance between economic power and political power became rather short, as private companies even executed state functions in some domains (so-called *Chartered companies*, such as the *Compagnie du Katanga*, were established after the British example).<sup>51</sup> Moreover, the totality of institutions was designed in the interests of colonial capital. This had extreme consequences as far as labour was concerned. Indeed, the flourishing mining industry, crop cultivation and the tropical products sector were highly lucrative as a result of the harsh exploitation of the Congolese workforce. Very low, subsistence-level wages were paid. In 1928, yearly wages of COF 500 were not that unusual,<sup>52</sup> whereas miners in Belgium would have earned around BEF 12,400 at the time.<sup>53</sup> In 1938, miners in the district of Irumu earned COF 1,200 a year, while those in Katanga made about COF 1,560.<sup>54</sup> In Belgium, on the other hand, yearly wages were BEF 14,128.<sup>55</sup> Even after the Second World War, yearly wages in Congo were about COF 5,385 (1950), while Europeans working in Congo earned approximately COF 155,538 a year (their salaries were much higher than comparable salaries in Belgium). Belgian wages were around BEF 50,000 BEF a year.<sup>56</sup> Some Congolese workers were even worse off, as many enterprises in Kivu, for example, were paying daily wages of only COF 1 in 1950.<sup>57</sup> ILO-forbidden practices, like forced labour and corporeal punishment, were used. There was a total ban on trade unions. Workers were not even allowed to travel freely through the country. At the same time, the capital structure was oligopolistic to the point of being monopolistic, setting the balance in favour of profits.

Government policymaking tended to be very much to the advantage of the profit-generating companies in other ways too.<sup>58</sup> From the beginning of colonisation, the indigenous populations were expropriated en masse. Nearly all the land was appropriated by the state and designated as *free land* (“*terres vacantes*”), much of which would subsequently be handed out for free or on a concession basis to companies investing in the country, a practice that was comparable to the *land grants* in the United States during the railway construction period<sup>59</sup> and by which it was directly inspired due to Leopold II's advisor and friend, General Sanford.<sup>60</sup>

Subsidies and interest guaranties were allowed. Investors in railway companies were promised an interest guarantee whenever profits proved to be inadequate.<sup>61</sup> Thus,

<sup>51</sup> Carton de Wiart, *Les grandes compagnies coloniales anglaises du XIXe siècle*.

<sup>52</sup> Foutry and Neckers, *Als een wereld zo groot*, p.42.

<sup>53</sup> Scholliers and Zamagni, *Labour's Reward*, p.205.

<sup>54</sup> Vandewalle, *De conjuncturele evolutie in Kongo*, p.49.

<sup>55</sup> Scholliers and Zamagni, *Labour's Reward*, p.205.

<sup>56</sup> Vandewalle, *De conjuncturele evolutie in Kongo*, p. 86.

<sup>57</sup> Bézy, *Problèmes structurels de l'économie congolaise*, p.139.

<sup>58</sup> Peemans, *Le rôle de l'Etat dans la formation du capital au Congo*.

<sup>59</sup> Heyse and Leonard, *Le régime des cessions et concessions de terres*; Van der Kerken, 'Rapport sur le régime des cessions et des concessions'.

<sup>60</sup> Pirenne, *Coup d'oeil sur l'histoire du Congo*, p. 57.

<sup>61</sup> Wiener, *Les chemins de fer*.

the *Compagnie des Chemins de Fer du Congo supérieur aux grands Lacs Africains* (1902), a railway company, received a guarantee of 4 per cent;<sup>62</sup> *Société des Chemins de Fer au Kivu* (1929) was granted a guarantee of as much as 7 per cent just as a lot of others received state interest guarantees as well. In 1929, State-guaranteed interest payments totalled BEF 6 million, but by 1932 this had mounted to BEF 42 million to reach BEF 105 million in 1933.<sup>63</sup>

<sup>62</sup> *Recueil Financier* 1905, p.29.

<sup>63</sup> *Documents Parlementaires, Chambre*, (P.P. 1932-33, 15).

Furthermore, the government often granted real monopolies to private companies, prohibiting competition within a certain region. *Cotonco* was granted a monopoly on the cotton harvests by Decree of 1921.<sup>64</sup> And the *Huileries du Congo Belge* (1911) was handed a monopoly on the palm oil harvest by Decree of 20 May 1933. As African farmers were obliged to plant crops for these companies, they often had to sell at low prices. African agriculture was thus used as a means of reaping profits for colonial companies.

<sup>64</sup> Merlier, *Le Congo*, p. 81.

Thirdly, Belgian universal banks and holding companies, the heirs of one of the richest nations in terms of capital, invested massively in Congo after the First World War.<sup>65</sup> Providing capital was never a problem for these banks and holding companies. Nearly all of FDI capital that before the First World War had been spread out across the world was now concentrated in the Congo. These companies not only possessed great financial power, but could also rely on the technological know-how and managerial skills acquired at their Belgian plants.

<sup>65</sup> Gonda, *Les holdings coloniales belges*; Joye and Lewin, *Les trusts au Congo*.

## SECTION 6

Out of the capital gain and total-return index, we are able to calculate the overall implied dividend yield for the whole period, which provides some insight into the role of dividends in total return, besides capital gain. The picture that emerges is that implied dividend yield is on average 3 per cent of total return, although it oscillates considerably due to fluctuating stock prices and varying absolute dividend payments throughout time. Thus, in 1955, when the profit rate and even dividends were high, implied dividend yield reached 8.39 per cent. In 1960, stock prices fell as companies paid high dividends in order to allow capital flight. Implied dividend yield rose to 11.54 per cent. Full results are reported in appendix 1.

These implied dividend rates are however only part of the story, as they are calculated on the basis of the monthly reinvestment methodology. Consequently, whenever high dividends are expected, stock prices rise, capturing part of the return to investors. Dividends measured in this way are also directly linked to stock price evolution. This methodology is, however, not the only one that can be applied. Dividends can also be looked at from the equity level of balance sheets. Measured in terms of equity, net profit rates of 15 per cent, and up to more than 40 per cent, were reported by Vandewalle<sup>66</sup> (table 4). Considering these high profit rates, it is quite natural that stock prices, discounting the future of dividend payments, should reach high levels.

<sup>66</sup> A similar table for the whole period can be found in Huybrechts, *Transports et structures de développement au Congo*, pp. 314-15.

**Table 4. Return as measured by net profits on equity  
1949-1959**

	a	b	c	d	e	f	g
1949	15.2	15	12	-	-		
1950	13.9	13	14	17	19	14	11
1951	21.9	14	19	18	34	16	8
1952	24.2	12	30	15	42	25	14
1953	20.5	10	13	13	37	17	9
1954	19.3	10	12	13	34	14	10
1955	18.5	9	12	12	31	13	11
1956	20.1	8	8	13	36	14	12
1957	25.8	9	8	13	37	15	14
1958	15.1	13	9	12	26	14	10
1959	11.3	11	7	10	17	11	5

(a) Global (b) Banks (c) Commerce (d) Industrials (e) Mining (f) Agriculture (g) Transport  
Source: Vandewalle, *De conjuncturele evolutie in Kongo*, p. 142.

The question arises what happened to the higher profits realised in the colony of Congo. Certainly companies were paying rather high dividends as well as accumulating huge reserves. The bulk of these dividends left Congo and returned to Belgium, as is apparent from the balance of payments.<sup>67</sup> Furthermore, Congo companies used their reserves to pursue a policy of almost complete self-financing, especially starting after the great crisis of 1929 and continued during and after the Second World War.

<sup>67</sup> Vandewalle, *De conjuncturele evolutie in Kongo*, p. 155.

## SECTION 7

There is a huge ongoing debate about the reasons behind the colonial FDI investment type. It is commonly argued that higher (expected) profit rates were a strong incentive for colonial trade, although others propose that the colonial powers actually lost money on their overseas possessions. We have demonstrated that, as far as the Congo sample is concerned, this was not the case; at least not until country risk became a reality (1955-60). Our approach consisted in a comparison between total return on investment according to the all-share Congo stock index with the same type of investment in Belgian stocks, using total return as a reliable measure of long-term performance. We found that, as far as the total return is concerned, there is a significant difference between the Congo sample and the Belgian sample. Congo stocks, apart from the upstart and the moment that country risk was realised, yielded higher returns than Belgian stocks. For the most significant period, i.e. 1920-55, the time-weighted total return of Congo stocks was 7.18 per cent compared with only 2.87 per cent for Belgian stocks. This period corresponds to the high-days of Belgian colonial investments, especially in mining and tropical products, and although this period was confronted by the great depression of the thirties the Congo returns on stocks were rather high. Of course the Congo stocks operated within a different institutional framework, that of colonialism, and moreover Congo was a raw-materials producing economy reaping high profits in times of huge demand for them. We are well aware that these results are not necessary transferable to other countries; a lot more research on other settings is required before we can reach general conclusions.

## APPENDIX 1.

Congo stocks 1889-1962. Capital gain index, total return index, implied dividend yield (nominal values) (1888 = 100)

Year	Capital Gain Index	Total Return Index	Total return (annual basis)	Implied Dividend Yield
1889	102.98	102.98	2.98	0.00
1890	109.31	112.00	8.76	2.46
1891	102.39	109.64	-2.11	4.51
1892	75.93	85.89	-21.67	5.63
1893	89.01	106.21	23.67	5.49
1894	73.70	87.94	-17.20	0.00
1895	56.69	67.65	-23.08	0.00
1896	82.37	98.28	45.29	0.00
1897	134.98	161.99	64.82	0.58
1898	257.26	315.29	94.63	2.12
1899	322.61	406.09	28.80	2.71
1900	347.87	453.12	11.58	3.48
1901	244.31	332.81	-26.55	4.58
1902	176.15	250.60	-24.70	4.43
1903	162.29	242.79	-3.12	5.16
1904	214.39	331.84	36.68	3.46
1905	211.05	341.76	2.99	4.62
1906	227.77	387.03	13.24	4.93
1907	195.33	346.10	-10.58	4.28
1908	195.97	364.95	5.45	5.10
1909	215.21	427.46	17.13	6.66
1910	293.01	612.78	43.35	5.29
1911	201.76	436.18	-28.82	3.37
1912	208.19	466.60	6.97	3.67
1913	186.76	429.08	-8.04	2.51
1914	171.39	402.49	-6.20	2.22
1915	171.39	402.49	0.00	0.00
1916	249.41	585.71	45.52	0.00
1917	315.67	741.33	26.57	0.00
1918	373.58	877.74	18.40	0.05
1919	325.58	811.19	-7.58	6.04
1920	281.48	725.60	-10.55	3.46
1921	227.39	594.04	-18.13	1.34
1922	317.18	834.09	40.41	0.66
1923	576.46	1535.67	84.11	1.30
1924	759.95	2059.05	34.08	1.71
1925	1125.21	3108.13	50.95	1.95
1926	1606.72	4495.19	44.63	1.28
1927	2671.70	7554.59	68.06	1.07
1928	2733.60	7804.21	3.30	0.96
1929	1604.94	4650.77	-40.41	1.50
1930	1076.80	3195.84	-31.28	2.42
1931	690.11	2106.39	-34.09	2.84
1932	739.65	2294.42	8.93	1.63
1933	620.77	1947.58	-15.12	1.14
1934	427.41	1369.58	-29.68	2.14
1935	753.01	2440.25	78.17	1.13
1936	1053.31	3479.25	42.58	1.93
1937	838.29	2836.67	-18.47	2.44
1938	724.24	2540.76	-10.43	3.67
1939	661.23	2421.46	-4.70	4.39
1940	1405.59	5228.10	115.91	1.57
1941	2525.15	9511.16	81.92	1.27
1942	2783.29	10496.46	10.36	0.12
1943	2441.49	9222.09	-12.14	0.16
1944	2750.04	10398.26	12.75	0.10
1945	3054.59	11889.65	14.34	2.94
1946	2937.22	11760.79	-1.08	2.87
1947	2074.79	8570.66	-27.13	3.17
1948	2223.62	9475.24	10.55	3.16
1949	2489.49	11015.88	16.26	3.84
1950	3385.05	15450.31	40.25	3.15
1951	4471.26	21120.81	36.70	3.49
1952	4163.04	20655.31	-2.20	5.04
1953	4158.04	21467.29	3.93	4.06
1954	6273.65	33580.56	56.43	3.68
1955	8151.73	47293.92	40.84	8.39
1956	6849.38	41409.00	-12.44	4.20
1957	4810.69	30174.72	-27.13	3.75
1958	4771.12	31286.74	3.69	4.55
1959	2707.65	18771.86	-40.00	5.72
1960	1472.09	11383.96	-39.36	11.54
1961	1232.76	10405.73	-8.59	9.15
1962	1053.03	8980.78	-13.69	1.04

Source : Scob database, based on Brussels Stock Exchange, *Cours authentique de la Bourse de Bruxelles*.

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