

# French Stock exchanges and regulation during World War II<sup>1</sup>

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Based on archives of the French brokers, the French finance ministry and the occupying forces, this article analyses the motivations of the legal changes imposed on the French exchanges during the war. Most of the measures taken by the Vichy government were meant to stimulate the demand for French state bonds. Three main tools were used to render stocks as unattractive as possible: forced registration, imposition of a maximum threshold for stock prices and taxation. The article suggests that forced registration and the cap on maximum prices were the most efficient tools.

## I

In just three years, from 1938 to 1941, the Nazi regime managed to conquer a large part of Western Europe. In order to pursue the war and manage wealth transfers to Germany, means to exploit the economies of occupied countries had to be devised. Nazis leaders had diverging views regarding the best way to exploit occupied countries. In the French case, Göring favoured looting whereas Ribbentrop pleaded for the development of a clearing system which would incorporate the country into the German economic system.<sup>2</sup> Tooze<sup>3</sup> has shown how the ruling Nazis viewed the exploitation of France as crucial to the development of their military capacity. According to Aly,<sup>4</sup> plundering was meant to cover war expenses, but also to allow a large redistribution of wealth from occupied countries to Germany. In view of this double objective, the amounts requested by the German occupying power largely exceeded traditional occupation costs. Occhino, Oosterlinck and White<sup>5</sup>

<sup>1</sup> The author would like to thank Michael Bordo, Frans Buelens, André Farber, Jean-Jacques Heirwegh, Georges Gallais-Hamonne, Ruth Hoffman, David Le Bris, Ranald Michie, Hugh Rockoff, Nicole Seeck, Ariane Szafarz, Daniel Waldenström, Eugene White, Hans Willems, two anonymous referees as well as the participants of the 2005 Economic History Society Annual Conference (Leicester) and of the 2006 Journée de l'histoire contemporaine (Liège) for their help or comments. The author gratefully acknowledges the financial support from the National Bank of Belgium.

<sup>2</sup> A. S. Milward, *The New Order and the French Economy* (Oxford, 1970).

<sup>3</sup> A. Tooze, *The Wages of Destruction: The Making and Breaking of the Nazi Economy* (New York, 2006).

<sup>4</sup> G. Aly, *Comment Hitler a acheté les Allemands* (Paris, 2005).

<sup>5</sup> F. Occhino, K. Oosterlinck and E. White, 'How occupied France financed its own exploitation during WW2', *The American Economic Review*, 97.2 (2007) and F. Occhino, K. Oosterlinck and E. White, 'How much can a victor force the vanquished to pay?', *Journal of Economic History*, 68.1 (2008).

compare the actual war reparations for France in 1815–19, France in 1870, Germany in 1923–31 and occupied France during World War II. For all the measures, the percentage of one year's GDP, the percentage of one year's tax revenue and the share service of debt to GDP, the French situation during World War II was the worst. During World War I, the German authorities had shown little interest in the welfare of the families of fighting soldiers. In retrospect, this position had been largely criticised. Therefore the Nazi government created a complex and generous system of social coverage for these families during World War II.<sup>6</sup>

Defeated France became subject to harsh financial demands. Bearing in mind the dire conditions imposed by the *Versailles Diktat*, the Germans were not inclined to show mercy. The economic plundering mechanism relied on three tools. Firstly, a newly fixed exchange rate established that each mark would be worth 20 francs, a highly favourable rate for the German currency. Secondly, a clearing mechanism was established which implied that French investors would be paid via German exports and vice versa. Needless to say, flows from Germany never came close to matching flows to Germany. Thirdly, France was to pay occupation costs to cover the expenses of the German army on its soil. Initially worth 400 million francs per day, these costs were reduced to 300 million per day in May 1941, but re-evaluated to 500 million after the invasion of the 'free' zone in November 1942.

In order to cope with the heavy occupation costs, the French state could only rely on money creation, debt issues and taxation. Although taxation was increased during the war, the government soon realised that tax increases were never going to suffice. Money emissions and bond issues would have to cover the bulk of the occupation costs. Both the governor of the Banque de France, Yves Bréart de Boissanger, and the two successive French finance ministers, Yves Bouthillier and Pierre Cathala, considered it a national duty to protect the value of the franc.<sup>7</sup> They devised a monetary policy, the *politique du circuit*, which was meant to limit the inflationary pressure of the money issues. This *politique du circuit* has been described at length by the two French finance ministers<sup>8</sup> active during World War II. The state relied on advances from the Banque de France, which issued large amounts of money set aside in a special account. German troops used this money on French soil, which resulted in inflation. Bills and bonds were issued in order to repay the advances of the Banque de France, withdraw part of the printed money and limit the inflationary impact of these disbursements. Until the autumn of 1942, short-term borrowing covered 40 per cent of the expenses, newly printed money 30 per cent and taxation the remaining part.<sup>9</sup> As the war went

<sup>6</sup> Aly, *Comment Hitler*.

<sup>7</sup> P. Cathala, *Face aux réalités. La direction des finances françaises sous l'Occupation* (Paris, 1948); M. Margairaz, 'La Banque de France et l'Occupation', in M. Margairaz (ed.), *Banques, Banque de France et Seconde Guerre Mondiale* (Paris, 2002).

<sup>8</sup> Cathala, *Face aux réalités*; Y. Bouthillier, *Le drame de Vichy: Face à l'ennemi, face à l'allié et Finances sous la contrainte* (Paris, 1951).

<sup>9</sup> Margairaz, 'La Banque de France'.

on, the government was forced to rely more and more on debt issues. As a consequence, the demand for state bonds had to be sustained, rendering an active market for state bonds crucial.

Recent research has allowed better understanding of the macroeconomic implications of the *politique du circuit*.<sup>10</sup> On the basis of a neoclassical growth model, Occhino, Oosterlinck and White<sup>11</sup> show that even under a very optimistic scenario, the transfers from France to Germany were at least equivalent to a 12.6 per cent reduction of consumption for 20 years. The role of the banking sector in the *politique du circuit*, as well as its impact on the banks' accounts and on the economy, has been extensively studied.<sup>12</sup> Under laws passed on 13 and 14 June 1941, the banks were forced to invest their surplus of cash in short-term state bills.<sup>13</sup> The collaboration of the main banks played a major role in the success of the *politique du circuit*, since they absorbed most of the bonds issued by the Vichy government. Nonetheless, the role of the stock exchange should certainly not be downplayed. For Yves Bouthillier, the French finance minister from 16 June 1940 to 18 April 1942, a properly functioning stock exchange was a prerequisite if France wanted to finance its deficit by issuing bonds.<sup>14</sup>

Even though the Bourse was considered central to the *politique du circuit*, surprisingly few papers deal with stock exchanges during World War II. Quantitative analyses<sup>15</sup> were conducted on bond price reactions in neutral or warring countries just

<sup>10</sup> M. Margairaz, *L'Etat, les finances et l'économie histoire d'une conversion 1932-1952* (Paris, 1991).

<sup>11</sup> Occhino, Oosterlinck and White, 'How much'.

<sup>12</sup> C. Andrieu, *La banque sous l'Occupation: paradoxes de l'histoire d'une profession 1936-1946* (Paris, 1990); P. Baubeau, 'La Caisse des dépôts et le Crédit National: un essai comparatif', in A. Aglan, M. Margairaz and P. Verheyde (eds.), *La caisse des dépôts et consignation, la Seconde Guerre Mondiale et le XXe siècle* (Paris, 2003); R. De Rochebrune and J.-C. Hazera, *Les patrons sous l'Occupation* (Paris, 1995); A. Lacroix-Riz, 'Les grandes banques françaises de la collaboration à l'épuration, 1940-1950: la collaboration bancaire', *Revue d'histoire de la seconde guerre mondiale*, 141 (1986), 'Les grandes banques françaises de la collaboration à l'épuration, 1940-1950: la non-épuration bancaire 1944-1950', *Revue d'histoire de la seconde guerre mondiale*, 142 (1986), and *Industriels et banquiers sous l'Occupation: la collaboration économique avec le Reich et Vichy* (Paris, 1999); Margairaz, 'La Banque de France'; A. Plessis, 'Les grandes banques de dépôts et l'Occupation', in M. Margairaz (ed.), *Banques, Banque de France et Seconde Guerre Mondiale* (Paris, 2002).

<sup>13</sup> Margairaz, 'La Banque de France'.

<sup>14</sup> Bouthillier, *Le drame de Vichy*, p. 408. See also his letter dated 7 Dec. 1941, Centre des Archives Economiques et Financières, Savigny-le-Temple [henceforth CAEF]; B65765.

<sup>15</sup> W. Brown and R. Burdekin, 'German debt traded in London during World War II: a British perspective on Hitler', *Economica*, 69 (2002); B. Frey and M. Kücher, 'History as reflected in capital markets: the case of World War II', *Journal of Economic History*, 60, 2 (2000), and 'Wars and markets: how bond values reflect the Second World War', *Economica*, 68, (2001); B. Frey and D. Waldenström, 'Using financial market to analyse history: the case of the Second World War', *Historical Social Research*, 32, 4 (2008); D. Waldenström and B. Frey, 'Markets work in war: World War II reflected in Zurich and Stockholm bond markets', *Financial History Review*, 11.1 (2004), and 'Did Nordic countries recognize the gathering storm of World War II? Evidence from the bond markets', *Explorations in Economic History*, 45.2 (2008).

before or during World War II. Oosterlinck<sup>16</sup> uses bond prices to test the perceived legitimacy of the Vichy government. For Paris, some studies<sup>17</sup> were conducted shortly after the war and provide an overall view of the market during this period. More recently, Dreyfus<sup>18</sup> investigated the dramatic fate faced by Jewish brokers and curb brokers, whereas Ronsin<sup>19</sup> described the position of the French financial press from 1938 to 1945. Destrem and Destrem<sup>20</sup> describe the evolution of stock prices for a series of sectors. Oosterlinck and Riva<sup>21</sup> analyse the impact of the war on the competition among French stock exchanges. Finally, Le Bris<sup>22</sup> compares the long-term impact of three major wars (Franco-Prussian war, World War I and World War II) on the Paris stock exchange.

The aim of this article is twofold. Firstly, it presents the functioning of the Paris Bourse during World War II. Secondly, it aims at determining the impact of the legislation set in place on the stock market in general but also on stock and bond prices. The Paris stock exchange was allowed to remain open because it helped Vichy France to pay its occupation costs. To what extent did the measures taken to redirect funds towards state bonds and to fight 'excessive' speculation affect bond and stock prices? What was the impact of these measures on stock and bond prices?

The article relies on archival material from both the German and French actors. The German sources used here are kept in the French Archives Nationales (Fonds AJ40). They are part of the so-called 'Majestic' archives, named after the Hotel Majestic where the *Militärbefehlshaber in Belgien und Nordfrankreich* (German occupation forces in Belgium and Northern France) maintained their headquarters. Most of the documents kept in these archives are internal memos. The Fonds AJ40 contains many volumes; volume 832 being dedicated to the stock exchange. The archives from the French actors (ACAC) are comprised mainly of reports from the *Compagnie des Agents de Changes* (CAC: the brokers' association). The archives from

<sup>16</sup> K. Oosterlinck, 'The bond market and the legitimacy of Vichy France', *Explorations in Economic History*, 40.3 (2003).

<sup>17</sup> M. Mitzakis, *Principaux aspects de l'évolution financière de la France 1936-1944* (Paris, 1945); R. Guilloit, *La réglementation des bourses de valeurs en France depuis 1940: transition ou parenthèse* (Paris, 1946); A. Colling, *La prodigieuse histoire de la Bourse* (Paris, 1949); J. Dessirier, 'La Bourse des Valeurs', *Revue d'Economie Politique*, 57 (1948); P. Vigreux, 'Le marché des changes', *Revue d'Economie Politique*, 57 (1948).

<sup>18</sup> J.-M. Dreyfus, *Pillages sur ordonnance. Aryanisation et restitution des banques en France 1940-1953* (Paris, 2003).

<sup>19</sup> F. Ronsin, *La guerre et l'oseille: une lecture de la presse financière française (1938-1945)* (Paris, 2003).

<sup>20</sup> P. Destrem and D. Destrem, *A la botte: la Bourse sous l'occupation* (Lausanne, 2003).

<sup>21</sup> K. Oosterlinck and A. Riva, 'Competition among the French Stock Exchanges during the Second World War', in P. Baubeau and A. Ögren (eds.), *Convergence and divergence of national financial systems during the gold standards, 1871-1971* (forthcoming).

<sup>22</sup> D. Le Bris, 'The French stock market in war', paper presented at the International Conference on War, Money and Finance. Monetary and Financial Structures: The Impact of Political Unrests and Wars, Université Paris 10 Nanterre, 19-20 June 2008.

the French ministry of finance (CAEF, *Centre des archives économiques et financières*) provide information related to the position of the Vichy regime.

The efficiency of the measures is tested by using two data series: one of these tracks the price evolution of the 3 per cent *rente*, one of the most liquid bonds issued by the French government; the other uses a new index of stock market prices for World War II.<sup>23</sup> The analysis focuses on the price movements related to changes in legislation.

## II

Before and during the war, the Nazi officials' position towards finance and financial markets remained ambiguous. Gottfried Feder, one of the first Nazi economic theoreticians, based his writings on a strong opposition to capitalism.<sup>24</sup> For many Nazi officials, the international connections created by trading and the notion of speculation attached to stock exchanges convinced them that trading securities should not be allowed.<sup>25</sup> Stock exchanges were a primary target of Nazi propaganda before 1933<sup>26</sup> since high finance was presented as being under the control of the Jews. Even though the antifinance Nazi rhetoric remained the same during the following years, the government did not take any measures designed to annihilate the stock markets. When the Nazis came to power, they only reduced the number of the stock exchanges from 21 to nine. As stated by Wolfe,<sup>27</sup> 'the pre-1933 vows to exterminate the financiers and their institutions were dropped as soon as possible'.

Several factors explain this seemingly contradictory position. Close links between Nazi officials and board members of listed companies probably played an important role. If one takes into account market capitalisation in 1932, more than half of the companies listed on the Berlin stock exchange had direct connections to the Nazi regime.<sup>28</sup> Furthermore, preventing the appearance of an uncontrollable black market for stocks was deemed crucial. Eventually, stock exchanges could facilitate the financing of war expenditures which increased dramatically when the Nazis took power (yearly military expenditures were 23 times higher in 1938 than in 1933).<sup>29</sup>

To finance the war, taxation was increased and incentives to invest in 'useful' industries were put into place. The Nazi treatment of financial markets was aimed at

<sup>23</sup> The author thanks M. Douezy and Ms Bodilsen for their help while collecting data, and David Le Bris for sharing his equity index data.

<sup>24</sup> A. Erben, *Die Börse im Dritten Reich*, unpublished Diplomarbeit, Universität Mannheim, 2001.

<sup>25</sup> F.-W. Henning, 'Börsenkrisen und Börsenregelgebung von 1914 bis 1945 in Deutschland', in H. Pohl (ed.), *Deutsche Börsengeschichte* (Frankfurt am Main, 1992).

<sup>26</sup> O. Nathan, *Nazi War Finance and Banking* (New York, 1944).

<sup>27</sup> M. Wolfe, 'The development of Nazi monetary policy', *Journal of Economic History*, 15. 4 (1955).

<sup>28</sup> T. Ferguson and H.-J. Voth, 'Betting on Hitler: the value of political connections in Nazi Germany', *Quarterly Journal of Economics*, 123.1 (2008).

<sup>29</sup> Erben, *Die Börse im Dritten Reich*.

assuring a large financial basis for the regime.<sup>30</sup> Even though most issues were made outside the stock exchange, in practice, the existence of a secondary market was crucial to successfully float new shares. In short, the German stock exchanges were allowed to survive only if they could serve and facilitate Nazi ambitions. Funk, the minister of economy, recognised that his aim was to reduce the stock prices so as to divert investments from stock to state bonds.<sup>31</sup> To fulfill this objective, the stock exchanges and the economy as a whole became subject to numerous regulations.<sup>32</sup>

In 1934, the first measures to counter the supposedly negative influence of capitalism were passed. In order to redirect the available funds towards state bonds, stocks had to become less attractive for investors. Speculation on stocks was fiercely attacked and a 1934 law restricted the distribution of dividends for the largest corporations. By 1941, high tax rates would, in practice, prohibit the payment of dividends exceeding 6 per cent; a measure intended primarily to serve the propaganda agenda of the regime.<sup>33</sup> A law passed as early as 1937 had already increased the minimum capital required for limited companies, and multiplied tenfold the minimum nominal value of the shares (brought to 1,000 *Reichsmark*), which severely reduced the influence of shareholders. Furthermore, along with the rest of the economy, the Nazis soon started to arianise the stock exchanges.

The legal measures imposed on the market nearly led to a complete halt in transactions as early as 1939.<sup>34</sup> Nonetheless, stock prices maintained an upward trend, leading legislators to pass even more restrictive laws in September 1941, including the required declaration of stocks bought since the outbreak of the war, and an obligation for brokers to declare all transactions and to centralise their sales on the stock market. By 1943, the activity of the Berlin stock exchange became so limited that it opened only three days a week. At the beginning of 1943, trading in stocks ceased and the stock exchange became a trading place only for state bonds.<sup>35</sup>

In occupied counties, such as Belgium, France or the Netherlands, a series of laws restricted the activities on the markets. Stock exchanges were reopened because they allowed local governments to float bonds in order to cover occupation costs. Stock prices experienced a rising trend in most markets located in occupied countries.<sup>36</sup>

<sup>30</sup> A. Dauphin-Meunier, *L'économie allemande contemporaine* (Paris, 1942); Nathan, *Nazi War Finance*; Wolfe, 'The development of Nazi'.

<sup>31</sup> Aly, *Comment Hitler*, p. 70.

<sup>32</sup> See, for instance, K. Hartung, *Usancen der Berliner Wertpapier-Börse, 1942* (Berlin, 1942).

<sup>33</sup> Aly, *Comment Hitler*, p. 68.

<sup>34</sup> Wolfe, 'The development of Nazi'.

<sup>35</sup> Aly, *Comment Hitler*, p. 71.

<sup>36</sup> See P. Sercu *et al.*, 'La guerre et la reconstruction', in G. De Clercq (ed.), *A la Bourse. Histoire du marché des valeurs en Belgique* (Paris, 1992); F. Buelens and H. Willems, 'De Tweede wereldoorlog en de Belgische Beurzen', in *Thuisfront. Oorlog en economie in de twintigste eeuw* (Zutphen, 2003), for Belgium; Oosterlinck, 'The bond market', for France; J. De Vries, *Een eeuw vol effecten. Historische schets van de Vereniging voor de Effectenhandel en de Amsterdamse Effectenbeurs 1876-1976* (Leiden, 1976), for the Netherlands. This phenomenon is also documented on the Prague stock exchange (the author thanks Jaromir Balcar for sharing copies of these archives).

This trend was viewed as a danger to the Nazi exploitation policy, and was condemned by the occupying power. Measures to fight ‘excessive speculation’ were put into place. De Vries<sup>37</sup> and Buelens and Willems<sup>38</sup> provide an extensive description of the legal changes imposed on the Dutch and Belgian markets. The measures imposed in Belgium and the Netherlands were similar, although the timing often differed.<sup>39</sup> An impressive series of changes were implemented on the Belgian market: limitation of securities allowed to be traded, reduction in the number of brokers, exclusion of Jewish members from the Bourse, and the appointment of German representatives to the stock exchange ruling bodies.<sup>40</sup> Anti-speculation measures were also imposed, including limits on stock price increases and suppression of forward trades, the creation of a clearing house and the transformation of bearer securities into nominative ones.

The Amsterdam stock exchange suffered the most. The exclusion of Jewish traders began early in 1941 and was soon to be followed by the sale of Jewish assets on the stock exchange. The occupying forces also imposed changes to guarantee the transfer of securities to Germany.<sup>41</sup> Other legal changes would lead to a complete halt in the price formation process. From 3 March 1943 on, stocks prices were capped and were no longer allowed to exceed their 2 March 1943 value. Ten days later, all bonds but the ones issued by the state became subject to the same rule. As a consequence, a large black market for securities emerged and the stock exchange’s activities were redirected towards state bonds. By January 1944, the daily amount of state bonds traded on the Amsterdam stock exchange was equal to the monthly volume of traded equities.<sup>42</sup>

Legal changes in many occupied countries shared similar features: taxation, limits on stock price increase, racist laws leading to a more or less severe reorganisation of the market and rules favouring state bonds. For some markets, preoccupations differed from the one in Belgium, France and the Netherlands. In occupied Denmark, prices were not capped, but instead there was a daily limit to price decreases.<sup>43</sup> As a matter of fact, the imposition of a limit on price decrease happened in several countries during World War II, notably in some Allied countries.

Stock market controls were by no means a phenomenon limited to countries from the Axis or to countries which had fallen under the Nazi boot. Allied countries also showed a marked interest in the functioning of their stock exchanges. Both in London and New York, and contrasting with the case in the three countries presented previously, the first years of war were characterised by a sharp decrease on the stock

<sup>37</sup> De Vries, *Een eeuw vol effecten*.

<sup>38</sup> Buelens and Willems, ‘De Tweede wereldoorlog’.

<sup>39</sup> Ibid.

<sup>40</sup> Ibid.

<sup>41</sup> H. A. M. Klemann, *Nederland 1938-1948: economie en maatschappij in jaren van oorlog en bezetting* (Amsterdam, 2002).

<sup>42</sup> De Vries, *Een eeuw vol effecten*.

<sup>43</sup> D. Waldenström, ‘Why does sovereign risk differ for domestic and international investors? Evidence from Scandinavia’, *IFN Working Paper*, 677 (2006).

markets.<sup>44</sup> In London, a few days after the outbreak of war, measures had already been taken to avoid panic selling:<sup>45</sup> forward trades were forbidden and government debt and associated stocks were subject to minimum prices. Stock exchange members soon cooperated with the government to facilitate its financial policy.<sup>46</sup> Eventually, and according to Michie,<sup>47</sup> ‘the stock exchange was being turned into an arm of state, no longer representing the interest of its members but ensuring their activities conformed to the requirement of government’. In the United States, the government directly intervened on the market and would impose its lead on Wall Street<sup>48</sup>.

The comparison between occupied and Allied countries shows that everywhere the ability to issue new state bonds at a reasonable price was deemed crucial. However, the means to reach this goal differed. In the United Kingdom, minimum prices were set for state bonds, guaranteeing an upper limit on interest rates. In the United States, the Federal Reserve intervened to stabilise interest rates and even announced its intention to buy or sell Treasury Bills to reach the targeted rate.<sup>49</sup> Changes in tax policy were also implemented to guarantee the success of state bonds issues. Paradoxically, the first move of the plan led to the taxation of newly issued government bonds. Banks were then approached with a strong incentive to buy the new bonds by promising to relax reserve requirements in exchange. This plan worked well. By the end of the war, banks had become the largest group holding bonds.<sup>50</sup> In occupied Europe by contrast, laws were meant to render these alternatives less attractive than state bonds.

### III

Before the outbreak of the war, the Paris Bourse was one of the leading international stock exchanges. Two markets coexisted: the official floor (*Parquet*) dedicated to the trade of the most important stocks and bonds, and a less regulated one (*Coulisse*), which may be compared to the New York curb. A report issued in 1940,<sup>51</sup> suggests that in 1938, out of 500 billion francs of French traded securities, 274 billion were handled by the official market, the rest being handled by the curb.

Access to the official market was restricted to *agents de change*, brokers who paid for this position in order to benefit from various attached privileges and who enjoyed an

<sup>44</sup> R. Sobel, *The Big Board: A History of the New York Stock Market* (New York, 1965), p. 312.

<sup>45</sup> R. Michie, *The London Stock Exchange: A History* (Oxford, 1999), p. 288.

<sup>46</sup> *Ibid.*, pp. 291–2.

<sup>47</sup> *Ibid.*, p. 294.

<sup>48</sup> C. R. Geisst, *Wall Street: A History* (Oxford, 1997), pp. 264–5.

<sup>49</sup> *Ibid.*, p. 266.

<sup>50</sup> *Ibid.*, pp. 266–7.

<sup>51</sup> *Mémoire présenté par la chambre syndicale des banquiers en valeur près la bourse de Paris*, 6 Sept. 1940, Archives Nationales, Paris [henceforth AN] AJ40/832. This assertion should, however, be taken with some caution as the above-mentioned report aimed at showing the importance of the *Coulisse* to get it reopened.



enviable position in French society as *officiers ministériels*. The French public debt could only be exchanged on this official market. These brokers had considerable autonomy and were allowed to add any stock to their quotation list. Once a stock or a bond was officially quoted on the *Parquet*, the brokers had a monopoly on its trade. By contrast, the *Coulisse* and its members (*Coulistiers*) had to restrict their trades to securities that were not listed on the official market. Conflicts between brokers and curb brokers were common and fuelled by the sentiments of superiority of the former.

In view of the German military successes, many brokers fled from Paris on 19 May 1940. On 10 June, the Paris Bourse closed its doors. Other French bourses remained open during this time and benefited from trades usually devoted to Paris.<sup>52</sup> However, once France had surrendered, the reopening of bourses located in the occupied zone became subordinated to that of the Paris Bourse. The German *Devisenschutzkommando* soon imposed the declaration of gold, foreign currencies, bonds and stocks. Fearing that French securities would fall into enemy hands, the French finance minister, Yves Bouthillier, pressed the brokers to evacuate the capital city on 18 June. Soon an important black market for securities emerged.<sup>53</sup>

When he came back from Vichy, the *Syndic* (the head of the Paris brokers association) worked on the stock exchange reopening, due to take place on 30 July. At that date, trades were limited to the cash market; only French national debt and approximately 15 stocks could be exchanged. Paradoxically, the reopening took place at a time when securities were still located in the 'free' zone, where many would remain up to November 1942. At the same time, a warning was issued to prevent the trade of stolen securities. This first reopening would be short-lived, as the occupying forces requested the Bourse closure on 7 August 1940. To justify their position, German officials invoked the weakness of the French economy and the fear of excessive speculation. The general price rise observed on the market during the week the Bourse was reopened was indeed viewed negatively.<sup>54</sup> Eventually, the Germans became aware of the fact that the stock market could be interpreted as an economic and political barometer.<sup>55</sup> This fear led to the control not only of the French press but also of the stock exchange reports.<sup>56</sup>

The French Vichy government along with the German occupying power realised, however, that a stock exchange could help them. A note dated 10 August 1940, from the French ministry of finance, stressed the importance of a liquid market for state bonds, for investors and for the state itself.<sup>57</sup> In occupied France, however, every legal project had first to be approved by the German military commander.<sup>58</sup> For

<sup>52</sup> Oosterlinck and Riva, 'Competition among'.

<sup>53</sup> Colling, *La prodigieuse histoire*.

<sup>54</sup> 'Vortragsnotiz betreffend die Wiedereröffnung der Pariser Börse', 18 Aug. 1940, AN AJ40/832.

<sup>55</sup> Ibid.

<sup>56</sup> Der Oberbefehlshaber des Heeres. Der Chef der Militärverwaltung in Frankreich, 'Vortragsnotiz betr. Wiedereröffnung der Pariser Börse', 10 Oct. 1940, AN AJ40/832.

<sup>57</sup> Ministère des finances, 'Note sur l'ouverture de la bourse', 10 Aug. 1940, AN AJ40/832.

<sup>58</sup> Cathala, *Face aux réalités*.

the Germans, there were also objective reasons to reopen the stock exchange, key among them being to plunder the country.<sup>59</sup> Contemporary German reports<sup>60</sup> clearly show that they fully understood the importance of the bond market. The French government had to rely on money or bond issues to cover the occupation costs, as other resources had been markedly reduced by the war. For the Nazis, not only should bonds be easy to float, but they should also benefit from a deep and liquid market in order to attract investors.<sup>61</sup>

By September 1940, the occupying power had already decided to revive the trades in the Paris Bourse. However, the *modus operandi* was still subject to discussion. The French brokers feared a complete extinction of their profession if the occupying authorities followed the ‘German’ model, in which trades were conducted mainly through banks.<sup>62</sup> Pragmatism led the occupying power to dismiss this option, as the French banking system lacked both the structure and the expertise to guarantee a smooth transition.<sup>63</sup> Contemporary reports indicate that the German occupying power felt quite confident that under strict regulations the activity would resume without any problem, as had been the case in Amsterdam and Brussels.<sup>64</sup>

The Paris Bourse reopened on 14 October 1940, albeit under very strict rules. Opening hours were limited and of the 6,000 persons who were working there before the war, only 900 were allowed to return to their jobs.<sup>65</sup> The public could no longer attend the market as authorities believed their presence would foster speculation.<sup>66</sup> Jews were banned from the stock exchange<sup>67</sup> and measures were implemented to aryanise the Bourse.<sup>68</sup> In order to redirect investors’ cash towards state bonds, stocks and shares, as well as foreign securities, were not readmitted.<sup>69</sup> The curb remained closed.<sup>70</sup> The very large *marché à terme* (futures market) was simply suppressed as it was considered too speculative. Furthermore, one of the *Reichsbank* directors was required to be present during the sessions. By 1941, his presence was no longer mentioned, a point that the *Syndic* attributed to the efficient way

<sup>59</sup> Lacroix-Riz, *Industriels et banquiers*.

<sup>60</sup> ‘Vermerk’, 7 Oct. 1940, AN AJ40/832.

<sup>61</sup> Letter dated 11 Sept. 1940 from the *Reichswirtschaftsminister* to the head of the German military forces in France, AN AJ40/832.

<sup>62</sup> Archives Compagnie des Agents de Change, Euronext Paris [henceforth ACAC], minutes 7 Aug. 1940.

<sup>63</sup> ‘Vermerk’, 7 Oct. 1940, AN AJ40/832.

<sup>64</sup> Letter dated 11 Sept. 1940 from the *Reichswirtschaftsminister* to the head of the military forces in France, AN AJ40/832.

<sup>65</sup> ‘Aktenwerk’, 14 Oct. 1941, AN AJ40/832.

<sup>66</sup> R. Tellier, *La situation du marché financier depuis l’armistice* (Paris, 1943).

<sup>67</sup> ACAC, minutes, 8 Oct. 1940.

<sup>68</sup> Ministère des finances, ‘Note sur l’ouverture de la bourse’, 10 Aug. 1940, AN AJ40/832 4b.

<sup>69</sup> Apparently, the CAC would nonetheless accept some trades if their counterpart was a good client or a large financial institution. ACAC, minutes, 16 Dec. 1940.

<sup>70</sup> Ministère des finances, ‘Note sur l’ouverture de la bourse’, 10 Aug. 1940, AN AJ40/832 4b.

in which the CAC had thus far managed the trades.<sup>71</sup> Nonetheless, German control remained tight.

Four main actors were active on the Parisian market. Obviously, the most powerful one remained the German occupying power, which could, at will, decide to change the trading rules or close the exchange. The Vichy government was also central in the deals. Even though its actions in occupied France were subordinated to a German agreement, it still had the power to legislate freely in non-occupied France. Vichy actively monitored the functioning of the stock exchange and regular contacts were made with the *Syndic* to discuss the market evolution.<sup>72</sup> During most of the war, the brokers and the *Syndic* feared an extreme change in stock market regulation, which would either suppress the activity or lead to the exchange closure. The brokers tried first to guarantee the opening of the market, then to increase their power vis-à-vis the *Coullissier*. Even though they were consulted regarding some measures, their advice does not seem to have carried much weight since the annual reports of the CAC mention legal changes which were implemented despite the CAC's negative position.

#### IV

As early as September 1940, the Paris brokers' association was summoned to denounce any of its members who belonged to a secret society and to provide individual reports on Jewish brokers.<sup>73</sup> Paradoxically, in view of the influence Jews were accused of having on French finance, only four brokers out of 70 fell under the German racial laws. The 17 November 1941 law forced the resignation of the two Jewish *agents de change* still in office at that time.<sup>74</sup> During the occupation, the curb suffered much more than the main market. As its main role was to provide a market for less-traded securities, the reopening of the curb did not seem vital to the occupying power. Furthermore, a large proportion of curb brokers were Jews: 33 out of the 94 main curb companies were held or controlled by Jews.<sup>75</sup> A German report describing the short-lived Bourse reopening in July 1940 stressed that there were only four Jewish brokers, whereas Jewish curb brokers were plentiful. Curb brokers were also accused of being at the basis of speculation since close to 60 per cent of the turnover came from futures trading.<sup>76</sup>

In the absence of a real market, some curb brokers quit, while others started trading securities on the black market. The *Syndic* regularly denounced the practice,

<sup>71</sup> ACAC, minutes, 22 Dec. 1941. German observers had previously praised the brokers' discipline ('Vermerk über die Wiedereröffnung des Aktienmarktes', 19 Mar. 1941, AN AJ40/832).

<sup>72</sup> See CAEF Boo61860, Boo61861, B65762, B65763 and B65765.

<sup>73</sup> ACAC, minutes, 17 Sep. 1940.

<sup>74</sup> ACAC, minutes, 22 Dec. 1941. Their presence is nonetheless still mentioned during the 1942 Annual meeting of the CAC. See also Dreyfus, *Pillages sur ordonnance*.

<sup>75</sup> Guillorit, *La réglementation des bourses*.

<sup>76</sup> 'Vermerk', 7 Oct. 1940, AN AJ40/832.

particularly since securities that were then not readmitted on the floor were exchanged.<sup>77</sup> Apparently, the black market's activity was fuelled by a law passed on 28 February 1941.<sup>78</sup> In order to close this loophole, a new law mentioned that all securities had to be traded in the presence of brokers.<sup>79</sup> The occupying power even took preventive measures by acting as a counterpart for less-traded securities, fearing that an abnormally long absence would drive potential buyers or sellers to the black market.<sup>80</sup> Nonetheless, the black market remained very active during the war, especially for foreign currencies and gold. Neither the police, nor warnings issued in the press were successful in countering these activities.

Until 1939, the brokers' association benefited from a privileged status and was able to manage its own activities. The Vichy government changed the legislation dealing with the organisation of banking activities on 13 June 1941.<sup>81</sup> This law placed brokers under the control of bankers. This loss of autonomy immediately led to claims by the CAC members that banking and brokering were very different businesses and that the CAC itself already provided satisfactory control. Tripartite negotiations began (between members of the *Comité bancaire*, of the CAC and representatives of the French ministry of finance) and by the end of 1941 a compromise was reached. The *Syndic* expressed his satisfaction, as most of the CAC claims had been respected.<sup>82</sup> Its autonomy would prevail and a new committee, named the *Comité des bourses de valeurs*, was to be created. This agreement confirmed the dominance of the Paris stock exchange with regard to the provincial bourses and the curb.

Curb brokers and representatives from the provincial bourses would only be allowed to express their opinion on matters directly related to their activities. The admission of new securities on the floor remained a privilege held by the CAC. New admissions had, however, to be made in the presence of a representative of the French finance minister. The curb's influence was severely reduced as its members were no longer allowed to act as counterparts, but only as intermediaries. On the other hand, the curb brokers, renamed *Courtiers en valeurs mobilières*, gained a monopoly on all securities that were not traded on the official market. Further laws forced the curb brokers to copy the organisation of the official market. The 3 August 1942 law restricted the number of curb brokers to 40. These laws resulted in large changes in the curb and further reinforced the superior position of the brokers.

In October 1942 curb brokers were allowed to resume trading. The CAC welcomed their return with acrimonious remarks, stating that although they had changed their name, their mentality remained the same and that their swindling

<sup>77</sup> ACAC, minutes, 16 Dec. 1940.

<sup>78</sup> ACAC, minutes, 22 Dec. 1941.

<sup>79</sup> Ibid.

<sup>80</sup> 'Bericht über die heutige Konjunktur an der Pariser Börse', 22 Sep. 1941, AN AJ40/832.

<sup>81</sup> Andrieu, *La banque sous l'Occupation*.

<sup>82</sup> ACAC, minutes, 22 Dec. 1941.

activities persisted. The CAC then adopted a very defensive position; no important trade should be left to the curb brokers. In 1943, the CAC required that two securities, Lievin and Hydro-Energie, be quoted on the floor. Conflicts arose regularly. A peak was reached when the curb brokers began to trade securities not listed on the Paris *Parquet* but on provincial ones. The Parisian brokers insisted that such practices be stopped as they were unfair to their provincial colleagues.<sup>83</sup>

Unlike in London, where the registered form prevailed, French stocks were in large majority to the bearer. This prevented anyone from easily controlling the owners as well as the trades. The occupying power, which wished to be able to determine citizens' wealth and the flows of capital, could of course not tolerate this. Therefore, starting in 1941, legal measures were put into place to force bearers to convert their securities to the registered form. A law passed on 28 February 1941 forced the registration of all effectively traded shares. Fixed-income securities, however, were not affected by this measure. Officially, this change would render the stock exchange more efficient and prevent the loss of precious time and money to physically deliver the exchanged securities.<sup>84</sup> Of course, the element of control was critical. The French financial landscape could not easily adapt since securities were distributed among a very large public. Any infraction could lead to fines from 1,000 francs up to the full value of the security involved.<sup>85</sup> Two exceptions were nonetheless tolerated: first, only securities negotiated on a market were subject to registration; second, stocks deposited by certain specific financial intermediaries could remain to the bearer. To encourage the registered form, securities were subject to different taxation rates. A distinction was made between bearer securities and bearer securities deposited by a specific organisation, i.e. the *Caisse Centrale de Dépôts et de Virements de Titres* (CCDVT), and eventually registered ones, the first ones being the most taxed.

The CCDVT<sup>86</sup> was created on 18 June 1941. Under the direct control of the French ministry of finance, it centralised all securities issued after 17 March 1941. It started to work effectively on 15 April 1942<sup>87</sup> and centralised the securities subject to the 28 February 1941 law. A law passed on 3 February 1943 stated that all securities should become registered. In addition to fines, owners also lost the right to receive dividends, to vote or to sell their securities.<sup>88</sup> This goal was, however, never achieved. Subsequent laws were drafted to determine when securities were to follow this rule, but these were never passed. It is unclear whether the German authorities favoured this action, as one of their representatives maintained the power to veto this if needed.<sup>89</sup>

<sup>83</sup> ACAC, minutes, 20 Dec. 1943.

<sup>84</sup> Caisse Centrale des Dépôts et Virements de Titres (CCDVT), *Le nouveau régime des actions au porteur et la caisse centrale des dépôts et virements de titres* (Paris, 1943), pp. 3–4.

<sup>85</sup> *Journal Officiel de l'Etat Français*, 5 Mar. 1941.

<sup>86</sup> The Banque de France, the largest French financial institutions and the CAC subscribed its capital.

<sup>87</sup> CCDVT, *Le nouveau régime*, p. 10.

<sup>88</sup> Guillorit, *La réglementation des bourses*.

<sup>89</sup> Report by Dr Müller, 18 Feb. 1944, AN AJ40/832.

The CCDVT only interacted with banks, financial institutions and brokers.<sup>90</sup> Investors deposited their securities with one of these institutions, which in turn brought them to the CCDVT. The CCDVT took care of the coupon payments to the owners of securities and managed property transfers when stocks were sold.<sup>91</sup> In December 1942, the *Syndic* criticised the CCDVT on the grounds that it did not deal with the securities in an efficient way. Its creation had exacerbated investors' fears: they were expecting that sooner or later all securities would have to be registered. By 1943, the CCDVT had managed to collect large parts of the French portfolio. It claimed to hold more than 40.7 million securities and had executed 2.25 million transactions.<sup>92</sup> In February 1943, the members of the CAC estimated that the number of registered securities had experienced a threefold increase in comparison with pre-war figures.<sup>93</sup> German estimates were similar as they considered that there had been a fourfold increase over the situation prevailing in 1934.<sup>94</sup>

Forced registration was certainly not appreciated by the French investors, who favoured bearer securities because of their discretion. Registration helped Vichy in two respects: first, it allowed better control over the market; second, it made stocks look less attractive since state bonds were exempted from registration. Indeed, there were no fears of a price increase for fixed-income securities, which would automatically bring a lowering of interest rates to be paid.<sup>95</sup> Other laws were passed to limit stocks demand and, as a consequence, increase the interest for state bonds.

Having managed to allow the stock exchange reopening in October 1940, the French finance minister began to plead for the readmission of stocks. Brokers were lobbying to this end for business motives, whereas the minister was convinced that no major financial operation would be possible unless stocks could be traded.<sup>96</sup> When stocks were readmitted on the floor, severe limitations were imposed. The occupying power made a distinction based on the location of the company's activity. Trading stocks of those mainly active in metropolitan France was authorised on 19 March 1941. The trade of other French shares would only be allowed on 8 September 1941.<sup>97</sup> The official reopening began with 2,169 securities,<sup>98</sup> but only

<sup>90</sup> CCDVT, *Le nouveau régime*, p. 5.

<sup>91</sup> Ibid.

<sup>92</sup> This is an estimation of all trades made by 31 August 1943. Of course, these figures were given by the CCDVT and should therefore be taken with some caution. CCDVT, *Le nouveau régime*, p. 10.

<sup>93</sup> ACAC, minutes, 20 Dec. 1943.

<sup>94</sup> Report by Dr Müller, 18 Feb. 1944, AN AJ40/832. The CCDVT helped the occupying power control trades. The CCDVT system, based on a clearing house, was probably much more efficient than the physical transfer of securities which prevailed in France before World War II. In Germany, such a system was in existence since 1882. F. François-Marsal, *Encyclopédie de Banque et de Bourse* (Paris, 1931).

<sup>95</sup> Guillorit, *La réglementation des bourses*, p. 64.

<sup>96</sup> Letter dated 7 Dec. 1941, CAEF B65765

<sup>97</sup> Trade in foreign and Alsatian stocks remained banned.

<sup>98</sup> Speech made by the *Syndic de la compagnie des agents de change*, M. Jacob, AN AJ40/832.

43 per cent of these were actually traded.<sup>99</sup> Stock prices in Paris immediately rose and were soon not allowed to exceed those in Lyon. The *Syndic*<sup>100</sup> would blame this bullish market on the large money issues.

As early as 1941, the French government used tax incentives to redirect funds towards state bonds. Five taxes coexisted in occupied France: stamp rights (for all securities), transfer and transmission rights, taxes on revenues (dividends or coupons), stamp rights for market operations and capital gain taxes. In a public statement made in 1941, the French finance minister declared that 'the time of speculation was past. All speculation on stocks and foreign currencies had to be stopped.'<sup>101</sup>

The stamp right experienced a minor decrease in March 1941, falling from 0.21 per cent to 0.20 per cent, and would eventually be abolished by a law passed on 31 January 1944. The law provided that the right would be suppressed at a future date to be determined later. By 1946, the date had still not been agreed upon. Transferring securities was subject to taxation. In view of the differences existing between nominative and bearer shares, two taxes coexisted. The transfer tax was paid for transfers of nominative securities, whereas the transmission tax dealt with bearer securities. Before the war, transfer rights were worth 0.20 per cent of the trades. This jumped to 1 per cent following a law passed on 3 February 1943. Before the war, transmission taxes were worth 0.12 per cent of the trades and were increased to 0.50 per cent on 29 March 1941 and then to 0.75 per cent on 3 February 1943. The taxes on revenues generated by the possession of shares or bonds were left almost untouched during the war. Stamp rights for market operations were, on the other hand, much increased. A law passed on 7 December 1941 forced the buyers of shares to pay a 5 per cent tax on all securities but the fixed-income ones. Eventually, a new tax on capital gains was discussed in 1940. On 28 February 1941, a 33 per cent tax on capital gains made less than one year after the original purchase of the stocks was instituted. The taxation rate fell to 20 per cent in July the same year,<sup>102</sup> and in February 1942, the tax would only apply if stocks had been held less than three months.

Other measures limiting speculation were implemented in March 1941. Arbitrage between stock exchanges was prohibited. Price differentials could at first not exceed 3 per cent, then 1 per cent, and for some securities even 0.5 per cent. In view of their limited success, several forms of manipulation appeared. The Paris brokers' association would, for instance, follow a 'daily opportunistic approach' by changing the trading rules in order to prevent arbitrage or speculation.<sup>103</sup> Furthermore, price increases from one day to the next were at first limited to 3 per cent (March 1941), whereas price declines could go as low as 6 per cent. In April 1941, the upward limit was reduced

<sup>99</sup> 'Aktennotiz', 19 Mar. 1941, AN AJ40/832.

<sup>100</sup> ACAC, minutes, 22 Dec. 1941.

<sup>101</sup> Speech quoted in Mitzakis, *Principaux aspects*, p. 88.

<sup>102</sup> Laws from 25 Mar. and 26 Jul. 1941.

<sup>103</sup> ACAC, minutes, 22 Dec. 1941.

to 1.5 per cent, then to 1 per cent, and for some securities, forbidden.<sup>104</sup> The Nazis also used direct interventions. In September 1941, the German authorities imposed a price cap if prices had risen consecutively over a three-day period.<sup>105</sup> On 15 November 1941, a 5 per cent tax on the purchase of all securities, except fixed-income ones, was created. This law further stipulated that the French finance minister had the authority to change the taxation rate without prior notice. In the spring of 1942, the restrictions were eased somewhat and 2 per cent price increases were again allowed. In February 1943, they were once more reduced to 1 per cent.

## V

Figure 1 provides the weekly evolution of the French 3 per cent *rente* during the occupation. From May 1940 to January 1942, bond prices exhibited an upward trend, plateauing until January 1944, after which the bullish trend resumed. This pattern seems at first sight hard to reconcile with the traditional risk–return theory. Indeed, one would expect, all being equal, that bonds issued by an occupied country would be riskier than bonds issued by a free country. Following this argument, bondholders should require a premium to compensate for this increased risk.

The unique characteristics of the French economy under German occupation explain this counter-intuitive observation. To cover occupation costs, the French government issued large amounts of money. Only part of this was sterilised, either via taxation or via the issuance of bonds. In turn, rationing prevented those with funds from buying real goods, and real estate investments were risky. This was not only a reflection of the uncertainty of the current situation, but was also due to the concern that real estate gains made during the war would be suspect once peace was achieved. The downward pressure on economic activity, from inflation and rationing, reduced the demand for funds from the private sector.<sup>106</sup> Thus, state bonds represented one of the few investment options and were, in fact, the only security readmitted on the stock exchange when the Bourse reopened.

Contemporary German reports analysed the reasons for the price rises and volume increases.<sup>107</sup> Investors bought bonds because there was nothing else to buy.<sup>108</sup> The readmission of stocks, in March 1941, did not stop the bullish trend and by the end of 1942, the *Syndic* continued to blame the price rise on the lack of alternative investment opportunities.<sup>109</sup> Bond prices remained more or less constant until June 1944, when they experienced a sharp increase. It is highly unlikely that this rise reflected greater confidence in French public finance. More probably, as in Belgium, investors

<sup>104</sup> Guilloit, *La réglementation des bourses*.

<sup>105</sup> 'Bericht über die heutige Konjunktur an der Pariser Börse', 22 Sep. 1941, AN AJ40/832.

<sup>106</sup> Dessirier, 'La Bourse des Valeurs'.

<sup>107</sup> 'Aktenwerk', 21 Oct 1940, AN AJ40/832.

<sup>108</sup> Colling, *La prodigieuse histoire*.

<sup>109</sup> ACAC, minutes, 21 Dec. 1942.



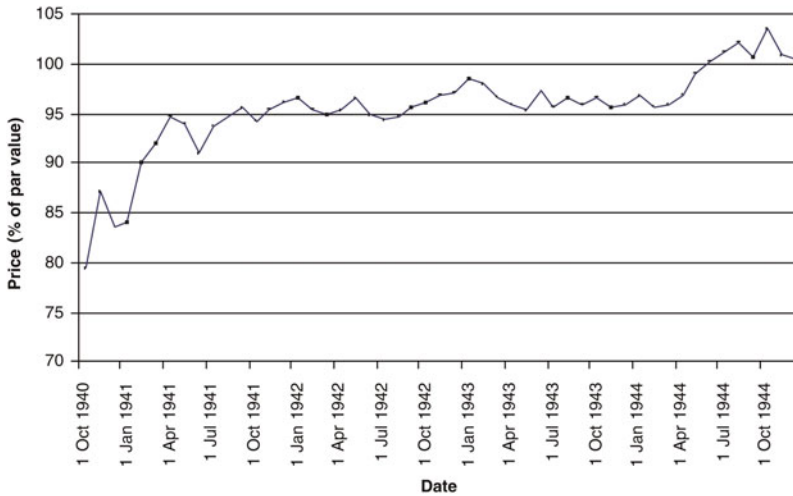


Figure 1. *Evolution of the 3 per cent rente price (1940-4)*  
 Source: *Cote de la Compagnie des Agents de Change*.

bought bonds because they feared they would have to declare the money they held, and hoped that bonds would not be subject to such declaration. In fact, this movement escalated and a black market for the 3 per cent *rente* emerged.<sup>110</sup>

Figure 2 provides the monthly evolution, during the occupation, of the SGF (*Statistique Générale de la France*) index.<sup>111</sup> Created in 1919, the index starts with a value of 100 in 1936. Arbulu and Gallais-Hammonno<sup>112</sup> provide a description of its composition. The most striking point regarding this stock price index is its sharp increase from 90 in 1939 to 615 by the end of 1944, with intermittent transient periods of decline. There were some notable periods of change. In March 1941, when bonds were readmitted to the market, the index quickly rose to 200. A bullish period followed, with the index reaching a peak of 600 in January 1943. A strong decline occurred in April 1943, with the index reaching a low of 450 in July. During the remainder of 1943, the index was steady at approximately 500. A brief decline in January 1944 was soon offset, and the index attained a level 620 in August.

Figure 3 provides the monthly evolution of another and more recent index.<sup>113</sup> The two indexes differ mostly in terms of level, the SGF index reaching at some point

<sup>110</sup> ACAC, minutes, 18 Dec. 1944.

<sup>111</sup> The author thanks Professors Pedro Arbulu and Georges Gallais-Hammonno, who provided these data.

<sup>112</sup> P. Arbulu and G. Gallais-Hammonno, 'La rentabilité réelle des actifs financiers boursiers de 1950 à 1992', *Revue Économie et Statistique*, INSEE, n° 281, reproduced in: *Problèmes Économiques*, 2439 (1995).

<sup>113</sup> D. Le Bris and P.-C. Hautcoeur, 'A challenge to triumphant optimists? A new index for the Paris stock exchange (1854-2007)', *Working Paper, Paris School of Economics*, n°2008-21 (2008), <http://www.pse.ens.fr/document/wp200821.pdf>. The author thanks David Le Bris who provided these data.

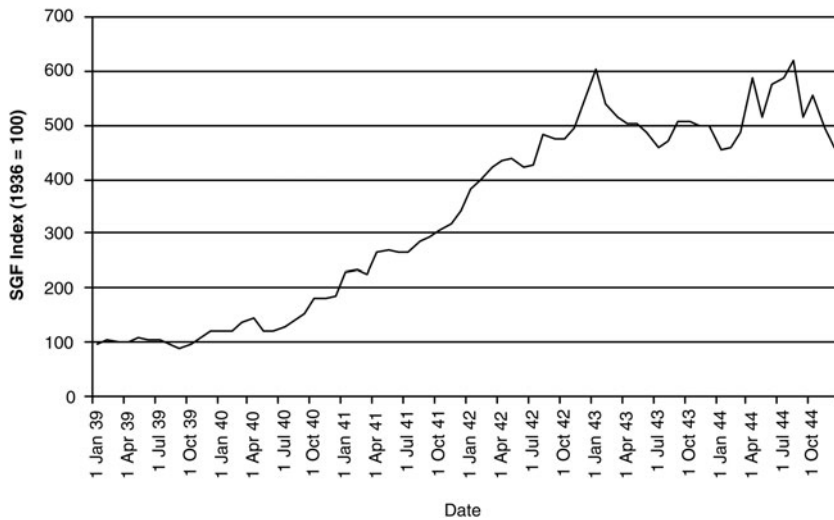


Figure 2. *SGF stock index*

Source: *Statistique Générale de la France*; see Arbulu and Gallais-Hamomno, 'La rentabilité réelle'.

during the war a value higher than 600 points whereas the CAC 40 one never exceeds 375 points. The overall shape of the indexes is, however, quite similar.

Figures 4 and 5 provide a comparison of the CAC 40 and the bond index, respectively, in nominal and real terms. The real-term index was been constructed by using the general price index published by the French finance ministry.<sup>114</sup> The annual inflation data have been converted to monthly data, assuming an equal inflation rate for all months in a given year. Figure 5 shows that in real terms investors in the equity market barely managed to get their investment back, whereas bondholders were seriously hit by inflation. The overall trend of the equity index shows local peaks early during the occupation (January 1941, May 1941 and February 1942), but the real rise in the index would only start in October 1942, to peak in February 1943. After that date, the equity index decreases sharply from a high of 176 to 118 in August 1943. The index remains close to this value up till September 1944, at which time it dives again to end up close to 100 in December 1944. The bond index, on the other hand, remains above its October 1940 value up till May 1942. After that date it experiences a continuous decline, mostly due to inflation.

The validity of any index depends on the reliability of recorded prices and volumes. For both indexes, many prices come from the Lyon stock exchange. This should, however, not be a major obstacle to the analysis since price differentials between the two exchanges were limited and closely monitored. To our knowledge, the *Cote Officielle* never voluntarily published erroneous data. However, after September 1941, prices were only recorded if at least 25 per cent of the sales orders

<sup>114</sup> Ministère de l'économie et des finances, *Statistiques & études financières* (Paris, 1949), p. 15.

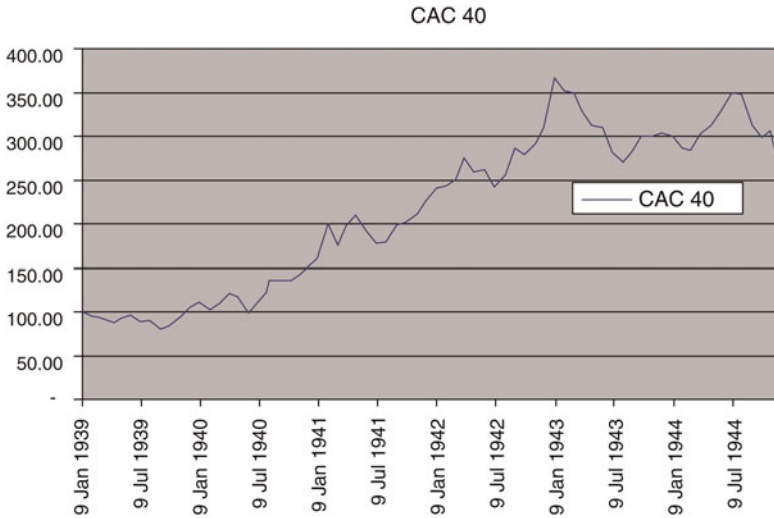


Figure 3. *CAC40 index*

Source: Le Bris, 'The French stock market'.

led to actual transactions. If not, they either published the previous day's price, or did not record any price at all.<sup>115</sup> As the volume of some stocks was extremely limited, the recorded prices must be taken as an indication of the market trend. Since no volume data are available for the period under consideration, volumes have to be assessed either through proxies or by using qualitative data. Taxation is commonly used to determine the volume, and Table 1 provides an overview of market liquidity by using revenues from internal stamps.

As shown in Table 1, the outbreak of war did not, at first, lead to a huge diminution of traded volumes. Volumes exchanged in 1939 were only marginally inferior to those of 1938. After the occupation, however, the traded volumes experienced a dramatic fall, with stamp revenues decreasing from close to 16.3 million FF in 1939 to a meager 7.65 million in 1940. Two factors explain this huge decline: first, for most of 1940 only state bonds were allowed on the floor; second, a large part of the trades was captured by Lyon, which benefited from a privileged position.<sup>116</sup> By 1942, revenues got close to their pre-war level and from then on, they experienced an upward trend. The figures presented in Table 1 provide a first overview of the activity on the Paris Bourse. Qualitative information indicates that activity throughout a year was far from constant. Table 2 presents an indication of trade activities based on these qualitative sources.<sup>117</sup>

<sup>115</sup> 'Frankreichs Börsenproblem: Drahtmeldung unseres Wirtschaftskorrespondenten', *Berliner Börse Zeitung*, 7 Sep. 1941.

<sup>116</sup> Oosterlinck and Riva, 'Competition among'.

<sup>117</sup> This overview is based on qualitative sources as well as CAC and German reports.

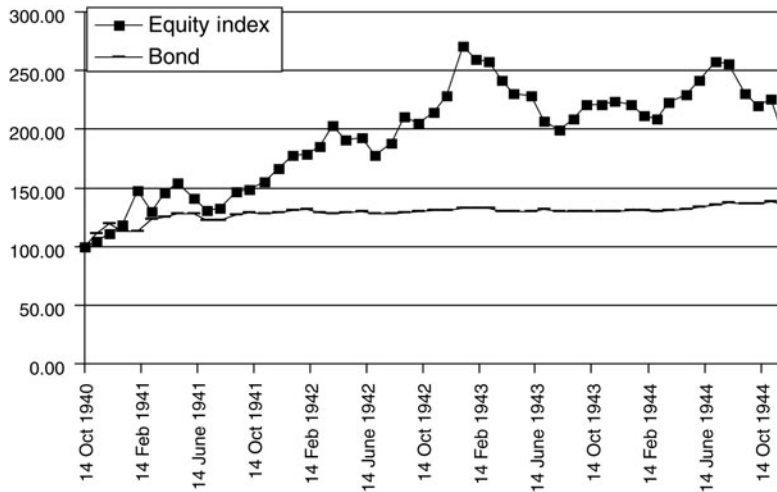


Figure 4. Comparative evolution of a representative French state bond and of the CAC40 equity index (October 1940 – December 1944), nominal index

Sources: Le Bris, 'The French stock market' and *Cote de la Compagnie des Agents de Change*.

The rise in bond prices would probably have been higher had the French government not managed to float bonds on a large scale. Between 1940 and 1944 new issues amounted to 491 million francs.<sup>118</sup> Furthermore, the monetary excess allowed the government to float long-term bonds and convert older ones at very low interest rates.<sup>119</sup> According to a German report, interventions were easier to conduct, and therefore more frequent, on the bond market.<sup>120</sup>

Starting in March 1942, in view of the large supply of money, many firms successfully launched IPOs. This trend would continue, particularly facilitated by the passing of a law on 12 August 1942.<sup>121</sup> As prices continued to rise, the decision was made to sell securities stolen from the Jewish community.<sup>122</sup> From then on, these securities would be used as a market regulator and sold when prices tended to rise too quickly.<sup>123</sup> In 1942 alone, the sales of these securities amounted to one billion francs! Such a large action led to a (short-lived) price decline.<sup>124</sup> In August, 1942,

<sup>118</sup> Margairaz, *L'Etat, les finances*.

<sup>119</sup> ACAC, minutes, 21 Dec. 1942 and 20 Dec. 1943. For the details related to the conversions see CAEF 0061860 and 0061861.

<sup>120</sup> 'Bericht über die heutige Konjunktur an der Pariser Börse', 22 Sep. 1941, AN AJ40/832.

<sup>121</sup> Guillorit, *La réglementation des bourses*.

<sup>122</sup> See J.-M Dreyfus, 'La spoliation des banques juives: trois études de cas', in M. Margairaz (ed.), *Banques, Banque de France et Seconde Guerre Mondiale* (Paris, 2002); Dreyfus, *Pillages sur ordonnance*; C. Andrieu, 'Les banques et la spoliation des déposants: acteurs ordinaires en régime autoritaire', in M. Margairaz (ed.), *Banques, Banque de France et Seconde Guerre Mondiale* (Paris, 2002).

<sup>123</sup> ACAC, minutes, 21 Dec. 1942.

<sup>124</sup> Colling, *La prodigieuse histoire*, p. 397.

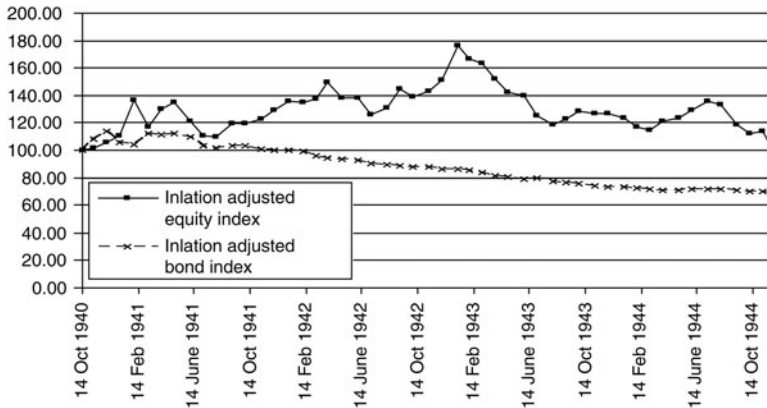


Figure 5. Comparative evolution of a representative French state bond and of the CAC40 equity index (October 1940 – December 1944), inflation-adjusted index

Sources: Le Bris, 'The French stock market', Ministère de l'économie et des finances, *Statistiques & études financières* and *Cote de la Compagnie des Agents de Change*.

even though 200 million francs of Jewish stocks had been sold in a month, stock prices resumed their rise.<sup>125</sup> To curtail this trend, on 15 September 1942, the Nazis requested an immediate price decline. This request created a panic on the Bourse, resulting in a sharp drop in prices.<sup>126</sup>

In February 1943, sell orders increased.<sup>127</sup> According to the *Syndic* the resulting price decline was due to the Eastern front campaign. De Rochebrune and Hazera<sup>128</sup> linked it to expectations regarding the end of the war. Beginning in September 1943 through to the end of that year, prices would again rise. Once again, sales of Jewish securities and additional authoritarian measures were used in an effort to limit this movement.<sup>129</sup> By January 1944, trading was minimal and for most securities there was only one auction per day.<sup>130</sup> To obtain the public's hoarded cash, many companies offered seasoned equities for sale in early 1944. Changes in the taxation regimen of newly issued securities may have helped this movement. Indeed, the heavy stamp tax, 4.40 per cent of the issued amount, was abolished on 31 January 1944.<sup>131</sup> The public did not show much enthusiasm for these issues, and the underwriters had to absorb more equities than expected.<sup>132</sup>

<sup>125</sup> Ibid., p. 398.

<sup>126</sup> ACAC, minutes, 21 Dec. 1942.

<sup>127</sup> ACAC, minutes, 10 Feb. 1943.

<sup>128</sup> De Rochebrune and Hazera, *Les patrons sous l'Occupation*.

<sup>129</sup> ACAC, minutes, 14 Oct. and 20 Dec. 1943.

<sup>130</sup> J. Koebe, 'Das Französische Börsenwesen', *La revue économique Franco-Allemande, Organe du centre en France des organisations économiques allemandes*, 39 (1944).

<sup>131</sup> Guillorit, *La réglementation des bourses*.

<sup>132</sup> Colling, *La prodigieuse histoire*, p. 402.

Table 1. *Revenues from internal stamps for the Paris Bourse and the Coullisse (1938–46), in 1,000 FF*

Date	Paris Parquet	Paris Coullisse
1938	17,237	
1939	16,261	
1940	7,652	NA
1941	8,589	NA
1942	15,781	343 (2 months)
1943	21,278	2,657
1944	22,254	2,228
1945	27,584	3,545
1946	66,859	12,694

Source: Oosterlinck and Riva, 'Competition among'.

Table 2. *Activity on the Paris Bourse, 1940–4*

Oct 1940– May 1941	June 1941– Jan 1942	Feb–July 1942	Aug–Dec 1942	Jan–Feb 1943	March 1943– Feb 1944	March– Aug 1944
High activity	Low activity	Activity resumes	Very low activity	Very high activity	Very low activity	Activity resumes

Many investors were at the time trying to acquire foreign currencies. This trend reversed in March 1944. Two short-lived bearish episodes nonetheless occurred at the end of April and the end of July. The *Syndic* attributed these to the bombing of Paris and the failed assassination attempt on Hitler, respectively. Fearing extreme measures in view of the strongly bullish market, in June 1944, the CAC decided to limit price changes and only one price increase per stock was allowed each day.<sup>133</sup>

For the entire occupation period, two facts should be highlighted. First, stock prices experienced significant increases. Second, in order to limit these price increases, the market was regularly manipulated. Nonetheless, in comparison to other bourses, the activity on the Paris floor was reasonably high during the war. In Brussels, price increases were already limited in December 1943,<sup>134</sup> and in Amsterdam it could take more than a year to carry out buy orders!

A few days before the liberation of Paris, the Bourse almost stopped all activity. On 18 August 1944, it closed. It reopened again on 30 August, but only for French state bonds. On 6 September all securities traded during the occupation were readmitted.

<sup>133</sup> ACAC, minutes, 18 Dec. 1944.

<sup>134</sup> ACAC, minutes 20 Dec. 1943.

They were followed by Alsatian securities on 11 September and foreign ones on 15 October 1944. Purges, which turned out to be rather limited, started immediately, and access to the Bourse was forbidden for former members of collaborationist movements.

## VI

The French state tried by all means to redirect funds towards state bonds. The various legal measures imposed during the war, as well as their date of imposition, are listed in Table 1. We distinguish the measures related to stock registration, taxation and price caps. To determine the impact of the different legal changes we track the price changes following the introduction of the various measures. Ideally, one would like to conduct an event study on or around the date when the measure is passed. Due to data limitations, it is impossible to use an approach requiring high-frequency data series. Furthermore, event study analysis requires determining a benchmark. Usually one considers only a limited number of securities and the stock exchange index may then be used as benchmark. In our case, it is the overall impact of the measures on the index which are central in the analysis.

Table 3 provides the price changes following these measures for both the equity index and the state bonds. If the measure was imposed on date  $t$ , we compute the return between month $_{t+1}$  and month $_t$  to capture the market reaction following the measure. To be fully successful for the state, the measures should lead simultaneously to a decrease in the equity index and to an increase in the bond index. For the whole occupation period this configuration is only found seven times (March 1941, May 1942, October 1942, February 1943, July 1943, January 1944 and August 1944). For four of these dates, legal measures had been taken the month before, and in three cases the measures were related to the registration of securities. Our findings go against the beliefs of Guilloit,<sup>135</sup> who thought that the 28 February 1941 law had had only limited effect. In fact, these measures led to a sharp decrease in the equity index (-12.38 per cent). The registration measures most often had the desired impact on both stock and bond prices. The other registration-related measures, in June and December 1941, led respectively to a decline in both the equity and the bond index and to a rise in both indexes. The rise may, however, not be attributed for sure to the registration since during the same months the government imposed new tax rules.

The tax changes had either no effect or a one that was counter-productive. There is only one instance for which the desired result was obtained, but it coincides with a registration-related law (February 1943). In all other cases, the effect of taxation proved adverse. Even though the Germans believed that the tax measures imposed during the war positively impacted on the stock market, by leading to a price decline,<sup>136</sup> they actually fostered more speculation. Indeed, capital gains were taxed

<sup>135</sup> Guilloit, *La réglementation des bourses*, p. 65.

when investors sold their holdings, thus prompting investors to hold their stocks for longer periods of time. As a consequence, sell orders declined. With constant buy orders, prices rose, an event actually forecast by the CAC.<sup>137</sup> Surprisingly, this law was not suppressed, even though the occupying power eventually realised its drawbacks.<sup>138</sup> The French finance minister, Yves Bouthillier, believed even after the war that this measure was in fact successful. In his memoirs, he describes the opposition of the German military administration to these laws and regrets that they blocked another measure he had hoped would pass, i.e. the control of stock sales by registered companies.<sup>139</sup> The imposition of limits to equity price rise seems to have had few positive results. There are only two cases out of six for which equity declined while bonds rose, and out of these two cases one could be due to a registration law passed at the same time.

## VII

During World War II, four main actors played a direct role in the daily functioning of the stock exchange: the Nazi occupying power, the Vichy government, the brokers and the curb brokers. Despite the heavy anti-capitalist rhetoric of some of its pre-eminent members, the Nazis allowed the reopening of the Bourse. Indeed, the stock exchange provided an efficient tool to plunder the country. The French government needed an effective market to float the bonds it issued to cover the occupation costs. To some extent, it shared the same goal as the German occupying power: limiting stock trades to redirect funds towards state bonds. In this framework, the *agents de change* tried to keep their activity alive and did not miss any opportunity to diminish their long-standing rivals, the curb brokers.

The Bourse remained open for almost the entire duration of the war. The large amounts of money printed by the Vichy government to cope with the German demands heavily impacted on bond and stock prices. Both followed a bullish trend. However, the bond market was barely affected by the war events, whereas the stock market was. The analysis presents some anecdotal evidence that prices were regularly manipulated. The impact of these manipulations was dramatically increased because volumes were low. The surviving archives provide many reports describing the dates, ways and means used by the occupying power to stop speculation. As a consequence, the relative inefficiency of the Bourse led to the development of a large black market for securities.

The joint actions of the German invader and the Vichy collaborationist government changed the functioning of the Paris Bourse. Some laws passed during the

<sup>136</sup> 'Vermerk über die Wiedereröffnung des Aktienmarktes', 19 Mar. 1941, AN AJ40/832.

<sup>137</sup> ACAC, minutes, 22 Dec. 1941.

<sup>138</sup> 'Bericht über die heutige Konjunktur an der Pariser Börse', 22 Sep. 1941, AN AJ40/832.

<sup>139</sup> Bouthillier, *Le drame de Vichy*, p. 410.

<sup>140</sup> R: laws related to compulsory registration and the CCDVT, T: tax changes, C: price caps.



Table 3. *Legal changes and impact on bond and equity*

Date	Law	Nature of the law <sup>140</sup>	Changes on equity index	Changes on bond prices
28 Feb 1941 (date of application: 5 March 1941)	Registration of new securities	R	-12.49%	8.95%
15 March 1941	33% tax on capital gain realised in the framework of a sale (exemption of state bonds)	T	12.68%	1.37%
19 March 1941	Price increase capped to 3% (decrease limited to 6%)	C	12.68%	1.37%
29 March 1941	Decrease of stamp right from 0.21% to 0.20% Increase of transmission rights to 0.50%	T	12.68%	1.37%
Early April 1941	Price increase capped to 1.5% then 1% or for some securities 0%	C	5.93%	2.32%
18 June 1941	Creation of the CCDVT	R	-7.25%	-3.87%
26 July 1941	Reduction of the tax on capital gain from 33% to 26%	T	1.07%	0.11%
Sept 1941	Cap if three days of price rise	C	1.34%	1.76%
6 Dec 1941	Law stating that transfer of shares has to be registered by a broker	R	6.63%	0.89%
9 Dec 1941	Tax: buyers of shares have to pay a 5% tax	T	6.63%	0.89%
14 Feb 1942	Reduction in the required time of detention to be subject to the tax on capital gains	T	3.43%	-1.65%
March 1942	Price increases capped to 2%	C	9.77%	-0.63%
15 April 1942	Real beginning of the registrations by the CCDVT	R	-5.89%	0.42%

*Continued*

Table 3. *Continued*

Date	Law	Nature of the law <sup>140</sup>	Changes on equity index	Changes on bond prices
Sept 1942	Price increases capped to 1%	C	-2.65%	0.68%
3 Feb 1943 (application 21 April 1945)	Compulsory registration of all shares	R	-4.07%	0.10%
3, Feb 1943	Price increases capped to 1%	C	-4.07%	0.10%
3, Feb 1943	Increase of transfer rights to 1%	T	-4.07%	0.10%
	Increase of transmission rights to 1%			
31 Jan 1944 (published on 13 and 16 Feb 1944, not applied during the war)	Suppression of stamp right	T	-4.21%	-0.46%

Source: Guillorit, *La réglementation des bourses*, AN AJ40/832.

war were never abolished. The CCDVT remained active, as it provided an economically efficient way to transfer securities. Even though it would change its name a few years after the liberation, the aims of the CCDVT remained unaltered. The *cotation à la criée* (quotation by auction), a measure introduced for the stocks, would be maintained, as it was believed to effectively reduce volatility. The war dramatically changed the pre-war balance between brokers and curb brokers. The limited number of Jewish brokers and the importance of the floor in economic terms explained why the Germans favoured this group of brokers rather than the curb brokers. This feeling was strengthened by the fact that the curb was characterised by a large number of Jewish traders and its futures market, accused of increasing speculation, represented 60 per cent of trades. The curb brokers had to wait until 1942 before they could resume work, whereupon they had to completely change their organisational structure in order to comply with the October 1942 laws. The number of curb brokers was subsequently reduced to 40. The only 'positive' aspect of the law was that they were granted an official monopoly on securities not quoted on the floor; a privilege they already held in an informal way. The weakening of the position of the curb brokers at the end of the war should therefore be stressed.

Ultimately, the article analyses the efficiency of the measures imposed by Vichy. The collaborationist government wanted to redirect funds from the equity market to state bonds. Measures leading to a simultaneous decline in the equity index and

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rise in the bond index would thus appear to be successful. We show that taxation and the imposition of a maximum threshold on equity prices did not lead to the desired result. On the other hand, the laws forcing equity registration managed most of the time to bring the hoped-for result.

Submitted: 4 December 2007

Revised version submitted: 2 April 2009

Accepted: 9 July 2009

First published online: 14 July 2010