Market microstructure and Nazi influence on the Paris stock exchange during WWII

Abstract

Although studies of the Paris stock exchange are quite numerous, its functioning during the Second World War has been overlooked. Based on archives from both the French brokers (Compagnie des Agents de Change) and from the occupying forces, this paper describes the market microstructure, the changes in market organization and the manipulations of the stock prices by the Nazis. Furthermore, the paper shows that, for economic reasons, some measures imposed by the Nazis were kept after the war. It suggests, moreover, that long-term analysis based on indices that include the war years could be misleading because most stocks could not be bought or sold, even though they were quoted at the time.
Market microstructure and Nazi influence on the Paris stock exchange during WWII

« Soyons optimistes parce que notre métier est bon, d’un rendement peut-être meilleur encore dans les périodes troublées que dans les périodes calmes. »¹

M. Jacob, *Syndic de la Compagnie des Agents de Change de Paris*², December 16, 1940.

1. Introduction

In a recent past, the number of articles analyzing the French financial world under the Vichy regime has experienced a dramatic increase. Margairaz and Bloch-Lainé (1991) showed that the French government put into place a financial chain to cover the occupation costs: money was first printed and then redirected to the state either by tax or by bond issues. The scarcity of investment opportunities allowed this system to work efficiently. Andrieu (1990), De Rochebrune and Hazera (1995), Lacroix-Riz (1986, 1986A and 1999) Margairaz (2002) and Plessis (2002) have provided extensive studies on the banking sector whereas Andrieu (2002) and Dreyfus (2002 and 2003) focused on the spoliation of Jewish goods.

The stock exchanges’ reactions to war events have mostly been analyzed for free or neutral countries. Michie (1999) described the fate of the London Stock Exchange during this period. Recently, several papers have used quantitative techniques to determine to which events prices react. Brown and Burdekin (2002) isolated structural breaks and turning points on German bonds traded in London during World War II. The outbreak of WWII and the D-Day invasion appeared to be major turning points. Furthermore, these authors suggested that the bond prices anticipate Hitler's overthrow and the post-war settlement of bondholders’ claim. Regarding neutral countries, Frey and Kucher (2000 and 2001) as well as Waldenström and Frey (2002 and 2004) analyzed the monthly

¹ Let us remain optimistic because our business is good with maybe an even better yield during troubled times than during peaceful periods.

² Head of the Paris brokers association.
The evolution of European government bonds traded on the Zurich and Stockholm Bourse. They found large discrepancies between events considered as major turning points nowadays by historians and events perceived as important at the time. Stock exchanges under German control have received less attention. Sercu (1992) and Buelens and Willems (2003) provided a description of the functioning of the Brussels bourse, whereas Oosterlinck (1999) explained the counter-intuitive rise of Belgian bond prices during WW2.

Notwithstanding the above-mentioned studies, surprisingly few papers deal with the Paris stock exchange during the Second World War. Some studies were conducted shortly after the war itself with Colling (1949 and 1952) as well as Vigeroux and Dessirier (1948) providing an overall view of the market during this period. Unfortunately, at the time most of the archives were not public. More recently, Dreyfus (2003) addressed the dramatic fate faced by the Jewish brokers (Agents de change) and curb brokers (Coulissiers). However, his presentation of the stock exchange did not address the German position regarding the stock exchange functioning nor on the bond or stock price evolution. A quantitative analysis focused on a very specific part of the Paris stock exchange during WW2 has recently been conducted by Oosterlinck (2003), who has shown that there was a premium for French bonds issued before versus during the war and that the breakpoints on this premium were mainly linked to political changes and reassessments regarding the legitimacy of French rulers.

The present paper complements previous research in several respects. It presents the functioning of the Paris Bourse during WWII. The analysis, based on archives from both the German and French actors, allows better understanding the numerous changes experienced by the stock exchange during the war. The motivations of each actor and the impact on prices of the laws passed by the Vichy regime are discussed. Based on an original database, the paper analyses the price evolution of the 3% rente\(^3\), one of the most liquid bond issued by the French government. The study suggests that bonds were less subject to restrictions or manipulations than stocks. Indeed, the prices of the latter were often manipulated or capped and buy orders could often not be executed. In view of these elements, the paper claims that, for the war period, the volume of traded shares does not always allow constructing a reliable index, as prices were often fictitious. Unfortunately, long-term indices usually do not consider the specificities of this period and their accuracy may thus be questioned.

The next section analyzes the Nazi position regarding stock exchanges. Section 3 provides a short description of the Paris Bourse before the war outbreak and the events leading first to the stock exchange closure, then to its reopening. Section 4 presents the numerous stock-exchange related legal measures passed during the war. Their impact on bond and stock prices is analyzed respectively in section 5 and 6. Section 7 concludes.

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\(^3\) The author thanks M Douezy and Ms Bodilsen for their help while collecting data.
2. The Nazi vision regarding stock exchanges

This section describes the ambiguous position of the Nazi officials towards finance and financial markets. Indeed, the vision of the occupying forces allows a better understanding of the legal measures passed by the Vichy regime. In the occupied zone, their influence was straightforward as every legal project had first to be approved by the German military commander (Cathala, 1948). The obvious German influence on the Vichy regime does not imply that the Vichy officials did not share the Nazis’ views. In fact, when it came to financial matters, the Pétain regime had a very similar position. As stated by Henning (1992), for Nazis, trading securities was basically not acceptable. Indeed, the international connections created by the trade and the notion of speculation attached to stock exchanges were despised by the Nazi officials. As such the stock exchanges had been an important target of Nazi propaganda before 1933 (Nathan, 1944). However, and despite this animosity, when the Nazis came to power they did not suppress all the stock exchanges even though they did reduce their number from 21 to 9. As stated by Wolfe (1955), “the pre-1933 vows to exterminate the financiers and their institutions were dropped as soon as possible”. Thus, whereas the antifinance Nazi rhetoric remained the same during the following years and whereas each marked growth of stock prices led to protests asking to close the market, the government did not take any measure designed to annihilate the stock markets. This seemingly contradictory position may be explained by two reasons. First the fears of the appearance of a black market, by definition uncontrollable; second the need for the Nazi regime to finance its war expenditures.

Indeed, to cover the huge public expenditures needed to launch the war, the Nazis turned to several tools: taxation was increased and incentives to invest in “useful” industries were put into place. As suggested by Dauphin-Meunier (1942), the Nazi treatment of financial markets aimed at assuring a large financial basis for the regime. Wolfe (1955) and Nathan (1944) share this view; the latter considering that “Their [The Nazis] credit and banking measures (…) were designed to make the money and capital market as productive of public funds as possible”. So, the German stock exchanges were allowed to survive if they could serve and facilitate the Nazi ambitions. To fulfill this objective, the stock exchanges and the economy as a whole became subject to numerous regulations.

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 interesting for the investors. By the same token, if stock prices were constantly rising, investors would want to switch from state bonds to shares. This explains the Nazi heavy anti-speculation propaganda. In this context, a 1934-law restricted the distribution of dividends for the largest corporations. As time went by, legislation got more and more restrictive and by 1941, high tax rates would in practice prohibit the payment of dividends exceeding 6%. Meanwhile, a law passed as early as 1937 had already increased the minimum required capital for limited companies and multiplied by a tenfold factor the minimum nominal value of the shares (brought to a 1000 Reichsmark) and heavily reduced the shareholders’ say in the companies. Of course,
all this measures were meant to render the stock exchange the least attractive to investors, especially small shareholders. Furthermore, and as for the rest of the economy, the Nazi soon started to aryranize the stock exchanges.

The legal measures imposed to the market led to an almost complete halt of transactions as early as 1939 (Wolfe, 1955). Nonetheless, even in that very tight market, stock prices kept an upward trend, leading the legislature to pass even direr laws in September 1941: declaration of stocks bought since the war outbreak, obligation for the brokers to declare all the transactions and to centralize all their sales on the stock market. By 1943, the activity of the Berlin stock exchange became so minute that it opened but three days a week.

In occupied countries, the contradictory feelings towards stock exchange were also observed. The reopening of the stock exchanges quickly led to vivid debates and, depending on the country, would occur with quite large time differences. In fact, and even though a large fraction of the Nazis loathed them, stock exchanges provided a useful and powerful tool to plunder the occupied nations. Plundering could either be direct (for instance by acquiring a significant number of shares from a specific company) or indirect as the stock market allowed the occupied state to float bonds to cover the occupation costs imposed by the Germans. Nonetheless, the cohabitation of pro and anti stock exchange members probably explains the changing attitude of the occupant. In fine, as a consequence of the laws passed by the Vichy regime, the Paris stock exchange suffered from numerous controls. The following section provides a brief description of the stock market before WW2, then the historical context leading to the stock market closure and reopening.

3. The Stock market before the war and its reopening

Before the war outbreak, the Paris bourse was one of the leading international stock exchanges. As in New York, two markets coexisted: the official market (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 suggests that in 1938, out of 500 billions francs of French traded securities, 274 billions were handled by the Parquet, the rest being handled by the Coulisse.

The access to the Parquet was restricted to the Agents de change, brokers who paid for this position in order to benefit from the privileges attached to it. For example, the French public debt, one of the largest sections, could only be exchanged on the Parquet. Furthermore, the Agents de change benefited from a large 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 Agents de change got the monopoly on its trade. By contrast, the Coulisse

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4 « Mémoire présenté par la chambre syndicale des banquiers en valeur près la bourse de Paris », September 6, 1940, AJ 40 vol. 832. This assertion should however be taken with caution as the above-mentioned report aimed at showing the importance of the Coulisse to get it reopened. Nonetheless, the real amount should not be very different from these figures.

5 Besides their trade privileges, they enjoyed an enviable position in the French society as Officiers ministériels.
and its members (*Coulissiers*), had to restrict their trades to securities that were not listed
on the *Parquet*. This, of course, left the *Coulissiers* in a very weak position compared to
the *Agents de change*; a situation, which had already brought and would bring again
many conflicts. Conflicts between *Agents de change* and *Coulissiers* were further fuelled
by the sentiment of superiority the first expressed when dealing with the second. They
despised them and regularly suggested that they used dubious trade practices and were
swindling. This animosity would in due time play an important role.

**Leaving Paris and reopening the Stock exchange**

In view of the German military successes, many *Agents de Change* fled from Paris on
May 19, 1940. Almost three week later, on June 10, the Paris Bourse closed its doors. 6
Immediately an important black market for securities appeared (Colling, 1949). The
following day, the German *Devisenschutzkommando* imposed the declaration of gold,
foreign currencies, bonds and stocks. Fearing that the French securities would fall in
enemy hands, the French Finance Minister, Yves Bouthillier pressed the *Agents de
Change*, on June 18, to evacuate the capital city. 7

As soon as he came back from Vichy, M. Jacob, the *Syndic de la Compagnie des
Agents de Change* (CAC), started to work on the stock exchange reopening, due to take
place on July 30. At that date, trade was limited to the cash market and only French
national debt and about 15 stocks could be exchanged. 8 By the same time, a warning had
been issued to prevent trading stolen securities.

The first reopening would be short-lived as the occupying forces requested the bourse
closure on August 7, 1940. To justify their position, German officials invoked the French
economic disorganization. Furthermore, they feared excessive speculation especially as
they forecasted that the French government would rely on money issues to cover the
occupation costs. 9 In this context, the general price rise observed on the securities market
during the week the bourse was reopened, was interpreted very negatively. 10 Eventually,
but this did not appear of course in the contemporaneous press, the German were aware

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6 Other French Bourses remained open during this time and benefited from trades usually devoted to
Paris (“Französische Börse” in *Neuen Zürcher Zeitung*, July 23, 1940). However, once France had
surrendered, the reopening of bourses located in the occupied zone became subordinated to that of the Paris
Bourse (AJ40, vol 832). The bourses located in Bordeaux, Lille and Nantes would close but eventually all
had reopened by June 1941. The Nancy bourse was not given this opportunity, located in Alsace-Lorraine;
it was considered as an integral part of Germany. The Marseilles and Lyon bourses never closed. As a
consequence of the split of the country into two zones, the Lyon bourse experienced a large increase in its
activity notably because it was the only large market allowed to trade foreign securities (keeping this
privilege after the invasion of the “Free” zone in November 1942).

7 The uncertainty related to the future of the Paris bourse brought with it wild rumors during the end of
June and July 1940. Among others, trade activities were to resume in a Vichy movie theater “Französische

8 Paradoxically, the reopening took place at a time when securities were still located in the “free” zone.
They would remain there for a long time. Up to 1942, a few clerks from the CAC stayed in Chatel Guyon
and Riom but the invasion of the « free » zone in November 1942 led to a complete transfer to Paris.
ACAC, Reports of the meetings October 8, and December 16, 1940.


10 « Vortragsnotiz betreffende die Wiedereröffnung der Pariser Börse », August 18, 1940, AJ40 vol.
832.
that the stock market could be interpreted as an economic but also as a political barometer\textsuperscript{11}. This fear led to the control not only of the French press but also of their stock exchange reports\textsuperscript{12}.

Soon however, the French Vichy government as well as the German occupant realized that a stock exchange could help them reach their goals. A note dated August 10, 1940 emanating from the French Ministry of Finance stressed the importance of a deep market for state bonds as well for the investors as for the state itself\textsuperscript{13}. During the Wiesbaden peace conference the French authorities insisted on the vital aspect of a properly functioning market for fixed income securities. For the German, and as stated by Lacroix-Riz (1999), there was an objective reason to reopen the stock exchange, an essential tool, among others, to plunder the country. Contemporaneous German reports\textsuperscript{14} clearly show that they fully understood the importance of the bond market. Indeed, the French government had to rely on paper or bond issues to cover the occupation costs as other resources (such as duty or personal taxes) had been highly reduced by the war. Not only, would bonds be issued easily but they would also benefit from a deep market in order to attract investors\textsuperscript{15}.

Thus, it is safe to say that by September 1940 the occupant had already decided to revive the trades in the Paris bourse. However, the \textit{modus operandi} was still the object of discussions. Among other preoccupations, 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\textsuperscript{16}. Pragmatism led the occupant to dismiss this option as the French banking system lacked both the structure and the experience to guarantee a smooth transition from one system to the other\textsuperscript{17}. Contemporaneous reports indicate that the German occupant felt quite confident that under strict regulations the activity would resume without any problem, as had been the case in Amsterdam and Brussels\textsuperscript{18}.

Eventually, the Paris bourse was allowed to resume its activity on October 14, 1940 albeit under very strict rules. Opening hours were limited and access to the bourse

\textsuperscript{11} « Ein weiterer Punkt, der gegen die Wiederaufnahme ist, ist die Wirkung der Kursnotierung als politisches und wirtschaftliches Barometer », in « Vortragsnotiz betreffend die Wiedereröffnung der Pariser Börse », 18 August 1940, AJ40 vol. 832 4b.

\textsuperscript{12} Der Oberbefehlshaber des Heeres. Der Chef der Militärverwaltung in Frankreich, « Vortragsnotiz betr. Wiedereröffnung der Pariser Börse », 10 Oktober 1940, AJ40 vol. 832.

\textsuperscript{13} “Au point de vue du crédit public ainsi qu'au point de vue de l'intérêt des porteurs de fonds d'état, il doit exister un marché aussi large que possible des rentes et des valeurs garanties par le Trésor”. Ministère des finances, « Note sur l'ouverture de la bourse », August 10, 1940, AJ40 vol. 832 4b.

\textsuperscript{14} « Für den französischen Staat ist die im Interesse des Deutschen Reiches wichtigste Aufgabe die Bezahlung der Abgaben für die Besatzungskosten. Da Steuer-und Zolleinnahmen nicht annähernd ausreichen, und die hierfür erforderlichen Beträge aufzubringen, muß der französische Finanzminister die Lücke durch Inanspruchnahme des Geld – und Kapitalmarkts auszufüllen suchen. » in Vermerk October 7, 1940, AJ40 vol. 832, 4b.

\textsuperscript{15} Letter dated September 11, 1940 from the \textit{Reichswirtschatsminister} to the head of the military forces in France, AJ40 vol. 832.

\textsuperscript{16} ACAC, Reports of the meetings August 7, 1940.

\textsuperscript{17} Vermerk October 7, 1940, AJ40 vol. 832, 4b.

\textsuperscript{18} Letter dated September 11, 1940 from the \textit{Reichswirtschatsminister} to the head of the military forces in France, AJ40 vol. 832.
became heavily restricted. Out of the 6000 persons who were working there before the war, only 900 regained access\textsuperscript{19}. Jews were explicitly forbidden to enter the stock exchange\textsuperscript{20} whereas a report issued by the French Ministry of Finance described the measures set into place to aryаниз the bourse\textsuperscript{21}. Furthermore, the number of allowed securities was severely reduced and the \textit{Coulisse}, considered as unofficial market, remained closed\textsuperscript{22}. In order to redirect investors’ cash towards state bonds, stocks and shares as well as foreign securities were not readmitted\textsuperscript{23}. The very large \textit{Marché à Terme} (Futures Market) was simply suppressed as it was considered too speculative. Furthermore, Dr Sprockhoff, one of the \textit{Reichsbank} directors, would be present during the sessions. By 1941, his presence is no more attested, an element that the \textit{Syndic} of the CAC attributed to the efficient way with which the CAC had so far managed the trades\textsuperscript{24}. Nonetheless, German control remained tight.

\section*{4. The Vichy laws}

During the war many laws aiming at better controlling the market, at fighting excessive speculation and at suppressing the Jewish presence in the bourse were passed. In order to increase the states’ ability to control the market, registered stocks were favored, a new institution centralizing the stocks was created, a large reform of the stock exchange undertaken and black market outlawed. Eventually, and as for the rest of the French economy, racist laws forced the Jews to quit their position, an element that for historical reasons mainly hit the \textit{Coulisse} and the \textit{Coulissiers}.

\subsection*{Registered stocks and the \textit{Caisse Centrale de Dépôts et de Virements de Titres}}

Unlike in London where the registered form prevailed, French stocks were in large majority to the bearer. This prevented anyone to easily control the owners but also the trades. The occupant, who wished to be able to determine citizens’ wealth or 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.

According to a law passed on February 28, 1941, all effectively traded equities had to be registered. Fixed-income securities were not affected by this measure. Officially, this change would render the stock exchange more efficient and prevent losing precious time and money to deliver physically the exchanged securities\textsuperscript{25}. Of course, the element of

\begin{flushright}
\begin{itemize}
\item \textsuperscript{19} \textit{Aktenwerk}, October 14, 1941, AJ40, vol. 832.
\item \textsuperscript{20} ACAC, Reports of the meeting, October 8, 1940.
\item \textsuperscript{21} Ministère des finances, « Note sur l'ouverture de la bourse », August 10, 1940, AJ40 vol. 832 4b.
\item \textsuperscript{22} “Il existe un marché officieux, dénommé marché en banque ou coulisse, que le gouvernement français a décidé de ne pas rouvrir lorsqu'il a ordonné la reprise des opérations du Parquet” Ministère des finances, « Note sur l'ouverture de la bourse », August 10, 1940, AJ40 vol. 832 4b.
\item \textsuperscript{23} Apparently the CAC would nonetheless accept some trades if their counterpart was either a good client or a large financial institution. ACAC, Reports of the meetings, December 16, 1940.
\item \textsuperscript{24} ACAC, Reports of the meeting, December 22, 1941. Noteworthy, German observers had previously praised the brokers’ discipline (« Vermerk über die Wiedereröffnung des Aktienmarktes », Wi VIII, March 19, 1941, AJ40, vol 832.
\item \textsuperscript{25} CCDVT, pp. 3-4.
\end{itemize}
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control played an important role. The French financial landscape could not easily adapt itself to this new legislation. Securities were disseminated among a very large public and enforcing the law was by no means an easy task. Any infraction could lead to fines from 1000 francs up to the full value of the security involved\textsuperscript{26}. Two exceptions were nonetheless tolerated: first, only securities negotiated on a market were subject to registration; second securities deposited by some specific financial intermediary could remain to the bearer. In order to encourage the registered form, securities were subject to different taxation rates. A distinction was made between: securities to the bearer, to the bearer but deposited by a specific organization: the Caisse Centrale de Dépôts et de Virements de Titres (CCDVT) and registered ones, the first ones being the most taxed.

The Caisse Centrale de Dépôts et de Virements de Titres (CCDVT)\textsuperscript{27} was created on June 18, 1941. Under the direct control of the French Ministry of Finance, it centralized all the securities issued after March 17, 1941. The CCDVT became more and more important as time went by. It started to work effectively on April 15, 1942\textsuperscript{28} and soon centralized the securities subject to the February 28, 1941 law. By February 3, 1943, the French Finance Minister could request that all securities from one specific company became registered. It seems that he never used this prerogative. Had he done so, the German authorities kept the power to veto his decision if needed\textsuperscript{29}.

In practice, the CCDVT only interacted with banks, financial institutions and brokers\textsuperscript{30}. Investors deposited their securities with one of these institutions, which in turn brought them to the CCDVT. The CCDVT took care of the coupons payments to the owners of securities and managed the property transfer when stocks were sold\textsuperscript{31}. Practitioners questioned the efficiency of this system. In December 1942, the Syndic criticized the CCDVT on the grounds that it did not deal with the securities in an efficient way and that its creation had fostered investors’ fears. Indeed, most of them were expecting that sooner or later all securities (bonds and stocks) would be subject to the February 28, 1941 law. Even though some of this criticism remained at the end of 1943, the CCDVT had meanwhile managed to collect and manage large parts of the French portfolio.

In 1943, the CCDVT claimed it held more than 40.7 millions securities and had executed 2.25 millions transactions\textsuperscript{32}. In February 1943, the members of the CAC estimated that the number of registered securities had been multiplied by a factor three in comparison with pre-war figures\textsuperscript{33}. German estimation was close as they considered a fourfold increase compared to the situation prevailing in 1934\textsuperscript{34}.

\begin{itemize}
\item \textsuperscript{26} JOEF, March 5, 1941.
\item \textsuperscript{27} The Banque de France, the largest French financial institutions and the CAC subscribed its capital.
\item \textsuperscript{28} CCDVT, p. 10.
\item \textsuperscript{29} Report by Dr Müller, February 18, 1944, AJ40 vol. 832.
\item \textsuperscript{30} CCDVT, p. 5.
\item \textsuperscript{31} CCDVT, p. 5.
\item \textsuperscript{32} An estimation of all trades made by August 31, 1943. Of course these figures were given by CCDVT and should therefore be taken with caution. However, many actors stressed at the time its increasing importance. CCDVT, p. 10.
\item \textsuperscript{33} ACAC, Reports of the meeting, December 20, 1943.
\item \textsuperscript{34} Report from Dr Müller, February 18, 1944, AJ40 vol. 832.
\end{itemize}
Structural reforms and changes in the stock exchange hierarchy

Up to 1939, the Compagnie des Agents de Change benefited from a privileged status and was able to manage its fate alone. Several governments had unsuccessfully attempted to get a larger control on its actions. The French Vichy government would follow the same goal and, on June 13, 1941, changed the legislation dealing with the organization of banking activities. Besides banking issues, this law placed brokers under the control of bankers (Comité d’organisation des banques). This loss of autonomy immediately led to claims by the CAC members arguing that banking and brokering were very different business and that the CAC itself already provided a satisfactory control. Tripartite (members of the Comité bancaire, of the CAC and representatives of the French Ministry of Finance) negotiations were then started and at the end of 1941, a compromise was reached. The Syndic expressed his satisfaction, as most of the CAC claims had been respected. Its autonomy would prevail and a new committee named Comité des bourses de valeurs comprising the governor of the Banque de France, the Syndic of the CAC, a representative of security holders associations and a representative of the banking world (from the Comité d’organisation des banques) was to be set up. Furthermore, this agreement confirmed the preponderance of the Paris stock exchange with regard to the provincial bourses and the Coulisse.

Coulissiers and representative of 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 Parquet remained a privilege held by the CAC, albeit new admission now had to be made in presence of a representative of the French Finance Minister. The Coulisse came out weakened as their members were no longer allowed to act as counterparts but merely became intermediaries. On the other hand, the Coulissiers, renamed Courtiers en valeurs mobilières, got a monopoly on all securities that were not traded on the Parquet, although the CAC kept the right to add any security to the Parquet. Soon, new law forced the Coulisse to copy the organization of the Parquet. The August 3, 1942 law restricted the number of Coulissiers to 40 (the Parquet had 70 Agents de change). These laws left the Agents de change almost unaffected but induced large changes in the Coulisse and further reinforced the dominating position of the Agents de change. As shown in the following section, the anti-Semitic laws would further weaken the Coulisse.

The anti-Semitic laws, the Coulisse, and the black market

As soon as September 1940, the Chambre syndicale was summoned to denounce its members belonging to a secret society and establish individual reports on the Jewish Agents de change. Paradoxically, in view of the influence Jews were accused of having on French finance, only four Agents de change, out of 70, fell under the German racial laws. The November 17, 1941 law forbade the two Jewish Agents de change still

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35 Highly protectionist and corporatist, this law would remain effective decades after the end of the war. Andrieu (1990) provides a detailed analysis of this law and its implications for the banks.
36 ACAC, Reports of the meeting, December 22, 1941.
37 ACAC, Reports of the meeting, September 17, 1940.
exercising their office at the time, to work and thus forced them to resign. Dreyfus (2003) described the sad fate of these Agents de change.

The Coulisse suffered much more than the Compagnie des Agents de Change during the occupation. First, as its main role was to provide a market for less-traded securities, its reopening did not seem vital for the occupant. Furthermore, and this probably explain why the coulisse paid the heaviest toll, a large proportion of Coulissiers were Jews. A German report describing the short-lived bourse reopening of July 1940, stressed that there were only 4 Jewish Agents de change whereas Jewish Coulissiers were plentiful. This line of thought would be further extended and Coulissiers accused to be at the basis of speculation («Spekulation war nur in großem Umfang üblich, soweit Freiverkehrswerte durch die sogenannten Kulissiers gehandelt werden. Charakteristisch ist in diesem Zusammenhang, daß unter 70 Agents de Change nur 4 Juden sind (von denen einer Frankreich verlassen hat), während die Mehrheit der Kulissiers Juden sind »). This view was reinforced by the fact that close to 60% of the turnover came from futures trading.

In the absence of a real market, some Coulissiers quit whereas others started trading securities on the black market. Of course, the Agents de change monopoly did not bother the actors on the black market. The syndic regularly denounced it especially because some Agents de change were exchanging securities not then readmitted on the Parquet. Of course, the black market was not the sole resort of the Coulissiers. Apparently, its activity was fuelled by the February 28, 1941 law, as only the securities traded on a market were subject to it. In order to close this loophole, a new law mentioned that all securities had to be traded in the presence of Agents de change. Nonetheless, the black market remained very active during the war and especially for foreign currencies and gold. Police operations as well as warnings issued in the press unsuccessfully tried to counter it. The occupant even took preventive measures by acting as counterpart for less-traded securities fearing that a too long absence would drive potential buyers or sellers to the black market.

In October 1942, in the framework of the new legislation, Coulissiers, renamed Banquiers en valeurs mobilières, could resume trading. The CAC welcomed their come-back with acrimonious remarks stating that if they had changed their name their mentality remained the same openly stating that swindling was still common. The CAC then adopted a very defensive position; no important trade should be left to the Banquiers en valeurs mobilières. In this state of mind, the CAC required in 1943 that two securities, Lievin et Hydro-Energie, be quoted on the Parquet. Conflicts arose regularly. A peak was reached when the Coulissiers began to trade securities not listed on the Paris Parquet but

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38 ACAC, Reports of the meeting, December, 22 1941. Their presence is nonetheless still mentioned during the 1942 Annual meeting of the CAC.
39 Vermerk October 7, 1940, AJ40 vol. 832, 4b.
40 ACAC, Reports of the meeting, December 16, 1940.
41 ACAC, Reports of the meeting, December 22, 1941.
42 ACAC, Reports of the meeting, December 22, 1941.
on Provincial ones. The Parisian brokers insisted that such practices be stopped as they were unfair to their provincial colleagues.\footnote{« Il est anormal, il est choquant, il est abusif que des valeurs traitées officiellement à Lyon, Lille, Bordeaux et Marseille donnent lieu simultanément à Paris à des négociations quasi clandestines traitées le plus souvent dans des conditions d'insécurité complète», ACAC, Reports of the meeting, December 20 1943.}

5. The bond market

The “Politique du circuit” and the evolution of the French public debt\footnote{The “Politique du Circuit” is further referred to as “the financial chain”. It has been described at length by two of the French Finance Minister during WWII (Bouthillier, 1951 and Cathala, 1948). Margairaz and Bloch-Lainé (1991) and Margairaz (2002) provide a more recent view on this issue.}

Defeated France was soon subject to the harsh German financial requests. Bearing in mind the dire conditions imposed on them, the Versailles Diktat, the Germans were certainly not inclined to show mercy. Economic plundering would be executed thanks to three means. First, a newly fixed exchange rate provided that each mark would be worth 20 francs, a highly excessive rate. Second, a clearing mechanism, implying that French investors would be paid via German exports and vice-versa was set into place. Needless to say, flows from Germany never came close to matching flows to Germany. Third, France was to pay occupation costs to cover the expenses of the German army on its soil. First estimated by the occupant at 400 millions francs per day, they would be reduced to 300 millions in May 1941, but reevaluated to 500 millions after the invasion of the “free” zone.

In order to face the heavy occupation costs, the French state could only rely on three tools: inflation, debt and taxation. In view of the huge amounts involved, the government would essentially rely on inflation and debt issue. In fact it considered that money emissions did not matter as long as it could be brought back into governmental control. It would thus try to create a “financial chain” by which the inflation would hopefully be sterilized. The principle of this chain was the following: The State relied on advances from the Banque de France (issuing large amounts of money). This money was set aside in a special account. German troops used this money on the French soil, thus creating inflation. In order to limit the inflation impact, the government could either use taxation (highly unpopular) or issue debt. Up to the fall of 1942, short term borrowing covered 40% of the expenses, monetary emissions 30% and taxation the remaining part (Margairaz, 2002). The “financial chain” (sterilize the inflation via bond issues) would not be fully successful (Margairaz, 2002) and the French economy experienced two monetary crises during the last quarter of 1942 and during September and October 1943. Thus despite the efforts made by the French government, the French economy remained characterized by inflation; the overall money supply jumping from 100 to 500 billion francs.

The French government used taxation in several ways: first, to directly recover part of the issued money, second to redirect funds towards French state bonds and thus fight
“excessive speculation” (i.e. try to limit stock and share price rises). On February 28, 1941 a 33% tax on capital gains made less than one year after the original purchase of the stocks was instituted. The taxation rate fell to 20% in July the same year\(^{46}\), and in February 1942, the tax would only apply if stocks had been held less than 3 months. In fact, and as will be shown below, due to a simple economic mechanism this law favored speculation! However, all laws did not miss their goals and the one passed on November 15, 1941 limited speculation on stocks. It instituted a 5% tax on the purchase of all securities but the fixed-income ones. Furthermore, the law provided that the French finance Minister had the right to change the taxation rate at any time.

The “financial chain” and the evolution of state bonds prices

Appendix 1 provides the weekly evolution of the French 3% rente during the occupation. From May 1940 to January 1942, bond prices exhibit an upward trend. After, they remain at the same level up to January 1944, when the bullish trend resumes. This overall bullish trend seems at first sight hard to conciliate with the traditional risk-return theory. Indeed, one would expect, all other things 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 this risk increase.

The characteristics of the French economy under the German occupation explain this counter-intuitive observation. In order to cover occupation costs, the French government issued large amounts of money. Only part of this was sterilized either via taxation or via bond emissions. The use of the remaining part was highly limited. Indeed, rationing prevented the money holders from buying real goods, and real estate investments were risky (due to the war) and lacked discretion. This element must be stressed as there was a high probability that gains made during the war would be scrutinized once peace would prevail. Furthermore, and as stated by Vigueux and Dessirier (1948), the reduced economic activity coupled with inflation and rationing largely reduced the demand for funds from the private sector. Thus, in practice, state bonds represented one of the few investment options, hoarding being an obvious but inconvenient alternative. Therefore, investors turned themselves to state bonds, the only securities readmitted on the stock exchange, as soon as the bourse reopened.

Contemporaneous German reports analyzed the price rise and volume increase\(^{47}\), while the CAC members described its mechanical aspect. Colling (1949) confirmed that investors bought bonds because there was nothing else to buy. The readmission of stocks, in March 1941, did not even stop the bullish trend and by the end of 1942, the Syndic still blamed the price rise to the lack of other investment opportunities\(^{48}\). The bond prices remained more or less constant up to June 1944, when they experienced a sharp price increase. It is highly unlikely that this rise reflected a higher confidence in French public finance. Most probably, and as it is documented for Belgium (Oosterlinck, 1999),

\(^{46}\) Laws from March 25, and July 26, 1941.
\(^{47}\) Aktenwerk, 21 Oktober 1940, AJ40, vol. 832.
\(^{48}\) “On achèterait volontiers de la terre, des immeubles ou des marchandises mais, en cette direction, l’on se heurte au double barrage de la réglementation et de la pénurie. Les seules issues possibles au torrent des disponibilités sont offertes par l’Hôtel des ventes et par la bourse” ACAC, Reports of the meeting December 21, 1942.
investors bought bonds because they feared they would have to declare the money they held and hoped that bonds would not be subject to declaration. In fact, this movement got so strong that a black market for the 3% rente emerged.

The rise in bond prices would probably have been higher, had the French government not massively floated bonds. Margairaz and Bloch Lainé (1991) estimated that during the 1940-1944 period, new issues amounted to 491 millions francs. Furthermore, the monetary abundance allowed the government to float long term bonds and convert older ones at a very low interest rates. Even though bond prices rose during the occupation, the price increase remained, in comparison to the stocks, rather limited. According to a contemporaneous German report, interventions were easier to conduct, and therefore more frequent, on the bond market.

6. The equity market

Appendix 2 provides the monthly evolution, during the occupation, of the SGF (Statistique Générale de la France) index, an index created in 1919. The index starts with a value of 100 in 1936. Arbulu and Gallais-Hammonno (1995) provide a description of his composition; Hautcoeur and Petit-Konczyk (2004) discuss the accurateness of this index for the inter-war period.

The most striking element regarding the stock prices is its sharp increase; from a value of 90 in 1939 it rises to 615 at the end of 1944, with however periods of decline. Its overall evolution may be summarized as follows. In March 1941, when bonds were readmitted on the market, the index quickly rose to 200 points. A bullish period followed with the index reaching a 600 points peak in 1943. A strong decline followed in April 1943, the index reaching a low of 450 points in July. The remaining part of 1943, the index kept a more or less 500 points constant value. The short decline appearing in January 1944 was soon offset, the index culminating at 620 points in August.

The validity of any index depends on the reliability of recorded prices and volumes. To our knowledge, the Cote Officielle never voluntarily published erroneous data. However, after September 1941, prices were only recorded if 25% at least of the sales order led to actual transactions. If not, they either published the price of the previous day or did not record any price. Needless to say, this procedure prevents any index to give an accurate vision of the stock market evolution! Furthermore, as the volume for some

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49 ACAC, Reports of the meeting, December 18, 1944.
50 ACAC, Reports of the meetings, December 21, 1942 and December 20, 1943.
52 The author thanks Professors Pedro Arbulu and Georges Gallais-Hammonno who provided him these data.
53 The index provides figures even when the Paris stock market was closed. This probably indicates that in the absence data from Paris, it relied on other markets, Lyon being the most likely candidate.
stocks was really limited, the recorded prices can at best give an indication. Table 1 provides a general overview of the market liquidity.

Table 1: Activity on the Paris bourse 1940-1944

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Aware of all the above-mentioned limitations, the next section analyzes the index evolution.

When stocks were readmitted on the Parquet, severe limitations were imposed. The occupant made a distinction based on the place where the companies were most active. Trading stocks of those mainly active in metropolitan France was authorized on March 19, 1941, the trade of other French shares would only be allowed on September 8, 1941. Reopening officially began with 2169 securities but only 43% were effectively traded. Furthermore, in order to limit speculation, prices in Paris could not exceed the prices in Lyon. Stock prices in Paris immediately experienced an upward trend. The Syndic would blame this bullish market on the large money issues, the occupying forces adding fears of a declining purchasing power (Geldüberfluß and Angst der Entwertung des Geldes).

Even though the Germans believed that the new legal measures positively impacted the stock market (i.e. led to a price decline), they soon proved to be counter-productive. Indeed, capital gains were taxed when investors sold their holdings. In order to avoid taxation, investors kept their stocks for a longer period. As a consequence sell orders declined. With constant buy orders, this led to price rises, an element actually forecasted by the CAC. Surprisingly, this law was not suppressed even though the occupant realized its drawbacks. Other measures limiting speculation were issued in March 1941. Arbitrage between stock exchanges was prohibited as price differentials could at first not exceed 3% then 1% and for some securities even 0.5%. As these measures did not stop the price rise, several forms of manipulation appeared. The Chambre syndicale would for instance follow a “daily opportunistic approach” by changing the trading rules in order to

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55 This overview is based on qualitative sources (as well CAC reports as German ones), as volumes were not recorded at the time.
56 Trade in foreign and Alsatian stocks would remain banned.
57 Speech made by the Syndic de la compagnie des agents de change, M. Jacob, AJ40 vol 832.
59 “Dans une économie rationnée les entreprises, ne pouvant constituer de stocks, cherchent un emploi à leurs fonds de roulement devenus pléthoriques; de même les particuliers, limités dans leurs possibilités de dépense », ACAC, Report of the meeting, December 22, 1941.
60 « Bericht über die heutige Konjunktur an der Pariser Börse », September 22, 1941, AJ40 vol. 832 4b.
62 ACAC, Reports of the meeting, December 22, 1941.
prevent arbitrage or speculation\textsuperscript{64}. The Nazis also used direct interventions\textsuperscript{65} and if even that did not suffice, an even direr approach could still be found. In September 1941, the German authorities feared that continuous price rise would induce investors to believe that any day passing by led to a sure gain. Therefore, if the price of a stock rose during three consecutive days, it could be capped at this last price\textsuperscript{66}. In this framework, supply and demand had of course little impact on price discovery.

Starting in March 1942 and in view of the large supply of money, many firms successfully launched IPOs. As price kept going up, it was decided to sell securities stolen from the Jewish community\textsuperscript{67}. From then on, these securities would be used as a market regulator and sold when prices tended to rise too quickly\textsuperscript{68}. In 1942 alone, the realization of these securities amounted to one billion francs! Of course such a large counterpart led to a price decline albeit a short-lived one\textsuperscript{69}. On August 20, 1942 price resumed their rising trend (even though for that month only 200 million francs of Jewish stocks had been sold) and quotation became almost impossible\textsuperscript{70}. To definitively stop this movement, the Nazis requested on September 15, 1942, an immediate price decline. In other words, \textit{Agents de change} had to find a way to bring down prices\textsuperscript{71}! Paradoxically, the request itself created a panic on the bourse resulting in a large sale movement\textsuperscript{72}.

In February 1943, sell orders further increased\textsuperscript{73}. According to the \textit{Syndic}, the resulting price decline was a result of the Eastern front campaign. De Rochebrune and Hazera (1995) linked it to end of war expectations. Sercu \textit{et al} (1992), observing the same phenomenon in Belgium, suggested that news tending to indicate that war would be longer led to expectations of higher inflation. In September 1943, and up to the end of the year, price would again rise. Once again sales of Jewish securities and authoritarian measures limited this movement\textsuperscript{74}.

By January 1944, trading was minimal and Koebe (1944) observed that for most securities there was only one auction a day. In an effort to obtain the public’s hoarded cash, many companies offered seasoned equities for sale in early 1944. The public did not show much enthusiasm for these issues, and the underwriters had to absorb more equities than expected\textsuperscript{75}. In fact, many investors were at the time trying to acquire foreign currencies. This trend reversed in March 1944. Two short-lived bearish episode

\textsuperscript{64} « Une politique d’opportunisme journalier en modifiant parfois d’une bourse à l’autre les règles suivies de façon à dérout er les contre-manœuvres des opérateurs », ACAC, Reports of the meeting December 22, 1941.
\textsuperscript{65} « Frankreichs Börsenproblem. Drahtmeldung unseres Wirtschaftskorrespondenten », \textit{Berliner Börse Zeitung}, September 7, 1941.
\textsuperscript{66} « Bericht über die heutige Konjunktur an der Pariser Börse », September 22, 1941, AJ40 vol. 832 4b.
\textsuperscript{67} See Dreyfus (2002) and (2003) as well as Andrieu (2002) for an up to date description of the spoliation of Jewish goods.
\textsuperscript{68} ACAC, Reports of the meeting, December 21, 1942.
\textsuperscript{69} “On entrouvrit certains portefeuilles israélites. Le résultat fut perceptible mais momentané.” Colling (1949), p. 397.
\textsuperscript{70} Colling (1949), p. 398.
\textsuperscript{71} ACAC, Reports of the meeting, December 21, 1942.
\textsuperscript{72} ACAC, Reports of the meeting, December 21, 1942.
\textsuperscript{73} ACAC, Reports of the meeting, February 10, 1943.
\textsuperscript{74} ACAC, Report of the meetings, October 14 and December 20, 1943.
\textsuperscript{75} Colling (1949), p. 402.
nonetheless happened end April and end July. The Syndic attributed these respectively to the bombing of Paris and the failed assassination attempt on Hitler. Fearing extreme measures in view of the strongly bullish market, the CAC decided on June 1944 to limit price changes and thus, from day to day, only one price increase per stock was allowed\textsuperscript{76}.

For the whole occupation period, two facts should be highlighted. First, stock prices experienced an important increase. Second, in order to limit these price increases, the market was regularly manipulated. Nonetheless, in comparison to other bourses, the activity on the Paris Parquet was reasonably high during the war. In Brussels, price increases were limited as soon as December 1943\textsuperscript{77} and in Amsterdam it could take more than year to carry out buy orders!

A few days before the liberation of Paris, the bourse almost stopped all activity. On August 18, it closed. It reopened on August 30, 1944 but only for French state bonds. On September 6, all securities traded during the occupation were readmitted. They were followed by Alsatian securities on September 11 and foreign ones on October 15, 1944. Purges started immediately, the access to the bourse was forbidden for former members of collaborationist movements such as for example La légion des volontaires français contre le bolchevisme, Les amis de la légion, La milice française, Les amis de la milice, Le parti populaire français or Le rassemblement national populaire et francisme. The purges were however rather limited.

7. Conclusion

During the Second World War, the joint action of the German invader and the Vichy collaborationist government changed the functioning of the Paris bourse. Some laws passed during the war were never abolished. The CCDVT remained active as it provided an economically efficient way to transfer securities. Even though a few years after the Liberation it would change its name, its aim would remain unaltered. Another innovation, the *Cotation à la criée* (Quotation by auction) introduced for the stocks would be maintained as it was believed that it helped reduce volatility. Of course, the Agents de change did not like all the measures and would fight the fiscal measures imposed during the occupation.

The war dramatically changed the pre-war balance existing between *Agents de change* and *Coulissiers*. The limited number of Jewish *Agents de change* and the importance of the *Parquet* in economic terms explain why the Germans favored this group of brokers rather than the *Coulisse*, where many traders were Jewish and where the futures market (accused of increasing speculation) represented 60\% of trades. The *Coulissiers* had to wait until 1942 before they could resume work. Then, they had to completely change their organizational structure in order to comply with the October 1942 laws. The number of *Coulissiers*, renamed *Banquiers en valeurs mobilières*, was subsequently reduced to 40. The only “positive” aspect of the law was that they were granted the official monopoly on securities not quoted on the *Parquet*, a privilege they already held in an

\textsuperscript{76} ACAC, Report of the meetings, December 18, 1944.  
\textsuperscript{77} ACAC, Report of the meetings December 20, 1943.
informal way. The weakening of the position of the Coulissiers at the end of the war should therefore be stressed. The organizational changes, leading the Coulisse to copy the structure of the Parquet, certainly favored its future absorption by the latter.

During WW2, four main actors played a direct role in the daily functioning of the stock exchange: the Nazi occupant, the Vichy government, the Agents de change and the Coulissiers. Despite the heavy anticapitalist 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. However, speculation in stocks had to be limited. The French government needed an efficient market to float the bonds it issued to cover the occupation costs. To some extent, it shared the same goal as the German occupant: limit 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 the opportunity offered to weaken their long standing rival: the Coulissiers. The Coulissiers probably suffered the most from the war, their goal at the time being merely survival.

The bourse remained open almost during the entire war period. The large amounts of money printed by the Vichy government to face the German requirements heavily impacted bond and stock prices. Both followed a bullish trend. However, the bond market hardly reacted to the war events, whereas the stock market was affected. Of course, the accurateness of these assertions may be questioned because prices were regularly manipulated. The impact of these manipulations dramatically increases when volumes are low, which was often the case during the war. Noteworthy, the surviving archives provide many reports describing the ways and means used by the occupant to stop speculation. The probability is nonetheless high that these were even more frequent. As a consequence, the relative inefficiency of the bourse led to the development of a large black market for securities. In view of all these limitations, when one analyzes long-term returns, the war period should not be included just as another episode of the history of the financial market as the recorded prices for stocks give at best a trend indication.

This paper focuses on one French stock exchange. It would be interesting to determine to what extent the observations made about this bourse remain valid for provincial bourses. Furthermore, as many countries were subject to Nazi rule, it would be interesting to compare the occupation and the laws imposed in each country in order to, for example, determine if the occupation led to an international harmonisation of stock exchange practices.
ANNEXE 1: Evolution of the 3% rente price (1940-1944)
APPENDIX 2: SGF stock index

![Graph of SGF stock index (1936 = 100) from 1-Jan-39 to 1-Oct-44]
BIBLIOGRAPHIE


BOUTHILLIER Y., (1951), Le drame de Vichy, 2 tomes: Face à l'ennemi, face à l'allié et Finances sous la contrainte, Paris.


CATHALA P., (1948), Face aux réalités. La direction des finances françaises sous l'Occupation, Paris.

CCDVT, CAISSE CENTRALE DES DEPOTS ET VIREMENTS DE TITRES, (1943), Le nouveau régime des actions au porteur et la caisse centrale des dépôts et virements de titres, Paris.


21


JOEF, (1940-1944), Journal Officiel de l’Etat français


NATHAN O., (1944), Nazi War Finance and Banking, NBER, New York.


