

Hope Springs Eternal – French Bondholders and the Soviet Repudiation (1915–1919)^{*}

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Abstract. Repudiations rarely occur due to their extreme nature. This paper provides an empirical study based on an original database: prices of a Tsarist bond traded in Paris before and after its repudiation by the Soviets. A structural VAR is used to disentangle French market shocks from repudiation specific ones. After the repudiation, we identify shocks that are related with bailouts, hopes of partial bailouts, negotiations with the Soviets and the Russian civil war. We argue that bond prices essentially reflected expected extreme events that never took place and were thus subject to a “Peso problem”.

1. Introduction

On February 8, 1918, a rumor feared by many investors became reality: an official Soviet decree repudiated all bonds issued by the Tsarist government.¹ The day following the repudiation, a representative Russian bond, floated on the Paris stock

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¹ At the time, Russian assets were actively traded on the Paris stock exchange and held by a large fraction of French investors. In order to strengthen diplomatic relations with Russia, the French government had, since the 1890’s, helped to float Russian bonds. This led to a very large diffusion of Russian securities, mainly state and railway bonds, among the French middle class. In 1919, as the French government centralized the claims related to French interests in Russia, 1.6 million investors filled in a form. The Russian section represented 33% of foreign securities and amounted to approximately 4.5% of French private wealth (Girault, 1973). Furthermore, France centralized most Russian financial assets at the beginning of the twentieth century and approximately 40% to 45% of Russian sovereign debts. Ukhov (2003) estimates that foreigners held 49.7% of Russian government debts in 1913. According to the *Office national des valeurs mobilières*, the amounts invested in Russian shares and bonds before WWI reached 15 to 18 billion francs (“Note sur la création d’un comité français de protection des intérêts français en Russie”, Office national des valeurs mobilières, 22/1/1918, ANPFVM 440-A-17).

exchange in 1906, was trading at 55% of its par value. The following week the bond had lost a mere 2.73% more off of its value. Eventually, from this date up to end 1919, the bond price remained higher than 45% and almost two years later, on October 21, 1919, it increased to 62.5% of its par value. Thus, the repudiation neither halted trading in Russian bonds, nor did their price experience a sharp decline.

This paper analyzes the price evolution of this representative Tsarist bond from 1915 to 1919, with specific focus on the two years following the repudiation (1918–1919). The price of this Russian bond is influenced by overall market reactions and by events specific to Russia and the repudiation.² In order to disentangle the overall shocks affecting the Paris bourse from the Russian-specific shocks we employ a structural vector autoregression (SVAR) model of the Russian bond and a representative French bond. Using the SVAR we identify shocks affecting the Russian bond that are independent of shocks hitting our proxy for the Paris bond market, the French 3% rente. The identified shocks are then analyzed by taking historical events into account. We pay particular attention to events that could change investors' expectations that the bond would be at least partially repaid. Most interestingly, this leads to the consideration of the impact of several rare events: the repudiation of a foreign bond, the dismemberment of an empire (leading to the creation of new countries), a civil war and a world war (WWI).

Most studies on sovereign debts have been conducted on debt defaults.³ However, few studies have analyzed bond prices after their repudiation. Up to the nineteenth century, repudiations were rather common and as noted by Wells and Wills (2000), "history is replete with examples of sovereigns reneging on their debts". In order to avoid commercial retaliations, governments were usually reluctant to repudiate international debts. This explains why only a very limited number of countries had repudiated their foreign debt before 1917 (Borchard, 1951). One example occurred in 1834 when the Dona Maria government repudiated Portuguese bonds issued by Dom Miguel during the civil war. These bonds were quoted on the bourse until September 1837, by which time their price had dropped from about 400 francs for a par value of 1000 francs to 120 francs (Borchard, 1951). The Paris stock exchange remained nonetheless open to new Portuguese loans. However, as bondholders' associations successfully lobbied to boycott Portuguese securities, French bankers struggled to market these loans. By 1890, the boycott

² As France is at war during most of our sample, many war related shocks are affecting the market as a whole. For example, when the bourse is bombed all trades are affected in a similar way. As the study aims at understanding the impact of the repudiation, these shocks will not be incorporated in the analysis.

³ For example, in a survey on sovereign debt emphasizing the theoretical motivations to repay, Eaton and Fernandez (1995) puts forward the importance of reputation, punishments, rewards and renegotiation, Eichengreen and Portes (1995) and Lindert and Morton (1989) analyze the long-term impact of defaulting, and Claessens and Pennacchi (1996) and Ureche-Rangau (2003) determine the extent to which market prices provide information regarding the probability of default on sovereign bonds.

had pushed the Portuguese government back to the negotiation table, leading to an agreement in 1891. In 1867, French investors faced another repudiation: the Mexican government led by Juárez refused to recognize Maximilian's debts. The French government, which had largely helped to issue the loans on its markets, agreed to bail out its nationals to the extent of approximately 50% of the invested amounts.

By recognizing a moral duty to take over part of Maximilian's debt, the French government created a precedent. Besides the "moral" aspect stemming from the high profile the French government had in the bond issue, it is likely that it reimbursed part of the Mexican debts in order to minimize the impact on French bondholders' wealth. The French government position may have led to two kinds of moral hazard. In the Russian case, knowing that the French government would probably back them in case of trouble, French investors may have invested more heavily in Russian securities. On the other hand, if France was going to repay part of the debt, the Soviets had less incentive to try fulfilling the Tsarist obligations.⁴

Academic research on repudiations has experienced a growing interest in a recent past. English (1996) analyzes the repudiation and default of US states during the 1840's to address the relevancy of sanctions as incentives to repay the debts. He shows that military or trade sanctions did not influence repayment but that governments eventually repaid their debts so as to maintain access to capital markets. Wallis et al. (2004) provides new evidence on the reasons leading to these repudiations and defaults. They challenge the traditional accounts which attributed them to the Panic of 1837, unexpected revenue shortfalls from canal and bank investments and the unwillingness of states to raise taxes. Even though the US episode of the 1840's may technically be defined as a repudiation, it may be considered as an exception in that it is one of the seldom repudiations which did not occur as the consequence of a dramatic change in regime and therefore differs from the Soviet repudiation.

There is, to our knowledge, no study tracking the price evolution of a sovereign bond for a country that breaks up. When this happens the public debt needs to be partitioned. For example, all Spain's former colonies in Central and South America, which achieved independence during the 1820's, assumed a portion of Spain's public debt (Hoefflich, 1982 provides the legal implications of this form of state succession; Marichal, 1989 analyzes the fate of these bonds following independence). The 1877–1878 Russian-Ottoman war led to the creation of many new countries seceding from the Ottoman Empire. The Treaties of San Stefano and Berlin (1878) discussed the allocation of the Ottoman Debt. The Treaty of Berlin recognized the principle of state succession and provided that a portion of the Ottoman debt should be assigned on an equitable basis to Bulgaria, Montenegro and Serbia. The Treaty of Lausanne (1924) settled the "equitable basis". At the time, specialists in international law stated that each new country should take the interest burden in

⁴ This sort of moral hazard is today the subject of a debate regarding the IMF's role. For a recent survey on this debate see Jeanne and Zettlemeyer (2001).

proportion to land, people or tax revenues (Bonfils, 1914). Hoefflich (1982) shows however that the United Kingdom and the United States of America had contested the legal grounds regarding state succession during the nineteenth century. The Soviet episode would, in a sense, constitute a turning point in their position since both countries' interests dictated the assumption of the debts.

The impact of war events on bond prices has been studied in different contexts. Davis and Pecquet (1990) analyze the Confederate bond price reactions during the Civil War and find a link between their evolution and the Gettysburg defeat, the fall of Vicksburg and Atlanta. For the same war, Willard et al. (1996) studied the Greenback's gold price movements and found a significant link between war events and bond prices. Weidenmier (2002) confirms this relationship for the Grayback market. Frey and Kucher (2000, 2001) analyzed the monthly evolution of five European government bonds traded on the Swiss bourse between 1928 and 1948. They found that not all major events caused a significant price change in the bonds they studied. Frey and Waldenström (2004) ran the same analysis on the Stockholm Stock Exchange and concluded that there are large discrepancies between events considered as major turning points by historians today and events perceived as important at the time. Oosterlinck (2003) shows that there was a premium for French bonds issued before the war compared to those issued during the war. The break-points on this premium are mainly linked to political changes and reassessments regarding the legitimacy of French rulers. Brown and Burdekin (2002) isolates structural breaks and turning points on German bonds traded in London during World War II. The outbreak of WWII and the D-Day invasion appear to be major turning points. Furthermore, these authors suggest that the bond prices anticipate Hitler's overthrow and the post-war settlement of bondholders' claim.

The economic literature dealing with the repudiation of the Tsarist debt focuses on macroeconomic aspects. The Russian monetary problems, stemming from the repudiation, have been studied extensively in the 1920's (Apostol and Michelson, 1922; Comité des Représentants des Banques Russes à Paris, 1921; Raffalovitch, 1922). More recently, Freymond (1995) has provided a financial insight into French investors' losses and feelings. He shows that the attitude towards the repudiated bonds differed according to the countries where they were traded: ranging from a small financial involvement (pay one or two coupons and then leave the investors to their fate), to full reimbursement. For bondholders located out of Russia, international pressures and potential negotiations entered into account. However, these negotiations were hampered by the size and political influence of the repudiating country; the Soviet Union being one of the main twentieth century powers. Oosterlinck and Szafarz (2005) show the importance of location by comparing the prices of similar Russian bonds traded in Paris and London; they conclude that bailout expectations were higher in France than in Great-Britain. Oosterlinck and Ureche-Rangau (2005) compare the repudiated Russian bonds prices with Romanian bonds subject to default and stress the relatively high value of the repudiated bonds.

This study differs from the previous approaches in at least two respects. First, it uses an original quantitative (bond prices) and qualitative (Archives from the ANPFVM,⁵ Archives from the Prefecture de Police de Paris (APPP)) database to determine which events investors considered, at the time, as important. Second, it shows, in the light of modern financial theory, why investors remained hopeful after the Soviet repudiation decree. Even after the repudiation, several potential payers remained. First, if the Bolsheviks were overthrown, a new Russian government would probably reimburse the debt. Second, newly created countries, such as Poland or the Baltic States were, according to international law, responsible for part of the debt. Lastly, as the French government had a large responsibility for the bonds' sale among the French public, investors could reasonably hope to see France fulfill part of the Russian obligations. The analysis seeks to determine to which extent each piece of information played a role in the bond valuation.

The remaining part of the paper is structured as follows. Section 2 gives the historical context and the competing hypotheses. Section 3 presents the data and the methodology. Section 4 addresses the news and market microstructure issue; Section 5 provides the empirical results and interpretations. Conclusions are drawn in Section 6.

2. Historical Context and Competing Hypotheses

Even after the repudiation, investors could hope to get reimbursed by different governments: the Russian government (under Bolshevik regime or not), the French government (in case of bailout), the government of a newly created country or Germany (if forced by the WWI Peace Treaty). This section provides an historical account of the position of the various Russian actors regarding the repudiation; of the evolution of the civil war fought in Russia; of the position of the French government towards a bailout and of the potential impact of the Versailles peace Treaty on the bonds.

2.1. A BOLSHEVIK REPAYMENT

During the Russian civil war, many new political actors arose.⁶ Ex post, most of them had a short-lived influence on Russian politics. However, ex ante and especially for foreign investors, it was difficult to determine who would become or remain important. Therefore, any statement regarding the debt made by a potential future leader could have an impact on the Russian bond prices. Obviously, the Russian repudiation offers a good example where bond prices may be used to capture political expectations.⁷

⁵ Association Nationale des Porteurs Français de Valeurs Mobilières.

⁶ At the end of August 1918, there were no less than 30 governments operating on the former Tsarist Empire (Salomoni, 1997).

⁷ See for example Ferguson (2001), which shows the impact of political events on British consols.

As early as January 13, 1918 rumors regarding the repudiation were circulating. According to the *Financial Times*' reporter at the London Stock Exchange: "Russian bonds were an outstanding feature of weakness owing to the reported drastic action of the Bolsheviks against foreign creditors (...). The Petrograd message announcing that the Supreme Council of the National Economy have drafted a decree declaring null and void all national bonds issued by the Imperial and Bourgeois Government, (...) which is held by foreigners, naturally had a bad effect on Russian bonds." (*Financial Times*, January 16, 1918). However, in its January 17, 1918 issue, the *Financial Times*' journalist felt that "Russian bonds, the market for which was still weak, though from the extent of the fall in prices it was evident that the proposal of the present administration to repudiate foreign loans is not taken seriously as would be the case if the Government were considered a stable one". The French investors had the same feeling towards the Soviet coup, and believed that the future Russian government would eventually take measures in order to service its debt (*Journal Financier et Politique*, February 27, 1918).

A few days after the repudiation, Western countries, represented by the US Ambassador M. Francis, expressed their protest and declared the repudiation decree null and void. This position was repeated regularly. In a letter dated October 23, 1918, the French Minister of Foreign Affairs threatened the future Russian government, which would be recognized "only if it takes over the obligations from its predecessor" (ANPFVM 440-A-10). On May 30, 1919, the French Finance Minister reaffirmed that "We cannot accept as a right the repudiation of its debt by any country (...) otherwise no country in the world would be able to issue an international debt if a simple change in the government could annihilate the liabilities taken by the Nation".

During the two years following the revolution, the Bolsheviks faced a strong military opposition. They never fully recognized the former debt but kept an ambiguous position using debt recognition as one of their favorite peace negotiating tools. For example, on March 27, 1918, an article published in *Novaya Zizhn*, Gorky's journal, stressed the need to suppress the repudiation decree. In December 1918, Maxim Litvinov, the Soviet government's representative in Britain, was interviewed by the *London Daily Mirror* and suggested exchanging economic concessions for a moratorium on Russia's war debts (Thomson, 1966). On January 16, 1919, the Soviet government announced its desire to discuss the Russian foreign debt, a statement rendered public by President Wilson on January 20, 1919. The following day, Soviets claimed they would repay part of the repudiated debt, and eventually on February 4, 1919, recognized their obligations. During the Paris Peace conferences, the Soviet government suggested that it was "ready to do much for the sake of peace, whether that meant paying at least part of the repudiated foreign debt or granting news concessions to foreign enterprises" (Macmillan, 2003). On February 14, 1919, L. Nadeau, representing the French Minister of Foreign Affairs, met Lenin, who suggested using part of the Russian natural resources to reimburse the bondholders. On November 19, 1919, Chicherin, the Commissar

for Foreign Affairs, offered to pay Russia's debt. But on March 28, 1920, in a broadcasted speech, Krassine, the Commissar for Foreign Trade, declared that the Soviet government had suppressed the former debt and would never start talks regarding this issue (ANPFVM 440-A-18). Contradictory statements were thus regularly made by the Bolshevik government. Besides real statements, rumors of negotiations also circulated on the Paris bourse.⁸ While it now seems highly unlikely that the Bolsheviks ever considered seriously repaying the Tsarist debt, at the time, these changing signals could have impacted the bond's price.

In contrast with the Bolshevik position, the various counter-governments appearing in Russia recognized the debt in order to get allied military support. For example, on November 21, 1918, the White Admiral Kolchak declared he would take over the debt burden, reaffirming his position on June 9, 1919. In France, Arthur Raffalovitch, the agent of the Tsar in Paris, proposed a practical proposal to restart the debt service. However, after the Versailles Treaty, even the supporters of the Tsarist regime refused to recognize the whole-borrowed amount because Russia had not been invited to negotiate the war's end. The various treaties were viewed as unfair to the White Russians who considered their country only partially responsible for its debt.⁹ Notwithstanding this position, on October 22, 1919, a British-American consortium issued a short-term loan to the Omsk government worth \$40,000,000, backed by gold deposited in Hong-Kong (*The Times*, October 23, 1919).

2.2. THE DEFEAT OF THE BOLSHEVIKS

Since all the governments fighting the Bolsheviks favored resuming the debt-service, investors could hope to get reimbursed if the Bolsheviks were ousted.¹⁰ The two years following the October Revolution were, from a military point of view, extremely confused. Three main military forces fought the Soviets: Germany (as a continuation of WWI), White Russians and Allied troops. This section describes first the German operations, then the Allied interventions and lastly the White armies' actions directed against Soviet troops.

After the October events, revolutionary leaders expressed contradictory views regarding the war.¹¹ Peace negotiations with Germany started nonetheless in December 1917, with the Soviets pleading for a peace without territorial changes. According to Avenel (2001) the negotiations involved a first meeting on January

⁸ As testified by the contemporaneous press and the archives (APPP and ANPFVM).

⁹ Non-recognition concerned only the debt issued to support WWI's military expenses. The repayment of the studied bond was never questioned as it had been issued before WWI.

¹⁰ This section is mainly based on Avenel (2001), Footman (1961), Gleichen (1988), Mawdsley (1997), Pipes (1990, 1995) and Salomoni (1997).

¹¹ Whereas some, including Lenin, claimed that their participation in the war should be stopped in order to consolidate the revolution, others like Bukharin believed that the war could lead to a world revolution. Trotsky was in favor of a "wait and see" approach as he expected revolutions to start in Austria and Germany.

17, 1918, followed by a German ultimatum. In view of the Soviet refusal, a German offensive started a month later resulting in the invasion of a large part of Ukraine, Livonia and Estonia. On February 20, 1918, the Germans moved towards Reval, Petrograd, Moscow and Kiev, meeting little resistance, and occupied Hapsal and Minsk. On March 3, 1918, after these military drawbacks, the Soviet government signed the Brest-Litovsk peace treaty leading to large territorial losses.

In the Allies' eyes, if the Bolsheviks were overthrown, Russia would again fight against Germany. Therefore, in the spring of 1918, British troops landed in Northern Russia. In Siberia, the Japanese army and the Czechoslovakian Legion would fight the Bolsheviks.¹² With the hope to get Allied support to create an independent Czech state after WWI, the Czech legion decided, on May 25, 1918, to side along with them. At the end of May 1918, they invaded Vladivostok and on June 8, 1918 conquered Samara. On July 6, 1918 a Japanese occupation army, quickly backed by US troops, arrived in Siberia and secured Vladivostok on August 3, 1918. On July 16, 1918, French troops joined the Northern Russian Expeditionary Force at Murmansk and strengthened, on September 16, 1918 their position near Archangel. A few days later, on September 20, 1918 the Czech legion was defeated on the Volga. According to Salomoni (1997), May 1918 can be viewed as the first military attack against the Bolsheviks while August coincided with the climax of the Volga Army's action.

After WWI, the French and British governments kept troops in Russia. They also recognized the White general Denikin's authority and sent additional men to support him. As stated by Churchill, "by the end of 1918 there were over 180,000 foreign troops on Russian soil and several White Russian armies receiving Allied money and Allied guns" (Macmillan, 2003). On December 17, 1918, French troops landed in Odessa, which they were forced to partially evacuate on March 17, 1919. A few days later, in view of the difficulties experienced on both the Northern and the Southern fronts, the French and British governments decided to withdraw their forces from Russia. Eventually, on April 8, 1919, Bolsheviks expelled the last remaining French troops from Odessa and on September 27, 1919, Allied troops left Archangel.

Foreign interventions represented only a part of the military offensives against the Soviets. Very soon local opposition to the Soviets emerged. As emphasised by Mawdsley (1997), "The early centers of resistance were (...) places with a particular national or territorial identity or with conservative characteristics where the internal seizure of Soviet power did not apply". Two main fronts quickly became crucial: one located in Southern Russian, the other in Siberia.¹³

In Southern Russia, a few days after the October revolution, a Russian Volunteer Army was created. Even though all the parties involved in this creation were

¹² This legion was composed of Czechs prisoner who had refused to fight for Austria-Hungary.

¹³ The Southern Russian forces were first under Kaledin's, then under Denikin's and eventually under Wrangel's command. The Siberian forces consisted mainly of the Czech legion, Allied forces, and Kolchak's troops.

opposed to the Soviets, they had different goals ranging from the wish to recreate the Russian Empire as before WWI, to the Cossacks hope to get a broad autonomy in a federated Russia. During the 1917-1918 winter, the Bolsheviks benefited from these differences and accumulated military successes, including the conquering of Rostov on February 11, 1918. From March to April, the White Armies retook the lost territories. According to Gleichen (1988), strong rumors of a counter-revolution in Russia reached Western Europe on April 30, 1918. Anti-Bolshevik troops conquered Sirzan on June 18, 1918, Ufa on July 1, 1918 and Ekatherinburg on July 20, 1918. Three days before, the Bolsheviks had executed Tsar Nicholas II and his family.

After his power seizure in Omsk (Siberia), on November 18, 1918 Admiral Kolchak led the White fighting forces. In order to strengthen his power, he used repressive methods, which soon alienated the population's support. On December 24, 1918, his army conquered Perm, an operation which brought him a large prestige among the French and British governments (Avenel, 2001). Following this event, they actively supported him. On February 6, 1919, General Wrangel defeated the Red Army in a fight for the Caucasian regions, and eight days later General Denikin started a major offensive in the South.

On March 13, 1919, Kolchak began a general attack in Siberia but encountered only short-lived successes. Facing a Bolshevik counter-offensive, he evacuated Samara in April 1919. However, at the end of April, 1919, Denikin and Kolchak had military successes. On May 9, 1919, Kolchak stopped the Red Army at the battle of Velikoniazheskaïa. On May 13, 1919 the Western press described the successful operations led by General Denikin in Southern Russia. On May 26, 1919 Denikin recognized Kolchak's authority, as the latter got formal support from the Allies. However, whereas Denikin conquered Tsaritsyn on June 16, 1919, and Kharkov on June 25, 1919, Kolchak was defeated on June 9, 1919.¹⁴ On July 3, Denikin moved to attack Moscow but was defeated, first on September 27, then on October 20, 1919. Meanwhile, his troops had reached Orel on October 14, 1919. On November 14, 1919, Omsk was taken over by the Bolsheviks and a month later, on December 24, 1919 an Anti-Kolchak revolt burst in Irkutsk where Kolchak was executed two months later. The last major 1919 offensive emerged from the Baltic States. From Estonia, the White general Iudenich launched an attack on Petrograd but his army was eventually defeated on November 14, 1919.¹⁵

In short, during 1919, White and Allied Armies' fortunes can be summarized as follows: defeats at the beginning of the year, victories in Southern Russia and Siberia from April to begin July, then setbacks in August and September followed by an almost victorious offensive in October 1919 with Iudenich's Army fighting in Petrograd's suburbs and Denikin reaching Orel. Eventually, White troops were forced to a very large retreat on all fronts after November 1919.

¹⁴ Tsaritsyn was later named Stalingrad and is now named Volgograd.

¹⁵ Petrograd has now reverted to its original name of Saint Petersburg, after first being named Leningrad.

2.3. REPAYMENT BY A SECEDING COUNTRY

At the end of World War I several countries seceded from Russia while others acquired new territories.¹⁶ Referring to the Ottoman precedent, investors could hope to get at least part of their investment paid back by these countries. Poland declared its independence in 1918 and got Soviet recognition after the 1920-1921 Soviet-Polish war. In November 1918, the Baltic States became independent and, after a violent civil war, Finland achieved the same result.¹⁷ Most new countries' boundaries became definitive under the Versailles Treaty, which took place on June 28, 1919.

On January 22, 1918, a report from the Office National des Valeurs Mobilières warned that if, at the end of the war, some Russian regions became autonomous or left the Russian Empire, negotiations would be necessary to determine the responsibility of each newly created country regarding the Russian debt.¹⁸ A report dated February 3, 1918, stressed that the secession of territories or the creation of new countries would make reimbursement more difficult for Western investors as reaching an agreement with many small countries would be more difficult than with just one large ("La situation industrielle en Russie", 3 février 1918, ANPFVM 440-A-14.) Nonetheless, by helping the small countries to exist, their friendship could be gained for the future.¹⁹ On October 1918, the French Minister of Foreign Affairs expressed his position regarding the country break-up stating that, in view of the jurisprudence; Russia was responsible for part of its debt.²⁰ Therefore, he would support the creation of an international organization to determine the amounts due by each country. Ironically enough, in the beginning of the 1920's, the Bolshevik government, representing Russia, declared that newly created countries had no obligation regarding the Tsarist debt they had repudiated.

In the 1920's, a temporary Ukrainian "government" recognized its responsibility for part of the Russian debt, probably with the hope to get British or French military support.²¹ The creation of an independent Ukraine fueled the investors' hope to get, at least partially, reimbursed. Indeed, on September 26, 1918, the Ukrainian "Council of Ministers" promised an advance on the Tsarist coupons for the bonds held in Ukrainian banks before November 3, 1918. In its September 29,

¹⁶ For example, Ukraine, the Baltic States, Poland, Finland, Azerbaijan, Armenia, Dagestan and Georgia.

¹⁷ These countries got Soviet recognition in 1920 by the Dorpat, Riga and Turku Treaties.

¹⁸ "Note sur la création d'un comité français de protection des intérêts français en Russie", Office National des Valeurs mobilières, 22/1/1918, ANPFVM 440-A-17.

¹⁹ A view shared by the French press, see for example *La gazette du commerce et de l'industrie* July 13, 1918.

²⁰ Letter from Stephen Pichon, French Minister of Foreign Affairs, to the president of the Office National des Valeurs mobilières, October 23, 1918, ANPFVM 440-A-10.

²¹ Rumania would agree, in 1934, to repay part of the Akerman railway bonds which had helped develop the railway industry in Bessarabia, a province reattached to Rumania after WWI (Freymond, 1995).

1918, issue, *Finances et économies populaires* reported this news under the title “The Tsarists bonds are recognized”.²² Strategically, Ukrainian rulers reaffirmed their intention to repay often but the bondholders never received anything.²³ This issue was settled at the end of 1918, when Ukraine came back under Soviet control. According to Delaisi (1930), Poland, Romania and the Baltic States recognized, in the 1920’s, 25% of the former Russian debt but were unable to pay.

2.4. A FRENCH BAILOUT

At WWI’s outbreak, France and Great Britain agreed to open a credit line for Russia to fulfill its obligations regarding the coupons payment (Comité des représentants des banques russes à Paris, 1921). Thus, from 1914 to 1917, French investors became used to seeing France advance the funds for the Russian coupon payments, a signal that France would continue to support Russian bonds. The wide diffusion of Russian securities among the French public and the involvement of the French government in the flotation of Russian securities strengthened this signal.²⁴ If Russia were to experience financial difficulties, French investors may have hoped that the French government would find a solution to protect their interests.

As rumors regarding the repudiation intensified, the French government guaranteed the payment of the January 1918 coupon (*Le Rentier* December 27, 1917). It stressed, however, that this payment should not be interpreted as a debt recognition; a statement not credible to many investors. On January 31, 1918, M. Klotz, the French Finance Minister, declared that the government would pay the February coupons.²⁵ Again, he insisted on the measures’ temporary nature, as discussions were held in order to achieve a common allied policy. Meanwhile, many voices claimed that France had a “moral duty” regarding the reimbursement.²⁶ Besides the national turmoil created by the repudiation, the French government had an incentive to fulfill Russia’s obligations in order to keep its financial influence in Russia after the war. Furthermore, Lenin was for a long time viewed as a German agent and some members of the Paris bourse considered the repudiation as a German maneuver to destabilize the French economy. If this were the case, the French government would have to counter the German plot by paying the coupons (APPP, BA 1587, January 21, 1918).

²² *On reconnaît les emprunts du Tsar.*

²³ For example, in a letter, dated June 22, 1920, Earl Tyszkiewicz, president of the Ukrainian delegation recognizes Ukrainian responsibility for 30% of the former Russian debt.

²⁴ According to the 1913 new stock exchange regulation, new admissions were subject to the sole authority of the French finance minister: a measure passed in order to let the French government regulate the Russian securities and exchange their admission against military support (Girault, 1973). Furthermore, before WWI, the French government strongly recommended that banks and businessmen financially support their Ally.

²⁵ Quoted in *Le Rentier*, February 27, 1918. Rumors were already present on January 30, 1918, APPP, BA 1587

²⁶ Association Nationale des Porteurs Français de valeurs mobilières (1921).

Officially, the coupon payments were made to support an allied country facing momentary internal problems. Thus, as a result of the Brest-Litovsk Treaty, France stopped servicing the Russian debt as it refused to help a country which had signed a separate peace with Germany.²⁷ In reaction, part of the French financial press exhorted the investors to firmly protest (*Le Rentier*, February 27, 1918 and May 27, 1918). During August, many believed that the French parliament would change its decision and pay the second semester coupons (*Le Rentier*, August 27, 1918). On September 19, 1918 the government passed a law allowing French investors to subscribe up to 50% of the new French Liberation loan by paying with the Russian coupons due from April to December 1918.²⁸ As late as May 30th 1919, in a speech to the Senate, the French Finance Minister suggested to reiterate the September 1918 operation; a proposal eventually rejected by the rest of the government. However, a law passed on July 25, 1919 allowed the French holders of Russian bonds, who were either living in the French regions devastated by WWI or had fought during the same war to present their Russian coupons to subscribe up to 50% of French National Defense Bonds (Reynaud, 1924). To our knowledge, this exchange was the last financial action undertaken by the French government. At the time, however, there were high expectations that it would intervene again. A bill proposing to reimburse holders of Russian bonds 50 percent of their investment was introduced in the French Senate in 1922.²⁹ During the 1920's, the French government, represented by Anatole de Monzie, resumed negotiations with the Soviets. As late as 1928, hopes were still high that in the framework of these negotiations a settlement would be reached. According to Delaisi (1928), the French government would in this case lend money to the Soviets and make sure that, in exchange, they would service their debts.

French bondholders did not rely solely on their government. Very quickly, numerous bondholders' associations were created. On August 5, 1918 a *Commission générale pour la protection des intérêts français en Russie* was born, followed on September 28, 1918 by the *Comité de Défense des porteurs de Fonds d'Etat russes, de valeurs garanties par l'Etat russe et d'emprunts municipaux*, and by the *Comité de Défense des porteurs français de valeurs industrielles et bancaires russes* on April 5, 1919. In the meantime, unscrupulous individuals set up fake associations to steel money from credulous investors. At the end of August 1918, and following several scandals, financial journals warned investors. The official associations' action consisted mainly of collecting relevant information and lobbying in order to get bondholders reimbursed by the French government (ANPFVM 440-A-10).

²⁷ On January 27, 1918, the British government had agreed, to give British 12 years bonds in exchange of Russian Treasury Bills amounting at the time to £10,000,000.

²⁸ The other 50% were to be paid for in cash. This idea was already mentioned in the September 14, 1918 issue of the *Revue des Valeurs Russes*. The total amount subscribed through this way reached 265 million (*Le Rentier*, June 17, 1919). At the time, this proposition competed with the suggestion of a general buy-back of the Russian securities by the French government, which as sole remaining claimant, would then have to convince the Soviet to repay.

²⁹ "Bill to aid holders of Russian bonds", *The New York Times*, October 29, 1922.

Eventually, if lobbying proved unsuccessful, bondholders hoped to gain something when Russia came back on the French market. The threat of limiting access to foreign capital markets and a boycott of Russian securities were also seriously considered.

Abroad, national reactions differed widely. As a consequence of the Brest-Litovsk Treaty, the Soviets recognized the bonds held by German nationals.³⁰ An additional convention dated August 27, 1918 guaranteed the transfer of gold, for the payment of the coupons and the amortized bonds on October 14, 1918. In practice, German bondholders managed to secure the necessary gold to get reimbursed. In September 1918, the Austrian government tried unsuccessfully to obtain the same agreement (*Messenger de Paris*, September 12, 1918). In view of the economic crises created by the suspension of the coupon service, most countries proposed at least partial settlements. On May 25, 1918 news from Rome created excitement on the Paris bourse: the Italian Finance Minister had agreed to accept the 5% Russian bonds for 50% of their face value to subscribe to the new Italian state loan.³¹ Bonds with different coupons were also accepted and their value evaluated in proportion of their coupons (APPP/BA 1587). The Japanese bondholders would get bailed out by their government (Freymond, 1995). The British government agreed to exchange Russian short term bonds (mainly those issued during the war and amounting to £17 million) with UK twelve years bonds with a 3% coupon. According to Freymond (1995), the American government proposed a similar solution to their citizens. Notwithstanding these elements, several bonds issued under the Tsarist regime were left out of these agreements and remained traded in Great Britain and in the US.³²

2.5. LET THE GERMANS PAY

Due to the civil war raging in Russia, no official delegation represented Russia at the Paris Peace conference, held in January 1919, during which the war settlement was negotiated. According to Macmillan (2003), while US President Wilson hoped to reshape Europe by giving to the populations the right for auto-determination, Clemenceau, the French Prime Minister, considered the conference as an opportunity to “make Germany pay”. The Russian absence created major difficulties as many new countries’ boundaries were shared with the former Empire. On January 21, 1919, and despite a strong French opposition, President Wilson suggested meeting with a Soviet representative. This suggestion proved unsuccessful. The

³⁰ In view of this, the French government feared that its citizens would sell their industrial securities at a low price to Germans. In a letter to M. Pichon, French Minister of Foreign Affairs dated May 10th 1918, the French ambassador in Sweden, M. Thiébaud, described this practice. ANPFVM 440A-10-24.

³¹ The difference had to be paid cash.

³² Great-Britain would reach a final settlement with Russia in 1986. Eventually, even French bondholders would get partially reimbursed. Indeed, in 1996, France and Russia reached an agreement by which Russia would pay US\$400 million as settlement for all the Tsarist debts.

Russian issue, nonetheless, was not dropped. Article 116 of the future Versailles Treaty, adopted by the council of Four, on May 3, 1919, provided three things: “first, Germany was required to recognize the independence of all territories that had been part of the pre-war Russian Empire; second, the Brest-Litovsk Treaty and all related and associated treaties were abrogated; third, the Allied and associated powers reserved Russia’s right to obtain reparations from Germany” (Thomson, 1966).³³ The last part of article 116 opened the way for reparations if the former Russian government was restored by allowing Russians to use German wealth to repay part of the debt. It seems that, at the time, the German alternative was seriously considered. The financial press (*The Economist*, February 1, 1919). stressed the importance of the Paris peace negotiations on the Russian section of the London Stock Exchange: “Russians were in some speculative favour (...) owing to the impression that the Peace conference will make an early start upon the re-settlement of affairs in Russia”, also holding for the Paris bourse: “the Russian funds have been uncertain, owing to the attitude which is to be adopted by the Peace conference as to the Russian problem” (*The Economist*, March 1, 1919). On June 28, 1919, German representatives signed the Versailles Treaty, thus putting a definitive end to WWI.

3. Data Series and Methodology

3.1. DATA SERIES

The data series have been collected in the *Bulletin de la Cote de la Compagnie des Agents de Change de Paris* on a weekly basis for a period stretching from January 1, 1915 to December 31, 1919. The data consists of the weekly price series (taken on Wednesday) of a Russian long-term (50 years) bond issued in 1906 paying a 5% coupon and of the French 3% rente (in financial terms equivalent to a British consol).³⁴ Both bonds were traded on the Paris bourse and were liquid. The Russian bond was exchanged on several markets with serial numbers specific to a given stock exchange.³⁵ According to Freymond (1995), 72% of the 1906 bonds were traded in Paris.

The price evolution for both the French rente and the 1906 Russian bond is represented in Figure 1. Table I provides descriptive statistics for both bonds for the entire period and for the period after the repudiation (1918 and 1919). The

³³ During the last week of March 1919, a Council of Four was created in order to settle the major questions without unwished interferences. Clemenceau, the French Prime Minister, Lloyd George, the British Prime Minister, Orlando, the Italian Prime Minister, and the US President Wilson were the members of this council.

³⁴ The 1909 Russian bond with a 4.5% coupon exhibits the same trend. The coupon was due on May 1 and November 1, expressed in different currencies but based on a common gold reference.

³⁵ The series with a number between 1 and 273 were issued in Paris (with those between 241 and 273 also exchanged in Vienna), those between 274 and 339 in London and those from 340 to 350 in Amsterdam.

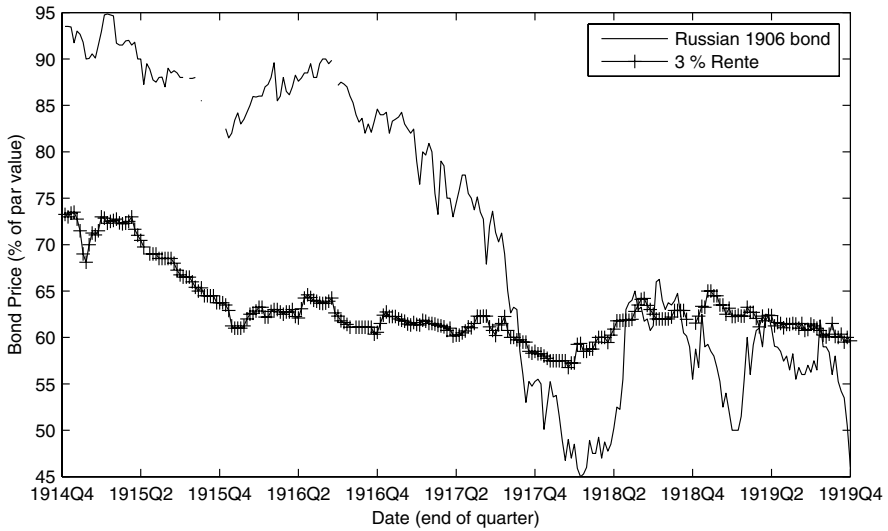


Figure 1. Bond Prices 1915–1919.

Russian bond price kept an average of 72.09% of par value (this is the “dirty price” usually quoted at the time), the French one kept an average of 63.03% of par. This difference is partly due to the difference in coupons of the bonds.

Returns are computed as follows:

$$r_t = (P_{t+7} - P_t + D_t) / P_t,$$

with P_t the price at date t and D_t , the dividend paid between date t and $t + 7$. For the repudiated Russian bond the mean value and the median are both very high: for instance, the mean of a German bond traded on the London Stock Exchange following the outbreak of WWII remained between 0 and 20% (Brown and Burdekin, 2002) during the war period. The minimum value (45%) is also in sharp contrast with this case.

3.2. METHODOLOGY

In order to quantitatively determine the impact of various shocks to the bond prices we use a structural vector autoregression (SVAR) to identify a set of orthogonal structural shocks that impact the French 3% rente and the Russian 1906 bond respectively. In using a SVAR with the French 3% rente and the Russian bond we are able to disentangle the effects of local news, events that impact the French markets in general, from Russian-specific news on the price of the Russian 1906 bond.³⁶ Once a set of structural shocks are obtained it is then possible to calculate

³⁶ This approach of identifying mutually orthogonal structural shocks has a long history dating back to Sims (1980). See Hamilton (1994) for a review.

Table I. Descriptive statistics: Bond price and weekly returns (1915–1919)

	Russian 1906 Bond		French 3% Rente	
	Price	Returns (%)	Price	Returns (%)
1915–1919				
Mean	72.09	−0.18	63.03	0.02
Median	74.75	0.00	62.75	0.00
Max.	94.75	13.04	73.5	3.49
Min.	45	−9.80	56.75	−3.50
Std. dev.	15.16	3.05	3.76	0.85
Skewness	−0.14	0.52	1.30	0.27
Kurtosis	−1.51	5.67	1.21	5.74
1918–1919				
Mean	56.49	−0.09	61.13	0.11
Median	56.75	−0.28	61.5	0.00
Max.	66.25	13.04	65	3.49
Min.	45	−9.80	56.75	−2.28
Std. dev.	5.52	4.03	1.95	0.86
Skewness	−0.3	0.55	−0.43	0.68
Kurtosis	−0.89	3.75	−0.47	5.31

forecast error variance decompositions to determine the effects of each structural shock on the individual bond series.

Let the vector y_t be a (2×1) vector with the first element being the weekly return of the 3% Rente and the second element being the weekly return of the 1906 Russian bond.³⁷ The structural VAR that we wish to estimate is

$$A_0 y_t = \alpha + \sum_{j=1}^p A_j y_{t-j} + u_t, \quad u_t \sim N(0, I), \quad (1)$$

where A_0 is the contemporaneous relationship matrix for the endogenous variables of the system and $u_t = (u_{ft} \ u_{rt})'$ are orthogonal (structural) errors with unit variance.

The structural identification that we use in this study is the assumption that $a_{0,12} = 0$. That is, the structural shock that impacts the Russian bond does not contemporaneously affect the Rente.³⁸ Using this identification it is possible to

³⁷ Standard unit root tests indicate that these two return series are stationary so that the VAR can be consistently estimated with the return series entering the VAR in levels.

³⁸ Note that we are implicitly assuming that there are only two independent shocks impacting that system. As noted in Sims (1988) there is no reason to believe this to be necessarily true. The actual number of true independent shocks could be many more than two. The two structural shocks that

consistently estimate a set of orthogonal (structural) shocks with the following interpretation: The first element of u_t is an amalgam of shocks that directly impact the rente. Given the time period that we are studying it is reasonable to expect that the majority of shocks in the first element of would be due to events surrounding WWI with a direct impact on France. The second element of u_t is then an amalgam of shocks that impact the weekly return for the Russian 1906 bond that is orthogonal to the first shock (the shock to the rente) and which does not immediately impact the weekly return of the rente. It is reasonable to expect that most of these shocks would be due to events outside of France, and hence having no immediate impact on France's economic performance, which directly impact Russia. Clearly, this second shock would include good and bad news from the Russian revolution.

4. News and Market Microstructure

Before presenting the empirical results, two elements must be stressed. First, the interpretation of the bond prices reactions clearly depends on the investors' perception at the time. The perceived importance of events do not necessarily match the importance historians attribute them today. Willard et al. (1996) stress this point for the US Civil War. In the Russian case, the military situation remained extremely complex and even today scholars do not agree on what the most relevant events were. In this context of uncertainty, rumors were prone to be spread on the Paris bourse. It is therefore crucial to determine which news was available to the investors but also the emphasis it had in the contemporaneous press or letters. Second, recorded prices are mainly relevant if they reflect the ability to really exchange bonds at this given price. During most of our analysis, France is at war, an element clearly impacting the volumes of trades. Furthermore, as uncertainty concerning the future of Russia was so high, traders could be unwilling to exchange their bonds. When this happened, the market was extremely thin and the validity of the recorded prices may be questioned. These two issues are discussed hereafter.

For the period following the October revolution, Russian news or telegrams could take days or weeks to reach their destination (Macmillan, 2003). In order to know which news were available to the French brokers, the analysis will rely on records from the French and British financial press, and on the archives from the French Corporation of Foreign Bondholders (ANPFVM) and the archives from the Prefecture de Police Paris (APPP). In view of the large amounts invested by Frenchmen in Russian bonds, the French Corporation of Foreign Bondholders set up in 1917 a detailed documentation center dedicated to Russia. Its aim was to collect any relevant news related to this country. Some members were influential enough to get direct (and probably not public) information from the French government. The archives used from the Prefecture de Police de Paris cover the period December 1917–May 1919. To get an idea of the feelings of the Paris population,

we identify are therefore potentially combinations of many structural shocks actually impacting the system.

Table II. Russian section activity on the Paris stock exchange

Jan. 1918– Jul. 1918	Aug. 1918– Oct. 1918	Nov. 1918– Apr. 1919	Apr. 1919– Aug. 1919	Sept. 1919	Oct. 1919	Nov. 1919– Dec. 1919
Low activity	Renewed activity	Low activity	Renewed activity	Low activity	Renewed activity	Low activity

obviously considered especially important during war, the *Préfet de Police* created a special force meant to provide him with the “pulse of the city” (*la physionomie de Paris*).³⁹ His agents submitted daily reports on rumors or discussions overheard in public spaces (pubs, markets, and the Paris bourse). Thanks to this, a daily description of the Paris bourse is available for most of the studied period.⁴⁰

For these very troubled periods, it is interesting to determine to what extent the recorded prices corresponded to real trades. From 1917 to 1919, the Russian section of the Paris Stock Exchange experienced some periods of very low activity. Unfortunately, no archive mentions the daily volumes. The *Bulletin de la Cote de la Compagnie des Agents de Change de Paris* gives the number of price changes, which provides an indication of the market activity. For the studied bonds, there is, most of the time, more than one change a day, implying that several trades took place. However, the volume of these trades is unknown, thus numbers of trades must be taken with caution. For the rente, the volumes remained high. The French and British financial press⁴¹ as well as the Archives provide a record of the periods of low activity for the Russian bond which are summarized for 1918 and 1919 in Table II.

5. Empirical Results

This section first describes the empirical results, and then analyzes the structural shocks hitting the Russian 1906 bond. A reduced-form version of the VAR presented in Equation (1) was estimated using equation by equation OLS with the number of lags, p , set equal to 7.⁴² The lag length was determined using likelihood ratio

³⁹ The *Préfet de Police* was the head of the Paris police responsible for the security of the stock exchange.

⁴⁰ These archives are an interesting complement to the French financial press, which at the time was subject to censorship.

⁴¹ Mainly *Le Bulletin de la Cote de la Compagnie des Agents de Change de Paris*, *Le Rentier*, *Le Journal des Valeurs Russes*, reports from the correspondent in Paris of *The Economist* and Archives (ANPFVM, and APPP).

⁴² In the case of missing observations the sample was kept balanced by omitting observations for both variables. Of the 260 potential weekly observations in the sample period there were a total of 16 missing observations on the weekly return for the Russian 1906 bond. The effective sample size, taking into account the 7 lags included in the VAR was 206.

Table III. Joint lag exclusion tests for VAR

	Lag 1	Lag 2	Lag 3	Lag 4	Lag 5	Lag 6	Lag 7	Lag 8
Wald stat.	5.858	4.080	3.606	12.190	2.408	5.918	12.091	5.158
<i>p</i> -value	0.210	0.395	0.462	0.016	0.661	0.205	0.017	0.271

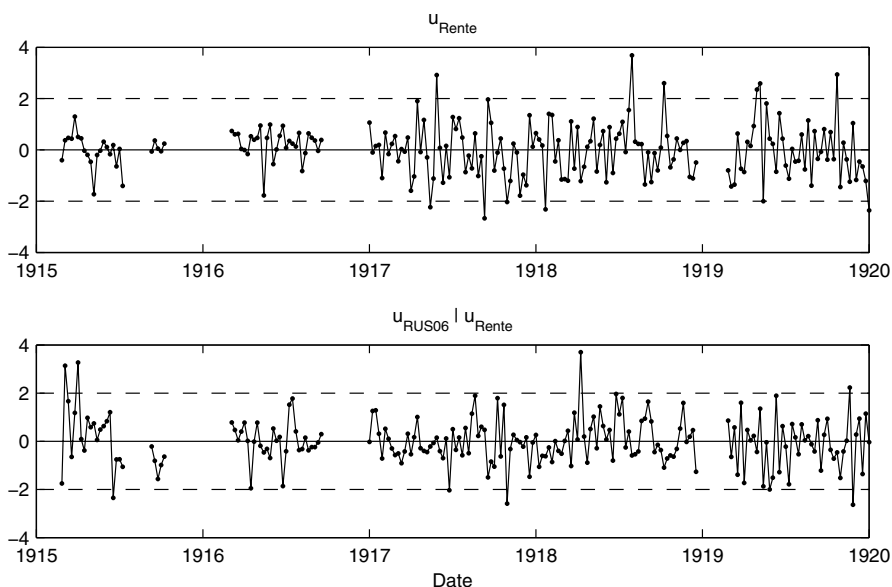


Figure 2. Structural shocks: 1915–1919.

lag exclusion tests that are reported in Table III. The estimates of the reduced form parameters were then used to identify A_0 by taking the Cholesky decomposition of the estimated variance covariance matrix obtained from the reduced-form residuals. Consistent estimates of the structural shocks are then obtained from these reduced-form residuals and our estimate of A_0 .

Figure 2 depicts the structural shocks for each year of the sample. In each Figure there are two panes. The first depicts the structural shock directly impacting the Rente while the second pane depicts the shock directly impacting the Russian 1906 bond that is orthogonal to the first shock. By construction, these shocks come from a distribution with standard deviation equal to 1. We therefore consider large shocks to be shocks that are greater than two standard deviations in size. The first shock, the one directly impacting the Rente, can be interpreted as domestic shocks while the second shock can be interpreted as being the combination of foreign shocks.

In order to determine the impact of domestic and foreign shocks on the return to the Russian 1906 bond we look at variance decompositions. In Table IV the

Table IV. Variance decomposition

Period	Forecast S.E.	Var. Decomposition of Rente (%)		Forecast S.E.	Var. Decomposition of Rus06 (%)	
		RENTE	RUS06		RENTE	RUS06
1	0.0078	100.00	0.00	0.0308	0.40	99.60
2	0.0079	99.11	0.89	0.0310	0.43	99.57
3	0.0080	98.33	1.67	0.0311	0.70	99.30
4	0.0080	97.23	2.77	0.0311	0.71	99.29
5	0.0082	96.79	3.21	0.0313	0.93	99.07
6	0.0082	95.35	4.65	0.0313	1.02	98.98
7	0.0083	94.76	5.24	0.0315	1.39	98.61
8	0.0084	92.17	7.83	0.0320	3.70	96.30
9	0.0084	92.19	7.81	0.0320	3.70	96.30
10	0.0084	92.18	7.82	0.0320	3.70	96.30

variance decompositions are reported. Here we see the contribution of each shock to the forecast error for forecasts from 1 to 10 periods ahead. We see that the 99% of the 1-step ahead forecast error for the Russian 1906 bond is due to the foreign structural shock while at the 10 period horizon the foreign shock contributes 96% of the forecast error. This is clear evidence that the biggest contribution to the variance of the Russian 1906 bond is from foreign shocks as identified by our VAR. Given how the two structural shock series were obtained this further suggests that the shocks hitting the Russian bond return series are mainly due to external factors and are not due to internal conditions of the French economy. With this in mind we analyze the shocks that hit the Russian 1906 bond series from an historical perspective.

5.1. STRUCTURAL SHOCKS

The forecast error variance decomposition shows that shocks hitting the Russian bond series are mainly due to Russian factors. We therefore focus on news linked solely to Russia when interpreting the shocks hitting the Russian bonds (conditional on those hitting the French market). The analysis focuses on the large shocks (larger than two standard deviations). Table V provides the dates as well as the sign and suggested explanations for these shocks. The chronology of the main shocks hitting the Russian bond is depicted in Figure 3.

Identifying the impact of precise events in the Russian case is extremely hard as many events happened simultaneously. Thus, the positive impact of some event may be canceled by a simultaneous negative shock. For some dates, no specific event was found to provide a convincing explanation. This is by no means uncom-

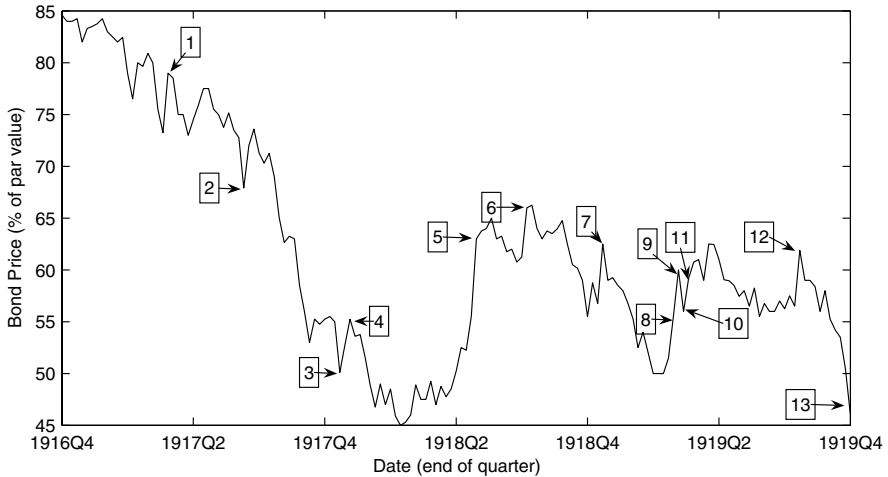


Figure 3. Bond prices 1917–1919.

mon for this kind of analysis (see Cutler et al., 1989, and Siegel, 2002). Also, some events that one would expect to play an important role do not lead to large changes in returns. For example, neither the February nor the October revolutions created large shocks. Reassuring statements regarding the debt reimbursement were quick to follow the February revolution. The Tsar abdicated on March 15 and on March 31st, 1917 Kerenski, the Minister of Justice for the Provisional government at the time, expressed his intention to honor all existing debts. This may explain the absence of a large shock following the February revolution. Regarding the October revolution, there is in fact a large shock, leading to almost a change of two standard deviations, and it is thus reflected in bond prices. The shock was however not large enough to be included in Table V. It seems to indicate that French investors did not immediately and entirely assess the importance of the October revolution.

During the years 1915 and 1916 there are no major pure Russian shocks. This is consistent with expectations since bad war news from Russia would have had an overall impact on the market. For the rest of the analyzed sample, thirteen large shocks were found, two in 1917, four in 1918 and seven in 1919. We were able to identify one or more plausible explanations for all but three of the shocks. For five dates, competing hypotheses were present.

Of the potential explanations, we do not find any major shock linked to the repayment by a seceding country. During 1918, hopes of a French bailout and statements made by the Bolsheviks regarding the debt repayment both play a major role. Most shocks are related to military news (or rumors) from Russia, which for 1919 are almost the only events leading to large price changes. The impact of the Versailles treaty (and the option of a German reimbursement) cannot be ruled out. The day the Treaty was signed coincides with important White Armies victories. However, press clips and reports from the bourse do not mention its impact on

Table V. 1906 Russian bond main structural shocks

No.	Date	Sign	Suggested explanation	Nature ^a
1	May 16, 1917– May 23, 1917	+	20 May: Russian Provisional Government recognizes debt of honor to Allies and repudiates peace talk.	DR
2	Aug. 29, 1917– Sep. 5, 1917	–		
3	Jan. 16, 1918– Jan. 23, 1918	–	Jan. 17: Peace negotiations between Soviets and Germany Jan. 21: Soviet Central Committee repudiates the Tsarist debt	MR DR
4	Jan. 30, 1918– Feb. 6, 1918	+	Jan. 31: France will pay the February coupons	DB
5	Jul. 24, 1918– Jul. 31, 1918	+	Jul. 25: Ekatherinburg conquered Jul. 26: French troops join the Northern Russian Expeditionary Force at Murmansk. Talks about a Japanese intervention. Jul. 25 and 26: Expectations of French government action	MR DB
6	Oct. 2, 1918– Oct. 9, 1918	+		
7	Jan. 15, 1919– Jan. 22, 1919	+	Jan. 14–16: British-Soviet meeting in Stockholm, Soviet government ready to compromise on Russia's foreign debt (Statement made public by Wilson on January 20, 1919) Jan. 21: Soviet government ready to repay part of repudiated debt and US President Wilson suggests a meeting with Soviet representative Jan. 16: Declaration of Russian bonds requested	DR DB
8	Apr. 23, 1919– Apr. 30, 1919	+	Apr. 23–25: Denikin and Kolchak victories Apr. 25: Bolshevism considered as dead Apr. 28: rumors that Lenin fled to Budapest Apr. 25: outbreak of Soviet Polish war Apr. 26: Rumors of Bolshevik proposals to resume negotiations regarding the bonds	MR DR
9	Apr. 30, 1919– May 7, 1919	+	May 2: News that Bolsheviks need to evacuate Petrograd May 3: Good news regarding the decreasing power of the Bolsheviks May 3: Versailles Treaty	MR VT
10	May 7, 1919– May 12, 1919	–		
11	May 12, 1919– May 19, 1919	+	May 13: Successes by General Denikin in Southern Russia. Meanwhile, Estonian army moves on Petrograd May 15: Rumors Bolsheviks have left Petrograd	MR
12	Oct. 15, 1919– Oct. 22, 1919	+	Oct. 14: Denikin's troops reach Orel Oct. 16: Iudenich offensive against Petrograd	MR
13	Dec. 24, 1919– Dec. 31, 1919	–	Dec. 24: Anti-Kolchak revolt in Irkutsk	MR

^a Events are sorted according to their nature: DR (Statements regarding the debt recognition), DB (debt bailouts or hope of debt bailouts), MR (Military events in Russia), VT (Versailles Treaty).

Russian bond prices but stress the enthusiasm created by the victories. A detailed description of the shocks, sorted by their nature, follows.

5.2. POSITION OF THE RUSSIAN GOVERNMENT

Four statements made by the Russian rulers explain some of the large identified shocks. Most of the statements have been described above and will thus only be briefly summarized.

The first identified positive shock follows the February revolution and predates the repudiation. It occurs during May 1917 and may be attributed to a statement by the Russian Provisional government, in which it stressed that debt would be honored and that Russia would keep on fighting on the Allied side. This statement probably lifted part of the apprehension French investors may have had regarding the revolution.

The other shocks are linked to statements made by the Bolsheviks or to rumors on the Paris bourse. The January 1918 shock reflects the repudiation itself. On January 21 1918, the Soviet Central Committee decided to repudiate the Tsarist debt. Rumors regarding the repudiation were circulating since December 1917 and would be confirmed by a Decree passed on February 8, 1918. Even though the Bolsheviks suggested a few times during 1918 that they would repay the bonds, it seems that up until January 1919, French bondholders did not view these as credible. This changed on January 1919, when a series of declarations were viewed favorably and interpreted as enhancing the likelihood of being reimbursed.

Indeed, the shock identified during the third week of January, 1919 probably stems from the negotiations held between Soviet and Western representatives. In the framework of a secret British-Soviet meeting in Stockholm, the Soviet government declared its readiness to compromise on Russia's foreign debt. This statement was made public by the US president Wilson on January 20, 1919. The day after, the Soviet government stressed once more its willingness to repay part of the repudiated debts and President Wilson suggested a meeting with Soviet representatives. The reports from the Paris bourse mention that investors were hoping for some Russian intervention, even though they did not know which form it would take (APPP, BA 1588).

Rumors regarding a Bolshevik repayment resumed on April 26, 1919. Following a series of Bolshevik military drawbacks, rumors began to be spread on the bourse. Brokers were heard saying that the Bolshevik had made a proposal to resume negotiations with the French government regarding the bond's repayment. According to the rumors, the Bolsheviks were willing to give raw goods to repay part of the coupons due (APPP, BA 1588).

5.3. A FRENCH DEBT BAILOUT

On four dates, the hopes of a bailout by the French government led to extreme returns. They first stemmed from the actions undertaken by the British and French governments to service the Russian debt during January 1918. The coupon reimbursement declaration made by M. Klotz, the French Finance Minister on January 31, 1918 probably created the large shock identified on the last week of January.

The other shocks linked to a potential debt bailout by the French government were mainly caused by rumors on the Paris bourse. On July 25, 1918 the Préfet's "spy" records that Russian bonds were sought because investors expected some intervention from the French government (APPP, BA 1587). The following day, rumors were more precise: investors had the impression that the French government had concluded a deal with the Committee representing the Russian bondholders.

During 1919, the French government made few statements regarding the debt. An explanation could be that the French government was less inclined to show signs of a bailout whenever the likelihood got higher that the White Armies would win.⁴³ However, hopes of a French bailout did not disappear completely. The January 1919 shock, which coincides with the secret negotiations mentioned previously, could also be partly due to an action undertaken by the French government: On January 16, it requested French investors to declare their Russian bonds. This measure was at first greeted with outright animosity since it forced holders of Russian bonds to make public their wealth by registering their bonds (an element going against the highly loved bearer form, which allowed French bondholders to easily hide the taxable incomes). However, after a few days, the investors' position became more favorable (APPP, BA 1588).

5.4. MILITARY NEWS FROM RUSSIA

Military news from Russia had probably the most influence on the Russian bond prices. In 1918, they certainly play an important role and, during 1919, they contribute almost solely to the large identified shocks.

The first shock, observed on January 1918, can be attributed to the Soviet Central Committee repudiation decree but could also reflect the peace negotiations held between Soviets and Germany. Up to July 1918, no military events played an important role on the Russian bonds. The shock at the end of July 1918 probably reflects renewed hopes that the Soviets would be ousted. A series of good military news began on July 25, 1918 with the conquest of Ekatherinburg. The following day, the French troops joined the Northern Russian Expeditionary Force at Murmansk. Meanwhile, rumors were running on the Paris bourse about a Japanese intervention in Russia (APPP, BA 1587).

The shock occurring between April 23 and April 30 is likely to reflect either the offensive of the White Armies at the time or the outbreak of the Polish-Soviet

⁴³ The authors thank an anonymous referee for this point.

war. By the middle of April 1919, White troops had conquered considerably large territories with Kolchak's army almost reaching the Volga (Pipes, 1995, p. 78). On April 25, 1919 Polish troops invaded Ukraine. On the Paris stock exchange, both movements were greeted with enthusiasm. The report dated April 25, 1919 stressed that Bolshevism could be considered as dead and that soon a large front would open from the Red Sea to Arkangel (APPP, BA 1588). The following day rumors maintained that the British intervention would destroy Bolshevism. Two days later, rumors were circulating: Lenin was supposed to have fled to Budapest with 15 millions rubles and had no intention to come back to Russia.

Another large positive shock is observed for the following week. Then again rumors were circulating on the Paris bourse. On May 2, the reports mentioned news that Bolsheviks needed to evacuate Petrograd, and on May 3, it stressed the good news regarding the decreasing power of the Bolsheviks (APPP, BA 1588). The contemporaneous economic press confirms this view. During May 1919, The contemporary press attributed "the appreciable improvement in Russian (...) on the news of the fresh successes by Anti-Bolshevik troops" (*The Economist*, May 3, 1919).

The positive shock identified between May 12, and May 1919 probably also reflects military successes on the Russian front. On May 13, 1919 Iudenich's Army, which was located in Estonia, crossed into Soviet territory launching an offensive against Petrograd (Pipes, 1995, p. 93). On the French bourse, the offensive was quickly viewed as a victory and rumors were heard stating that the Bolsheviks had evacuated Petrograd (APPP, BA 1588). At the same time, General Denikin was again experiencing military success in Southern Russia.

The large shock observed between October 15 and 22nd, 1919 coincides with the great offensive launched simultaneously by Denikin in Southern Russia and Iudenich close to Petrograd. On October 14, 1919 Denikin's troops reached Orel, only 300 kilometers from Moscow. At the same time, Iudenich was launching its second offensive against Petrograd, reaching the suburbs of the city on October 16. The Red situation in Petrograd was so bad that Lenin was considering leaving the city to the White Armies. Only Trotsky's opposition to this plan prevented its conquest. On October 21, the Red Army managed to pierce the White lines bringing an end to the Petrograd offensive. The last identified shock is attributed to the Anti-Kolchak revolt in Irkutsk happening on December 24, 1919.

Military news (or rumors) related to Russia played a major role on the bond prices. The importance of the civil war on the Russian section is further assessed by the fact that high volume and periods of renewed activity usually match White military successes.

6. Conclusion

The paper analyzes to which events repudiated Russian bond prices reacted. Five competing hypotheses were suggested: the debt recognition by the Soviets, a Soviet

overthrow, a bailout by the French government, a bailout by the government of a seceding country or a repayment by defeated Germany, which could be viewed as war reparation. The analysis shows that up to January 1919, expectations of a French bailout and Soviet statements regarding the debt repayment were mainly driving large price changes. After January 1919, military news from Russia, which up to then had had a minor impact become the main news driving bond prices.

During the period under study, statements regarding the new countries recognition, made either by French politicians or by the French press, had almost no impact on the reimbursement perception. Two factors explain this: first, most of the countries were created after the studied period (or at its very end), and second there were few changes in political positions. Notwithstanding, the possibility that a least one new country would assume part of the debt burden could partly explain why prices remained high up to end 1919.

The Soviet repudiation gives an insight on actual issues regarding sovereign debts. The analysis emphasizes the importance of statements' credibility. Bond prices reacted to the first Soviet proposals to recognize the debt. However as no concrete actions backed these allegations, investors stopped trusting the Soviet announcements. Furthermore, the paper confirms the results of previous studies showing that war events impact national bond prices.

Even though French bondholders did not receive any form of payment during 1919, Russian bond prices remained relatively high. In a sense, the Soviet repudiation may be viewed as a unique example of a multidimensional peso problem, for which several events of different nature had at some point a non-negligible likelihood to become reality.⁴⁴ These positive events were numerous and included: a Soviet overthrow, a Soviet withdrawal of the repudiation decree, a foreign partial reimbursement (by a newly created country for example) or a reimbursement by the French authorities. Investors' rationality should not be questioned: prices integrated the fact that *ex ante* it was reasonable to assume that at least one of these events would happen. In fact, investors made rational expectations and considered the probability and the potential impact of each of these events. The study suggests that in the Russian case, investors mainly hoped that either the French government would takeover the debt or that the Soviets would be defeated and that the new Russian government would honor its obligations.

7. Epilogue

Russian bonds remained traded on the Paris stock exchange up to the 1990's with an almost insignificant volume of transactions. During the 1920's the bond prices still experienced large variation. Notably, they seem to have reacted to news from the civil war (mainly following the successes of Wrangel in 1920), the Polish-

⁴⁴ Jorion and Goetzmann (1999) have argued that the high risk premium of stock returns may be explained by the fact that investors expected the stock market to experience a major event (closure) that never happened.

Soviet war (1920–1921), the Genoa conference (in 1922 during which the Soviets offered to recognize the debt in exchange of new credit and the cancelation of Russia's WWI debt) and the commission de Monzie (hopes were fueled once more in February 1925, when a French delegation led by Anatole de Monzie resumed negotiations with the Soviets). Interestingly, all these episodes confirm the previous results: importance of the war, of a potential reopening of negotiations with the Soviets (under the supervision of the French government). Actually, hope never completely disappeared and periodically there was feverous activity on the Russian section of the Paris Stock Exchange. In 1954, the price of the 4.5% Russian bond issued in 1909 got multiplied by 60 as an important Franco-Soviet agreement was signed (Freymond, 1995).

Historians have the opportunity to study a specific problem in a large time window. In fact, if one extended the analysis up to today, one of the expected events eventually took place. As a consequence of WWII, the number of repudiated bonds increased dramatically as many countries fell under the Soviet sphere of influence and mimicked the Soviet position. Nonetheless, in 1993, the French government resumed negotiations with Russia, which agreed to partially reimburse French bondholders. In 1996, France and Russia reached an agreement by which Russia would pay 400 million USD as settlement for all the Tsarist debts.

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