Claremont Colleges
working papers in economics

Claremont Graduate University • Claremont Institute for Economic Policy Studies • Claremont McKenna College • Drucker Graduate School of Management • Harvey Mudd College • Lowe Institute • Pitzer College • Pomona College • Scripps College

German Debt Traded in London During World War II: A British Perspective on Hitler

William O. Brown, Jr. and Richard C. K. Burdekin*

Claremont McKenna College

October 1999

Abstract

Two series of German bonds, issued in 1924 and 1930, traded on the London Stock Exchange throughout Hitler's 1933-1945 regime in Germany. We isolate both structural breaks and turning points in these bond series. Major turning points follow Hitler's reintroduction of conscription in 1935, the outbreak of war in 1939 and the D-Day invasion of June 1944. The German bonds' sustained downtrend after 1935 suggests that bondholders recognized the negative implications of Hitler's program. Bond prices recover during the war, however, and appear to anticipate the overthrow of Hitler and the postwar settlement of foreign bondholders' claims.

JEL codes: N20; N40

Keywords: bonds, Germany, Hitler

Authors' address: Department of Economics, Claremont McKenna College, 500 E. Ninth Street, Claremont, California 91711.
Fax: (909) 621-8249
E-mail: william_brown@mckenna.edu ; richard_burdekin@mckenna.edu

German Bonds Traded in London During World War II: A British Perspective on Hitler

> German bonds, even in peace time, were distinctly dubious investments, and the fact of war has entirely justified the distrust with which they have long been regarded.
>
> (*The Economist*, November 4, 1939, p. 177)

> German bonds have given market operators an exciting and, on the whole, a profitable run for their money.
>
> (*The Economist*, August 16, 1952, p. 409)

When Adolf Hitler seized power in 1933, Germany was still making reparations payments stemming from her defeat in the First World War. To assist Germany in making these reparations payments, two sets of bond issues had been sold to Germany's creditor nations. Under the Dawes Loan, 25-year 7% bonds were issued in 1924 at 92% of their face value.[1] A second set of 5.5% bonds was issued in 1930 -- at 90% of their face value -- under the auspices of the Young Plan.[2] Both bond issues traded on the London Stock Exchange throughout Hitler's reign in power from 1933 to 1945. While Germany continued to make interest payments on these bonds until war broke out in September 1939, we isolate turning points associated with news of Hitler's reintroduction of conscription and war fears as well as further breaks that we link to debt renegotiations and to political events. The turning points are distinguished from standard structural breaks in that they are restricted to *non-reversed* shifts in the series that are identified by dividing the sample into a series of 'windows.' The turning points are identified using a technique developed by Banerjee, Lumsdaine and Stock (1992) and previously applied to American Civil War data by Willard, Guinnane and Rosen (1996) and Brown and Burdekin (forthcoming).

The outbreak of war is a major turning point and is accompanied by a plunge in the prices of our German bond series and a series of individual structural breaks. This implies that war with Germany was not fully anticipated by financial market participants. Further turning points are uncovered during the war as the bonds continued to trade even though interest payments had been suspended. A settlement with the new German government was in fact finally reached in 1953 and the government agreed to honour all Dawes Plan and Young Plan bonds with the exception of those stolen and recirculated by the Soviets at the end of the war. Between 1939 and 1945 positive turning points occur in the face of developments favourable to the Allied cause, first, during August 1941 and, second, after the D-Day invasion of June 6, 1944. Many other individual breaks are found during the wartime period with upticks in the bonds also generally following favourable news for the Allied cause. This seems to be in line with Bonnell's (1940, p. 69) opinion that "[b]ecause of the deliberate liaison between reparations and the commercial debt created by the National Socialists, a German victory could mean outright repudiation." The German bond series offer a novel, and quite possibly unique, set of insights into British investors' perceptions of the Hitler regime in the pre-war period as well as providing a window into investors' views of the state of the war and which particular wartime events were seen to be most important to contemporary observers.

Structural Breaks and Bond Price Movements during the Hitler Regime

The Dawes and Young bonds traded on the London Stock Exchange for the duration of their existence. Our analysis is focused on the years that Hitler was in power and utilizes weekly closing prices for each bond series over 1933-1945.[3] The two bond series are plotted in Figure 1. We use these data to estimate significant single day events ('blips') and structural breaks ('turning points') in the series. The blips are estimated using traditional event study methodology. We estimate the following equation:

$$\ln BP_{it} = b_0 + b_1 \ln BP_{it-1} + b_2 D_{it} + \varepsilon_t \qquad (1)$$

where $\ln BP_{it}$ is the natural log of the bond price and D_{it} represents a zero-one dummy variable that takes a value of one for the event date and zero for all other dates.[4] We tested both series for non-stationarity using the augmented Dickey-Fuller and Phillips-Perron tests with various lag lengths. Both series were consistently identified as stationary AR(1) processes. The model is estimated over the entire sample period to determine individual events that may have had a significant short-term impact on the German bond series.

Table 1 presents the weeks where statistically significant deviations occur together with any news events that we are able to identify that may be related to the statistical blip. There are many significant events given the length and tumultuousness of our sample period. We cannot explain all of these events and we cannot be certain that the specific news items listed are entirely responsible for the movement in the series. As with all event studies, there is also a possibility of spuriously finding events that are significant. We have the greatest confidence in those event dates for which *both* the Dawes and Young series shift and the changes are relatively large.

In the early years of the sample both series are affected primarily by political developments affecting the bond's repayment. The continuing negotiations during the 1933-1935 period primarily have positive effects on the bond prices as payments to British holders of both the Dawes and Young Loan bonds were maintained. Although Reichsbank President Dr. Schacht had initially announced a transfer moratorium on June 9, 1933, creditor pressure produced a compromise arrangement whereby interest payments on the Dawes and Young loans were to be transferred in full.[5] Amortization payments on the Dawes Loan were also to be transferred in full but Young Loan bondholders were affected by the 1933 settlement insofar as amortization on the Young Loan was not to be similarly transferred (Harris, 1935, p. 52). The Dawes and Young bonds both show a significant uptick in mid-June 1933 (see Table 1) in advance of the negotiations with Dr. Schacht that produced terms largely favourable to holders of these bonds. The nature of the settlement indeed appeared to be better than the financial community had expected (see Peterson, 1954, pp. 210-212).[6]

A more confrontational atmosphere set in during 1934 and -- as debt negotiations with Germany were renewed in October 1934 -- Prime Minister Neville Chamberlain admitted that he was

> having a very worrying time over this Anglo-German negotiation. Horrible possibilities of a German default and the consequent bankruptcy of some of the great English financial firms

> have been hanging over me ever since I took office and just lately they have been very menacing.[7]

Default was staved off by the Anglo-German Payments Agreement of November 1, 1934. Germany was to receive a £750,000 credit from the Bank of England and Britain henceforth became Germany's biggest creditor. The German government would continue to pay full interest in sterling on both the Dawes and Young Loans as well as on the Dawes Loan sinking fund. At this time there is a sharp advance in both German bond series (Table 1). Political developments appear to have given a further boost to the 7% Dawes bonds in early December 1934 -- when Germany agreed to the presence of an international force in the Saar pending upcoming elections that would determine whether or not this region would revert to German control. Notwithstanding the Nazis' rise to power, British claims on Germany were still regarded quite favourably at this time "as first-class banking credits expressed in sterling" (Forbes, 1987, p. 583).

Although the November 1934 agreement was not formally abandoned until September 3, 1939 -- following the outbreak of war in Europe -- there were increasing pressures owing to a worsening political situation. While Hitler's public enunciation of his rearmament program in violation of the Versailles Settlement in early 1935 is not reflected in individual structural breaks in the Dawes and Young bonds it does appear to represent a significant turning point in these series taken as a whole (as discussed in the next section). Guillebaud (1939, pp. 73-74) characterizes this event as follows:

> In March 1935 Herr Hitler announced the withdrawal of Germany from the Disarmament Conference and the reintroduction of conscription. Rearmament, which had been proceeding for some time past under the restrictions imposed by the need for preserving at least an official cloak of secrecy, was now pushed on openly with feverish haste.

In March 1936 Germany's reoccupation of the Rhineland allowed the rearmament program to expand further using the industry located in the hitherto demilitarized zone. Germany's annexation of Austria in March 1938 led to another crisis for the Anglo-German Agreement when the German government initially indicated that they would not take responsibility for Austria's international debt (Forbes, 1987, p. 584). At this time there is a significant negative break in the Dawes Loan bonds but surprisingly no break is evident in the Young Loan series.

The political situation worsened further in 1938 as Hitler laid claim to a portion of Czechoslovakia known as the Sudatenland that had a majority German population. On September 12, 1938, Hitler demanded autonomy for the Sudaten Germans and threatened to go to their aid. At this time there was great concern in Britain that any such German invasion of Czechoslovakia would trigger British and French involvement in a wider European war. The Munich Agreement of September 30, 1938 avoided war while giving Germany free rein to move into the Sudatenland. Although generally vilified today, the Munich Agreement was greeted rapturously at the time and Prime Minister Chamberlain was given a hero's welcome on his return to England (see Shepherd, 1988, Chapter 1). Relief that war with Germany had been staved off is accompanied by another recovery in our German bond series at the end of September 1938 from the depressed levels earlier in the month when war fears had been at their height.

The gains in the German bonds were short-lived, however, and a steady decline sets in after October 1938 as it became increasingly unlikely that the Munich Agreement could really buttress Chamberlain's claim of "peace in our time." The significant negative downturn in both bond series following the dismissal of Dr. Schacht in January 1939 is followed by a further strongly negative response to the August 23, 1939 Nazi-Soviet Non-Aggression Pact that set the stage for Germany's invasion of Poland. When war finally broke out at the beginning of September 1939, the German bonds traded in London fell sharply from already-depressed prices and the 5.5% Young Loan bonds were down to £3 by September 22, 1939. These bonds had been priced in the low 20s during August 1939 and as recently as November 1938 this same issue had traded above £40.[8]

Hopes that partial coupon payments on the German bonds could be made out of funds deposited before war was declared (*The Times*, October 5, 1939) help account for a short-lived bounce in the Dawes and Young Loan bonds in early October -- as noted in Table 1. But the Committee of British Long Term and

Medium Term Creditors of Germany soon confirmed that there were no funds on hand for the next payments due on German bonds held in England (*The Economist*, November 4, 1939, p. 177). Nevertheless, the German bonds continued to trade on the London Stock Exchange for the duration of the war. There was, in fact, a partial recovery in these bonds after 1940. There are significant positive upticks in both series in September 1941, May 1942, May 1943, June 1944, July 1944 and March 1945. In each case the positive movement appears to be associated with news favourable to the Allied cause. From 1940 on, there are only two negative wartime structural breaks that are significant for both bond series. The first is in mid-October 1941 when German forces were threatening Moscow and the second occurs in late July 1944 at the time of a reported crisis in Soviet-Polish relations.[9] When hostilities ended in August 1945, the 5.5% Young Loan bonds had reached low single digits and ended 1945 at £12.75.

Turning Points in the German Bonds

The general trading pattern of the bonds implies a continued decline in the German bonds from the mid-1930s through the beginning of the 1940s followed by a partial recovery. While the structural breaks identified in Table 1 help account for the week-to-week movements in bond prices, changes in the overall trend are better identified by the turning point analysis previously used by Willard, Guinnane and Rosen (1996) and Brown and Burdekin (forthcoming). This approach involves recursively estimating the following equation beginning with week 1 through week 53 of our sample period, then week 2 through week 54 of the sample, and so on until we have estimated the equation over all 620 different 53-week intervals:

$$\ln BP_{it} = b_0 + b_1 \ln BP_{it-1} + e_t \quad (2)$$

We then identify the windows where the model performs least well. This involves identifying windows with the lowest adjusted R^2 value where potential breaks may occur. We find five windows centred around similar time periods for the Dawes and Young Series that may contain potential breaks. For the Dawes series these windows are centred around August 29, 1935; November 11, 1937; September 6, 1939; September 11, 1941;

and August 24, 1944. For the Young series the windows are centred around August 29, 1935; November 4, 1937; September 14, 1939; September 11, 1941; and July 13, 1944.

We then estimate the following equation for each of the above windows:

$$\ln BP_{it} = \beta_0 + \beta_1 \ln BP_{it-1} + \beta_2 Z_{it} + \varepsilon_t \quad (3)$$

where Z_{it} represents a zero-one dummy variable that takes a value of zero for all weeks prior to the event and one for the event week and all subsequent weeks. We estimate the model 53 separate times conducting sequential F-tests; once for each of the 53 weeks in the interval surrounding the centre of the window. The turning point is identified by finding the most significant date, if any, within the window. Equation (3) is estimated over the 79-week interval surrounding the centre of the window. We use 79-rather than 53-week intervals in order to ensure that we properly identify breaks at the beginning and end of each window.

We isolate five likely turning points for each series. These breaks, and brief explanations of their possible causes, are provided in Table 2. Two of the turning points occur in the same week for both the Dawes and Young series. The first is September 6, 1939 which corresponds to the first day of trading after the declaration of war. That this is the most significant turning point, in economic and statistical terms, is not surprising. As noted above, the outbreak of war terminated interest payments and reduced the probability that the debts would ever be repaid. The significance of this reaction is important, however. While there were longstanding concerns about Hitler and the future of Europe at the time, the actual outbreak of war seems to have caught the bond market by surprise. The second common turning point occurs on June 6, 1944. We attribute this increase in bond prices to D-Day. Given the economic and statistical significance of these two events, we place a high degree of confidence in these being true turning points for the German bond series.

There are two other turning points that occur during different weeks for each series but which seem attributable to related events. The Young series exhibits a break on March 14, 1935. Major news for that week concerned Germany's decision to reintroduce conscription. The Dawes series exhibits a break during the week of April 22, 1935. At this time the League of Nations was moving to censure Germany's rearmament decision. These results suggest a significant and permanent decline in the two bond series following Germany's decision to formally acknowledge its military build-up in violation of the Versailles Settlement.

A break is identified in the Young series during the week of August 7, 1941 and in the Dawes series for the week of August 14, 1941. These breaks are most likely the result of continued commitments on the part of the United States to support the Allies. During this period, the United States issued an official statement on the priority attached to providing economic assistance to the Soviet Union. Prime Minister Churchill and President Roosevelt conducted their 'Atlantic Meeting' during August 9-13, 1941. While Roosevelt could not speak for the Congress, the meeting concluded with the understanding that Roosevelt was willing to do all that was possible to strengthen the Allied effort. From this point forward the United States played an increasingly active role in the war. While these two events are not that significant as individual blips for the weeks in question, they occur at a time when the tide of the war was changing in the Allies' favour and appear to signal an important turning point in the bond series.

Finally, the Dawes and Young series exhibit breaks in late 1937, during the weeks of August 12 and October 7, respectively. We are unable to attribute these breaks to any specific single event or series of events. However, these points lie in between Germany's rearmament announcement in 1935 and the outbreak of war in 1939. It seems plausible that these turning points capture the period in which the market was absorbing increasingly negative political developments that increased the likelihood of future hostilities in Europe.

Taken together, the turning points show a consistent reaction to first the threat, and then the fact, of war. German rearmament and the worsening political situation reduced the likelihood of repayment and the outbreak of war stopped current payments entirely. The stalling of the German war machine and the likelihood of continuing assistance from the United States in the summer of 1941 increased the likelihood of

German defeat or at least a negotiated peace in which bondholders interests would be represented. The Allied D-Day invasion in June 1944 further increased these probabilities and had another major positive impact on bond prices. Positive developments that made the end of the war seem more imminent had lasting effects on bondholder wealth.

The positive turning points in 1941 and 1944 actually foreshadowed an advance in the two bond series that continued after the end of the war. Even though formal agreement on the resumption of interest payments was delayed until February 1953 (*The Economist*, March 7, 1953, p. 664), this event appeared to be anticipated in the market. Indeed, *The Economist*'s (August 16, 1952, pp. 408-9) remarks about the gains that had been made on the Dawes and Young bonds certainly stand in stark contrast to the disparaging comments of 1939 when these same bonds were rendered all but worthless at the beginning of World War II. Under the 1953 agreement, interest, including arrears, on the Dawes and Young loans was to be paid at 5% and 4.5%, respectively. There was no reduction of principal and the scheduled maturity date was extended to 1969 for the Dawes loan and 1980 for the Young loan (*The Economist*, August 16, 1952, pp. 408-10).

Conclusion

The Dawes and Young Loan bonds do not immediately decline after Hitler's seizure of power in January 1933. However, extended losses in the German bonds traded in London occur following Hitler's reintroduction of conscription in early 1935 and accelerate in the period leading up the outbreak of war in September 1939. The German bonds decline further through late 1940 as the German army rapidly advances across continental Europe. The persistent decline ends by the summer of 1941, however, as bond prices begin to recover in response to positive war news for the Allied cause. In early June 1944, coinciding with the Allied D-Day invasion at Normandy, the bonds experience a significant increase and there are mostly positive shocks through the end of the sample. All in all, London holders of German bonds appeared to recognize the negative implications of Hitler's regime at a relatively early date. Bond prices also seemed to anticipate Hitler’s fall and a rising trend sets in as wartime events move increasingly in the Allies’ favour.

Footnotes

* The authors are grateful to Mike Kuehlwein, Timothy Guinnane, King Banaian, Eric Helland, Farrokh Langdana, Pierre Siklos and Marc Weidenmier for helpful comments and thank Ida Huang for extensive research assistance. In addition to the articles from *The Economist* that are listed in the references, various other issues of *The Economist*, the *Investors' Chronicle and Money Market Review*, and *The Times* were consulted as noted in the text and tables.

1. Great Britain subscribed to £12 million of the Dawes Loan bonds and was the second largest subscriber after the United States (see Young, 1925, p. 430).

2. Great Britain's £12 million subscription of the Young Loan bonds was third in size after the United States and France. A fixed direct annual tax on the German Railway Company was to guarantee the debt service on the Young Loan (*The Economist*, June 14, 1930, pp. 1317-18).

3. We collected the last available closing price for the trading week in question from the *Wall Street Journal*. The changes in our series represent week to week changes.

4. The estimated value of the coefficient b_1 is around 0.9 over the entire sample period for both series, thereby indicating that the effects of the short term blips die out over time. For example, approximately 50% of the effects of the blips die out within five weeks of the event.

5. Service on other debts was reduced to 75% of the June 1933 level, however, through Germany making half the payments in "scrip" that the Reichsbank would re-purchase only at a 50% discount. These terms were modified in January 1934 when the amount paid in foreign currency was reduced to 30% but the price paid for the scrip was raised to 67%, effectively allowing the creditor to get 77% of the original debt service payments instead of 75% (Harris, 1935, pp. 54-55).

6. The Germany authorities actually bought back large numbers of their own bonds at depressed prices in 1933 and 1934 -- and continued with smaller buybacks through at least 1941 (Klug, 1993, p. 20). It is not clear, however, that these operations significantly bolstered the price of these bonds. Klug

(1993, p. 38) concludes that, based on an examination of 96 German bonds traded in the United States in the early 1930s, the buybacks exerted no upward pressure on bond prices.

7. Quoted by Forbes (1987, p. 581). Meanwhile, on the German side, Schacht (1934, p. 5) was himself expressing the view that "the settlement of long-term debts must wait. They must be put on the ice for a while, until world trade has so far recovered as to make it possible to pay the interest and settle them."

8. The overall impact in British financial circles was limited, however, by the relatively small value of Germany's foreign debt. By September 1939, Germany's total foreign debt had declined to just under 10 billion reichsmarks and the amount owed to Britain was estimated to be only £34 million (Forbes, 1987, p. 585). Of the better than 16 billion reichsmark drop from the 1930 figure, *The Economist* (February 11, 1939, p. 301) attributes about 6 billion reichsmarks to the depreciation of creditor currencies after Britain and the United States left the gold standard in 1931 and 1933, respectively. These departures from the gold standard automatically reduced German obligations set in terms of gold marks (James, 1986, p. 403). The remaining 10 billion reichsmark reduction in the foreign debt since 1930 reflected actual repayments as well as the repurchases conducted under the buyback program.

9. There is also one postwar negative 'blip' that is significant for both series. This downturn is in the week ending October 25, 1945. While we were unable to isolate any one specific major news event associated with this downturn, it occurs at a time when there were open disagreements among the Allies about the shape of postwar Europe.

References

Banerjee, Anindya, Robin L. Lumsdaine and James H. Stock. "Recursive and Sequential Tests of Unit Root and Trend Break Hypotheses: Theory and International Evidence." *Journal of Business and Economic Statistics* 10, no. 3 (July 1992): 271-87.

Bonnell, Allen Thomas. *German Control over International Economic Relations, 1930-1940.* Urbana, IL: University of Illinois Press, 1940.

Brown, William O, Jr. and Richard C. K. Burdekin. "Turning Points in the US Civil War: A British Perspective." *Journal of Economic History,* forthcoming.

The Economist. "The Reparations Loan," June 14, 1930, pp. 1317-18.

The Economist. "Germany After Schacht," January 28, 1939, pp. 165-66.

The Economist. "Germany's Short-Term Foreign Debts," February 11, 1939, pp. 301-302.

The Economist. "Twilight Hours," September 2, 1939, pp. 433-34.

The Economist. "Foreign Bonds and the War," November 4, 1939, p. 177.

The Economist. "Fall of a Dictator," July 31, 1943, pp. 129-30.

The Economist. "A Dangerous Divide," July 29, 1944, pp. 136-38.

The Economist. "Germany's Prewar Debts," August 16, 1952, pp. 408-10.

Forbes, Neil. "London Banks, the German Standstill Agreements, and 'Economic Appeasement' in the 1930s." *Economic History Review* 60, no. 4 (November 1987): 571-87.

Guillebaud, C. W. *The Economic Recovery of Germany: From 1933 to the Incorporation of Austria in March 1938.* London: Macmillan, 1939.

Harris, C. R. S. *Germany's Foreign Indebtedness.* London: Oxford University Press, 1935.

James, Harold. *The German Slump: Politics and Economics 1924-1936.* Oxford: Clarendon Press, 1986.

Klug, Adam. *The German Buybacks, 1932-1939: A Cure for Overhang?* Princeton, NJ: Princeton Studies in International Finance, No. 75, November 1993.

Peterson, Edward Norman. *Hjalmar Schacht: For and Against Hitler*. Boston, MA: Christopher Publishing House, 1954.

Schacht, Hjalmar. "German Trade and German Debts." *Foreign Affairs* 13, no. 1 (October 1934): 1-5.

Shepherd, Robert. *A Class Divided: Appeasement and the Road to Munich, 1938.* London: Macmillan, 1988.

Willard, Kristen L., Timothy W. Guinnane and Harvey S. Rosen. "Turning Points in the Civil War: Views from the Greenback Market." *American Economic Review* 86, no. 4 (September 1996): 1001-18.

Young, John Parke. *European Currency and Finance.* Washington, DC: Government Printing Office, 1925.

Table 1

Breaks in the German Bond Series, 1933-1945

Week Ending	Dummy Variable Coefficient	Standard Error	Significance Level	That Week's Major News (if any)
June 15, 1933 (D, Y)	0.162	0.073	0.027	Upcoming bondholders
	0.156	0.081	0.053	meeting with Dr. Schacht[a]
August 30, 1934 (D)	-0.133	0.073	0.069	Germany's weak economy, debt moratorium demands[b]
October 11, 1934 (Y)	0.138	0.081	0.088	Coupons to be met in full[c]
November 1, 1934 (D, Y)	0.195	0.073	0.008	Anglo-German Payments
	0.255	0.080	0.002	Agreement[d]
December 6, 1934 (D)	0.128	0.073	0.081	Saar crisis defused[e]
November 1, 1935 (D)	-0.143	0.073	0.052	Abyssinian crisis
November 7, 1935 (D)	0.172	0.073	0.019	Rumours of settlement[f]
March 17, 1938 (D)	-0.142	0.073	0.052	Austria annexed by Germany[g]
September 29, 1938 (D, Y)	0.121	0.073	0.098	Chamberlain-Hitler meeting
	0.144	0.081	0.074	in Munich[h]
January 20, 1939 (D, Y)	-0.122	0.073	0.097	Dismissal of Dr. Schacht[i]
	-0.163	0.081	0.043	
February 2, 1939 (D)	0.160	0.073	0.029	Hitler's Reichstag speech[j]
March 9, 1939 (Y)	0.141	0.081	0.080	
August 24, 1939 (D, Y)	-0.323	0.072	0.000	Nazi-Soviet Non-Aggression
	-0.268	0.080	0.001	Pact signed
September 1, 1939 (D, Y)	0.279	0.072	0.000	Last hopes for negotiated
	0.226	0.080	0.005	settlement of Polish crisis[k]
September 6, 1939 (D, Y)	-0.800	0.067	0.000	Germany attacks Poland,
	-0.796	0.075	0.000	War is declared
September 14, 1939 (D, Y)	-0.620	0.069	0.000	Germans advance in Poland,

	-0.590	0.078	0.000	French troops enter Germany
September 21, 1939 (D, Y)	-0.340	0.072	0.000	Soviet forces invade eastern
	-0.517	0.078	0.000	Poland, join German troops
September 28, 1939 (Y)	0.149	0.081	0.067	Surrender of Poland
October 5, 1939 (D, Y)	0.373	0.072	0.000	Hopes for new coupon payments
	0.536	0.078	0.000	on the German bonds[l]
October 12, 1939 (Y)	0.152	0.081	0.060	
November 23, 1939 (D)	-0.145	0.073	0.048	
December 1, 1939 (D, Y)	-0.170	0.073	0.021	Soviet forces invade Finland,
	-0.186	0.081	0.022	'Winter War' begins
June 6, 1940 (D)	-0.186	0.073	0.011	Dunkirk evacuated with heavy loss, invasion threat[m]
August 1, 1940 (Y)	-0.228	0.080	0.005	Rumours of pending invasion[n]
August 8, 1940 (Y)	-0.139	0.081	0.086	Axis advances in Africa[o]
September 12, 1940 (Y)	-0.161	0.081	0.047	Blitz of London begins
November 1, 1940 (Y)	-0.190	0.081	0.019	Italian forces invade Greece
November 7, 1940 (Y)	0.176	0.081	0.030	President Roosevelt re-elected
November 21, 1940 (Y)	0.283	0.080	0.001	Italy has trouble in Greece[p]
August 7, 1941 (Y)	0.264	0.080	0.001	US aid to the Soviet Union[q]
September 11, 1941 (D, Y)	0.239	0.073	0.001	Churchill gives encouraging
	0.231	0.080	0.004	speech on the state of the war[r]
October 16, 1941 (D, Y)	-0.125	0.073	0.088	German forces near Moscow
	-0.137	0.081	0.091	
October 30, 1941 (D)	0.125	0.073	0.088	
May 21, 1942 (D, Y)	0.285	0.073	0.000	Russian counter offensive at
	0.342	0 080	0.000	Kharkov[s]
August 20, 1942 (Y)	-0.186	0.081	0.022	Costly Allied raid on Dieppe, German advances in Russia
October 8, 1942 (Y)	0.152	0.081	0.060	

November 26, 1942 (D)	0.200	0.073	0.006	Soviet attack at Stalingrad[t]
May 20, 1943 (D, Y)	0.169	0.073	0.021	Churchill addresses US
	0.176	0.081	0.029	Congress on state of the war
July 29, 1943 (Y)	0.182	0.081	0.024	Mussolini imprisoned in Italy[u]
December 9, 1943 (D)	-0.151	0.073	0.040	
December 23, 1943 (D)	-0.193	0.073	0.008	
January 27, 1944 (D)	-0.172	0.073	0.019	
February 3, 1944 (D)	0.168	0.073	0.022	Soviet forces advance
March 2, 1944 (D)	-0.127	0.073	0.084	
June 8, 1944 (D, Y)	0.203	0.073	0.006	D-Day Invasion launched
	0.328	0.080	0.000	
July 13, 1944 (D, Y)	0.439	0.071	0.000	Capture of Caen in France,
	0.329	0.080	0.000	gains on other fronts
July 27, 1944 (D, Y)	-0.158	0.073	0.031	Crisis in Soviet-Polish
	-0.195	0.081	0.016	relations[v]
September 14, 1944 (D)	-0.159	0.073	0.030	US troops enter Germany
October 12, 1944 (D, Y)	0.237	0.073	0.001	Soviet advances in Hungary,
	0.201	0.081	0.013	US offensive to the Ruhr
February 15, 1945 (Y)	-0.134	0.081	0.098	Crimean Conference[w]
February 22, 1945 (Y)	-0.155	0.081	0.055	Heavy casualties at Iwojima
March 15, 1945 (D, Y)	0.161	0.073	0.029	Allied forces control left
	0.149	0.081	0.066	bank of the Rhine
March 25, 1945 (D)	0.139	0.073	0.058	Allied forces cross the Rhine
August 19, 1945 (Y)	0.211	0.080	0.009	Japan surrenders
October 25, 1945 (D, Y)	-0.133	0.073	0.071	
	-0.173	0.081	0.032	
November 15, 1945 (Y)	0.183	0.081	0.024	Anglo-American financial talks[x]

Notes to Table 1

(D) denotes a break in the 7% Dawes Loan bonds due in 1949

(Y) denotes a break in the 5.5% Young Loan bonds due in 1965

(D, Y) denotes a break in both series with the details for the 7% bonds listed immediately above the 5.5% bonds

[a] *The Times* (June 15, 1933) reports that a "strong lead was set by German bonds, which were influenced by hopeful anticipations as to the coming meeting between Dr. Schacht and representatives of the bondholders..."

[b] *The Times* (August 30, 1934) refers to "adverse reports as to the economic position in Germany" and the *Wall Street Journal* (September 1, 1934) cites Dr. "Schacht's demand for a complete moratorium for several years" on payments on Germany's debts.

[c] The *Wall Street Journal* (October 13, 1934) points to the "strength in German bonds on news that the Dawes loan coupons due Monday [October 15] will be met in full."

[d] *The Times* (November 2, 1934) reports that "the German government have agreed that they will continue as from January 1 next to pay full interest on the bonds of the Dawes and Young loans in the beneficial ownership of British subjects on June 15 last."

[e] *The Times* (December 7, 1934) reports that, following the German government's agreement to a League of Nations international force in the Saar region of Germany, there was an "improvement in sentiment concerning Continental affairs ... [and] a further rise in German bonds ..." The Saar was subsequently reincorporated into Germany in 1935.

[f] *The Economist* (November 9, 1935, p. 922) refers to the Stock Exchange becoming "more confident of a post-election boom ... This movement was encouraged further by the increasingly persistent rumours of a compromise settlement of the Abyssinian affair."

[g] At the time, *The Economist* (March 19, 1938, p. 617) prophetically remarked that the "country most obviously menaced by the Nazi conquest of Austria is Czechoslovakia, the heart of which is now almost completely surrounded by Germany."

[h] The four-power Munich Agreement between Britain, France, Germany and Czechoslovakia, and the Chamberlain-Hitler joint statement that Britain and Germany would never go to war, were not actually promulgated until September 30, 1938. However, on September 28, 1938, Chamberlain dramatically told the British House of Commons that Hitler had invited him to a meeting at Munich on September 29. Following this statement, Harold Nicolson observed that "the whole house burst into a roar of cheering, since they knew that this might mean peace. That was the end of the Prime Minister's speech, and when he sat down the whole House rose as a man to pay tribute to his achievement" (see Shepherd, 1988, p. 217).

[I] Dr. Schacht was dismissed from his post as President of the Reichsbank on January 19, 1939. According to *The Economist* (January 28, 1939, p. 165) this event offered "disturbing proof that the last links that bind Nazi Germany to compromise and moderation are being snapped."

[j] According to *The Times* (February 1, 1939), "Herr Hitler's speech was received with favour and considerable relief in the City, and there was a good recovery in prices on the Stock Exchange. Last week's heavy falls in prices had been accompanied by a spate of rumours and gloomy forebodings, and an appreciable 'bear' position had been built up."

[k] *The Economist* (September 2, 1939, p. 433) states that the Nazi-Soviet Non-Aggression Pact of August 23 "has lost its first shock effect ... the announcement of the Russo-German treaty was clearly expected in Berlin to bring about the collapse of the Peace Front. That it has utterly failed to do, and the surprise of the Nazis has been very obviously reflected in the hesitation that overtook their previously headlong progress at the end of last week." Such optimistic sentiments may account for the short-lived bounce in the German bond series immediately before Hitler's September 1, 1939 invasion of Poland and Britain's declaration of war on September 3.

[l] *The Times* (October 5, 1939) reports that the "announcement of a payment on the Danzig loan coupon led to small buying of German bonds, on the idea that the coupon on the Dawes Loan due on October 15 might be partly met out of funds already remitted when war broke out."

[m] Churchill's famous speech to Parliament on June 4, 1940 acknowledged the invasion threat and promised to "defend our island whatever the cost may be; we shall fight on beaches, landing grounds, in fields, in streets and on the hills ..."

[n] *The Economist* (August 3, 1940, p. 153) states that the "closing of all means of communication between occupied and unoccupied France over the week-end led to a crop of sensational rumours of the imminence of an invasion of Britain via the Channel ports."

[o] In addition to the opening of the African campaign there were rumours of troop movements in France and "Mr. Churchill himself warned the country last week-end against the dangers of over-confidence and lack of vigilance and of underestimating the imminent danger of attack" (*The Economist*, August 10, 1940, p. 180).

[p] The Italian army not only faced unexpectedly strong resistance form the Greeks but also "Crete has been secured for the Allied cause, and the island serves the dual purpose of providing offensive bases against the cities of Italy and a defensive base for Alexandria" (*The Economist*, November 23, 1940, p. 632).

[q] *The Economist* (August 9, 1941, p. 164) refers to the announcement that the US "will give all practical economic aid to Russia. This pledge, with the important statement that priorities in orders will be given to Russia, is a great step forward ..." There was also increased optimism on the state of the war at this time. Mr. Attlee, in summing up the state of the war in the House of Commons on August 6, 1941, was quoted as saying it was "difficult to prevent cheerfulness breaking in" (*The Economist*, August 9, 1941, p. 164).

[r] Churchill's address to the House of Commons included news of rising imports and encouraging developments in the war "at sea, in the Near and Middle East and in Russia ..." (*The Economist*, September 13, 1941, p. 319).

[s] *The Economist* (May 23, 1942, p. 736) states that the "strength of the Russian counter offensive at Kharkov and the various speeches by members of the Government served to maintain sentiment" on the London Stock Exchange.

[t] *The Economist* (November 28, 1942, p. 683) also states that "German loans were strong owing to a shortage of stock."

[u] While the intentions of the new Italian government were not immediately known, *The Economist* (July 31, 1943, p. 129) surmised "that after a decent interval they will ask for peace terms, hoping that the departure of Mussolini will soften the hearts and terms of the Allies."

[v] *The Economist* (July 29, 1944, p. 136) states: "The long-feared crisis in Polish-Soviet relations has come -- at the moment when the conquering Red Army is coming near to Warsaw ... The situation produced by these developments is extremely serious. The Polish Government in London directs the underground resistance to the Germans in the greater part of Poland, and is recognised by the Governments of both this country and the United States ..."

[w] Although the reaction to the Crimean Conference was largely favourable, the Yalta plan's provision for awarding eastern Poland to the Soviet Union was rejected by the Polish government in exile. *The Times* (February 14, 1945) states that the "hope at first entertained that the Arciszewski Government in London would face the compromise agreed to at Yalta resolutely and realistically has not been fulfilled."

[x] In addition to an address to the US Congress by newly-elected Prime Minister Attlee and conversations about the atomic bomb, *The Times* (November 15, 1945) reports: "Mr. Byrnes announced yesterday that progress was being made in the Anglo-American financial talks. Agreement had been reached, he said, on at least two of the four or five important points unsettled last week."

Table 2

Turning Points in the German Bonds

Week Ending	Dummy Variable Coefficient[a]	Standard Error	Significance Level	That Week's Major News (if any)
March 14, 1935 (Y)	-0.0502	0.015	0.001	Hitler reintroduces conscription
April 22, 1935 (D)	-0.0493	0.013	0.000	Debate at Geneva on German rearmament[b]
August 12, 1937 (Y)	-0.0326	0.011	0.006	
October 7, 1937 (D)	-0.1126	0.014	0.000	
September 6, 1939 (D, Y)	-0.7334	0.090	0.000	Declaration of War
	-0.6893	0.096	0.000	
7, 1941 (Y)	0.0586	0.019	0.003	US aid to Soviet Union
14, 1941 (D)	0.0235	0.014	0.089	Atlantic Charter[c]
1944 (D, Y)	0.0882	0.025	0.001	D-Day Invasion launched
	0.1510	0.033	0.000	

Table 1, where the dummy variable takes on a value of one only for the week in question and zero otherwise, the dummy variable here takes on a value of one for the week in question and all weeks after this date.

vestors' Chronicle and Money Market Review (April 20, 1935, p. 948) states that "the debate at Geneva with regard to German rearmament was followed by a marked relapse." The League of Nations moved to censure Germany for her decision on rearmament, which was in turn met by an official protest from the German government (*The Economist*, April 27, 1935, p. 947).

int declaration by Roosevelt and Churchill was issued following their meeting at sea. *The Economist* (August 16, 1941, p. 194) describes the Atlantic Meeting as "not only a milestone because it brings a standard and a hope for a free, peaceful and prosperous world to come; its first object was to tighten the cordon around Hitler's Germany ... ; and its result will be more weapons for freedom and more powerful measures to preserve the world."