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THE MARKET VALUE OF GOVERNMENT OF
CANADA DEBT; MONTHLY, 1937-84

by

W. Michael Cox*
Research Department
Federal Reserve Bank of Dallas

Joseph Haslag*
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Research Paper

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The market value of government of Canada debt; monthly, 1937-1984

W. MICHAEL COX Federal Reserve Bank of Dallas

JOSEPH HASLAG Southern Methodist University and
Federal Reserve Bank of Dallas

Abstract. Monthly market value statistics on outstanding government of Canada debt are reported for the 1937-1984 period. In addition, two series on privately-held government of Canada debt are reported, as well as security-price indices for two Federal debt aggregates. Finally, a historical comparison is made of public debt in Canada and the United States over the 1942-1984 period.

INTRODUCTION

Issues involving public debt have gained increased attention in recent years. Yet one important aggregate statistic that has not been generally available is the market value of outstanding government debt. Due to the work of Seater (1981), annual measures of market value aggregates have become available for the United States over the period 1919-1975. Cox and Hirschhorn (1983) provide monthly market value aggregates for the U.S. over the 1942-1980 period, and recently Cox (1985) provides measures of privately-held gross Federal debt as well as security-price indices over the 1942-1984 period.

The views expressed in this article are solely those of the authors, and should not be attributed to either the Federal Reserve Bank of Dallas or to the Federal Reserve System. We are grateful to the staff of the Department of Monetary and Financial Analysis and the Securities Department at the Bank of Canada for guidance through unpublished data, for their gracious assistance while visiting the Bank, and for generous support throughout this effort. Special thanks go to Nik Close, Robert Hannah, Thomas Hossfeld, John Kiff, Judy Murphy, John Murray, and Don Stephenson. We also benefited from data provided to us by David Adamo at McLeod, Young, and Weir.

This paper reports monthly market value series for Canada over the 1937-1984 period. Specifically, we calculate the market value of three distinct government of Canada debt aggregates -- domestic direct debt, marketable debt, and gross Federal debt -- as well as the market value of Treasury bills. We describe the calculation of each of the series and the nature of the underlying debt variables in order to support the selection of a series for studies involving public debt. The paper also reports two measures of privately-held government debt. Finally, we provide two monthly security-price indices. These price indices are useful for studies involving capital gains and losses on public debt, portfolio risk, etc., and can also be used to determine the par value aggregates associated with the market value series reported.

DESCRIPTION OF GOVERNMENT OF CANADA DEBT

This section describes the nature of the various government of Canada debt components and outlines the construction of alternative government debt aggregates. Obviously, government of Canada debt is not all of the same sort. Consequently, for some purposes it may be desirable to separate the various debt components so that different par and market value aggregates may be measured.

Figure 1 outlines the construction of gross outstanding government of Canada debt. As that figure indicates, there are basically two types of Federal debt: direct debt and guaranteed debt. Guaranteed debt is distinct in that it is typically backed by some type of asset. That is, it is issued in order to fund a specific development project or purchase physical

capital. Examples are Grand Trunk Railway bonds, Montreal Harbour Commission bonds, and Canadian Northern Railway serial equipment bonds. Guaranteed issues were most popular during the early-to-mid 1900's, and at one time made up over one-quarter of outstanding government of Canada debt. Figure 2 shows the historical breakdown of gross Federal debt between direct debt and guaranteed debt over the 1938 to 1984 period. As that figure illustrates, in 1938 roughly 26% of gross Federal debt was guaranteed, but this ratio dropped off sharply during the early 1940's and by 1946 was less than 3%. Currently, guaranteed debt averages less than 0.1% of outstanding gross Federal debt.

The primary component of government of Canada debt is clearly direct debt. Direct debt is typically issued in order to meet the day-to-day "general purposes of government".¹ Examples of direct securities are Treasury bills, Treasury bonds, Treasury notes, and Treasury deposit certificates, which are all marketable.² Examples of nonmarketable direct securities are Canada Savings Bonds and War Savings Certificates.

As Figure 1 further illustrates, government of Canada debt may be denominated in either domestic or foreign currency of payment. This convention applies both to direct and guaranteed debt, although by far the largest foreign issues are direct securities.³ In the past (1938) foreign securities made up as much as 28% of gross outstanding debt but in recent years these issues have become less popular and now average approximately 2½% of outstanding debt.

For some purposes it is important to distinguish between domestic and foreign issues. This is particularly true for direct debt which is often issued for the specific purpose of acquiring foreign exchange. Like

guaranteed debt, foreign denominated direct debt is largely backed by an asset.⁴

CALCULATION OF THE SERIES

This section describes the calculation of various government of Canada debt aggregates. The market value aggregates calculated are: Treasury bills, domestic direct debt, marketable debt, and gross Federal debt. We also calculate two series on privately-held debt and two aggregate security price indices. Data are taken from various issues of the Bank of Canada Review, Statistical Summary, and the Supplement. Data prior to 1946 were taken from various unpublished documents obtained while visiting the Bank. Finally, data on 1-month and 2-month Treasury bill yields were provided by McLeod, Young, and Weir.⁵

Bills. By far the most popular single type of direct debt issue is Treasury bills. The Review, Statistical Summary, and Supplement report on a monthly basis the amounts issued of Treasury bills over the 1946-1984 period. Bill issues prior to that time were taken from the unpublished document Schedule of Dominion of Canada Treasury Bill Issues provided generously by the Bank. Issue date, amount issued, and maturity date were entered for each bill tendered during the 1936-1984 period. This enabled the construction of a monthly catalogue of outstanding bills where each issue could be identified according to days-to-maturity.

Unlike U.S. Treasury bills, secondary market prices or discounts are not generally available for outstanding Canadian Treasury bills. Ideally one would like to have daily market prices for each issue of bills outstanding (that is, according to days-to-maturity). This would permit the direct multiplication of price and quantity for each issue outstanding, so that market value aggregates could be obtained. Unfortunately only tender yields on bills are typically available, so that direct calculation is not possible. The procedure used here to calculate T-bill prices is as follows.

- (1) The Treasury issued 3-month bills over the entire period of this study, 6-month bills in 1953 and since 1959, and 9-month bills during 1953-1955. Special Issues (usually one year) have existed since 1959. End-of-month tender yields were obtained for each of these bills over the 1946-1984 period from the Review, Statistical Summary, and the Supplement. Yields prior to that time were taken from the unpublished Schedule. Beginning in 1973, yields are also available for bills with one month and bills with two months to maturity.
- (2) For each month a (quadratic) yield curve was estimated using the regression equation $YLD = a + b(DTM) + c(DTM)^2$ where YLD is yield and DTM is days-to-maturity. When only one yield was available, the coefficients b and c were set equal to zero so that a constant yield was assumed. When two yields were available, c alone was set to zero and the equation fitted to exactly calculate the coefficients a and b. A similar procedure allowed the calculation of all three coefficients when three yields were available. Since 1973, five

yields are generally available and the quadratic is fitted to estimate the yield-curve parameters.

(3) Given the monthly yield curves, a yield was estimated for each maturity outstanding.

(4) Finally, yield was converted to price for each issue outstanding using standard security-price calculation methods.⁶

These prices were multiplied by outstanding amounts for each maturity, and the resulting quantities added to arrive at the monthly market value aggregates. Table 1 reports the market value of Treasury bills monthly over the 1937-1984 period.

Bonds. Historically the largest component of outstanding government of Canada debt is Treasury bonds.⁷ The Review, Supplement, and Statistical Summary report the amounts issued of bonds over the 1946-1984 period. Data on amounts issued prior to that time were obtained from two unpublished documents, Government of Canada Direct Market Issues and Retirements and Government of Canada Guaranteed Market Issues and Retirements obtained at the Bank. For each bond outstanding during the 1937-1984 period, the issue date, amount issued, maturity date, call date, coupon rate, denomination, series type (direct or guaranteed), and retirement dates and amounts were entered. This enabled each issue to be followed on an ongoing basis so that a monthly inventory of outstanding bonds could be kept. Monthly inventories were then checked against tables on outstanding bonds published by the Bank.⁸

End-of-month prices and yields on outstanding bonds are generally available since 1971 from the Review. Prices and yields over the period from 1946 to 1970 are available on selected issues from the Statistical Summary and from the Supplement. Prior to that time or when otherwise unavailable, prices were taken from microfiche of the original handwritten bond quotations obtained while at the bank. Through combining these sources we were able to obtain prices on over 95% of outstanding Treasury bonds. In those cases where price data were unavailable (largely the foreign issues) the following procedure was used.

- (1) Where available, end-of-month yields on Treasury bonds were entered directly. When only price quotations were available, prices were converted to yields using a specific Newton-Raphson technique supplied by the Bank.⁹
- (2) A yield curve was then estimated for each month as a function of days-to-maturity (and, implicitly, coupon rate), and yields were estimated for those bonds which were outstanding but for which no price quotations were available.
- (3) Finally, yields were converted to prices for those bonds, and a complete list of bond prices was obtained.¹⁰

These prices were multiplied by amounts outstanding for each bond.

Notes. Over the period of this study Treasury notes were outstanding from 1937 to 1956. Notes are marketable, issued in varying coupons and in maturities of 2 months to 7½ years, and are generally indistinguishable from other direct debt issues except that secondary price or yield

quotations are not available. For purposes of calculating market value then, notes can be treated like bonds. The market value of outstanding notes is calculated using the procedure outlined above for bonds whose price quotations are unavailable.

Deposit Certificates. Treasury deposit certificates were outstanding over the period from 1942 to 1953. Certificates were typically issued in lots, with fixed coupons ranging from 3/4% to 1 3/4%. All had 6-month maturity, were marketable, and were generally indistinguishable from other domestic direct issues. Like notes, however, price or yield quotations are often not available. The market value of certificates is calculated using the procedure outlined above for bonds whose price quotations are unavailable.

The Market Value of Marketable Debt. With the calculation of the market value of Treasury bills, bonds, notes, and deposit certificates one market value aggregate may now be calculated. This is marketable debt which corresponds to the sum of all d_{ij} from Figure 1, excluding d_{11} and d_{21} . The market value of marketable debt is calculated simply as the sum of the market value of Treasury bills, bonds, notes, and deposit certificates previously calculated. Table 2 reports this aggregate.

Nonmarketable Debt. Apart from Treasury bills, notes, bonds, and certificates -- which are marketable -- three types of nonmarketable debt were outstanding over the 1937-1984 period. These are Refundable Tax, War Savings Certificates, and Canada Savings Bonds. Nonmarketable government

debt is entirely domestic direct debt, and corresponds to the sum $d_{11} + d_{21}$ from Figure 1.

The Review, Statistical Summary, and Supplement report the par value of nonmarketable debt over the 1937-1984 period. These data are available monthly beginning in January, 1946 and annually (end-of-year) prior to that time. Figure 3 illustrates the breakdown of gross Federal debt between marketable and nonmarketable issues over the 1937-1984 period. As that figure shows, the fraction of debt that is nonmarketable debt grew from less than 1% in the late 1930's to 42% in 1976. The nonmarketable share has since fallen and now stands at approximately 27%.

We follow Seater (1981) and Cox and Hirschhorn (1983) for valuing nonmarketable government debt. Specifically, for each month the par value of outstanding nonmarketable government debt is multiplied by the monthly market-to-par ratio (price index) for marketable domestic direct debt. This calculation involves the assumption that the maturity structure and effective coupon rate on nonmarketable debt is the same as that on marketable debt.¹¹

The Market Value of Domestic Direct Debt. Domestic Direct Debt is all Federal debt except guaranteed debt and foreign issues. It thus measures all unbacked government debt. Previously, we calculated the market value of marketable government debt. By excluding all guaranteed debt and foreign-denominated issues, we may calculate the market value of marketable domestic direct debt. Adding this to the market value of nonmarketable debt previously calculated gives the market value of domestic direct debt. Table 3 reports this aggregate.

The Market Value of Gross Federal Debt. Up to this point in the valuation of government of Canada debt we have excluded one or more components of outstanding government debt. Gross Federal debt includes all outstanding debt and thus corresponds to the sum of all d_{ij} from Figure 1.¹³ We calculate this aggregate by simply adding the market values of marketable and nonmarketable debt previously calculated. Table 4 reports the market value of gross Federal debt.

The Market Value of Privately-Held Gross Federal Debt. For some studies it is appropriate to measure only privately-held government debt. Total outstanding privately-held debt corresponds to the sum $d_{21} + d_{22} + d_{23} + d_{24} + d_{25}$ from Figure 1. This fraction of gross Federal debt has ranged from 92% in 1938 to 73% in 1956 and now stands at approximately 88%. Ideally, one would like to have data on private holdings of each individual marketable security so that the market value of privately-held marketable debt could be directly calculated. This could then be simply added to the market value of nonmarketable government debt, which is entirely privately held (that is, d_{11} equals zero), to obtain the desired series. Unfortunately, data on private holdings of each issue are not available over the extended 1937-1984 period. The procedure used to calculate this market value aggregate is as follows:

- (1) The Review, Statistical Summary, and Supplement report the distribution of holdings of government of Canada securities (direct plus guaranteed) over the 1938-1984 period. These data are available

monthly beginning in 1946 and annually prior to that time. By aggregating the holdings of chartered banks and the nonbank private sector we calculate the par value of privately-held gross Federal debt (PVPGR).¹⁴

- (2) We next subtract nonmarketable debt (d_{21}) from the par value of gross debt (PVGR) and form the ratio $p = (PVPGR - d_{21}) / (PVGR - d_{21})$, which is the ratio of private holdings of marketable government debt.
- (3) This ratio is then multiplied by the market value of marketable debt to arrive at the market value of privately-held marketable debt.
- (4) The market value of privately-held marketable debt is then added to nonmarketable debt to obtain the market value of privately-held gross Federal debt. Table 5 reports this aggregate monthly beginning in 1946 and annually prior to that time.¹⁵

The Market Value of Privately-Held Domestic Direct Debt. For many purposes it is desirable to exclude all publicly-held debt (debt held by governmental institutions) as well as government debt backed by assets (guaranteed debt and foreign denominated securities). This market value concept is sometimes referred to as "net indebtedness of the government to the private sector" and corresponds to the market value of $d_{21} + d_{22}$ from Figure 1. Table 6 reports this aggregate.

Unfortunately, data on private holdings of direct debt are not separated from holdings of guaranteed debt in the Supplement or Statistical Summary. The procedure used to calculate this aggregate is identical to that outlined for calculating the value of privately-held gross Federal debt,

except that the market value aggregate used is marketable domestic direct debt (rather than all marketable debt). That is, the ratio p is multiplied by the market value of marketable domestic direct debt and the resulting quantity added to nonmarketable debt to obtain the market value of privately-held domestic direct debt. This calculation involves the assumption that the distribution of private and public holdings of debt is roughly equivalent across marketable domestic direct issues and other marketable issues.

Security-Price Indices. Given the calculation of the various market value aggregates and their associated par values, a number of security-price indices may now directly be calculated. The market value of an aggregate is constructed, in practice, as a vector multiple of par value data and price data over all issues of that aggregate outstanding. In principal, however, market value could be simply constructed as a multiple of a single par value aggregate and single price.

Although data on par value aggregates have been traditionally available, data on price indices have not. Recently, however, price indices on government securities have become available (Cox (1985)) for the United States. Tables 7 and 8 report two such security-price indices for Canada. These are: price index for marketable domestic direct debt, and for gross Federal debt. In each case the price index is formed as a simple ratio (indexed to 100) of market value to par value of the underlying aggregate.

As numerous previous studies have used the simple par value component of government debt, these indices are useful for studies involving the pure

price component. They may also be used to determine the par values associated with the market value aggregates reported earlier.

CONCLUSION

Figure 4 illustrates the market value of both gross Federal debt and privately-held domestic direct debt over the 1938-1984 period. It is no secret that government of Canada debt has increased tremendously in recent years. Gross Federal debt, which grew at an average rate of roughly 5% over the 1938-1973 period, has more than doubled over the past three years. A nearly identical record holds for the United States, where gross Federal debt grew at a rate of 3.2% during the 1942-1973 period but has nearly doubled over the past three years.

The parallels between government debt in Canada and in the U.S. are further extended when one examines the history of the debt-to-GNP ratio in the two economies. Figure 5 depicts the ratio of gross Federal debt to GNP for both Canada and the U.S. over the 1942-1984 period.¹⁶ As that figure illustrates, debt per unit of Gross National Product reached a high for both countries in 1943 (of 1.23 for Canada and 1.07 for the U.S.), fell steadily to a low in 1974 (of 0.14 for Canada, 0.17 for the U.S.), but by the end of 1984 had risen to roughly 0.30 in each economy.

A look at the history of security prices in the two countries further supports the correlation in government debt variables. Figure 6 illustrates the behavior of the marketable Treasury security-price index in Canada and in the U.S. over the 1942-1984 period.¹⁷ The indices clearly

track each other closely, as confirmed by a correlation coefficient of 0.929 over that period. Notably, though, the variance in the price index for government of Canada debt (16.981) is substantially higher than that for the U.S. (8.566). Finally, it is interesting that the two indices have roughly a common level throughout the period. Among other factors, this clearly reflects a similarity in coupon policy for the two public debt instruments.

The authors anticipate maintaining these series as data become available.

Related other series are also available from the authors on request.

FOOTNOTES

- 1 The term "general purposes of government" was taken from the unpublished document Issues of Dominion of Canada Bonds and Treasury Bills Since 1908 prepared by the Bank of Canada.
- 2 Treasury bills, notes, and deposit certificates are entirely direct debt; however Treasury bonds are issued in both direct and guaranteed form.
- 3 Examples of foreign denominated guaranteed debt are Canadian Northern Railway issues, Grand Trunk stock, and St. John Harbour Commission bonds, which were all also issued of domestic denomination.
- 4 We are indebted to Paul Boothe for pointing this out to us.
- 5 Thanks go to David Adamo for supplying us with this data, and for helpful conversations regarding the availability of secondary security market prices.
- 6 The exact formula used for this calculation was supplied by John Kiff at the Bank of Canada, and may be found in Stigum (1981), 110-111.
- 7 The bulk of bonds are classified as loans.
- 8 These tables are not available on a monthly basis prior to 1959 hence the calculation of outstanding debt during the 1937 to 1959 would not have been possible by direct entry of amounts outstanding. For this reason we chose follow the issue and retirement procedure over the entire period. In checking our inventory of outstanding issues against that published by the Bank we found that, except in a handful of cases, there was perfect correspondence between the two. Nearly all of these cases were due to reporting errors in the Review or in the Statistical Summary and in all cases the discrepancy was resolved.
- 9 The procedure used here is contained in Calculating Prices and Yields on Canada Bonds, written and provided to us by John Kiff at the Bank of Canada.
- 10 Again here, we are indebted to John Kiff for the extremely accessible outline to this procedure mentioned above and for conversations regarding the settlement of Canada bonds.
- 11 For a more complete discussion of the valuation of nonmarketable debt see Seater (1981).
- 12 Due to the data limitations previously discussed for nonmarketable debt only annual statistics are available for this aggregate over the 1937-1945 period.
- 13 See footnote 12 for a discussion of data limitations prior to 1946.

14 The terminology "general public" is adopted in the Review, Statistical Summary, and Supplement to refer to the nonbank private sector.

15 See footnote 12 for a discussion of data limitations.

16 The debt series used in this ratio are, for each country, the market value of gross Federal debt. Data for the U.S. are available over the 1942-1984 period and were taken from Cox and Hirschhorn (1983) and Cox (1985).

17 The security price index used for the U.S. is that reported by Cox (1985) for marketable securities. Since marketable Treasury debt in the U.S. is all domestic debt and is not guaranteed, for Canada we chose to use the marketable security-price index for marketable domestic direct debt.

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
37	100	100	125	150	135	135	140	145	150	150	150	150
38	150	150	150	160	160	160	155	155	155	155	155	155
39	155	155	155	155	155	155	155	155	155	155	155	155
40	155	155	155	155	185	200	220	230	230	230	230	230
41	230	230	230	230	230	230	230	230	230	245	255	270
42	270	270	270	270	270	270	270	270	270	270	270	270
43	270	290	300	330	330	330	330	275	330	330	330	330
44	330	330	360	380	380	380	380	380	380	380	380	380
45	380	380	380	380	380	380	400	430	450	450	450	450
46	450	450	450	450	450	450	450	450	450	450	450	450
47	450	450	450	450	450	450	450	450	450	450	450	450
48	450	450	450	450	450	450	450	450	450	450	450	450
49	450	450	450	450	450	450	450	450	450	450	450	450
50	450	450	450	450	450	450	450	450	450	450	450	450
51	450	450	450	450	450	450	450	450	450	450	450	450
52	450	450	450	449	449	449	449	449	449	449	449	449
53	425	550	600	650	652	652	652	652	652	647	647	647
54	647	647	648	647	647	647	672	692	713	737	757	778
55	808	847	887	936	976	1025	1050	1070	1094	1143	1153	1209
56	1284	1415	1584	1634	1674	1674	1685	1703	1723	1713	1618	1568
57	1558	1598	1617	1618	1617	1617	1618	1631	1647	1648	1632	1618
58	1598	1559	1521	1492	1492	1492	1493	1492	1491	1490	1489	1489
59	1568	1567	1567	1586	1663	1931	1987	1993	1999	2040	2056	2057
60	2058	2088	2115	2124	2095	1953	1908	1932	1957	1973	1971	1973
61	1974	1974	1924	1924	1925	1876	1876	1876	1876	1877	1877	1875
62	1875	1875	1874	1875	1874	1867	1868	1949	2009	2073	2089	2149
63	2151	2151	2151	2267	2309	2330	2310	2223	2230	2250	2240	2225
64	2214	2215	2216	2117	2116	2132	2116	2116	2117	2116	2126	2127
65	2126	2126	2127	2125	2126	2126	2124	2124	2135	2134	2133	2132
66	2133	2133	2131	2130	2131	2133	2141	2152	2151	2151	2152	2151
67	2153	2250	2291	2302	2322	2331	2351	2373	2390	2390	2400	2424
68	2435	2449	2447	2464	2486	2646	2692	2778	2808	2811	2780	2789
69	2788	2803	2805	2807	2805	2821	2841	2850	2853	2853	2848	2852
70	2853	2854	2861	2879	3166	3260	3362	3376	3430	3502	3539	3588
71	3627	3670	3709	3734	3751	3771	3793	3816	3836	3865	3804	3804
72	3805	3800	3799	3820	3836	3868	3910	3952	4001	4044	4079	4129
73	4169	4203	4248	4286	4319	4367	4408	4452	4494	4538	4587	4632
74	4744	4829	4904	4964	5089	5149	5209	5434	5494	5554	5629	5629
75	5629	5629	5629	5639	5714	5794	5854	5979	6039	6139	6199	6199
76	6239	6393	6493	6643	6813	6933	7083	7253	7373	7523	7693	7843
77	7963	8133	8253	8428	8648	8848	9008	9033	9463	9778	9913	10313
78	10678	10818	11293	11617	11592	11947	12282	12502	12767	12892	12981	13131
79	13256	13381	13531	13681	13831	14006	14156	14381	14530	14680	14980	15254
80	15554	15959	16318	16738	17964	18619	18735	19384	19779	20253	20452	20725
81	21005	21340	21760	22025	22224	22378	22782	22797	22878	22749	21966	20692
82	19907	19357	19367	19642	19942	20141	20566	21542	22817	24617	25417	25718
83	26193	26718	29118	31092	32242	33317	34716	36266	37816	39290	38965	39015
84	39040	40289	41688	42813	44412	46685	47809	49884	51133	52733	49935	49662

Table 1 The market value of Treasury Bills (millions of dollars)

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
37	4621	4561	4437	4470	4479	4607	4618	4638	4621	4584	4703	4541
38	4554	4593	4571	4623	4635	4686	4638	4642	4425	4659	4698	4630
39	4668	4714	4707	4679	4844	4854	4849	4739	4568	4838	4814	4717
40	4677	4924	4924	4903	5138	5064	5100	5129	5050	5281	5293	5313
41	5474	5476	5433	5433	5417	6147	6151	6164	6169	6190	6022	6022
42	5785	5773	6878	7236	6897	6841	6911	7140	7340	7430	8218	8238
43	8345	8400	8590	8784	9844	9845	10067	9984	10034	9960	11436	11440
44	11466	11478	11455	11670	12946	12857	12786	12791	12889	12682	14326	14385
45	14358	14376	14443	14537	16014	16037	15783	15733	15821	15859	17279	17270
46	17272	17420	17373	17276	17140	17105	17068	17062	17066	17179	17127	16827
47	16856	16661	16598	16595	16425	16425	16426	16401	16239	16045	15998	15947
48	15729	15602	15456	15527	15567	15582	15613	15623	15602	15616	15396	15401
49	15439	15393	15388	15389	15334	15340	15332	15358	15467	15141	14821	14814
50	14840	14781	14846	14856	14863	14842	14781	14985	15053	14855	14715	14662
51	14640	14458	14266	14267	14292	14287	14295	14291	14238	14226	13800	13745
52	13763	13667	13651	13677	13716	13623	13635	13624	13619	13655	13410	13401
53	13450	13634	13639	13691	13478	13452	13443	13435	13446	13489	13542	13524
54	13609	13882	13678	13708	13712	13769	13911	13933	13950	13950	13772	13394
55	13474	13548	13553	13581	13569	13561	13665	13570	13542	13569	13247	13267
56	13390	13435	13543	13441	13032	13064	12586	12454	12422	12371	12178	11931
57	11831	12026	12048	11982	11928	11726	11655	11609	11713	11845	12101	12084
58	12114	12336	12384	12400	12818	12652	13205	13231	13074	13188	12949	12769
59	12831	12624	12778	12752	12895	12913	12874	12648	12493	12693	12752	12536
60	12574	12838	13045	13140	13173	13176	13100	13529	13611	13598	13399	13198
61	13298	13409	13353	13314	13364	13687	13682	13857	13861	13954	13855	13900
62	13973	13957	14014	14096	13873	13364	13302	13366	13466	14059	14134	14116
63	14191	14243	14136	14305	14435	14644	14455	14241	14400	14539	14488	14471
64	14437	14423	14352	14276	14354	14584	14617	14608	14654	14668	14680	14575
65	14472	14430	14304	14294	14233	14193	14013	13963	14005	13957	13926	13900
66	13872	13686	13718	13704	13704	13695	13622	13474	13673	13713	13592	13777
67	13911	14050	14284	14401	14230	14136	14163	14268	14169	14081	14049	13946
68	13892	13802	13676	13887	13858	14494	14688	15272	15111	15260	15179	15131
69	15195	15191	15049	15095	14967	15006	14913	15075	14825	14810	14624	14582
70	14616	14732	14983	15010	15175	15309	15607	15770	15881	16052	16497	17119
71	17192	17328	17535	17469	17261	17320	17152	17637	17779	18104	18116	17955
72	17783	17609	17359	17286	17235	17181	17696	17468	17557	17769	17981	17959
73	17920	17912	17859	17780	17560	17626	17450	17452	17569	17677	17744	17827
74	18010	18297	18011	17780	17897	17899	17980	18400	18616	19342	19629	19746
75	20069	20075	19875	19650	19895	19870	19971	20383	20272	20746	20644	20641
76	20799	21312	21324	21757	21993	22329	22480	23118	23295	23795	23924	24973
77	25039	26048	26003	26437	27324	27532	28052	28132	29024	29974	30107	31167
78	31059	31641	32047	33682	34759	35123	35898	36837	37065	37994	37929	38343
79	38416	39146	41468	41726	42740	43197	44175	44643	44407	43642	44283	45705
80	44919	44757	45792	47905	51452	53666	53137	54102	53704	54701	55228	57235
81	57052	57517	59259	57201	57819	58233	57183	57684	57215	59183	62446	59248
82	57590	58163	59109	59164	60304	59917	60792	65440	68765	72717	76134	77927
83	77480	79766	82319	86190	87288	88547	89814	91135	94600	97112	97392	97263
84	97509	98283	99374	99656	100951	104428	107818	113036	116377	120605	120339	121171

Table 2 The market value of marketable debt (millions of dollars)

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
38												2524
39												2704
40												3510
41												4528
42												7024
43												10440
44												13685
45												16970
46	17105	17258	17212	17198	17055	17040	17036	17031	17039	17305	17589	17294
47	17311	17104	17054	17045	16875	16867	16861	16830	16656	16514	16658	16593
48	16352	16263	15963	15993	15983	15953	15975	15975	15938	15974	15913	15907
49	15895	15845	15671	15540	15461	15449	15424	15435	15359	15119	15031	15009
50	14983	14933	14987	14929	14916	14868	14793	14980	14985	14927	14989	14910
51	14869	14675	14435	14356	14359	14332	14321	14296	14275	14296	14117	14051
52	14048	13937	13902	13892	13908	13796	13793	13769	13749	13812	13791	13760
53	13800	13975	13963	13997	13758	13714	13688	13664	13661	13779	14280	14260
54	14317	14427	14201	14205	14188	14223	14346	14349	14348	14418	14867	14203
55	14264	14316	14308	14313	14273	14289	14371	14260	14209	14264	14459	14453
56	14618	14711	14804	14674	14231	14231	13720	13559	13496	13433	13609	13303
57	13170	13353	13337	13228	13134	12896	12859	12778	12858	12978	13728	13658
58	13664	13561	13588	13586	13978	13776	14350	14360	14158	14272	14534	14312
59	14398	14316	14449	14398	14355	14338	14271	13998	13801	13979	14627	14140
60	14074	14325	14519	14599	14599	14585	14489	14923	14994	14710	15092	14862
61	14973	15082	15038	14966	14985	15305	15280	15436	15423	15528	16122	16131
62	16230	16212	16250	16330	16057	15475	15381	15389	15455	15963	16834	16777
63	16709	17002	16871	16964	17082	17284	17088	16833	16981	17131	17840	17777
64	17735	17714	17605	17503	17546	17562	17562	17529	17551	17567	18318	18381
65	18288	18206	18050	18010	17883	17797	17567	17475	17490	17424	17992	17895
66	17881	17626	17611	17549	17474	17410	17271	17056	17229	17260	17862	18000
67	18210	18402	18661	18734	18476	18309	18298	18345	18186	18070	18640	18577
68	18474	18303	18053	18218	17985	18471	18610	19158	18918	19031	19773	19586
69	19617	19552	19333	19309	19057	19033	18826	18890	18596	18568	19407	19287
70	19333	19454	19726	19719	19874	20060	20359	20498	20608	20768	22321	23042
71	23199	23421	23973	23828	23507	23526	23243	23784	23918	24349	26628	26671
72	26370	26061	25640	25514	25366	25217	25725	25432	25503	25784	27774	27672
73	27571	27514	27351	27191	26777	26864	26572	26474	26517	26547	27114	27046
74	27213	27635	27095	26582	26404	26070	25984	26238	26468	27357	31655	31710
75	32112	32041	31677	31232	31507	31377	31311	31635	31434	32064	35001	34961
76	35114	35532	35387	35788	35959	36175	36242	36871	37015	37513	39469	40638
77	40598	41528	41306	41671	42631	42770	43233	43283	44105	45025	47502	48514
78	48223	48687	48983	49721	50292	50558	51327	52174	52318	52098	54873	55075
79	54880	55373	57016	57260	58118	58379	59179	59291	58762	57494	59175	60235
80	59843	58333	59072	61129	64302	66393	65452	66275	65678	66536	68578	70550
81	69701	69883	71226	68611	68853	68892	67268	67618	66524	68714	83026	79102
82	77006	77827	78402	78388	79443	77654	78541	83861	87421	91760	104978	107041
83	105928	108301	110592	114867	115904	116610	117350	118211	121886	124237	133274	132519
84	132463	132260	132602	132230	132315	134837	137943	142554	145732	150112	160171	160943

Table 3 The market value of domestic direct debt (millions of dollars)

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
37												4541
38												4630
39												4717
40												5340
41												6133
42												8409
43												11724
44												14854
45												17980
46	17991	18150	18102	18084	17943	17904	17866	17860	17862	18128	18412	18117
47	18156	17961	17918	17910	17734	17725	17719	17689	17517	17370	17508	17444
48	17194	17052	16799	16861	16885	16883	16904	16902	16865	16904	16846	16837
49	16864	16807	16631	16501	16417	16405	16379	16394	16491	16195	16087	16066
50	16078	16008	16057	16002	15983	15938	15861	16048	16101	15913	15961	15882
51	15838	15638	15384	15303	15305	15274	15263	15240	15169	15186	14990	14909
52	14911	14797	14759	14751	14772	14652	14642	14616	14593	14653	14639	14607
53	14645	14823	14808	14844	14604	14556	14530	14504	14498	14618	15125	15105
54	15173	15440	15243	15253	15235	15275	15399	15403	15402	15472	15921	15500
55	15566	15627	15614	15617	15575	15541	15622	15493	15436	15489	15668	15656
56	15782	15810	15890	15740	15303	15315	14793	14610	14543	14475	14639	14330
57	14183	14378	14363	14246	14141	13895	13789	13702	13792	13933	14720	14651
58	14655	14843	14883	14882	15283	15060	15623	15629	15412	15514	15755	15519
59	15569	15338	15463	15406	15504	15478	15405	15107	14886	15087	15743	15444
60	15462	15732	15953	16042	16057	16068	15967	16438	16517	16448	16799	16562
61	16687	16816	16712	16631	16663	17018	16990	17144	17125	17244	17846	17847
62	17908	17898	17951	18039	17735	17094	16986	17007	17080	17759	18641	18561
63	18642	18679	18549	18657	18787	18988	18736	18458	18634	18784	19486	19422
64	19378	19356	19239	19139	19186	19393	19390	19356	19386	19410	20164	20039
65	19957	19868	19707	19670	19535	19439	19190	19090	19110	19033	19595	19496
66	19448	19169	19156	19090	19017	18950	18799	18554	18748	18784	19369	19517
67	19709	19824	20104	20170	19881	19695	19686	19720	19542	19406	19968	19738
68	19626	19440	19173	19358	19230	19815	19974	20536	20293	20393	21125	20912
69	20965	20899	20672	20648	20387	20359	20148	20217	19841	19807	20621	20485
70	20527	20661	20965	20960	21064	21188	21503	21639	21755	21915	23510	24262
71	24400	24611	25181	25019	24673	24686	24394	24957	25110	25568	27857	27715
72	27399	27075	26632	26502	26349	26192	26704	26415	26486	26783	28790	28679
73	28578	28517	28351	28185	27753	27777	27481	27383	27436	27473	28040	27959
74	28128	28357	27793	27254	27072	26722	26630	26880	27079	27999	32313	32367
75	32797	32728	32349	31877	32169	32029	31946	32265	32026	32670	35599	35566
76	35729	36145	35994	36398	36573	36786	36853	37486	37632	38139	40105	41286
77	41245	42176	41947	42311	43207	43348	43811	43864	44687	45606	48082	49088
78	48788	49254	49548	51099	52073	52342	53118	53969	54111	54716	57467	57653
79	57454	57938	60107	60404	61264	61519	62303	62355	61794	60400	62106	63147
80	62683	61082	61761	64016	67309	69441	68392	69181	68523	69363	71419	73431
81	72563	72409	73740	71001	71241	71281	69501	69885	69090	71396	85981	81952
82	79809	80722	81494	81592	82675	81493	82435	88001	91658	96130	109447	111587
83	110454	112871	115173	119217	119944	120608	121309	122123	125875	128409	137439	136653
84	136612	136331	136432	136031	136143	138673	141806	146503	149725	154169	164300	165104

Table 4 The market value of gross Federal debt (millions of dollars)

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
38												4268
39												4340
40												4666
41												5387
42												7179
43												9926
44												12576
45												15241
46	15281	15478	15404	15369	15313	15244	15159	15158	15102	15285	15529	15163
47	15168	14957	14934	14802	14595	14519	14467	14365	14220	14017	14134	14001
48	13793	13629	13489	13561	13541	13566	13572	13578	13502	13482	13473	13494
49	13569	13598	13440	13262	13251	13267	13303	13356	13443	13229	13315	13219
50	13227	13201	13215	13144	13097	13057	12953	13226	13397	13238	13267	13104
51	13100	12886	12578	12457	12402	12271	12230	12151	12108	12035	11925	11801
52	11855	11802	11787	11766	11810	11655	11599	11532	11512	11506	11492	11404
53	11468	11563	11601	11591	11308	11173	11108	11116	11127	11161	11651	11594
54	11712	11922	11863	11791	11787	11802	12042	12015	11948	11998	12393	12024
55	12150	12151	12155	12122	12131	11979	12049	11907	11762	11738	11986	11835
56	11938	11877	11737	11471	11509	11424	11161	10935	10841	10712	10845	10623
57	10602	10811	10789	11069	10541	10382	10277	10147	10251	10273	10997	12547
58	11073	11242	11255	11319	11732	11468	11939	11928	11547	11719	12007	11811
59	12069	12003	12159	12083	12133	12087	12039	11767	11574	11778	12441	12203
60	12374	12630	12793	12824	12839	12856	12650	12958	13061	12927	13310	13195
61	13379	13607	13523	13379	13405	13717	13595	13713	13714	13847	14531	14485
62	14545	14610	14723	14733	14442	14037	13962	14069	14150	14547	15367	15129
63	15320	15396	15387	15403	15569	15701	15368	15064	15310	15466	16100	15975
64	16082	16080	15911	15877	15951	16096	15956	15837	15848	15849	16481	16295
65	16492	16411	16348	16179	16003	15851	15671	15612	15589	15362	15880	15716
66	15728	15566	15492	15459	15384	15278	15067	14784	14951	14962	15524	15554
67	15784	15855	16005	16028	15733	15492	15469	15493	15207	15074	15711	15631
68	15997	15936	15715	15840	15750	16151	16162	16564	16248	16280	16982	16577
69	16619	16658	16550	16380	16201	16128	15935	15911	15595	15577	16383	16128
70	16202	16333	16627	16613	16798	16878	17032	17137	17253	17395	18810	19316
71	19279	19548	20169	20093	19803	19722	19430	19737	19801	20287	22438	22401
72	21853	21612	21304	21147	20906	20810	21165	20905	20887	21090	22774	22873
73	22579	22461	22343	22002	21725	21720	21400	21321	21310	21321	21895	21740
74	21730	21893	21353	20701	20540	20402	20265	20314	20368	21203	25388	25032
75	25285	25199	24767	24175	24459	24339	24169	24209	23882	24437	27403	27510
76	27826	28070	27886	28327	28495	28698	28762	29067	29057	29497	31160	32197
77	32390	32576	32668	32937	33369	33803	33844	33454	34330	34366	36839	37988
78	37972	37881	37921	39221	40773	41233	41108	41237	41359	41346	45066	45174
79	45038	46086	46973	47787	48434	48861	48448	48567	48599	47218	50077	49819
80	49757	48673	48308	51251	54072	55072	53803	54198	54099	55123	57023	57912
81	58007	58015	58946	56539	56672	55940	54682	54841	54966	56812	69943	65847
82	64778	65618	65437	66389	67160	66038	67711	72382	76408	80510	92254	94705
83	93089	96051	98557	102175	102423	103156	103928	104910	107857	110283	119234	118088
84	118303	118594	118406	118287	118913	120507	124187	128903	131697	136148	144966	145958

Table 5 The market value of privately-held gross Federal debt (millions of dollars)

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
38												2326
39												2488
40												3069
41												3981
42												6000
43												8844
44												11592
45												14391
46	14534	14722	14653	14623	14561	14514	14460	14461	14411	14598	14845	14485
47	14472	14255	14226	14099	13900	13828	13779	13681	13534	13340	13464	13334
48	13134	13013	12832	12878	12833	12834	12841	12848	12775	12756	12744	12767
49	12807	12836	12679	12503	12492	12506	12539	12586	12534	12364	12456	12365
50	12342	12330	12350	12277	12238	12195	12096	12358	12481	12430	12473	12316
51	12312	12107	11816	11700	11648	11527	11487	11411	11406	11342	11246	11136
52	11183	11131	11116	11095	11133	10988	10939	10876	10859	10859	10843	10760
53	10823	10918	10954	10945	10670	10542	10481	10488	10500	10537	11023	10968
54	11074	11166	11079	11008	11002	11015	11243	11218	11155	11206	11610	11064
55	11178	11177	11182	11154	11160	11056	11126	10999	10868	10852	11113	10979
56	11108	11100	10984	10744	10749	10663	10397	10194	10106	9988	10135	9915
57	9895	10090	10067	10321	9838	9682	9627	9506	9600	9613	10310	11727
58	10375	10334	10339	10394	10788	10549	11022	11014	10664	10834	11140	10954
59	11218	11251	11407	11338	11283	11246	11202	10950	10777	10959	11613	11237
60	11326	11562	11707	11735	11737	11734	11546	11833	11924	11639	12048	11929
61	12091	12288	12249	12121	12136	12417	12309	12429	12430	12548	13219	13184
62	13271	13321	13414	13425	13163	12789	12722	12806	12879	13162	13979	13779
63	13839	14106	14085	14095	14244	14381	14103	13826	14038	14190	14838	14722
64	14814	14811	14656	14614	14680	14679	14557	14450	14456	14453	15098	15063
65	15223	15147	15080	14925	14761	14624	14455	14399	14376	14177	14705	14551
66	14581	14429	14360	14326	14250	14151	13958	13705	13854	13863	14444	14474
67	14708	14835	14976	15005	14737	14517	14494	14525	14266	14149	14786	14812
68	15146	15087	14878	14989	14818	15147	15152	15545	15241	15285	15999	15631
69	15656	15687	15578	15419	15242	15175	14987	14964	14706	14692	15521	15288
70	15361	15480	15747	15731	15943	16068	16216	16322	16431	16572	17961	18449
71	18435	18706	19306	19238	18966	18894	18612	18911	18965	19423	21576	21666
72	21145	20913	20617	20465	20233	20141	20492	20232	20217	20411	22098	22192
73	21910	21797	21679	21353	21084	21121	20808	20728	20711	20717	21290	21145
74	21140	21426	20905	20277	20116	19980	19848	19902	19977	20787	24961	24619
75	24857	24770	24351	23783	24053	23940	23782	23827	23528	24071	27042	27141
76	27445	27690	27510	27943	28107	28308	28371	28676	28667	29099	30762	31785
77	31972	32166	32255	32524	33001	33426	33471	33087	33956	34003	36475	37618
78	37604	37518	37561	38328	39571	40014	39917	40063	40183	39649	43320	43434
79	43296	44297	44860	45594	46233	46641	46303	46449	46467	45190	47941	47756
80	47734	46687	46409	49134	51839	52840	51670	52097	52018	53031	54923	55812
81	55875	56121	57060	54753	54885	54180	53028	53166	53034	54791	67747	63771
82	62706	63474	63184	64008	64760	63189	64760	69230	73110	77079	88794	91144
83	89578	92444	94900	98685	99193	99946	100735	101737	104628	106889	115848	114743
84	114934	115257	115270	115163	115739	117339	120955	125569	128323	132698	141501	142455

Table 6 The market value of privately-held domestic direct debt (millions of dollars)

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
38												108.386
39												104.385
40												104.881
41												103.921
42												102.843
43												102.667
44												102.741
45												103.192
46	104.005	105.188	104.904	104.917	105.006	105.165	104.757	104.720	104.648	104.635	104.651	104.666
47	104.714	104.867	104.874	104.857	104.935	104.971	104.979	104.818	104.855	104.794	104.744	104.410
48	102.981	102.794	102.067	102.347	102.407	102.307	102.513	102.518	102.379	102.465	102.228	102.263
49	102.278	102.320	102.290	102.300	101.932	101.978	101.924	102.093	102.345	102.794	102.539	102.489
50	102.391	102.456	102.206	102.270	102.356	102.126	101.938	101.945	102.060	101.415	100.710	100.344
51	100.192	99.979	98.652	98.656	98.836	98.800	98.853	98.825	98.791	98.707	97.794	97.408
52	97.535	97.197	97.086	97.273	97.549	96.886	96.289	96.220	96.183	96.443	96.413	96.346
53	96.460	96.909	96.774	96.794	96.623	96.438	96.312	96.185	96.248	96.492	96.869	96.743
54	97.343	98.238	100.123	100.339	100.370	100.763	100.878	100.890	100.866	100.763	100.790	100.705
55	101.080	101.323	101.502	101.334	101.129	101.063	100.898	100.058	99.664	99.499	98.333	98.087
56	98.794	98.668	98.239	97.156	97.442	98.072	97.339	96.182	95.783	95.466	94.684	94.222
57	93.514	94.759	94.781	94.267	93.846	93.364	93.287	92.805	93.525	94.560	96.711	96.684
58	97.090	96.844	97.526	97.885	98.457	97.191	98.490	98.686	97.503	96.908	95.163	94.544
59	94.289	93.799	93.557	93.236	92.707	92.223	92.050	90.377	89.288	90.708	91.054	90.141
60	89.772	90.828	92.158	92.765	93.185	94.292	94.053	96.172	96.582	94.756	93.382	93.394
61	94.100	94.878	94.157	93.886	94.240	95.832	95.801	95.861	95.902	96.541	96.793	96.610
62	96.343	96.585	96.921	97.491	96.155	93.354	92.932	93.365	93.670	95.951	96.364	96.000
63	96.252	95.971	95.987	96.407	97.021	97.158	96.242	95.372	96.381	96.532	96.270	96.264
64	96.096	96.103	95.616	95.748	96.009	96.254	96.090	96.035	96.329	96.641	96.659	97.191
65	97.635	97.117	97.094	97.201	96.789	96.523	95.804	95.466	95.684	95.384	95.185	95.178
66	95.214	94.153	94.373	94.293	94.285	94.224	93.665	92.612	93.646	93.932	93.127	93.939
67	95.156	94.963	96.277	95.879	94.637	93.742	93.797	93.298	92.544	92.005	91.758	91.297
68	91.046	90.381	89.567	90.752	89.850	91.449	92.427	93.246	92.649	91.961	91.638	90.523
69	90.813	90.705	90.400	90.271	89.497	89.603	89.590	89.691	88.849	89.044	87.968	87.833
70	88.052	88.793	90.285	90.369	89.995	90.709	91.484	91.317	91.686	91.778	94.107	96.174
71	96.561	96.310	97.297	96.542	95.304	95.269	94.209	95.707	96.354	97.972	98.373	98.147
72	97.213	96.273	94.919	94.813	94.432	93.990	94.528	94.427	94.680	95.607	96.541	96.195
73	95.776	95.628	95.088	94.680	93.320	93.680	93.419	93.174	93.849	94.477	94.531	94.185
74	94.884	95.224	93.522	91.370	91.268	90.318	90.461	90.413	91.399	93.828	94.905	95.504
75	97.034	97.057	96.143	94.586	95.438	94.976	93.959	93.585	92.953	94.167	93.483	93.952
76	94.487	94.436	94.098	94.489	94.811	94.754	94.794	95.294	95.546	95.804	96.605	98.120
77	97.914	97.940	97.420	97.403	97.963	98.039	98.100	98.289	98.210	98.072	98.061	98.033
78	97.206	96.948	96.870	96.781	96.728	96.783	97.216	97.197	97.119	95.963	95.609	95.404
79	95.288	95.155	95.304	96.268	96.380	96.235	95.954	94.870	94.073	91.542	92.310	91.923
80	89.811	87.890	87.178	91.564	94.129	95.058	92.465	91.699	90.425	90.092	90.673	91.895
81	91.185	90.190	90.135	86.932	86.943	87.124	83.313	84.020	82.797	85.178	90.932	88.316
82	86.861	88.770	88.739	89.406	89.832	87.316	88.232	92.637	94.494	96.884	98.557	100.039
83	98.848	99.973	100.157	101.362	101.117	100.109	99.043	98.121	99.640	99.860	99.770	99.123
84	99.346	97.803	96.404	95.742	94.240	94.613	95.463	96.992	97.634	98.876	100.100	100.865

Table 7 Price index for gross Federal debt

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
37	107.307	105.511	104.774	105.083	105.337	105.365	105.414	105.685	105.070	104.438	104.828	105.935
38	105.947	106.722	106.372	107.068	107.496	107.349	106.426	106.570	102.118	106.762	106.807	107.160
39	106.690	107.227	107.033	106.412	106.545	106.729	106.598	104.492	101.594	103.633	103.543	103.397
40	104.080	103.732	103.714	104.247	103.135	102.956	103.236	103.525	103.535	103.128	103.293	103.554
41	103.204	103.226	103.311	103.275	102.983	102.295	102.294	102.443	102.444	102.473	102.642	102.486
42	102.554	102.407	102.036	101.853	102.068	102.104	102.053	101.925	101.822	101.726	101.574	101.750
43	101.993	102.127	102.024	101.937	101.727	101.874	101.948	101.988	101.969	101.953	101.692	101.746
44	101.978	102.116	102.155	102.064	101.869	101.938	101.961	101.995	101.931	101.874	101.662	102.059
45	101.870	101.969	102.084	102.028	101.903	102.105	102.344	102.331	102.297	102.300	102.260	102.554
46	103.344	104.541	104.260	104.301	104.372	104.527	104.311	104.282	104.237	104.234	104.259	104.270
47	104.311	104.395	104.357	104.331	104.447	104.485	104.493	104.322	104.341	104.311	104.296	103.938
48	102.503	102.340	101.604	101.881	101.918	101.830	102.051	102.136	101.989	102.063	101.793	101.850
49	101.846	101.927	101.906	101.907	101.548	101.596	101.545	101.699	101.970	102.419	102.149	102.090
50	102.001	102.091	101.859	101.903	102.006	101.781	101.594	101.598	101.742	101.245	100.596	100.202
51	100.060	99.875	98.560	98.579	98.774	98.762	98.818	98.774	98.757	98.698	97.847	97.533
52	97.634	97.299	97.201	97.394	97.650	97.000	96.412	96.345	96.330	96.627	96.545	96.483
53	96.615	97.067	96.942	96.954	96.788	96.608	96.478	96.354	96.420	96.669	97.020	96.879
54	97.450	98.329	100.156	100.346	100.379	100.772	100.887	100.894	100.865	100.754	100.789	100.756
55	101.126	101.334	101.494	101.331	101.119	101.048	100.879	100.088	99.703	99.541	98.379	98.161
56	98.863	98.725	98.343	97.316	97.586	98.182	97.475	96.380	95.980	95.680	94.909	94.437
57	93.771	95.034	95.044	94.556	94.176	93.714	93.701	93.230	93.932	94.888	96.932	96.902
58	97.346	97.079	97.740	98.119	98.676	97.448	98.900	99.135	97.942	97.375	95.594	95.013
59	94.756	94.280	94.060	93.756	93.169	92.708	92.563	90.903	89.882	91.279	91.571	90.538
60	90.165	91.194	92.497	93.104	93.479	94.536	94.304	96.409	96.803	94.932	93.588	93.598
61	94.299	95.040	94.304	94.059	94.363	95.915	95.897	95.980	96.056	96.681	96.909	96.744
62	96.473	96.694	96.980	97.562	96.272	93.527	93.142	93.542	93.842	96.118	96.503	96.207
63	96.369	96.147	96.167	96.538	97.145	97.306	96.444	95.621	96.570	96.734	96.478	96.459
64	96.298	96.307	95.837	95.968	96.230	96.423	96.254	96.201	96.480	96.783	96.781	97.337
65	97.766	97.235	97.236	97.332	96.924	96.687	95.997	95.673	95.890	95.608	95.412	95.406
66	95.447	94.422	94.652	94.577	94.555	94.509	93.966	92.980	93.994	94.263	93.466	94.267
67	95.436	95.268	96.578	96.171	94.988	94.117	94.168	93.691	92.974	92.486	92.247	91.672
68	91.444	90.810	90.030	91.192	90.244	91.817	92.771	93.579	92.956	92.329	92.014	90.905
69	91.179	91.067	90.781	90.638	89.849	89.986	89.997	90.078	89.271	89.507	88.448	88.330
70	88.584	89.315	90.766	90.843	90.526	91.270	92.015	91.851	92.209	92.303	94.566	96.570
71	96.896	96.674	97.638	96.904	95.701	95.688	94.609	96.095	96.702	98.290	98.649	98.421
72	97.504	96.581	95.253	95.153	94.774	94.345	94.883	94.770	95.033	95.934	96.828	96.479
73	96.044	95.900	95.349	94.942	93.596	93.967	93.712	93.459	94.126	94.751	94.802	94.463
74	95.179	95.540	93.872	91.742	91.653	90.727	90.900	90.862	91.845	94.229	95.231	95.826
75	97.313	97.331	96.439	94.924	95.742	95.283	94.290	93.916	93.307	94.501	93.793	94.254
76	94.778	94.726	94.399	94.782	95.102	95.037	95.077	95.573	95.823	96.060	96.837	98.327
77	98.121	98.139	97.627	97.608	98.164	98.235	98.292	98.478	98.392	98.250	98.230	98.196
78	97.377	97.110	97.033	96.965	97.022	97.072	97.506	97.473	97.396	96.219	95.876	95.675
79	95.563	95.436	95.866	96.802	96.911	96.764	96.484	95.427	94.635	92.156	92.915	92.515
80	90.389	88.505	87.830	92.163	94.673	95.580	93.001	92.234	90.976	90.641	91.220	92.430
81	91.714	90.751	90.698	87.520	87.531	87.720	83.935	84.631	83.357	85.697	91.320	88.716
82	87.259	89.145	89.153	89.831	90.241	87.664	88.566	92.924	94.765	97.128	98.755	100.225
83	98.999	100.131	100.309	101.510	101.246	100.237	99.164	98.247	99.753	99.950	99.857	99.207
84	99.427	97.891	96.498	95.837	94.428	94.803	95.657	97.170	97.798	99.031	100.234	101.000

Table 8 Price index for marketable domestic direct debt

	Direct			Guaranteed	
	Domestic Issues		Foreign Issues	Domestic Issues	Foreign Issues
Publicly Held	d_{11}	d_{12}	d_{13}	d_{14}	d_{15}
Privately Held	d_{21}	d_{22}	d_{23}	d_{24}	d_{25}
	Non-Market	Marketable			

FIGURE 1 The composition of outstanding government of Canada debt

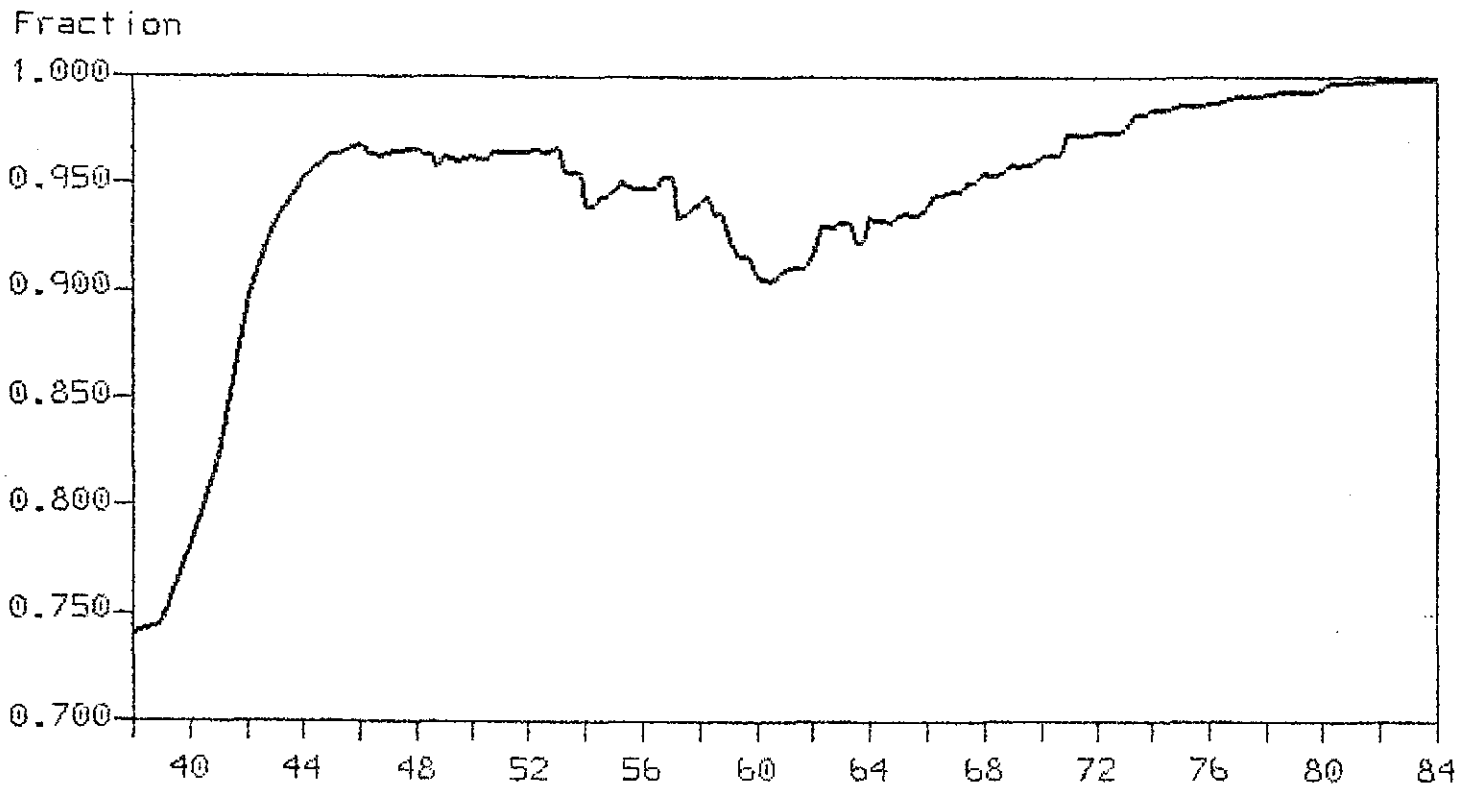


Figure 2 Direct debt as a fraction of gross Federal debt

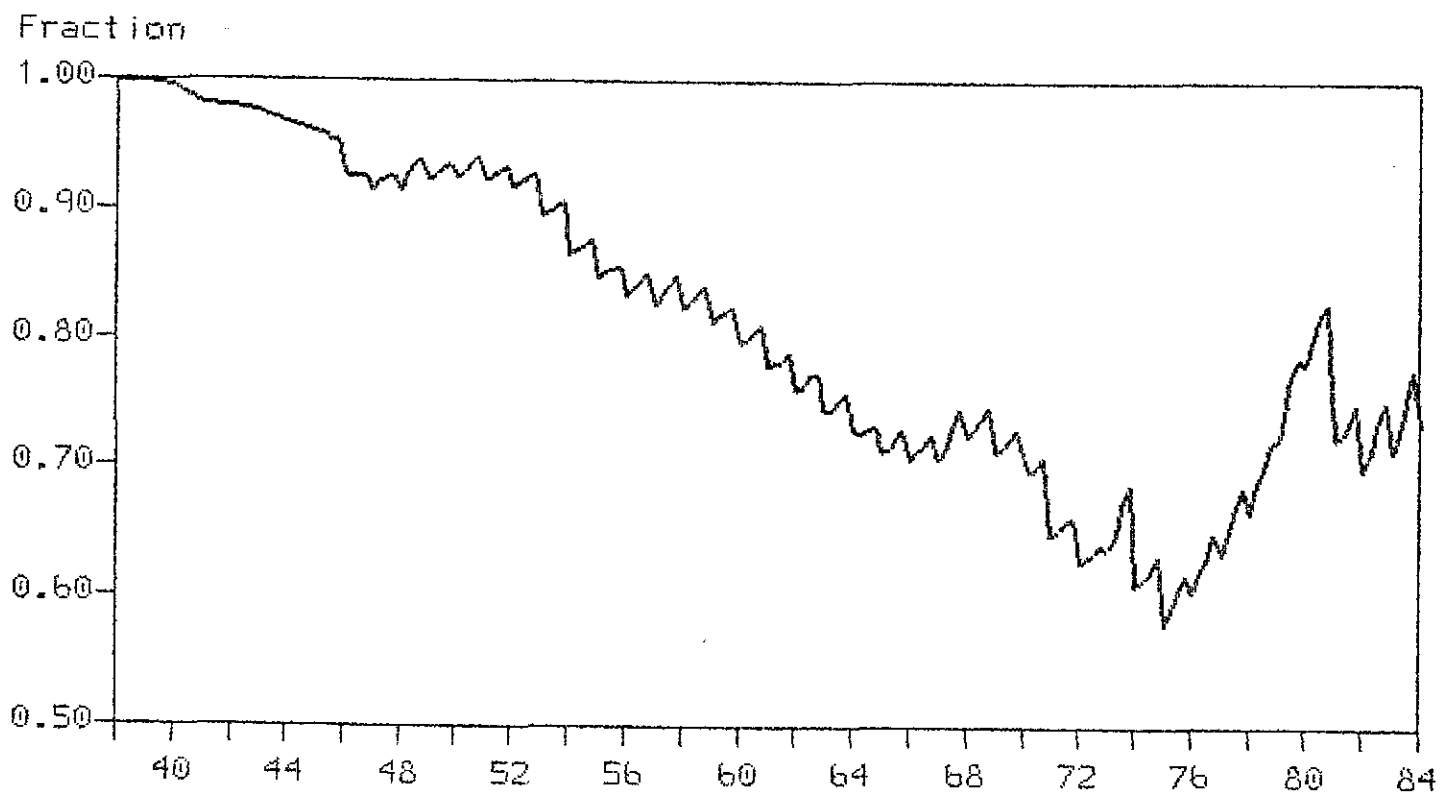


Figure 3 Marketable debt as a fraction of gross Federal debt

\$ Billions

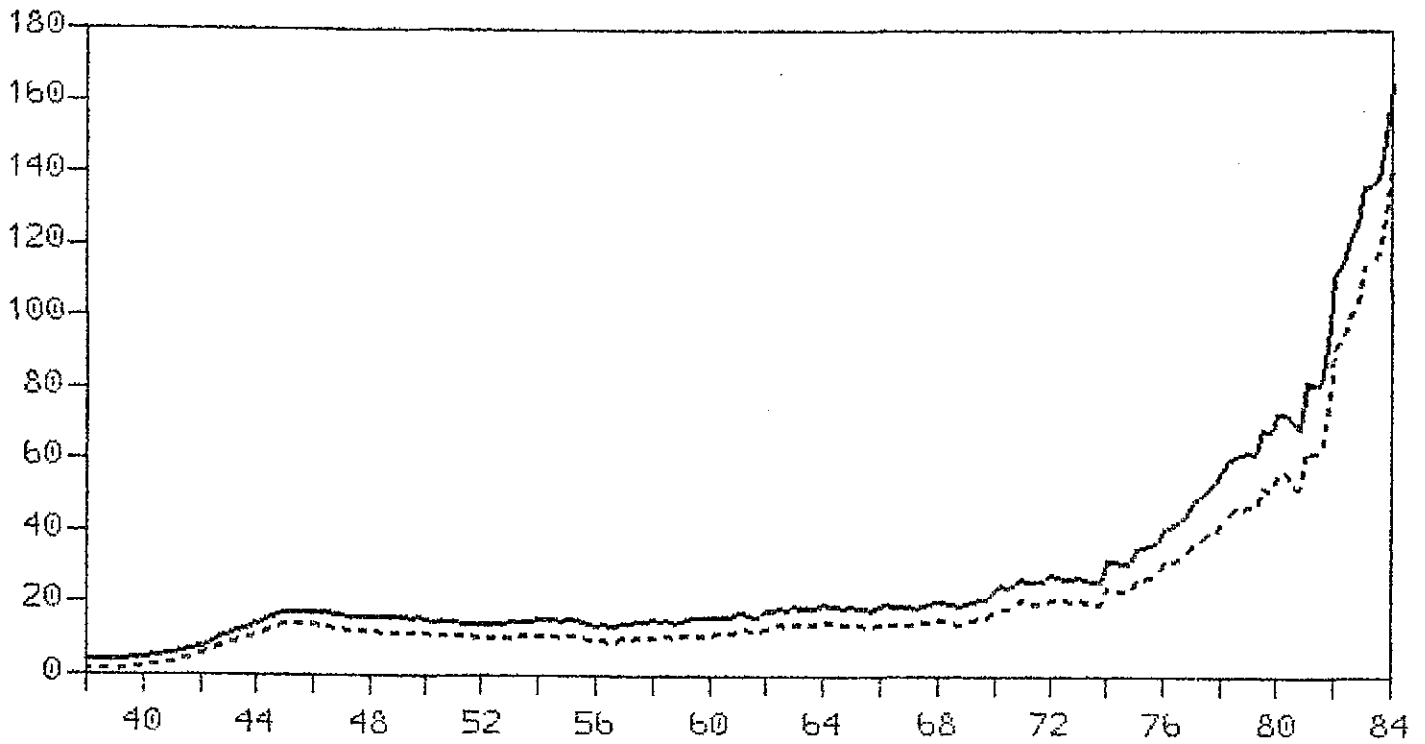


Figure 4 Market value of gross Federal debt (—) and privately-held domestic direct debt (----)

Debt/GNP

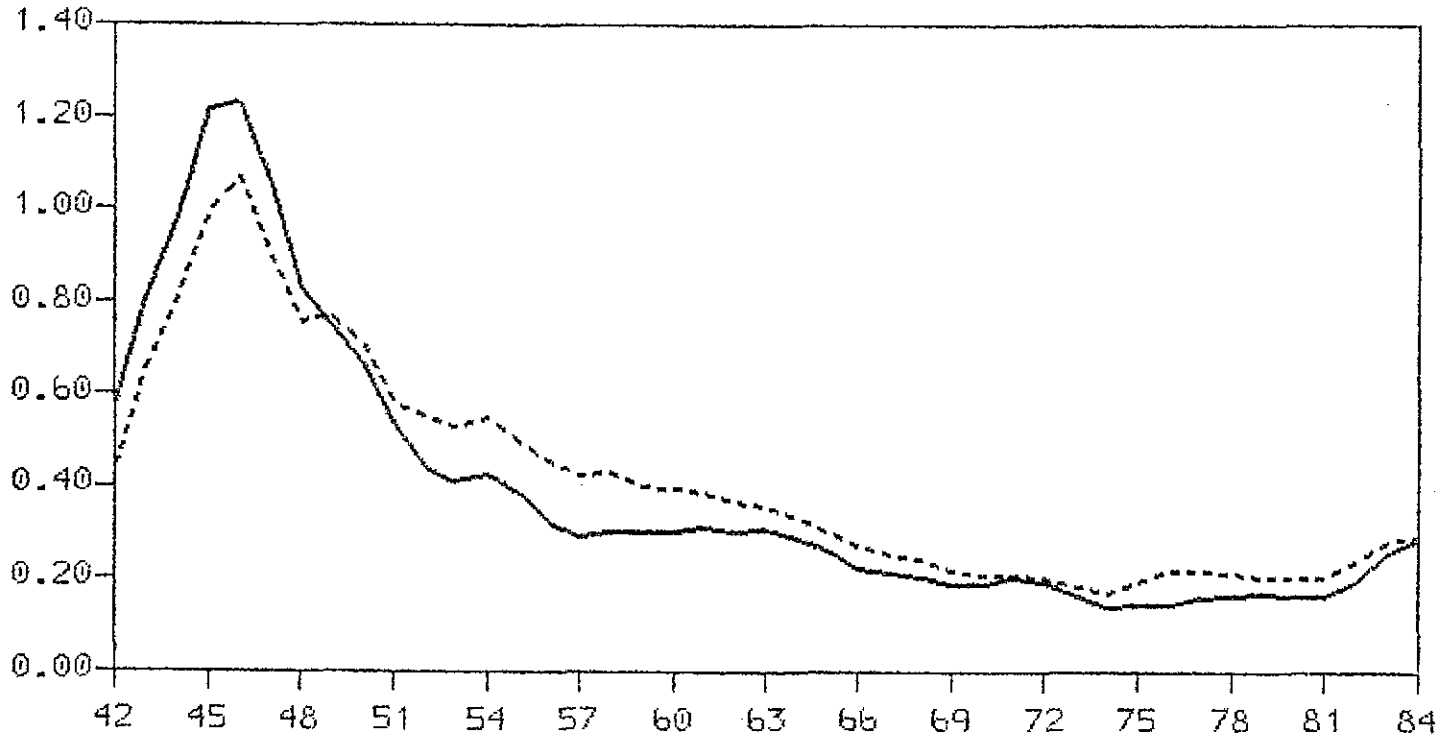


Figure 5 Debt-to-GNP ratio in Canada (—) and the U.S. (----)

Price

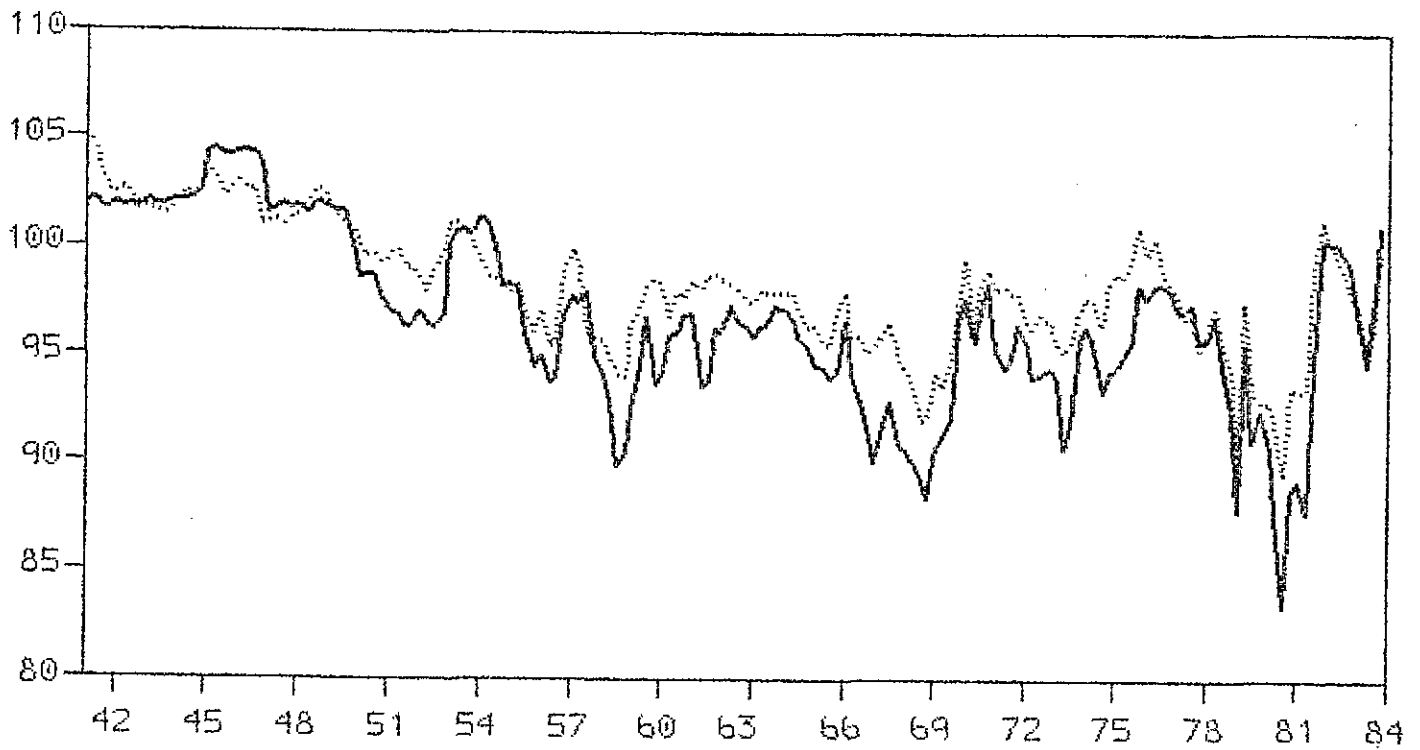


Figure 6 Index of marketable-security prices in Canada (—) and the U.S. (.....)

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