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Easing Restrictions on the Stripping and Reconstitution of Government of Canada Bonds

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Abstract

The Department of Finance and the Bank of Canada, as its fiscal agent, work closely with financial market participants in the management of the federal government's debt program. From the government's perspective, maintaining a liquid well-functioning market in Government of Canada securities is a key factor in ensuring that debt-service costs are minimized. It is also of general benefit to other participants in the domestic fixed-income market, since Government of Canada securities are a key benchmark for pricing other fixed-income securities.

This paper reviews one method for limiting the ability of market participants to exercise undue influence over the prices of individual securities by easing restrictions that limit the fungibility of coupon and principal cash flows in the market for stripped securities. The two restrictions considered include the current ceiling on reconstitution, which states that a bond may not be reconstituted beyond the amount originally issued, and the present non-fungiblility of interest and coupon payments. The authors examine the effectiveness of the alternatives, provide an analysis of the potential market and legal uncertainties that might arise, and finally include a brief review of the stripping practices in some other major government bond markets. The analysis suggests that the potential changes could constitute a useful approach for limiting the development of a squeeze in certain circumstances. These alternatives could, however, create uncertainty with regard to the actual amount outstanding of any given bond. They also raise some questions with respect to the tax treatment of fungible interest-principal payments, as well as questions about the potential for the manipulation of the market for other bonds. Moreover, a review of other major government bond markets reveals that restrictions, similar to those currently in force in Canada, also apply in the United States, the United Kingdom, and Germany.

Résumé

Cette étude passe en revue une méthode possible visant à limiter la capacité des participants au marché à exercer une influence excessive sur le prix de titres particuliers. Cette méthode propose d'atténuer les restrictions qui limitent actuellement l'assimilation des coupons et des valeurs nominales sur le marché du démembrement des titres. Deux restrictions sont examinées. La première porte sur le montant limite maximal de titres pouvant être remembrer. Présentement, le montant maximal de l'encours d'une émission ne peut être supérieur au montant émis à l'origine. La seconde concerne la non-assimilation des coupons et des valeurs nominales. Les auteurs examinent l'efficacité des différentes propositions, présentent une analyse des incertitudes possibles sur le marché et sur le plan légal, et finalement, résument les règles régissant les principaux marchés obligataires internationaux . Après analyse, il semble que les changement possibles pourraient être utiles, en certaines circonstances, à limiter les possibilités de manipulation. Cependant, ces propositions pourraient engendrer de l'incertitude quant au montant de l'encours d'une émission obligataire. De plus, elles soulèvent des questions au chapître du traitement fiscal de l'assimilation des coupons et des valeurs nominales et au chapître du risque de manipulation sur les autres émissions obligataires. En outre, un examen des autres principaux marchés obligataires internationaux révèle que des restrictions, similaires à celles en vigueur au Canada, régissent également les marchés obligataires aux États-Unis, au Royaume-Uni et en Allemagne.

Contents

1 Introduction 1

2 The Stripping and Reconstitution of Government of Canada Bonds 2

3 Policy Perspective 3

4 Possible Changes 3

4.1 Effectiveness 3

4.2 Potential Uncertainties 5

4.3 Other Strip Bond Markets 7

5 Conclusions 7

Appendix A 8

Appendix B 9

Appendix C 10

Appendix D 11

1 Introduction

This paper explores the issues surrounding the relaxation of restrictions on the reconstitution of previously stripped Government of Canada (GoC) bonds. To that end, there are two distinct but related possibilities:

- **removing the current ceiling on reconstitution,** which states that a bond may not be reconstituted beyond the amount originally issued;[1]
- **instituting full fungibility of coupon and principal payments,** so that all cash flows that occur on the same date would carry the same Committee on Uniform Security Identification Procedures (CUSIP) number.

These potential changes could create additional supply of a security, thereby contributing to improved liquidity and market efficiency. This is especially important where a security is in short supply, because it would reduce the likelihood of a "squeeze" at the margin.[2]

The main issues raised in this paper are summarized as follows:

- The potential changes could constitute a useful approach for limiting the development of a squeeze in certain circumstances.
- From a legal perspective, these ideas raise some questions with respect to the tax treatment of fungible interest-principal payments.
- These alternatives could create uncertainty with regard to the actual amount outstanding of any given bond. The implications of this for the auction process and the potential for the manipulation of the market for other bonds are unclear. It might reduce the clarity of published debt information.
- An examination of the policies of the United States, the United Kingdom, and Germany reveals that restrictions, similar to those currently in force in Canada, also apply to their respective strip markets. The rationale behind their restrictions, however, is not obvious.

The next section provides a brief overview of the details of stripping and reconstituting GoC bonds. There is also some general data on the stripping and reconstitution of GoC bonds is also provided in appendix A. This is followed in Sections 3 and 4 by a discussion of the possible changes from a number of perspectives.

1. More specifically, the limit is set with respect to the amount outstanding in the Canadian Depository for Securities (CDS), not the total amount of the bond outstanding.

2. A "squeeze" can be defined as a situation where market participants, through the cornering of market supply of a specific issue, act to manipulate market prices.

2 The Stripping and Reconstitution of Government of Canada Bonds

A stripped bond is a bond that is broken down into its constituent cash flows of interest and principal payments.[3] GoC strip bonds can, therefore, be considered to be zero coupon bonds created from the principal or component coupons of GoC bonds. Stripped interest and principal components are used for a variety of purposes including defeasance, portfolio duration adjustment, and as an alternative to treasury bills.[4] All new stripping activity today occurs electronically using a ledger system at the Canadian Depository for Securities Limited (CDS) on what is termed a book-entry basis.

Reconstitution is the reaggregation of previously stripped coupon and principal components into the original underlying bond. This can be accomplished when an institution holds the necessary cash flows (coupon and interest). The institution informs the CDS of its desire to use all the different components to recreate the original bond. In June 1993, the CDS made fungible all payments for one issuer that share a common payment date, currency, and payment type. All interest payments occurring on one date share one CUSIP; likewise, principal payments on the same date also share a single CUSIP. **Interest and principal payments occurring on the same date do not share the same CUSIP.**

An important restriction on the scope of reconstitution is that the CDS cannot create more of the underlying security than the original amount lodged with the CDS. For example, suppose two bonds mature on 15 March 1998. The principal amount held in the CDS for the first bond is $1,000 million and it pays a coupon of 10 per cent. The second bond pays 15 per cent and has $1,500 million held in the CDS. Suppose that $200 million of the first bond has been stripped. Even with the usage of the second bond, institutions may reconstitute only $200 million of the 10 per cent bond, bringing it back to the original amount of $1,000 million issued and held at the CDS.

In 1993, the CDS made it possible to create a synthetic principal payment by using a block of coupons (again with the same issuer, currency, etc.) occurring on the same date; this is termed an “interest as principal” or “IP” package. Currently, a final principal payment for the reconstitution of a bond cannot be synthetically created using a coupon payment from another bond that occurs on the same date; simply put, **IP packages cannot be used to reconstitute a bond**.[5] In order to be reconstituted, an IP package must be broken down into its strip components and reaggregated into the original underlying bond.

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3. The term derives from the U.S. Treasury’s “Separate Trading of Registered Interest and Principal of Securities” program established in February 1985.

4. See Miles Whittingham, *“The Canadian Market for Zero-Coupon Bonds”, Bank of Canada Review* (Winter 1996/97) for more details.

5. Although an “interest as principal” package could be used to exactly replicate the underlying bond, CDS will not assign the original bond’s CUSIP number to the package; thus, it is not reconstitutable.

3 Policy Perspective

With the elimination of the federal deficit, the government and market participants are adjusting to the prospect of continuing declines in the stock of market debt. From the government's perspective, maintaining a liquid and well-functioning market in GoC securities is a priority. It ensures that debt costs continue to be kept low and is of general benefit to other participants in the domestic fixed-income market, where GoC securities are a key benchmark.

The occurrence of a number of secondary-market squeezes, in conjunction with the declining financial needs of the government, has resulted in the restructuring of federal debt programs and has spawned a number of initiatives to reinforce the integrity of the market in GoC securities. In this context, due consideration should be given to all potential means of maintaining and enhancing liquidity.

4 Possible Changes

As noted earlier, the possible changes are:

- the ceiling on reconstitution could be lifted so that a bond may be reconstituted beyond the amount originally issued;
- coupon and principal payments could be made fully fungible. This requires that all cash flows occurring on the same date would carry the same CUSIP number.

The ability to reconstitute bonds in excess of the original issue amount could create additional supply of a security, thus relieving a supply shortage in the event that a secondary-market "squeeze" occurs. This measure would increase the flexibility of market participants to create synthetic bonds for those maturity dates for which there is highest demand. Payments made by the Bank of Canada, on behalf of the Government, to the CDS for principal and interest payments would not be affected; that is to say, government cash flows are not affected.

The potential changes will be considered in three parts: (i) an examination of the effectiveness of the alternatives (ii) an analysis of the potential market and any legal uncertainties that might arise; and (iii) a brief review of the stripping practices in some other major government bond markets.

4.1 Effectiveness

Drawing from the previous overview of reconstitution, it is apparent that there are two potential ways in which an amount greater than the original issue could conceivably be reconstituted. The fact that neither is currently permissible is crucial when considering the possible changes. Each method will be analyzed independently.

- ***The first approach is to strip one of two bonds that share a maturity date and use the principal and coupon components of one bond to reconstitute the other bond.***

Of the 79 GoC bonds currently outstanding, only seven maturity dates have more than one bond outstanding. There are a total of 14 bonds sharing these seven maturity dates (see Appendix B). On closer examination, it appears that in most of these cases, there is one bond with a relatively large amount outstanding (a former benchmark) and another much smaller issue. The exceptions are 1 March 2000 with two rather sizable issues and 1 June 2008 (the current 10-year benchmark and $3.5 billion of an off-the-run bond).[6] It is also worth noting that these are mostly off-the-run securities and, as such, the demand for these securities is not particularly large relative to the existing benchmarks. This suggests that there will probably not be a large demand to reconstitute these bonds beyond their original face value.

A more interesting question involves the number of bonds that will share a maturity date with a number of future benchmark issues (see Appendix C). There are two bonds that will share maturity dates with future 2-year benchmarks. These two bonds, with maturity dates occurring 1 June 2001 and 1 December 2001, are reasonably sizable at $3.6 billion and $3.9 billion respectively and have the potential to substantially increase the amount outstanding of these bonds. One bond, with a 1 September 2005 maturity, will share a maturity with a future 5-year benchmark. Several bonds have maturities that would coincide with future 10-year issuances. This presupposes that the 1 June maturity is maintained for future 10-year benchmarks and the 1 June/1 December maturity cycle is maintained for the 2-year benchmark.

Consequently, there are several opportunities to reconstitute a bond beyond its original face value using this approach; this is particularly evident for the 2- and 10-year benchmarks.

- ***The second approach requires the full fungibility of interest and coupon payments. In this scenario, an interest payment from one bond that occurs on the maturity date of another bond could be used to synthetically create an increased principal amount for the first bond.***

Appendix D shows the maximum amount of bonds at par value that could be reconstructed from coupon payments occurring on the maturity date of current and future benchmark bonds. To some extent, the ability to reconstitute one bond beyond its face value using a given set of bonds excludes the ability to reconstitute another bond using the same set of bonds. While the interplay between bonds can become quite complex, it should be noted that these values are an absolute upper limit, based on the current stock outstanding, on the amount of a bond that could be reconstituted beyond its face value.

This analysis indicates that the movement to the 1 June and 1 December maturity cycle for the 2-year benchmarks has created a number of opportunities to use coupon payments from other issues to increase the amount outstanding of the future 2-year benchmarks. As before, the analysis assumes the continued maintenance of the 1 June and 1 December 2-year

6. An “on-the-run” refers to a security which is generally accepted by the market to be the most actively traded and liquid security in a given maturity sector. Alternatively, “off-the-run” refers to those securities which trade less actively and are consequently less liquid.

benchmark maturity cycle; this may not be the case as the possibility always exists for changes to the maturity pattern in order to better facilitate efficient management of benchmark maturities. Appendix D illustrates that very little in additional supply could be created for future 5-year benchmarks. Similar to the 2-year benchmark, however, the fungibility of interest and principal could have a more substantial impact on the amount outstanding of the 10-year benchmark.

This analysis nevertheless begs the question: when a bond is purchased with the intention to synthetically create a principal payment from one of its coupon payments, what is done with the remaining coupon and principal components?[7] These components would have to be sold in the strip market or held in the investment dealer bond portfolio. This would appear to be a costly alternative. There may also be a more general difficulty in locating large amounts of older off-the-run securities.

In summary, if the existing interest-principal fungibility restrictions are lifted, it appears that there exists the potential for substantial increases in the amount outstanding of a given security. This is particularly the case for the 2-year and 10-year benchmarks. However, there appear to be a few practical issues that might complicate altering the amount outstanding of a given bond through the reconstitution of more than the original face value. These practical matters suggest that the analysis in Appendix D overstates the potential increase in the amount outstanding of a given bond through reconstitution. Nonetheless, having made that point, it would be difficult to argue against the potential for a significant impact in certain circumstances.

4.2 Potential Uncertainties

The analysis of the previous section demonstrates that there are instances where the possible changes may make it possible to considerably alter the amount outstanding of a specific bond. Having addressed the practical issues, there are a number of policy questions that should be considered in those cases where the supply of a bond could be substantially altered:

- **Secondary market "short" squeeze:** The ability to increase the amount of available supply would likely have an impact in a secondary-market "squeeze" of a particular issue. The effectiveness in alleviating the "squeeze" conditions, however, will be a function of the severity of the "squeeze" and the amount by which the supply can be increased. As previously demonstrated, the amount of additional supply available is unclear. Furthermore, there is no consensus on

7. For example, if one wished to create a package to replicate the 4 per cent bonds of 15 March 1999 there are four possible bonds that could be used. One of these bonds is the 10.25 per cent bond of 15 March 2014. If all of the $3.15 billion outstanding of this bond was purchased, the approximately $161 million coupon payment occurring on 15 March 1999 could be used to create $161 million of new bonds outstanding. There are, however, 30 coupon payments, plus a final interest payment, that remain from the 10.25 per cent bond of 15 March 2014.

how much additional supply would be necessary to eliminate secondary-market "squeeze" conditions. As a result, there is no guarantee that incremental supply would be sufficient to significantly alleviate technical pressures affecting bond prices.

- **Market uncertainty:** Reconstitution of bonds beyond the original amount issued could create uncertainty about the available supply of a given security. This could work either in the direction of oversupply or undersupply. For instance, a bond sharing principal (or coupon) payments with another bond, that is in short supply, might be extensively stripped to alleviate squeeze conditions. This stripping, however, could create liquidity problems in the original security. In this sense, any secondary-market squeeze is merely being diluted across one or more securities rather than being eliminated. Conversely, a situation could arise where primary distributors enter an auction with uncertainty about the final amount of supply of a bond, given the ability to reconstitute bonds to create additional supply. This could influence the manner in which primary distributors bid for securities at auctions. In particular, it could lead to a higher degree of bid shading to offset the risk of a larger amount of supply than anticipated, and thus higher post-auction yield levels. The result would be an increase in debt-service costs for the government.[8]

- **Legal consideration:** The potential changes raise a possible legal issue with respect to tax treatment. In Canada, coupon payments are 100 per cent taxable in the year of receipt, on an accrual basis, while any gains (losses) on principal are treated as a capital gain (loss). For example, a fall in interest rates that increases the value of a bond will create a taxable gain. Seventy-five per cent of the gain is taxable and is not payable until the bond is disposed of (or matures) thus creating a tax-deferral opportunity.[9] If interest and principal were fungible, it is unclear how interest that is used to create principal will be taxed. As a result of the preferential tax treatment of principal, there might be a desire to transfer interest into principal merely for the tax benefit. Further consultations would be required to better understand how the tax authorities would address this issue.

- **Reporting:** The potential changes would create complications in reporting (SEC 18-K filling, Public Accounts, *Bank of Canada Review*, *Debt Operations Report*, etc.) the amounts of bonds outstanding at any given time since it would be a continuously changing amount.[10]

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8. Bid shading occurs when participants at a bond auction, in response to market uncertainty, reduce (or shade) their bids to avoid overpaying for the auctioned security.

9. Note that a bond purchased at a discount carries an embedded capital gain because the bond will mature at its face value.

10. It is worth noting, however, that the original par value amount issued that is currently reported by these sources is somewhat inaccurate given that in some cases, substantial amounts of these bonds have been stripped. Thus, these figures do not currently represent the amount of the bonds that are readily available in secondary markets.

4.3 Other Strip Bond Markets

Neither the United States, the United Kingdom, nor Germany permit the reconstitution of bonds beyond the original issue amount, nor do they allow for the fungibility of interest and principal.

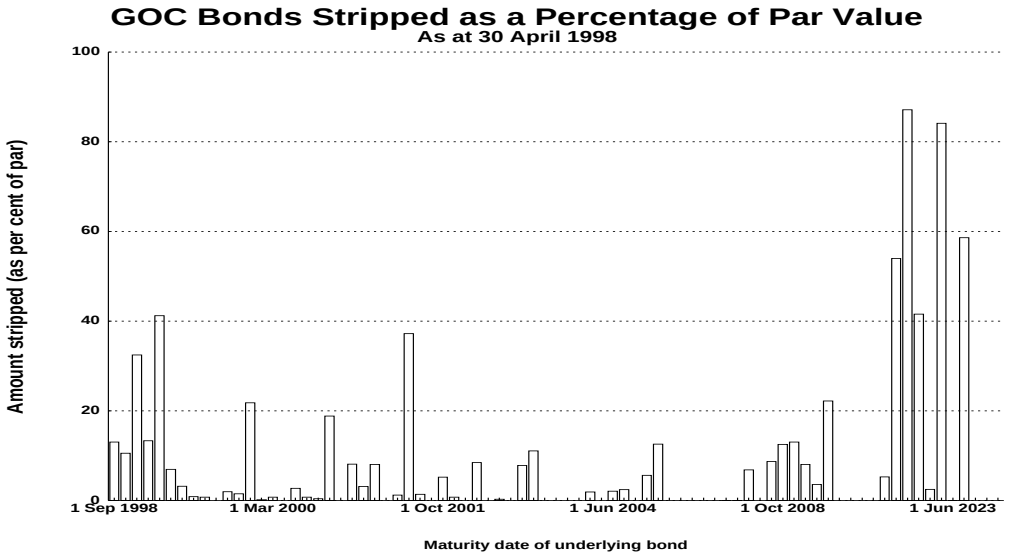
- **United States:** The U.S. Treasury requires the original principal component of a bond in order to permit reconstitution; that is, principal payments are not fungible. They do not, therefore, require a policy whereby reconstitution cannot exceed the original issue amount because this effectively precludes reconstitution from exceeding the size of the original issue.
- **United Kingdom:** A strip market was introduced at the beginning of 1997 after several tax reforms proposed by the Bank of England made strip bonds possible. Although all interest payments are fungible, there is no fungibility between interest and principal payments. Similar to Canada, a bond cannot be reconstituted beyond the original amount issued. This was decided after consultation with market participants who were uncomfortable with the idea of having an amount outstanding larger than the original issue. There was concern that the uncertainty regarding the size could be detrimental to holders of the issue.
- **Germany:** The ability to strip bonds was introduced on 4 June 1997 for three outstanding issues of 10- and 30-year government bonds. Future 10- and 30-year issues will also be strippable. Although coupon payments are fungible, principal payments are not; nor is interest fungible with principal. The rationale behind this decision was that it was “considered by the Federal Debt Administration to be undesirable.”

5 Conclusions

Modification of the rules governing the stripping and reconstitution of GoC bonds is one of a set of potential actions that could be taken to alleviate the market impact of a declining supply of new securities. It does appear that the relaxation of existing CDS reconstitution practices (restriction on principal-interest fungibility and limit of reconstitution to original issue value of the underlying bond) could significantly alter the amount outstanding for a wide range of bonds. Put more simply, the analysis indicates that the effect on the size of individual bond issues could be significant. The analysis further suggests, however, that there are a few practical difficulties relating to the potential changes. In particular, the legal questions relating to taxation complicate the possible alterations and need clarification. Further consideration also needs to be given to the degree to which the ideas create incremental market uncertainty.

Appendix A: Summary Statistics on Strip Activity of Government of Canada Bonds

The degree to which an underlying bond is stripped varies substantially over the 79 GoC bonds currently outstanding. The following chart summarizes the amount of bonds which are stripped as a percentage of par value as at 30 April 1998. [1]



The table provides some summary statistics on the nature of book-entry GoC strip bonds. Approximately 6.8 per cent, or $20 billion, of the par value of the bonds outstanding have been stripped. The right-hand portion of the table looks at the average duration, coupon, and term to maturity of those underlying bonds that have had at least 5 per cent of the total par value stripped. This reveals that the coupon tends to be larger, while the term to maturity of stripped bond tends to be longer relative to unstripped bonds. These two effects appear to offset one another providing similar average duration for stripped and unstripped bonds.

Bonds Classified by Strip Activity	Amount Stripped by Par Value (billions)	Percentage of Total (%)	Number of Bonds Stripped	Summary Statistics[a]		
				Average Coupon (%)	Average Duration (years)	Average TTM (years)
Unstripped Bonds	$274.01	93.2%	23	8.5%	5.0	7.4
Stripped Bonds	$19.96	6.8%	56	10.8%	5.1	8.3
Total Bonds	$293.97	100.0%	79	9.4%	5.1	7.8

a. Note that summary statistics on the stripped bond apply only to bonds, as at 30 April 1998, that have stripped amounts of at least 5 per cent or more of the total par amount outstanding (29 bonds) and have been stripped by book-entry.

1. Of the 56 bonds that have had some portion of the amount stripped, the average amount stripped is approximately 13 per cent. The maximum is the 87 per cent for the 10.5 per cent bonds of March 2021 and the minimum is 0.001 per cent for the 13 per cent bonds of October 1997.

Appendix B: Evaluation of Existing Bonds that Share a Maturity Date with Bonds Outstanding.

Maturity Date	Coupon	Amount Outstanding by Issue ($ millions)	Percentage of Issue Stripped	Amount Unstripped ($ millions)
Current Bonds				
1 December1999	9.25%	$2,825	1.5%	$2,783
	13.50%	$400	21.8%	$312
15 March 2000	5%	$7,000[a]	0%	$7,000
	13.75%	$1,050	2.7%	$1,022
1 July 2000	10.50%	$2,900	0.4%	$2,889
	15.00%	$175	18.9%	$142
1 September 2000	7.50%	$7,600	0%	$7,600
	11.50%	$1,200	8.1%	$1,103
1 March 2001	7.50%	$9,400	0%	$9,400
	10.50%	$3,175	1.2%	$3,136
1 June 2004	6.50%	$7,900	0%	$7,900
	13.50%	$550	2.1%	$538
1 June 2008	6.00%	$6,900[b]	0%	$6,900
	10.00%	$3,450	8.7%	$3,149

a. 2-year benchmark.

b. 10-year benchmark.

- The above table details those existing Government of Canada bonds that share a common maturity date. Of the existing bond portfolio, there are currently 14 bonds that share 7 maturity dates. At first glance, there appear to be two reasonable opportunities for reconstitution beyond the original amount by using existing bonds that share the same maturity date. A reasonable opportunity would be defined as having two bonds with a fairly sizable amount outstanding. The first occurs on 1 March 2001 ($9.4 billion and $3.2 billion) and the second on 1 June 2008 ($6.9 billion and $3.5 billion).
- These are, nevertheless, mostly off-the-run securities and, as such, the demand for these securities is not particularly high relative to the existing benchmarks. This suggests that there will not likely be a large demand to reconstitute these bonds beyond their original face value. Moreover, there are presently only two opportunities for reconstitution beyond the original face value using the fungibility of principal.

Appendix C: Evaluation of Projected Future Benchmark Bonds that May Share a Maturity Date with Existing Bonds Outstanding

Maturity Date	Coupon	Amount Outstanding by Issue ($ millions)	Percentage of Issue Stripped	Amount Unstripped ($ millions)
Future 2-Year Benchmarks				
1 June 2001	9.75%	$3,550	1.4%	$3,500
1 December 2001	9.75%	$3,850	0.8%	$3,821
Future 5-Year Benchmarks				
1 September 2005	12.25%	$1,375	12.8%	$1,199
Future 10-Year Benchmarks (assuming June 1 maturity is maintained)				
1 June 2009	11.00%	$925	8.1%	$850
1 June 2010	9.50%	$2,975	0%	$2,975
1 June 2011	8.50%	$750	0%	$750
1 June 2015	11.25%	$2,350	54.0%	$1,081

- This table essentially repeats the analysis of the previous table for future benchmark issuance. Each bond presented is an existing Government of Canada bond which, if the current issuance pattern is continued, will share a maturity date with a new benchmark issue. In a sense, it is more relevant than the preceding table because it considers new bonds that may be subject to secondary-market short-squeeze situations. Note that the timeframe of this analysis is only several years into the future.
- For the 2-year bonds, there are two bonds that could be useful in terms of providing principal payments that could be used to reconstitute the original amount beyond its face value. These bonds, with maturity dates occurring 1 June 2001 and 1 December 2001, are reasonably sizable at $3.6 billion and $3.9 billion, respectively, and have the potential to increase the amount outstanding of these bonds in a substantial manner.
- There is only one bond outstanding that would coincide with a future 5-year issue in the next three years.
- Several bonds have maturities that would coincide with future 10-year issues. It should be noted that this assumes that the June 1 maturity is continued. This is particularly true for the last few projected 10-year benchmarks. As a result, the time horizon of the analysis of projected future 10-year benchmark bonds sharing a maturity date with existing bonds outstanding is extended only until 1 June 2015.

Appendix D: How Fully Fungible Interest and Principal Payments May Impact the Ability to Reconstitute Beyond the Original Amount Outstanding of a Given Bond.

Maturity Date	Amount of Interest Payments Available to be Reconstituted as Principal[a]	Number of Bonds Available to Use for Reconstitution of Interest as Principal
Current Benchmarks		
15 March 2000	$283	3
1 September 2002	$512	9
1 June 2008	$1,848	10
Future 2-Year Benchmarks		
1 December 2000	$4,821	22
1 June 2001	$4,648	21
1 December 2001	$4,460	20
1 June 2002	$4,460	20
Future 5-Year Benchmarks		
1 September 2003	$450	8
1 September 2004	$450	8
1 September 2005	$259	6
1 September 2006	$198	5
Future 10-Year Benchmarks		
1 June 2009	$1,797	9
1 June 2010	$1,656	8
1 June 2011	$1,624	7
1 June 2012	$1,624	7

a. The calculations are based on the current stock of bonds as at 30 April 1998 (excluding GoC Real Return Bonds).

- If interest and principal were fully fungible, the interest payments from other bonds that occur on the maturity date of a given bond could be used to reconstitute the principal of that bond. The table above details how much of a given bond could be reconstituted from the coupon payments of other bonds occurring on the maturity date of the existing and future benchmark bonds. To some extent, however, the ability to reconstitute one bond beyond its face value using a given set of bonds excludes the ability to reconstitute another bond using the same set of bonds. As a result, this table provides the absolute maximum increases in par value that would be possible through reconstitution.
- The figures presented represent the maximum amount of the bond that could be created using all the coupon payments falling on a given date. It should be strongly noted that this analysis assumes the continuation of the current 2-year benchmark maturity cycle; there is always a possibility that changes could be made to the maturity cycle in order to better facilitate efficient management of benchmark maturities.

- For current and future 2-year benchmarks, there appears to be potential for the addition of substantial supply. This is due to the numerous bond issues (as indicated in the previous table there are more than 20) currently in the Government's bond portfolio that share the 1 June and 1 December coupon payment date.
- For the current and future 5-year benchmarks, the addition of interest and principal fungibility does not appear to have the potential to create a significant amount of new supply of a given bond.
- As with the 2-year benchmark, there are more opportunities to alter the amount outstanding of the 10-year bond. Again, this stems from the fact that there are a relatively larger number of bonds that have a 1 June and 1 December maturities.
- In general, full fungibility of interest and principal appears to make a difference in the amount outstanding of current and future 2- and 10-year benchmark bonds, while this impact is less important in the 5-year benchmark. It is, nevertheless, worth reiterating that these figures are the absolute maximum amounts and would likely be very difficult to attain. Having made that point, there does appear to be the potential for a significant impact.

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1998

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