HM TREASURY

The Scotland Act 2012:

a consultation on bond issuance by the Scottish Government

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Any queries regarding this publication should be sent to us at: public.enquiries@hm-treasury.gov.uk.

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Contents

1 Introduction

Scope of this consultation

1.1 The aim of this consultation is to gather views and evidence on the costs and benefits, to both Scotland and the rest of the United Kingdom, of granting Scottish Ministers the power to borrow by means of bond issuance for capital expenditure up to the amounts stipulated in the Scotland Act 2012 (£2.2 billion).

1.2 The consultation is not seeking views on any other aspects of the legislation, including on the amounts that Scottish Ministers will be permitted to borrow.

1.3 The consultation is also explicitly **not** seeking views on the issues that would be posed by bond issuance in the case of an independent Scotland. The analysis in this document is focussed on the potential costs, benefits and risks of bond issuance by the Scottish Government as a constituent member of the United Kingdom within the parameters of the Scotland Act 2012. Little can be inferred from this analysis about the likely borrowing costs and set of risks that an independent Scotland would face in its financing activities.

1.4 Such an assessment would be contingent on a very different set of fundamentals and would need to consider a much wider set of factors, for example the system of monetary policy and precise currency arrangements that would be envisaged in an independent Scotland, which are issues on which there are not yet any specific proposals.

1.5 These factors would introduce additional uncertainties and variables for potential investors to consider beyond those that are pertinent to an assessment of bond issuance by Scotland as a constituent member of the United Kingdom.

The Scotland Act 2012

1.6 The Scotland Act 2012 implements the work of the Calman Commission[1], which represented a comprehensive overview of the role of tax devolution to the Scottish Parliament within the overall UK macroeconomic framework. The Scotland Act preserves the benefits of the fiscal and macroeconomic union between Scotland and the rest of the United Kingdom, while creating a direct link between spending in Scotland and the level of taxes raised in Scotland.

1.7 The Scotland Act 2012 and the measures outlined in the Command Paper published alongside the introduction of the Bill, deliver the largest single transfer of fiscal power from Westminster in the history of the United Kingdom. Its powers give the Scottish Parliament greater responsibility for the taxes required to fund their spending decisions and will improve the accountability of the Scottish Parliament to the Scottish people. For the first time, spending decisions made in Scotland will have significant consequences for taxation in Scotland, and vice versa.

1.8 When the Scotland Act 2012 is fully implemented (from April 2016 onwards), the Scottish Parliament will move from raising less than 15 per cent of its own budget to around 30 per cent. The financial proposals consist of:

[1] www.commissiononscottishdevolution.org.uk

- a Scottish rate of income tax to replace part of UK income tax from April 2016;
- full devolution of land tax and landfill tax from April 2015;
- the power to create or devolve other taxes from enactment of the Bill;
- extensive new borrowing powers from April 2015; and
- a Scottish cash reserve to manage volatility in devolved taxes.

1.9 Following implementation, Scottish Ministers will be in control of over £6 billion of tax revenues.

Borrowing

1.10 Becoming responsible for financing a significant proportion of a budget from devolved taxes introduces a level of volatility to the Scottish budget which until now, has been funded in a stable and predictable way via the Block grant set out at every Spending Review. Responsibility for raising a greater proportion of the Scottish budget – together with the risks associated with that responsibility – which was previously managed at a UK level will, over time, be transferred to the Scottish Government.

1.11 The Calman Commission, on which the Scotland Act 2012 is based, recommended that, in order to increase Scotland's financial accountability, the Scottish Government's borrowing powers should be extended.

Current spending

1.12 Under the powers enabled by the Scotland Act 2012 and the associated Command Paper, Scottish Ministers will be able to borrow to finance current spending:

a. within year, to provide the Scottish Consolidated Fund with enough balance to ensure cash-flow when taxes are devolved and to manage excessive in-year volatility of receipts;

b. across years, to smooth any differences between outturn receipts from devolved taxes and their forecast, up to a total of £500 million total current debt; and

c. on an annual basis borrowing will be capped at a level which is sufficient to deal with forecasting errors in normal times: £200 million.

Capital spending

1.13 From April 2015, when Scottish Ministers take control over certain revenue streams, a further dimension of financial accountability will provide for Scottish Ministers to borrow to fund capital projects for the first time. The power will be transferred to Scottish Ministers in phases:

a. from 2011-12, Scottish Ministers are able to make pre-payments to fund early work on the Forth Bridge Replacement Crossing;

b. from 2015-16 Scottish Ministers can borrow up to 10 per cent of the Scottish capital budget in any year to fund additional capital projects; approximately £230 million in 2014-15; and

c. from 2015-16, the overall stock of capital borrowing cannot exceed the limit set out in the Scotland Act 2012 (at present £2.2 billion, with a power provided to raise, but never lower this limit below £2.2 billion).

Controls

1.14 Other things being equal, borrowing by the Scottish Government will increase UK public sector net borrowing (PSNB) and public sector net debt (PSND) or require spending cuts or tax increases elsewhere in the UK. Any change to the borrowing powers of Scottish Ministers therefore has to work for the UK as a whole as well as for Scotland. Setting limits and controls on any new borrowing is critical to ensuring that any borrowing is manageable from within the UK fiscal position, consistent with the continuing reservation of overall macro-economic policy.

1.15 Control of borrowing is central to fiscal credibility. Limits on Scottish Government borrowing form part of the UK's wider framework for fiscal policy and expenditure control. This framework, underpinned by the clear and comprehensive deficit reduction plan set out by the Government, has secured credibility with financial markets. Long-term interest rates in the UK have been at record lows in recent months. Without such a fiscal strategy and framework, Scotland and the rest of the UK could face higher interest rates and borrowing costs, hurting households, businesses and the taxpayer. Fiscal credibility, delivered in part through controls on borrowing, benefits the Scottish economy and the Government has therefore set controls on Scottish Ministers' borrowing.

Limits on amounts borrowed

1.16 Taken together, the limits on the face of the Scotland Act 2012 allow Scottish Ministers to borrow up to a total of £2.7 billion, with a power provided to raise this limit, but never lower it below £2.7 billion. This limit represents the additional burden and risk that the Chancellor of the Exchequer judged was appropriate against the context of his fiscal judgement for the UK economy as a whole. To allow for exceptional circumstances and ensure consistency with the UK's fiscal mandate, the Scotland Act 2012 allows the limits to be revised upward or downward – though never lower than the limits set out in the Scotland Act 2012 – through secondary legislation. The Government has committed to regularly reviewing these borrowing limits ahead of Spending Reviews through the Joint Exchequer Committee.

Sources of borrowing

1.17 The Scotland Act 2012 gives Scottish Ministers access to the source of borrowing as recommended by the Calman Commission: loans from the National Loans Fund (NLF) via the Secretary of State for Scotland for both capital and current expenditure.

1.18 To allow for greater flexibility in respect of capital expenditure, the Scotland Act 2012 also provides for Scottish Ministers to borrow by way of loans from commercial banks, subject to the condition that the Scottish Government's Accounting Officer is satisfied that this represents good value for money for the UK public sector as a whole.

1.19 The Scotland Act 2012 does not make provision for borrowing by Scottish Ministers from commercial sources to be guaranteed by the UK Government. The UK Government could, however, choose to provide such a guarantee at a later stage if it was minded to do so. This consultation will explore further some of the issues surrounding the provision of central government guarantees.

Bond issuance

1.20 In order to ensure that the new system of Scottish borrowing is flexible and sustainable, the Government included a provision in the Scotland Act 2012 which enables it to amend, in future, the way in which Scottish Ministers can borrow to include bond issuance, without the need for further primary legislation.

1.21 **The aim of this consultation is to gather views and evidence on the costs and benefits to both Scotland and the rest of the UK of Scottish Ministers being granted the power to issue bonds as part of the borrowing powers provided for in the Scotland Act 2012.**

Responding to the consultation

1.22 HM Treasury would like to hear from all interested parties. Respondents should address any of the questions in the consultation document where they feel they can make a contribution, as well as offering any further comments they may have.

Key dates

1.23 This consultation is being launched on 22 June 2012 and will run for twelve weeks. **The deadline for responses is 14 September 2012.**

Contact details

1.24 Responses to the consultation or requests for further information should be directed to:

Tom Dodd
Debt and Reserves Management Team
HM Treasury
1 Horse Guards Road
London
SW1A 2HQ

Email: thomas.dodd@hmtreasury.gsi.gov.uk

Additional ways to be involved

1.25 Please indicate whether you are willing to discuss these issues with HM Treasury. HM Treasury will consider meeting interested parties to discuss issues raised during this consultation. The timing, format and venue of these meetings will be informed by expressions of interest received.

After the consultation

1.26 The Government will publish a summary of the responses it receives, including a summary of the views expressed to each question and a summary of those who responded to the consultation.

Disclosure of responses

1.27 Individual responses will not be attributed unless specifically requested.

1.28 If you want the information that you provide to be treated as confidential, please state as such in your response. Under the Freedom of Information Act, there is a statutory Code of Practice to which public authorities must comply and which deals, amongst other things, with obligations of confidence. In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances.

1.29 HM Treasury will process your personal data in accordance with the Data Protection Act and in the majority of circumstances this will mean that your personal data will not be disclosed to third parties.

Code of Practice on Consultation

1.30 This consultation complies with the Code of Practice on Consultation issued by the Better Regulation Executive in the Department for Business, Innovation and Skills.

1.31 Any comments you might have on this consultation's compliance with the Code of Practice can be directed to HM Treasury's consultation co-ordinator at the following email address: Angela.Carden@hmtreasury.gsi.gov.uk

1.32 Your opinions are valuable to us. Thank you for taking the time to read this document and respond.

2 Sub-sovereign debt issuance – theory and practice

2.1 This chapter looks at what the theory of fiscal decentralisation says about the benefits and risks of sub-sovereign bond issuance.[1] This chapter does not assess the case for the devolution of borrowing powers in general, but focuses in particular on the merits and demerits of bond issuance as a method of borrowing. It examines precedents within the UK of sub-sovereign authorities issuing bonds and looks at the experience of other countries where the use of bonds forms an important part of sub-sovereign government finances. It asks respondents to reflect on the parallels for sub-sovereign bond issuance by the Scottish Government.

Theoretical issues around sub-sovereign debt issuance

2.2 The Government's debt management objective is: 'to minimise, over the long term, the costs of meeting the Government's financing needs, taking into account risk, while ensuring debt management is consistent with the aims of monetary policy.' In recent years, this objective has been pursued in an institutional environment where the UK Government has had almost sole responsibility for public sector bond issuance.[2]

2.3 The potential devolution of powers to issue bonds to a sub-sovereign authority like the Scottish Government has implications for the UK's debt management objective, as well as for other aspects of fiscal and economic policy. These implications could be both positive and negative and should be considered in light of existing fiscal devolution arrangements.

Decentralising financing powers

2.4 Devolving some spending powers from the sovereign government to sub-sovereign authorities, while the former retains control over the financing of that expenditure, can create a problem of 'moral hazard': a situation in which there is a tendency to take undue risks because the costs are not borne by the party taking the risk.

2.5 In particular, sub-sovereign authorities may have an incentive to spend excessively in the knowledge that the financing of any overspending will ultimately be shared with other parts of the country. This manifestation of moral hazard in a decentralised government framework can have negative consequences for the country as a whole as the central government could be faced with higher than projected deficits and debt.

2.6 Giving the sub-sovereign authority partial or full responsibility for financing its expenditure can help to alleviate this moral hazard. This could take the form of devolving powers for raising tax revenues and/or giving the sub-sovereign authority the power to borrow money from non-Government sources, which could include private investors through the issuance of bonds.

[1] 'Sovereign' and 'sub-sovereign' are terms often used in the literature on fiscal decentralisation to distinguish between different tiers of government.
[2] There have been a number of small exceptions to this relating to Local Authorities which are discussed later in this section.

Advantages of sub-sovereign bond issuance

2.7 In theory, issuing bonds can encourage a sub-sovereign authority to be more fiscally responsible. By borrowing from the markets, an authority subjects itself to the scrutiny and discipline of those markets. In the World Bank's view: "The pricing of capital by markets may provide an independent mechanism for fostering political accountability. Markets may signal the poor performance of sub-sovereign governments through increases in interest rates or simply by blocking access".[3]

2.8 This imposition of external discipline may also incentivise sub-sovereign authorities to increase the transparency of their finances in order to secure lower borrowing costs. This in turn might lead to greater scrutiny from both market and non-market participants in such a way that facilitates better governance.

2.9 By its nature, bond issuance normally entails borrowing over a multi-year period and therefore requires a certain degree of forward financial planning. Bond issuance might therefore help to support improvements in long-term financial decision-making, including around public investment projects.

2.10 Bond issuance also allows the borrower to access a wider pool of lenders than would normally be the case for commercial bank loans, where the pool of possible lenders is necessarily limited. This may lead to a lower cost of finance for the sub-sovereign than would have been the case if they were restricted to borrowing purely by way of commercial bank loan.

Disadvantages of sub-sovereign bond issuance

2.11 The issuance of bonds by a sub-sovereign authority also has a number of potential drawbacks. For instance, academic research suggests that the positive benefits of market discipline for sub-sovereigns are only derived when there exists a credible "no bailout" commitment from the national government.[4] In practice, such commitments can sometimes be difficult to design and operationalise.

2.12 Sub-sovereign bond issuance can, therefore, create a new moral hazard concern – the expectation by sub-sovereign bond issuers, investors, rating agencies and other market participants that the national government might be prevailed upon to assume the liabilities or debt-servicing obligations of a distressed sub-sovereign borrower.[5]

2.13 Sub-sovereign bond issuance also raises the risk that a loss of market confidence in a sub-sovereign issuer, perhaps prompted by the failure of the sub-sovereign to meet its repayments, leads to a corresponding loss of confidence in the sovereign itself. In some cases this can trigger full-blown fiscal crises and such episodes are not without precedent in an international context (e.g. Brazil in the 1990s, see Box 2.A.).

2.14 Another potential disadvantage relates to the cost of sub-sovereign borrowing compared to the cost faced by the national government. The price of a bond issued by a sub-sovereign authority is likely to compare unfavourably with that of bonds issued by the sovereign – in other words, the yield on a sub-sovereign bond could be expected to be higher than that for an equivalent national bond. As a result, debt interest payments would be higher than if equivalent borrowing was undertaken via national bond issuance and the proceeds transferred to the sub-sovereign authority, implying higher taxes and/or less spending on public services.

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[3] World Bank "Intergovernmental fiscal relations" http://www1.worldbank.org/publicsector/decentralization/fiscal.htm.

[4] For example, Lane (1993) "Market Discipline," Staff Papers, International Monetary Fund.

[5] World Bank and International Monetary Fund (2001) "Developing Government bond markets: a handbook".

2.15 The likelihood of a higher yield on sub-sovereign bonds reflects three factors:

- an 'illiquidity' premium – a lack of liquidity compared with comparable national bonds can affect investor willingness to buy non-sovereign bonds;
- a 'structural' premium – a premium that reflects investor uncertainty towards new bond issuance by a sub-sovereign authority which previously lacked this power; and
- a 'credit risk' premium (in the event of a credible commitment by the sovereign government not to guarantee the bonds of the sub-sovereign authority) – reflecting the the risk of a sub-sovereign authority being unable to service the interest or principle on bonds issued.

UK precedents for sub-sovereign bond issuance

2.16 A number of sub-sovereign authorities in the UK have used bonds as a means of financing. These include:

- **Local authorities**: local authorities in England and Scotland have the power to issue bonds, and this form of finance once played an important role in local government budgets.[6]

  However, there has been no significant local authority bond issuance since the mid-1990s (aside from the GLA, see below), reflecting the relative expense of doing so (including costs of establishing an independent credit rating and investment banking fees) and the lack of value for money of issuing bonds relative to alternative sources of finance, including borrowing direct from central government via the Public Works Loan Board (PWLB)[7].

  The value of outstanding bonds issued by English local authorities is around £1.2 billion (total long-term debt, the vast majority of which is to the PWLB, was over £54 billion as of March 2011[8]). A significant proportion of outstanding bonds were issued by the Greater London Authority (GLA) in July 2011 to finance the Crossrail project (around £600 million, rated AA+ by S&P).

  Bonds issued by local authorities are not guaranteed by the UK central government. However, some market participants do infer some level of central government support by virtue of the fact that the PWLB will not refuse a local authority a loan application that conforms to its lending arrangements, unless it would lead to a breach of its lending limit.

- **Transport for London**: Transport for London (TfL), which is treated as a local authority for the purposes of financial management under the Local Government Act 2003, sources most of its borrowings from the UK central government. However, it did conduct a £3.3 billion borrowing programme between 2004-05 and 2009-10, including four privately-placed issues in sizes of £100 million and £200 million. TfL bonds do not enjoy an explicit government guarantee and their bonds are rated AA+ by S&P and Fitch, and Aa1 by Moody's.[9]

[6] Borrowing may not be undertaken in currencies other than sterling (without Treasury consent).

[7] The Public Works Loan Board (PWLB) is a statutory body operating within the Debt Management Office, an Executive Agency of HM Treasury. The PWLB's function is to lend money from the National Loans Fund to local authorities and other prescribed bodies. The PWLB currently makes fixed rate loans at gilt rate + 100bps.

[8] Department for Communities and Local Government (2011) "Local Government Financial Statistics England No.21 2011", May 2011, Table 5.3b.

[9] Annex A outlines the ratings systems used by the three main credit rating agencies: Standard & Poors, Moody's and Fitch.

- **Network Rail**: Although a private company, bonds issued by Network Rail benefit from direct and explicit support from the Government in the form of a Financial Indemnity from the Secretary of State for Transport. As such, they can be considered in some sense to represent sub-sovereign debt and provide a useful third point of comparison. As of the end of March 2011, Network Rail had bonds in issue amounting to £24.4 billion, in a variety of maturities and currencies.[10] The explicit UK Government guarantee is reflected in the credit rating of Network Rail bonds which, as of the same date, were rated AAA by Standard and Poor's (stable outlook), Aaa by Moody's and AAA by Fitch.

2.17 Analysis of the GLA, TfL and Network Rail bond issuance provides some insight into the premiums on bonds issued by UK sub-sovereign authorities:

- Of all non-gilt UK bonds, **Network Rail** bonds generally trade at the tightest spread to gilts. However, although Network Rail has held a UK government backed guarantee since 2004, its debt has nevertheless traditionally traded at a premium to gilts due to its bonds being less liquid, not featuring in government bond indices and due to a residual perception of enhanced credit risk. As of end-May 2012, a Network Rail bond maturing in 2030 was trading with a yield of 2.9 per cent, compared to a yield of 2.5 per cent on UK gilts with an equivalent maturity, a spread of 40 basis points;
- As of May 2012, a **TfL** bond maturing in 2031 was trading with a yield of 4.0 per cent, compared to 2.5 per cent for a 20 year gilt, a spread of 150 basis points[11]; and
- As of May 2012, a **GLA** bond with a maturity of 22 years was trading with a yield of 3.6 per cent, compared to 2.7 per cent for an equivalent maturity gilt, a spread of 90 basis points.

International examples

2.18 Sub-sovereign bonds are issued within a number of countries, some in significant volumes. The largest sub-sovereign bond market is located in the US, with annual issuance of about $400 billion. In size terms, the US is followed by Germany, Japan, Canada, China, and Spain; together, they accounted for about 85 per cent of $308 billion of global sub-sovereign bond issuance (excluding the United States) in 2009.[12] Further detail on some of these issuers is provided in Box 2.A.

International evidence on sub-sovereign borrowing premiums

2.19 As stated above, the interest rate charged on sub-sovereign debt is often higher than that payable on bonds issued by the national government. A comparison of yields on sovereign and sub-sovereign debt in different countries provides some indication of how large this premium might be, although it is contingent on a number of factors and will vary over time.

[10] "Network Rail Infrastructure Finance PLC Financial statements", Year ended 31 March 2011.

[11] This bond contains a call option. The presence of this call option will increase the yield relative to an identical bond without a call option.

[12] Otaviano Canuto and Lili Liu (2010) "Subnational Debt Finance and the Global Financial Crisis", World Bank, May 2010.

Table 2.A: Yields on sovereign and sub-sovereign debt

Per cent			
	US[1]	Germany[1]	Canada[2]
10 year sovereign bond yield	1.6	1.2	1.7
Average yields on 10 year sub-sovereign bonds	1.9	1.6	2.9
Differential (basis points)	30	40	120

Source: Bloomberg and Financial Post
[1] As of 31 May 2012.
[2] Yield(s) on 11-year Canadian bonds.

2.20 Tax exemptions in the US make meaningful comparisons between US municipal and Federal borrowing costs difficult. The yields on municipal bonds sometimes trade below those on US Treasury securities reflecting in part the exemption for in-State investors of interest earned on most municipal bonds from both federal and state taxes.

2.21 Data from the German Bundesbank indicates the average annual spread of federal state (Länder) bonds to Bunds during 2001-07 was between 8 and 28 basis points, but with substantial variations over time and by Land. 'Jumbo' bonds (bonds issued jointly by several Länder) had an average spread of 15 basis points, less than those of the individual bonds of the participating Länder, which highlights the beneficial effect of increased liquidity and joint liability to the cost of borrowing. Spreads have widened considerably since the financial crisis of 2008, averaging almost half a percentage point throughout 2011 and 2012.

2.22 The average spread between yields on 11-year Canadian Provincial bonds and bonds of similar maturity issued by the Federal Government is currently around 120 basis points. As with the German Länder, spreads have widened in recent years amid increased risk aversion and deteriorating market liquidity.

Sovereign government support and solvency premiums

2.23 As outlined above, it is possible that a sub-sovereign authority issuing bonds may have to pay a premium on its borrowing costs to reflect the perception of a greater risk of default. The size of this credit risk premium will be influenced by whether the sovereign explicitly or implicitly guarantees bonds issued by a sub-sovereign authority, or whether it makes a credible commitment not to bail out the latter should it encounter financing difficulties. A guarantee by the sovereign government means there should in theory be no credit risk premium (albeit at the implicit expense of national taxpayers); a credible no bail-out commitment, the reverse.

2.24 How large might such a premium be? One approach to answering this question is to compare the credit ratings and borrowing costs of sub-sovereign authorities between countries which vary in terms of the likelihood of support from the sovereign government. In such a comparison, the US, where there have been a number of historical episodes where the Federal government has not bailed out state governments experiencing fiscal crises, arguably has a credible Federal no bail-out commitment.[13]

2.25 As such, credit risk premiums can be gauged by comparing credit ratings applied to US states with those given to sub-sovereign authorities in other countries, where an implicit federal guarantee is considered by ratings agencies to be more in evidence. Differences are significant. For example, Rodden (2006) found that a US state with a debt/own-source revenue ratio of 100

[13] Examples include the fiscal crisis of New York City in 1975, the default on $2.25 billion in bonds of the Washington Public Power Supply System in 1983, and the bankruptcy of Orange County in 1994 and the District of Columbia in 1995. More recently, in November 2011, Jefferson County, Alabama, filed for the largest municipal bankruptcy in US history, and in October 2011, Pennsylvania's capital, Harrisburg, filed for a municipal bankruptcy.

per cent could expect to be rated AA-. However, an Australian state with a similar debt burden could expect either a AA+ or AAA rating. In the period examined, a similarly situated Spanish region could expect a AA rating.[14]

2.26 The same author notes that, by 1996, with only a six-year track record of truly independent borrowing, two of the six Australian states and the capital territory received AAA ratings. In contrast, in the US, despite over 100 years of independent borrowing without a default, only four of the 39 states rated by Standard and Poor's received AAA ratings in that year. A similar comparison was true for Canadian provinces, despite no province defaulting since the depression of the 1930s.

2.27 Rodden argues that the only way to make sense of the variation in credit ratings between US states and Canadian provinces on the one hand, and Australian and Spanish regional governments on the other, is differences in the likelihood of sovereign government support, which in turn is influenced by the transfer-dependence of sub-sovereign governments. Over the period examined, the average level of dependence on federal transfers for the US states and Canadian provinces sampled was around 23 per cent, while the average for Australian states and Spanish regions was roughly twice as high.

2.28 Once the Scotland Act 2012 is implemented in full, the Scottish Government will be responsible for raising around 30 per cent of its own budget and will therefore receive around 70 per cent of its revenues in the form of a grant from the UK Government.

Lessons from international examples of sub-sovereign issuance

2.29 Box 2.A. summarises some international examples of sub-sovereign bond issuance.

2.30 Evidence from international examples suggests that for any given level of expected sovereign support, there are a number of key factors that influence the yield on sub-sovereign debt relative to sovereign debt, including the strength of sub-sovereign institutions, the transparency of sub-sovereign government finances and the taxation of the bonds. As detailed above, in most instances sub-sovereign debt has attracted a higher yield than equivalent sovereign borrowing.

2.31 In a number of cases sub-sovereign bond issuance appears to have yielded some of the benefits touted in the theoretical literature. For instance, the market does appear to exert a form of discipline over sub-sovereign entities in the US and Canada in a way that increases the accountability of sub-national governments. In many cases, sub-sovereign bond issuance also appears not to have had significant negative implications for the sovereign issuer, though it is impossible to disentangle whether there is any adverse impact reflected in the price (and yield) of the sovereign's debt or to know whether those countries would face lower borrowing costs if sub-sovereign bond issuance was not a feature of those countries. The potential risks posed by sub-sovereign bond issuance appear to be greater in instances where controls, reporting and transparency are lacking.

[14] Jonathan Rodden (2006) "Hamilton's paradox: the promise and peril of fiscal federalism", Cambridge University Press.

Box 2.A: International examples of sub-sovereign bond issuance

<u>United States</u>

The US municipal bond market is the largest and most developed sub-sovereign bond market in the world. As of the end of 2011, the US municipal bond market was valued at over $3 trillion, around a third of the size of the US Treasury market. Around 70 per cent of US municipal marketable debt is owned either directly or indirectly by US households.[a] This likely reflects in part the exemption of interest earned on most municipal bonds from both federal and state taxes, which itself largely accounts for the yields on municipal bonds often trading below those on US Treasury securities.

The municipal bond market is overseen by the Municipal Securities Rulemaking Board (MSRB), which has operated under a Congressional mandate since 1975, and which seeks to protect the interests of all participants in the municipal bond market. The main functions of the MSRB are three-fold: (1) the establishment of rules for dealers and municipal advisers; (2) the collection and dissemination of market information; and (3) market leadership, outreach and education.[b] More recent legislation has sought to increase further transparency and accountability in the municipal bond market.[c]

<u>Germany</u>

German federal states (Länder) were the second largest international issuers of sub-sovereign bonds in 2009, with the sub-sovereign bond market worth around $1 trillion and representing around 50 per cent of the outstanding debt stock of the Länder.

Länder are not constrained by the central government in their decisions on debt issuance and are assigned credit ratings primarily on the basis of their respective fiscal positions, with no explicit guarantee for their bond issuance from the Federal Government. Previous rulings of the Federal Constitutional Court, however, have been interpreted as implying some form of joint liability, which has served to reduce the perceived credit risk.

While some Länder have concentrated on large public issues or joint issuers with other Länder (so-called 'Jumbo' bonds), in order to reduce liquidity premia, others have relied on comparatively small but frequent issues, often via private placement. Bundesbank analysis during the period 2001-2007 indicates that Länder have mainly issued bonds with a maturity of four to eleven years, with the mean of each Land's bond issuance approximately €120 million, while the median was slightly below €30 million.[d]

<u>Canada</u>

Canada is one of the most fiscally decentralised countries in the world, with significant spending, revenue raising and borrowing powers devolved to the 10 Canadian provinces.

Canadian Provincial governments actively issue bonds to fund deficits and provide for public works and social welfare expenditures. As many of these projects are long-term in nature, debt issued in this sector of the market tends to be longer in maturity. Bond issuance in a number of provinces and municipalities is facilitated by dedicated financing authorities, for example the Ontario Financing Authority, which also serve to increase transparency. Actively traded provincial bonds account for about 20 per cent of Canada's total bond market, while active municipal issuance represents about 2 per cent of the market.

Brazil

During the late 1980s Brazil devolved significant borrowing powers to individual states, including the power to issue their own bonds. In 1998, however, a number of Brazilian states got into financial difficulty and declared moratoria on debt repayments. The action of these states served to undermine Brazil's position in international financial markets and the country experienced a marked outflow of capital. The crisis in Brazil is largely attributed to the lack of fiscal controls that were placed on the regions by the federal government and subsequent reforms sought to address this by imposing greater restrictions on borrowing levels and requiring explicit federal authorisation for borrowing by way of bond issuance.

Spain

In Spain, significant fiscal powers are devolved to the regions. A number of Spanish regional governments have issued bonds, though the quantity of issuance has slowed significantly in recent years as market liquidity has deteriorated. The likelihood of sovereign support for the regions is reflected in their credit ratings being in line with that of the Spanish central government.

Recently, however, concerns about the sizeable near-term refinancing requirements of the regions and the current state of the sub-sovereign debt market appear to be weighing negatively on the market's perception of credit risk attached to the debt of the central government.[e] Moody's, the credit rating agency, recently proposed joint issuance of national and regional debt by a central agency to improve market access for the autonomous regions and lower interest rates, which would be positive for the country's credit rating. But for this to work Moody's said Spain would need to increase its controls over regional borrowing.[f]

[a] Federal Reserve "Flow of Funds Accounts of the United States", September 2011.
[b] Municipal Securities Rulemaking Board (MSRB), http://www.msrb.org/
[c] US Department of the Treasury
[d] Alexander Schulz and Guntram B. Wolff. (2008) "The German sub-sovereign government bond market: evolution, yields and liquidity" Discussion paper. Series 1: Economic Studies No 06/2008.
e Financial Times, 16 April 2012, "Madrid threatens to intervene in regions".
[f] http://economia.elpais.com/economia/2012/04/02/actualidad/1333395449_137351.html

Box 2.B: Questions on the relevance of theoretical and international experiences of sub-sovereign bond issuance for Scotland.

1. What does the theory of fiscal decentralisation tell us about the merits and demerits of Scottish bond issuance, including, and beyond, the issues covered in this chapter?
2. What insights do UK precedents for sub-sovereign bond issuance provide for Scotland?
3. What are the implications of central governments providing, or not providing, explicit guarantees for the borrowing of a sub-sovereign?
4. How relevant to Scotland's situation are the interest rate premia that are observed in countries that issue sub-sovereign bonds?

3 Potential implications for Scotland

3.1 This chapter looks at the scale of potential benefits, costs and risks to Scotland, as a constituent part of the United Kingdom, of the Scottish Government being granted the power to issue bonds upon the implementation of the Scotland Act 2012. As set out in Chapter 1, this consultation is explicitly **not** seeking views on the issues that would be posed by bond issuance in the case of an independent Scotland, where a different set of considerations would apply.

3.2 This chapter examines, and invites feedback from respondents, on:

- the potential advantages and drawbacks of bond issuance for Scotland;
- value-for-money issues, including factors that may influence the cost of borrowing via Scottish bond issuances relative to UK gilts, and how the use of bonds compares with the other forms of borrowing available to Scottish Ministers;
- the potential demand for Scottish bonds from wholesale and retail sources;
- practical issues involved in the Scottish Government issuing bonds; and
- alternative sources of borrowing.

3.3 The Scotland Act 2012 gives Scottish Ministers the power to borrow for, capital purposes, up to 10 per cent of the Scottish Government's CDEL budget a year (in 2013-14 this would represent £220 million) up to a total stock of debt of £2.2 billion. These limits reflect the additional burden and risk that the UK Government has judged to be appropriate against the context of its fiscal judgement for the UK economy as a whole at this time.

Potential benefits of bond issuance by Scottish Ministers

3.4 Chapter 2 looked at the theoretical benefits and costs of sub-sovereign debt issuance. Potential benefits included the reduction in one form of 'moral hazard' by giving sub-sovereign authorities which previously only exercised spending powers some responsibility for financing.

3.5 An advantage specific to bond issuance was identified, namely the market discipline the use of bonds may impose on a fiscal authority. The discipline imposed by the market might encourage Scottish Ministers to use their borrowing powers prudently and productively, which may lead to better policy outcomes than would have been the case were Scotland limited to borrowing from the central government or by way of a commercial bank loan (unlike bonds, bank loans are not readily tradeable and therefore there is no visible market "price" which signals the market's judgement on the borrower to third parties).

3.6 A further potential benefit is that bond issuance could create incentives for the Scottish Government to increase the transparency of its finances in such a way that would allow for greater scrutiny from both market participants and the wider public. Enhanced transparency could improve the quality of debate around the financial decision-making of the Scottish Government and help to support its political accountability.

3.7 Bond issuance and the associated repayment schedule would also need to be planned some way in advance. This might help to support forward planning which could act to improve long-term financial decision-making, including around capital investment projects.

Potential disadvantages of bond issuance by Scottish Ministers

3.8 Two key potential drawbacks for the sub-sovereign issuer were also identified. One related to the likely premium that a sub-sovereign borrower would pay relative to the cost of borrowing faced by the national government, which has been explored above. The second drawback was that the power to borrow using bonds may create a new form of moral hazard, where the sub-sovereign authority borrows excessively in the expectation that it will be bailed out by the sovereign government.

3.9 How applicable might these benefits and drawbacks be to Scotland? In theory, the pressure applied by capital markets to pursue responsible fiscal policies could be an advantage of bond issuance. But, to the extent that the markets would potentially see Scottish bonds as being implicitly backed by the UK Government, this discipline could be illusory.

3.10 In practice though, the risk of moral hazard in Scotland's case is largely mitigated by the limits on borrowing set out in the Scotland Act 2012 and could potentially be mitigated further were the UK Government able to make a credible 'no bailout' commitment.

Value for money

3.11 If Scottish Ministers choose to use the borrowing powers set out in the Scotland Act 2012, one important consideration will be to minimise the cost of borrowing to the Scottish Government, and hence the Scottish taxpayer. Therefore, the likely borrowing costs payable on Scottish bonds and how these compare with the alternative sources of borrowing as set out in the Scotland Act 2012 and its Command Paper are important considerations in judging the merits of Scottish bond issuance.

3.12 The cost of bonds issued by the Scottish Government will be influenced by the demand for those bonds. Such demand could come from two sources: wholesale and retail.

Potential wholesale demand

3.13 UK precedents of sub-sovereign debt issuance point towards the wholesale sector, including pension funds and investment funds, as being as the key source of demand for any bonds issued by the Scottish Government. As with any commercial investment decision, the overriding criterion for potential wholesale investors in Scottish bonds would be that the combination of risk and return suited their requirements. Therefore, it is likely that the demand from wholesale sources would be price sensitive.

3.14 Another factor influencing wholesale demand for Scottish bonds would be the extent to which those bonds met the requirements for inclusion in fixed-income indices. Many bond investors seek to track the performance of a large portfolio of bonds, so automatically purchase bonds included in the relevant indices.[1] Whether a particular bond is included in these indices depends upon meeting certain criteria. For example, criteria for inclusion in the FTSE bond index include the minimum issuance size of a bond being at least £100 million, the bond having a current market quotation, and a bond issue generally only being included if there are prices available from more than one market maker.[2] It is not clear whether a Scottish Government bond issue would meet the criteria for inclusion in bond indices from the outset.

3.15 A final factor relevant to potential wholesale demand is the existence of, and potential competition from, other sub-sovereign bonds issued within the UK. To the extent that there is perceived to be a discrete market for sub-sovereign bonds, Scottish bonds may have to compete

[1] Both iBoxx and the FTSE Global Bond Index series are examples of bond indices.

[2] See FTSE (2006) 'Ground Rules for the Management of the FTSE Global Bond Index Series'.

for wholesale investors with bonds issued by Transport for London and Network Rail, and any future bond issuance by UK Local Authorities.

Potential retail demand

3.16 Retail investors provide a second potential source of demand for Scottish government bonds. The retail sector represents a significant source of demand for sovereign and sub-sovereign debt in some other countries, in particular the US and Italy. To date, however, retail investment has represented a very small proportion of the overall demand for UK gilts. Data published by the Office for National Statistics shows UK-resident households held around £24 billion of gilts at end-December 2011, just under two per cent of total holdings. However, these holdings have been accrued over many decades and have fallen steadily from their peak of just over £50 billion in 1998, indicating that UK residents have not provided a significant source of demand for gilts in recent years.

3.17 The extent to which any such retail demand for Scottish Government bonds may materialise will likely depend on a number of factors including the characteristics of the bonds (e.g. maturity and coupon structure), the extent of the operational provisions to facilitate transactions, and the yield relative to the interest rates available on alternative investment products, including UK gilts and National Savings and Investments products, which are guaranteed by the UK government, and savings products provided by commercial banks and building societies.

Factors likely to affect Scottish borrowing costs

3.18 International evidence and the more limited evidence from past sub-sovereign bond issuance in the UK presented in Chapter 2, suggests that bonds issued by the Scottish Government would likely pay a higher interest rate than UK gilts.

3.19 Drawing on the analysis presented in Chapter 2, three factors in particular are likely to influence the yield, or cost, premium that investors might demand to hold Scottish Government bonds, relative to UK gilts. These are:

a. the ability of market participants to buy and sell Scottish bonds without causing a significant movement in the price of those bonds ('liquidity risk');

b. the extent to which investors will require a yield premium for holding Scottish bonds to compensate for their lack of a track record in bond issuance (what was termed 'structural risk' in Chapter 2); and

c. the risk that the Scottish Government will find itself unable to service interest payments or repay the principal on bonds issued ('credit risk').

Liquidity risk

3.20 The liquidity of Scottish issuance is likely to be relatively poor, particularly in comparison with UK gilts. The relatively small size of Scottish issuance compared with UK gilts would impact on the yield that the Scottish Government would pay, as investors would wish to be compensated for a product that is harder to trade due to the relatively small number of bonds issued and potentially limited number of participants trading those bonds.

3.21 Liquidity would also be influenced by factors in addition to the size of any Scottish bond market. These would include the maturity of bonds issued (bonds with a shorter maturity are likely to be more liquid), the similarity and exchangeability of Scottish bonds with other bonds, and the existence, or otherwise, of specialised dealers in Scottish bonds (akin to Gilt-edged Market Makers for UK public debt).

3.22 As set out above, the borrowing limits which form part of the UK's fiscal framework have economic benefits for all of the UK, including Scotland. However, even in a hypothetical case where Scottish Ministers were unconstrained in their borrowing, it is highly unlikely that a market in Scottish Government bonds would be able to rival the liquidity of the UK gilt market, which is one of the deepest and most liquid capital markets in the world.

Structural risk

3.23 Characteristics of Scottish bonds, including their initially novel nature, may also impact on yields. Investors may be more cautious about investing in a new product, at least initially. In some cases, regulatory requirements or investment mandates may constrain them to only invest in securities with a long and stable history.

3.24 Moreover, to the extent that there may be ongoing uncertainty over Scotland's constitutional future may deter investors. The extent to which this uncertainty could inhibit demand for Scottish bonds is difficult to judge.

Credit risk

3.25 The perceived credit risk of Scottish bonds will reflect a number of factors, including the scope for the Scottish Government to raise revenue through taxes, the fiscal credibility of the Scottish Government, and any implicit or explicit guarantee of Scottish bonds by the UK Exchequer.

3.26 Although the Scotland Act 2012 will devolve significant revenue raising powers to Scottish Ministers, following the implementation of the Scotland Act 2012, the Scottish Government will still derive around 70 per cent of its revenue from the block grant provided by the UK Government. This would suggest that the size of any credit risk premium on Scottish borrowing costs could be relatively small, even if the UK Government committed not to guarantee Scottish bonds. This 'saving' to the Scottish Government would effectively represent a subsidy to Scottish taxpayers from taxpayers in the rest of the UK.

Practical issues in setting up Scottish bond issuance

3.27 The issuance of bonds by Scottish Ministers would require setting up the appropriate infrastructure. This would include the engagement of specialist advisors, seeking independent ratings, marketing, conducting the sale process (e.g. if this is chosen to be a syndicated sale, the engagement of lead managers and management of the sale) and analysis of the investor base. The costs involved in such a programme would raise the overall cost of borrowing by way of bond issuance compared to borrowing from other sources.

3.28 The magnitude of these costs is uncertain and would depend on the form and method of bond issuance opted for, but they are likely to be non-negligible.

Alternative sources of borrowing for the Scottish government

3.29 In assessing value for money, the cost of borrowing by way of bond issuance needs to be compared with the cost of alternative forms of borrowing. Under the powers granted to them in the Scotland Act 2012, Scottish Ministers will have the ability to borrow by means of a loan from the National Loans Fund (NLF) (essentially a loan from the UK central government at a preferential rate of interest) and borrowing by way of a loan from a commercial bank.

National Loans Fund

3.30 The NLF is a fund of the UK central government which provides loans to statutory public bodies. The funds to finance such lending are raised primarily through the issuance of gilts by the UK government. The interest cost of borrowing from the NLF is, for most borrowers, based on the equivalent gilt yield curve for that period plus a small margin to cover administrative costs.[3] On average, current rates of borrowing from the NLF are, depending on the term of loan, around 20 basis points above the equivalent gilt rate.[4] A spread to the sovereign borrowing cost of this order would compare very favourably with comparable international and UK examples of sub-sovereign bond issuance outlined in Chapter 2. Moreover, it is the case in many countries where sub-sovereign bond issuance is a feature that low-cost, direct, on-lending by the central government is not an option available to sub-national entities.

3.31 For those public sector entities permitted to borrow from the NLF, NLF loans normally represent the cheapest form of finance available given the small spread to gilts and the fact that the UK Government can, generally, borrow more cheaply than any other agent in the economy.

Commercial bank loan

3.32 Scottish Ministers will also have the option of borrowing by means of a loan from a commercial bank. Relative to a loan from the NLF this is highly unlikely to represent value for money as the UK Government's cost of funds is substantially below those of commercial banks, and a large proportion of this cost saving would be passed through to the Scottish Government if they were to borrow from the NLF.

3.33 However, bond issuance would offer Scotland a number of benefits over borrowing by way of a commercial bank loan. Bonds are generally available at longer maturities and require less collateral than bank loans, for example. The pool of potential lenders is also smaller for bank loans than tends to be the case for bonds.

3.34 However, borrowing by way of loan requires less infrastructure and incurs fewer sunk costs than bond issuance and can prove cost effective at smaller levels of borrowing.

3.35 The cost differential between commercial bank loans and bonds issued by the Scottish Government would likely depend on the terms of the loan, the quantity of borrowing and what security, if any, was attached.

Box 3.A: Questions on the potential implications for Scotland

5. What are the key risks and benefits to Scotland of bond issuance by Scottish Ministers?
6. What is the potential source, scale and depth of demand for Scottish bonds?
7. What would be the size of any yield premium that potential investors would require to invest in Scottish bonds (as a spread to the yield on UK gilts)?

[3] Section 5 of the National Loans Act 1968 requires interest charges on loans from the NLF to be sufficient to cover the cost to the government of borrowing, on the same terms and for the same period, of the sums to be advanced.

[4] NLF interest rates are determined by the UK Debt Management Office (DMO) and updated on a daily basis and can be found on their website http://www.dmo.gov.uk/index.aspx?page=PWLB/NLF_Rates

4 Potential implications for the UK as a whole

4.1 This chapter asks respondents to consider the scale of potential benefits, costs and risks to the UK as a whole of the Scottish Government, as a constituent member of the United Kingdom, gaining and using the power to issue bonds for capital expenditure, as part of the suite of powers Scottish Ministers will control following the implementation of the Scotland Act 2012.

Direct impact on the public finances of the UK as a whole

4.2 Borrowing by the Scottish Government will impact directly on the UK's fiscal aggregates. For example, debt incurred by the Scottish Government will add to UK public sector net debt, and interest paid on that debt would score in UK public sector net borrowing. This would be the case irrespective of whether the Scottish Government borrowed via bond issuance, from the National Loans Fund, or from commercial sources.

4.3 Reflecting the impact on UK fiscal aggregates, limits must be set at a level appropriate to the wider macroeconomic and fiscal context. The current UK fiscal context is one of a sustained spending consolidation over a multi-year period, driven by the need to restore the public finances to a sustainable position in response to an unprecedented fiscal challenge. Over a longer-term period, sensible limits on deficits and debt will continue to be important, to maintain a sustainable fiscal position and to prepare for long-term fiscal pressures arising from trends such as an ageing population.

4.4 Within the constraints placed by the UK fiscal framework, limits on Scottish capital borrowing must be set to avoid requiring excessive offsetting spending reductions elsewhere in the UK. The limits reflect the UK Government's judgement on the appropriate balance between the advantages of funding additional capital projects and the need for protecting the UK's public finances. The Government has committed to regularly reviewing these borrowing limits ahead of Spending Reviews through the Joint Exchequer Committee.

Potential indirect consequences for the UK as a whole – both positive and negative

4.5 As well as a direct fiscal impact which is common to all forms of borrowing, the issuance of bonds by the Scottish Government could have indirect consequences for the UK as a whole, both positive and negative, which are particular to bonds as a method of borrowing.

4.6 The previous chapter outlined a number of potential benefits to Scotland of issuing its own bonds. Many of these advantages could also benefit the UK more widely. For example, it would be advantageous to the UK as a whole for the Scottish Government to feel more direct accountability through the market for their borrowing if that led to better policy outcomes, more effective long-term planning or enhanced transparency.

4.7 There would also be a set of potential risks to the UK as a whole from a programme of Scottish bond issuance. These risks and their potential impact is arguably different to those posed by the alternative forms of borrowing provided for in the Scotland Act 2012. These risks may, for example, include:

- the issuance of Scottish bonds could **fragment the UK public debt market**, to the disadvantage of all issuers. There are benefits to all members of the UK from the economies of scale from having a single centralised issuer of sterling sovereign debt and a fragmented issuance programme will weaken this position. The impact of this risk would likely be small at the levels of issuance currently envisaged;
- potential implications for UK gilts and other UK sub-sovereign debt in the event, for example, of a **loss of confidence in Scottish** bonds or a default by the Scottish Government. This risk would likely depend upon the extent to which investors viewed Scottish bonds as being analogous to UK gilts. Such a risk would only likely be significant at levels of issuance that are greater than those currently envisaged;
- though the interest payments on bonds issued by Scottish ministers would be met from the block grant, to the extent that such bonds would attract a higher yield than UK gilts, borrowing by means of bond issuance would lead to a higher overall UK public sector debt interest bill that would represent **a deadweight cost to taxpayers**; and
- the **longer term economic and fiscal consequences of a premium on Scottish borrowing costs relative to UK gilts**. Higher interest costs imply either lower public spending or higher taxes in Scotland than would otherwise be the case. Over time, both could have potentially adverse consequences for economic growth and the fiscal strength of both Scotland and the rest of the UK. At low levels of bond issuance, this cost will likely be very small, but will likely rise in line with the scale of issuance.

4.8 The size of these risks is evidently dependent on the size of bond issuance in question. At the levels of borrowing stipulated in the Scotland Act 2012 it is likely that many of the risks outlined above will be relatively insignificant. For instance, the fragmentation of the gilt market or the risk to UK gilts from a loss of confidence in Scottish bonds are unlikely to be considerable at the levels of borrowing currently envisaged. However, these risks could be expected to increase in line with the quantity of Scottish bonds issued, for instance if the borrowing limits were to be increased in future Spending Reviews.

4.9 It is also not clear that the UK as a whole is exposed, in a significant sense, to the risks above as a result of bond issuance to date by other sub-sovereign entities (e.g. Local Authorities). That said, bond issuance by other UK sub-sovereigns is limited and Scotland's status as a country within the UK could potentially mean that the read across to the UK gilt market is greater than it might be in other cases.

Box 4.A: Questions on the potential implications for the UK

8 How significant are the potential benefits and risks of bond issuance by Scottish Ministers to the rest of the UK, including to the UK gilt market?

9 Are there any other issues and risks that could impact on the rest of the UK in giving Scottish Ministers the power to issue bonds? If so, how might any such risks be managed?

5 List of questions

Box 5.A: Summary of questions contained in the consultation

1. What does the theory of fiscal decentralisation tell us about the merits and demerits of Scottish bond issuance, including, and beyond, the issues covered in this document?
2. What insights do UK precedents for sub-sovereign bond issuance provide for Scotland?
3. What are the implications of central governments providing, or not providing, explicit guarantees for the borrowing of a sub-sovereign?
4. How relevant to Scotland's situation are the interest rate premia that are observed in countries that issue sub-sovereign bonds?
5. What are the key risks and benefits to Scotland of bond issuance by Scottish Ministers?
6. What is the potential source, scale and depth of demand for Scottish bonds?
7. What would be the size of any yield premium that potential investors would require to invest in Scottish bonds (as a spread to the yield on UK gilts)?
8. How significant are the potential benefits and risks of bond issuance by Scottish Ministers to the rest of the UK, including to the UK gilt market?
9. Are there any other issues and risks that could impact on the rest of the UK in giving Scottish Ministers the power to issue bonds? If so, how might any such risks be managed?

A Credit rating comparisons across agencies

Table A.1: Credit rating comparisons across agencies

Moody's	S&P	Fitch	
Aaa	AAA	AAA	Prime
Aa1	AA+	AA+	High grade
Aa2	AA	AA	
Aa3	AA-	AA-	
A1	A+	A+	Upper medium grade
A2	A	A	
A3	A-	A-	
Baa1	BBB+	BBB+	Lower medium grade
Baa2	BBB	BBB	
Baa3	BBB-	BBB-	
Ba1	BB+	BB+	Non-investment grade speculative
Ba2	BB	BB	
Ba3	BB-	BB-	
B1	B+	B+	High speculative
B2	B	B	
B3	B-	B-	
Caa1	CCC+	CCC	Substantial risks
Caa2	CCC		Extremely speculative
Caa3	CCC-		In default with little prospect for recovery
Ca	CC		
	C		
C	D	DDD	In default

Source: Moody's, S&P and Fitch

B Glossary of key financial market terms

Table B.1: Glossary of key financial market terms

Basis point	One hundredth of one per cent (i.e. 0.01 per cent).
Bond	A debt security in which the authorised issuer owes the holder a debt and, depending on the terms of the bond, is obliged to pay interest (the coupon) at regular intervals (e.g. semi-annual) and/or to repay the principal at a later date, termed maturity.
Capital outflow	The withdrawal of assets from a country by foreign and domestic investors, in extreme cases, likely to reflect political or economic instability.
Credit rating	A measure of the creditworthiness of an issuer (e.g. corporation or government) of specific types of debt produced and assigned by credit rating agencies.
Deadweight cost	An economically inefficient and unnecessary loss of value.
Deficit	An economic condition in which expenditure (or outflows) exceeds income (or inflows). A prolonged state of deficit may give rise to concerns about sustainability.
Fixed-income indices	A composite listing of bonds or fixed income instruments and a value reflecting the composite value of its components, which can be used by portfolio managers to represent the aggregate characteristics of the underlying securities.
Gilt	A bond issued by the UK government.
Liquidity	The ease with which investors can transact in their desired quantity and at their desired time in a particular market or instrument.
Maturity	The amount of time before the investor's principal (the upfront investment) is repaid.
Premium	An additional debt interest cost reflecting the market's pricing of the yield (see below) on a bond.
Spread	The difference in the yield (see below) on two bonds reflecting the market's different pricing of each bond according to divergence in factors such as credit risk and the expected future path of interest rates (e.g. the difference between yields on UK government bonds and German government bonds).
Yield	The income return on an investment, usually expressed annually as a percentage of the value of the initial investment.
Yield curve	A graph depicting the relationship between yields and maturities of bonds issued by a particular entity (e.g. the UK government bond yield curve).
Wholesale market	The market in which institutional investors buy and sell securities as distinguished from the retail market in which individuals transact.

Source: HM Treasury

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This document can be found in full on our website: http://www.hm-treasury.gov.uk

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