

Alþingi Erindi nr. þ 126/2192 komudagur 2.5.200/

Reykjavík 2. maí 2001

Efnahags- og viðskiptanefnd Alþingis

Á fundi nefndarinnar föstudaginn 27. apríl sl. var óskað upplýsinga frá Seðlabankanum um a) lönd þar sem notuð væri verðtrygging fjárskuldbindinga og b) algenga dráttarvexti í OECD löndum.

Meðfylgjandi eru gögn varðandi fyrrnefnda efnið, en Seðlabankinn hefur ekki upplýsingar um hið síðarnefnda.

Virðingarfyllst

SEÐLABANKI ÍSLANDS

Eiríkur Guðnason

bankastjóri

Fylgiskjöl

- 1. Úrdráttur úr skýrslu um fund á vegum OECD sem haldinn var í nóvember 2000
- 2. Iceland selected points on financial indexation DAFFE/MC/DM(2000)6
- 3. Experience with index-linked bonds DAFFE/MC/DM(2000)6

# Reynslan af verðtryggðri skuldabréfaútgáfu

Lögð var fram könnun sem unnin var af Áströlum um útgáfu verðtryggðra skuldabréfa í löndum OECD: Ástralíu, Kanada, Frakklandi, Íslandi, Nýja Sjállandi, Svíþjóð, Bretlandi og Bandaríkjunum. Í könnuninni kom meðal annars fram:

- Markmið með útgáfu verðtryggðra bréfa er einkum að hjálpa til við lánastýringu, og að afla fjár á lægsta mögulega verði.
- Ísland, Frakkland, Bretland og Bandaríkin telja að markmiðið hafi náðst. Þrátt fyrir að verðtryggð útgáfa hafi reynst hagkvæm fyrir ríkissjóð, þá telja Ástralía, Kanada og Svíþjóð mikinn ókost að virkan markað með bréfin hafi vantað og stórt verðbil væri hjá þeim sem setja fram boð.
- Í Nýja-Sjállandi hefur ekki tekist að selja fjárfestum þá hugmynd að með kaupum á verðtryggðum bréfum væri verið að tryggja sig gegn verðbólgu og því væri lægri ávöxtun ásættanleg. Engin útgáfa hefur verið í Nýja-Sjállandi um tveggja ára skeið.
- Í öllum löndunum, nema Íslandi, er markaður með verðtryggð bréf í skugganum á óverðtryggðum bréfum.
- □ Í Bretlandi eru verðtryggð bréf um 20% af heildarstofni ríkisskuldabréfa en velta með bréfin aðeins um 5%. Bretar hafa komið á uppboðskerfi í stað kranasölu. Hlutdeild verðtryggingar er vaxandi, sem sést best á því að á árinu 1998 var frumsala verðtryggðra bréfa 6,8% af stofni verðtryggðra bréfa á meðan að frumsala óverðtryggðra bréfa var aðeins um 1,3% af stofni þeirra bréfa.
- □ Fram kemur að í *Bandaríkjunum* er breiðari dreifing á nýjum útgáfum verðtryggðra bréfa en óverðtryggðra og hafa bréfin verið eftirsótt af erlendum fjárfestum.
- ☐ Í Frakklandi eru 19 aðalmiðlarar með verðtryggð bréf og vaxtabilið er 2 punktar í 10 og 30 ára verðbréfum. Uppboð eru ársfjórðungslega. Frakkar hyggjast auka hlutdeild verðtryggðra bréfa.
- □ Á Íslandi eru spariskírteini 75% af útgáfu innlendra ríkisverðbréfa, 4 viðskiptavakar og hámarksmunur á kaup- og söluávöxtun á eftirmarkaði er 7 punktar.
- Svíar hafa aukið tíðni uppboða, úr 4 á ári í 12, og komið á nýju miðlarakerfi. Bréfin eru aðallega keypt af stofnanafjárfestum, s.s. lífeyrissjóðum og tryggingafélögum. Vaxandi áhugi er meðal erlendra fjárfesta.
- Mjög lítil velta hefur verið með verðtryggð bréf í Ástralíu, Kanada og Nýja-Sjállandi.
- I umræðum kom fram hjá fulltrúum *Ungverjalands, Tyrklands og Póllands* að þar hafi verið reynd tímabundið útgáfa verðtryggðra verðbréfa, sem átti meðal annars að laða að erlent fjármagn. Það hafi ekki gengið eftir og reynsla þessara landa af verðtryggingu hafi verið slæm.

Útdráttur úr skýrslu um fund á vegum OECD sem haldinn var í nóvember 2000.

DIRECTORATE FOR FINANCIAL, FISCAL AND ENTERPRISE AFFAIRS

COMMITTEE ON FINANCIAL MARKETS

ROOM DOCUMENT 9
Supplementary document to
accompany document
DAFFE/MC/DM(2000)6

Government Debt Management Working Party

### ICELAND - SELECTED POINTS ON FINANCIAL INDEXATION



This Room Document, prepared by Mr. Olafur K Olafs, of the Monetary Department of the Central Bank of Iceland, is issued for consideration with the documents prepared by the Australian Office of Financial Managament under item 7) of the agenda of the Meeting of the Debt Management Working Party of 7-8 November 2000.

For further information, please contact Mr. Hans Blommestein (Tel: +33 1 45 24 79 90; Fax: +33 1 44 30 61 38; E-mail: Hans.Blommestein@oecd.org)

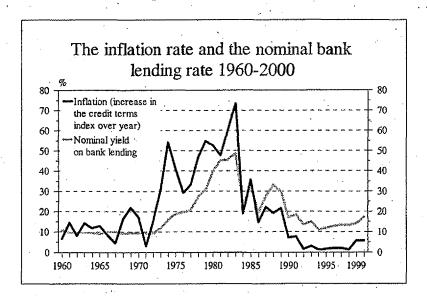
### **ICELAND**

# Selected points on financial indexation

The following material will give you insight into the development of financial indexation in Iceland.

- □ 1955, Government housing loans began to be partly indexed
- □ 1964, Government bonds were fully indexed
- 1972, Investment credit funds started indexation on their credit and
- □ 1978, Pension funds
- □ 1979, Banks were authorised to index their lending and
- □ 1980, banks were authorised to index deposits
- □ 1995, Steps were taken to limit the scope of indexation by extending the minimum maturity of indexed lending and deposits.

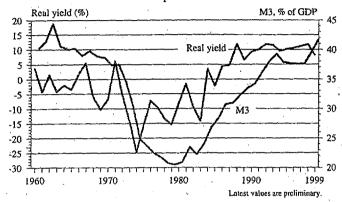
High and variable inflation in Iceland along with controlled interest rates was the main stimulus to its widespread adoption in the seventies.



Negative real interest rates caused a significant fall in financial saving. The ratio of M3 to GDP was about 40% at the end of the 1960s but had gone down to just over 20% by 1978, when interest rates were negative by some 20%.

# Real yield and broad money 1960 - 1999

# Real yield on non-indexed bank loans and M3 as percent of GDP



- In order to push real rates of interest up past the zero mark, general indexation was introduced by linking financial liabilities to changes in the so-called "credit-terms index".
- This could also have been achieved with flexible, high nominal rates of interest, which would greatly have increased the repayments burden for loans, but at that time this would have been unrealistically punitive and there was no support for such an approach.
- This could also have been achieved by driving inflation down, which was not considered feasible way at that time.

The credit-terms index was introduced in 1979<sup>1</sup>. In that year banking institutions could index their lending and the following year the deposits. Indexed deposits were popular from the beginning and contributed less outflow of funds from the banking system.

# The effects of indexation

- It reversed the trend of falling financial saving and thus created the basis for the development of the capital markets that took place later in the 80s.
- ☐ It made it possible to develop fairly long-term forms of lending and financial instruments undir variable inflation circumstances.
- It also saved the Treasury interest expenses, especially after domestic interest rates had been fully liberalised in the 80s, as inflation risk premia on long-term nominal government bonds would have been rather high.
- Indexed long term government bonds have been ideal way of investing for the pension funds.
- ☐ Finally, it played a beneficial role in the disinflation process.

<sup>&</sup>lt;sup>1</sup> Initially, the credit terms index, was a weighted average of the CPI and the building cost index, in 1989 the wage index was added to the average but from 1995 the credit terms index is solely based on the CPI with a one-month lag.

The above mentioned benefits of indexation apply mostly to the longer end of the market. At the shorter end it can create various problems, including for the operation of monetary policy.

The main disadvantages of indexation have been:

- Higher operating risks among banks, with imbalances developing between indexed assets and liabilities on their balance sheets.
- Distortion of interest rate formation whereby the banks' unindexed short-term interest rates have been determined with reference to those on indexed long-term bonds. The latter problem arises because of a persistent imbalance between indexed assets and liabilities which has resulted in interest rates on non-indexed forms having to some extent to follow the development in indexed terms.

## Reducing the scope of indexaton

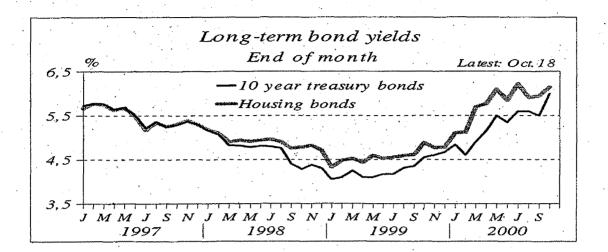
There have been efforts made to reduce the scope of indexation at the shorter end of the market. The minimum maturity of deposits and lending qualified for indexation has been extended. For indexed lending the minimum maturity is now five years but three years for deposits. Despite extended the minimum period, indexation is still very widespread, as shown in the following tables.

# Composition of government marketable debt, domestic market:

	Dec. 1995	Dec. 199 <b>6</b>	Dec. 1997	Dec. 1998	Dec. 1999	Aug. <b>200</b> 0
	1990	1990	1997	1990	1999	2000
Indexed bonds	75.1	71.2	74.5	68.3	76.1	75.2
Foreign currency linked	3.6	3.8	3.6	3.7	2.9	0.0
Nominal bonds	6.3	9.5	. 11.4	15.8	12.1	15.2
Treasury bills	14.9	15.5	10.5	12.2	8.9	9.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

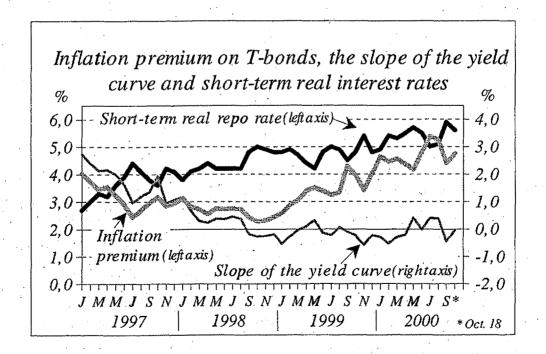
# Composition of marketable securities, domestic market:

Dec. 1995	Dec. 1996	Dec. 1997	Dec. 1998	Dec. 1999	Aug. 2000
. 87.1	85.3	86.0	86.9	90.3	92.9
1.6	1.5	1.3	1.2	8.0	0.0
2.8	3.7	4.2	5.2	3.2	2.8
8.6	9.4	8.6	6.7	5.7	4.3
100.0	100.0	100.0	100.0	100.0	100.0
	1995 87.1 1.6 2.8	1995     1996       87.1     85.3       1.6     1.5       2.8     3.7       8.6     9.4	1995     1996     1997       87.1     85.3     86.0       1.6     1.5     1.3       2.8     3.7     4.2       8.6     9.4     8.6	1995     1996     1997     1998       87.1     85.3     86.0     86.9       1.6     1.5     1.3     1.2       2.8     3.7     4.2     5.2       8.6     9.4     8.6     6.7	1995     1996     1997     1998     1999       87.1     85.3     86.0     86.9     90.3       1.6     1.5     1.3     1.2     0.8       2.8     3.7     4.2     5.2     3.2       8.6     9.4     8.6     6.7     5.7



# **Inflation expectations**

In the most recent period indexed and unindexed government bonds of the same maturity have existed side by side giving important information on the development of inflationary expectations and/or inflation premium in the market.



# For Official Use

# DAFFE/MC/DM(2000)6



Organisation de Coopération et de Développement Economiques Organisation for Economic Co-operation and Development OLIS Dist. 02-Nov-2000 03-Nov-2000

Or. Eng.

PARIS

For Official Use

DAFFE/MC/DM(2000)6

DIRECTORATE FOR FINANCIAL, FISCAL AND ENTERPRISE AFFAIRS COMMITTEE ON FINANCIAL MARKETS



Cancels & replaces the same document: distributed 18-Oct-2000

Working Party on Government Debt Management

**EXPERIENCE WITH INDEX-LINKED BONDS** 

This document, prepared by the Australian Office of Financial Management, is circulated under item 7) of the Agenda for the meeting of the Debt Management Working Party on 7-8 November 2000

For further information, please contact Hans Blommestein (Tel: +33 1 45 24 79 90; Fax: +33 1 44 30 61 38; E-mail: Hans.Blommestein@oecd.org)

97312

Document complet disponible sur OLIS dans son format d'origine Complete document available on OLIS in its original format

### SUMMARY OF OECD INDEXED BONDS QUESTIONNAIRE

- 1. A number of sovereign debt managers now offer investors a security whose overall return is linked explicitly to periodic movements in some appropriate domestic price index.
- 2. The purpose of this paper is to draw out the main points and themes to emerge from responses to a questionnaire by those OECD sovereign debt managers who issue indexed securities. Responses were received from all the sovereigns who were surveyed; namely, Australia, Canada, France, Iceland, New Zealand, Sweden, the United Kingdom and the United States.

#### Overview

- 3. The questionnaire itself covered a large amount of ground including the objectives of issuance, success in meeting these objectives, actions being taken to facilitate the meeting of objectives and characteristics of the indexed market.
- 4. Not surprisingly, all countries advised that they issue indexed debt to assist with the overall debt management objective of raising, managing and retiring debt at the lowest possible price. The majority of countries stated that issuance of indexed stock had, at times, been successful in achieving this objective.
- 5. Only three countries stated that they were completely satisfied that their programs had achieved the original objectives. A further four countries expressed some concerns about the way their indexed market has developed. One country regarded its experience with indexed stock as disappointing.
- 6. Respondents provided information on the characteristics of their market. This clearly revealed that indexed markets tend to be less liquid, have fewer participants and have a narrower investor base than nominal markets. Many respondents suggested this is due to the "buy and hold" nature of indexed securities and the relatively small amount of indexed stock on issue.
- 7. Sovereigns with a longer history of issuance appear most likely to provide a real rate pricing benchmark. Sovereigns without significant amounts of stock on issue across a range of maturities tend to be less likely to provide such a pricing benchmark. All countries advised that measures of break even inflation are of some use to policy makers and market participants in assessing future inflation.
- 8. Four countries indicated that they are not undertaking any action to meet their original objectives on the basis that these objectives have been met or are no longer objectives. The remaining issuers identified actions they are taking to meet their original objectives or exceed these objectives. Amongst those countries taking some action, there does not appear to be consistency in measures adopted, with each implementing changes to best suit their market.

## Responses to Individual questions

- 1. What are the objectives that underpin your country's overall debt management activities? Are there any specific objectives relating to your country's issuance of indexed securities, and in what manner do you judge that the indexed issuance program contributes to the meeting of debt management objectives overall?
- 9. Respondents indicated that indexed securities are issued primarily to assist with the overall debt management objective to raise, manage and retire debt at the lowest possible price. The following were identified as means by which issuance of indexed debt may contribute to this objective.
- If investors value insurance against unexpected inflation, they will be prepared to pay a premium for the guaranteed real returns on indexed debt, resulting in cheaper funding than nominal debt.
- If a proportion of the Government's assets and cashflows are linked to inflation, issuing indexed stock provides an internal portfolio hedge.
- The size of budget surpluses/deficits can be smoothed, as the volatility associated with servicing real debt is lower, relative to nominal bonds. (The servicing costs are less volatile because the real flows remain fixed until maturity, whereas the flows associated with nominal bonds fluctuate with inflation.)
- 10. Respondents also identified several objectives relating specifically to the issuance of indexed securities, including:
- Issuance provides an opportunity to diversify, both in terms of the instruments provided to investors and in terms of the investor base. For example indexed stock may be suitable for superannuation funds and retail investors.
- Issuance may encourage liquidity and greater efficiency in the market.
- Indexed securities may provide for a real return rate that is useful for policy makers and market participants.
- 2. Are you satisfied that your indexed securities issuance program has achieved, or is progressing towards achievement of, the initial objectives that motivated the undertaking of the program?
- 11. There was a wide range of responses to this question. Iceland, France, the United Kingdom and the United States all stated that they are satisfied that their program has achieved its initial objectives.
- 12. Australia, Canada and Sweden acknowledged that issuance of indexed securities has provided a cheap source of funding but noted that further analysis is required in relation to cost effectiveness in more recent years. Some of these countries also noted that their market lacked liquidity and that market participants offered wide bid offer spreads.
- 13. New Zealand advised that their experience had been disappointing as investors were not willing to pay a premium for insurance against inflation. They believed this was due to the investors' expectations that low inflation would continue and the relatively few investors present in the market.

#### DAFFE/MC/DM(2000)6

3. Could you discuss some broad qualitative indicators of the current status of the sovereign indexed bond market in your country?

, except (celand,

14. All countries/advised that the market for nominal securities in their country overshadowed the indexed market in their country. Many respondents suggested this was due to the "buy and hold" nature of indexed securities and the relatively smaller amount of stock on issue. Most respondents revealed that the number of market makers and breath of investors was less than for the nominal market. However, the United States noted that there is broader distribution of stock on original issuance of inflation-indexed securities than for nominal Treasury securities, with greater participation in the auctions for inflation-indexed securities by investors more likely to hold the securities to maturity.

	Liquidity/secondary market development	Commitment of market makers	Profile of main investors
Australia	The Sovereign is the dominant issuer in the indexed bond market accounting for around 53 per cent of total indexed stock on issue (\$5.9 billion).  The investors in the market tend to "buy and hold" the stock. Only 1% of total turnover of Commonwealth Government securities related to indexed stock with the remainder of turnover relating to nominal bonds.	The market has four major intermediaries while the nominal market has more than twice this number. The lack of an effective hedge against price movements has discouraged involvement by secondary market participants.	There are currently 54 holders of indexed stock with the top fifteen investors holding almost 90% of stock on issue. These investors include superannuation funds, insurance companies. Offshore investors have tended not to invest due to the interest withholding tax that applies.
Canada	Liquidity is limited in part due to the nature of the instrument (buy and hold) and dealer behaviour. The RRB turnover ratio (trading as a share of the stock) in 1999 was less than 1, while for all Government of Canada bonds the ratio was close to 12.  Market Makers have typically avoided RRBs because there has been no effective hedge against price movements. The introduction of US TIPS and new RRB maturities, along with limited issuance by other Canadian borrowers, has helped provide some hedging capability.	Participants in the primary market are tiered. Under the Terms of Participation in Auctions, Primary Dealers (currently 12) are required to bid a percentage of their auction limit at every auction at reasonable yields and make secondary markets.	The majority of holdings are in the hands of large tax-exempt pension funds. In mid 90's, 60% of stock was in the hands of 10 funds.
France	The liquidity of the indexed bonds is lower than for "plain vanilla" bonds but this can be mainly explained by the size of the outstanding and the greater part of "buy and hold" investors on that type of bonds.  The ratio between the daily turnover and the outstanding is still above 1% and the bid-offer spread on both 10 and 30 years bonds does not exceed 2 basis point.  The hedging of the indexed bonds is obviously more difficult than the hedging of most assets.	The 19 primary dealers are market maker on the index bonds. Their commitment is good enough to have a living electronic trading platform. The bid-offer spread is 2 bp for 5 millions on the 10 years and 2,5 millions on the 30 years.	The range of investors is wide. When the 30 year indexed bond was first launched in 1999, 40% of the amount issued have been bought by non French investors. Investors are mainly insurance companies, retirement funds, mutual funds and for a small part retail.
Iceland	All domestic Treasury instruments listed on the Iceland Stock Exchange. There are now outstanding 2 zero-coupon T-notes without indexation and 7 inflation-indexed bonds. Index-linked bonds are bullet bonds with fixed interest rates with maturity ranging now from 0.5 to 15 years.  The National Debt Management Agency has made market-making contracts with four authorized market makers.	The authorized dealers are obliged to submit bid and offers on each security for 30 millions krona and renew the offers within 10 minutes if the are accepted. Maximum spread is 7 basis points in terms of yield.	Domestic investors almost solely own the bonds issued in Iceland.
New Zealand	The poor liquidity of IIBs is reflected in secondary market turnover. Last year average turnover was around \$75 million per month (nominal bond turnover averages around \$19,000 million per month). IIB turnover represents around 0.5% of total bond turnover while representing 6.3% of the total bonds in the market. Liquidity is limited when compared to nominal bonds. Price discovery is difficult because screen prices are only indicative of the actual market price of IIBs.  There is no hedging mechanism for IIBs.	Five domestic banks are price makers in the bonds for customer business, however interbank price making is irregular.	About half of the bonds on issue are held offshore, with the majority of the remainder held by local institutions. A corporate indexed-debt market has not developed. Fund managers have not created a separate asset class for IIBs, hampering demand for the product.

			1
	Liquidity/secondary market development	Commitment of market makers	Profile of main investors
Sweden	Liquidity in the index-linked bond market cannot be compared with the nominal bond market. Daily turnover is approximately around 100-150 million kronor, and an	There are four market makers with commitment to participate in auctions (issues,	The investor base is narrow.  Major investors include the national pension fund.
	average trading lot is 10 million kronor.  The Debt Office offers the authorised dealers switches	exchanges and buy-backs) while contributing to	insurance companies and other pension funds. There
	between different bonds on the curve to maintain a certain level of liquidity.	maintaining liquidity and sound pricing on the secondary market.	has been a growing interest from foreign investors.
United	The UK index-linked market is currently the largest	There are currently 9 index-	The main participants in the
Kingdom	index-linked bond market in the world (market value £73.5 billion at end June 2000).	linked market makers. Of these, 2 specialise solely in	index-linked market are market makers and other
• "	The index-linked gilt market is approximately 20% of the	retail business and a third	dealers, pension funds,
	size of the conventional gilt market, but accounts for less	covers both the retail and the	insurance companies,
	than 5% of the turnover. Primary issuance in 1998	wholesale markets. The other	personal investors, as well as
•	represented about 6.8% of the total index-linked market	6 focus on the wholesale	some (now limited)
	turnover, compared with about 1.3% for conventionals.	market.	international interest.
•	Bid-ask spreads are about 25 pence per £5 million for		Pension funds and insurance
	index-linked gilts, as against around 5 pence for		companies account for around
	conventionals.		75% of the holdings of index-
	There are no exchange traded futures or options contracts		linked gilts. These holdings
	on index-linked bonds. Although the London		tend to be concentrated in the
	International Financial Futures and Options Exchange		longer maturity indexed
	(LIFFE) has discussed the possibility of introducing		bonds (approximately 10
	index-linked futures contracts poor liquidity in the cash market has deterred it from introducing such a contract.	,	years onwards).
	However, there is a growing OTC derivatives market in		
	indexed bonds and forward inflation.		
United States	In general, there is less liquidity in the inflation-indexed	There is strong auction	In the three most recent
Olding States	securities market than in the nominal securities market.	participation by the primary	auctions for 10-year inflation-
	This may be explained in part by the nature of the	dealer community in	indexed notes, competitive
	instrument being for holding rather than trading purposes	inflation-indexed securities	awards were distributed as
	and in part by the relatively smaller issuance of inflation-	auctions, with around 50% of	follows: primary dealers,
	indexed securities and the newness of the instruments.	all auction awards going to	54%; investment funds, 27%;
	There is broader distribution on original issuance of	primary dealers. Primary	foreign and international
	inflation-indexed securities than nominal Treasury	dealers sell to ultimate	bidders, 7%; pension funds,
·	securities, with greater participation in the auctions for	investors so that only weeks	4%; financial institutions,
	inflation-indexed securities by investors more likely to	after auction dealer	4%; and all others, 4%.
	hold the securities to maturity, for example, pension funds	inventories are not large.	Distribution of competitive
	and other investment funds. There is also significantly		awards in the three most
	stronger competitive auction participation by foreign and	,	recent auctions of 30-year
,	international accounts in inflation-indexed securities	<u> </u>	securities is also broader for
	auctions than in the auctions for nominal securities.		the inflation-indexed bonds
<u></u> j			than for the fixed-rate bonds.

#### DAFFE/MC/DM(2000)6

- 4. Has the government indexed bond issuance program underpinned the emergence of a reliable 'real rate' pricing benchmark in your market for use by policy-makers and/or other financial market participants? If not, do you have any plans to promote the development of a real rate pricing benchmark in you country?
- 15. Sovereign indexed stock provides a real rate pricing benchmark against which corporate issues may be priced in Australia, Iceland the United Kingdom, the United States and to some extent Canada. The United Kingdom noted that this benchmark may not be reliable to the extent that strong demand relative to limited supply has driven yields down.
- 16. New Zealand advised that issuance has been concentrated into one tranche to build up liquidity. Therefore, they have not created a curve that can be used for pricing with the real rate not commonly referred to in the market or used by policy makers.
- 17. France advised that there is no plan to promote a real rate pricing benchmark.
- 18. All countries advised that measures of break even inflation (the difference between nominal bond yields and index linked bond yields) is of some use to policy makers and market participants in assessing future inflation.
- 5. If the market has not developed in line with your original objectives, are you considering taking any action to meet such objectives for example, re-focusing marketing efforts, amending primary dealer arrangements, examining issuance mechanisms, more direct efforts to encourage secondary market development? More generally, what are the main features of your future issuance program for indexed instruments?
- Canada, France, New Zealand and the United States indicated that they are not undertaking any action to meet their original objectives on the basis that these objectives have been met or are no longer objectives. The remaining issuers identified actions they are taking to meet their original objectives or exceed these objectives. Amongst those countries taking some action there does not appear to be consistency in measures adopted, with each implementing changes to best suit their market. The following summarises some of these actions.
- 20. Australia: Following market feedback that they were not sufficiently transparent and predictable, Australia moved to a pre-announced tender schedule. Issuance for 2000-01 is to be on four dates with amounts of \$75 million offered on each occasion.
- 21. Canada: No actions are currently being taken to achieve/exceed original objectives. They plan to maintain issuance of \$1-2 billion per year.
- 22. France: As the market has developed in line with original objectives they are focussed on increasing outstanding bonds in order to guarantee greater liquidity in the secondary market.
- 23. Iceland: Reduced the scope of indexation of deposits and lending, in particular to encourage foreign investors. (Background on the history of indexation in Iceland is provided at question 6.)
- 24. New Zealand: Believe it is the role of intermediaries to promote and encourage secondary market development. Issuance has been suspended since 1999-00.

- 25. Sweden: Have made large changes to their program, including:
- new dealer and commission systems which will make greater demands on the dealers while entitling them to higher levels of compensation. In contrast to the previous system, these new contracts run only for one year;
- a changeover to monthly based auctions (instead of quarterly) which will be held in the form of auction periods, of one or more days in a row;
- introduction of new bonds with deflation protection for the capital amount; and
- reconstruction of the debt from zero coupon bonds to coupon bonds.
- 26. United Kingdom:
- established a separate index linked market maker list in September 1998;
- moved from tap issuance to sales by uniform price auction in November 1998; and
- act as a market maker of last resort in index linked gilts by offering to quote or bid or an offer to the designated market makers.
- 27. United States: Plan to continue with the regular issuance of 10 year and 30 year securities. 10 year notes will be auctioned in January and July of each year with 30 year bonds auctioned in October of each year.
- 6. Are there any other aspects of your country's indexed bonds issuance program on which you would like to comment? For example, the influence of projected surpluses?
- 28. Australia, Canada and the United States highlighted their current fiscal position of budget surpluses and the reductions in issuance sizes and/or frequency of tenders.
- 29. Canada noted that their program may be reviewed in the not-too-distant future and that while it is not possible to predict the outcome of the review, factors that will be important include the state of the market and auction performance.
- 30. The United Kingdom indicated their commitment to a minimum supply of £2.5 billion (cash) of index-linked stocks for the foreseeable future.
- 31. Iceland provided some background information on the extensive use of indexation in that country. Indexation was adopted following long periods of high and variable inflation along with controlled nominal interest rates. In the seventies this resulted in highly negative real interest rates that caused a significant fall in financial saving and disintermediation. In order to push real rates of interest up past the zero mark, indexation was introduced by linking financial liabilities to changes in the so-called "credit-terms index", which was based on available price indices. More recently indexation forms a barrier between the domestic market and foreign market as indexation is relatively unknown outside of Iceland, thus reducing the benefits that may be derived from opening up of the capital market. Therefore Iceland has recently moved to reduce the scope of indexation at the shorter end of the T-bond market.

# **QUESTIONNAIRE - EXPERIENCE WITH GOVERNMENT INDEXED BONDS**

A growing number of OECD sovereign borrowers have moved in recent years to augment the range of fixed income security products offered to investors by introducing bonds whose overall return is linked explicitly to periodic movements in some appropriate domestic price index.

Given that there are now a variety of OECD sovereigns with substantive indexed bond issuance programs, and that other jurisdictions may be considering the case for offering such products to investors, the Steering Committee of the OECD Working Party on Government Debt Management determined at its December 1999 meeting that there would be value in surveying the practical experience of those sovereign borrowers currently managing indexed bond issuance programs.

The purpose of this questionnaire is to briefly examine the practices and experience of relevant member countries that issue indexed securities. Responses to the questionnaire will be collated and a paper distributed for discussion as an Agenda item at the November 2000 meeting of the Working Party.

# Questionnaire

- 1. What are the objectives that underpin your country's overall debt management activities? Are there any specific objectives relating to your country's issuance of indexed securities, and in what manner do you judge that the indexed issuance program contributes to the meeting of debt management objectives overall?
- 2. Are you satisfied that your indexed securities issuance program has achieved, or is progressing towards achievement of, the initial objectives that motivated the undertaking of the program?
- 3. Could you discuss some broad qualitative indicators of the current status of the sovereign indexed bond market in your country, having regard to considerations such as:
- the liquidity of the market;
- secondary market development generally including the availability in the market of suitable hedging instruments;
- the number and commitment of market makers;
- the breadth of the investor base;
- the profile of the main investors; and
- any other measures which you consider relevant?

A useful point of reference would be experience in the government bond market for nominal securities in your country.

4. Has the government indexed bond issuance program underpinned the emergence of a reliable 'real rate' pricing benchmark in your market for use by policy-makers

- and/or other financial market participants? If not, do you have any plans to promote the development of a real rate pricing benchmark in you country?
- 5. If the market has not developed in line with your original objectives, are you considering taking any action to meet such objectives for example, re-focusing marketing efforts, amending primary dealer arrangements, examining issuance mechanisms, more direct efforts to encourage secondary market development? More generally, what are the main features of your future issuance program for indexed instruments?
- 6. Are there any other aspects of your country's indexed bonds issuance program on which you would like to comment? For example, the influence of projected surpluses?