

Structure of Government Securities Markets (1)

<Quantitative questions>

1. Outstanding and original maturity – all figures are for all marketable government securities as of the end of 1997. Figures are quoted at 1997 year-end exchange rates (US\$1 = C\$1.43 = ITL 1770 = ¥130, £ 1 = US\$1.65).

	Canada	Italy	Japan	U.K.	U.S.A.																																																																																																																																																																																																																																																																																																																																																																																																	
<p>Outstanding and original maturity</p> <p>Vol.: Volume outstanding in \$ billion.</p> <p>#: Number of issues outstanding.</p> <p>Size: Average issue size for 1997 in \$ billion.</p> <p>Freq.: Frequency of new issues in 1997.</p> <p>A: Annually.</p> <p>SA: Semi-annually.</p> <p>Q: Quarterly.</p> <p>2M: Every two months.</p> <p>M: Monthly.</p> <p>2W: Every two weeks.</p> <p>W: Weekly.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Maturity</th> <th>Vol.</th> <th>#</th> <th>Size¹⁾</th> <th>Freq.</th> </tr> </thead> <tbody> <tr> <td>Fixed</td> <td>169.9</td> <td>38</td> <td></td> <td></td> </tr> <tr> <td> 2Y</td> <td>17.3</td> <td>4</td> <td>4.9</td> <td>SA²⁾</td> </tr> <tr> <td> 3Y</td> <td>11.3</td> <td>3</td> <td>3.9</td> <td>-³⁾</td> </tr> <tr> <td> 5Y</td> <td>45.2</td> <td>9</td> <td>7.4</td> <td>A²⁾</td> </tr> <tr> <td> 10Y</td> <td>71.2</td> <td>19⁴⁾</td> <td>6.7</td> <td>A²⁾</td> </tr> <tr> <td> 30Y</td> <td>24.9</td> <td>6</td> <td>6.7</td> <td>2Y²⁾</td> </tr> <tr> <td>Floating</td> <td>None</td> <td></td> <td></td> <td></td> </tr> <tr> <td> Zero</td> <td>80.0</td> <td>46</td> <td></td> <td></td> </tr> <tr> <td> 3M</td> <td>20.3</td> <td>10</td> <td>5⁵⁾</td> <td>2W</td> </tr> <tr> <td> 6M</td> <td>21.1</td> <td>12</td> <td>5⁵⁾</td> <td>2W</td> </tr> <tr> <td> 1Y</td> <td>38.5</td> <td>24</td> <td>5⁵⁾</td> <td>2W</td> </tr> <tr> <td> Index</td> <td>5.9</td> <td>2</td> <td>3.6</td> <td></td> </tr> <tr> <td> 30Y</td> <td>5.9</td> <td>2</td> <td>3.6</td> <td>5Y²⁾</td> </tr> <tr> <td> Others⁶⁾</td> <td>28.8</td> <td>36</td> <td>-</td> <td>-</td> </tr> <tr> <td>Total</td> <td>284.6</td> <td>125</td> <td></td> <td></td> </tr> </tbody> </table> <p>1) Average size of an issue, not of a reopening.</p> <p>2) Frequency of new issues. Auctions for initial issues or reopening are conducted quarterly for 2, 5, 10-year fixed-coupon and 30-year index-linked securities, semi-annually for 30-year fixed-coupon securities.</p> <p>3) In early 1997, 3-year bonds were eliminated due to a bond program downsizing.</p> <p>4) Some were issued before the authorities decided to implement a regularized benchmark format in 1992.</p> <p>5) Varies with funding needs of the government.</p> <p>6) Older issues sometimes called "orphaned" bonds, issued before the government decided to issue benchmark bonds.</p> <p>Data is as of the end of October 1997.</p>	Maturity	Vol.	#	Size ¹⁾	Freq.	Fixed	169.9	38			2Y	17.3	4	4.9	SA ²⁾	3Y	11.3	3	3.9	- ³⁾	5Y	45.2	9	7.4	A ²⁾	10Y	71.2	19 ⁴⁾	6.7	A ²⁾	30Y	24.9	6	6.7	2Y ²⁾	Floating	None				Zero	80.0	46			3M	20.3	10	5 ⁵⁾	2W	6M	21.1	12	5 ⁵⁾	2W	1Y	38.5	24	5 ⁵⁾	2W	Index	5.9	2	3.6		30Y	5.9	2	3.6	5Y ²⁾	Others ⁶⁾	28.8	36	-	-	Total	284.6	125			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Maturity</th> <th>Vol.</th> <th>#</th> <th>Size¹⁾</th> <th>Freq.</th> </tr> </thead> <tbody> <tr> <td>Fixed²⁾</td> <td>433.3</td> <td>68</td> <td>10.0</td> <td></td> </tr> <tr> <td> 3Y</td> <td>81.5</td> <td>11</td> <td>9.1</td> <td>Q</td> </tr> <tr> <td> 5Y</td> <td>142.4</td> <td>22</td> <td>9.2</td> <td>Q</td> </tr> <tr> <td> 10Y</td> <td>157.8</td> <td>24</td> <td>12.3</td> <td>Q</td> </tr> <tr> <td> 30Y</td> <td>31.1</td> <td>5</td> <td>10.3</td> <td>Y</td> </tr> <tr> <td> Others</td> <td>20.1</td> <td>6</td> <td>-</td> <td>-</td> </tr> <tr> <td>Floating³⁾</td> <td>320.3</td> <td>49</td> <td>9.6</td> <td></td> </tr> <tr> <td> 7Y</td> <td>317.4</td> <td>48</td> <td>9.6</td> <td>Q</td> </tr> <tr> <td> 10Y</td> <td>2.8</td> <td>1</td> <td>-</td> <td>-</td> </tr> <tr> <td> Zero</td> <td>260.5</td> <td>49</td> <td>5.7</td> <td></td> </tr> <tr> <td> 3M⁴⁾</td> <td>16.9</td> <td>3</td> <td>4.9</td> <td>2W</td> </tr> <tr> <td> 6M⁴⁾</td> <td>47.2</td> <td>9</td> <td>3.6</td> <td>2W</td> </tr> <tr> <td> 1Y⁴⁾</td> <td>106.6</td> <td>21</td> <td>5.1</td> <td>2W</td> </tr> <tr> <td> 1.5Y⁵⁾</td> <td>26.3</td> <td>5</td> <td>6.2</td> <td>2M</td> </tr> <tr> <td> 2Y⁵⁾</td> <td>63.4</td> <td>11</td> <td>6.4</td> <td>2M</td> </tr> <tr> <td> Index</td> <td>None</td> <td></td> <td></td> <td></td> </tr> <tr> <td> Others</td> <td>85.9</td> <td>33</td> <td>-</td> <td>-</td> </tr> <tr> <td>Total</td> <td>1,100.0</td> <td>199</td> <td>6.7</td> <td></td> </tr> </tbody> </table> <p>1) Average size of an issue, not of a reopening.</p> <p>2) Called "BTP".</p> <p>3) Called "CCT".</p> <p>4) Called "BOT".</p> <p>5) Called "CTZ".</p>	Maturity	Vol.	#	Size ¹⁾	Freq.	Fixed ²⁾	433.3	68	10.0		3Y	81.5	11	9.1	Q	5Y	142.4	22	9.2	Q	10Y	157.8	24	12.3	Q	30Y	31.1	5	10.3	Y	Others	20.1	6	-	-	Floating ³⁾	320.3	49	9.6		7Y	317.4	48	9.6	Q	10Y	2.8	1	-	-	Zero	260.5	49	5.7		3M ⁴⁾	16.9	3	4.9	2W	6M ⁴⁾	47.2	9	3.6	2W	1Y ⁴⁾	106.6	21	5.1	2W	1.5Y ⁵⁾	26.3	5	6.2	2M	2Y ⁵⁾	63.4	11	6.4	2M	Index	None				Others	85.9	33	-	-	Total	1,100.0	199	6.7		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Maturity</th> <th>Vol.</th> <th>#</th> <th>Size¹⁾</th> <th>Freq.²⁾</th> </tr> </thead> <tbody> <tr> <td>Fixed</td> <td>1,807.9</td> <td>200</td> <td>3.9</td> <td></td> </tr> <tr> <td> 2Y</td> <td>28.5</td> <td>24</td> <td>1.0</td> <td>M</td> </tr> <tr> <td> 4Y</td> <td>105.5</td> <td>21</td> <td>3.5</td> <td>2M</td> </tr> <tr> <td> 6Y</td> <td>84.2</td> <td>22</td> <td>3.5</td> <td>2M</td> </tr> <tr> <td> 10Y</td> <td>1,418.8</td> <td>95</td> <td>7.7</td> <td>M</td> </tr> <tr> <td> 20Y</td> <td>170.9</td> <td>38</td> <td>3.1</td> <td>Q</td> </tr> <tr> <td>Floating</td> <td>None</td> <td></td> <td></td> <td></td> </tr> <tr> <td> Zero³⁾</td> <td>110.7</td> <td>34</td> <td>8.9</td> <td></td> </tr> <tr> <td> 3M</td> <td>36.9</td> <td>3</td> <td>10.8</td> <td>M</td> </tr> <tr> <td> 6M</td> <td>63.8</td> <td>6</td> <td>10.6</td> <td>M</td> </tr> <tr> <td> 5Y</td> <td>10.0</td> <td>25</td> <td>0.3</td> <td>5/Y⁴⁾</td> </tr> <tr> <td> Index</td> <td>None</td> <td></td> <td></td> <td></td> </tr> <tr> <td> Others</td> <td>None</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td>1,918.6</td> <td>234</td> <td>6.0</td> <td></td> </tr> </tbody> </table> <p>1) Average issue size to the private sector.</p> <p>2) Frequency of auctions is shown. Bonds auctioned in different months can be merged into one issue if they are issued within three quarters, and if they have the same coupon rates.</p> <p>3) 1-year zero-coupon securities is planned to be issued in the near future.</p> <p>4) 5 times a year.</p>	Maturity	Vol.	#	Size ¹⁾	Freq. ²⁾	Fixed	1,807.9	200	3.9		2Y	28.5	24	1.0	M	4Y	105.5	21	3.5	2M	6Y	84.2	22	3.5	2M	10Y	1,418.8	95	7.7	M	20Y	170.9	38	3.1	Q	Floating	None				Zero ³⁾	110.7	34	8.9		3M	36.9	3	10.8	M	6M	63.8	6	10.6	M	5Y	10.0	25	0.3	5/Y ⁴⁾	Index	None				Others	None				Total	1,918.6	234	6.0		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Maturity</th> <th>Vol.</th> <th>#</th> <th>Size¹⁾</th> <th>Freq.</th> </tr> </thead> <tbody> <tr> <td>Fixed²⁾</td> <td>386.1</td> <td>59</td> <td>2.5-3.3</td> <td>10/Y³⁾</td> </tr> <tr> <td> 0-7Y</td> <td>179.8</td> <td>34</td> <td>2.5-3.3</td> <td></td> </tr> <tr> <td> 7-15Y</td> <td>132.3</td> <td>18</td> <td>2.5-3.3</td> <td></td> </tr> <tr> <td> 15-Y</td> <td>74.0</td> <td>7</td> <td>2.5-3.3</td> <td>↓</td> </tr> <tr> <td>Floating</td> <td>14.3</td> <td>2</td> <td>-</td> <td>-</td> </tr> <tr> <td> Zero</td> <td>None</td> <td></td> <td>-</td> <td>-</td> </tr> <tr> <td> Index</td> <td>51.9</td> <td>13</td> <td>4)</td> <td>4)</td> </tr> <tr> <td> Others</td> <td>5.3</td> <td>8</td> <td>-</td> <td>-</td> </tr> <tr> <td>Total</td> <td>457.6</td> <td>82</td> <td></td> <td></td> </tr> </tbody> </table> <p>1) No preset amount, but depends on government's financing needs.</p> <p>2) Breakdown based on remaining life, not original maturity.</p> <p>3) Around 10 auctions in total a year for fixed coupon bonds.</p> <p>4) Issued on an "as demand arises" basis, with each issue size at \$0.2-0.5 billion. In November 1998, auctions for index-linked bonds were introduced. The government committed itself to raising at least \$4.1 billion a year.</p>	Maturity	Vol.	#	Size ¹⁾	Freq.	Fixed ²⁾	386.1	59	2.5-3.3	10/Y ³⁾	0-7Y	179.8	34	2.5-3.3		7-15Y	132.3	18	2.5-3.3		15-Y	74.0	7	2.5-3.3	↓	Floating	14.3	2	-	-	Zero	None		-	-	Index	51.9	13	4)	4)	Others	5.3	8	-	-	Total	457.6	82			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Maturity</th> <th>Vol.</th> <th>#</th> <th>Size</th> <th>Freq.</th> </tr> </thead> <tbody> <tr> <td>Fixed</td> <td>2,693.4</td> <td>206</td> <td></td> <td></td> </tr> <tr> <td> 2Y</td> <td>2,106.1¹⁾</td> <td>140¹⁾</td> <td>18.1</td> <td>M</td> </tr> <tr> <td> 3Y</td> <td></td> <td></td> <td>18.8</td> <td>Q²⁾</td> </tr> <tr> <td> 5Y</td> <td></td> <td></td> <td>13.1</td> <td>M³⁾</td> </tr> <tr> <td> 10Y</td> <td>↓</td> <td>↓</td> <td>17.5</td> <td>Q</td> </tr> <tr> <td> 30Y</td> <td>587.3</td> <td>66</td> <td>10.8</td> <td>3/Y</td> </tr> <tr> <td>Floating</td> <td>None</td> <td></td> <td></td> <td></td> </tr> <tr> <td> Zero</td> <td>715.4</td> <td>39</td> <td></td> <td></td> </tr> <tr> <td> 3M</td> <td>346.5⁴⁾</td> <td>26⁴⁾</td> <td>12.0⁴⁾</td> <td>W</td> </tr> <tr> <td> 6M</td> <td>↓</td> <td>↓</td> <td>↓</td> <td>W</td> </tr> <tr> <td> 1Y</td> <td>368.9</td> <td>13</td> <td>19.5</td> <td>4W</td> </tr> <tr> <td> Index⁵⁾</td> <td>33.0</td> <td>2</td> <td>16.5</td> <td>Q</td> </tr> <tr> <td> 5Y</td> <td>16.8</td> <td>1</td> <td>16.8</td> <td></td> </tr> <tr> <td> 10Y</td> <td>16.2</td> <td>1</td> <td>16.2</td> <td></td> </tr> <tr> <td> Others</td> <td>15.0</td> <td>1</td> <td></td> <td></td> </tr> <tr> <td>Total</td> <td>3,456.8</td> <td>248</td> <td></td> <td></td> </tr> </tbody> </table> <p>1) The figures are for the totals of 2, 3, 5, and 10-year notes.</p> <p>2) The Treasury stopped issuing 3-year notes in 1998.</p> <p>3) The Treasury reduced issues of 5-year notes from a monthly basis to a quarterly basis in 1998.</p> <p>4) The figures are for the total of 3 and 6-month bills.</p> <p>5) 30-year index-linked bonds have been issued since April 1998.</p>	Maturity	Vol.	#	Size	Freq.	Fixed	2,693.4	206			2Y	2,106.1 ¹⁾	140 ¹⁾	18.1	M	3Y			18.8	Q ²⁾	5Y			13.1	M ³⁾	10Y	↓	↓	17.5	Q	30Y	587.3	66	10.8	3/Y	Floating	None				Zero	715.4	39			3M	346.5 ⁴⁾	26 ⁴⁾	12.0 ⁴⁾	W	6M	↓	↓	↓	W	1Y	368.9	13	19.5	4W	Index ⁵⁾	33.0	2	16.5	Q	5Y	16.8	1	16.8		10Y	16.2	1	16.2		Others	15.0	1			Total	3,456.8	248		
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Fixed	1,807.9	200	3.9																																																																																																																																																																																																																																																																																																																																																																																																			
2Y	28.5	24	1.0	M																																																																																																																																																																																																																																																																																																																																																																																																		
4Y	105.5	21	3.5	2M																																																																																																																																																																																																																																																																																																																																																																																																		
6Y	84.2	22	3.5	2M																																																																																																																																																																																																																																																																																																																																																																																																		
10Y	1,418.8	95	7.7	M																																																																																																																																																																																																																																																																																																																																																																																																		
20Y	170.9	38	3.1	Q																																																																																																																																																																																																																																																																																																																																																																																																		
Floating	None																																																																																																																																																																																																																																																																																																																																																																																																					
Zero ³⁾	110.7	34	8.9																																																																																																																																																																																																																																																																																																																																																																																																			
3M	36.9	3	10.8	M																																																																																																																																																																																																																																																																																																																																																																																																		
6M	63.8	6	10.6	M																																																																																																																																																																																																																																																																																																																																																																																																		
5Y	10.0	25	0.3	5/Y ⁴⁾																																																																																																																																																																																																																																																																																																																																																																																																		
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Total	1,918.6	234	6.0																																																																																																																																																																																																																																																																																																																																																																																																			
Maturity	Vol.	#	Size ¹⁾	Freq.																																																																																																																																																																																																																																																																																																																																																																																																		
Fixed ²⁾	386.1	59	2.5-3.3	10/Y ³⁾																																																																																																																																																																																																																																																																																																																																																																																																		
0-7Y	179.8	34	2.5-3.3																																																																																																																																																																																																																																																																																																																																																																																																			
7-15Y	132.3	18	2.5-3.3																																																																																																																																																																																																																																																																																																																																																																																																			
15-Y	74.0	7	2.5-3.3	↓																																																																																																																																																																																																																																																																																																																																																																																																		
Floating	14.3	2	-	-																																																																																																																																																																																																																																																																																																																																																																																																		
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Index	51.9	13	4)	4)																																																																																																																																																																																																																																																																																																																																																																																																		
Others	5.3	8	-	-																																																																																																																																																																																																																																																																																																																																																																																																		
Total	457.6	82																																																																																																																																																																																																																																																																																																																																																																																																				
Maturity	Vol.	#	Size	Freq.																																																																																																																																																																																																																																																																																																																																																																																																		
Fixed	2,693.4	206																																																																																																																																																																																																																																																																																																																																																																																																				
2Y	2,106.1 ¹⁾	140 ¹⁾	18.1	M																																																																																																																																																																																																																																																																																																																																																																																																		
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10Y	↓	↓	17.5	Q																																																																																																																																																																																																																																																																																																																																																																																																		
30Y	587.3	66	10.8	3/Y																																																																																																																																																																																																																																																																																																																																																																																																		
Floating	None																																																																																																																																																																																																																																																																																																																																																																																																					
Zero	715.4	39																																																																																																																																																																																																																																																																																																																																																																																																				
3M	346.5 ⁴⁾	26 ⁴⁾	12.0 ⁴⁾	W																																																																																																																																																																																																																																																																																																																																																																																																		
6M	↓	↓	↓	W																																																																																																																																																																																																																																																																																																																																																																																																		
1Y	368.9	13	19.5	4W																																																																																																																																																																																																																																																																																																																																																																																																		
Index ⁵⁾	33.0	2	16.5	Q																																																																																																																																																																																																																																																																																																																																																																																																		
5Y	16.8	1	16.8																																																																																																																																																																																																																																																																																																																																																																																																			
10Y	16.2	1	16.2																																																																																																																																																																																																																																																																																																																																																																																																			
Others	15.0	1																																																																																																																																																																																																																																																																																																																																																																																																				
Total	3,456.8	248																																																																																																																																																																																																																																																																																																																																																																																																				
Form of securities	- Bookentry 100%.	- Bookentry 99%. - Physical delivery 1%.	- Bookentry 63%. - Registration 36%. - Physical delivery 1%.	- Bookentry 95%. - Physical delivery 5%.	- Bookentry 100%.																																																																																																																																																																																																																																																																																																																																																																																																	

	Canada	Italy	Japan	U.K.	U.S.A.
Average original maturity	- n.a.	- 7.3 years.	- 9.7 years.	- 10.0 years. (As of Feb 1998)	- n.a.
Average remaining maturity	- 5.5 years.	- 4.8 years.	- 5.8 years.	- 6.7 years. (As of Feb 1998)	- 5.4 years.
Type of holder	- Government 4.5%. - Central bank 5.3%. - Domestic financial sector 52.5%. - Domestic non-financial sector 12.7%. - Non-residents 25.0%.	- Government 0.1%. - Central bank 7.6%. - Domestic total 69.8%. - Non-residents 22.5%.	- Government 35.8%. - Central bank 10.5%. - Domestic financial sector 26.8%. - Domestic non-financial sector and non-residents 26.9%. - While no official data exist, the holding share of non-residents is estimated to be around 10%.	- Government and central bank 3.6%. - Domestic financial sector 67.8%. - Domestic non-financial sector 14.2%. - Non-residents 14.4%. (As of Mar 1997)	- Government 0.0%. - Central bank 13.1%. - Domestic total 50.0%. - Non-residents 36.9%.
Index-linked security	- Exists.	- Does not exist.	- Does not exist.	- Exists.	- Exists.
Original maturity	- 30-year.			- Various maturities.	- 5 and 10-year (From Apr 1998, 30-year, too). - In 1998, the Treasury announced that it will not issue any more 5-year notes.
Choice of index	- CPI.			- CPI.	- CPI.
Indexing of cashflows	- Capital indexed. - The principal repayment is the product of the bond's nominal value and cumulative changes in the index. - Coupon payments equal the fixed coupon rate times the inflation-adjusted principal amount.			- Capital indexed. - The principal repayment is the product of the bond's nominal bond value and cumulative changes in the index. - Coupon payments equal the fixed coupon rate times the inflation-adjusted principal amount.	- Capital indexed. - The principal repayment is the product of the bond's nominal value and cumulative changes in the index. - Coupon payments equal the fixed coupon rate times the inflation-adjusted principal amount.
Length of lag	- 3 months.			- 8 months.	- 3 months.

<Descriptive questions>

. Primary market

	Canada	Italy	Japan	U.K.	U.S.A.
a. Callability	- No.	- No.	- All securities, issued before end-1998, are callable by the government. Since no security has actually been called, market participants do not factor in the callability, when pricing. - However, callability no longer exists for securities issued in 1999.	- Yes. - A small subset of bonds are callable by the government. - Some issues have actually been called, though relatively rarely; only three or four issues in the past 11 years. - Market participants factor in the callability by the expected redemption date.	- Yes. - T-bonds issued prior to Nov 1984 are callable within 5 years of maturity. - Some issues have actually been called, though relatively rarely; recently exercised in Aug 1996. - Market participants factor in the callability by the expected redemption date.
b. Coupon payment dates					
- Timing of coupon payments synchronized irrespective of maturity?	- No.	- No.	- No.	- Yes. - In preparation for the introduction of stripping, coupon payment dates for all new issues are Jun and Dec 7, irrespective of maturity.	- No.
- If not, is there any rule?	- Yes. - Current coupon payment dates: <30 and 10-year bonds> - June and December 1. <5-year bonds> - March and September 1. <2-year bonds> - March and September 15. In 1998, changing to match the dates of the 30 and 10-year bonds.	- Yes. - Coupon payment date is either the 1 st or 15 th of a month, although the dates are not fixed, even within the same original maturity. - Coupon payment dates are not concentrated in specific months of the year.	- Yes. - Current coupon payment dates: <10-year bonds> - Mar and Sep 20 for bonds issued in Jan, Feb, Mar, Jul, Aug, and Sep. - Jun and Dec 20 for bonds issued in Apr, May, Jun, Oct, Nov, and Dec. <20-year bonds> - Mar and Sep 20. <2, 4, 6-year bonds> - Coupons are paid on a six-month cycle starting six months after issuance.		- Yes. - Current payment date is usually the 15 th of the month, although the dates are not perfectly synchronized.
c. Methods of issue					
- Adopted methods of issue (auction / subscription by syndicate / tap)?	- Auction only.	- Auction only. - Not only are PDs, but banks are also authorized to provide investment services and securities firms can bid. (PDs are included in the two categories). - 118 institutions can participate in the primary market auctions. In 1997, the average number of auction participants was 63.	- Combination of auction and subscription by syndicate. <10-year bonds> - 60% of the issue size is auctioned by all syndicate members (1,822 as of the end of Mar 1998), whereas 40% is allocated to all members with a fixed share. <5-year bonds> - The whole issue size is allocated to all syndicate members with a fixed share. <2, 4, 6, and 20-year bonds and TBs> - The whole issue size is auctioned by eligible bidders selected from the syndicates. The number of eligible bidders is 342 for 2, 4 and 6-year bonds, 405 for 20-year bonds, and 359 for TBs as of the end of Mar 1998.	- Combination of auction and tap. <Fixed-coupon bonds> - While few taps can be used as market management instruments, most fixed-coupon bonds are auctioned. - No more than 5% of conventionals can be issued by tap. <Index-linked bonds> - Before Oct 1998, all index-linked bonds were tapped, i.e. sales, directly to the GEMMs, of a fixed amount of bonds at or above a minimum price. - In Nov 1998, auctions for index-linked bonds started.	- Auction only.

	Canada	Italy	Japan	U.K.	U.S.A.
- Are the auctions competitive and/or non-competitive?	<ul style="list-style-type: none"> - Combination of both. - PDs are allowed to submit an unlimited number of competitive bids, each higher than C\$250 thousand (\$175 thousand). - PDs are allowed to submit one non-competitive bid, between C\$25,000 (\$18 thousand) and C\$3 million (\$2.1 million). - For index-linked bonds, the upper limit for non-competitive bids is C\$2.5 million (\$1.7 million). - After the PD system changed in 1998 (described later), the above rules changed somewhat. 	<ul style="list-style-type: none"> - Competitive auction only. 	<ul style="list-style-type: none"> - Combination of both. <10-year bonds> - Competitive and non-competitive auctions are conducted. Only smaller financial institutions whose share in the syndicate is 0.3% or below can bid in non-competitive auctions, up to their bidding limit (40% of the total issue size times the bidder's share in the syndicate). The subscription price for non-competitive bids is a weighted average price in the competitive auction. <2, 4, and 6-year bonds> - Competitive and non-competitive auctions are conducted. All participants in the auction can bid up to \500 million in non-competitive auctions. The share reserved for non-competitive bids varies from time to time. The subscription price for non-competitive bids is the weighted average price of successful bids in the competitive auction. <20-year bonds and TBs> - Only competitive auctions are conducted. 	<ul style="list-style-type: none"> - Combination of both. - Only GEMMs are allowed to submit competitive bids by telephone. GEMMs and other applicants can enter non-competitive bids. - Maximum size for non-competitive bids differs according to the bidders' status; 0.5% of auctioned amount for GEMMs, and (500 thousand (\$824 thousand) for non-GEMMs (anyone can bid in non-competitive auctions). - In index-linked auctions, 10% of the amount on offer is reserved for the GEMMs, allocated in proportion to participation at previous auctions. 	<ul style="list-style-type: none"> - Combination of both. - Maximum size for non-competitive bids is \$5 million.
- Are they discriminatory and/or uniform-price?	<ul style="list-style-type: none"> - Combination of both. <Discriminatory> - Other bonds and T-bills other than index-linked bonds. <Uniform-price> - Index-linked bonds. 	<ul style="list-style-type: none"> - Combination of both. <Discriminatory> - T-bills. <Uniform-price> - Other maturities. 	<ul style="list-style-type: none"> - Discriminatory only. 	<ul style="list-style-type: none"> - Combination of both. <Discriminatory> - Securities other than index-linked. <Uniform-price> - Index-linked. 	<ul style="list-style-type: none"> - Combination of both. <Discriminatory> - Bills and fixed coupon securities other than 2 and 5-year notes. <Uniform-price> - 2 and 5-year fixed coupon notes and all index-linked bonds. - However, the Treasury switched all auctions to uniform-price in 1998.
- Are bids by yield and/or by price?	<ul style="list-style-type: none"> - By yield only. 	<ul style="list-style-type: none"> - By price only. 	<ul style="list-style-type: none"> - By price only. 	<ul style="list-style-type: none"> - By price only. 	<ul style="list-style-type: none"> - By yield only.
- How high is tender limit?	<ul style="list-style-type: none"> - Tender limit exists, but allocation limit does not exist - Before 1998, PDs' tender limits were 20% (25% for index-linked bonds) of the maximum. However, each PD's tender limits might be lower, depending on the PD's performance (e.g. Trading activity) in the primary and secondary market, as judged by the BOC. - The tender limits were changed somewhat after the PD system changed in 1998. 	<ul style="list-style-type: none"> - No tender or allocation limit exists. 	<ul style="list-style-type: none"> <10-year bonds> - Tender limit does not exist, but allocation limit exists - Allocated amount for individual bidder cannot exceed 30% of the auctioned portion, which is 18% of the total issue size, because 60% of the total issue size is auctioned. <other maturities> - No tender or allocation limit exists. 	<ul style="list-style-type: none"> - Tender limit does not exist, but allocation limit exists. - The government retains the right to allocate bonds to individual bidders at its absolute discretion. - As a guideline, bidders should not expect to acquire more than 25% (40% for index-linked) of the amount on offer for their own account at an auction. 	<ul style="list-style-type: none"> - Tender limit and allocation limit exist. - While a bidder can submit tenders for higher than 35%, the Treasury does not recognize amounts tendered for any one yield from a single bidder in excess of 35% of the public offering. - No single bidder is awarded more than 35% of the amount of a Treasury security that is offered to the public. The application of the 35% limit to any bidder includes consolidation of the bidder's net long position in the futures, forward, and when-issued markets.
d. Announcement of	- Yes.	- Yes.	- No.	- Yes.	- Yes.

	Canada	Italy	Japan	U.K.	U.S.A.
issue schedule					
- When is it announced? What information is in the announcement?	<ul style="list-style-type: none"> - Yearly announcements include estimated funding requirements and target size range for each issue. - Quarterly announcements include auction dates, delivery dates, and original maturity for each auction in the next quarter. - About a week prior to auction, auctioned amount and maturity date are announced. - Coupon rate on new issues (not reopenings) are not announced before auction. They are set at the nearest 1/4% increment below the auction average yield. 	<ul style="list-style-type: none"> - Yearly announcements include annual auction dates; two dates a month for short-term bonds, and three dates a month for medium and long-term bonds. - Quarterly announcements include minimum offer sizes for each type of security. - Three business days prior to auction, the Treasury announces auction details including actual amounts to be offered, bond codes, reopening numbers, hourly deadlines for submission of bids, days of accrued interest from the initial offer, and commission to be received by the intermediary. 	<ul style="list-style-type: none"> - However, from Mar 1999, the government started to announce issue schedule. - Quarterly announcements include indicative auction dates and original maturity for each auction in the next quarter. - About a week prior to auction, auction amount is announced. 	<ul style="list-style-type: none"> - Yearly announcements, the Remit, include auction dates, maturity distribution (short, medium, and long), breakdown between fixed-coupon and index-linked, approximate issue size, etc. - Quarterly announcements, made on the last business day of each quarter, include the maturity band (e.g. 2000 to 2002), or bond if known, for each auction in the following quarter. - Eight calendar days prior to auction, maturity, coupon rate, and issue amounts are announced. 	<ul style="list-style-type: none"> - No yearly announcements. - Quarterly announcements include the amount to be auctioned, what portion of that amount is to replace maturing Treasury debt, what portion of that amount is to raise new funds, and the estimated cash needs of the government for the balance of the quarter and how it plans to obtain the funds. - Coupon rate on new issues (not reopenings) are not announced before auction. They are set at the nearest 1/8% increment below the auction average yield.
e. When issued trading	- When-issued (WI) and when-if-issued (WII) trading available.	- WI and WII trading available.	- WI trading available, but WII trading unavailable.	- WI and WII trading available. (Although the wording "WII" is not used, trading within eight days before auction is available).	- WI and WII trading available.
f. Reopening system	- Exists.	- Exists.	- Does not exist.	- Exists.	- Exists.
- When and how are securities reopened?	<ul style="list-style-type: none"> - There are two types of reopening; to build up new issues via regular reopenings, and 2) to keep the integrity of the market. - Regarding 1), a new issue is built up by several reopenings, following a regular pattern since 1992 for each maturity, e.g. 2-year bonds are reopened once, 5 and 10-year bonds are reopened 3 times, and since 1998 30-year bonds are also reopened 3 times. - Regarding 2), when market integrity is challenged by market manipulation, the Treasury reserves the right to reopen. However, the Treasury considers this a very drastic measure and has never reopened an issue outside its regular schedule. - The reasons the government does so, instead of holding a large initial auction, are 1) a consensus has been reached between bond market participants and the authorities on the maximum size for an auction which dealers can bear, 2) the financing requirements of the government during any period tend not to exceed the size of the reopening, and 3) one is able to "freshen up" issues by adding some 	<ul style="list-style-type: none"> - There are three types of reopening: 1) to build up new issues via regular reopenings, 2) to provide specialists with an additional supply of bonds in "Reserved reopenings", and 3) to maintain market integrity. - Regarding 1), a new issue is built up by several reopenings, following a regular pattern for each maturity, e.g. 10-year bonds are reopened around 8 times. - Regarding 2), "Reserved Reopening" takes place in the afternoon of the auction day, where 10% of the principal auction's amount is offered to the specialists at the price determined in the principal auction. The submission deadline for "Reserved Auction" is 17:00. - Regarding 3), when market integrity is challenged by, for example, an attempt at market manipulation such as a short squeeze, the Treasury is prepared to provide the market with additional supply of any security by reopening the issue. 		<ul style="list-style-type: none"> - There are two types of reopening: 1) to build up new issues at 5, 10, 20, and 30-year, and 2) to maintain market integrity. - Regarding 1), a new issue is built up by several reopenings, following a normal timetable. - Regarding 2), when market integrity is challenged by, for example, an attempt at market manipulation such as a short squeeze, the Government is prepared to provide the market with additional supply of any security by reopening the issue. 	<ul style="list-style-type: none"> - There are two types of reopenings; 1) to create benchmarks in the 3 to 6-month range, and 2) to keep market integrity. - Regarding 1), benchmarks for 3 and 6-month range are created by reopening existing 1-year T-bills. 1-year bills are issued every four weeks and both 3 and 6-month bills are issued weekly; therefore, one in four 6-month bills is a reopened 1-year bill, and all 3-month bills are reopened 6-month bills. - Regarding 2), when market integrity is challenged by, for example, an attempt at market manipulation such as a short squeeze, the Treasury is prepared to provide the market with an additional supply of any security by reopening the issue.

	Canada	Italy	Japan	U.K.	U.S.A.
	bonds to actively trading market participants, who are contrary to the buy-and-hold market participants who tend to take the bond out of circulation.				
- Who has the authority to reopen?	- Government (Department of Finance).	- Government (Treasury).		- Government (Debt Management Office).	- Government (Treasury).

α. Secondary market

	Canada	Italy	Japan	U.K.	U.S.A.
1. Cash market (customer market)					
a. benchmark					
- Number of benchmarks?	- Seven (3, and 6-month, 1, 2, 5, 10, and 30-year).	- Five (2, 3, 5, 7, and 10-year).	- One (10-year)	- Four (5, 10, 20, and 30-year). - The 30-year benchmark was first created in Jan 1998.	- Eight (3, 6-month, 1, 2, 3, 5, 10, and 30-year) for fixed coupon securities. - Two (5 and 10-year) for index-linked bonds. - Since April 1998, there have been 30-year benchmarks for index linked bonds. However, 3-year fixed and 5-year index-linked notes are no longer issued.
- Rules/practices for selection of benchmarks?	- No official rules exist. - On-the-run issues for each maturity are usually regarded as benchmarks. - However, with the regular reopening cycle, the most current issue will not necessarily be large enough to be deemed a benchmark issue until the second to last or last reopening. There is sometimes a transition period during which dealers may take the view that there are two relatively liquid benchmarks in the benchmark maturity.	- No official rules exist. - On-the-run issues for each maturity are usually regarded as benchmarks. - The BDI announces yields for the five benchmark issues representing respective original maturities. The announcement defines the benchmark as the issues with the highest trading volume on the MTS.	- No official rules exist. - One issue of 10-year bonds having the following characteristics was regarded as the benchmark; large issue amount, long remaining maturity, and being traded near par value. - When the remaining maturity of the existing benchmark decreases, market participants formed a consensus on which issue should be the next benchmark. - However, since Mar 1999, an on-the-run 10-year bond is regarded as the benchmark.	- No official rules exist. - On-the-run issues for each maturity are usually regarded as benchmarks. - The government attempts to create current coupon benchmarks for 5, 10, 20, and 30-years, but whether an issue is the benchmark for a particular maturity is determined by market practice. - Benchmarks are generally, but not always, replaced every year. Smaller prospective deficits may mean that 5 and 10-year benchmarks will continue to have benchmark status for two years, instead of being replaced every year.	- No official rules exist. - On-the-run issues for each maturity are usually regarded as benchmarks.
b. Trading hours	- Technically 24 hours a day. - Most trading activity takes place from 7:30 to 17:30 in tandem with NY trading hours.	<exchange - MOT> - From 8:45 to 17:00, with no lunch break.	- Technically 24 hours a day. - Most trading activity takes place when hedging transactions are available in the futures market on the Tokyo Stock Exchange (TSE) which is open from 9:00 to 15:00, with a lunch break from 11:00 to 12:30.	- Technically 24 hours a day. - Most trading activity takes place when hedging transactions are available in the futures market on the LIFFE, which is open from 8:00 to 16:15.	- Technically 24 hours a day. - Most trading activity, 94% of interdealer volume, takes place from 7:30 to 17:30 (NY time).
c. Tick size (pricing convention) and quote practices	- The tick size is C\$0.001 for C\$100 face value. - Quotes are two-sided in price terms.	- The tick size: <T-bills and discount bonds> - ITL0.001 for ITL100 face value. <Other maturities> - ITL0.01 for ITL100 face value. - Quotes are one-sided in price terms for all securities.	- The tick size is 0.5 bp. - Quotes are generally one-sided in simple yield terms.	- The tick size is 1/32 (=0.03125) for <100 face value. - Quotes are generally two-sided in price terms, but some customers/GEMMs deal in yields. - From November 1998, gilts are quoted in decimals (<0.01 for <100 face value).	- The tick size is \$1/32 (=0.03125) for \$100 face value. However, the 32nds are split into halves and quarters providing price delineation to 1/128 (=0.0078125) of a point. - Quotes are two-sided on price terms.

	Canada	Italy	Japan	U.K.	U.S.A.
d. Strippability	- Yes.	- Yes.	- No.	- Yes.	- Yes.
- When did this become available?	- In 1982. - Introduction of a bookentry system in 1987 and generic identification numbers for all coupons with common payment dates in 1993 has in effect made strip trading as liquid as bond trading.	- In Jul 1998. - Special measures are taken for personal investors, because they pay withholding taxes.		- On Dec 8, 1997. - Currently 8 gilts in issue can be stripped, with a total issue size of (82 billion (\$135 billion)). - The authorities committed to stripping for all new benchmark issues in the foreseeable future.	- In Feb 1985. - All fixed coupon securities with original maturities longer than 10 years can be stripped. - All index linked bonds can be stripped. - Strips clear through the Federal Reserve's bookentry system.
- Are trade conventions different?	- No.	- n.a.		- Strips are quoted in yields.	- No.
e. Taxation					
- Withholding tax for income gains?	- No.	- Yes. - Since Jul 1, 1998, individual investors are subject to withholding taxes both on coupon payments and capital gains.	- Yes. - For domestic entities other than authorized financial institutions, a 20% withholding tax is levied on coupon payments (government corporate tax 15%, local corporate tax 5%), but the amount is deductible from their corporate tax bills according to the length of the holding period. Authorized financial institutions such as banks and securities firms are exempt from withholding taxes but pay corporate taxes for their total profits. - Non-residents also have to pay a 15% withholding tax. However, residents from a country that have entered into a bilateral tax treaty with Japan are partially or fully exempt from the tax. - The tax on non-residents will be abolished by end-August, 1999.	- No. - From Apr 6, 1998, all gilt holders can receive the interest gross.	- No.
- Who is exempt from withholding tax?		- Corporate investors and non-residents.	- Authorized financial institutions. - In addition, under certain conditions, non-residents will be exempt from the tax after Sep 1999.		
- Transaction tax?	- No.	- No.	- The Securities Transaction Tax (1.5/10,000 of the amount of sales measured in market value, not face value, for investors and 0.5/10,000 for securities dealers) is levied on sellers. The tax rates were cut in half on Apr 1, 1998. - The tax was abolished by the end of Mar 1999.	- No.	- No.
f. Accounting					
- How are securities valued?	- Anecdotal evidence indicates that most large bond investors have moved to mark-to-market (all investment dealers and mutual/bond/pension firms mark-to-market as well as most large insurance companies and large non-	- Valuation must be done at historical cost for securities to be held to maturity, at the lower-of-the-cost-or-market for short-term trading of securities. - Changing the valuation criteria from	- As a general rule in corporate accounting principles, 1) listed securities (10 and 20-year bonds) should be valued by historical cost accounting, but lower-of-the-cost-or market method may be applied, and 2) unlisted	- Differences in accounting standards for bonds depend on the type of holder. For companies, tax will normally be assessed according to profits recorded in a company's audited accounts. Companies' profits on bonds will	- Valuations determined by the accounting standards that apply to the holder of the security. In general, either mark-to-market or historical-cost depending on whether the securities are held in trading, or held for sale

	Canada	Italy	Japan	U.K.	U.S.A.
	financial corporations). - However, there is no regulation compelling the adoption of mark-to-market for all investors; thus there are likely some smaller corporations and perhaps some smaller financial firms using the other two accounting conventions.	one year to another is only allowed in exceptional circumstances, and the reasons for changing must be outlined.	securities should be valued by historical cost accounting - Most financial institutions use the former, but many business corporations use the latter. - In addition, mark-to-market accounting has been introduced in trading accounts of banks and securities firms since April 1997 and has been required in corporate pension funds since fiscal 1997.	either be taxed on their mark-to-market return or their return on an accruals basis. For financial trades, only the mark-to-market method of accounting is generally permitted. Individuals who hold more than (5,000 (\$8,240) nominal are subject to the Accrued Interest Scheme.	accounts, or investment account. Strict accounting rules determine whether a security can be held in the investment account (historical cost). - Securities held in mutual funds are marked-to-market. Most large investors probably use mark-to-market accounting.
g. Transparency	<Information on the OTC dealer market>	<Information on the auction agency market (MOT)>	<Information on the OTC dealer market>	<Information on the OTC dealer market>	<Information on the OTC dealer market>
<price information>					
- Intraday pre-trade price information available?	- Some dealers post their indication bid-ask prices on vendor screens. - These indicative bid-ask spreads tend to be wider than those for dealers in the interdealer broker market.	- The whole order book profile is available to member dealers. - The best bid-ask prices are available to the public.	- Some dealers post their indication prices on vendor screens.	- No.	- Some dealers post their indication bid-ask prices on vendor screens.
- Intraday post-trade price history available?	- No.	- Intraday actual price history is available to the public.	- No.	- Intraday post-trade price history is announced by the LSE only for retail trades of less than (50,000 (\$82,400) via "the retail ticker".	- Some dealers post intraday actual price history on vendor screens.
- Closing prices available?	- Daily indication closing prices for most issues are announced by many primary dealers.	- Daily actual closing prices are announced by the MOT.	- Daily indication closing prices for almost all issues, and average indication prices of 33 major dealers, are announced by the Japan Securities Dealers Association (JSDA).	- Daily closing prices for all issues are announced by the LSE via the Daily Official List (DOL) and "the mid-price service". - The DOL and indicative midprice services differ in their content and purpose. The DOL provides end of the day prices. The indicative mid-price service provides a rough average of trading prices throughout the day by taking the midpoint between the day's highest and lowest prices. If a specific bond is not traded in the retail market on a particular day, a midprice is still quoted by estimating them from wholesales prices and/or prices of similar maturities. - The UK Debt Management Office collects end-of-day prices from the GEMMs, and publishes them on the wire services.	- Daily indication closing prices for most issues are announced by many primary dealers.
<volume information>					
- Order sizes available?	- No.	- Individual order sizes are available to member dealers.	- No.	- No.	- Some indicate, but not entire limit order book.
- Intraday history on trade size available?	- No.	- Accumulated trading volume is available to the public.	- No.	- Accumulated trading volume is available for trades up to (50,000 (\$82,400) via "the retail ticker".	- Accumulated trading volume is available to the public
<common to all					

	Canada	Italy	Japan	U.K.	U.S.A.
information>					
- Information revealed to the public or dealers only?	- Daily closing prices by many primary dealers are available to the public, including customers and the central bank.	- The order book profile is available only to member dealers. - All other information is available to the public.	- Daily closing prices by the JSDA are available to the public, including customers and the central bank - Quotes by dealers against customers are not available to the public.	- Information on "the Retail Ticker", "mid-price service", and DOL is available to the public, including customers and the central bank.	- All of the above information is available to the public.
- Real time information?	- No.	- All price and trade information is available on a real time basis.	- No.	- Information on "the Retail Ticker" is available on a real time basis.	- Indicative prices from financial news services are available on a real time basis.
- How often is it released?	- No information is available on a tick-by-tick basis.	- All price and trade information is available on a tick-by-tick basis	- Closing prices by the JSDA are available once a day. Indication prices by dealers are occasionally posted on vendor screens.	- Information on "the Retail Ticker" is available on a tick-by-tick basis.	- Not tick-by-tick, but updated at a high frequency.
- For how many issues?	- Most government securities.	- All government securities.	- All government securities.	- All government securities.	- Benchmark issues.
- Who releases?	- Most primary dealers do.	- A private company ("Ced Borsa") releases under an agreement with the stock exchange who is the owner of the information.	- The JSDA announces daily closing prices.	- The LSE does.	- Primary dealers do via various financial news services.
h. Clearing and settlement practices					
- Lag between trade and settlement?	- T+2 for bonds with 3 years or less remaining maturity. - T+3 for bonds of over 3 years of remaining maturity.	- T+2 for T-bills (3M, 6M and 1Y zero coupon bonds). - T+3 for other securities.	- T+3.	- T+1.	- T+1.
- How much is settled on a DVP basis?	- The ratio settled on a DVP basis is unavailable. - Settlement is through a bookentry system between market participants via the Canadian depository for Securities (CDS). - Eligible for clearing through Euroclear and Cedel.	- 100% of transactions carried out on the exchange (MOT, MTS), and most OTC transactions are settled on a DVP basis, through a system managed by the BDI. - Eligible for clearing through Euroclear and Cedel.	- Transactions on 67.6% of registered JGSs and 42.7% of book-entry JGSs in terms of trading volume are settled on a DVP basis in 1997. - Registered and book-entry Japanese government securities (JGSs) can be cleared and settled electronically through the BOJ-NET JGS system. The system employs the DVP settlement since Apr 1994. - Not eligible for clearing through Euroclear and Cedel.	- 100% of trades which involve payment in CGO are made on an assured payment basis. - Trades in the CGO system are settled either on an assured payment basis or on a free of payment basis where counterparties agree to payment outside of the CGO system. The majority of trades are made with assured payment, i.e. payment is guaranteed by CGO members' settlement banks. - Eligible for clearing through Euroclear and Cedel.	- 100%. - The Government Securities Clearing Corporation (GSCC) provides automated clearance and guaranteed settlement for eligible U.S. Treasury securities. Through netting, GSCC establishes a net position for each participant's daily trading activity in a given security, including cash and repo transactions and Treasury auction purchases. GSCC minimizes risk by guaranteeing settlement of all trades entering its net. To do so, GSCC places itself between the original trading parties and becomes the legal counterparty for settlement - Eligible for clearing through Euroclear and Cedel.
i. Delivery fails	- Formal rules for delivery fails do not exist, but market practices exist. - The security-receiving party has legal possession of the security as of the settlement date, and is thus owed accrued interest on the security from the party that fails to deliver. In addition, the security-receiving party	- Formal rules for delivery fails do not exist, but market practices exist. - In the exceptional case where a participant cannot deliver, in order to avoid default he/she seeks a gentlemen's agreement with a "long" participant ready to withdraw its credit from the system, in order to clear the	- No publicly accepted practice on delivery fails exists.	- Rules for delivery fails exist. - Delivery fails are covered under the London Stock Exchange Rules (Chapter 15) which specify the procedure if a member firm is found in default. This is uncommon and generally occurs when a firm is experiencing major financial problems.	- Formal rules for delivery fails do not exist, but market practices exist. - The security-receiving party has legal possession of the security as of the settlement date, and is thus owed accrued interest on the security from the party that fails to deliver. In addition, the security-receiving party continues to

	Canada	Italy	Japan	U.K.	U.S.A.
	continues to earn interest on the funds set aside to pay for the security until the security is actually delivered.	system. The open transaction is set aside; a non interest bearing deposit – for the same amount of securities not delivered - is opened by the “short” participant. Should the securities not be delivered within three days, the participant loses 1% of the deposit for each day after the third.		- More common are unsettled trades, as these occur if the buyer and seller’s instructions to the CGO system match, but subsequently a counterpart fails to deliver either the gilts or the payment. If a trade fails in this sense, the CGO system simply rolls the transaction forward for settlement on the next business day with no sanctions.	earn interest on the funds set aside to pay for the security until the security is actually delivered.
j. Commission	- No.	- MOT’s participants must pay a fee, partly fixed, partly variable according to trading volume. Moreover, they must pay other fees mainly for use of the electronic system and of the clearing and settlement system: in particular, the fee imposed by “Ced Borsa” is partly fixed, partly variable according to the number of trades.	- No.	- No.	- No.
k. Market structure	- The OTC market (quote-driven dealer market) only.	- The exchange (order-driven auction-agency market) only. - Some OTC trading is conducted, but its role is marginal.	- Combination of the OTC market (quote-driven dealer market) and the exchange (order-driven auction-agency market). - More than 99% of trading volume is on the OTC market.	- The OTC market (quote-driven dealer market) only.	- The OTC market (quote-driven dealer market) only.
<dealer market>					
- How many dealers?	- There are approximately 170 dealers registered with the Investment Dealers Association (IDA) that account for 90% of all securities revenues.		- 501 dealers, as of April-1997.	- 16 dealers. All of them are PDs called GEMMs.	- About 1,700 dealers. - Treasury securities can be purchased from these dealers, but at the wholesale level where most trading occurs, trading is more concentrated. Most volume is handled by PDs.
- Are there primary dealers (PDs)?	- Yes. - 28 PDs, among them there are 8 jobbers with elevated status, exist. - However, the PD system changed in 1998. Former PDs are now called Government Securities Distributors (GSDs), and former jobbers are now called PDs.	- Yes. - A PD system exists in the cash interdealer market.	- No PD system exists.	- 16 PDs, called GEMMs, exist. - In Nov 1998, 8 IG GEMMs who alone make markets in index-linked gilts are designated.	- 37 PDs exist.
- Obligation on quotes by dealers/PDs?	- Yes. - The responsibility of jobbers and PDs is to make markets. According to administrative arrangements, jobbers will make markets in the government securities market to a broader customer base, and this activity will be consistently demonstrated. PDs are expected to maintain a continuous presence in fixed-income markets. “ordinary” dealers are not obligated to provide bid/ask quotations. - There are no regulations on the tightness of bid-ask spreads.		- No.	- Yes. - GEMMs are obligated to quote both sides within a certain degree of tightness, although there is no specified degree of tightness. - IG GEMMs are required to have 1% average market share on a 6-month rolling average basis.	- No. - PDs are not obligated to make markets for each other or for customers, although they are required to make reasonably good markets in their relationships with the Fed’s trading desk.

	Canada	Italy	Japan	U.K.	U.S.A.
	- After the PD system changed in 1998, the above obligation changed somewhat.				
- Obligation to bid in the auctions?	- Yes. - While both jobbers and PDs are obligated to participate in auctions, jobbers must bear a heavier responsibility. ("ordinary" dealers cannot participate in auctions.) - PDs are required to participate on an ongoing basis but do not have to bid on every occasion. - Jobbers are expected to submit bids at every T-bill and bond auction. - In submitting bids at auctions, jobbers and PDs will ensure that its auctions do not in any way contribute to an undue concentration of market allotment and in any other way undermine the integrity of the auction process. - After the PD system changed in 1998, the above obligation changed somewhat.		- No.	- Yes. - Nothing formal but GEMMs are expected to match their secondary market share over time.	- Yes. - PDs have to meaningfully participate in Treasury Auctions.
- Obligation to report to the central bank?	- Both jobbers and PDs must provide weekly reports on their money and bond activities, including turnover, inventories, and financing. - Jobbers must provide BOC with a frank ongoing assessment of market conditions and developments. - After the PD system changed in 1998, the above obligation changed somewhat.		- No.	- GEMMs must provide information on the indication of flows, demand for particular sectors, consultation on auction schedule, and position data to the Debt Management Office.	- PDs must provide market information and analysis to the Fed's trading desk. Also, they report weekly on their trading activity, cash, futures, and financing market positions in the Treasury market.
- Other obligations?	- No.		- No.	- No.	- No.
- Are quotes firm/indication?	- All quotes are firm.		- All quotes are firm.	- All quotes are firm	- All quotes are firm.
- Share of the PDs?	- Over 90% of all trading in the government securities market.			- Very high.	- Very high.
<auction agency market>		<exchange-MOT> - The MOT is an auction agency trading system, conducted within the stock exchanges. - Minimum trade size is ITL5 million (app. \$3 thousand)			
- Periodic and/or continuous auction?		- Combination of both. - Orders are matched by call auctions for the opening of a trading session, and by continuous auctions throughout the session.			
- Matching rule?		- In call auctions for the opening of a			

	Canada	Italy	Japan	U.K.	U.S.A.
		session, the opening price is determined by where largest amount of limit orders match after all market orders are matched. The first-in rule applies to orders at the same price. - In the continuous auctions thereafter, orders are matched continuously by the "best price" and "first in" Rule. Both limit orders and market orders can be placed.			
- Open outcry / telephone-based / electronic trading?		- Electronic trading.			
- Who operates the agency?		- "Borsa Italiana SpA (The Italian Stock Exchange)", a joint stock company based in Milan.			
- What securities are listed?		- All government securities are listed on MOT by law. Trading begins the day after the auction.			
- Status of auction agency prices?		- Closing prices on the MOT are regarded as official prices.			
<combination of dealer market and auction agency market>					
- Breakdown between markets?			- 99% dealer market, 1% auction agency market.		
- When and how one is preferred over the other?			- In Dec 1998, the obligation to concentrate small-lot transaction (\ 1-10 million <\$7.7-77 thousand>) on the TSE was abolished. Since then, almost all transactions are conducted on the OTC market.		
2. Cash market (interdealer broker market)		- IDBs do not exist, but a special trading facility called MTS exists for interdealer trading.			
a. Benchmark	- Same as customer market.	- Same as customer market.	- Same as customer market.	- Same as customer market.	- Same as customer market.
b. Trading hours	- Same as customer market.	- From 9:00 to 17:10.	- From 8:40 to 17:00 (lunch break from 11:05 to 12:25).	- Same as customer market.	- Same as customer market.
c. Tick size and quote practices	- Same as customer market.	- Same as customer market.	- Same as OTC customer market.	- Same as customer market.	- Same as customer market.
d. Strippability	- Same as customer market.	- Same as customer market.	- Same as customer market.	- Same as customer market.	- Same as customer market.
e. Taxation	- Same as customer market.	- Same as customer market.	- Same as customer market.	- Same as customer market.	- Same as customer market.
f. Accounting	- Same as customer market.	- Same as customer market.	- Same as customer market.	- Same as customer market.	- Same as customer market.
g. Transparency	<Information on the auction agency market intermediated by IDBs>	<Information on the dealer market (MTS)>	<Information on the auction agency market intermediated by the Japan Bond Trading Co (JBT).>	<Information on the auction agency market intermediated by IDBs>	<Information on the auction agency market intermediated by IDBs>
<price information>					
- Intraday pre-trade price	- The best firm bid-ask prices are posted on the IDB screens.	- The 5 best bid and 5 best ask quotes for each issue are available to the	- The whole order book is available to member dealers including securities	- General price information is posted on IDB screens.	- The best bid-ask prices for each broker are posted on the IDB screens.

	Canada	Italy	Japan	U.K.	U.S.A.
information available?		public.	firms and banks authorized to deal in government securities.		
- Intraday post-trade price history available?	- The IDBs post the price of every trade they execute.	- Intraday actual price history is available to the public.	- Intraday price history of all issues is available to member dealers. - Intraday actual price history of five issues (the benchmark 10-year bond and four other issues most heavily traded in the previous month) are available to the public.	- The IDBs post the price of every trade that they execute.	- The IDBs post prices for every trade they execute.
- Closing prices available?	- Since it is a 24-hour market, there are technically no closing prices.	- Closing prices are available to the public.	- Actual closing prices for the five issues are available to the public. - In addition, from Dec 1998, the JBT announces theoretical prices of all government securities as of 15:00, based primarily on the JBT's calculations and some adjustment by 20 large market makers.	- The IDBs post the price of every trade that they execute.	- IDBs post all prices, including closing prices. - In addition, a private company called GovPX Inc. collects and disseminates pricing information, including closing prices, from the IDBs.
<volume information>					
- Order sizes available?	- The amount of placed orders for the best bid-ask prices are available only to dealers with IDB screens.	- The size of the 5 best bid and 5 best ask quotes for each contract are available to the public.	- The size of individual orders is available to member dealers of JBT, although who placed the orders is kept anonymous.	- The size of individual orders are posted on the IDB screens.	- The amounts offered at the best bid-ask prices for each broker are posted on the IDB screens.
- Intraday history on trade size available?	- The IDBs post the trade size of every trade that they execute.	- The accumulated trading volume is available to the public.	- The intraday history of trade size of all issues is available to member dealers. - The daily trading volume for five issues are available to the public at the end of the day.	- The IDBs post the trade size of every trade that they execute.	- The IDBs post the trade size of every trade that they execute.
<common to all information>					
- Information revealed to the public or dealers only?	- All price and trade information is available only to dealers with IDB screens. - BOC also has IDB screens.	- No information is limited to dealers. Information available to dealers is also available to the public and the central bank.	- All price and trade information, except daily trading volume and price histories for five issues and the "theoretical" prices as of 15:00, is available to the member dealers. - Only the central bank has access to post-trade information on price and trade size.	- No information is revealed to the public. - Only GEMMs, BOE, and Debt Management Office (DMO) can see IDB screens.	- IDB screens are generally available only to PDs, but a summary of IDB activity is available to the public through GovPX subscription.
- Real time information?	- All price and trade information is available on a real time basis to dealers that have IDB screens.	- All price and trade information is available on a real time basis.	- The information available to member dealers is available on a real time basis. - The intraday price history available to the public is released with a 30-second reporting lag.	- All price and trade information is available on a real time basis.	- Summary of IDB activity as well as IDB postings are real-time.
- How often is it available?	- All price and trade information available to dealers with IDB screens on a tick by tick basis only.	- All price and trade information is available to the public on a tick by tick basis.	- Information available to member dealers is available on a tick-by-tick basis. - The intraday price history is available to the public is available every minute for the benchmark, and every hour for the other four issues. - Trading volume and opening, daily-high, daily-low, and closing prices are	- All price information is available to the public on a tick by tick basis.	- All price and trade information is available to the public on a tick by tick basis.

	Canada	Italy	Japan	U.K.	U.S.A.
			available once a day.		
- For how many issues?	- The information available only to member dealers covers all issues traded through IDBs. They are mostly benchmark issues or just off-the-run issues, but are not restricted to these issues.	- The information is available for all issues listed on the MTS (135 as of the end of 1997). There is no difference in the degree of availability of information. - All newly issued government bonds are listed on the MTS, while some off-the-run bonds and the oldest T-bills for each maturity are not listed on the MTS.	- The information available to member dealers covers all issues traded through JBT (234 issues as of end-1997). - The daily trading volume and intraday price history available to the public covers five issues: the benchmark and other four issues which were most heavily traded in the previous month. The price history of the benchmark is updated every minute, while that of the other four issues is updated every hour. - Prices as of 15:00 cover all government securities.	- All issues. - Shorts more than longs/mediums. - Benchmarks at finer prices.	- Benchmark issues, when-issued securities, and some other issues.
- Who releases?	- IDBs.	- A private company (MTS SpA), owner of the information, has an agreement with a company ("SIA") for the release of the information. This company, in turn, has agreements with information vendors.	- The JBT.	- IDBs.	- IDBs. - In addition, GovPX collects and disseminates information on interdealer transactions via most interdealer brokers.
h. Clearing and settlement practices	- Same as customer market.	- Same as customer market.	- Same as customer market.	- Same as customer market.	- Same as customer market.
i. Delivery fail	- Same as customer market.	- Same as customer market.	- Same as customer market.	- Same as customer market.	- Same as customer market.
j. Commission	- Typically, 0.065/10,000 – 1.00/10,000 (variable according to the original maturity) of the face value is imposed by IDBs on transaction initiator. - The commission is negotiable and can vary with volume.	- Participants pay a fee for using the electronic system. The fee is partly fixed, partly variable according to several parameters, such as the number of electronic messages, and use of the CPU. - The range of the yearly fee could be roughly stated as between ITL50 million (\$28 thousand) for ordinary participants, and ITL400 million (\$226 thousand) for large specialists.	- 0.05/10,000 - 0.20/10,000 (variable according to the remaining maturity and the type of securities <coupon bonds, discount bonds, or TBs>) of the face value is imposed by JBT on both sellers and buyers.	- 0.39/10,000 - 0.78/10,000 (variable according to maturity) of the face value is imposed by IDBs on only sellers.	- Typically, 0.13/10,000 - 0.39/10,000 (variable according to the original maturity) of the face value is imposed by IDBs on the transaction initiator. - The commission is negotiable and can vary with volume.
j. Market structure					
- Direct deal or through interdealer brokers (IDBs)?	- Direct deal about 25%, through IDBs about 75%.	- All direct deal.	- BOJ's rough estimate is; direct deal 30%, and through IDBs 70%.	- Through IDBs 100%.	- More than 90% are through IDBs.
- Electronic / telephone?	- Telephone.	- Electronic.	- Telephone.	- Telephone.	- Electronic and telephone.
- For trades intermediated by IDBs,		- There are no IDBs.			
- How many IDBs?	- Five.		- Seven (five domestic, two foreign)	- Three.	- Six.
- Do they act as principals / agents?	- Agents.		- Principals.	- Principals.	- Five IDBs as agents and one IDB as principal.
- What securities are traded?	- All government securities.		- All government securities.	- All government securities.	- All government securities.
- Periodic and/or continuous	- No auctions.		- Continuous auction only.	- No auctions.	- No auctions.

	Canada	Italy	Japan	U.K.	U.S.A.
auction?					
- Open outcry / telephone-based / electronic trading?	- Telephone.		- Telephone.	- Telephone.	- Telephone and electronic.
- Matching rule?	- IDBs do not have order-books, rather they intermediate information by posting quotes called in by PDs. - Trades are executed when a dealer calls an IDB and initiates a trade against a standing quote. - Anonymity is kept both ex ante and ex post. Only the IDB knows the names of the counterparties (blind broker system)		- Both buy-orders and sell-orders are continuously placed. Only limit orders can be placed. During the trading session, orders are continuously matched by the "best price" and "first in" rule on the order-book of the JBT. - Anonymity is kept both ex ante and ex post. Only the IDB knows the names of the counterparties (blind broker system).	- The IDBs do not have order-books, rather they intermediate information by posting quotes called in by GEMMs. - Trades are executed when a dealer calls an IDB and initiates a trade against a standing quote. - Anonymity is kept both ex ante and ex post. Only the IDB knows the names of the counterparties (blind broker system).	- The IDBs do not have order-books, rather they intermediate information by posting quotes called in by PDs. - Trades are executed when a dealer calls an IDB and initiates a trade against a standing quote. - Anonymity is kept both ex ante and ex post. Only the IDB knows the names of the counterparties (blind broker system).
- For trades not intermediated by IDBs, but by a special trading facility		- The MTS is a quote-driven dealer market system, managed by a private company (MTS SpA) under supervision by the Treasury and the BDI. - Minimum trade size is ITL5 billion (app. \$3 million).			
- How many dealers?		- The MTS is comprised of 268 dealers (32 PDs and 236 ordinary dealers) including the BDI, banks, securities firms, investment fund management companies, insurance companies, and foreign companies that trade securities solely on their own account. - Ordinary dealers simply participate in the system, and are not allowed to quote as described later.			
- Are there primary dealers (PDs)?		- There are 32 PDs, among them there are 15 specialists with elevated status.			
- Obligation on quotes by dealers/PDs?		- Yes. - Specialists and PDs are obligated to quote both sides within a certain degree of tightness. - However, "ordinary" dealers are not allowed to quote. They can only hit quotes made by specialists and PDs. - Until 1997, BDI carried out an annual review of PD activity. Among the criteria needed to qualify as a PD is the tightness of quotations, compared to the market average. Since then, this role is has been filled out by a private company that manages the MTS (MTS SpA).			
- Obligation to bid in the auctions?		- Yes. - Specialists are obligated to subscribe to at least 3% of the amount offered in			

	Canada	Italy	Japan	U.K.	U.S.A.
		auctions on a yearly average basis. However, PDs and "ordinary" dealers are not so obligated.			
- Obligation to report to the central bank?		- Yes. - All participants of the MTS must provide information on overall activity to the MTS management company. - Both specialists and PDs must provide data and overall activity to BDI. - Specialists must also provide such information to the Treasury.			
- Other obligations?		- Yes. - There are regulations regarding minimum trading volume on government securities and minimum net worth.			
- Are quotes firm/indication?		- All quotes are firm.			
- Share of the PDs?		- The share of PDs is 69.1%. - The share of specialists is 51.2%.			
3. Futures market	<MSE (Montreal Stock Exchange)>	<MIF in Italy and LIFFE in the U.K.>	<TSE (Tokyo Stock Exchange)>	<LIFFE>	<CBOT and CME>
a. Benchmark	- No official rules exist. - The 5 and 10-year futures contracts with the nearest maturity date are usually regarded as benchmarks.	- No official rules exist. - The 10-year futures contracts with the nearest maturity date are usually regarded as benchmark.	- No official rules exist. - The 10-year futures contracts with the nearest maturity date are usually regarded as benchmark.	- No official rules exist. - The 5 and 10-year futures contracts with the nearest maturity date are usually regarded as benchmarks.	- No official rules exist. - The futures contracts with the nearest maturity date are usually regarded as benchmarks.
b. Trading hours	- From 8:20 to 15:00. - On July 13,1998, the MSE announced that it will extend the trading hours for its futures contracts by placing them on the electronic trading platform Euronext (an affiliation of the French futures market, MATIF). The new hours will start at 2:00 (EST) where electronic trading will take place until the Montreal market opens and pit trading starts (and electronic trading ends). This initiative will start some time in the fall 1998 with the BAX contract (the contract on the 3-month BA) and then be extended to the Exchange's other futures contracts.	<MIF> - From 8:50 to 17:10, and from 17:20 to 19:00 <LIFFE> - From 8:00 to 17:10, and from 17:21 to 18:58 (Italian time).	- From 9:00 to 15:00 (lunch break from 11:00 to 12:30).	- From 8:00 to 16:15 (regular hours) and 16:20 to 18:00 (APT).	<CBOT – Chicago time> - From 7:20 to 14:00 (regular hours), from 14:30 to 16:30 (Project A - afternoon session), and from 17:55 to 6:45 (Project A - overnight hours). <CME – Chicago time> - From 7:20 to 14:00 (regular hours) , and from 14:45 to 7:05 (Globex).
c. Tick size and quote practices	- The tick size is C\$0.01 for the nominal face value of C\$100, which makes the value of one tick C\$10 (\$7). - Quotes are in price terms.	- The tick size is ITL0.01 for the nominal face value of ITL100, which makes the value of one tick ITL20 thousand (\$11). - Quotes are in price terms.	- The tick size is \0.01 for the nominal face value of \100, which makes the value of one tick \10 thousand (\$77). - Quotes are in price terms.	- The tick size is \0.01 for the nominal face value of \100 (switched from \1/32 on May 1, 1998), which makes the value of one tick\10 (\$17). - Quotes are in price terms.	<CBOT> - The tick size is \$1/32 for the nominal value of \$100, which makes the value of one tick \$31.25 for 30 and 10-year contracts. Similarly, \$1/64 for 5-year and \$1/128 for 2-year contracts (value of one tick is \$15.625 for both contracts). - Quotes are in price terms. <CME> - 0.005% for 1-year, and 0.01% for 3-

	Canada	Italy	Japan	U.K.	U.S.A.
					month contracts. - Quotes are in yield terms.
d. Taxation					
- Transaction tax?	- No.	- No.	- The Organized Exchange Tax (0.05/10,000 of the amount of sales/purchase measured in market value) is levied on both sellers and buyers. The tax rates were cut in half on April 1, 1998. - The tax was abolished by the end of March 1999.	- No.	- No.
e. Transparency					
<price information>					
- Intraday pre-trade price information available?	- The best bid-ask prices are available to the public through information vendor screens.	<MIF> - The 5 best bid and 5 best ask quotes for each contract are available to the public. <LIFFE> - The order book profile is available to member dealers. - The best bid-ask prices are available to the public through information vendor screens.	- The order book profile is available to member dealers (members <securities firms> and special TSE participants <banks>). - The best bid-ask prices are available to the public through information vendor screens.	- The best bid-ask prices are available to the public through information vendor screens.	- The best bid-ask prices are available to the public through information vendor screens. - The order book profile is available to member dealers for Project A and Globex, but not for regular floor trading.
- Intraday post-trade price history and closing prices available?	- Intraday price history, including opening, daily-high, daily-low, and closing prices, is available to the public.	<MIF, LIFFE> - Intraday price history, including opening, daily-high, daily-low, and closing prices, is available to the public.	- Intraday price history, including opening, daily-high, daily-low, and closing prices, is available to the public.	- Intraday price history, including opening, daily-high, daily-low, and closing prices, is available to the public.	- Intraday price history, including opening, daily-high, daily-low, and closing prices, is available to the public.
<volume information>					
- Order sizes available?	- No.	<MIF> - The size of the 5 best bid and 5 best ask quotes for each contract is available to the public. <LIFFE> - The size of individual orders is available to member dealers. - No information is available to the public.	- The amount of placed orders for each quoted price is available to member dealers.	- No.	- The amount of placed orders for each quoted price is available to member dealers on Project A and Globex, but not on regular floor trading.
- Intraday history on trade size available?	- The accumulated trading volume is available to the public. The open interest for each contract is available to the public at the end of the day.	<MIF, LIFFE> - The accumulated trading volume is available to the public. The open interest for each contract is available to the public at the end of the day.	- The accumulated trading volume is available to the public. The open interest for each contract is available to the public at the end of the day.	- The accumulated trading volume is available to the public. The open interest for each contract is available to the public at the end of the day.	- The accumulated trading volume is available to the public. The open interest for each contract is available to the public at the end of the day.
<common to all information>					
- Information revealed to customers or dealers only?	- Information such as price and trade history is available to the public and the central bank.	<MIF> - No information is limited to dealers. Information available to dealers is also available to the public and the central bank.	- While the order book profile is available only to TSE member dealers, other information such as best bid-ask prices and price and trade history is available to the public and the central bank.	- Information such as price and trade history is available to the public and the central bank.	- The order book profile is available to member dealers on Project A and Globex, but not on regular floor trading. - Other information such as price and trade history is available to the public

	Canada	Italy	Japan	U.K.	U.S.A.
		<LIFFE> - While pre-trade information is available only to member dealers, other information such as price/trade history is available to the public and the central bank.			and the central bank.
- Real time information?	- All price and trade information, except open interest, is available on a real time basis.	<MIF, LIFFE> - All price and trade information, except open interest, is available on a real time basis.	- All price and trade information, except open interest, is available on a real time basis.	- All price and trade information, except open interest, is available on a real time basis.	- All price and trade information, except open interest, is available on a real time basis.
- How often is it released?	- All price and trade information, except open interest which is available once a day, is made public on a tick by tick basis.	<MIF, LIFFE> - All price and trade information, except open interest which is available once a day, is made public on a tick by tick basis.	- All price and trade information, except open interest which is available once a day, is made public on a tick by tick basis.	- All price and trade information, except open interest which is available once a day, is made public on a tick by tick basis.	- All price and trade information, except open interest which is available once a day, is made public on a tick by tick basis.
- For how many contracts?	- The information is available for all contracts. There is no difference in the degree of availability of information according to maturity or delivery date.	<MIF, LIFFE> - The information is available for all contracts. There is no difference in the degree of availability of information according to maturity or delivery date.	- The information is available for all contracts listed on the TSE. There is no difference in the degree of availability of information according to maturity or delivery date.	- The information is available for all contracts. There is no difference in the degree of availability of information according to maturity or delivery date.	- The information is available for all contracts. There is no difference in the degree of availability of information according to maturity or delivery date.
- Who releases?	- The MSE.	<MIF> - The MIF has an agreement with "SIA", which in turn releases information to information vendors. <LIFFE> - The LIFFE also releases such information.	- The TSE.	- The LIFFE.	- The CBOT and the CME release their respective contracts.
f. Commission	- 0.022/10,000 of the contracted value for member firms, 0.033/10,000 for non-member brokers, and 0.060/10,000 for clients.	- No commissions. - However, member dealers of the MIF pay a fee to use the electronic system. The fee is partly fixed and partly variable according to 1) the number of electronic messages, and 2) CPU use. - The range of the yearly fee could be roughly stated as between ITL50 million (\$28 thousand) for an ordinary participant, and ITL350 million (\$197 thousand) for a large market maker.	- 0.018/10,000 - 0.024/10,000 (variable according to monthly trading volume on the TSE) of the contract value is imposed by the TSE on both sellers and buyers.	- Trading fees are imposed by the LIFFE, clearing fees are imposed by the London Clearing House. - Before April 1998, trading fees of (0.42 (69 cents) and clearing fees of (0.03 (5 cents) were imposed per side, per lot. Presently, the trading fees have been reduced to (0.25 (41 cents).	<CBOT> - Fees runs from 1.5 cents for members to 50 cents for non-members. - Users of Project A are charged additional fees on top of standard fees. Fees range from 10 cents to 150 cents. <CME> - CME charges clearing fees which run from 5 cents to 70 cents, but has no separate exchange fees and does not charge member firms with a National Futures Association fee. - There is an additional 50 cents "system fee" for Globex transactions.

	Canada	Italy	Japan	U.K.	U.S.A.
g. Product design and market structure					
- Product design?	<ul style="list-style-type: none"> - 10 and 5-year contracts are traded on the MSE. - Delivery months are Mar, Jun, Sep, and Dec. - Because of the rule on minimum outstanding amount, "orphaned" bonds, which are older bonds issued before the government decided to issue benchmark bonds, are not deliverable. <MSE 10-year> - Notional coupon: 9%. - Delivery conditions: bonds, having an outstanding amount of at least C\$3.5 billion (\$2.45 billion) nominal value, with remaining maturity of 8 to 10.5 years. - Nominal value: C\$100 thousand (\$70 thousand). <MSE 5-year> - Notional coupon: 9%. - Delivery conditions: bonds, having an outstanding amount of at least C\$3.5 billion (\$2.45 billion) nominal value, with remaining maturity of 3.75 to 5.25 years. - Nominal value: C\$100 thousand (\$70 thousand). 	<ul style="list-style-type: none"> - 10 and 5-year contracts are traded on the MIF. 10-year contracts are traded on the LIFFE. - Delivery months are Mar, Jun, Sep, and Dec. <MIF 10-year> - Notional coupon: 8% (down from 12% in recent years). - Delivery conditions: BTPs with remaining maturity of 8 to 10 years - Nominal value: ITL200 million (\$113 thousand). <MIF 5-year> - Notional coupon: 8% (down from 12% in recent years). - Delivery conditions: BTPs with remaining maturity of 3.5 to 5 years - Nominal value: ITL200 million (\$113 thousand). <LIFFE 10-year> - Notional coupon: 8% (down from 12% in recent years). - Delivery conditions: BTPs with remaining maturity of 8 to 10.5 years - Nominal value: ITL200 million (\$113 thousand). 	<ul style="list-style-type: none"> - 20, 10 and 5-year contracts are traded on the TSE. - Delivery months are Mar, Jun, Sep, and Dec. - Delivery dates are on the 20th (or the next business day) of Mar, Jun, Sep, and Dec. Last trading day is the ninth business day prior to the delivery dates. - Three contract months are listed at any given moment (down from five contracts in 1998). <TSE 20-year> - Notional coupon: 6%. - Delivery conditions: listed bonds with remaining maturity of 15 to 21 years. - Nominal value: \100 million (\$770 thousand). <TSE 10-year> - Notional coupon: 6%. - Delivery conditions: listed bonds with remaining maturity of 7 to 11 years. - Nominal value: \100 million (\$770 thousand). <TSE 5-year> - Notional coupon: 6%. - Delivery conditions: coupon bonds with remaining maturity of 3 to 5 years. - Nominal value: \100 million (\$770 thousand). 	<ul style="list-style-type: none"> - 10 and 5-year contracts are traded on the LIFFE. - Delivery months are Mar, Jun, Sep, and Dec. <LIFFE 10-year> - Notional coupon: 7% (down from 9% for the Jun 1998 contract) - Delivery conditions: gilts with remaining maturity of 10 to 15 years (8.75 – 13 years from Dec 1998) - Nominal value: \100 thousand (\$165 thousand, up from \50 thousand <\$82 thousand> from the Sep 98 contact). <LIFFE 5-year> - Notional coupon: 7% - Delivery conditions: gilts with remaining maturity of 4 to 7 years - Nominal value: \100 thousand (\$165 thousand). 	<ul style="list-style-type: none"> - 30, 10, 5, and 2-year contracts are traded on the CBOT, and 1-year and 3-month contracts are traded on the CME. - Delivery months are Mar, Jun, Sep, and Dec. <CBOT 30-year> - Notional coupon: 8%. - Delivery conditions: T-bonds with remaining maturity of more than 15 years. - Nominal value: \$100 thousand. <CBOT 10-year> - Notional coupon: 8%. - Delivery conditions: T-notes with remaining maturity of 6.5 to 10 years. - Nominal value: \$100 thousand. <CBOT 5-year> - Notional coupon: 8%. - Delivery conditions: T-notes, originally issued as 5-year notes, with remaining maturity of 4.25 to 5.25 years. - Nominal value: \$100 thousand. <CBOT 2-year> - Notional coupon: 8%. - Delivery conditions: T-notes, having original maturity of no greater than 5.25 years, with remaining maturity of 1.75 to 2 years. - Nominal value: \$200 thousand. <CME 1-year> - Nominal value: \$50 thousand. <CME 3-month> - Nominal value: \$100 thousand.
- Modification of product design?	- No.	<ul style="list-style-type: none"> - Yes. - Starting with Dec 1997 contracts, the notional coupons on futures contracts both on the LIFFE and the MIF were reduced from 12% to 8%. 	<ul style="list-style-type: none"> - Yes. - The number of listed contract months decreased from five to three in 1998. - Starting with Mar 2000 contracts, 20-year bonds will not be deliverable against 10-year contracts. 	<ul style="list-style-type: none"> - Yes. - Modifications which do not affect the economic value of a contract (e.g. quote change from 1/32 to decimals) can be made immediately even for listed delivery months. - However, modifications affecting the economic value (e.g. notional coupon, price factor, maturity bracket, nominal value) are not made to any contract which is listed with open interest. 	<ul style="list-style-type: none"> - Yes. - Starting with Mar 2000 contracts, the notional coupons on futures contracts on CBOT will be reduced from 8% to 6%.
- Periodic and/or continuous auction?	- Continuous auction only.	<ul style="list-style-type: none"> <MIF> - No auctions. <LIFFE> - Continuous auction only. 	<ul style="list-style-type: none"> - Call auctions for the opening and closing of a trading session (9:00-11:00, 12:30-15:00), and continuous auctions for the rest of the session. 	- Continuous auction only.	- Continuous auction only.

	Canada	Italy	Japan	U.K.	U.S.A.
- Matching rule?	- Both buy-orders and sell-orders are continuously placed. During the trading session, orders are continuously matched by the "best price" and "first in" rule. While both market orders and limit orders can be placed, limit orders are matched only after all market orders are matched. - No market maker exists.	<MIF> - Quote-driven market with market makers. PDs are obliged to quote two-way, with a minimum number of contracts. Brokers can also quote on behalf of customers, while dealers quote on their own account. - Orders put into the screen-based system are automatically and real-time matched with the best quote matching the order conditions. <LIFFE> - Order-driven market. - Both buy-orders and sell-orders are continuously placed. During the trading session, orders are continuously matched by the "best price" and "first in" rule. - No market maker exists.	- In call auctions, buy-orders and sell-orders accumulate in the 25 minutes before each auction. Both market orders and limit orders can be placed. At the time of the auction, a single price, which clears both buy-orders and sell orders, is determined as follows. First, market orders are matched. Next, limit buy-orders with higher prices are matched with limit sell-orders with lower prices until there is an equal amount of sell-orders and buy-orders at a single price. All transactions are conducted at this determined price. - In the continuous auctions, both buy-orders and sell-orders are continuously placed. During the trading session, orders are continuously matched by the "best price" and "first in" rule. While both market orders and limit orders can be placed, limit orders are matched only after all market orders are matched. - No market maker exists.	- Both buy-orders and sell-orders are continuously placed. During the trading session, orders are continuously matched by the "best price" and "first in" rule. - No market maker exists.	- Both buy-orders and sell-orders are continuously placed on Project A and Globex. - During the trading session, orders are continuously matched by the "best price" and "first in" rule. - No market maker exists.
- Open outcry / telephone-based / electronic trading?	- Open outcry only.	<MIF> - Electronic only. <LIFFE> - Open outcry <regular trading hours> and electronic <evening session-APT>.	- Electronic only.	- Open outcry (regular trading hours) and electronic (evening session-APT). - Electronic trading in regular trading hours will begin in 1999.	- Open outcry (regular trading hours) and electronic (Project A – CBOT, Globex – CME).
- Arrangements to facilitate a round-the-clock trading?	- No.	-No.	- 10-year futures are listed on the LIFFE and the SIMEX. 1996 trading volume in each market was 6.6% and 0.6% of that of the TSE, respectively.	- No.	- No.

β. Central bank's role

	Canada	Italy	Japan	U.K.	U.S.A.
1. Primary market	- No responsibility for debt management of the government. - Fiscal agent for the government's debt management operations.	- No responsibility for debt management of the government. - Fiscal agent for the government's debt management operations.	- No responsibility for debt management of the government. - Fiscal agent for the government's debt management operations.	- Until April 1998, BOE was responsible for debt management of the government. The role has been transferred to the UK Debt Management Office. - Fiscal agent for the government's debt management operations.	- No responsibility for debt management of the government. - Fiscal agent for the government's debt management operations.
2. Secondary market					
- Conduct open market operations in government securities market?	- Yes.	- Yes.	- Yes.	- Yes.	- Yes.
- What kind of operations?	- Purchase with sell-back agreement (SPRA), and sale with buy-back	- Outright purchase, outright sale, purchase with sell-back agreement,	- Outright purchase of 10 and 20-year bonds, purchase with sell-back	- Outright purchase and repo.	- Outright purchase/sale, repo, reverse repo, and security lending.

	Canada	Italy	Japan	U.K.	U.S.A.
	agreement (SRA).	and sale with buy-back agreement.	arrangement of 10 and 20-year bonds, purchase with sell-back arrangement of TB's, and repos of 10 and 20-year bonds. - Repo operations of 4 and 6-year bonds started in Jan 1999.		
- How are they conducted?	- Tap transactions only. - For SPRAs, the BOC offers to purchase T-Bills and Bonds from jobbers with an agreement to resell on the next business day. - For SRAs, the BOC offers to sell T-Bills, typically maturing within one or two weeks, to the six largest domestic banks and repurchase them on the next business day.	- Combination of discriminatory-price auction and tap transactions. - BDI conducts the main open market operations to finance the banking system, which are structurally indebted toward the central bank. These operations are conducted by discriminatory price auctions. - BDI also conducts fine tuning operations to tackle unexpected liquidity shocks on particular days. These operations are conducted bilaterally, usually for OTC tap transactions.	- Discriminatory-price auction only.	- The BOE conducts repo open market operations at a fixed rate set by the Monetary Policy Committee. - Purchases of next maturities occurs when the BOE buys bonds which are close to maturity as part of its open market operations. Use of this method for injecting liquidity is relatively rare - it was used twice during the 1997/98 financial year.	- Discriminatory-price auctions for outright and repos.
- Counterparties?	- For SPRAs, jobbers only. For SRAs, chartered banks only. - However, starting in Feb 1999, the counterparties for SPRAs and SRAs become PDs.	- Outright purchase/sales: only MTS PDs. - Purchase/sale with sell/buy back agreement: all banks and security firms, the latter with the status of MTS PDs.	- Major market participants including securities firms, banks, and money market dealers. - The number of counterparties varies from 24 to 61 according to the type of operation as of April 1998.	- Main players in the sterling money market including banks, securities houses, and discount houses. Such counterparties must meet various functional criteria to engage in repo with the BOE. - The number of counterparties are around 20.	- PDs.
- Measures to avoid noise?	- Since both types of open market operations (SPRAs and SRAs) are repurchase/resale agreements for an overnight maturity, the BOC is not very concerned with mitigating noise.	- All government securities issues are eligible within temporary operations, while a panel of issues is eligible in outright operations. Consequently, banks need not hold a specific issue to participate in open market operations, and can largely use their current portfolio. They need not buy/borrow eligible assets on the secondary market, and this mitigates unnecessary noise in market prices. - For outright operations, at least three different T-bills are eligible. Eligible T-bills are selected to avoid squeezing of interbank liquidity market by a few banks/securities firms.	- The amount in circulation is taken into consideration when the BOJ determines issues for purchase, in order to mitigate unnecessary noise.	- The main measures to mitigate unnecessary noise are: choice of repo dates (9, 10, or 11 working days is the typical maturity), possibility of longer or shorter repos than the typical pattern, and buying back bonds for open market operation purposes. - These measures help prevent noise by allowing the BOE to smooth out the expected pattern of future shortages.	- Yes. For example, efforts have been undertaken to conduct routing reserve management operations when markets are more liquid.
- Securities lending / repo to prevent market manipulation?	- No.	- Yes.	- No.	- Yes.	- Yes.
- Pre-announcement of policy decisions?	- No. Changes in policy interest rates are never pre-announced and there are no pre-set dates when changes to policy rates can be made.	- Policy decisions are not announced in advance.	- Dates of Policy Board Meetings, as well as dates and times of their minutes, for the next six months are pre-announced immediately after meetings to discuss monetary issues in	- The BOE releases the Monetary Policy Committee's decision on the official repo rate at 12:00 on the second day of the Committee's meeting. - MPC dates are announced up to about a	- Dates of FOMC meetings are announced in advance. Changes to target rates are immediately disclosed to public.

	Canada	Italy	Japan	U.K.	U.S.A.
- Pre-announcement of statistics?	- Yes. Statistics Canada has a pre-set schedule for all of its macroeconomic data releases. The dates for these releases are set a year in advance. Monetary and financial statistics are available from the BOC on a regular basis.	- BDI releases official statistics on a monthly basis. - The dates of monthly statistics are not pre-announced.	the last month of each quarter. - The dates and times of all major public releases (statistics and other statements) for the next four weeks are pre-announced every Friday.	year in advance. - Monetary and capital market statistics are reported by BOE according to a regular monthly/quarterly timetable. - The dates of statistical releases are also known well in advance, by up to about a year.	- Statistics are available on a regular basis.

Structure of Government Securities Markets (2)

Figures are quoted at 1997 year-end exchange rates (US\$1 = BEF37.1 = FFfr6.02 = DM1.80 = Dfl2.03 = SKr7.93 = SFr 1.46).

<Quantitative questions>

1. Outstanding and original maturity – all figures are for all marketable government securities as of the end of 1997.

	Belgium					France					Germany					Netherlands					Sweden					Switzerland					
	Maturity	Vol.	#	Size	Freq.	Maturity	Vol. ¹⁾	#	Size ²⁾	Freq. ³⁾	Maturity	Vol.	#	Size ¹⁾	Freq. ²⁾	Maturity	Vol.	#	Size	Freq.	Maturity	Vol.	#	Size ¹⁾	Freq. ²⁾	Maturity	Vol.	#	Size ¹⁾	Freq.	
Outstanding and original maturity Vol.: Volume outstanding in \$ billion. #: Number of issues outstanding Size: Average issue size for 1997 in \$ billion. Freq.: Frequency of new issues in 1997. A: Annually. SA: Semi-annually. Q: Quarterly. 2M: Every two months. M: Monthly. 2W: Every two weeks. W: Weekly.	Fixed ¹⁾	172.2	42		M ³⁾	Fixed	430.9	na			Fixed	539.5	109			Fixed ¹⁾	168.8	40			Fixed ³⁾	81.2	15	0.5	2W	Fixed	25.7	30		2M ²⁾	
	1-5Y	7.9	2	0.1 ²⁾		2Y ⁴⁾	87.8	na	2.0	M	2-4Y ²⁾	47.2	12	5.6	Q	5Y	18.1	2	1.5 ¹⁾	2)	Floating	None				5-9Y	8.1	7	0.2		
	5-10Y	90.9	20	0.2 ²⁾		5Y ⁴⁾	58.9	na	2.5	M	5Y ³⁾	129.4	29	4.4	Q	10Y	130.5	32	6.2 ³⁾	SA ⁴⁾	Zero ⁴⁾	18.2	8	0.3-0.9	2W	10Y	4.4	8	-		
	10-15Y	64.6	9	1.1 ²⁾		10Y ⁵⁾	247.0	na	2.8	M	10Y ⁴⁾	335.1	64	8.3	SA	15Y	11.3	5	-	-	Index ⁵⁾	11.4	5	-	6)	11-20Y	13.2	15	0.4		
	15-Y	8.8	11	0.2 ²⁾	▼	15Y ⁵⁾	15.0	na	1.0	-	30Y ⁴⁾	27.8	4	12.2	SA	30Y	8.9	1	1.5 ¹⁾	2)	Total	110.8	28			Floating	None				
	Zero	46.6	93			30Y ⁵⁾	22.2	na	1.0	SA	Floating	10.6	3			Floating	None				1) Average size of a reopening, not an issue.	Zero	9.7	16			Zero	9.7	16		
	3M ⁴⁾	19.6	13	1.9 ⁵⁾	W ⁶⁾	Floating	30.9	na			10Y	10.6	3	-	-	Zero ⁵⁾	6.4	5			2) Frequency of reopenings. No fixed rules exist for frequency of new issues.	3M	7.1	11	0.7	W ³⁾	3M	7.1	11	0.7	W ³⁾
	6M ⁴⁾	9.1	26	0.4 ⁵⁾	W ⁶⁾	10Y	30.9	na	1.0	-	Zero	11.1	2	5.6		3M	4.4	3	2.5 ³⁾	M ⁴⁾	3) From 2 to 22 years (breakdown not available).	6M	1.7	3	0.6	W ³⁾	6M	1.7	3	0.6	W ³⁾
	12M ⁴⁾	16.6	52	0.3 ⁵⁾	W ⁶⁾	Zero	89.0	na			6M ⁵⁾	11.1	2	5.6	Q	1Y	1.9	2	2.5 ³⁾	SA ⁴⁾	4) From 1 to 12 months (breakdown not available).	1Y	0.9	2	0.4	W ³⁾	1Y	0.9	2	0.4	W ³⁾
	Others	1.3	2	-	-	3M ⁶⁾	39.6	na	2.5	W	Indexed	None				Indexed	None				5) From 3 to 28 years (breakdown not available).	Total	None				Total	35.4	46		
	Floating	13.4	3	-	-	6M ⁶⁾	8.8	na	1.0	2W	Others	1.7	1	-	-	Others	0.5	5	-	-	6) Tap issuance. They can always be bought from the Debt Office.	Index	None				Index	None			
Indexed	None				1Y ⁶⁾	6.3	na	1.0	2W	Total	562.9	115			Total	175.7	50			1) Average size of a reopening, not of an issue.	Total	35.4	46			Total	35.4	46			
Total	232.3	138			10Y	15.3	na	na	-	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.	1) Average size of an issue, not of a reopening.		
					15Y	0.4	na	na	-	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.	2) Frequency of the creation of new issues. An issue is created by two auctions for 10 and 30-year securities, and a single auction for other maturities.				
					30Y	18.4	na	na	-	2) Called "Schatze".	2) Called "Schatze".	2) Called "Schatze".																			
					Indexed	None				3) Called "Bobs".	3) Called "Bobs".	3) Called "Bobs".																			
					Total	550.8	na			4) Called "Bunds".	4) Called "Bunds".	4) Called "Bunds".																			
										5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.	5) Called "Bubills". The outstanding volume is estimated.			
										6) Called "BTANs".	6) Called "BTANs".	6) Called "BTANs".																			
										6) Called "OATs".	6) Called "OATs".	6) Called "OATs".																			
										6) Called "BTFs".	6) Called "BTFs".	6) Called "BTFs".																			

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
Form of securities	- Bookentry 82%. - Physical delivery 18%.	- Bookentry 100%.	- Bookentry 100%.	- Bookentry 99%. - Registration 1%.	- Bookentry 100%.	<Fixed coupon bonds> - Bookentry 99%. - Physical delivery 1%. <Zero coupon bills> - Bookentry 100%.
Average original maturity	- 8.0 years.	- 8.9 years.	- 9.2 years.	- 10.7 years.	- n.a.	- 10.7 years for coupon bonds (4.3 months for zero coupon bills).
Average remaining maturity	- 4.5 years.	- 6.2 years.	- 5.3 years.	- 5.9 years.	- 5.7 years (fixed coupon nominal bonds total).	- 6.1 years for coupon bonds.
Type of holder	- Government 4.3%. - Central bank 0.7%. - Domestic financial sector 57.0%. - Domestic non-financial sector 16.6%. - Non-residents 23.0%. (Figures include non-marketable securities)	- Central bank 0.0%. - Domestic total (including government) 87.1%. - Non-residents 12.9%.	- n.a.	- Government 0%. - Central bank 0%. - Domestic total 76%. - Non-residents 24%.	- Government (State Pension Fund) 21.4%. - Central bank 5.5%. - Domestic financial sector 33.4%. - Domestic non-financial sector 20.2%. - Non-residents 19.5%.	- n.a.
Index-linked security	- Does not exist.	- Exists (since Sep 1998)	- Does not exist.	- Does not exist.	- Exists.	- Does not exist.
Original maturity		- 11-year.			- Various maturities (3-28 years).	
Choice of index		- CPI.			- CPI.	
Indexing of cashflows		- Capital indexed. - The principal repayment is the product of the bond's nominal value and cumulative changes in the index. - Coupon payments equal the fixed coupon rate times the inflation-adjusted principal amount.			<Zero coupon indexed-bonds> - No coupons are paid, but the principal repayment is scaled for inflation. <Index-linked bonds with coupons> - Capital indexed. - The principal repayment is the product of the bond's nominal value and cumulative changes in the index. - Coupon payments equal the fixed coupon rate times the inflation-adjusted principal amount.	
Length of lag		- 3 months.			- From 2 to 3 months.	

2. Yearly trading volume in 1997- all figures are on a two-way basis* in \$ billion.

	Belgium				France				Germany				Netherlands				Sweden				Switzerland				
Cash market	Total	Custo mer	Interdealer		Total	Custo mer	Interdealer		Total	Custo mer	Interdealer		Total ¹⁾	Custo mer	Interdealer		Total	Custo mer	Interdealer		Total	Custo mer	Interdealer		
			IDB	direct			IDB	direct			IDB	direct			IDB	direct			IDB	direct			IDB	direct	IDB
IDB: via interdealer brokers. exch: exchanges WI: when-issued trading CB: central bank govt: government non-res.: non-residents.	By original maturity				By original maturity				By original maturity - na				By original maturity				By original maturity								
	Total	947	na	na	na	Total	18,634	na	na	na	Total	450	na	na	na	Total	3,626	2,454	na	1,172	Total	125	na	na	na
	-12M ¹⁾	373	na	na	na	-1Y	3,196	na	na	na	5Y	28	na	na	na	-1Y ¹⁾	966	726	na	240	-12M	0 ¹⁾	0	0	0
	1Y ²⁾	575	na	na	na	2-4Y	2,856	na	na	na	10Y	272	na	na	na	2Y ²⁾	2,660	1,728	na	932	1Y-	125	na	na	na
	By type of intermediary				By type of intermediary				(Data unavailable)				By type of intermediary - na				By type of intermediary								
	OTC	³⁾				5-7Y	7,275	na	na	na	25Y	51	na	na	na	OTC	na	na	na	na	OTC	69	na	na	na
	exch	³⁾				8-10Y	2,782	na	na	na	30Y	30	na	na	na	exch	3,626	2,454	na	1,172	exch	56	na	na	na
	By type of trading				By type of trading - na								By type of trading - na				By type of trading - na								
	WI	⁴⁾				11-15Y	1,312	na	na	na	By type of trader - na				By type of trading - na										
	ordinar y	⁴⁾				20-Y	1,213	na	na	na	By type of trader				By type of trading - na										
By type of trader - na				By type of trading - na								By type of trader - na				By type of trading - na									
1) Called Treasury certificates.				By type of trader								1) Interdealer transactions are double-counted,				By type of trader									
2) Called OLOs.				non-residents				13%								dealers				32%					
3) Breakdown is unavailable, but the majority is traded in the OTC market.				others				87%								non-residents				32%					
4) Breakdown is unavailable, but the majority is "ordinary" trading.																others				34%					
Futures market	Trading volume ¹⁾		Share of the most active contract		Trading volume		Share of the most active contract		Trading volume		Share of the most active contract		Trading volume ¹⁾		Share of the most active contract		Trading volume		Share of the most active contract		Trading volume		Share of the most active contract		
	5Y ²⁾	1.0	na	%	5Y	2.2	100%		2Y	na	%		5Y	-	%		T-bill	376.8	%	5Y	2.8	%			
	10Y ³⁾	27.0	na	%	10Y	11.3	99.8%		5Y	na	%		10Y	-	%		2Y		%	10Y	87.4	%			
	Total	28.0	na	%	Total	13.5	99.8%		10Y	na	%		Total	-	%		5Y	759.8	%	Total	90.2	%			
	By type of trader - na				By type of trader				By type of trader - na				By type of trader - na				By type of trader								
	1) Volume fell throughout 1997, and in light of the euro's arrival, it was decided that no new series would be created after September 1998 expiry.				Central bank				0%				A futures market does not really exist for Dutch government securities.				Dealers				26%				
	2) Called "BMBs". This product was launched on May 16, 1997.				Government				0%								Non-residents				25%				
	3) Called "BGBs".				Exchange members				22%								Others				49%				
					Financial companies				8%								1) The figures are for forward contracts traded before the introduction of the futures market in Sep 1998.								
					Non-financial companies				1%																
				Non-residents				50%																	
				UCITS				19%																	

* Definition of "two-way basis": If dealer A sells a cash security or futures contract for \$1 billion to dealer B, it is treated as a \$2 billion, i.e., a \$1 billion sale by dealer A plus a \$1 billion purchase by dealer B.

3. Bid-ask spread	Belgium	France	Germany	Netherlands	Sweden	Switzerland																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Cash market (interdealer market) - For trade size of \$10 million, if not indicated - Figures in parentheses are average trade sizes in \$ million.	- quoted in prices in BEF 0.01. - for a trade size of \$5 million.	- quoted in prices in FFr 0.01. - for a trade size of \$15 million.	- quoted in prices in DM 0.01. - for a trade size of \$14 million.	- quoted in prices in Dfl 0.01.	- quoted in prices in SKr 0.01.	- quoted in prices in CHF 0.01. - for a trade size of \$3.4 million.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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		1) Figures for 2 and 5-year (BTANs) have been converted from yield terms to price terms.	Figures are for the customer market.	(Data unavailable)	1) Figures have been converted from yield terms to price terms. In yield terms, the spread is 2 bp for all fixed bonds, and 5 bp for index-linked bonds.	No clear distinction between on-the-run and off-the-run issues exists, as any bond may be reopened.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

<Descriptive questions>

. Primary market

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
a. Callability	- No.	- No.	- Yes. - Only floating rate bonds (no longer newly issued) are callable, but not actually called for a long time.	- No.	- No.	- Yes. - Bonds have actually been called, when they became more expensive for the Government than new issues with the same maturity. - However, in recent years, no callable bonds have been issued any more.
b. Coupon payment dates						
- Timing of coupon payments synchronized irrespective of maturity?	- Yes. - Current coupon payment dates: Mar and Sep 28 for all newly issued OLOs (fixed coupon bonds) since 1997.	- No.	- No.	- No.	- No.	- No.
- If not, is there any rule?		- Yes. - For all new issues, the coupon payment date is the same within the same original maturity.	- Yes. - Strippable 10 and 30-year bonds (bunds) have coupon dates on Jan 4 or Jul 4 since stripping was introduced in Jul 1997 to increase the liquidity of coupon strips.	- Yes. - Coupon payment dates are always the 1 st or 15 th of a month.	- No. - However, for new bonds, coupon payment dates have become concentrated for liquidity reasons.	- No. - However, standardization of coupon payment dates is a subject of discussion and may be targeted in coming years.
c. Methods of issue						
- Adopted methods of issue (auction / subscription by syndicate / tap)?	- Auction only.	- Combination of auction and subscription by syndicate. - Regarding auctions, any institution affiliated with the Sicovam clearing house and holding an account with the Banque de France (BdF) is eligible to bid. - Subscription by bank syndication is used only under special circumstances and is realized mainly with PDs.	- Auction only. - Subscription by syndicate (Federal Bond Consortium) was discontinued at the end of 1997.	- Tap only. - In 1997, tap issuance started on Mondays. In 1998, each second Tuesday was an issue date.	- Combination of auction and tap. <Fixed and zero coupon bonds> - Competitive auction only. <Index-linked bonds> - Tap only.	- Auction only. - Government may take part in an issue for itself at the auction price and sell it afterwards (so called "Eigentranche").
- Are the auctions competitive and/or non-competitive?	- Combination of both. - Non-competitive bids are reserved for PDs. - The portion reserved for non-competitive bids for each PD may not exceed 30% of the arithmetic average of its competitive participation during previous auctions.	- Combination of both. - Auction techniques are primarily based on open competitive bidding. - However, small quotas are allotted through non-competitive auctions taking place after competitive tenders. Non-competitive auctions allow bidders – including Treasury dealers - to purchase securities at the average weighted price of the main tender.	- Combination of both. - No fixed maximum size for non-competitive bids. They are unlimited.	- No auctions.	- Combination of both (non-competitive facility was launched in Sep 1998).	- Combination of both. - Individual subscribers may get bonds worth up to SFr 100 thousand (\$68 thousand) per person on a non-competitive basis. - Normally non-competitive bids total around a few tens of millions in SFr (about \$10-20 million).
- Are they discriminatory and/or uniform-price?	- Discriminatory only.	- Discriminatory only.	- Discriminatory only.		- Discriminatory only.	- Uniform-price only.
- Are bids by	- Combination of both.	- Combination of both.	- By price only.		- Combination of both.	- By price only.

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
yield and/or by price?	<p><By price></p> <ul style="list-style-type: none"> - OLOs (fixed-coupon bonds). <p><By yield></p> <ul style="list-style-type: none"> - Treasury certificates (zero-coupon bills with maturities of 1 year or less). 	<p><By price></p> <ul style="list-style-type: none"> - OATs (fixed-coupon bonds with maturities longer than 5 years) and BTANs (fixed coupon bonds with maturities of 5 years or less). <p><By yield></p> <ul style="list-style-type: none"> - BTFs (zero-coupon bills with maturities of 1 year or less). 			<p><By price></p> <ul style="list-style-type: none"> - SGBs (fixed-coupon bonds). <p><By yield></p> <ul style="list-style-type: none"> - Zero-coupon bills with maturities of 1 year or less. 	
- How high is tender limit?	- No tender or allocation limit exists.	- No tender limit exists, but allocation limit exists. However, the Treasury determines the amount to be allocated for each line, based on prices and volumes tendered for each line auctioned. The aggregate amount allocated falls within the upper and lower limits announced for BTANs and OATs, while for BTFs it matches the precise figure announced, after required rounding.	- No tender or allocation limit exists.		- No tender or allocation limit exists.	- No tender or allocation limit exists.
d. Announcement of issue schedule	- Yes.	- Yes.	- Yes.	- Yes.	- Yes.	- Yes.
- When is it announced? What information is in the announcement?	<p><OLOs></p> <ul style="list-style-type: none"> - Yearly announcements include indicative auction dates for the coming year. - One week before auction, maturity and coupon rates are determined. - One business day before auction, a range in which the amounts will be issued is announced. <p><Treasury certificates></p> <ul style="list-style-type: none"> - Auctioned on a weekly basis. 	<ul style="list-style-type: none"> - Yearly announcements include auction dates and issued maturities for the coming year (medium and long-term borrowing program). - Two business days prior to auction, coupon rates and amounts to be issued are announced. The Treasury announces a fixed amount for BTFs and upper and lower limits for the amount of OATs and BTANs to be issued. - The precise amount to be issued on each OAT and BTAN issue is determined by the Treasury, based on prices and volumes tendered for each line auctioned. 	<ul style="list-style-type: none"> - Quarterly announcements include security type, maturity, issue amount, and date of issue. - Seven days prior to auction, security type, maturity, issue amount, dates of tender, allotment, payment, and listing on stock exchanges are announced. - Coupon rate is announced one day before the auction, in the invitation to auction. 	<ul style="list-style-type: none"> - Yearly announcements include the first day of issue, day of settlement, maturity segments, and monthly target volume. - Quarterly announcements include specific maturities to be issued. - Coupon rate is usually announced on the Friday in the week preceding the first date of issue. 	<p><bonds></p> <ul style="list-style-type: none"> - Half year announcements (Jun and Dec) include issuing dates for the coming six months. - Three weeks before auction, detailed information such as issue amount, maturity, and coupon rate is announced. <p><bills></p> <ul style="list-style-type: none"> - Regarding bills, one week before an auction, detailed information such as maturity and volume is announced. 	<ul style="list-style-type: none"> - Yearly announcements include auction dates and the total amount of all issues planned for the following year. - Two days before the auction, maturities, amounts, and coupon rates are announced. Issue amounts are given as maximum amounts.
e. When issued trading	- When-issued (WI) trading available, but when-if-issued (WII) trading unavailable.	- WI and WII trading available.	- WI and WII trading available.	- WI trading available, but WII trading unavailable.	- WI and WII trading available.	- WI trading available, but WII trading unavailable.
f. Reopening system	- Exists.	- Exists.	- Exists.	- Exists.	- Exists.	- Exists.
- When and how are securities reopened?	<ul style="list-style-type: none"> - There are two types of reopening: 1) to build up new issues via regular reopenings, and 2) to maintain market integrity. - Regarding 1), a new issue 	<ul style="list-style-type: none"> - There is one type of reopening; to build up new issues via regular reopenings. - The reopening is almost systematically used as the Treasury favors successive securities sales that are parts of a single issue in order to build up sufficiently large securities reserves. 	<ul style="list-style-type: none"> - There are two types of reopening: 1) to build up new issues via regular reopenings, and 2) to increase the 	<ul style="list-style-type: none"> - There is one type of reopening; to build up new issues via regular reopenings. - Issues are 	<ul style="list-style-type: none"> - There is one type of reopening; to build up new issues via regular reopenings. - Reopening one of the twelve benchmark bonds is the normal issue procedure. 	<ul style="list-style-type: none"> - There is one type of reopening; to build up bonds of sufficient liquidity, especially benchmarks (SFr 2-4 billion <\$1.4-2.7 billion>) via regular reopenings. - Preventing market manipulation is not the reason for reopening of bonds.

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
	<p>is built up by several reopenings, not by a single auction. A reopening is conducted at the market's request during regular meetings with PDs. However, no special rules for reopenings exist. The decision to issue new tranches on existing lines or to reopen a line is published on information vendor screens one week before the auction takes place.</p> <p>- Regarding 2), when market integrity is challenged by market manipulation, the Treasury reserves the right to reopen.</p>	<p>- Rules for reopening are as follows: - We saw above that there are OAT issues every month. Each year, the Treasury issues only one or two new 10-year bonds on the French market perceived as benchmark issues. Hence, reopening occurs between 6 and 12 times per year. - BTANs are also issued every month. Every 6 months, the Treasury normally creates one line of 2-year BTANs and one line of 5-year BTANs. Therefore, subsequent monthly issues are attached to these lines. - The rule for BTFs is a bit more complex. Like OATs and BTANs, BTFs are fungible securities, but with an initial maturity of under a year. At its weekly auction, the Treasury systematically issues one 13-week BTF and, alternately, one 6-month BTF and one 12-month BTF. The original maturities may be adjusted to attach BTFs to existing lines (i.e. reopening the lines). Then, we can have short-dated BTFs with maturities of four to six weeks, half-yearly BTF issues with maturities of 24 to 29 weeks and annual BTF issues with maturities of 42 to 52 weeks. - Preventing market manipulation is not the reason for reopening of bonds.</p>	<p>amount set aside for market management operations. - Regarding 1), a new issue is built up by several reopenings, not by a single auction. The major aim of reopening an issue is to enhance its volume and liquidity (e.g. DM30 billion <\$16 billion>). - Regarding 2), reopenings are conducted to increase the amount set aside for market management operations and not to prevent squeezes.</p>	<p>reopened several times to become benchmarks (approximately Dfl 10-15 billion <\$4.9 billion to <\$7.3 billion>). - Reopenings are not conducted to prevent market manipulation.</p>	<p>However, new benchmark bonds can be added. - Preventing market manipulation is not the reason for reopening of bonds.</p>	
- Who has the authority to reopen?	- Government (Treasury).	- Government (Treasury).	- Government (Treasury).	- Government (Treasury).	- Government (Debt Office).	- Government (Treasury).

α. Secondary market

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
1. Cash market (customer market)						
a. benchmark						
- Number of benchmarks?	- Two (5 and 10-year).	- Seven (3 and 6-month, 1, 2, 5, 10, and 30-year).	- Four (2, 5, 10, and 30-year).	- Two (10 and 30-year).	- Twelve (2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 11 and 16-year).	- Seven (7, 9, 10, 11, 11, 12, and 13-year).
- Rules/practices for the selection of benchmarks?	<p>- No official rules exist. - On-the-run issues for each maturity are usually regarded as benchmarks.</p>	<p>- No official rules exist. - On-the-run issues for each maturity are usually regarded as benchmarks. - Hence 2-year, 5-year and 10-year benchmarks are replaced every six months. The 3-month benchmark is replaced every week, the 6-month benchmark every month and the 12-month benchmark every two months.</p>	<p>- No official rules exist. - On-the-run issues for each maturity are usually regarded as benchmarks.</p>	<p>- No official rules exist. - On-the-run issues for each maturity are usually regarded as benchmarks. - An issue amount of at least 10 billion Dfl (\$4.9 billion).</p>	<p>- All bonds that can be reopened are called benchmarks. - A new benchmark is created from the first auction of about SKr 4 billion (\$504 million). In addition, there is also a repo facility of SKr 11 billion (\$1.4 billion) so that the total available volume outstanding is SKr 15 billion (\$1.9 billion). Next, a bond is reopened for about SKr 4 billion (\$504 million) the total issued volume will be SKr 8 billion (\$1.0 billion) and the repo facility 7 billion (\$883</p>	<p>- No official rules exist. - Government favors building up liquid benchmarks with maturities of around 10 years.</p>

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
					million). This continues until the total issued volume reaches SKr 15 billion (\$1.9 billion).	
b. Trading hours	- Generally from 8:30 to 16:30 without a lunch break.	<Paris Stock Exchange> - From 10:00 to 17:00 without a lunch break.	<OTC> - Technically 24 hours a day. <Frankfurt Stock Exchange> - From 8:00 to 17:00 without a lunch break.	<OTC> - Technically 24 hours a day. - Concentrated from 8:00 to 18:00. <Amsterdam Exchange> - From 9:00 to 17:00 without a lunch break.	<OTC> - Technically 24 hours a day in the OTC market. <Stockholm Stock Exchange> - From 9:00 to 16:15 without a lunch break.	<OTC> - Office hours. <Swiss Stock Exchange> - From 8:30 to 17:00 without a lunch break.
c. Tick size (pricing convention) and quote practices	- The tick size is BEF 0.01 for BEF 100 face value. - Quotes are two-sided in price terms for OLOs and in yield terms for strips and Treasury certificates.	<BTFs and BTANs> - The tick size is generally 0.5 bp in yield terms. <OATs> - The tick size is FFr 0.01 for a FFr 100 face value for OATs. - Quotes are generally two-sided both in price and yield terms.	- The tick size is DM 0.01 or a part of it, for a DM 100 face value. - Quotes are in price terms.	- The tick size is Dfl 0.01 for Dfl 100 face value. - Quotes are in price terms.	- The tick size is 1 bp. - Quotes are generally two-sided in yield terms, but are sometimes quoted in price terms.	- The tick size is SFr 0.01 for a SFr 100 face value. - Quotes are in price terms.
d. Strippability	- Yes.	- Yes.	- Yes.	- Yes.	- No.	- No.
- When did this become available?	- In 1992.	- In 1991, the French Treasury was the first sovereign borrower in Europe to authorize stripped government securities (the first security stripped was the 8.5% October 2019 OAT issue). - Since Jan 1994, the technique has gradually been applied to all OATs in the ECU as well.	- In Jul 1997, 10 and 30-year bonds (bunds) became strippable.	- In 1993.		
- Are trade conventions different?	- n.a.	- Unlike the OAT, stripped securities are quoted in yield terms. Prices are derived from the transaction rate to four decimal places.	- No.	- No.		
e. Taxation						
- Withholding tax for income gains?	- Yes. - Only households are accesses a withholding tax.	- Yes. - Only individuals are assessed either a withholding tax at a rate of 20.9% from 1 January 1997, or a progressive income tax.	- Yes.	- No.	- Yes. - Only households are accessed a withholding tax.	- Yes.
- Who is exempt from withholding tax?	- Other investors including financial institutions and non-residents are exempt from the tax.	- Non-residents are exempt from the tax.	- Banks and non-residents are exempt from the tax.		- Other investors including registered financial institutions, companies, and non-residents are exempt from the tax.	- No.
- Transaction tax?	- Yes. - However, the exchange stamp duty is only levied on households. In addition, OLO transactions are exempt from the tax. - The tax rate is 0.07% of market value with a	<OTC> - No. <Paris Stock Exchange> - There is a transaction tax for residents only. This tax depends on securities traded. - The transaction tax is : 0.003 multiplied by the amount of the transaction for each transaction lower than or equal to FFr 1 million (\$166 thousand). 0.0015	- No.	- No.	- No.	- Yes. - The Federal Stamp Tax is levied on buyers and sellers (excluding the dealing book of traders). - The tax rate is 0.075% of the market value of securities.

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
	maximum levy of BEF 10 thousand.	multiplied by the amount of the transaction for each transaction greater than FFr 1 million (\$166 thousand). - FFr 150 (\$25) is deducted for each transaction over the tax amount. After this deduction, the total tax amount must not exceed FFr 4 thousand (\$664) for each transaction.				
f. Accounting						
- How are securities valued?	<p>- Financial institutions: For investment portfolios (held to maturity or for a long period of time), valuation must be done using a historical cost. For trading portfolio (short-term trading), valuations must be done at mark-to-market method.</p> <p>- Non-financial institutions: Historical cost method.</p> <p>- Under the historical cost method, the securities are valued using an actuarial calculation based on the yield-to-maturity that prevailed at the date of purchase. In this way, the value of the securities gradually converges towards the nominal value.</p>	<p>- Banking regulations regarding accounting treatment of securities operations distinguishes provisions applicable to trading securities, securities held for sale and investment securities.</p> <p>- Securities regarded as trading securities are normally valued on each accounting statement date, at the latest day's market price.</p> <p>- Securities held for sale (i.e. acquired with the intention of being held for a period of more than 6 months) are valued as follows : when a negative difference between acquisition price and market value arises, specific rules for provisions apply, along with the concept of a "homogeneous group of securities". Latent capital gains are not recorded in the accounts.</p> <p>- Investment securities (i.e. acquired with the intention of being held until maturity) are valued at their acquisition price. Provisions must be made against latent capital losses only when there is a strong likelihood of the institution not holding these securities until maturity. Latent capital gains are not recorded in the accounts.</p> <p>- Accounting principles applied by non financial companies are basically the same, although the first category of securities (trading securities) is not a category admitted for non-banks. The insurance sector is also concerned with specific accounting standards. However, in all cases, regulations are based on French accounting standards (done pursuant to international accounting standards when they are compatible).</p>	<p>- Generally lower of the cost or market method.</p> <p>- It depends on the type of holder and the type of assets (fixed assets or current assets).</p>	<p>- Investment firm: mark-to-market method, both for their investment and trading portfolios.</p> <p>- However, it is possible to value securities with the historical cost method in some circumstances.</p>	<p>- Accounting rules do not differ between listed and unlisted securities, but differ according to the type of holder.</p> <p>- Banks and credit institutions: Fixed assets (held-to-maturity) are valued to amortized cost (historical cost). Current assets (short-term trading) are valued using either mark-to-market or lower of the cost or market.</p> <p>- Insurance companies: All assets, regardless of held-to-maturity or short-term trading should be valued using either amortized cost or mark-to-market.</p> <p>- Corporations: Fixed assets (held-to-maturity) are valued at amortized cost (historical cost). Current assets (short-term trading) are valued using the lower of the cost or market.</p>	<p>- Accounting rules are different according to the type of holder.</p> <p>- Banks (short-term trading account): mark-to-market for listed securities, lower-of-cost-or-market for unlisted securities.</p> <p>- Banks (investment account): accrual method (linear depreciation or reevaluation of difference between purchase price and redemption value) for securities held-to-maturity, lower-of-cost-or-market for securities not held-to-maturity.</p> <p>- Limited companies: lower-of-cost-or-market.</p> <p>- Other companies: lower-of-cost-or-market.</p>
g. Transparency						
<price information>						
- Intraday pre-trade price information available?	- Some dealers post their indication bid-ask prices on vendor screens.	<OTC> - No. <exchange> - The best bid-ask prices are available to the public through information vendor screens. - The whole order-book is available to exchange members.	<OTC> - Some dealers post their indication bid-ask prices on vendor screens.	<OTC> - n.a. <exchange> - No.	- Some dealers post their indication bid-ask prices on vendor screens.	<OTC> - Some dealers post their bid-ask indication prices good for SFr 1 million (\$685 thousand) on vendor screens. <exchange> - The whole order-book on SWX (exchange) is available to SWX members.
- Intraday post-trade price history available?	- No.	<OTC> - No. <exchange> - Intraday price history is released to the public through information vendor screens.	<OTC> - No.	<OTC> - n.a. <exchange> - Intraday price history is released to the	- The daily high and low prices are available after market closing.	<OTC> - No. <exchange> - Intraday price history is available to the public.

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
				public through information vendor screens.		
- Closing prices available?	- Some dealers post last actually quoted prices on vendor screens.	<OTC> - Especially in the BTF and BTAN market every evening, the BdF establishes a list of reference prices, which gives a precise idea of transaction rate levels at 16:00. Post-trade information is actually based on traded prices. <exchange> - Daily closing prices are available to the public.	<OTC> - No. <exchange> - The stock exchange provides official daily lists.	<OTC> - n.a. <exchange> - Closing prices are available to the public through information vendor screens.	- Daily indicative closing prices are available by dealers.	<OTC> - No. <exchange> - Daily closing prices are available to the public.
<volume information>						
- Order sizes available?	- No.	<OTC> - No. <exchange> - Orders at best bid-ask prices are available to the public on information vendor screens. - The whole order-book is available to exchange members.	<OTC> - No.	<OTC> - n.a. <exchange> - No.	- No.	<OTC> - No. <exchange> - All placed orders are only released to SWX members. - Orders at best bid and best ask prices are released to the public.
- Intraday history on trade size available?	- No.	<OTC> - No. <exchange> - Trade size is only available to exchange members who can see the order book profile.	<OTC> - No.	<OTC> - n.a. <exchange> - Accumulated trading volume is released to the public.	- Daily trading volume for each security is available after closing.	<OTC> - No. <exchange> - Accumulated trading volume is released to the public.
<common to all information>						
- Information revealed to the public or dealers only?	- All of the above information is available to the public.	<OTC> - No. <exchange> - The order book profile is only available to exchange members. Other information is available to customers and the central bank.	<OTC> - All the above information is available to the public.	<OTC> - n.a. <exchange> - The above information is available to customers via information vendor screens.	- All of the above information is available to the public.	<OTC> - All of the above information is available to the public. <exchange> - The order-book profile is only available to members (central bank not included). - Other information is available to the public.
- Real time information ?	- All price information is released on a real time basis.	<OTC> - No. <exchange> - Information is released on a real-time basis.	<OTC> - Indicative price information is released on a real time basis.	<OTC> - n.a. <exchange> - Information is released on a real-time basis.	- Indicative price information is released on a real time basis. - Other information is released with a reporting lag.	<OTC> - No information is available on a real time basis. <exchange> - All price and trade information is released on a real time basis.
- How often is it	- All price information is released on a tick-by-tick	<OTC> - No.	<OTC> - Indicative price	<OTC> - n.a.	- Indicative price information is released on a tick-by-tick	<OTC> - No information is available on a tick-by-

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
released?	basis	<exchange> - It is released tick by tick.	information is released on a tick-by-tick basis	<exchange> - It is released tick by tick.	basis. - Other information is released once a day.	tick basis. <exchange> - All price and trade information is released on a tick-by-tick basis.
- For how many issues?	- All government securities.	<OTC> - Especially for BTFs and BTANs, the BdF publishes its reference prices on financial information screens. <exchange> - Such information is only available for OATs.	<OTC> - Only benchmark issues.	<OTC> - n.a. <exchange> - All government securities.	- All government securities.	- All government securities.
- Who releases?	- Dealers.	<OTC> - BdF. <exchange> - Data is produced by "La Societe des Bourses Francaises".	<OTC> - Bank dealers. <exchange> - The exchange.	<exchange> - The exchange.	- Dealers and the exchange, PMX.	<OTC> - Dealers. <exchange> - SWX.
h. Clearing and settlement practices						
- Lag between trade and settlement?	- T+3.	- T+3 for OATs . - T+1 for BTFs and BTANs.	- T+2.	- T+3.	- T+3 for bonds. - T+2 for bills.	- T+3.
- How much is settled on a DVP basis?	- 100%. - Eligible for clearing through Euroclear and Cedel.	- 100%. - Eligible for clearing through Euroclear and Cedel. - Current settlement systems for government securities transactions are : RELIT - net system for stock exchange transactions, RGV - real-time finality for both securities and funds using SLAB for securities matching. SATURNE has not existed since BTF and BTAN transactions are matched in SLAB and delivered in RGV.	- 100%. - Eligible for clearing through Euroclear and Cedel.	- 100%. - Eligible for clearing through Euroclear and Cedel.	- 100% (through a local clearing house, VPC). - Eligible for clearing through Euroclear and Cedel.	- Nearly 100%. - Eligible for clearing through Euroclear and Cedel.
i. Delivery fails	- Rules for delivery fails exist. - If one cannot lend the securities, one must contact the market authority (Securities Regulation Fund) which will enforce the execution of the order by designating a new counterparty to the trade at the expense of the failing party.	- Rules for delivery fails exist. - RGV has reinforced the safety level of French DVP. In the case of delivery failure, a pool of RGV members can lend the relevant securities. If the failing financial institution still does not have the required security at the end of the lending period then the transaction is cancelled and the failing financial institution must pay a penalty.	- No publicly accepted practice on delivery fails exists.	- Rules for delivery fails exist. - In the case of a delivery failure, the clearing house will first make use of a securities lending facility. If it is not possible to lend the securities in this way, the clearing house has the opportunity to start a buy-in procedure at the expense of the failing clearing member.	- Rules for delivery fails exist. - While delivery fails are very uncommon, they are detected before settlement. If a delivery fail is detected, a number of dealers have an agreement with the clearing house (VPC) to repo the security that was not delivered.	- Rules for delivery fails exist. - Real time gross settlement is used, so if one party does not deliver, the deal is not settled. In such cases, parties must come to an arrangement, normally the failing party pays interest on arrears and damages suffered by the receiving party.
j. Commission	- No.	<OTC>	<OTC>	<OTC>	- No.	<OTC>

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
		<ul style="list-style-type: none"> - On trades between brokers and their customers, commission varies according to the security. This commission varies between 1/5 and 1/4 cent of a in price terms (the definition of 1 cent is the same as that given for the bid-ask spread - quantitative questions). <exchange> - There is a fixed commission of FFr 13,500 (\$2,243) per month for member dealers. 	<ul style="list-style-type: none"> - No. <exchange> - A brokerage fee between 0.075% and 0.006%, depending on the volume is imposed by the exchange. 	<ul style="list-style-type: none"> - No. <exchange> - n.a. 		<ul style="list-style-type: none"> - No commission by brokers/banks. <exchange> - A fee of 0.01% is imposed by the exchange (SWX).
k. Market structure	<ul style="list-style-type: none"> - OTC market (quote-driven dealer market) only. - An exchange (order-driven auction-agency market) exists but only plays a marginal role. 	<ul style="list-style-type: none"> - Combination of the OTC market (quote-driven dealer market) and the exchange (order-driven auction agency market). - 98% of trading volume is of the OTC market. 	<ul style="list-style-type: none"> - Combination of the OTC market (quote-driven dealer market) and the exchange (order-driven auction-agency market). - 90% of trading volume is of the OTC market. 	<ul style="list-style-type: none"> - OTC market (quote-driven dealer market). - The Amsterdam Exchange (AEX) is an auction-agency market. 	<ul style="list-style-type: none"> - OTC market (quote-driven dealer market) only. 	<ul style="list-style-type: none"> - Combination of the OTC market (quote-driven dealer market) and the exchange (order-driven auction-agency market). - 55% of trading volume is of the OTC market.
<dealer market>						
- How many dealers?	- n.a.	<ul style="list-style-type: none"> - There are 1,273 credit institutions under the French Banking Act. Other institutional investors must also be considered, especially insurance companies and "caisses de retraites" (Pension funds). In addition, UCITS and investment companies should be added. The total figure probably exceeds 2,000. 	- n.a.	- n.a.	- 10 dealers.	- 5 dealers.
- Are there primary dealers (PDs)?	- 12 PDs exist.	- 20 PDs exist.	- No PD system exist.	<ul style="list-style-type: none"> - In Jan 1999, a PD system was started. - 13 PDs exist. 	- 10 PDs exist.	- No PD system exists.
- Obligation on quotes by dealers/PDs?	<ul style="list-style-type: none"> - Yes. - PDs are obligated to quote both sides within 0.1 BEF for securities with a remaining maturity of 10 years or less, and within BEF 0.15 for securities with a remaining maturity of over 10 years. 	<ul style="list-style-type: none"> - Yes. - PDs must act as market makers on the secondary market, i.e. they must provide bid-ask prices on OATs, BTANs and most BTFs. These quotations are screen-based and can be accessed through Reuters or Telerate. - The French Treasury has specific bid-ask spreads that depend on securities' maturities: PDs have to minimize the bid-ask spread with an upper limit of 15 basis points if the maturity is shorter than 18 months (in practice, actual spreads do not exceed 4 basis points), 8 basis points if the maturity lies between 18 months and 6 years and 4 basis points if it exceeds 6 years. 	<ul style="list-style-type: none"> - Yes. - Dealers must quote both sides, but not necessarily quote within a certain degree of tightness. 	<ul style="list-style-type: none"> - No. - However, PDs must be visibly active in the secondary market, enhance its transparency and have verifiable placement power with investors. 	<ul style="list-style-type: none"> - No. - Since Sep 18, 1998, dealers are no longer required to quote two-way prices. 	- No.
- Obligation to bid in the auctions?	<ul style="list-style-type: none"> - Yes. - PDs are obligated to participate regularly, but not at each auction. 	<ul style="list-style-type: none"> - Yes. - PDs must be active in the primary market by purchasing newly-issued securities. They help increase the efficiency of Treasury auctions. They must give prices for each line auctioned . - When securities are auctioned (for the first two auctions of mid- or long-term maturities and for all BTF auctions), there are special rules for PDs : the maximum amount for each bid price is up to FFr 2 	- No.	<ul style="list-style-type: none"> - Yes. - PDs must subscribe to a certain percentage of primary issuance in each maturity segment. 	<ul style="list-style-type: none"> - Yes. - Dealers are obligated to bid in primary market auctions and reach a market share of 2.5%, both in the auctions and in the secondary client market. 	- No.

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
		millions (\$332 thousand). A PD that obtains more than 40% of the auction volume must inform the Treasury of the three biggest bidders.				
- Obligation to report to the central bank?	- Yes. - PDs must report the ownership breakdown of dematerialized OLOs and Treasury certificates which they keep for clients.	- No. - However, PDs regularly provide information of their secondary market activity to the Treasury. They must break this information down by type of security, maturity and trader.	- No.	- No.	- Yes. - Dealers are obligated to report their turnover on a daily basis. A monthly report of turnover on investor categories and geographic regions was introduced from Sep 1998.	- No. - However, there exists an obligation to report turnover to the exchange on behalf of supervisory authorities.
- Other obligations ?	- Yes. - Promotion of Belgium government securities.	- Yes. - In addition to the rules defined by the French Treasury, PDs have adopted a code of conduct that aims to improve market liquidity and transparency.	- No.	- Yes. - PDs support the issuance of government bonds through research and promotional activities.	- No.	- No.
- Are quotes firm/indication?	- All quotes are indication.	- All quotes are firm.	- All quotes are indication.	- n.a.	- All quotes are indication.	<OTC> - All quotes are indication. <exchange> - All quotes are firm.
- Share of the PDs?	- About 50%.	- Most trading in the government securities market is conducted by the PDs.		- n.a.		
<auction agency market>		<Paris Stock Exchange>	<Frankfurt Stock Exchange>	<Amsterdam Exchange>		<Swiss Stock Exchange(SWX)>
- Periodic and/or continuous auction?		- Combination of continuous auction and periodic auction.	- Periodic auction.	- Continuous auction.		- Continuous auction.
- Matching rule?		- A continuous auction agency trading system is conducted within the stock exchange throughout the session, but orders are also matched by call auctions at the beginning of the trading session. - In continuous auctions, orders are continuously matched according to the first-in and best price rule. - In call auctions for the opening of a session, the opening price is determined at the last price after all market orders have been matched.	- Price is fixed at the point where the largest turnover takes place ("principle of maximum turnover").	- There are two competing specialists for every government security. Each specialist has his own (private) order book. Supply and demand in a government security are brought together through interaction by the two specialists, because they must consult one		- In continuous auctions, orders are continuously matched according to the best-price and first-in rule.

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
				another regarding when and at what price order execution will be effected. - The specialist may act for his/her own account as well.		
- Open outcry / telephone-based / electronic trading?		- Open-outcry.	- Open outcry and electronic trading.	- Telephone or electronic.		- Electronic trading.
- Who operates the agency?		- "La Societe des Bourses Francaises", the French stock exchange operates the auction agency.	- Frankfurt Stock Exchange.	- Amsterdam Exchange.		- Swiss Stock Exchange.
- What securities are listed?		- All OATs are listed. - BTANs and BTFs are not listed.	- All bunds (10 and 30-year), bobls (5-year), and shatze (2-year) are listed. - Bubills (zero-coupon bills) and private retail investor targeted issues are not listed.	- All government securities.		- All coupon bonds are listed. - Zero coupon bills are not listed.
- Status of auction agency prices?		- OAT prices are fixed on the Paris stock exchange. The end-of-day prices are officially listed by the "Societe des Bourses Francaises" according to prices given by PDs. Moreover, PDs must give the same quotations on the stock exchange and on the OTC market	- Closing prices on the exchange are regarded as official prices.	- Prices on the exchange are regarded as official prices.		- Prices on the exchange are regarded as official prices.
<combination of dealer market and auction agency market>						
- Breakdown between markets?		- 98% dealer market, 2% auction-agency market	- 90% dealer market, 10% auction-agency market.	- n.a.		- 60% dealer market, 40% auction-agency market.
- When and how one is preferred over the other?		- Generally, users (banks) prefer the OTC market. The auction agency market is used much more by individuals, and small and medium-sized companies. The stock exchange also sets official closing prices for listed securities.	- n.a.	- Orders smaller than Dfl 2.5 million have to be routed through the exchange. This is called retail obligation.		- The OTC dealer market is preferred for bigger trades (SFr 1 million <\$685 thousand> and above). - The exchange (SWX) is preferred for smaller trades.
2. Cash market (interdealer broker)			- No interdealer brokers market			- No interdealer broker market exists. - Interdealer transactions are directly

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
market)			exists. - Interdealer transactions are directly conducted, and trade conventions and information availability do not differ from those in the cash customer market.			conducted, and trade conventions and information availability do not differ from those in the cash customer market, except for the stamp tax.
a. Benchmark	- Same as customer market.	- Same as customer market.		- Same as customer market.	- Same as customer market.	
b. Trading hours	- Same as customer market.	- Same as customer market.		- Same as customer market (exchange).	- Same as customer market.	
c. Tick size and quote practices	- Same as customer market.	- Same as customer market.		- Same as customer market.	- Same as customer market.	
d. Strippability	- Same as customer market.	- Same as customer market.		- Same as customer market.	- Same as customer market.	
e. Taxation	- Same as customer market.	- Same as customer market.		- Same as customer market.	- Same as customer market.	
f. Accounting	- Same as customer market.	- Same as customer market.		- Same as customer market.	- Same as customer market.	
g. Transparency	<Information on the interdealer market intermediated by IDBs>	- n.a.		<Information on the interdealer market (ATM-system in the AEX) intermediated by the IDB>	<Information on the interdealer market intermediated by IDBs>	
<price information>						
- Intraday pre-trade price information available?	- No.	- n.a.		- The best bid-ask prices are available to members of the ATM-system.	- n.a.	
- Intraday post-trade price history available?	- No.	- n.a.		- No.	- n.a.	
- Closing prices available?	- No.	- n.a.		- No.	- n.a.	
<volume information>						
- Order sizes available?	- No.	- n.a.		- Market depth is available to the members of the	- n.a.	

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
				ATM-system.		
- Intraday history on trade size available?	- No.	- n.a.		- Accumulated trading volume is released to the public.	- n.a.	
<common to all information>						
- Information revealed to the public or dealers only?	- No information is available either to dealers or the public.	- n.a.		- Accumulated trading volume is available to the public. - Other information is limited to members of ATM-system.	- No information is available to the public.	
- Real time information ?		- n.a.		- The information is released on a real-time basis.	- n.a.	
- How often is it released?		- n.a.		- It is released tick by tick.	- n.a.	
- For how many issues?		- n.a.		- All government securities.	- n.a.	
- Who releases?		- n.a.		- The exchange.	- n.a.	
h. Clearing and settlement practices	- Same as customer market.	- Same as customer market, with mainly SLAB.		- Same as customer market.	- Same as customer market.	
i. Delivery fail	- Same as customer market.	- Same as customer market.		- Same as customer market.	- Same as customer market.	
j. Commission	- 0.05/10,000 of the face value is imposed by IDBs.	- Varies according to traded amount.		- n.a.	- No.	
j. Market structure						
- Direct deal or through interdealer brokers (IDBs)?	- Mostly direct deal. - Some through IDBs.	- Direct deal and through IDBs. - No official figures, but both types of trading are significant.		- Mostly through the IDB, while direct deal is possible.	- Both direct deals and through IDBs.	
- Electronic / telephone?	- Telephone.	< BTF and BTAN> - Telephone <OATs> - Telephone on the OTC, and electronic on the exchange.		- Telephone.	- Primarily telephone-based with some electronic trading.	
- For trades intermediated by IDBs,						
- How many	- Three (one in Brussels,	- One.		- One.	- Two.	

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
IDBs?	two in London).					
- Do they act as principals / agents?	- Agents.	- Agents.		- Agents.	- n.a.	
- Which securities are traded?	- All government securities.	- All government securities.		- All government securities.	- n.a.	
- Periodic and/or continuous auction?	- No auction is conducted.	- It is a combination of both.		- Continuous auction only.	- n.a.	
- Open outcry / telephone-based / electronic trading?	- Telephone.	- Telephone.		- Telephone.	- n.a.	
- Matching rule?	- IDBs do not have order-books, instead they intermediate information by posting quotes called in by PDs. - Trades are executed when a dealer calls an IDB and initiates a trade against a standing quote posted by another dealer.	- IDBs do not have order-books, instead they intermediate information by posting quotes called in by PDs. - Trades are executed when a dealer calls an IDB and initiates a trade against a standing quote posted by another dealer.		- Both buy-orders and sell-orders are continuously placed. During the trading session, orders are continuously matched by the "best price" and "first in" rule on the order-book of the IDB. - Anonymity is kept both ex ante and ex post. Only the IDB knows the name of the counterparties (blind broker system).	- n.a.	
- For trades not intermediated by IDBs, but by a special trading facility						
3. Futures market	<Belfox (Belgian Futures and Options Exchange)>	<MATIF>	<EUREX>	- A futures market does not really exist for Dutch government securities.	- A new futures market was introduced in Sep 1998.	<EUREX>
a. Benchmark	- Hard to identify because the market is too thin.	- No official rules exist. - The 5 and 10-year futures contracts with the nearest	- No official rules exist.		- No official rules exist. - The 2 and 10-year futures	- No official rules exist. - The 10-year futures contracts with the

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
		maturity are usually regarded as benchmark.	- The 2, 5, and 10-year futures contracts with the nearest maturity are usually regarded as benchmark.		contracts with the nearest maturity are usually regarded as benchmark. - Before the introduction of two futures contracts in Sep 1998, forward contracts were traded on bills and bonds with maturities of 2, 5, and 10 years.	nearest maturity are usually regarded as benchmark.
b. Trading hours	- From 8:30 to 17:00 without a lunch break.	- From 8:00 to 22:00 without a lunch break (an continuous electronic system).	- From 8:00 to 19:00 without a lunch break.		- From 9:00 to 16:15 .	- From 8:30 to 17:00.
c. Tick size and quote practices	- The tick size is BEF 0.01 for the nominal face value of BEF 100, which means the value of one tick is BEF 250 (\$6.7). - Quotes are in price terms.	<10-year contract> - The tick size is FFr 0.02 for the nominal value of FFr 100, which means the value of one tick is FFr100 (\$17). <5-year contract> - The tick size is FFr 0.01 for the nominal value of FFr 100, which means the value of one tick is FFr50 (\$8).	- The tick size is DM 0.01 for the nominal face value of DM 100, which means the value of one tick is DM 250 (\$139). - Quotes are in price terms.		- The tick size is SKr 0.01 for the nominal face value of SKr 100, which means the value of one tick is SKr 100 (\$13). - Quotes are in price terms.	- The tick size is SFr 0.01 for the nominal face value of SFr 100, which means the value of one tick is SFr 10 (\$7). - Quotes are in price terms.
d. Taxation						
- Transaction tax?	- No.	- No.	- No.		- No.	- No.
e. Transparency						
<price information>						
- Intraday pre-trade price information available?	- The 10 best bid-ask prices are available to the public through information vendor screens. - The whole order-book is available members.	- The order book profile is available to member dealers. - The 5 best bid and 5 best ask quotes for each contract are available to member dealers. - The best bid and ask quotes are available to the public through MATIF information screens.	- The best bid-ask prices are available to the public through information vendor screens.		- n.a.	- The whole order-book is available to EUREX members. - The best-bid-ask prices are available to the public.
- Intraday post-trade price history and closing prices available?	- Intraday price history, including opening, daily-high, daily-low, and closing prices, is released to the public.	- Intraday price history, including opening, daily-high, daily-low and closing prices are released on public servers such as Reuters and Telerate, and are available to the public.	- Intraday price history, including opening, daily-high, daily-low, and closing prices, is released to the public.		- n.a.	- Intraday price history, including opening, daily-high, daily-low, and closing prices, is released to the public.
<volume information>						
- Order sizes available?	- Market depth (quoted volume) for the 10 best bid-ask prices are available to the public. - The whole order-book is available members.	- The size of the 5 best bid and 5 best ask quotes for each contract are available to member dealers. - The size of the best bid and ask quotes for each contract are available to the public through computer screens.			- Order sizes at the best bid and best ask prices are available to the public. - Members of the futures exchange can see all placed orders.	- Yes. - Members can see the sizes of all placed orders. - The sizes of the best bid-ask quotes are available to the public.
- Intraday history on	- Accumulated trading volume is released to the	- Accumulated trading volume is released to the public. Open interest for each contract is released to the public	- Accumulated trading volume is		- n.a.	- Accumulated trading volume is released to the public. Open interest for each contract

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
trade size available?	public. Open interest for each contract is released to the public at the end of the day.	at the end of the day.	released to the public. Open interest for each contract is released to the public at the end of the day.			is released to the public at the end of the day.
<common to all information>						
- Information revealed to customers or dealers only?	- Only members can see the order-book. - All other information is available to the public and the central bank on information vendor screens.	- While the order book profile is available to member dealers only, other information is available to the public. MATIF SA gives information such as best bid-ask, transaction volume, last prices, and open interest. Historical data is also available.	- Only members can see the order-book (price and order size). - All other information is available to the public.		- Only members can see all placed orders. - All other information is released to the public.	- Only members can see the order-book (price and order size). - All other information is available to the public.
- Real time information ?	- All price and trade information, except open interest, is released on a real time basis.	- All price and trade information, except open interest, is released on a real time basis.	- All price and trade information, except open interest, is released on a real time basis.		- All price and trade information, except open interest, is released on a real time basis.	- All price and trade information, except open interest, is released on a real time basis.
- How often is it released?	- All price and trade information, except open interest which is released once a day, is made public on a tick by tick basis.	- All price and trade information, except open interest which is released once a day, is made public on a tick by tick basis.	- All price and trade information, except open interest which is released once a day, is made public on a tick by tick basis.		- All price and trade information, except open interest which is released once a day, is made public on a tick by tick basis.	- All price and trade information, except open interest which is released once a day, is made public on a tick by tick basis.
- For how many contracts?	- The information is available for all contracts. There is no difference in the degree of availability of information according to maturity or delivery date.	- The information is available for all contracts. There is no difference in the degree of availability of information according to the maturity or delivery date.	- The information is available for all contracts. There is no difference in the degree of availability of information according to maturity or delivery date.		- The information is available for all contracts. There is no difference in the degree of availability of information according to maturity or delivery date.	- The information is available for all contracts. There is no difference in the degree of availability of information according to maturity or delivery date.
- Who releases?	- Belfox.	- MATIF SA.	- EUREX.		- The exchange.	- EUREX.
f. Commission	- n.a.	- The Commission is a fixed amount per contract in French francs : <10-year contract> - negotiation commission: FFr 1.70 (\$0.3) - clearing commission: FFr 4.30 (\$0.7) - delivery commission: FFr 6.00 (\$1.0) - Total: FFr 12.00 (\$2.0) <5-year contract> - negotiation commission: FFr 1.70 (\$0.3) - clearing commission: FFr 2.30 (\$0.4) - delivery commission: FFr 4.00 (\$0.7)	- n.a.		- SKr 8 (\$1) per contract is imposed by the exchange.	- SFr 40 (\$27) per contract.

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
		<ul style="list-style-type: none"> - Total: FFr 8.00 (\$1.3) - Commissions on long-term futures contracts after 1999 contracts (in euro) will be less (FFr 3.40 <\$0.6> on the whole). 				
g. Product design and market structure						
- Product design?	<ul style="list-style-type: none"> - 10 and 5-year contracts, called BGB and BMB respectively, are traded on the Belfox. - Delivery months are Mar, Jun, Sep, and Dec. <Belfox 10-year> - Notional coupon: 9%. - Delivery conditions: OLOs with remaining maturities of 7 to 10 years. - Nominal value: BEF 2.5 million (\$67 thousand). <Belfox 5-year> - Notional coupon: 5%. - Delivery conditions: OLOs with remaining maturities of 3.5 to 5.5 years. - Nominal value: BEF 2.5 million (\$67 thousand). 	<ul style="list-style-type: none"> - 10 and 5-year contracts are traded on MATIF. - Delivery months are Mar, Jun, Sep, and Dec. <MATIF 10-year> - Notional coupon : In Dec 1997 the coupon was reduced from 10% to 5.5%. - Delivery conditions : Since Dec 1997 maturity, French government bonds, denominated in FFr, redeemable at maturity, with a remaining life of 8.5 to 10.5 years from the settlement/delivery date of the delivery month, with a fixed nominal interest rate and an outstanding amount greater than FFr 40 billion (\$6.6 billion) can be delivered. All new issues can be delivered if the time span between the settlement date of the auction making the outstanding amount of the bond greater than FFr 40 billion (\$6.6 billion) and the settlement/delivery day of the delivery month in question exceeds 1 month. - Nominal value : FFr 500,000 (\$83 thousand) <MATIF 5-year> - Notional coupon : 4.5% - Delivery conditions : Delivery bonds selected by the seller from the pool of French government bonds, BTAN and OAT, denominated in French francs, with a fixed nominal interest rate, redeemable at maturity with a remaining maturity of 4 to 5.5 years and a minimum outstanding amount of FFr 30 billion (\$5.0 billion). Delivery is based on settlement price. - Nominal value : FFr 500,000 (\$83 thousand) 	<ul style="list-style-type: none"> - 10, 5, and 2-year contracts are traded. - 30-year contracts were reintroduced in Oct 1998. - Delivery months are Mar, Jun, Sep, and Dec. <EUREX 10-year> - Notional coupon: 6%. - Delivery conditions: bonds with remaining maturities of 8.5 to 10.5 years. - Nominal value: DM 250 thousand (\$138 thousand). <EUREX 5-year> - Notional coupon: 6%. - Delivery conditions: bonds with remaining maturities of 3.5 to 5 years. - Nominal value: DM 250 thousand (\$138 thousand). <EUREX 2-year> - Notional coupon: 6%. - Delivery conditions: schatzes with remaining maturities of 1.75 to 2.25 years. - Nominal value: DM 250 thousand (\$138 thousand). 		<ul style="list-style-type: none"> - 10 and 2-year contracts are traded on the exchange. - Delivery months are Mar, Jun, Sep, and Dec. <10-year> - Notional coupon: 6%. - Delivery conditions: bonds with remaining maturities of 8 to 12 years - Nominal value: SKr 1 million (\$126 thousand). <2-year> - Notional coupon: 6%. - Delivery conditions: bonds with remaining maturities of 1.5 to 3.5 years - Nominal value: SKr 1 million (\$126 thousand). 	<ul style="list-style-type: none"> - 10 and 5-year contracts are traded on the exchange. - Delivery months are Mar, Jun, Sep, and Dec. <EUREX 10-year> - Called CONF futures. - Notional coupon: 6%. - Delivery conditions: bonds with remaining maturities of 8 to 11 years - Nominal value: SFr 100 thousand (\$68 thousand). <EUREX 5-year> - Called COMI futures. - Notional coupon: 6%. - Delivery conditions: bonds with remaining maturities of 3 to 8 years - Nominal value: SFr 100 thousand (\$68 thousand).
- Modification of product design?	- No.	<ul style="list-style-type: none"> - Yes. - The 10-year contract has been modified since December 1997. The previous coupon rate was 10% as 	- No.		<ul style="list-style-type: none"> - No. - No contracts have been modified, as the futures 	- No.

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
		indicated above. Until the September 1997 maturity, delivery was according to the following conditions : French government bonds, denominated in FFr, redeemable at maturity, with a remaining life of 7 to 10 years from the settlement/delivery date of the delivery month, with a fixed nominal rate and an outstanding amount greater than FFr 5 billion (\$830 million). All new issues were deliverable if the time span between the auction date of the bond, on which the outstanding amount was set beyond FFr 5 billion (\$830 million) and the settlement/delivery date of the delivery month in question exceeded 5 months.			market was very recently created (Sep 1998).	
- Periodic and/or continuous auction?	- Continuous auction only.	- n.a.	- Continuous auction only.		- Continuous auction only.	- Continuous auction only.
- Matching rule?	- The futures market is an order-driven market where buy-orders and sell-orders are placed in the order-book and continuously matched by the exchange according to the best-price and first-in rule. - No market maker exists.	- The futures market is an order-driven market where buy-orders and sell-orders are placed in the order-book and continuously matched by the exchange according to the best-price and first-in rule. - No market maker exists. - In addition, there is a pre-opening session in the morning: orders are stored and are matched according to the same rules after the storage phase.	- n.a.		- n.a.	- During the trading session, orders are continuously matched by the "best price" and "first in" rule on the order book. - No market maker exists.
- Open outcry / telephone-based / electronic trading?	- Electronic trading.	- It is an electronic trading system (NSC) which has two sessions, one in the morning i.e. from 8:00 to 16:30 and one in the afternoon i.e. from 16:30 to 22:00. The only difference between the two sessions is the settlement date : J in the morning, J+1 in the afternoon. The 10-year contract is the original maturity most actively traded. For this maturity, the most actively traded contract month is the first contract until the roll-over of the positions.	- Electronic trading.		- Electronic trading.	- Electronic trading.
- Arrangements to facilitate a round-the-clock trading?	- No.	- There is an agreement with the CBOT.	- Also listed on the LIFFE and the CBOT.		- No.	- No.

β. Central bank's role

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
1. Primary market	- No responsibility for debt management of the government. - Fiscal agent for the government's debt management operations.	- No responsibility for debt management of the government. - Fiscal agent for the government's debt management operations. The BdF provides the computing system allowing the French Treasury to handle issues.	- No responsibility for debt management of the government. - Fiscal agent for the government's debt management operations.	- No responsibility for debt management or for debt issuance.	- No responsibility for debt management or for debt issuance. Both functions lie with the Debt Office.	- No responsibility for debt management of the government. - Fiscal agent for the government's debt management operations.
2. Secondary market						

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
- Conduct open market operations in government securities market?	- Yes.	- Yes.	- Yes.	- No.	- No.	- Yes.
- What kind of operations?	- Outright purchases, outright sales, repos and reverse repos.	- Generally, outright purchases of short- and medium-term securities only (BTF and BTAN). Repo and reverse repo.	- Outright purchase and outright sales for market management purposes, not for monetary policy reasons. - The primary objectives are 1) enhancing market liquidity by providing negotiable order amounts with the effect of stimulating other market participants to take part in dealing and to place orders, 2) establishing market related prices and ensuring that small orders from private investors are always negotiable, and 3) placement of holdings set aside for market management purposes for account of the Federal issuers.		- The Debt Office participates in the repo market on-tap for its own liquidity management reasons. - However, there is a special repo facility for new bonds (bills) with an outstanding volume of less than SKr 15 (10) billion (\$1.9 billion or \$1.3 billion). For these bonds the Debt Office is prepared to repo bonds up to the SKr 15 (10) billion (\$1.9 billion or \$1.3 billion) volume. - The Debt Office has conducted switches in the bond market between different benchmark bonds. These switches have only been open for a limited volume and limited time period. The switches have been conducted either on tap or auctioned.	- Outright purchase, outright sale, repo, and reverse repo. - Outright purchases/sales are conducted according to internal investment guidelines, and are not used for monetary policy needs. - Repos and reverse repos are conducted for monetary policy needs. - Government bonds are used along with other debtors' bonds.
- How are they conducted?	- Discriminatory price auctions.	- Outright purchases are traded with any counterparty or by the intermediary for brokers or IDBs. The amount traded each day is small compared to the amount traded in repo operations. - Repo operations are conducted on a bilateral basis, usually through OTC tap transactions.	- They operate at the stock exchanges mainly via participation in a single auction, and partly via on-floor trading.		- On tap.	- Repos and reverse repos take the form of phone based auctions and individual interventions. However, in spring 1999, a screen-based repo market will be introduced. - Outright purchases/sales take the form of phone-based deals.
- Counterparties?	- PDs.	- For BTF and BTAN outright purchases and sales, there are no restrictions on the range of counterparties. An inter-dealer broker may also be involved as a counterparty. In the repo market, the central bank counterparties are "SPVT" (i.e. PDs in Treasury repos). Some operations are also realized with the IDB.	- Official brokers at the open-outcry platform. - Participants of the electronic stock exchange (banks).		- The 10 dealers participating in the market.	- Regarding outright transactions, commercial banks domiciled in Switzerland that are linked to the domestic settlement system. - Regarding repo transactions, any approved bank domiciled in Switzerland that is linked to the domestic settlement system.

	Belgium	France	Germany	Netherlands	Sweden	Switzerland
						- However, in spring 1999, any approved banks, including non-Swiss banks, become counterparties.
- Measures to avoid noise?	- Repos form a major part of operations. - Given the considerable volume and liquidity in the repo market, central bank market operations cause little unnecessary noise.	- As BTF and BTAN purchases are made for a small amount and other open market operations that the central bank undertakes are repurchase agreements, there is no real noise caused by these market operations. - Regarding main transactions, central bank operations are generally carried out on each necessary day for amounts that can be borne by the repo market.	- None.		- Debt Office operations do not cause noise, due to the limited volume of such operations.	- Regarding outright transactions, they do not cause noise because the central bank invests in relatively small amounts. - Regarding repo transactions, no measures are taken because transactions are conducted according to monetary policy.
- Securities lending / repo to prevent market manipulation?	- A securities lending facility is made available by the Clearing System to prevent market manipulation.	- A securities lending facility is available. However, the primary purpose of the facility is not to prevent market manipulation.	- A securities lending/repo facility is available to prevent market manipulation.	- No. - However, the clearing house has a securities lending facility which is used when delivery fail occurs.	- The special repo facility can be used to prevent market manipulation.	- No securities lending/repo program to prevent manipulation of government securities market exists.
- Pre-announcement of policy decision?	- No.	- The Banque de France releases the Monetary Policy Council's decisions on the official repo rate at 13:00 on the day of the Council's meeting. Dates and times of Council meetings, as well as dates and times of tenders are pre-announced	- No.	- No.	- No.	- No.
- Pre-announcement of statistics?	- Statistics are released in regular intervals. - An announcement schedule is pre-announced.	- Dates are set. Monetary and capital market statistics are reported by the Banque de France every month and every quarter in various publications (BdF Bulletin) and are also displayed on the Web.	- No.	- No.	- No.	- No.