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# Denmark: Financial Sector Assessment Program—Technical Note—Review of Danish Capital Market

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# FINANCIAL SECTOR ASSESSMENT PROGRAM

# DENMARK

## TECHNICAL NOTE

## REVIEW OF DANISH CAPITAL MARKET

SEPTEMBER 2006

INTERNATIONAL MONETARY FUND
MONETARY AND FINANCIAL SYSTEMS DEPARTMENT

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## GLOSSARY

| | |
|---|---|
| CSE | Copenhagen Stock Exchange |
| DFSA | Danish Financial Supervisory Authority |
| DNB | Danmarks Nationalbank |
| DSC | Danish Security Council |
| DVP | Delivery versus payment |
| EU | European Union |
| FSAP | Financial Sector Assessment Program |
| GICS | Global Industry Classification Standard |
| IFRS | International Financial Reporting Standards |
| LD | Lønmodtagernes Dyrtidsfond |
| MEC | Market efficiency coefficient |
| MOU | Memorandum of understanding |
| NCSD | Nordic Central Ssecurity Depository |
| OTC | Over-the-counter |
| SMEs | Small- and medium-sized enterprises |
| SSE | Stockholm Stock Exchange |
| T-bills | Treasury bills |

## I. REVIEW OF DANISH CAPITAL MARKETS

1. **This note discusses the structure of the Danish capital market and related issues.** The scope of the note is limited and does not encompass interbank, money, and foreign exchange markets. The focus is on the organization and functioning of domestic securities markets—bond (both government and mortgage) and equity markets. The note also provides a regional perspective on these markets.

2. **Dominance of mortgage bonds is a distinctive characteristic of the Danish capital market.** At end-2005, the market capitalization of bonds amounted to 193 percent of GDP, of which, 142 percentage points represented mortgage bonds and 40.3 percentage points government securities. Other bonds amounted to 10.7 percentage points (including 3 percentage points for corporate bonds). The Danish bond market is almost three times larger than its Swedish counterpart and seven times larger than the Norwegian bond market (Table 1). Market capitalization of bonds has grown by 27 percentage points of GDP, while that of government securities has declined by almost 10 percentage points of GDP (to 27 percent at the end of 2005), reflecting the accumulation of budget surpluses in recent years. As a ratio of GDP, central-government debt has been on a declining trend since 1995, when it stood at about 50 percent.

3. **The Danish equity market is of medium size compared with those in the Nordic-Baltic region, which is dominated by the Swedish and Finnish markets.** At end-2005, market capitalization was €156 billion, representing around 17 percent of the combined capitalization of the region's equity markets, and equivalent to about 77 percent of domestic GDP. In contrast, stock markets in Stockholm and Helsinki both represent more than 130 percent of domestic GDP and together account for 61 percent of market capitalization in the region. Like the other equity markets in the region, small- and medium-sized enterprises (SMEs) constitute the vast majority of listed companies on the Copenhagen Stock Exchange (CSE), but activity is dominated by a handful of large corporations. For example, in Copenhagen the combined turnover in TDC, Copenhagen Airport, and AP Møller accounted for more than 52 percent of the total turnover on the exchange.[1]

4. **Danish derivatives market—futures and options—developed in the mid-1980s, but never really took off.** Listed derivatives on equity, index, and interest rate instruments are offered in Copenhagen, Oslo, and Stockholm. Clearing and settlement of futures and options on Danish securities have previously been conducted through the FUTOP clearing center, owned by the CSE, but have recently been transferred to the Stockholm Stock Exchange (SSE) in connection with the merger of the Nordic and Baltic stock exchanges into the OMX Group AB.[2]

[1] In Helsinki, the turnover in Nokia alone represented more than 53 percent of the activity in the domestic stock market. Statoil, Norsk hydro, and DNO accounted for 41.3 percent of total turnover on the Oslo Bors, and in Sweden, while the most active stock in the market, Ericcson, represented "only" 19.9 percent of total activity, the second most active stock, Nordea bank, accounted for less than 5 percent of total turnover (Source: Norex statistics, December 2005).

[2] For information on the OMX Group, see: http://www.omxgroup.com/en/index.aspx .

# Table 1. Capital Markets in the Nordic Countries 2000–June 06

(In percent, unless otherwise indicated

| | Dec-01 | Dec-02 | Dec-03 | Dec-04 | Dec-05 | Jun-06 1/ |
|---|---|---|---|---|---|---|
| **Bonds:** Number of listed bonds | | | | | | |
| Stockholm Stock Exchange | ... | ... | 1,369 | 1,480 | 1,618 | 1,616 |
| Oslo Stock Exchange | 817 | 827 | 816 | 861 | 837 | 804 |
| Copenhagen Stock Exchange | 2,254 | 2,250 | 2,251 | 2,232 | 2,325 | 2,326 |
| Reykjavik Stock Exchange | 380 | 324 | 321 | 341 | 343 | 353 |
| Tallinn Stock Exchange | ... | ... | ... | ... | 9 | 6 |
| Riga Stock Exchange | ... | ... | ... | ... | 34 | 33 |
| Vilnius Stock Exchange | ... | ... | ... | ... | 37 | 33 |
| Bond market capitalization to GDP | | | | | | |
| Stockholm Stock Exchange | ... | ... | 65.3 | 63.3 | 66.9 | 60.8 |
| Oslo Stock Exchange | 30.1 | 36.0 | 32.8 | 33.8 | 28.3 | 27.0 |
| Copenhagen Stock Exchange | 166.0 | 178.4 | 182.8 | 190.7 | 187.3 | 160.1 |
| Reykjavik Stock Exchange | 72.8 | 79.8 | 93.4 | 111.0 | 108.2 | 113.8 |
| Tallinn Stock Exchange | ... | ... | ... | ... | 0.3 | 0.1 |
| Riga Stock Exchange | ... | ... | ... | ... | 5.5 | 4.3 |
| Vilnius Stock Exchange | ... | ... | ... | ... | 5.9 | 5.2 |
| Bond market turnover to end-year market capitalization | | | | | | |
| Stockholm Stock Exchange | ... | ... | 6.3 | 6.7 | 7.2 | 8.1 |
| Oslo Stock Exchange | 1.1 | 1.4 | 1.9 | 1.2 | 1.1 | 1.2 |
| Copenhagen Stock Exchange | 2.5 | 2.5 | 2.7 | 2.6 | 2.9 | 2.2 |
| Reykjavik Stock Exchange | 1.1 | 1.3 | 1.4 | 1.5 | 1.2 | 2.1 |
| Tallinn Stock Exchange | ... | ... | ... | ... | ... | ... |
| Riga Stock Exchange | ... | ... | ... | ... | 0.0 | 0.0 |
| Vilnius Stock Exchange | ... | ... | ... | ... | 0.5 | 0.5 |
| **Equities:** Number of listed equities | | | | | | |
| Stockholm Stock Exchange | 305 | 297 | 282 | 276 | 271 | 271 |
| Helsinki Stock Exchange | 155 | 149 | 145 | 137 | 137 | 137 |
| Oslo Stock Exchange | 212 | 203 | 180 | 188 | 219 | 206 |
| Copenhagen Stock Exchange | 217 | 201 | 195 | 185 | 176 | 181 |
| Reykjavik Stock Exchange | 72 | 64 | 45 | 34 | 26 | 21 |
| Tallinn Stock Exchange | ... | ... | ... | 14 | 14 | 16 |
| Riga Stock Exchange | ... | ... | ... | 39 | 44 | 41 |
| Vilnius Stock Exchange | ... | ... | ... | 43 | 43 | 43 |
| Stock market capitalization to GDP | | | | | | |
| Stockholm Stock Exchange | 125.9 | 75.6 | 94.9 | 106.0 | 131.0 | 128.6 |
| Helsinki Stock Exchange | 159.3 | 107.5 | 109.7 | 106.5 | 130.8 | 130.4 |
| Oslo Stock Exchange | 44.4 | 33.1 | 44.2 | 55.2 | 73.5 | 82.4 |
| Copenhagen Stock Exchange | 55.8 | 45.2 | 51.6 | 60.0 | 74.9 | 70.0 |
| Reykjavik Stock Exchange | 49.4 | 65.5 | 82.6 | 126.2 | 182.3 | 180.6 |
| Tallinn Stock Exchange | ... | ... | 41.2 | 53.9 | 28.1 | 24.4 |
| Riga Stock Exchange | ... | ... | 10.4 | 12.2 | 16.7 | 12.8 |
| Vilnius Stock Exchange | ... | ... | 19.1 | 29.1 | 33.5 | 27.1 |
| Stock market turnover to end-year market value | | | | | | |
| Stockholm Stock Exchange | 1.4 | 1.5 | 1.1 | 1.2 | 1.1 | 0.8 |
| Helsinki Stock Exchange | 0.9 | 1.2 | 0.9 | 1.1 | 1.1 | 0.7 |
| Oslo Stock Exchange | 0.8 | 0.9 | 0.8 | 1.0 | 1.1 | 0.8 |
| Copenhagen Stock Exchange | 0.7 | 0.6 | 0.6 | 0.7 | 0.8 | 1.1 |
| Reykjavik Stock Exchange | 0.3 | 0.6 | 0.8 | 0.6 | 0.6 | 0.7 |
| Tallinn Stock Exchange | ... | ... | 0.2 | 0.1 | 0.7 | 0.2 |
| Riga Stock Exchange | ... | ... | 0.1 | 0.1 | 0.0 | 0.0 |
| Vilnius Stock Exchange | ... | ... | 0.1 | 0.1 | 0.1 | 0.0 |
| **Derivatives:** Number of contracts traded per business day 2/ | 266,291 | 258,595 | 308,093 | 396,180 | 394,719 | ... |
| *of which, in percent of total:* | | | | | | |
| Stockholm Stock Exchange and Helsinki Stock Exchange | 94.2 | 94.2 | 94.0 | 94.0 | 93.7 | ... |
| Share options and futures | 54.4 | 57.4 | 58.0 | 62.2 | 58.2 | ... |
| Index options and futures | 29.3 | 28.2 | 27.3 | 25.2 | 27.8 | ... |
| Short-term fixed income products | 8.3 | 5.8 | 6.4 | 4.5 | 5.4 | ... |
| Long-term fixed income products | 2.2 | 2.8 | 2.3 | 2.0 | 2.2 | ... |
| Oslo Stock Exchange | 5.8 | 4.9 | 5.0 | 5.3 | 5.5 | ... |
| Share options and futures | 4.0 | 3.0 | 3.3 | 4.0 | 4.4 | ... |
| Index options and futures | 1.8 | 2.0 | 1.7 | 1.4 | 1.0 | ... |
| Copenhagen Stock Exchange | ... | 0.8 | 1.0 | 0.7 | 0.8 | ... |
| Share options and futures | ... | 0.1 | 0.2 | 0.1 | 0.2 | ... |
| Index options and futures | ... | 0.7 | 0.8 | 0.6 | 0.6 | ... |

Source: OMX Exchanges.

1/ Annualized turnover based on the first half of 2006. End-2006 GDP estimated based on the average of the 2005 figure and the 2006 WEO projection.
2/ As of August 2005. Only OMX total figures reported afterwards; data for individual OMX exchanges not available.

5. **Equity derivatives activity in the region remains largely concentrated in Sweden.** In 2005, the Swedish market represented 94 percent of all listed contracts traded on the Swedish, Danish, and Norwegian markets, with Oslo and Copenhagen accounting for 5 percent and 1 percent respectively. As regards interest rate derivatives, the peg of the Danish Krona to the euro offers Danish market participants and institutional investors an easy and cost-effective access to euro area listed and over-the-counter (OTC) derivative markets at low costs, enabling them to benefit from the liquidity of the deep euro derivative markets.

6. **The remainder of the note is organized as follows.** Section II briefly reviews the prudential framework for capital markets. Section III analyzes the progressive integration and collaboration among the Nordic stock exchanges. As in other countries, Danish investment funds have grown rapidly, which is discussed in Section IV. Section V discusses liquidity in Danish capital markets. Corporate governance is a key component of a sound financial market structure. In that regard, rather than following the *OECD Principles of Corporate Governance*,the so-called Nørby Committee has developed a set of disclosure recommendations for companies listed on the Copengahgen Stock Exchange (CSE), based on a "comply-or-explain" approach. The resulting corporate governance framework is not only largely compliant with the OECD Principles of Corporate Governance, but in some areas goes beyond these standards by being more specific and regulating areas that are not included in OECD Principles. An annex discusses in detail the specificities of the Danish corporate governance framework.

## II. The Prudential Framework for Securities Markets

### A. Adherence to Key Supervisory Principles

7. **The DFSA generally adheres to sound supervisory practices and principles regarding the regulation of securities markets.** The regulatory framework was reviewed with reference to the key IOSCO Objectives and Principles of Securities Regulation, although a formal principle by principle assessment was not undertaken.[3] The framework for clearing and settlement is covered by a separate detailed assessment and thus not discussed here. Areas deserving further attention concern the adequacy of resources. In this regard, the international standard requires that the supervisory authorities be adequately funded to meet all supervisory objectives. The level of funding should also recognize the difficulty of attracting and retaining experienced and skilled staff. While the DFSA has improved its ability to attract and retain mid-level and senior staff in recent years by appointing them as experts with higher salaries, more could be done to ensure that resources are commensurate with responsibilities.

### B. Strong Legal Framework

8. **A strong legal framework for securities markets is in place.** As a member of the European Union (EU), Denmark is committed to developing a legal framework that satisfies

[3] The review of the prudential framework was conducted by Erik Huitfeldt, external consultant for MCM (formerly MFD), during an MCM FSAP mission, November 7−18, 2005.

all the EU legislative and regulatory bodies. Regarding provision of financial services, the DFSA is involved in negotiating the substance of the EU Directives and is charged with preparing the corresponding domestic laws. Denmark has been one of the fastest states to integrate EU law into domestic legislation.[4] By December 2005, Denmark was among only five countries that had achieved complete transposition of the Financial Services Directives where their deadlines had passed The DFSA also generally has sufficient authority to promulgate regulations as needed to complement the law.

9. **The Danish Securities Council (DSC) offers a unique approach to involve the private sector in the design and the implementation of securities regulation, while preserving the autonomy of the DFSA.**[5] The DSC has overall responsibility for the framework within which the securities markets operate and is responsible for ensuring well-functioning securities markets. The DSC also advises the DFSA in areas such as best trading practices and on issuing regulations. In addition, the DSC is responsible for ensuring compliance of issues listed or traded on a stock exchange or traded on an authorized market place with accounting regulations in their annual and interim reports. The DSC acts as an independent authority for its enforcement activities, with the DFSA and the Danish commerce and Companies Agency providing secretariat functions for the DSC.

10. **The DFSA has demonstrated effectiveness in the area of enforcement of securities regulation beyond the standard of other comparable countries.** For instance, among European countries, Denmark has achieved the most convictions in insider trading cases in recent years. Enforcement procedures benefit from active cooperation between government investigators and market operators. Suspicious situations identified by the stock market through the information collected on its systems are reported to the DFSA for further investigation. Following its own legal assessment, the DFSA can report fraudulent cases to the police authorities, after consultation with the DSC.

## C. Unified Regulator

11. **The mission did not find gaps in the DFSA's supervisory coverage of the financial system.** As a unified regulator, the DFSA has used its structure to strengthen its consolidated supervision and prevent regulatory gaps. The DFSA is organized along institutional lines, with 10 operational divisions and 4 staff divisions. The securities, the investment management companies and UCITS, and the mortgage, credit, and investment companies divisions are specifically focused on supervising capital markets. The DFSA has established "expert centers" allocated among the divisions. The DFSA has effective arrangements for internal cooperation and communication. The relevant divisions are

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[4] According to the European Commission, as of March 2006, Denmark had an overall percentage of notification (i.e., directives for which implementing measures have been notified to the Commission) of 99.43 percent, for an EU average of 98.71 percent (see "Progress in notification of national measures implementing directives," Secretariat General, EU Commission, March 2006).

[5] The DSC consists of 14 members divided equally between independent members and members representing commercial interests in the securities industry. In connection with the enforcement activities regarding financial information in annual and interim reports, the Danish Securities Council acts as an independent authority, while in connection with other tasks, the Council forms part of the Danish FSA.

required to cooperate and communicate in areas of shared responsibility, and no legal or regulatory limitations exist that would interfere with such cooperation.

### D. Supervision of Danish Equity Markets

12. **The CSE is under the primary supervision of the DFSA.** The recent change in ownership of the CSE did not affect the DFSA's supervisory responsibility over the CSE, but has resulted in increased cooperation between the DFSA and other interested supervisors for the oversight of the OMX group. A memorandum of understanding (MOU) on cooperation in the supervision of the OMX Group was signed in July 2005 with the Swedish Finansinspektionen and the Finnish Rahoitustarkastus. The MOU seeks effective and comprehensive supervision of the OMX group and the systems it operates, based on a common supervisory approach, aimed at maintaining the integrity of markets, preserving investors' confidence and minimizing the risks of regulatory arbitrage. In particular, the MoU recognizes the possibility for a supervisor to undertake activities in its jurisdiction, on behalf of the other participating supervisors, and sets up a cooperative supervisory team, to carry out the tasks specified in the memorandum. Although the memorandum is still new, it appears to be efficiently implemented.

13. **The role of the DFSA in the supervision of exchanges has recently been expanded.** Through a delegation agreement, the DFSA has delegated some of its supervisory responsibilities to the CSE. To better align the Danish regulatory framework with EU prescriptions, this agreement was recently amended. The responsibility to approve listing prospectuses and review takeover bids as to be centralized with the supervisory agency as of September 2006. The delegation granted to the Danish AMP regarding takeover bids will also be revoked.

## III. Linkages with Stock Exchanges in the Nordic and Baltic regions

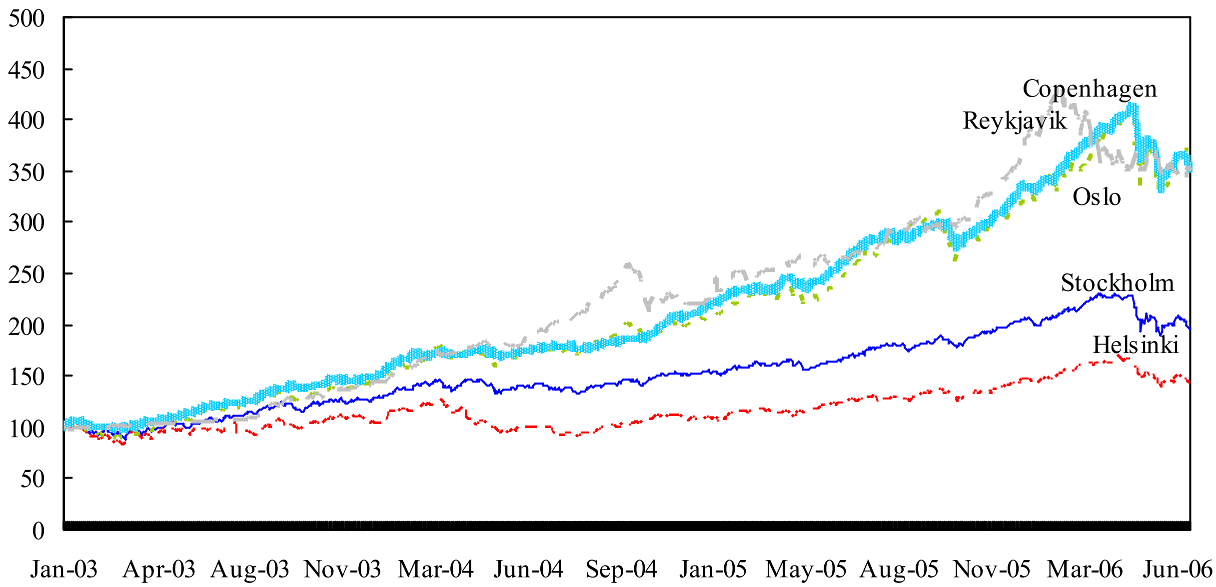
14. **For many years the CSE has been working toward closer cooperation and possible integration with other Nordic and Baltic stock exchanges.** The strategic alliance (Norex) and consolidation (OMX) has resulted in the creation of an increasingly homogeneous regional trading environment. Further scope for integration in the clearing, settlement, and depository infrastructures remains debatable.

### A. The Danish Stock Exchange

15. **Despite the recent correction, the Danish stock market has posted one of the strongest performance among the Nordic countries in recent years (Figure 1).** The Danish market gained 38 percent in 2005, and since end-2000, the increase in the local market index has only been exceeded by Iceland, and Norway in the most recent months, thanks to the rise of its large energy sector. These markets have also outperformed the major U.S. and European stock markets. In contrast, the performance of the Swedish stock market has been in line with that of the British Footsie and the U.S. S&P 500. The losses experienced until late 2003 were only erased by early 2006. Dominated by a single telecom issuer, the Finnish stock market lagged markedly over this period. Overall, Scandinavian

stock markets performed better than continental Europe stock markets, an illustration of stronger economic dynamism in the region in recent years.

Figure 1. Nordic Stock Exchanges: All Share Indices, January 2003-July 2006
(January 2003=100)




16. **This strong performance however has not translated into increased turnover which has been lower than in the other Nordic countries, with the exception of Iceland.** A series of factors may have contributed to this: being relatively recent investors in equity, Danish investors may favor a "buy and hold" attitude, especially since the strong rise in equity prices did not encourage them to engage in active portfolio management. Limited turnover could also be attributed to a lack of sufficient liquidity and high concentration of activity in a limited number of stocks, as suggested by the relatively low P/E ratios exhibited by CSE stocks.

17. **Like several other stock markets, the Danish market has experienced a number of share delistings.** In 2005, only 6 new companies were listed on the CSE, while 15 left the market. The number of delisting from the Danish exchange has exceeded the number of new listing every year since 1999. Although it appears to be particularly marked on the CSE, this trend is not specific to Denmark.[6] Most stock exchanges in Western Europe (including the United Kingdom until 2004) and the United States to a lesser extent, experienced a decline in the number of listed companies, as new listings dropped significantly after 1999, and have remained limited thereafter.

[6] See "Going Private-Motiver I Danmark" March 2005.

18. **Various factors explain the delisting trend, and while most of these are not specific to Denmark alone, the structure of the Danish economy, in particular the importance of SMEs, may have amplified their impact.** The delistings in recent years have followed the bursting of the "internet bubble," and related financial distress in the IT sector as well as increased mergers and acquisitions activity. In addition, the greater integration among the regional stock markets and the associated elimination of cross-listings also likely contributed to the delisting trend, especially in the Norex alliance. Moreover thanks to the favorable economic environment, the Danish corporate sector has not been faced with the need to raise capital, obviating the need to list new issues.

19. **The deliberate choice to delist, or not to seek a listing on the stock market, appears to be a more recent, and possibly a more lasting trend.** For a growing number of companies, in particular SMEs, the costs of being listed are often perceived to outweigh the potential benefits of a public listing. This is even more so, given the increased capacity of the private equity industry. Private equity funds are very often seen as an alternative to public listing for small- and medium-sized companies. Increased corporate governance and disclosure requirements associated with a public listing are among the main considerations behind such strategic decisions, even more than the listing costs. The European Prospectus and Transparency Directives, which seek to unify the rules imposed on issuers regarding financial information, may have played a role in that regard. Fears have been expressed by some in the industry that the new framework may prove excessively cumbersome and expensive, particularly for medium-sized corporates and startups.

20. **In order to address the concerns, the main exchanges have launched new "organized" but unregulated market segments in the sense of European Directives.** These trading places are accessible to equity issuers with more limited requirements but still offer investors more guarantees than "free markets," such as Dansk Authoriseret Markedsplads A/S (Danish AMP) in Denmark.[7] In Denmark, an "alternative market place" (First North) was launched in December 2005 by the CSE.[8] By offering investors and issuers additional choice, such trading places contribute to the completeness of financial markets. While the development of FirstNorth is too recent in Denmark (only three companies have issued shares on FirstNorth until now) to allow meaningful conclusions, similar experiences in the other European countries (the Alternative Investment market in the United Kingdom, Alternext in Paris) tend to confirm that such markets can attract additional companies and serve as a launching pad. A risk, however, is that they foster the creation of opaque, unlisted markets that weaken investor protection and reduce the benefits of the new transparency framework.

[7] A similar market, XtraMarked, operated by the CSE, also exists for non-listed investment certificates.

[8] This market is aimed at small companies with a market value of DKK 400–500 million. In contrast with requirements to be listed on the CSE, companies are not required to have at least three years of operations, are not required to report under IFRS, and are not subject to specific corporate governance rules.

## B. The Norex Alliance and the OMX Group

21. **The strategic goal of the Norex Alliance is to establish a common market place for the Nordic and Baltic securities.** As a central gateway to Scandinavian and Baltic financial markets, the Norex Alliance is expected to increase the attractiveness of the region for local and international investors. Integrated stock markets offer investors, issuers and exchange members, cost-effective access to an increased range of investment opportunities and increased liquidity.

22. **The Norex Alliance has been a significant development toward creating an integrated regional equity market.** Established in 1999, it was initially an alliance between the Danish and Swedish stock exchanges to promote the development of a common market place, but it now regroups all the Scandinavian and Baltic stock exchanges.[9] Norex members have common rules for listing, trading, and use the same trading system (*Saxess*).[10] While common membership has not been established, and members of the individual stock exchanges do not automatically become a member of all the exchanges collectively, cross-membership has been facilitated by the removal of entry fees and the harmonization of membership criteria.

23. **Regional integration of stock markets has accelerated with the acquisition of the CSE by the Swedish OMX Group in 2005.** The OMX Group already owns six out of eight stock markets in the Nordic-Baltic region. Furthermore, in September 2006, OMX and ICEX concluded a Letter of Intent regarding the acquisition of the Iceland Stock Exchange. In October 2006, OMX group announced the purchase of a 10 percent stake in Oslo Børs Holding ASA, the owner of Norwegian stock exchange.[11] The consolidation within a single group is expected to improve the competitive position of the Nordic and Baltic exchanges in the international marketplace, by increasing the visibility of the regional stock markets to international investors and facilitating trading. To facilitate industry comparisons, a common "Nordic List," organized in three segments (large, medium and small capitalizations) and by industry, will replace the current Swedish, Finnish, and Danish equity lists in October 2006. In conjunction with other OMX markets, the CSE has developed a complete series of share

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[9] Iceland joined in 2000, Norway in 2002, Helsinki and the Baltic states in 2003.

[10] Saxess is developed by OMX Technology, part of the OMX Group. Saxess supports trading in a wide range of cash and derivatives instruments, from equities and fixed-income instruments to ETFs and commodities. The platform supports a variety of trading models, as well as different market structures (i.e., order-driven and a price-driven market). This trading system is designed on the principle that there is one order book for each security. For an order-driven market, bids and offers are entered into the relevant order book and automatically matched to trade when price, volume, and other order conditions are met. Any trade made outside the order book must be reported to Saxess. When the market is price-driven, a member enters its interest in the particular security in the relevant order book. The transaction is negotiated manually when a potential counterpart is identified and the transaction reported into the system upon completion.

[11] For information on the OMX Group, see: http://www.omxgroup.com/en/index.aspx.

indexes, based on the Global Industry Classification Standard (GICS) classification.[12] Listing requirements will also be harmonized on the three exchanges.[13]

## IV. The Rapid growth of Mutual Funds and the Introduction of Hedge Associations

24. **The Danish mutual fund sector has seen steady growth over the last five years, largely promoted by regulatory changes that have allowed mutual fund products to be better designed in response to market needs.** The regulatory changes have attracted institutional investors, who now represent 47 percent of the total value of the mutual fund market. Additional factors prompting the growth of mutual funds are the general increase in wealth among retail investors and competitive management solutions developed by the mutual fund sector. The funds provide a convenient way to invest in foreign and less familiar securities, while diversifying the risks. High growth in the mutual funds industry continued in 2005. The total asset under management by investment funds at the end of 2005 amounted to EUR 106 billion, an increase of 37 percent from EUR 77 billion recorded at the end of 2004.

### A. Growth of the Mutual Funds Investments

25. **At the end of the 1990s, the Danish mutual fund market was relatively small in comparison to those in Sweden and other countries (Table 2).** Since that time, the sector has grown steadily. The retail segment of the mutual fund market, in particular, almost doubled between 2000 and 2004. Institutional investors increased their savings in mutual funds and the net value of their assets under management multiplied nearly three times in the same period. Table 4 highlights the increase in total net asset value between 2000 and 2005.

### B. Regulatory Liberalization

26. **A number of regulatory changes have contributed to the growth of collective investment schemes.** Initially the mutual fund legislation allowed mutual funds to be organized only in accordance with the requirements in EU's UCITS directives, which placed several limitations on the mutual fund's investments—both regarding the types of investments and the proportion of securities in one company. At the end of the 1990s, the mutual fund law was liberalized, allowing the establishment of "Special Purpose Associations" (i.e., nonUCITS mutual funds). The legislation was later further liberalized to allow one or a few institutional investors to operate their own mutual fund. These "restricted associations" have become popular with institutional investors because they can outsource the investment portfolio to an investment adviser.

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[12] The GICS methodology has been developed by Morgan Stanley Capital International and Standard and Poor's. It classifies stocks in a series of sectors, industry groups, industries, and sub-industries.

[13] Similar developments are expected to take place in the Baltic markets at a later stage.

## Table 2. Nordic Countries: Mutual Funds Indicators

| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|
| **Number of Mutual Funds** | | | | | | | |
| Denmark | 226 | 292 | 394 | 451 | 485 | 400 | 423 |
| Finland | 114 | 176 | 241 | 275 | 312 | 249 | 280 |
| Norway | 264 | 309 | 380 | 400 | 419 | 375 | 406 |
| Sweden | 366 | 412 | 509 | 507 | 512 | 485 | 461 |
| **Mutual Fund Net Assets to GDP** | | | | | | | |
| Denmark | 11.2 | 15.8 | 20.2 | 21.1 | 23.2 | 23.2 | 26.6 |
| Finland | 4.4 | 8.0 | 10.5 | 10.6 | 12.4 | 15.7 | 20.2 |
| Norway | 7.4 | 9.6 | 9.7 | 8.7 | 8.1 | 9.9 | 11.8 |
| Sweden | 22.0 | 32.8 | 32.2 | 29.5 | 23.7 | 28.8 | 30.5 |
| **Memo item:** | | | | | | | |
| Euro area (EU-12) | | | | | | | |
| Average number of mutual funds | 1,430 | 1,573 | 1,818 | 1,923 | 2,046 | 2,026 | 2,080 |
| Mutual fund net assets to GDP | 33.8 | 38.5 | 43.9 | 42.4 | 43.2 | 47.5 | 49.9 |
| United States | | | | | | | |
| Number of mutual funds | 7,314 | 7,791 | 8,155 | 8,305 | 8,244 | 8,126 | 8,044 |
| Mutual fund net assets to GDP | 63.2 | 73.9 | 70.9 | 68.9 | 61.0 | 67.6 | 69.1 |

Source: The Investment Company Institute.
1/ Data cover home-domiciled funds, funds of funds are not included.

## Table 3. Size of Danish Organized Mutual Funds, 2000−October 2005

| Mill. DKK | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| Retail funds | 177,957 | 177,722 | 188,028 | 249,505 | 297,560 | 390,888 |
| Institutional funds | 72,117 | 98,184 | 91,203 | 108,660 | 215,500 | 332,423 |
| Foreign funds | 7,127 | 6,429 | 5,256 | 6,069 | 6,136 | 10,584 |
| **Total** | **257,201** | **282,335** | **284,487** | **364,272** | **519,196** | **733,896** |

Source: Federation of Danish Investment Associations.

27. **Changes to the pension legislation have allowed pension funds to invest their assets in mutual funds.** An increasing number of pension funds allow pension investors to select among a variety of mutual funds. Second tier pension funds in particular have invested in the mutual fund sector. In 2004 the large Special Savings Pension Scheme allowed its pension investors to invest in mutual funds. In June 2005, Lønmodtagernes Dyrtidsfond (LD), another second tier fund, invested all its assets in mutual funds, resulting in an increase of 12 percent of the total net asset value under management in just one month. At end-2005,

[17] Because they are nonUCITS, investment funds such as hedge funds are outside of the scope of European Directives. They regulatory regime therefore differ, sometimes significantly, from one European country to another.

assets managed by nonUCITS funds amounted to EUR 42.7 billion, representing 40 percent of the total net assets under the management of investment funds.

28. **Taxation of mutual funds used to favor funds that pay dividends instead of accumulating wealth.** The effect of the taxation rules on the growth of the two different types of funds is shown in Table 4. This taxation rule was changed on July 1, 2005, and should put accumulative and distributive funds on more equal footing. Investors in funds (including regulated hedge funds and foreign funds), rather than investment companies, will be taxed on dividend distribution and unrealized capital gains.

**Table 4. Accumulative, Distributive, and Pension Mutual Funds, 2000−October 2005**

| In Millions of DKK | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|
| Accumulative | 11,711 | 74,737 | 57,097 | 67, 478 | 155,554 | 247,362 |
| Distributive | 245,490 | 198,698 | 207,190 | 267,904 | 328,198 | 450,881 |
| Pension funds | 0 | 8,922 | 20,190 | 28,890 | 35,445 | 35,653 |
| **Total** | **257,201** | **282,334** | **284,477** | **364,272** | **519,196** | **733,896** |

Source: Federation of Danish Investment Associations.

Note: The numbers represent the market value of the different funds.

29. **Recent changes in the regulatory regime for hedge funds should contribute to the development of an onshore hedge fund industry in Denmark.** Hedge funds have been accessible to Danish investors, in particular to institutional investors, for a few years already, either through off-shore funds or structured bonds. Furthermore, following a trend witnessed in other European countries, since July 2004, Denmark-based hedge funds have been allowed, in the form of (nonUCITS) "Other Collective Investment Schemes" (Chapter 7 funds), required to register with the DFSA.[17]

30. **Effective July 2005, a new regulatory regime was introduced, setting the ground for the development of regulated onshore hedge funds (hedge associations) in Denmark.** Open-ended funds, such as hedge funds, that receive funds from the public (or large groups of investors) are required to obtain a license from the DFSA. Such regulated hedge funds are not subject to particular investment regulation, or limits in their use of short-selling and leverage, but they are required to clearly set out their risk profile and risk-taking policy which should be the basis of specific risk limits decided by their board of directors. They are required to notify investors of changes in such limits. Furthermore, any breach of risk limits has to be reported to the supervisor as well as to investors. Regulated hedge funds must be open for issue and redemption at least once a month. Supervision of hedge associations by the DFSA will in particular focus on the role of custodians, as the assets and funds of the funds must be held by a custodian company responsible for ensuring that the fund complies with its own risk policy. The custodian, either a Danish bank or a branch of an EU-based credit institution, must be approved by the Danish supervisor. This regulatory approach appears to give hedge fund managers more flexibility than provided in the Swedish model where, until recently, managers were required to disclose details of holdings in portfolio to the supervisor. It also differs from the Finnish and Norwegian approaches, which set minimum investment amounts and (in Finland, formally) prohibit leverage.

31. **Recent regulatory changes in Denmark, and also in Norway, may be the starting point for the development of a Scandinavian hedge fund industry.** Finland and Sweden established a regulatory framework for hedge funds in the second part of the 1990s. Over the medium term, the on-going revamping of UCITS regulations may open the door for a more homogeneous EU-wide approach to the alternative asset management industry.

32. **Assets under management with hedge associations are expected to remain limited and therefore these funds are not expected to pose financial stability concerns.** However, some specifics of the Danish financial system—the dominance of the bond markets and the "fixed" exchange rate between the krone and the euro—may call for a close monitoring of the evolution of leverage used by hedge associations. It is important, also, that the supervisory authorities establish clear responsibilities in key areas, such as custodian and asset valuation practices--which currently remain with the funds.

## V. Liquidity in the Danish Capital Markets

33. **This section reviews liquidity in the Danish bond and equity markets.** Liquidity of various financial instruments—the ability to promptly convert them into legal tender without adverse price impact—is difficult to measure and can change very rapidly. Different liquidity indicators tend to be overlapping[18] and it is useful to supplement them with qualitative judgment and views of market participants. Measuring liquidity in various sub-segments of capital markets can be even more complicated due to the heterogeneity of the various instruments. Table 5 summarizes the standard liquidity measures for the Danish bond and equity markets. Liquidity in the newest and largest of government bonds and in parts of the mortgage bond market is excellent; that in the corporate bond market is poor, and is improving in the equity market with the exception of the smallest issues.

### A. Danish Bond Markets

34. **The Danish bond market has undergone significant changes over time, as new products and new technologies have been introduced**.[19] The market has historically been dominated by mortgage bonds and is thus a counter example of the widely held perception that a significant domestic public debt market is a precondition for developing domestic capital markets. With public debt declining, mortgage bonds account for about two-thirds of the capitalization of the Danish bond market (Table 6).

[18] For a discussion of different measures of liquidity, see, for instance, *Measuring Liquidity in Financial Markets* by Abdourahmane Sarr and Tonny Lybek, IMF Working Paper No. WP/02/232 (Washington D.C.: International Monetary Fund) available on: http://www.imf.org/external/pubs/cat/longres.cfm?sk=16211.0.

[19] For a historical overview, see "Developments in the Danish Bond Market since 1970" by Ulrik Knudsen and Michael Sand, *Monetary Review 1st Quarter 2004*, Danmarks Nationalbank (DNB).

## Table 5. Liquidity in Different Selected Segments of the Danish Capital Markets, November 2005

| Liquidity Concepts[1/] | Liquidity Measures | Government Securities (excl. T-bills) | Mortgage Bonds | Equities |
|---|---|---|---|---|
| **Tightness** refers to low transaction costs, such as the difference between buy and sell prices, like the bid-ask spreads in quote-driven markets, as well as implicit costs. | **Spread:** the difference between bid and ask prices, for instance time-weighted average. | **MTS:** the spread for treasury bonds with 2, 5, and 10 year maturity was less than 0.05 percentage point, with the spreads increasing with longer maturity.[3/] **CSE:** spreads typically ranging between 0.1 and 0.2 percentage point for the various maturity segments.[3/] | The spread is never higher than 0.1 percentage point for mortgage bonds series covered by the market making agreement. Spreads are lower for shorter durations (can go down to 0.03-0.04 percentage point for the shorter maturities (one year) non-callable series). The agreement also defines lots of DKK 25 or 100 million depending on the series. | The spread for the 20 most liquid shares on the CSE was 0.22 percent—a decrease from 0.26 percent in the same period in 2004 and 0.39 percent in 2003. The spread for mid-cap and small-cap companies were, respectively, 0.40 percent and 1.35 percent. |
| **Immediacy** represents the speed with which orders can be executed and, in this context also, settled. | **Order coverage:** percentage of the trading day with concurrent bid and ask prices. | **MTS:** about 95 percent of the business day.[3/] **CSE:** about 95 percent of the trading day.[3/] | 100 percent from 8:30 a.m. to 4:30 p.m. in the 12 most liquid series identified in the agreement between the 9 or 10 banks via the Bankers Association. | 100 percent during opening hours for the most traded shares on CSE. |
| **Breadth** means that orders are both numerous and large in volume with minimal impact on prices. | **Trade volume:** turnover, typically measured in percent of market capitalization. | The turnover ratio fluctuated between 4.2 and 2.4 during 1997 to 2004, when it was 2.5 (see Table 1). | The turnover ratio has consistently been ranged between 3.4 to 2.3 on an annual basis from 1997 to 2005, when it was 2.9 (see Table 1). | The turnover ratio for listed shares was between 0.5 and 0.8 from 1998 to 2005. |
| **Depth** indicates the size of the amount immediately tradable at best prices refers to the existence of abundant orders, either actual or easily uncovered of potential buyers and sellers, both above and below the current price. | **Depth:** amounts of tradable at best bid and ask prices. | **MTS:** In early 2004, it was possible to trade around DKK 100−150 million in the 5 to 10 year maturities and DKK 300−350 million in 2 year maturity at the best bid-ask prices.[3/] **CSE:** Around DKK4−6 million can be traded at best bid-and-ask price.[3/] | It is usually possible to trade DKK 200 to 500 million at the best bid-and-ask price. | In 2005, it was possible to trade DKK 3½ million at best prices, up from DKK 1½ in 2003 in the most liquid shares. |
| **Resiliency** is a characteristic of markets in which new orders flow quickly to correct order imbalances, which tend to move prices away from what is warranted by fundamentals. | **The market-efficiency coefficient (MEC):**[2/] would tend to be close to one or slightly below one in more resilient markets. | NA | NA | The blue chip MEC has typically been just below one (Table 11), while the all share MEC share index (Table 10) is above one, indicating some illiquidity in small and medium capitalization stocks. |
| | **Order coverage:** (see above) | See above. | See above. | See above. |

Sources: Information provided by Copenhagen Stock Exchange in November 2005; information provided by Danmarks Nationalbank in November 2005; "Liquidity and Transparency in the Danish Government Bond Market" by Jens Verner Andersen and Per Plougmand Bærtelsen, *Monetary Review 2nd Quarter 2004* issued by Danmarks Nationalbank; and for a discussion of different measures of liquidity, see, for instance, "Measuring Liquidity in Financial Markets" by Abdourahmane Sarr and Tonny Lybek, *IMF Working Paper* No. WP/02/232 (Washington D.C.: International Monetary Fund).

1/ These terms reflect different dimensions of the extent to which an asset quickly and without significant costs can be transformed into legal tender.
2/ The market efficient coefficient: MEC = Var ($R_t$) / (T * Var ($r_t$)), where *Var* ($R_t$) = variance of the logarithm of long-period returns, *Var* ($r_t$) = variance of the logarithm of short-period returns, and *T* = number of short periods in each longer period.
3/ According to a review covering the period November 2003 to March 2004 by Jens Verner Andersen and Per Plougmand Bærtelsen in "Liquidity and Transparency in the Danish Government Bond Market," *Monetary Review 2nd Quarter 2004*, Danmarks Nationalbank.

**Table 6. Outstanding Amounts of Danish Securities in Percent of GDP, 1997−2005 1/**

| | Dec-97 | Dec-98 | Dec-99 | Dec-00 | Dec-01 | Dec-02 | Dec-03 | Dec-04 | Dec-05 |
|---|---|---|---|---|---|---|---|---|---|
| Bonds | 172.6 | 173.5 | 160.6 | 156.7 | 166.0 | 178.4 | 182.8 | 190.7 | 193.1 |
| Government bonds | 63.1 | 60.2 | 54.0 | 49.3 | 46.0 | 46.7 | 45.5 | 45.3 | 37.6 |
| Treasury bills | 4.4 | 4.1 | 3.5 | 3.0 | 3.9 | 4.6 | 4.8 | 4.7 | 2.7 |
| Mortgage bonds 2/ | 72.5 | 76.9 | 73.5 | 76.8 | 84.8 | 93.8 | 117.3 | 121.5 | 142.1 |
| Corporate bonds | ... | ... | ... | ... | ... | ... | 2.0 | 2.4 | 3.0 |
| Other | 32.5 | 32.3 | 29.5 | 27.6 | 31.3 | 33.2 | 13.3 | 16.9 | 7.7 |
| Listed equities | ... | 70.0 | 82.2 | 70.1 | 55.8 | 45.2 | 51.6 | 60.0 | 71.6 |

Source: Copenhagen Stock Exchange and Danmarks Nationalbank.
1/ Financial instruments are at market values. For 1997-1998 nominal values for derivatives.
2/ Due to a change in definition the data up to 2002 and from 2002 onwards are not strictly comparable.

## Government Securities

35. **The government of Denmark issues securities domestically and abroad to cover the central government's financing requirements, facilitate the development of a well functioning capital market, and secure the government's access to funding in the future.**[21] The domestic public debt comprises short-term treasury bills (T-bills) with maturities of 3 to 12 months and medium to long term bonds with maturities of 2, 5, and 10 years. The government's net debt has decreased since 1995, representing 27 percent of the GDP at the end of 2005. In later years, the government issued government securities in just a few large liquid series, that can be traded internationally to counter the reduction in liquidity resulting from the declining debt. These series have a minimum outstanding amount of DKK 35−60 billion. As an illustration, the government issuing strategy in 2005 evolved around the following key points:

- An outstanding amount in the two- and five-year maturity segment of government bonds of DKK 35 billion;
- An outstanding amount in the 10-year maturity segment of government bonds of DKK 60 billion;
- Zero net financing contribution from T-bills; and

[21] For a comprehensive description of the Danish public debt policy, see the annual *Danish Government Borrowing and Debt*, as well as the detailed information on the Nationalbank's website: http://www.nationalbanken.dk/.

- Foreign currency borrowing by five-year maturity bullet loans amounting to Euro 1.5–2 billion.

36. **In addition to concentrating issuance on a few large bond series, more technical measures have been taken in recent years to improve the liquidity of domestic government securities.** DNB for instance conducts secondary market operations (buy-back of government securities issues) to support the liquidity and to smooth the redemption profile between years. In 2003, a number of new initiatives such as electronic trading and distribution, and a primary dealership system with market-making requirements for the wholesale market were introduced with a view to adding to the liquidity of government issues and ensuring interest from a broad range of investors.[22] In 2005, similar market making arrangements were introduced for T-bills.

37. **Government securities are issued and traded on both the MTS system and CSE using a system of primary dealers.** The system aims at increasing the efficiency of the secondary market by providing real time quotations from selected market makers (primary dealers) to a wide range of professional participants, and provides automatic electronic execution. Through market making obligations imposed on the participating dealers (maximum bid-offer spreads, minimum transaction size), the platform contributes to enhancing the liquidity and transparency of the market. The MTS network, in particular, has become the main cash trading platform for European government bonds.[23]

38. **Trading of government bonds on the CSE is organized in a similar fashion as the trading on the MTS system, with six primary dealers acting as market makers and quoting bid-and-ask prices.** The price-quoting scheme on the CSE is unique in that it allows private and small investors to trade government securities in the same manner as that in the wholesale market.

39. **The characteristics of these electronic platforms, in particular liquidity arrangements and the organization of pre-trade transparency, raise potentially important issues.** Following the "Citigroup incident" of August 2004, questions have been raised regarding the resilience of the liquidity offered by these platforms and whether the quoting process might to some extent indicate "artificial" liquidity.[24] Regarding pre-trade

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[22] For a discussion of *Liquidity and Transparency in the Danish Government Bond Market* by Jens Verner Andersen and Per Plougmand Bærtelsen, see Monetary Review 2nd Quarter 2004 issued by DNB.

[23] MTS Denmark is a special segment of MTS Associated Market, a Belgian company. There are 14 primary dealers for government bonds and 12 primary dealers for T-bills.

[24] The MTS system organizes quoted prices so that the best bid and offer prices are displayed, but layered dealers for government bonds and 12 primary dealers for T-bills. Behind these are a "depth of book" (i.e., other market makers' prices that will be used when larger trades come through). This approach has many advantages: market makers can quote price that are, in effect, conditional on the strength of demand; and traders can rapidly execute large complex trades, confident that they are getting the best price for each trade. At the same time, the system is inevitably open to a "sweep of liquidity" that swallows all the liquidity in the system should it be misused. In August 2004, Citigroup overwhelmed the system with large, simultaneous orders, rapidly leading market makers to withdraw from their market making commitments.

transparency, an important question in the context of the European Financial Services Action Plan and the discussions surrounding the implementation of the EU Directive on Financial Markets Instruments, is the impact of higher transparency on the behavior of market participants, and ultimately on market liquidity. Whether dealers and large market participants are more likely to provide liquidity in a high transparency environment, or would rather elect to trade in alternative trading venues, with less transparency requirements, remains an open question.

40. **The Danish authorities have largely succeeded in maintaining the attractiveness and liquidity of the government bond market despite declining supply of new securities.** Changes in the issuing policy of the government (the periodicity and form of issuance and the characteristics of issues), the organization of a primary dealership system, the promotion of electronic trading and market, and a more active government debt management through the secondary market have been instrumental in achieving this objective. The approach appears very similar to that followed in various small countries in the eurozone. The declining supply of government bonds poses a particular challenge for the authorities. Although the exchange rate policy in effect results in "importing" the depth of the euro bond market to Danish government bonds, the issuing policy needs to remain innovative and pro-active in order to secure a diversified investor base, domestically and abroad.

**Mortgage bonds**

41. **The Danish mortgage system is widely recognized as one of the most sophisticated in the world.** Through the implementation of a strict balance principle, the system has proved very effective in providing borrowers with flexible, transparent, and close-to-capital markets funding conditions. Simultaneously, as pass-through securities, mortgage bonds transfer market risk from the issuing mortgage bank to bond investors. Lastly, strict property appraisal rules and credit risk management by the mortgage banks have also historically shielded mortgage bonds from default risk.[25]

42. **Similar type mortgage bonds, although issued by different institutions, are usually considered very close substitutes.** The mortgage bond market is characterized by about 2000 outstanding series. Most are not liquid, but a small number of series (10–15) reach high outstanding amounts and are very liquid. When possible, mortgage banks enhance the liquidity of these few liquid series by issuing bonds with technical characteristics matching those of existing series issued by other mortgage banks, so that the bonds are traded as if belonging to the same series.

43. **A distinctive feature of the Danish mortgage market is the call and delivery option embedded in standard Danish mortgage loans.** Fixed-rate mortgage loans can be granted as callable or noncallable loans. Callable loans may be prepaid before maturity. While adjustable interest loans and index-linked loans are always noncallable, they can

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[25] A full description and developed analysis of the Danish mortgage system is beyond the scope of this note, and will be made available in a forthcoming specific technical note.

however be prepaid by delivering underlying bonds. Furthermore, when rates are high, buying back the loan (below par) and refinancing into another loan trading closer to par allows for capital gains, in return for accepting larger coupon payments. Practically, the mortgagor buys back "his" bonds in the market and delivers them to the mortgage credit bank that will then cancel the loan.

44. **For bond investors the callable features impose a pre-payment risk throughout the maturity of the bond.** The changing probability for callability can quickly affect the liquidity in different series. Conversion is affected by the trend and volatility of interest rate, composition of borrowers, and their behavior. With the development of new types of loans, the complexity of the option features imbedded in mortgage bonds increases, requiring mortgage banks and investors to use increasingly sophisticated risk management systems. Investors willing to manage the associated interest rate risk can do so by using various means, including government bonds, which are actively used for hedging due to their similar volatility patterns. The use of derivative products (interest rate swaps and swaptions, foreign exchange derivatives) is also developing. This increased complexity and interdependence between market segments represent new challenges for market participants.

45. **The investor base for mortgage bonds includes domestic and foreign institutional investors, including hedge funds.** The financial sector is the largest investor group, holding about 48 percent of bonds in circulation. Pension funds are estimated to hold 21 percent of outstanding mortgage bonds. The private/retail investor sector represents 11 percent of holdings and the public sector 6 percent. The share of foreign investors (14 percent overall) has been increasing over recent years. They are especially present among the highest liquid bonds (20 percent). Their holdings of callable bonds are also significant: callable mortgage bonds represented about 57 percent of total holdings of mortgage bonds held by foreign investors at the end of 2004. While these investors hold limited amounts of short term noncallable bullet mortgage bonds denominated in DKK (6 percent), their holdings of the same type of bonds issued in euro amounted to 22 percent at the end of 2004.

46. **Until the mid-1990s, the maturity of mortgage bonds was the same as that of mortgage loans, and while fixed rate callable annuity loans remain the dominant mortgage loans, new types have appeared since then (Table 7).** Adjustable interest loans were reintroduced in 1996. Mortgage bonds corresponding to such loans have a shorter maturity and the entire remaining debt, or a specific fraction of it, is refinanced at periodic intervals. At the time of the refinancing, the interest on the loan is adjusted to the market level. Adjustable interest loans can also be granted in a series of installments, over a specified number of years. Loans with an installment free period of up to 10 years (interest-only loans) have been introduced in 2003, as adjustable interest loans or fixed rate loans. Mortgage loans with interest rate guarantees were introduced in 2004, and there are currently two types of mortgage bonds with such guarantee: (i) floating-to-fixed, where the conversion takes place when the 6-month CIBOR rate reach the cap, and then remain fixed even if the market rate later declines; and (ii) capped-floater, where the interest rate is reduced if the rate later declines again, and combines a fixed-interest rate loan with interest reset features and are based on variable interest bonds, adjusted over CIBOR every six months. The maturity of

the underlying bonds ranges from 5 to 30 years, and the entire loan is refinanced when the bond matures.

**Table 7. Main Features of Danish Mortgage Bonds**

| | Noncallable Bullet Bonds | Callable Bonds | Capped Floaters | Floating to Fixed Bonds |
|---|---|---|---|---|
| Interest payments | Annual | Quarterly | Quarterly | Quarterly |
| Repayment | Bullet | Annuity or IO | Annuity or IO | Annuity or IO |
| Coupon | Fixed | Fixed | Floating, capped | Floating, fixed |
| Currency | DKK and € | DKK and € | DKK | DKK |
| Maturities | 1—11 years | 10, 15, 20, 30 years | 30 years | 30 years |
| Issuance | Tap and auction, throughout maturity | Tap, first 3 years | Tap, first 3 years | Tap, 3 years |

Source: RealKredit, June 2005; and Danske Bank March 2006.

47. **Liquidity conditions and the volume of activity varies significantly among the numerous outstanding issues.** Traditional mortgage bonds are traded in a "uniform" market: mortgage bonds with a given coupon and maturity are regarded as (perfect) substitutes, including in the market making arrangement organized by the main dealers. Capped rate and deferred amortization bonds do not have such a degree of homogeneity and therefore do not benefit from similar market making commitments, although market making activities have recently been organized for some of these issues. While mortgage bonds are quoted on the CSE, the turnover is just a small fraction of the total turnover among market makers. The large majority of mortgage bonds are traded OTC, by phone and electronically. The CSE provides the information system for the market makers. The banks that are market-makers and quote bid-and-ask prices on mortgage bonds can see the depth and prices for the bonds in the *elektrobrokersystem* on the CSE.

48. **Nine or ten banks have entered into an agreement through the Danish Bankers Association to provide bid-and-ask prices on workdays from 8:30 a.m. to 4:30 p.m. relating to the most liquid series of mortgage bonds.** The agreement covers 60 series of mortgage bonds issued by five different mortgage banks, for pre-agreed standard transaction sizes. As these series have often been issued with identical characteristics, they are treated by the market as 12 different series only. The market for Danish mortgage bonds benefits from an active repo market, allowing mortgage banks, investors, and other participants to efficiently manage their positions. Furthermore, mortgage bonds are eligible collateral for central bank operations.

49. **The overall mortgage credit market has continued to expand and the development of new types of loans with corresponding new mortgage bonds, has not translated into a reduction of the outstanding stock of traditional callable fixed-rate mortgage bonds, where the most liquid issues are concentrated.** Going forward, however, a possible concern is that the increased diversity of mortgage loans offered to borrowers will result in smaller and more heterogeneous bond issues and pricing conditions, possibly to an extent where liquidity in mortgage bond issues will be more and more difficult to maintain.

This may affect the appetite of foreign investors (mostly institutional investors and hedge funds) for Danish mortgage bonds. This may also limit the formation of a complete, homogeneous mortgage bond yield curve in the long run.

50. **The Danish mortgage system may undergo changes in the near future.** Competition from commercial banks has already increased significantly in the most recent years. "Priority mortgage" loans have been aggressively marketed by commercial banks and have rapidly built a significant market share. The introduction of the new European Capital Adequacy Directive has the potential to pose transitional challenges for mortgage financing in Denmark. In order for mortgage bonds to be recognized the 10 percent risk-weighting treatment granted to covered bonds in the Directive, and therefore to be able to compete on a level playing field with European covered bond issuers, the current Danish mortgage framework would need to be amended.[26] The authorities are faced with the delicate task of balancing divergent demands. On the one hand, commercial banks see the current situation as an opportunity to enter the covered bond market and to create a level playing field vis-à-vis their European competitors, thus demanding a significant reconstitution of the existing framework. On the other hand, mortgage banks insist on the need to preserve the essential characteristics of the current mortgage system.

51. **The extent to which the current system will be adapted (through new definitions of the balance principle and of eligible collateral in particular) remains unclear at this stage.** Careful attention will need to be given to the potential effects concerning consumer protection and the transparency and flexibility characterizing the existing system. In very broad terms, the strict application of the balance principle makes current Danish mortgage bonds true pass-through securities, and transfers market risk from mortgage borrowers to mortgage bond investors, limiting the risk for mortgage banks to credit risk. When the system is amended in accordance with the EU regulations, some of its attractive features would be traded off against the potential benefits. To fully realize these benefits, it would be important to ensure continued effective disclosure and transparency and a levl playing field among market participants.

[26] In particular, loan-to-value requirements and limits differ in the Danish system (they are based on the value of the covered assets at the origination of the loan) and in the Directive (the directive requires that LTV calculations be performed, and the respect of the stated LTV limits be fulfilled, over the full life of the covered loan).

### Corporate Bonds

52. **A deep liquid market in corporate bonds has never developed in Denmark.** This probably reflects the general industrial structure in Denmark where there are many small and a few large businesses. The extensive borrowing from banks and mortgage banks may also have reduced the demand for corporate bond lending. While the bulk of mortgage lending is housing related, a part of it benefits the agriculture sector and small offices and shops.

## B. Equity Markets

53. **Equities traded on the CSE are, with the exception of a few large issues, relatively illiquid, and turnover varies dramatically among listed shares.** Out of close to 180 listed companies, the 20 comprising the OMXC20 index account for about 80 percent of the total turnover. Within the OMXC20 index, a handful of shares represent most of the activity. As of early April 2006, more than 56 percent of turnover among the components of the OMXC20 over the preceding 12 month period was concentrated among four stocks, AP Møller, Novo Nordisk, Danske Bank and Vestas WS. Within this group, AP Møller alone represented 21.4 percent of the total turnover. The recent withdrawal from the index of the telecom operator TDC, traditionally the most active stock, may have contributed to depress further liquidity and turnover on the exchange.[27] This situation of relative illiquidity and concentration of activity also characterizes the other Nordic and Baltic equity markets, where the five most active shares listed on the local stock market represent more than a third of the total turnover, and more than a quarter of the total capitalization of the local market. In terms of concentration, the Danish stock market appears to be more concentrated than its Swedish and Norwegian counterparts, but is less so than the Baltic, Finnish, and Icelandic stock markets (Table 8).

**Table 8. Nordic and Baltic Stock Exchanges, End 2005**

| | Market Capitalization (€, million) | In Percent | Five Most Active Shares (in percent of local turnover) | Five Most Active Shares (in percent of local market capitalization) |
|---|---|---|---|---|
| Stockholm | 371 440 | 39.4 | 37.9 | 27.5 |
| Oslo | 175 553 | 18.6 | 47.9 | 46.8 |
| Helsinki | 203 121 | 21.5 | 72.3 | 51.4 |
| Copenhagen | 156 206 | 16.7 | 54.5 | 36.8 |
| Iceland SE | 24 309 | 2.6 | 84.0 | 70.5 |
| Riga | 2 130 | 0.2 | 74.0 | 43.5 |
| Talinn | 2 963 | 0.3 | 94.0 | 71.0 |
| Vilnius | 6 935 | 0.7 | 75.0 | 32.0 |
| **Total** | **942 657** | **100** | | |

Source:

54. **Although it is difficult to assess, the net effect of such a situation of high concentration is unlikely to be positive for the stock market as a whole, and equity**

[27] TDC is in the process of being acquired (and delisted) by the Nordic Telephone Company (NTC), a group of private equity firms. The offer is being blocked by TDC's largest shareholder, the ATP pension fund.

**investors.** A 2003 study conducted by the CSE showed that liquidity patterns (concentration of turnover and liquidity among a limited number of blue chips) were similar in Copenhagen and a sample of other stock exchanges, such as Helsinki, London, Oslo, and Stockholm. The difference in resiliency between the index for shares and blue chips are illustrated in Tables 9 and 10. It is commonly believed that the "attraction" exerted by blue chip shares benefits other shares, in particular through index investment and increased visibility. However, in relatively small markets, an opposite phenomenon can develop as the disproportion increases between a few dominant shares and the rest of the market. The concentration of liquidity and activity in a limited number of securities can ultimately be seen as a major obstacle by investors, in particular institutional investors, as it limits diversification opportunities and increases allocation risks. The relative low level of P/E ratio on the Danish stock market, compared for instance with the less concentrated Swedish stock market, or major international stock markets, may be explained partly by low turnover and liquidity of the Danish market and the associated premium required by investors. Regional integration and the creation of a truly common market place is a possible answer to alleviate these risks.

**Table 9. Market Efficiency Coefficient of Nordic (All) Stock Market Indices, January 2000 to January 2006**

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | January 1-11, 2006 | Variance |
|---|---|---|---|---|---|---|---|---|
| Stockholm Stock Exchange, OMXS | 0.84 | 0.84 | 0.93 | 1.02 | 0.88 | 0.82 | 0.47 | 0.03 |
| Helsinki Stock Exchange, HEX | 0.86 | 0.79 | 0.87 | 0.89 | 0.99 | 0.96 | 0.64 | 0.01 |
| Oslo Stock Exchange, OSE All share | 0.87 | 0.78 | 0.98 | 0.88 | 0.99 | 0.80 | 1.10 | 0.01 |
| Copenhagen Stock Exchange, KFMX | 0.97 | 1.27 | 1.00 | 1.19 | 1.14 | 1.21 | 1.07 | 0.01 |
| Reykjavik Stock Exchange, ICEX All share | 1.09 | 0.75 | 0.76 | 1.18 | 1.17 | 1.13 | 0.72 | 0.05 |
| Tallinn Stock Exchange, OMXT | 0.96 | 1.14 | 0.98 | 1.38 | 0.97 | 1.06 | 1.42 | 0.04 |
| Riga Stock Exchange, OMXR | ... | 0.98 | 0.75 | 0.80 | 0.66 | 0.84 | 1.11 | 0.03 |

Source: Datastream

1/ The market efficiency coefficient is calculated as the ratio of the variances of the logarithms of long-period and short-period index returns.

**Table 10. Market Efficiency Coefficient of Nordic Blue Chip Indices, January 2000 to January 2006**

| | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | January 1-11, 2006 | Variance |
|---|---|---|---|---|---|---|---|---|
| Stockholm Stock Exchange, OMXS30 | 0.78 | 0.82 | 0.88 | 0.97 | 0.83 | 0.78 | 0.43 | 0.03 |
| Helsinki Stock Exchange, OMXH25 | 0.98 | 0.86 | 1.01 | 0.99 | 1.10 | 0.88 | 0.47 | 0.04 |
| Oslo Stock Exchange, OBX | 0.71 | 0.82 | 0.94 | 0.94 | 1.04 | 0.77 | 1.04 | 0.02 |
| Copenhagen Stock Exchange, OMXC20 | 0.83 | 1.02 | 0.80 | 0.90 | 0.83 | 1.05 | 1.24 | 0.03 |
| Reykjavik Stock Exchange, ICEX 15 | 1.06 | 0.81 | 0.72 | 1.12 | 1.15 | 1.20 | 0.68 | 0.05 |

Source: Datastream

1/ The market efficiency coefficient is calculated as the ratio of the variances of the logarithms of long-period and short-period index returns.

55. **The CSE has sponsored initiatives to foster greater liquidity in shares.** Listed companies can conclude "liquidity provider agreements" with members of the stock exchange. In exchange for a fee, the member will commit to make a market in the shares of

the company. About 60 such agreements have been concluded, mostly with small-and medium-sized listed companies (in order to be listed in the “plus segments” of the market and be included in the Smallcap + and Midcap + indexes, companies have to satisfy specific requirements, including regarding liquidity).

56. **Even if quantitative indicators point to tangible improvements in overall liquidity, significant issues remain.** Various studies have concluded that overall liquidity improved following the introduction of liquidity provider agreements, highlighting in particular a narrowing of spreads and a decline in stock volatility, better order coverage, and increased turnover. However, market participants increasingly recognize that narrow bid/ask spreads and high transaction volumes can be misleading or incomplete gauges of secondary market liquidity. The commitment of market makers to provide two-way prices can be seen as a positive development, but it remains to be seen how the market makers would behave in a situation of market stress. It is important to note the relative concentration of liquidity provider agreements among a small number of market makers (more than half (55 percent) of the existing liquidity agreements have been signed with two market makers, and two-third of them with three members). This can be seen as a specific element of weakness, should one of these market makers withdraw from the market.

## ANNEX 1: CORPORATE GOVERNANCE IN DENMARK

57. **A sound governance structure is crucial for capital market developments, particularly equities.** Instead of following the *OECD Principles of Corporate Governance*,[28] most recently revised in 2004, special Danish Recommendations have been developed by the so-called Nørby Committee, which were later updated.[29] A similar approach has been followed by many other countries.[30]

58. **Implementation of the revised Danish Recommendations as disclosure requirements to the listed companies of the CSE on a "comply-or-explain" basis has given Denmark a corporate governance framework that is not only largely compliant with the OECD Principles of Corporate Governance, but in some areas goes beyond these standards by being more specific and regulating areas that are not included in OECD Principles.** It is commendable that the Danish capital market has invested so many resources in developing this important framework. Actually, the Danish Recommendations will guide ongoing international work to heighten corporate governance standards.

### A. Background

59. **In 2001, a group of experts (The Nørby Committee) was asked to evaluate whether recommendations for good corporate governance in Denmark were needed.** This group concluded that developing recommendations tailored to Denmark specifically, instead of referring to international standards, was the best approach to ensure flexibility and diversity of different business types and ownership structures which characterize Danish companies. They provided 31 recommendations (the "Recommendations") in seven main areas:

1. Role of the shareholders and their interaction with the management of the company;
2. Role of the stakeholders and their importance to the company;
3. Openness and transparency;
4. Tasks and responsibilities of the board;
5. Composition of the board;
6. Remuneration to the directors and the managers; and
7. Risk management.

60. **The Nørby Recommendations focused on listed companies and companies aimed at listing.** To allow for a higher corporate governance standard, the Recommendations were made voluntary and non-binding instead of mandating minimum requirements through legislation. The Nørby Recommendations were not enforceable by the stock exchange, the

[28] They are available on: http://www.oecd.org/topic/0,2686,en_2649_37439_1_1_1_1_37439,00.html.

[29] The Danish Recommendations for listed companies are available on: www.corporategovernance.dk and www.omxgroup.com/copenhagenstockexchange.

[30] For a list of codes for listed companies on other countries, see, for instance, the *European Corporate Governance Institute's* website: http://www.ecgi.org/codes/all_codes.php.

financial supervisor, and were not legally binding. The CSE followed-up the work on corporate governance where the Nørby Committee left off, and incorporated the Nørby Committee's Recommendations in its disclosure requirements for listed companies. Additional work by the Stock exchange confirmed that the Norby Recommendations were generally accepted as a frame of reference for corporate governance in Denmark. For example, a large majority (72 percent) of the listed companies address corporate governance in their annual reports or other stock exchange announcements, as recommended by the Nørby Committee. This compares to 31 percent of the listed companies that commented on corporate governance in their annual reports or other announcements prior to the publication of the Recommendations.

61. **The stock exchange committee also revised and suggested amendments to the Recommendations in light of the recent evolution of European regulatory framework on corporate governance.** The revised recommendations have been added to the disclosure requirements imposed on listed companies, and have taken effect for annual reports for fiscal years beginning on or after January 1, 2006. They incorporate in particular the EU's "comply-or-explain" principle and recommendations on board independence and directors' remuneration. Audit has also been added to the existing seven areas for regulation and, overall, the number of recommendations has been increased.

### B. Comparison with the OECD Principles on Corporate Governance

62. **The revised recommendations are quite different from the OECD Principles of Corporate Governance from 2004.** One main difference between the two relates to their starting point. The OECD Principles include a number of norms that belong to modern corporate law. The Danish Recommendations do not include these norms because they are provided in their corporate law and surrounding legal framework.[31]

63. **The following OECD Principles are not included in the Danish Recommendations, but can be found in other Danish laws**:

- OECD Principle I. Ensuring the Basis for an Effective Corporate Governance Framework—This Principle addresses the need for a solid legal framework and stable institutions that can uphold the rule of law. There is no parallel to this principle in the Danish Recommendations, nor is there any need for it because the revised Recommendations are based on the Danish legal framework which is in full compliance with best international standards.

[31] For a more detailed comparison of the *OECD Principles of Corporate Governance* (the 2004 version) with the most current *Nørby Committee Recommendations*, please see Appendix I.

- OECD Principle II. The Rights of Shareholders and Key Ownership Functions—This Principle covers a number of issues that are fundamental to a modern corporate law such as the Danish law, including shareholder rights to secure methods of ownership registration, transfer of shares, the right to participate and vote in general shareholder meetings, elect and remove members of the board, and share in the profits of the corporation.

  OECD Principle II also addresses corporate mergers and acquisitions which are not included in the Danish Recommendations because these rules are part of Danish corporate law and law on capital markets.

  Principle II contains a provision relating to disclosure by institutional investors:

  > Institutional investors acting in a fiduciary capacity should disclose their overall corporate governance and voting policies with respect to their investments, including the procedures that they have in place for deciding on the use of their voting rights.

  The annotations to the Principles explain that this disclosure requirement is between the institutional investor and his client and between the investment advisor and the investment company. These issues are regulated by the mutual fund law in Denmark and are not included in the recommendations.

- OECD Principle III. The Equitable Treatment of Shareholders—This Principle requires equal treatment of shareholders, prohibits insider trading, and abusive self dealing. These issues are dealt with in the Danish legal framework for corporations and the capital market and are not included in the Danish Recommendations.

- OECD Principle V. Disclosure and Transparency—This Principle requires companies to disclose material company information. This requirement is included as part of Danish capital markets law and therefore not included in the recommendations.

64. **Areas where the Danish Recommendations are more advanced than the OECD Principles are:**

- Some Recommendations are addressed in the OECD Principles, but are better developed in the Danish Recommendations because they have added specificity and detail. A number of issues are also provided in the Danish Recommendations that do not have any parallel in the OECD Principles. These points are highlighted in the following comparative analysis of the OECD Principles and the Danish Recommendations:

**The Shareholders' Role**

65. **OECD Principle II, The Rights of Shareholders and Key Ownership Functions has its parallel in the Danish Recommendations I.** The Role of the shareholders and their interaction with the management of the company.

66. **The OECD Principles state that "anti-take-over devices should not be used to shield management and the board from accountability."** The purpose of this principle is to underline that take-over defenses shall not be devices to shield the management or the board from shareholder monitoring. The Danish Recommendations do not expressly address this issue, but it is covered by this general term in the Recommendations:

> The supervisory board shall, at appropriate intervals, assess whether the company's capital and share structures continue to be in the interests of the shareholders and the company and that the supervisory board account for this assessment in the company's annual report.

67. **The Danish Recommendations do address take-over situations, which are not included in the OECD principles, suggested in detail that:**

- The supervisory board should not, without the acceptance of the general meeting, attempt to counter a takeover bid by making decisions which in reality prevent the shareholders from deciding on the takeover bid, and

- Shareholders should be given the opportunity to decide whether or not they wish to dispose of their shares in the company under the terms offered. The recommendation includes implementing capital increases or allowing the company to buy its own shares on the basis of any previously given authority.

68. **Both the OECD Principles and the Danish Recommendations encourage a continuous dialog between the company and the shareholders, but the Danish Recommendations include more detail and promote:**

- Holding investor meetings;

- Evaluating on an ongoing basis whether information technology can be used for improving investor relations, including using part of the company's website to deal with corporate governance-related issues; and

- Making all investor presentations accessible on the Internet in real time.

**Role of stakeholders**

69. **Both the OECD Principles and the Danish Recommendations recognize the role of stakeholders in corporate governance, underscoring the need for cooperation and ongoing dialog between the parties and protection of the stakeholders' interests.** The OECD Principles and the Danish Recommendations are similar in substance on this point.

**Disclosure and transparency**

70. **OECD Principle V, regarding disclosure and transparency, parallels the Danish Recommendation III regarding openness and transparency, but they differ in their emphasis on the urgency of bringing information to shareholders and investors.** The Danish Recommendation ensures more immediate communication of information to the investors.

71. **The Danish Recommendations state that the company should establish procedures for immediate publication to shareholders and the financial markets of all essential information of importance to evaluate the company.** The OECD Principles require only that the company has established channels for disseminating information in an equal, timely, and cost-efficient way.

72. **The Danish Recommendations also go beyond the OECD Principles in relation to the annual report and suggest that the supervisory board:**

- Consider to what extent generally accepted accounting standards other than those required, such as US-GAAP, shall be applied as a supplement to the annual report when that is relevant for comparability or other reasons for the recipient of the information.

- Should decide whether it is expedient that the company publishes details of a non-financial nature, including internal knowledge resources, ethical and social responsibilities, and health and safety policy.

73. **The Danish recommendations also advise that companies should publish quarterly reports.** No similar requirement is included in the OECD Principles.

***The Responsibilities of the Board***

74. **The OECD Principles address the responsibilities of the board, the election of board members, and the composition of the board in the chapter: *The Responsibilities of the Board.*** The Danish Recommendations have organized these issues in two chapters called *The task and responsibilities of the supervisory board* and *The composition of the supervisory board*. The Danish Recommendations are more specific, extending beyond the OECD Principles relating to the board's tasks in suggesting that:

- Training and introduction for members of the board are provided; and
- The number of members of the board is adjusted to facilitate a constructive and effective decision making debate

75. **Annotations to the OECD Principles explain that certain countries require training of board members, but do not advise whether this practice is encouraged.**

76. **The Danish Recommendations also have detailed requirements ensuring the independence of the board, including:**

- At least half of the supervisory board members elected by the general meeting should be independent persons. In this context, an independent supervisory board member elected by the general meeting may not:
  - ➢ be an employee of the company or have been employed by the company within the past five years;
  - ➢ be or have been a member of the executive board of the company;
  - ➢ be a professional consultant to the company or be employed by, or have a financial interest in, a company which is a professional consultant to the company;
  - ➢ have some other essential strategic interest in the company other than that of a shareholder;
  - ➢ be related, in terms of business or in any other way, to the company's major shareholder; or
  - ➢ have family ties with a person not regarded as an independent person.

77. **The Recommendations provide that the members of the executive board of a company not be key executives in the same company.** The company's annual report should contain the following information about supervisory board members:

- Occupation of the individual supervisory board member;
- Other managerial positions or directorships held by the supervisory board member in Danish and foreign companies as well as demanding organizational tasks performed by that individual; and
- Number of shares, options and warrants held by the supervisory board member in the company and group enterprises as well as changes in the member's portfolio of the mentioned securities having taken place during the financial year.

78. The Recommendations also limit the number of directorships and chairmanships that can be held by the same person and promote setting a retirement age for members of the board.

**Remuneration**

79. The OECD Principles require that:

- Shareholders should be able to make their views known on the remuneration policy for board members and key executives. The equity component of compensation schemes for board members and employees should be subject to shareholder approval (C. 3. in II. The Rights of Shareholders and Key Ownership Functions).

- The disclosure of the company should include remuneration policy for members of the board and key executives, and information about board members, including their qualifications, the selection process, other company directorships, and whether they are regarded as independent by the board (A. 4. in V. Disclosure and Transparency).

- The board is responsible for aligning key executive and board remuneration with the longer term interests of the company and its shareholders (D. 4 in VI The Responsibilities of the Board)

80. **The Danish Recommendations include more detail on this issue, devoting a chapter to *Remuneration of members of the supervisory board and the executive board.*** The Recommendations seek to ensure that the remuneration of board members and key executives is limited within a range of what is considered fair and reasonable and the amount is properly disclosed.

81. **The OECD Principles provide for disclosure of the remuneration but do not limit the remuneration to a reasonable standard.** The Danish Recommendations provide the following suggestions that go beyond the OECD Principles on remuneration:

- The company should develop a remuneration policy that reflect the interests of the shareholders and the company, match the specific conditions of the company and be reasonable in relation to the tasks and responsibilities of the members of the executive board and the supervisory board and that it promotes long-term behavior, is transparent, easy to understand, and that valuation be made according to generally accepted methods;

- The remuneration policy should include a statement explaining basic pay, the basis on which bonus' are calculated, price-related incentive schemes, pension schemes and other benefits as well as the relationship between basic pay and such benefits;

- The company's remuneration policy reporting should include a statement explaining how such a policy was implemented in the past financial year, how such a policy is implemented in the current financial year, and how the company plans to implement it in the next financial year;

- The annual report should include information about the amounts of total remuneration of the individual members of the supervisory board and the executive board, as well as other benefits of a material nature provided or granted to such members by the company or other companies within the same group;

- Details should be provided in respect of defined-contribution pension schemes for contributions made or to be made by the company for an executive in the relevant financial year and for defined-benefit pension schemes that details be provided for changes in benefits saved for the individual during the relevant financial year;

- Only the general meeting can agree to include a share option scheme as part of the remuneration to a board member or key executive;

- Share or subscription option schemes should be set up as roll-over schemes (i.e., options are allocated and expire over a number of years) and that the redemption price be higher than the market price at the time of allocation;

- The notice convening a general meeting to consider the introduction of share or subscription options or any other share-based incentive scheme, should include an easy-to-understand statement for the shareholders explaining such decisions and that the statement should include information about the most important terms and conditions of the scheme and list the names of the members of the supervisory board and the executive board participating in the scheme. The statement could, among other things, include:

  - ➢ details to shed light on whether the schemes are consistent with the overall remuneration policy;
  - ➢ information outlining how the company intends to provide the shares needed to fulfill the company's obligations in connection with the incentive scheme, including details specifying whether the company intends to acquire the necessary shares in the market, whether the company currently holds such shares in its portfolio, or whether it will issue new shares; and
  - ➢ information about the total costs of the scheme, including direct as well as indirect costs.

- Information about the most important aspects of severance schemes should be disclosed in the company's annual report.

**Risk management**

82. **The Danish Recommendations include a chapter on risk management.** The substance of this chapter is similar to the general risk management related principles provided in the OECD Principles. The important issues are that:

- It is the responsibility of the board to review the company's risk policy;
- The board must ensure that the system for risk management is in place; and
- Foreseeable risk factors are properly disclosed.

**Audit**

83. **The Danish Recommendations have devoted a separate chapter to audits that provide detailed requirements for audits that are dealt with in a more general manner in the OECD Principles.** The OECD Principles explain the use of a separate audit committee in their annotations, but the Principles do not recommend the appointment of an audit committee. The Danish Recommendations state that companies with complex accounting and audit conditions should consider establishing an audit committee to assist the supervisory board in accounting and audit matters.

84. **The Danish Recommendations also promote the establishment of a nomination committee to prepare elections of members to the board and a remuneration committee.** These Recommendations include detailed rules regarding the mandate and process for running these committees.

85. **Note that it is proposed that smaller companies no longer need audits.** This is to save costs, which is fine, but it also affects credit risk for banks. However, only companies which for two successive years do not exceed two of the following thresholds may refrain from having the annual financial report made subject to auditing: (i) a balance sheet total of DKr 1.5 million; (ii) a net turnover of DKr 3 million; and (iii) an average number of fulltime employees during the financial year of 12 persons. This exemption is not available to holding companies and commercial foundations. Furthermore, the right to exercise the exemption may be subject to further conditions. Financial institutions may decide to ask for additional information to evaluate the credit risk.