

**Luxembourg: Financial System Stability Assessment,  
including Reports on the Observance of Standards and Codes on  
the following topics: Monetary and Financial Policy Transparency,  
Banking Supervision, Securities Regulation, Insurance Regulation,  
and Payment Systems**

This Financial System Stability Assessment on Luxembourg was prepared by a staff team of the International Monetary Fund and the World Bank as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on May 3, 2002. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of Luxembourg or the Executive Board of the IMF.

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**Financial System Stability Assessment**

Prepared by the Monetary and Exchange Affairs and European I Departments

Approved by Stefan Ingves and Hans Flickenschild

May 3, 2002

The Financial System Stability Assessment (FSSA) is the result of the Financial System Assessment Program (FSAP) mission that visited Luxembourg from October 8 to 18 and from December 5 to 12, 2001. The mission held discussions with the Minister of Justice and Budget and Treasury, the Governor of the Central Bank, and other senior officials and representatives of the government, central bank, and financial sector. The FSAP team was composed of Piero Ugolini (mission chief), Michael Moore, Gianni De Nicoló, Pamela Madrid, and Sandra Marcelino (all IMF/MAE), Nadim Kyriakos-Saad (IMF/LEG), and Hans Weisfeld (IMF/EU1); John Aspden (Financial Supervision Commission, Isle of Man), Marcel Maes (Belgian Banking Commission, retired), Marianne Palva (Bank of Finland), and Lennart Torstensson (Finansinspektionen, Sweden).

Luxembourg's financial sector has grown very rapidly in recent years to one of the most flourishing financial services centers in Europe and worldwide. The financial sector's contribution to the macroeconomy is very large, amounting to about 22 percent of value added as of end-2001.

Luxembourg's financial sector is robust, efficient, and well supervised. No major weaknesses that could cause systemic risks were identified by the mission. The strength and efficiency of the financial sector is fully supported by the strong conformance by Luxembourg with international supervisory and regulatory standards and by the stress tests prepared under extreme assumptions. Maintaining an efficient and reputable financial sector is one of the highest priorities for the Luxembourg authorities, who have consistently upgraded their supervisory capabilities to meet emerging challenges.

Notwithstanding the above, Luxembourg, as a financial center that operates largely with nonresident accounts, appears vulnerable to economic factors and cycles in other countries, largely European, and is very susceptible to reputational risks. The banking sector, in particular, could be adversely affected by shocks in interbank activities. The Luxembourg authorities believe that in view of the efficiency and location of Luxembourg, their financial sector will continue to have a comparative advantage over other European countries even after removing the advantage of no withholding taxes. However, the impact of such a removal is difficult to quantify. Overall, any large reduction in financial sector activities in Luxembourg will have a marked negative macro-impact on the economy, mostly on losses from employment and government revenues. Luxembourg has recently embarked on a very comprehensive action plan to strengthen its anti-money laundering framework and policies.

The main authors of this report are: Piero Ugolini, Michael Moore, Gianni De Nicoló, and Pamela Madrid (all MAE).

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## GLOSSARY

ABBL	Association des Banques et Banquiers du Luxembourg
AGDL	Association pour la Garantie des Dépôts du Luxembourg
BCEE	Banque et Caisse d'Epargne de l'Etat
BcL	Banque Centrale du Luxembourg
BGL	Banque Generale du Luxembourg
BIS	Bank for International Settlements
CSSF	Commission de Surveillance du Secteur Financier
CAA	Commissariat aux Assurances
DBIL	Dexia Banque Internationale à Luxembourg
ECB	European Central Bank
ECG	Enlarged Contact Group on the Supervision of Investment Funds
EMS	European Monetary System
EMU	Economic and Monetary Union
ESCB	European System of Central Banks
EU	European Union
EUR	euro
EUROSTAT	Office statistique de l'Union européenne
FATF	Financial Action Task Force Against Money Laundering
FIU	Financial Intelligence Unit
FSAP	Financial Sector Assessment Program
FSSA	Financial System Stability Assessment
IADB	Inter American Development Bank
IAIS	International Association of Insurance Supervisors
IOSCO	International Organization of Securities Commissions
IRE	Institute of Corporate Auditors
LIPS-Gross	Luxembourg Interbank Payment System—Gross Settlement System
LIPS-Net	Luxembourg Interbank Payment System—Net Settlement System
LSE	Luxembourg Stock Exchange
MOU	Memorandum of Understanding
OECD	Organisation for Economic Cooperation and Development
OICV	Organisation internationale des commissions de valeurs
OPC	Organisme de placement collectif
OPCVM	Organisme de placement collectif en valeurs mobilières
PSF	Autres professionnels du secteur financier
RTGS system	Real-Time Gross Settlement system
SDR	Special Drawing Rights
SICAF	Société d'investissement à capital fixe
SICAV	Société d'investissement à capital variable
SME	Système monétaire européen
STATEC	Service central de la statistique et des études économiques
SWIFT	Society for Worldwide Interbank Financial Telecommunication s.c.
SYPAL Gie	Groupement d'intérêt économique pour la promotion et la gestion des systèmes de paiement au Luxembourg
TARGET	Trans-European Automated Real-time Gross settlement Express Transfer system
UCITS	Undertaking for Collective Investments in Transferable Securities

## SECTION I—STAFF REPORT ON FINANCIAL SECTOR ISSUES

### I. OVERALL STABILITY ASSESSMENT

1. Luxembourg's financial sector has grown very rapidly in recent years, in parallel with the dramatic transformation of its economy. As a result, Luxembourg has moved from a steel-dependent country to one of the most flourishing financial services centers in Europe and worldwide. Maintaining an efficient and reputable financial sector is one of the highest priorities for the Luxembourg authorities. By end-2001, Luxembourg had 189 banks, mostly subsidiaries and branches of European banks, and was the second largest financial center in the world in terms of assets managed by UCITS (undertakings for collective investment in transferable securities). Overall, the financial sector largely contributed to the good performance of the economy, which averaged an economic growth of 5.7 percent with an inflation rate of about 2 percent over the last four years.

2. As a member of the European Union (EU) and one of the original founders of the European Community, Luxembourg conforms to their respective legal, supervisory, and regulatory obligations as required by their member status. Luxembourg has been implementing very closely EU directives in the financial sector area, and has introduced structural changes and appropriate legislation to support the financial sector's development, its supervision, and overall soundness and efficiency. A central bank was created in June 1998 (Banque Centrale du Luxembourg or BcL), which is a member of the European System of Central Banks (ESCB). The supervision of the financial sector was restructured with the creation of the Commission de Surveillance du Secteur Financier (CSSF) for the banks and securities market, the Commissariat aux Assurances for the insurance sector (CAA), and the BcL for the payment and securities settlement system. In addition, Luxembourg is represented in the Basel Committee, the International Organization of Securities Commissions (IOSCO), and the International Association of Insurance Supervisors (IAIS), through its membership with the CSSF and CAA. Luxembourg is also a member of the Financial Action Task Force Against Money Laundering (FATF).

3. The overall assessment of the mission is that Luxembourg's financial sector is robust, efficient, and well supervised. No major weaknesses that could cause systemic risks were identified by the mission. The strength and efficiency of the financial sector is fully supported by the strong conformance by Luxembourg with supervisory and regulatory standards approved by the Basel Supervisory Committee, IAIS, IOSCO, and CPSS. The mission noted also a high degree of observance with the transparency practices in all the relevant areas. In addition, it has been the policy of the authorities to continuously upgrade their supervisory framework to further strengthen their capabilities and face emerging challenges. The strength and resilience of Luxembourg's financial sector is also documented by the performance of the financial soundness indicators and validated by the stress tests conducted under extreme assumptions. Luxembourg's financial sector weathered the September 11 events without major difficulties. In addition, the current linkages between the banking sector and the investment funds sector do not pose systemic threats. Luxembourg

banks mainly provide administrative and marketing services and do not act as investment fund promoters. Since they do not bear market and credit risk, losses on managed funds would not affect their profitability and capital position.

4. As a result of the September 11 terrorist attacks, the preliminary findings of the FSAP mission in October–December 2001, and the new EU directives to widen the scope for Anti-Money Laundering (AML) policies, the Luxembourg authorities have undertaken a comprehensive action plan to reinforce the existing AML policies (Chapter II.C.).

5. Notwithstanding the above, as a banking center that operates largely with accounts of nonresidents via an extensive network of interbank cross-border activities with banks located outside Luxembourg, mostly in Europe, Luxembourg's banking sector appears vulnerable to economic factors and cycles in other countries, largely European countries, and very susceptible to reputational risks. Financial sector failures in Luxembourg may not have the same adverse impact as in a country with large domestic deposit liabilities. In addition, banks are mostly subsidiaries and branches of reputable foreign banks, and the likelihood of a recapitalization is high. However, it is still possible that bank failures could trigger a reputational problem and a reduction in financial sector activities. These would have repercussions on the domestic economy and might weaken the financial strength of those foreign financial groups controlling large Luxembourg affiliates. The impact on the domestic economy would reduce banks' profits and fiscal revenue, lower employment, and trigger underutilization of existing services infrastructures.

6. The absence of withholding taxes on interest income on all accounts provides Luxembourg with an advantage over some European countries in attracting foreign deposits and investments. The mission discussed with the authorities the potential loss of removing these advantages. The Luxembourg authorities believe that, on the same level playing field, Luxembourg's financial sector will continue to have a comparative advantage over other European countries. This advantage stems from the high efficiency and level of specialization achieved in Luxembourg in financial sector activities. As a small country, logistically well located in Europe, with highly specialized financial sector multilingual operators, the authorities believe that the level of efficiency will remain high and potential losses will be small with no major impact on the economy as a whole. This assessment seems reasonable if Luxembourg continues to remain competitive and attractive to investors.

7. The following comments should be noted:

- **Banking supervision.** Through the CSSF, Luxembourg uses a supervisory model that emphasizes off-site monitoring, reliance on prudential reporting, and the work of external auditors for verification of regulatory reporting and compliance with prudential supervision requirements. The CSSF's reliance on the work of external auditors goes beyond the annual audit of financial statements and includes a mandate that auditors provide increasingly qualitative assessments on many aspects of supervisory and regulatory compliance. Because of the expansive depth of qualitative

and quantitative work of external auditors, the CSSF has an effective and comprehensive supervisory program to oversee the banking sector.

- Through its external auditors, the CSSF is covering many more areas of potential risk than the agency could hope to do on its own through on-site inspection using CSSF staff. The CSSF has some capacity to carry out on-site inspections that target specific risk areas. In 2001, the CSSF conducted 37 on-site inspections of supervised institutions. Areas targeted for CSSF follow-up were identified through different sources of information, such as internal and external auditors' reports, meetings with management, market information, customer complaints, and foreign authorities. During 2002, the CSSF is budgeted to add an additional 25 staff, with 10 to be added to the banking supervision department to increase the capacity to carry out on-site inspections. Beyond increasing the level of these inspections, the CSSF has deepened the areas reviewed by external auditors by adding more specific reporting requirements than mandated previously. The CSSF regularly reviews the qualifications of auditors of financial institutions and if needed can force changes in the auditor.
- The **securities industry** is well developed and regulated. Also, the supervision of the securities market relies to a great deal on the work of the external auditors. According to IOSCO principles, a Code of Conduct regarding the staff of the regulator is missing. This code should also apply to existing conditions of securities trading and the holding of securities. The authorities have already started working on such a code that will apply to all CSSF staff.
- **The payment system** is efficient and sound and meets the CPSS standards, which are also the basis of the ECB standards. The Central Bank of Luxembourg became responsible for the oversight of the payment and securities settlement systems in January 2001, and was able to finalize oversight procedures by early December 2001.
- **Luxembourg's life and reinsurance sectors** have developed from a small domestic market to a more internationally oriented insurance market over the last ten years. However, these sectors remain relatively small compared to the size of Luxembourg financial sector assets. The **life insurance** business sector has been transformed from a domestic-guaranteed interest rate policies market toward a mostly international market through the use of the third EC life insurance directive. Therefore, the bulk of market is now made of unit-linked insurance policies sold in other EU countries through the channel of freedom of services. At the same time, the **reinsurance** market has moved toward the management of reinsurance captives for European industrial groups. As many as 262 captives operated in Luxembourg in the field of reinsurance at end-December 2001. On the other hand, the **non-life insurance** sector has remained a basically domestic market, which covers the insurance needs of Luxembourg citizens.

- **Stress testing/banking sector.** The mission held in-depth discussions with the authorities regarding potential vulnerabilities in the banking sector stemming from large exposures of systemically important Luxembourg banks to: (a) sectors currently in distressed conditions (telecom sector); (b) sectors adversely affected by the September 11 events (airline and aerospace, insurance, and tourism); (c) emerging markets; and d) shocks that may affect the health of foreign financial groups and that are transmitted to Luxembourg banks through the interbank market.
- The authorities presented detailed stress tests on credit risk, and implemented stress tests on emerging market exposures and interbank exposures on the basis of extensive discussion with the mission regarding relevant scenarios. **The credit risk stress tests** exhibit a strong resilience of the banking system to adverse scenarios. This was mainly due to the diversification and strong capital position of the banks, despite the existence of a few banks whose capital position would be weaker than their peers if a shock occurred. **The country risk stress tests** exhibited marginal default scenarios on the capital position of Luxembourg banks owing to their low exposures and high provisioning. **The interbank stress test** showed resilience of Luxembourg banks to shocks hitting their major counterparties on the interbank market, owing to Luxembourg banks' relatively unconcentrated exposures. The Luxembourg authorities are regularly using stress test techniques as an early warning device to: (a) identify banks that are potentially vulnerable to particular shocks; and (b) implement prompt corrective action measures for the banks identified as most vulnerable.
- **Stress testing/insurance sector.** The insurance sector exhibits levels of own-funds that are above the international rule of thumb or EU regulatory minimum. Overall, investment policy seems prudent, including good levels of liquid assets. Non-life insurers appear more exposed to fluctuations in equities prices. However, recent stress tests done by the supervisory authority, CAA, showed that most life and non-life companies have enough cushion to absorb a 25 percent fall in the equity valuations. **Reinsurance** is mostly exposed to investment funds and linked companies, which could also be exposed to equity and liquidity fluctuations.
- The introduction of a **withholding tax** could have an important impact on the economy if the reduction in financial sector activities is large, since financial sector activities account for 22 percent of value added. As currently foreseen in a proposal for a directive on taxation of savings, Luxembourg will phase in a tax-withholding requirement for nonresidents beginning with a 15 percent withholding tax on interest income between 2003 and 2005, and increasing this to 20 percent between 2006 and 2009. Further out in 2010, Luxembourg will share information with other EU members on interest and investment income of non-Luxembourg residents, provided that the non-EU members listed in the Feira European Council conclusions take similar action as well as the dependent and associated territories of EU member states.

- **Anti-money laundering.** Following the September 11 turmoil, FSAP findings, and new EU directives, the authorities have undertaken a comprehensive Action Plan in order to further strengthen and reinforce their AML policies. The plan covers a wide range of areas (Chapter II.C.). The most relevant are:
  - Creation of a steering group comprised of the supervisory bodies, law enforcement and industry representatives to improve the culture of compliance and to strengthen the AML framework;
  - Ensuring consistent approaches to AML activities within and across all sectors—for instance, banking, securities, and insurance;
  - Issuance by the CSSF and CAA of new detailed AML guidance, introduction of a program of monitoring through on-site visits and directives to external auditors, and review of the adequacy of training provided both to their own staffs and within the industry;
  - Strengthening of the Financial Intelligence Unit (FIU) with dedicated resources, revision and updating of its operation according to AML guidance, and enhancing transparency in the FIU's governance and operations; and
  - Actions taken by professional bodies (e.g., associations for financial service providers, lawyers, and accountants) to include (i) improved oversight and awareness of AML compliance by membership, (ii) issuance of updated AML guidance, reflecting experience in other jurisdictions, and (iii) training.
- In the **insurance area**, the mission noted that CAA supervises and assesses the quality of Luxembourg intermediaries. However, the CAA relies on the supervisory authorities of foreign countries to assess the quality of the activities of foreign intermediaries.
- In the **banking and investment areas**, most activity derives from non-Luxembourg residents. Therefore, the Luxembourg banks and other financial intermediaries must review and depend on the customer due diligence and other anti-money laundering methods of the originating foreign financial institutions, which includes reliance on the supervisory frameworks in the respective foreign countries. In large part, Luxembourg financial institutions ensure that activity originates from financial institutions located in countries that are members of the FATF. Financial activity originating in FATF member countries is preferred over non-FATF member countries because FATF countries impose a high anti-money laundering standard on their institutions. Business activity originating from non-FATF member countries must undergo higher scrutiny. Once accounts are opened in Luxembourg, banks, investment funds, and insurance companies monitor closely these accounts for any “suspicious activity.”

8. The mission made the following recommendations:
- To pursue vigorously the implementation of the **AML Action Plan** in Chapter II.C. The recent steps taken by the authorities are in the right direction, but there is the need for completing all the envisaged actions and to continue undertaking an aggressive AML policy in all areas of the financial sector. In particular, progress has been more rapid in some areas, such as in the banking and securities sectors. The authorities informed the mission that implementation in other areas, such as insurance, will be accelerated and completed by Summer 2002.
  - To pursue and intensify the policy of increasing the number of on-site inspections to be conducted by the CSSF; and to continue the ongoing policy of **exchanging information** and holding discussions with foreign country supervisors and signing Memoranda of Understanding (MOUs).
  - To continue monitoring very closely banks' **overall interbank exposures**, since there is no overall exposure limit but only bank-to-bank ceiling. There is, however, the EU directive on large exposures, which also requires the limitations to be applied on a consolidated basis.
  - To continue **using stress tests in the banking and insurance sectors** to monitor the situation and intervene to stem potential problems.
  - To improve the capacity of the **insurance** supervisory authority. In particular, the authorities should: (a) consider increasing the size of the CAA staff to supervise, in particular, the life and reinsurance sectors; (b) use the asset liability management stress tests on a regular basis; and (c) establish a regular process of exchange of information between the prosecutor and the CAA once a suspicious activity is reported and the prosecutor is taking action to address the report.
  - To complete the ongoing work to develop and introduce an internal **Code of Conduct for CSSF** staff regarding trading and holding of securities.

## II. OVERVIEW OF THE FINANCIAL SYSTEM

### A. Institutions and Market Infrastructure

9. *Luxembourg is a large international financial center in which credit institutions and investment funds are the dominant sectors accounting for about 97 percent of total assets* (Table 1). As of December 2001, the banking sector was composed of 189 banks and accounted for about 43 percent of total financial sector assets. Foreign-owned banks accounted for about 94 percent of total bank assets. Luxembourg is the second largest investment funds center in the world after the United States, and the largest in terms of funds managed and distributed internationally. At the end of December 2001, there were

1,908 UCITS with a net asset value of 928 billion euros, which represents about 55 percent of total financial sector assets. The investment funds sector benefits from synergies with the international banking center, which is instrumental in the distribution of funds. Luxembourg is the largest center for EU cross-border life insurance business, but overall the insurance sector is small in Luxembourg (about 2 percent of total financial sector assets) and in relation to the European Market. The Financial Sector Professionals (FSPs) licensed in Luxembourg comprise commission agents, private portfolio managers, and distributors of investment fund units, as well as financial advisors, brokers, custodians, and private pension funds. The size of this sector, as measured by its fraction of total financial assets, is very small.

Table 1. Luxembourg: Financial Sector Structure, December 2001

	Number of Institutions	Financial Sector Assets		Financial Sector Assets (As Percent of GDP)
		Billion of euros	Percent	
Credit institutions	189	721.0	42.6	3,134.8
of which Luxembourg owned	4	39.2	2.3	170.4
Insurance and reinsurance corporations 1/	357	40.7	2.4	176.9
Of which foreign owned	253			
Investment funds (all from foreign origins)	1,908	928.4	54.9	4,036.5
Other financial sector professionals	145	2.5	0.1	10.8
Total	2,599	1,692.6	100	7,359.1

Source: Commission de Surveillance du Secteur Financier and Commissariat aux Assurances.

1/ As of December 2000.

10. *Subsidiaries of foreign banks incorporated in Luxembourg dominate the banking sector, with German, Belgian, and French subsidiaries recording the largest total bank asset share* (Tables 2 and 3). The share of total bank assets of foreign subsidiaries has increased from 69 percent in 1998 to about 76 percent in December 2001, while foreign branches' share has declined from 25 percent to 18 percent during the same period. This trend indicates foreign banks' increasing use of the international financial center for the international provision of a wide variety of financial services (e.g., as asset management, private banking, and portfolio management), in addition to the more traditional use of the center as a source of funding. The large presence of EU banks' branches reflects the prerogatives of the EU passport established in 1994, which allows a EU-licensed bank to operate a branch in any other EU country without applying for a separate license. Domestic banks account for about 6 percent of total bank asset as of December 2001, the most prominent of which is the Banque et Caisse d'Epargne de l'Etat (BCEE), a state-owned savings bank, which accounts for more than 75 percent of domestic banks total assets, and is the main provider of credit to the domestic economy.

Table 2. Luxembourg: Banking System Structure

	Dec-98	Dec-99	Dec-00	Dec-01
(In percent of total assets)				
Domestic banks	5.6	5.4	5.5	5.5
Foreign subsidiaries	69.1	71.7	73.9	76.4
Foreign branches	25.3	22.8	20.5	18.1
Of which:				
EU branches	24.2	21.7	19.3	18.0

Source: Commission de Surveillance du Secteur Financier.

Table 3. Luxembourg: Geographical Origin of Banks

(As of December 2001)

Country	Number of Banks 1/	Share of Total Assets
Luxembourg	4	5.5
Germany	59	47.1
Belgium	16	16.0
France	17	14.3
Italy	21	7.0
Switzerland	12	3.1
Scandinavia	10	1.8
United Kingdom	6	1.1
United States	9	0.7
Japan	5	0.3
Other countries	30	3.1

Source: Commission de Surveillance du Secteur Financier.

1/ By country of final ownership.

11. ***Both the investment funds and the banking sectors have grown considerably in recent years.*** The number of investment funds has grown about 20 percent annually and their net assets have increased about four times during the last seven years. Luxembourg bank activities have expanded notably through increased credits to counterparts in the European Union, while the number of banks has slightly decreased. Luxembourg banks have also been traditionally active in the interbank market, which is the fourth largest in Europe. Their growth has been fueled by comparative advantages associated with central geographic location, multilingual specialized workforce, favorable business, as well as with the absence of a withholding tax on interest revenues that has driven in part a sustained flow of nonresidents' funds.

12. ***The Luxembourg insurance industry is dominated by rapidly growing subsidiaries of EU insurance groups, mostly geared to cross-border EU business, which accounts for almost 90 percent of premium income.*** Life insurance is currently the dominant sector, with 62 percent of total premium income of the Luxembourg insurance sector. In terms of premiums, the life insurance segment of the industry has grown considerably, both in absolute terms and in relation to the non-life segment. Most insurance companies are foreign-controlled, shareholder owned, and part of financial groups that often include banks. Foreign-controlled companies account for about two-thirds of gross premiums and about three-quarters of investment assets.

13. ***The Luxembourg Stock Exchange (LSEx) lists and trades mainly bonds, equities, UCITS and warrants.*** Its members are either credit institutions (mostly major international banks) or brokers. LSEx has evolved into a leading listing center for eurobonds. Of the 23,438 securities listed at year-end 2001, some 70 percent was made up by bonds. The majority of other listings consisted of undertakings for collective investments and warrants; only 278 stocks (of which 224 are foreign) are listed. Its present trading system, SAM (*Système Automatisé de Marché*), was launched in 1996. It is fully automated with remote members and links to Euronext, the exchanges of the two other Benelux countries (Belgium and the Netherlands) and the Paris exchange.

14. ***Luxembourg is among the largest global financial centers for international bonds issuance and bond listings.*** In 2001, the Luxembourg Stock Exchange listed about 65 percent of all international bonds listed in the EU. Fast implementation of EU directives, a flexible legal framework, and the speed at which the center can process and approve listings have supported primary market activity growth in Luxembourg. The presence of many international banks has also contributed to the development of an international syndicated bond market. One new growing niche, albeit still small, is the mortgage bond (*Pfandbriefe*, covered bonds or *lettres de gage*) market. By an amendment in 1998 of the 1985 UCITS directive, investment funds were allowed to invest up to 25 percent of their funds into mortgage bonds. However, investment funds could only invest in Luxembourg mortgage bonds from 1997 onward, when Luxembourg legislation set up mortgage bond banks.

15. ***Equity listings are less substantial, with a market capitalization equivalent to almost 12 percent of the market value of bonds issued.*** At end-2001, foreign equities account for over 90 percent of capitalization of equity issues. In comparison, the amount of domestic equities issued is small (27 billion euros), but it is large relative to GDP (about 120 percent) indicating a strong level of development of domestic equity markets. By contrast, there is relatively little secondary market activity on the LSEx, since most issues are traded by investment funds and international banks mainly over-the-counter.

16. ***The Luxembourg payment systems infrastructure has changed considerably with the creation of LIPS-Gross and TARGET at the beginning of European monetary union in early 1999.*** Currently, Luxembourg has two payment systems, an RTGS (Real-Time Gross Settlement) system called LIPS-Gross and a net settlement system called LIPS-Net. Both systems have been designated as systems governed by the law implementing the EU

Settlement Finality Directive and have been notified to the European Commission. (Clearstream Banking S.A. is also designated under the above-mentioned law and notified to the Commission). LIPS-Gross is a domestic RTGS system, but it is also part of the EU-wide RTGS system TARGET. LIPS-Net is a net settlement system with five clearing and settlement cycles during the day. Settlement takes place over accounts in LIPS-Gross.

17. ***The securities settlement system in Luxembourg is managed by Clearstream Banking Luxembourg SA (CBL), a subsidiary of the Luxembourg-incorporated Clearstream International.*** CBL's core business consists of acting as a depository and providing clearing and settlement services in respect to securities deposited with CBL. The other banking activities of CBL are limited to facilitating its settlement and clearing services. Membership in CBL is open to banks, broker-dealers, investment banks, and central banks. Over 125,000 securities and 40 currencies are currently accepted for settlement in CBL; instruments include short- and medium-term paper, bonds, warrants, equities, investment funds, and precious metals.

## **B. Regulation and Supervision**

18. ***The Luxembourg financial services legal framework covers all the activities provided by the financial services industry; no distinctions are made in the legislation and regulations between onshore and offshore activities.*** The legal system of Luxembourg is governed by the Constitution, laws, and regulations, including EU laws, and by the international treaties to which Luxembourg is a party. Luxembourg financial sector laws are modeled to a large extent by EU directives relating to the financial sector.

19. ***Regulation and prudential supervision for banking activities is the sole responsibility of the Commission de Surveillance du Secteur Financier.*** The CSSF Law of December 1998 and the Financial Sector Law of April 1993 are the laws governing the supervisory responsibilities and objectives for the CSSF. All banks operating in Luxembourg and falling under the supervision of the CSSF can carry out a banking business in the other member states of the European Union, either by the establishment of a branch or by way of direct delivery of banking services. Luxembourg's legislation does not distinguish between domestic and non-domestic financial services and its tax treatment is identical for all banks.

20. ***The CSSF is also the competent authority for the supervision of the activity of financial services firms and financial assets markets.*** Its mandate includes the supervision of the activities of undertakings for collective investment, financial operations advisers, brokers, market makers, professional depositories of securities and other financial instruments, and of the activities of the stock exchange. According to the Law of January 12, 2001, the CSSF is in principle the authority competent for the prudential supervision of payment and securities settlement systems, except for the systems in which the BcL or another member of the European System of Central Banks is participating and for which the BcL is the competent authority. In late 2001, the BcL implemented its oversight framework for payment and securities settlements systems. The Minister of Treasury and Budget approves licensing of banks upon CSSF's recommendations.

21. ***The Commissariat aux Assurances is the supervisory authority of the insurance sector and has influential authority over its regulatory framework.*** The Law of December 6, 1991 regulates the legal framework of the insurance sector in Luxembourg, which is essentially based on the EC directives issued in the past decades. There are very tight links between the CAA, which is in charge of ongoing supervision, and the legislator, whose texts are usually prepared by the CAA. Indeed, the CAA is influential over the setting up of new regulations. The licensing or license withdrawing process by the Ministry of Treasury and Budget is proposed by the CAA.

22. ***The Banque Centrale du Luxembourg has the status of a national central bank in the European System of Central Banks.*** The BcL was established in June 1998 in view of Luxembourg's entry into the European Monetary Union. The BcL contributes to the smooth operation of payment and securities settlement systems. In addition, the central bank has responsibilities regarding financial stability, macroprudential surveillance, financial statistics, and the compilation of the balance of payments, assigned by a law to the BcL and the national statistics office, Statec. The BcL, as a member of the ESCB, follows the ECB statute on the provision of emergency liquidity assistance. The Law of December 23, 1998 concerning the monetary status and the Central Bank of Luxembourg requires that all lending by the BcL be adequately collateralized.

23. ***Luxembourg's mutual deposit insurance system, which was established in January 1990, is managed by the Association pour la Garantie des Dépôts du Luxembourg (AGDL), a non-profit organization.*** All credit institutions must participate in the system in order to be licensed. The AGDL provides a guarantee that covers deposits and negotiable debt instruments up to a maximum of EUR 20,000 per depositor and per currency, but does not cover interbank deposits and subordinated debt. Member credit institutions are required to contribute only when needed, and contributions are proportional to members' total eligible deposits. Luxembourg branches of foreign financial institutions are covered by the AGDL, except for EU branches, which are covered by the system applicable in their home country. The BCCI failure in 1991 was the only event that led to a payment to depositors by the AGDL.

### **C. Anti-Money Laundering Policies**

24. Notwithstanding the adequate AML framework in place in Luxembourg, the mission noted in early October 2001 some weaknesses. To address new EU directives and the FSAP mission observations, and aware of the role and the vulnerability of the financial system with respect to criminal and terrorist activities, the Luxembourg authorities have promptly adopted a comprehensive AML Action Plan. While considerable progress has already been made in the plan's execution, it will be important to rapidly complete its implementation. The main actions undertaken by the authorities are indicated below and in Box 1.

### **Actions by the Government**

25. The Minister of the Treasury and the Budget takes overall responsibility for coordinating anti-money laundering actions with a view to ensuring consistency between sectors and amongst participants. To this end, the Minister has invited the CSSF to set up, under the chairmanship of the CSSF, a joint AML steering committee comprising the supervisory authorities, the law enforcement authorities, the FIU, and representatives of all financial professions as well as of all other professions under the scope of EU anti-money laundering directives. Each representative of the committee is responsible for consulting on and then applying a common approach to strengthen Luxembourg's AML regime and to address the deficiencies identified in the assessment of the AML regime by the FSAP mission. The steering committee will advise the Government on spelling out its anti-money laundering policies.

### **Actions by the Ministry of Justice/Public Prosecutor/FIU**

26. The Ministry has undertaken a very comprehensive plan, which addresses:

- **Legislation:** The Ministry of Justice is in charge of translating the amended EU Directive on AML into national law. To that effect, it has put together a working group with representatives of the Ministry of Finance, the Prosecutor, and the CSSF. It is intended that a draft law be submitted to the Luxembourg parliament during summer 2002. Attention is drawn to the fact that the Luxembourg legislation is already broadly in conformity with the EU directive since: (a) the following professions have already been added to the list of professionals covered by the Luxembourg legislation: casinos, notaries, statutory auditors, domiciliation agents; and (b) additional underlying criminal activities have been added to the list of crimes covered by the Luxembourg Anti-Money Laundering Law (organized crime, corruption, traffic of human beings, infractions against weapons and ammunitions laws). Furthermore, the Council of Government has adopted a draft law in which acts of terrorism, constitution of terrorist groups, and financing of terrorist activities are also considered as underlying criminal activities.
- **Guidance to the industry:** The Public Prosecutor will revisit and then keep up to date its regulatory and other guidance to the industry. Particular emphasis will be directed to keeping authorities and the industry up to date with experience gained in AML crime, both in Luxembourg and elsewhere. Specifically, the Prosecutor's circular on money laundering will be updated in the context of the transposition of the EU directive on AML. Further, the newly created high level task force on the fight against money laundering within the CSSF will be the ideal forum in which the Prosecutor will share with the representatives of all the professional organizations represented the experience gained in the fight against money laundering in Luxembourg and in international fora.

- **Organization of the FIU:** The Government's intention is to provide the unit in charge of the fight against money laundering with the appropriate structure and sufficient human resources. The Minister of Justice is currently making active consultations with all the parties involved in this respect. As a result of the Law of July 24, 2001 setting a pluri-annual recruitment program for the judicial organization there will be an increase by 20 percent of the staff of the Prosecutor's office until 2004.

In addition, in order to improve the collaboration with other FIUs, Luxembourg already participates in the pilot project of the FIU-NET automating the processing of queries between FIUs. In this area it is Luxembourg's intention to replace the current database used by the AML Unit by a new software, which would enable the professionals to make declarations via electronic means and, thus, to automatically feed the database of the AML Unit.

#### **Actions by the supervisory authorities**

27. Each supervisory authority has set up a committee to deal with AML activities. They cover the following points:

- Each authority will revisit and then keep up to date its regulatory and other guidance to the industry to ensure that clear, consistent, and sufficiently detailed guidance is given on the application of all anti-money laundering legislation.
- Each authority will revise accordingly its processes for on-site inspections and its instructions to external auditors, to reinforce a common synergy and effectiveness for anti-money laundering compliance. The program for on-site visits will consider an appropriate prioritization of those institutions that pose a higher risk of money laundering, with the focus on an early assessment of compliance and prompt action plans.
- Each authority will ensure that appropriate training is provided both to its own staff, and by licensed entities to their staff, on all AML techniques, especially new developments.
- The Annual Reports of the authorities will highlight the importance to be attached to the prevention of money laundering and include a detailed accounting of developments and experiences. The discussion will encompass a breakdown of experiences by regulated sector, e.g., banks, securities brokers, and insurance agents.

## Box 1. Anti-Money Laundering Policies

### Specific actions taken by the CSSF

- **Awareness campaign for credit institutions:** The CSSF took a three-pronged approach in its direct relations with credit institutions. On December 19, 2001, the CSSF issued a circular letter to credit institutions, explaining in a practical and detailed way the obligations of credit institutions for complying with the AML provisions of Circular 01/40 issued in November 2001 following the first visit of the FSAP mission and aimed at strengthening the report of suspicious activities. While the main objective of the circular letter is to obtain the information needed for an update of the implementation of the requirements contained in CSSF Circular 01/40, the bulk of the circular letter illustratively describes those requirements that should be introduced in the banks' procedures manuals on anti-money laundering action. The circular letter was published on the CSSF website in order to have the necessary publicity impact.

After this information gathering phase, the CSSF began to assess the new procedures that the banks have instituted in response to Circular 01/40. The deadline for forwarding the new procedures was January 31, 2002, and the CSSF is currently making initial assessments of those procedures that have been forwarded to it. Centralized processing of the information received will establish a pertinent benchmark that will serve as a common denominator for checking the appropriateness of the procedures established by the various banks. This will be sent to those banks whose procedures were not deemed appropriate by the CSSF.

In addition to the two steps above, an intensive phase of on-site audits began in February 2002. This program is to cover some 20 relevant banks. A questionnaire (an integral part of the CSSF procedures manual) was prepared for this purpose, so that on-site money laundering audits could be standardized as far as possible. CSSF officials were required to assess the level of employee awareness of money laundering issues and the attention paid to such matters by bank officials. On-site audits are necessary for receiving initial feedback on the banks' experiences in implementing the new provisions that enhance anti-money laundering efforts.

- **Awareness campaign for professional associations:** On January 18, 2002, the CSSF wrote the Luxembourg Association of Banks and Bankers (ABBL) president, drawing his attention to the importance his association should give to anti-money laundering action and the efforts at drawing acute awareness to the importance of this problem to the banks' highest level officers and employees.

In a letter of January 14, 2002, the CSSF asked the Institute of Corporate Auditors (IRE), given the key role played by auditors in banking supervision, to adapt professional procedures to take account of CSSF Circular 01/40 and the related circular letter, in particular with a view to establishing analytical reports on the practical rules governing the mission of corporate auditors. Similarly, the CSSF asked the IRE to adapt its audit questionnaire to take account of all the recent circulars on AML actions.

### Others

- A letter to the ABBL to: (a) request it to increase its anti-money laundering training (currently only 0.6 days of training); and (b) call upon it to increase information/ awareness at the management level (using seminars, and Profil/Codeplafi).
- A letter to the IRE to request updating of the AML questionnaires and to ask for specific comments on the implementation of Circular 01/40 to be published in the 2001 annual report.

### Box 1. Anti-Money Laundering Policies (Continued)

- An internal action program, comprising (i) the creation of an AML unit to coordinate the CSSF action; (ii) an analysis and assessment of the response to Circular 01/40; (iii) personnel training (on-the-job and external); (iv) a change in the procedures for AML audits; and (v) establishment of a program of on-site audits, based on Circular 01/40 and the quality of customer identification.
- The creation of a CSSF consultative committee to facilitate coordination between various ways of implementing the AML regulations; the publication of a letter clarifying Circular 01/40 (to be inserted in the next *Newsletter*); an in-depth study of the action taken against money laundering, to be published in the 2001 annual report; an evaluation of current "prevention" practices, and in particular of the significance of the limited number of declarations; and the participation in external initiatives (e.g., steering groups).

#### Specific actions taken by the CAA

An ad-hoc committee has been created in order to address the following areas:

- **Legislation:** The CAA is reevaluating existing legislation on the life insurance to assess its effectiveness in the AML area; in particular, to modify and extend the coverage also to non-life insurance, reinsurance, and to insurance intermediaries. A proposal will be submitted to the Government.
- **Cooperation with the judicial authorities:** The CAA is reevaluating existing procedures in an effort to achieve a full and satisfactory cooperation among all participants in the industry and the judicial authorities.
- **Training:** The CAA is considering providing specific training/seminars in AML to the industry participants.

#### Specific actions taken by the banking sector

The ABBL is acting on three different levels:

- **Standardization of the procedures:** Implementation of the rules of law in the AML field has revealed differences in interpretation between individual financial establishments due notably to the excessively fast evolution of legislation. Moreover, banks that are member companies of groups established in many different countries adopt internal AML procedures to control money laundering which may vary according to the culture of their country of origin. In order to remove these differences and assure more uniform application by the banks, a special committee on "Professional obligations" has been set up within the ABBL. Its mission will be to compare the internal procedures, to draw an inventory of the rules applied by individual banks and to detect eventual loopholes in the prevention of money laundering. This broad and detailed survey will lay the foundation for a standard of rules at the highest possible level.

The aimed outcome is to set up clear and comprehensive guidelines that will be fixed in the ABBL code of ethics and by that declared binding on all the members of the Association.

**Adaptation of training programs:** Training in action to prevent money laundering has always been an important and integral part of the in-service training for bank staff provided by the Association's Institute for Training in Banking (IFBL).

### Box 1. Anti-Money Laundering Policies (Continued)

In 2001, some 2,919 participants enrolled at IFBL special training sessions dedicated to the prevention of money laundering. In the future, this training will incorporate the guidelines elaborated by the special Committee on "Professional obligations," over and above the existing legislation and prudential rules.

Basic courses at the induction training stage for staff will lay the foundation for the prevention of use of the financial system for money laundering purposes. To ensure the professional standard of this training and to promote it as a kind of a label of quality, these specific AML training courses will lead up to a diploma attesting success in the final examination.

- **Awareness creation for decision makers:** The success of this policy also depends on the creation of a general awareness of money laundering problems at different levels. The target decision makers in this field will be executives on the top row; but they will also be individuals holding technical jobs in their banks.

The intention is to organize regular meetings between decision makers in the banks and other financial sector professionals established in Luxembourg. The purpose of these meetings will be to take stock of laws, regulations, and internal procedures currently in force and future developments at both international and national level. The meetings will also serve as a forum for a dialogue with the public prosecutor's office, the FIU and the CSSF.

#### **Specific actions taken by representatives of the professions concerned**

Each profession concerned about the fight against money laundering and represented on the steering committee has given commitments on actions to be undertaken. The records of the minutes of the steering committee providing details were given to the FSAP mission.

- Each profession will be proactive and revisit guidance issued to its membership ensuring that it reflects current legislation, regulation, and best practices. The guidance will draw on local and where needed on cross-country experience for jurisdictions with similar characteristics.
- Each profession will be responsible for promoting a high awareness of the prevention of money laundering among its membership and arrange appropriate training on preventative techniques. The training initiative will include a program for continuous professional development in this area.
- Professional organizations will organize events and workshops for their members in order to raise their awareness of the Anti-Money Laundering Legislation. In particular a conference is already planned by the IRE in conjunction with the IACI Luxembourg (Institut des Auditeurs-Conseils Internes) during which representatives of the Prosecutor's office will intervene.
- In order to demonstrate the need to enhance the level of suspicious transaction reporting, and in conjunction with the FIU, cross-country analysis of reporting trends will be conducted.

### III. THE MACROECONOMIC ENVIRONMENT

#### A. Recent Macroeconomic Developments

28. *Luxembourg's impressive growth performance in the past four years has been driven by a quickly expanding financial sector and related services.* Luxembourg has witnessed an average annual real GDP growth of 5.7 percent in the last four years, low inflation and interest rates, a prudent fiscal policy, and a current account surplus (Table 4). This growth was led by exports and by a flourishing financial sector. National CPI inflation fell during the 1990s, and interest rates have also declined since the mid-1990s, following a period of disinflation. Prudent fiscal policy yielded an average consolidated general government surplus of 2.7 percent of GDP during the 1990s and is expected to register a surplus close to 5 percent of GDP in 2001. As a result, gross debt is estimated to have fallen to about 5.7 percent of GDP, and net financial assets of the public sector to have attained about 50 percent of GDP. Since 1992, the current account has been consistently in surplus. According to Statec data, the rapid growth in the financial sector and related services has had a strong positive impact on the macroeconomic performance of Luxembourg. The share of value added of financial intermediation and insurance was estimated at 22 percent on the basis of the first three quarters of 2001, and the financial sector value added has grown at an annual rate of 9 percent in 1990–1995, and 7 percent in 1995–2000.

29. *The decade-long sustained growth performance has led to a strong rise in employment primarily driven by financial sector employment growth.* Total employment grew by about 30 percent between 1995 and 2001, while employment in the financial sector increased about 53 percent during the same period. While workers residing in the neighboring countries took up most of the new jobs, bringing their share in salaried employment to 37 percent, domestic employment grew as well. This has led to a decline in unemployment to about 2.5 percent in 2001.

#### B. Macroeconomic Sources of Risks to Financial Stability

30. *Adverse domestic macroeconomic events have a limited potential for undermining overall financial stability owing to the small exposures of the Luxembourg banking sector to the domestic economy.* Lending to the domestic sector is mainly carried out by three banks, the Luxembourg state-owned bank BCEE, Banque Generale du Luxembourg (BGL), and Dexia Banque Internationale à Luxembourg (DBIL). BCEE's portion of lending to the domestic sector is the largest among the three banks and accounts for about one half of its lending portfolio. Mortgage lending accounts for the bulk of loans to domestic customers of BCEE and DBIL, while BGL lending is more tilted toward the domestic industrial sector. Other domestic lending primarily consists of revolving credits and consumer loans to individuals, as well as short-term facilities for local businesses. Overall, exposures to the domestic industrial sector remain limited. As detailed below in chapter IV, even a severe deterioration of domestic macroeconomic conditions leading to a sharp rise in non-performing loans is likely to marginally affect banks' capital position.

Table 4. Luxembourg: Main Economic Indicators

	1998	1999	2000	2001	2002 /1
<b>Real economy (change in percent)</b>					
Real GDP	5.8	6.0	7.5	3.5	2.7
Harmonized CPI (year average)	1.0	1.0	3.2	2.7	2.0
Unemployment rate (in percent)	3.1	2.9	2.6	2.6	2.9
Gross national saving (percent of GDP)	38.6	35.4	31.6	22.9	28.1
Gross domestic investment (percent of GDP)	22.0	24.7	22.9	22.3	21.7
<b>Public finance (percent of GDP)</b>					
General government balance	3.2	3.8	5.8	5.2	1.0
General government gross debt	6.3	6.1	5.7	5.7	4.9
<b>Money and credit</b>					
M3 (end of year, percent change) 2/	8.6	...	...	...	...
<b>Interest rates (in percent)</b>					
Money market rate 3/	3.8	3.0	4.4	4.3	...
Government bond yield	4.7	4.7	5.5	5.1	...
<b>Balance of payments (in percent of GDP)</b>					
Trade balance (percent of GDP)	-12.2	-13.2	-12.5	-12.5	-13.5
Current account (percent of GDP)	8.8	6.5	8.2	4.6	4.1
<b>Fund position (September 30, 2001)</b>					
Holdings of currency (percent of quota)				64.6	
Holdings of SDR (percent of allocation)				31.4	
Quota (SDR million)				279.1	
<b>Exchange rates</b>					
U.S. dollar per euro	...	1.07	0.92	0.90	...
Nominal effective rate (1995=100)	96.7	96.5	95.5	95.4	...
Real effective rate (1995=100) 4/	95.7	95.5	95.3	95.5	...

Sources: Data provided by the authorities; OECD; IMF, International Financial Statistics; and IMF staff estimates.

1/ Staff projections.

2/ Monetary aggregates are no longer calculated for Luxembourg following its joining the European Economic and Monetary Union in 1999.

3/ Until 1998, Belgian six-month MMR, later deposits in euro.

4/ CPI-based.

5/ For 2001, reflecting the January–October average.

6/ CPI-based.

31. ***Risks stemming from capital flows in and out of the euro area and possible changes in the euro exchange rate vis-à-vis other major currencies are not quantitatively important at present.*** The currency denominations of Luxembourg's banks' aggregate assets match those of the liabilities to a high degree. As of end-2001, some 60 percent of assets and 55 percent of liabilities were denominated in euro, and 25 percent of assets and 31 percent of liabilities were denominated in U.S. dollars, with other currencies being matched very closely on the asset and the liability sides. Thus, even a 20 percent devaluation of the euro against the dollar and all other currencies would generate losses with only a marginal impact on Luxembourg banks' capital position.

32. ***As Luxembourg banks are strongly linked to major industrialized European countries, macroeconomic developments in these countries could affect the financial sector stability in Luxembourg.*** A cyclical slowdown in Europe would tend to directly reduce revenues from interest rate margins and may lead to increases in nonperforming loans. These effects, however, are mitigated by the extent of diversification of banks' activities across countries. Declining equity values associated with such a downturn could also lead to drops in financial wealth that might entail a reduction in banks' commissions and fees. Indirect adverse effects could arise from difficulties of other major banks to which Luxembourg banks are most exposed via liquidity disruptions and or debt defaults in the interbank market, or through credits extended to other banks. The effects of such links are evaluated in chapter IV.

33. ***In the long term, the Luxembourg macroeconomic outlook might be affected by the potential reduction in the level of domestic activities caused by the introduction of taxes on cross-border interest income.*** In the past, the absence of withholding taxes on investment accounts has represented a source of comparative advantage for Luxembourg intermediaries, in part contributing to the rapid development of the financial sector. A future EU directive may bring the gradual elimination of this comparative advantage, potentially leading to lower GDP growth and increased unemployment due to a lower level of activity. However, the Luxembourg authorities, as well as several market participants believe that if withholding taxes on interest income are introduced at the same time in other countries, the Luxembourg financial center will remain attractive owing to the comparative advantages associated with its efficiency, multilingual skilled labor force, favorable business climate, and specialized services. This optimistic outlook appears justified if Luxembourg's financial sector continues to remain competitive and attractive for investors.

#### IV. VULNERABILITIES AND SOUNDNESS OF THE FINANCIAL SYSTEM

##### A. The Banking Sector

34. ***Exposures to European financial institutions and corporations are the most important potential sources of vulnerabilities for Luxembourg banks.*** According to end-2001 data, about 50 percent of banks' assets were loans and advances to credit institutions, mainly European financial groups. About two-thirds of interbank lending and borrowing

activities of Luxembourg subsidiaries are toward the financial groups to which they belong. Loans and advances to customers, mainly European corporates, represented about 20 percent of total assets. Interbank and customer deposits were the main sources of funds, with the former accounting for about 48 percent, and the latter accounting to about 31 percent of total assets.

35. ***The Luxembourg banking system is at present well capitalized.*** (Table 5). Luxembourg banks exhibit regulatory capital levels well above the regulatory minima, both in terms of total capital as well as Tier 1 capital. The regulatory capital ratio has increased from 12.6 percent to 14.2 percent in the past four years, and a large fraction is composed of Tier 1 capital. Nonperforming loans (NPLs) have been at very low levels and stable since 1998. As of end-December 2001, the NPLs of Luxembourg banks were reportedly only about 0.5 percent of aggregate loan values. In addition, the level of provisioning has consistently increased, as the ratio of NPLs net of provisions to capital has declined since 1998.

36. ***Luxembourg bank profitability has remained stable in the past decade, and bank costs compare very favorably to those of their European peers.*** Non-interest income relative to gross income has remained stable in the past four years, although it still exhibits a long-term upward trend. As of end-December 2001, traditional intermediation generated about 46 percent of income. Luxembourg banks exhibit operating cost-to-income ratios between 15 and 25 percent lower than their German, French, Belgian, and Italian counterparts.

37. ***The liquidity position of the Luxembourg banking system is strong.*** As gauged by standard indicators, Luxembourg banks' liquidity is high. In addition, banks' statutory liquidity ratios are considerably higher than the minimum, currently set at 30 percent. Banks retain a significant portion of their portfolios in liquid assets or marketable debt instruments. This is largely the result of their orientation toward low risk-high volume intermediation. In addition, the recent introduction of a statutory minimum ratio of liquid assets to liabilities of no less than 1 for the short-term maturity band (up to one month) makes Luxembourg banks more resilient to liquidity risk.

38. ***Luxembourg banks' exposures to interest rate risk, exchange rate risk and drops in equity values do not represent a concern at present.*** On a maturity gap basis, the Luxembourg banking system exhibits longer maturities on the asset side of their securities portfolios, with fixed-income securities representing the bulk of Luxembourg banks' bond portfolios. Interest rate risk exposures appear at present contained given the relatively small size of the maturity gap and the compensating interest rate derivatives that provide hedges of such risks. The net open foreign exchange positions of banks are concentrated on the U.S. dollar, and remain fairly small with respect to the other major currencies. Given the small size of on-balance sheet net open positions relative to capital and hedging through foreign exchange derivatives, foreign exchange exposures do not appear to pose at present significant risks. Likewise, the small equity holdings of Luxembourg banks make them very resilient to adverse shocks arising from these sources.

Table 5. Luxembourg: Financial Soundness Indicators for the Banking Sector, Excluding European Union Branches, 1998–2001

(In percent)

	Dec-98	Dec-99	Dec-00	Dec-01
<i>Capital Adequacy</i>				
Regulatory capital to risk-weighted assets	12.6	13.4	13.4	14.2
Regulatory Tier I capital to risk-weighted assets	10.0	11.0	11.3	11.6
Tier I capital to assets	3.5	3.8	3.9	3.8
<i>Asset Quality</i>				
NPLs to gross loans 1/	0.51	0.46	0.52	0.52
NPLs net of provisions to capital	4.2	3.5	3.3	3.2
<i>Earnings and Profitability</i>				
Return on Assets	0.6	0.4	0.4	0.5
Return on Equity	15.6	10.1	11.1	12.1
Net interest income to gross income	44.2	50.7	45.7	45.6
Non-interest income to gross income	55.8	49.3	54.3	54.4
Trading income to gross income 2/	11.1	7.4	7.9	5.7
Personnel expenses to non-interest expenses	47.8	48.2	47.2	47.2
<i>Liquidity</i>				
Liquid assets to total assets 3/	79.1	77.7	77.8	77.0
Statutory liquidity ratio 4/	69.0	62.0	61.0	60.2
Liquid assets to total deposits	225.1	232.5	218.5	244.2
Customer deposits to total (non-interbank) loans	168.3	150.3	160.6	156.5

Sources: Commission de Surveillance du Secteur Financier.

1/ Nonperforming loans include: (i) *doubtful but performing debts* (debt regularly serviced, but where the quality of the debtor indicates the risk of possible or probable default in the future, and debts that have been in default in the past but which have been renegotiated), (ii) *nonperforming debts* (debts where interest is being serviced irregularly or where payments have been interrupted without there being any definite signs that repayment of the principal sum is in doubt), and (iii) *irrecoverable debts* (debts in default as to repayment of principal, where renegotiation is either unlikely or impossible).

2/ Trading from securities and foreign exchange.

3/ Liquid assets include cash, central bank deposits, interbank loans, and securities.

4/ The regulatory liquidity ratio is calculated as liquid assets to current liabilities. Liquid assets include cash, loans, and advances to the central bank, loans to credit institutions payable on demand and statutory fractions of debt securities and fixed-income instruments issued by public bodies and credit institutions. Current liabilities include amounts owed to the central bank, credit institutions, and customers; debts evidenced by certificates; and other liabilities.

## B. Banking Stress-Testing Exercises

39. *The CSSF regularly monitors bank exposures to relevant economic sectors or countries and uses stress testing exercises to gauge bank vulnerabilities in order to take corrective actions if necessary.* The frequency of bank surveys to this purpose has been

increasing over the last three years. The objectives of the CSSF monitoring activities include the identification of banks with risk profiles significantly diverging from those of their peers, the analysis of systemic risk potential, country risk monitoring on an annual basis for bank exposures to certain risk countries, and surveys of banks' risk and liquidity management systems.

40. ***Stress tests of exposures to domestic sectors of the subset of Luxembourg banks engaged in domestic lending were not judged relevant in assessing the current systemic risk potential of the banking system.*** The banks operating in the domestic market exhibit small domestic exposures relative to their assets and capital levels. In fact, an upper bound estimate of the fraction of lending to the domestic sector of the three systemically important banks engaged in domestic lending (BCEE, BGL and DBIL) is about 10 percent of their total assets. An upper-bound estimate of the NPLs relative to domestic loans is 3 percent. Even under the extreme assumption of a doubling of NPLs associated with domestic loans, each of these three banks would confront only a small negative impact on their capital position; none of these banks would experience a decrease in regulatory capital ratios below the 8 percent minimum.

41. ***A series of stress-testing exercises performed by the CSSF quantify the potential vulnerabilities of the banking sector to those international risk factors deemed relevant according to current exposures data.*** Credit risk stress tests were conducted on current on-balance and off-balance sheet exposures associated with sectors currently in financial distress (telecom) and adversely affected by the September 11 events (airline and aerospace, insurance, tourism, and car rental). Country risk stress tests were conducted on current government bonds, loans and credit lines, and equity participation exposures to emerging market and developing countries in four world regions. Interbank risk stress tests were conducted on current exposures of Luxembourg banks to major financial groups through the interbank market.

42. ***The credit risk stress tests suggest that the banking sector in Luxembourg is currently fairly robust to major shocks arising from their exposures to foreign corporations*** (Box 2). The credit risk stress tests estimates suggest that losses raising supervisory concerns arise only under very extreme scenarios. Losses appear concentrated only in few institutions and their size does not jeopardize the solvency of systemically important institutions. Thus, systemic risk potential originating in exposures to sectors currently under stress is not a concern for Luxembourg banks at present.

43. ***The country risk stress tests suggest that the banking sector in Luxembourg is fairly robust to major shocks arising from their exposures to emerging and developing countries*** (Box 3). The country risk stress tests estimates suggest that small potential losses for few institutions may arise only under very extreme scenarios, and are mostly absorbed by the currently high levels of special "lump-sum" provisions accumulated since 1998 in the aftermath of the Asian crisis. Thus, systemic risk potential originating in exposures to emerging and developing countries is not a concern for Luxembourg banks at present.

## Box 2. Credit Risk Stress Tests

The credit risk stress tests were carried out using end-June 2001 data, and were performed again with end-December 2001 data. The tests were carried out on a sample of 20 systemically important banks, selected according to their credit activities and supervisory information on on-balance and off-balance sheet exposures to sectors currently in financial distress (telecom), and adversely affected by September 11th events (airline, insurance, tourism and car-rental). Information on exposures was collected through quarterly surveys. Shock assumptions were constructed to make the tests rather extreme, thereby providing an upper bound on losses. The effects of the shocks were measured in relation to the capital buffer ratio, defined as the sum of bank regulatory own funds, profit or losses until the end of the stress-test period, and lump sum provisions to risk-weighted assets. Two approaches to stress testing were used: (a) a total loss approach, and (b) a weighted loss approach.

Under the total loss approach, probabilities of defaults and losses given default were assumed to be 100 percent of exposures. Shocks were calculated under four different scenarios: (a) a shock to each sector at a time; (b) a perfectly correlated shock to insurance, airlines and telecommunications; (c) a perfectly correlated shock to insurance, airline, tourism and car-rental services, and (d) a perfectly correlated shock to all sectors. These scenarios are rather extreme, consistently with the "maximum loss approach." Under the weighted loss approach, loss scenarios were constructed with probabilities of defaults and losses given default computed under a downgrade assumption of one entire credit rating grade. Probabilities of defaults were obtained through the Moody's historical transition data (1980-1999) and losses given default were set a 50 percent for rated issues and 100 percent for unrated issues.

As of end-December 2001, under the extreme scenarios considered in the total loss approach, between one and a maximum of 6 banks out of 20 experienced a loss of capital buffer larger than 50 percent. Under the most extreme scenario, a maximum of 2 banks out of 20 resulted insolvent after the shock. Under the more realistic weighted loss scenarios, no bank exhausted its capital buffer base after the shock and under the most severe scenario only 4 banks out of 20 experienced their capital buffer ratios dropping below 8 percent. The total loss approach results based on end-December 2001 data, which are reported in the table below in terms of the distribution of capital ratios prior and after each shock, when compared with end-June 2001 results, exhibit even stronger resilience of Luxembourg banks to credit risk shocks. Thus, Luxembourg systemically important banks do not appear to be critically vulnerable to credit risk shocks to sectors in current financial distress.

Distribution of Capital Ratios of 20 Banks Prior and After Shocks, end-December 2001

Shocks	Prior to Shock	Insurance	Airline	Telecom	Tourism	Correlated Shocks Scenario
< 8%	0	0	1	1	0	2
>=8% and < 10%	5	5	5	4	5	5
>=10% and < 12%	4	4	3	4	4	5
>=12% and < 14%	4	4	4	5	4	2
>=14	7	7	7	6	7	6

### Box 3. Country Risk Stress Tests

This set of tests, based on end-June 2001 data, considered the risks associated with the inability of debts' recovery arising from the political and/or economic situation of emerging market countries which Luxembourg banks are exposed to. Exposures of 20 systemically important banks to major emerging markets in Latin America, Asia, Central and Eastern Europe and Africa were considered. The exposures of the banks surveyed were relatively evenly distributed across regions: 32 percent to Latin America, 28 percent to Central and Eastern Europe, 25 percent to Asia and 15 percent on Africa. Moody's long term cross-country rating ceilings for foreign currency bonds and notes were used to compute probabilities of default, and both a total loss approach and a weighted loss approach of the type described in Box 2 were used.

Under the extreme total loss approach, the shock to each region was assumed to entail a 100 percent loss of the exposure. For this scenario, between 3 and 7 banks out of 20 had their capital reduced, and only a maximum of three banks resulted in a decline in their regulatory capital ratio below 8 percent. The less extreme weighted losses scenarios included both a single rating downgrade and a double rating downgrade. In this case, no bank experienced a decline in regulatory capital below 8 percent, and most banks absorbed the shocks through their provisions.

Exposures to emerging markets were re-examined based on end-December 2001 data. No significant changes in these tests are expected based on these data. In particular, it was verified that exposures of the 20 systemically important banks to Argentina amounted to less than 3 percent of capital funds, and that banks' provisions ranged from 70 percent to 100 percent of such exposures.

44. *The interbank stress test results suggest that Luxembourg banks are resilient to shocks to major financial groups to which they are most exposed through the interbank market, as well as to their contagion effects* (Box 4). Interbank activities represent one of the main potential risks faced by the banks owing to their large exposures. Despite the fact that interbank exposures for some banks appear concentrated on particular financial groups, most banks are resilient to potential defaults on interbank obligations held by major financial groups. Losses appear to be comfortably absorbed by banks' capital. In the aftermath of a shock to each of the financial groups to which Luxembourg banks are exposed, and after the unfolding of their contagion effects, only a few banks would end up with capital levels below the regulatory minima.

## C. Nonbank Financial Institutions

### Insurance sector

45. *Despite some decline in profitability across all the insurance sectors in the last two years, capital levels remain well above regulatory minimums.* The decline in profitability was the result of recent losses in the securities markets, which affected life insurance financial products' income, and increased claims for non-life and reinsurance. Costs have been on a rising trend, partly reflecting spending on new technology.

46. In the life insurance sector, despite rising operating costs and a sharp decline in income from financial products in 2001, solvency (as measured by own funds to non-linked policy holder liabilities) rose, due largely to a fall in non-investment link liabilities. The

### Box 4. Interbank Linkages Stress Tests

Luxembourg banks have been historically very active in interbank markets. Interbank markets are those through which Luxembourg banks' linkages with foreign financial intermediaries are the strongest. In particular, Luxembourg large banks are very active as providers of funds to the interbank market as well as to the international groups they belong to. An important channel through which an international shock is likely to be transmitted to Luxembourg banks is through their credit relationships with correspondent banks, many of which are the parent banks of a group to which a Luxembourg subsidiary belongs. The stress test carried out by the CSSF was meant to capture the implications of potential vulnerabilities to international macroeconomic and financial factors through the web of interbank relationships.

Twenty systemically important banks were selected to carry out this test, based on end-June 2001 data. Their interbank exposures account for 66 percent of interbank loans and 75 percent of interbank deposits. Only interbank loans with maturities of less than 12 months and exceeding 10 percent of own funds were considered; these represent 85 percent of total interbank loans. The exposures of each bank were mapped into exposures to 27 international groups, which account for over 90 percent of the total exposures to some 127 initially identified counterparts. Shocks to these 27 groups, in the form of non-payment of their interbank obligations toward Luxembourg banks, were identified as the main source of risk. Thus, shock assumptions were constructed to make the tests rather extreme, thereby providing an upper bound on losses.

Two scenarios were considered. In the first "no-contagion" scenario, each of the 27 international groups was assumed to be hit by a shock, which caused their failure to honor their interbank obligations. Statistics on the effects on the capital position of Luxembourg banks to the entire set of the 27 shocks to each financial group, one at a time, were examined. The second scenario considered "contagion" effects arising from the impact effects of the set of 27 shocks. Contagion in the interbank market was simulated through an assumed transition matrix of default probabilities constructed on the basis of regulatory capital ratios prior to the shock, which recursively determined default probabilities and shock responses. This scenario was also specified using a range of three values of probabilities of defaults and losses given defaults ranging from a minimum of 50 percent for each to a maximum of 100 per cent for each, to assess the sensitivity of the results to the size of the impact and the transmission effects of the set of 27 shocks to international financial groups.

The results of the tests, in terms of number of banks resulting under-capitalized as a result to sets of shocks to financial groups, are reported in the table below. Under the no-contagion scenario, no bank resulted in being undercapitalized as a consequence of default by 6 groups; only one resulted in being undercapitalized in the case of 5 groups defaulting; 2 resulted in being undercapitalized in the case of default by 12 groups, and 4 banks resulted in being undercapitalized as the effect of a default by one group. Under the contagion scenarios, the number of undercapitalized banks increased for each set of shocks, but not dramatically so. Two banks were found to result undercapitalized more often to shocks transmitted through the interbank markets.

Banks Under-Capitalized as a Result to Shocks to Financial Groups

Shocks to Financial Groups (total=27) No Contagion	Number of Undercapitalized Banks	Shocks to Financial Groups (Total=27) Contagion	Number of Undercapitalized Banks
6	0	6	0
5	1	5	1
12	2	4	2
3	3	2	3
1	4	3	4
--	--	4	5
--	--	3	6

Interbank exposures were re-examined based on end-December 2001 data. No significant changes in these tests are expected based on these data. In sum, the exercise revealed some concentration of interbank exposures for only two banks whose capital base might result in being more severely eroded than their peers. Overall, Luxembourg banks appear at present fairly resilient to shocks originating in major financial groups to which they belong and/or are most connected through the interbank market.

category of own-funds, at 12.2 percent of non-linked policyholders liabilities, is above the international rule of thumb minimum of 5 percent. However, most income is derived from investment-linked business so that future profitability is currently highly dependent on the continued inflow of savings into the Luxembourg life sector. Investment policy appears conservative and in line with the European framework: traditional life insurance liabilities are covered primarily by EU government securities (62 percent), with the bulk of the rest covered by EU private sector bonds (17 percent).

47. ***Non-life insurance solvency, at close to 25 percent of premium income, appears strong and is above the rule-of-thumb minimums of 15–20 percent.*** Profitability in most segments is strong despite a rise in disaster claims. Some market segments have witnessed increased volatility in profits, as companies have had to increase provisions. Investment policy remains conservative, in that technical provisions are invested primarily in debt securities (58 percent) and equities (18 percent).

48. ***The reinsurance sector has capital above Luxembourg regulatory minimums of 2 percent of provisions and 10 percent of net premiums.*** The industry has experienced three years of rising claims and declining technical returns. The decline in technical returns has been offset by ceding more premiums. Reinsurance companies' investment policy appears more aggressive than their insurance peers. They are primarily exposed to equities and investment funds (33 percent), debt securities (24 percent), and investment in related companies (19 percent). Licensed insurance companies reinsure traditional credit risk insurance, but none of them does subscribe credit derivative policies.

49. ***Potential adverse effects of a shock to Luxembourg reinsurers transmitted to other connected insurance firms are mitigated by the requirement that direct insurers keep technical provisions gross of reinsurance and that reinsurance regulation is stricter than in other large cross-border centers.*** Linkages among Luxembourg insurers include the ownership of reinsurers by insurance companies (57 of them have an insurance company as the highest parent), and the intense use of reinsurance by non-life companies. Notwithstanding the strength of these linkages, the relatively safe levels of technical provision and close regulation and supervision do not raise significant concerns regarding the vulnerability of the Luxembourg sector to external shocks and their potential transmission effects.

#### **Stress testing exercise**

50. ***A market risk stress test carried out by the Commissariat aux Assurances indicates strong resilience of the Luxembourg insurance sector to a 25 percent drop in equity values.*** A market survey carried out by the Commissariat aux Assurances after the terrorist attacks of September 11<sup>th</sup> indicated that the Luxembourg insurance sector would not be directly involved in related claims payments. Declines in stock markets in the wake of the terrorist attacks may provoke financial losses on insurance companies' equity and mutual fund portfolios. Yet, such losses, if they occurred, are likely to be covered by free assets while still maintaining adequate excess coverage (Box 5).

### Box 5. Market Risk Stress Test for the Luxembourg Insurance Sector

The Commissariat aux Assurances does not normally carry out stress tests on a systematic basis apart from on high-yield life insurance policies. Rather, under normal circumstances, stress tests are made only if some concern arises regarding an individual company. However, the turbulence in financial markets following the terrorist attacks of September 11th nevertheless has led the CAA to carry out a stress test of a 25 percent fall in the value of equities and mutual funds using data on investments (assets covering technical provisions) of all supervised life and non-life insurance companies (i.e., excluding foreign branches). The tests were done using portfolios as of end-June and end-September 2001 to check whether assets earmarked to back technical provisions were sufficient to meet non-linked insurance liabilities.

The 25 percent fall in equity prices is assumed to affect insurance companies in two ways: (1) a direct balance sheet impact on the value of share and mutual fund assets of the non-life companies and the traditional (non-linked) life sector companies; and (2) an impact on the income of investment-linked life companies from lower fees (assumed to be 1 percent of assets under management). These assumptions are conservative as (a) some mutual funds may be invested in bonds, which would have appreciated following the reduction in interest rates; and (b) management fees are often well under 1 percent. In addition, companies may have some hidden reserves due to undervaluation of assets, which could be used to absorb part of the shock. In fact the CAA estimates that, due to historical cost accounting, equities were undervalued by 34 percent and 22 percent on the balance sheets of non-life and life companies at end-2000. Furthermore, the shock applied to the end-September portfolio is on top of already substantial fall in asset values following the September 11 events.

The table below shows the calculated distribution of coverage (in terms of companies' asset weight). If no other free assets were available, coverage of about 102 (the weighted average at least 104 and 101 percent for the traditional and investment-linked life sectors, respectively) would approximately correspond to the required solvency margin in the life sector. Coverage of about 106 percent would approximately correspond to the required solvency margin for the non-life sector (assuming 2000 premium levels plus 6 percent growth). The actual asset coverage needed to meet the solvency margin could be lower (down to 100 percent coverage) as companies have other free assets (own funds) available. The results of the stress test show that the majority of companies would have excess coverage (i.e., above both technical provisions) and on average companies would exceed the required solvency margin. Where there could be insufficient coverage, the CAA estimates that these companies would have enough other free assets (own funds) to cover technical provisions.

Coverage after Stress Test (weighted average in percent)	Non-life		Life	
	Jun. 30-01	Sep. 30-01	Jun. 30-01	Sep. 30-01
Between 90 and 95	0.00	6.63	0.00	0.00
Between 95 and 100	7.10	26.20	3.17	8.47
Between 100 and 105	13.79	8.19	42.13	23.90
Between 105 and 110	12.65	15.60	37.91	49.45
Between 110 and 115	12.58	36.25	2.02	1.63
Above 115	53.88	7.14	14.77	16.55
Total	100.00	100.00	100.00	100.00
Average coverage	110.85	107.49	105.10	110.88
Minimum coverage		94.97		98.84

In the stress test conducted with data for end-September, both sectors experienced deterioration in the lower-end of the distribution, where there would be insufficient coverage. Note however that the maximum insufficiency is 5.03 percent in the non-life sector and 1.16 percent in the life sector. These shortfalls could easily be made up by an additional allocation of remaining free assets.

In terms of the income effect of the shock on investment-linked insurance, the CAA estimates that the fall in value of existing assets under management would be more than offset by the increase in assets under management from new premiums. Thus losses from unit-linked business are not expected.

## SECTION II—SUMMARY ASSESSMENTS OF FINANCIAL SECTOR STANDARDS

This section contains information on adherence to the key standards and codes relevant for the financial sector.

Detailed assessment of standards were undertaken under the supervision of Piero Ugolini (Mission Chief), as part of the Financial Sector Assessment Program (FSAP), by Michael Moore (MAE), Nadim Kyriakos-Saad (LEG), John Aspden (Financial Supervision Commission, Isle of Man), and Marcel Maes (Belgian Banking Commission, retired) for the *Basel Core Principles for Effective Banking Supervision*; Guillaume Leroy (JWA Actuaries, France) for *IAIS Insurance Core Principles*; Lennart Torstensson (Finansinspektionen, Sweden) for the *IOSCO Principles of Securities Regulation*; and Marianne Palva (Bank of Finland) for the *Core Principles for Systemically Important Payment Systems*. The latter assessment did not include an assessment of the transparency of monetary policy since the Central Bank of Luxembourg is a member of the European System of Central Banks. The assessors prepared detailed assessments, drawing on information provided by the Luxembourg authorities, including self-assessments, and fieldwork during the October and December 2001 missions.

This section contains summaries of the detailed assessments contained in the FSAP report. The assessments have helped to identify the extent to which the regulatory and supervisory framework adequately addresses the potential risks in the financial system. It has also facilitated in identifying priority areas for recommendations for improved financial regulation and supervision.

The overall assessment of the mission is that there is a strong adherence by Luxembourg with all the major international standards and codes and a high degree of observance with the transparency practices in all the relevant areas. Some specific observations were made by the assessors in the banking sector area for the authorities' consideration. In the banking sector, the mission recommended the full implementation of the AML action plan, which is underway. In the insurance sector, the mission recommended the regular use of stress tests and an increase in supervisory staff to cover a larger number of insurance activities; and continuous cooperation between the supervisory authorities and other domestic officials, as well as with foreign supervisors on issues related to intermediaries, was also recommended. In the banking and securities sectors the mission recommended an internal code of conduct (which is being finalized) for the supervisory staff. Some recommendations were made to enhance transparency in the insurance sector by disclosing, in particular, non-confidential procedures.

## V. THE BASEL CORE PRINCIPLES FOR EFFECTIVE BANKING SUPERVISION

### General

51. This assessment of Luxembourg's implementation of the Basel Core Principles for Effective Banking Supervision was conducted as part of the joint IMF-World Bank Financial Sector Assessment Program (FSAP).<sup>1</sup> The preconditions for effective banking supervision are in place, and the Commission of Surveillance of the Financial Sector (the CSSF) has a comprehensive supervisory program to oversee the banking sector. The mission team notes a high level of compliance with all of the Basel Core Principles (BCP)

### Institutional and macroprudential setting, market structure—overview

52. Luxembourg has a well developed banking system, comprised of mostly well established, foreign-owned banks run by experienced management teams. With 189 banks and assets of \$721 billion at end-2001, the banking system is oriented to serve essentially the non-domestic economy. The banks operating in Luxembourg mainly come from throughout Europe, with the largest presence of banks from Germany (59 banks), Italy (21 banks), Belgium (16) and France (17 banks) and Switzerland (12 banks). Only four banks are locally owned Luxembourg banks.

53. Prudential supervision and regulation for banking activities is the sole responsibility of the CSSF. The CSSF Law of December 1998 and the Financial Sector Law (FSL) of April 1993 underpin the supervisory responsibilities and objectives for the CSSF. All banks operating in Luxembourg and falling under the supervision of the CSSF can carry out a banking business in the other Member States of the European Union, either by the establishment of a branch or by way of direct delivery of banking services. Luxembourg's legislation does not distinguish between domestic and non-domestic financial services and its tax treatment is identical for all banks. The financial sector accounts for about 20–30 percent of Luxembourg's GDP and employs 10 percent of the workforce.

54. Luxembourg's growth performance has been impressive in the last five years. GDP growth has averaged about 5 percent during this period, the consumer price index rose by less than 2 percent during the same time span, with the unemployment rate lower than 3 percent at present. Luxembourg's fiscal position is strong: the budget has been in surplus over the past five years and government debt amounts to some 6 percent of GDP. The strong economic and fiscal performance was highlighted in the context of the 2002 Article IV Consultation. The sustainability of this performance is dependent on growth of intermediation activities and further diversification of the Luxembourg economy.

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<sup>1</sup> The assessment of compliance with the Basel Core Principles was conducted by Michael Moore (MAE) and Nadim Kyriakos-Saad (LEG); John Aspden (Financial Supervision Commission, Isle of Man); and Marcel Maes (Belgian Banking Commission, retired).

55. As currently foreseen in a proposal for a directive on taxation of savings, Luxembourg will phase in a tax-withholding requirement for nonresidents beginning with a 15 percent withholding tax on interest income between 2003 and 2005, and increasing this to 20 percent between 2006 and 2009. Further out in 2010, Luxembourg will share information with other EU members on interest and investment income of non-Luxembourg residents, provided that the non-EU members listed in the Feira European Council conclusions take similar action as well as the dependent and associated territories of EU member states.

56. These changes to the taxation system could affect Luxembourg's competitiveness in private banking over time, although this effect should be limited if the level playing field, as foreseen, with third countries will be realized. Moreover, the mission views that these changes would be felt only gradually, and that it is unlikely that there would be an abrupt outflow of funds.

### **General preconditions for effective banking supervision**

57. Luxembourg's favorable macroeconomic environment, an established legal system, the presence of a well qualified work force, and strict bank secrecy requirements have all helped to sustain the stability of the financial system.

58. The CSSF has a range of formal corrective measures that it can impose under FSL article 59 against supervised institutions and individuals. If an entity subject to the supervision of the CSSF fails to observe the required legal, regulatory or statutory provisions, or if its management or financial situation does not inspire full confidence as to the fulfillment of its obligations, the CSSF can direct the entity to remedy the situation within a specified period set by the CSSF. For institutions failing to make corrections, the CSSF has a range of actions, from suspension of the board to suspension of the banking business. The CSSF has additional powers over auditors. Auditors are subject to civil action by the CSSF pursuant to article 1383 of the Civil Code for negligence in the event that the CSSF is held liable for failing to perform its supervisory duties. In addition, the CSSF can force changes in the auditor.

59. The CSSF can also apply informal measures to improve the financial position of the bank by issuing new capital or suspending dividend. Other informal measures could include additional reporting requirements and special audits in order to check the deficiencies at the root of the crisis.

60. Luxembourg is a significant international financial center with a legal mandate for bank secrecy that obliges a strict duty of confidentiality on the banks and financial professionals. The duty of confidentiality is traditional in its scope and consistent with practices commonly applied in some other European countries. The confidentiality requirement does not deter access to account information for prudential or judicial purposes. The CSSF has complete access to bank information as necessary to carryout its supervision function, including access to all identification information for bank clients. Anonymous accounts are not allowed.

61. All banks must participate in the Association pour la Garantie des Dépôts, Luxembourg (AGDL), which is a mutual deposit guarantee scheme providing limited protection to depositors and investors.<sup>2</sup> Branches with a head office inside the European Community are not protected by the AGDL; instead protection is provided by the deposit/investment schemes of the home country. The AGDL exists to facilitate the orderly payment of insured deposits and investments. For any one institution, a depositor is protected up to EUR 20,000 or its foreign currency equivalent. An investor is similarly insured up to EUR 20,000. The customers covered by the guarantee schemes include all depositors respectively investors who are physical persons, whatever their nationality or country of residence.

### **Main findings**

62. The assessment of compliance with the Basel Core Principles found that the essential conditions for effective bank supervision are in place. Below are the findings that correspond to seven groupings of the Basel Core Principles as follows: (i) Objectives, Autonomy, Powers, and Resources (CP 1); (ii) Licensing and Structure (CPs 2–5); (iii) Prudential Regulations and Requirements (CPs 6–15); (iv) Methods of Ongoing Supervision (CPs 16–20); (v) Information Requirement (CP 21); (vi) Formal Powers of Supervisors (CP 22); and (vii) Cross-Border Banking (CPs 23–25).

#### ***Objectives, autonomy, powers, and resources***

63. Prudential supervision and regulation for banking activities is the sole responsibility of the Commission de Surveillance du Secteur Financier. The CSSF Law of December 1998 and the Financial Sector Law of April 1993 underpin the supervisory responsibilities and objectives for the CSSF. Laws are current and revised as necessary. These laws assure full operational independence for the CSSF in the conduct of prudential supervision of the banking system.

#### ***Licensing and structure***

64. The FSL sets out the permissible activities of banks, which are allowed to undertake the full range of deposit and lending activities. Luxembourg legislation does not distinguish between offshore and onshore business, and banks can operate through subsidiaries or branches abroad with the CSSF consent. FSL article 52(2) restricts the use of the title “bank” to only licensed banking institutions.

65. The criteria for licensing as a bank are set out in FSL Articles 2 to 10. Banks operate either as locally incorporated banks, or branches of foreign banks. Foreign banks operating

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<sup>2</sup> The law of June 11, 1997 modified the Financial Sector Law to incorporate the EC Directive 94/19/EC concerning the deposit-guarantee scheme; and the law of July 27, 2000 introduced the EC directive 97/9/EC concerning the investment protection schemes.

through branches within Luxembourg can be either from other European Union (EU) states or other countries.

66. The Minister of Treasury and Budget approves licensing of banks, not the CSSF. The Minister's decision has to be legally motivated and is subject to judicial recourse. In practice, there has not been a case where the Minister did not follow the CSSF's recommendations. That said, it could be considered that a supervisory authority may wish to retain the power of licensing for itself to ensure that all decisions are, and are seen to be, truly independent in all circumstances.

67. While not grounds for non-compliance, the acceptance of nonbank controlling shareholders of banks can present additional risks. In particular, such groups are unlikely to be subject to prudential consolidated supervision in the same way as are banks, and the host supervisor may have less ability to assess a non-financial business as a suitable controller on an ongoing basis. Nonbank controllers may also not encounter the same reputational pressures for providing lender-of-last-resort facilities, as would a bank owner.

#### ***Prudential regulations and requirements***

68. Prudential regulations and requirements are in place. In the area of anti-money laundering (core principle 15), the CSSF has recently issued new guidance to banks regarding customer identification and suspicious activity reporting. The recent measures by the CSSF are part of the comprehensive action plan to reinforce the existing AML laws and policies. The new guidance is provided through circular 01/40 of November 14, 2001, and a circular letter of December 19, 2001. The guidance is complemented by a strengthened regimen of onsite inspections and requirements for external auditors. These measures reinforce the duties imposed by FSL law, article 40(2), which requires that financial professionals inform the public prosecutor on their own initiative of any fact that may be an indication of money laundering.

#### ***Methods of ongoing supervision***

69. The CSSF, through its current banking supervisory staff of 43, implements a regime of both onsite and offsite supervision. Its powers to require all information needed, including inspecting the books, accounts and records of licensed entities are contained in FSL article 53.

70. The CSSF uses external auditors to provide independent verification on corporate governance (including risk management and internal control systems), and validate supervisory information. The Financial Sector Law, article 10(1), requires that banks undergo an annual audit by one or more external auditors having sufficient professional experience. As the law notes, the CSSF must check that auditors are sufficiently experienced, and must approve any changes in the external auditor. The CSSF has a de facto ability to force changes in the auditor by declaring that a bank no longer fulfills the legal requirements when maintaining its auditor. Auditors would be subject to civil action by the CSSF pursuant to article 1383 of the Civil Code for negligence, in the event that the CSSF is held liable for

failing to perform its supervisory duties. In addition, the CSSF can force changes in the auditor.

71. In the past, the CSSF itself conducted relatively few onsite supervisory visits each year, though this practice is evolving as the CSSF has significantly stepped up these inspections. In 2000, it completed 37 targeted scope inspections, up from 18 in 1999. The increased number of inspections usually resulted from the detection of specific problems, though some preventive onsite inspections not related to a specific problem have also occurred. In 2002, the CSSF will add 10 new inspectors. One objective of the CSSF is to move toward carrying out annual onsite inspections for the 25 systemically relevant banks. Since duplication with the expanded external auditors reporting scheme is to be avoided, the CSSF intends to organize its onsite efforts accordingly. The CSSF's manual for onsite examinations is being revised.

72. The CSSF relies heavily on the long-form report of the external auditors. Although concerns about possible conflicts of interest might argue in favor of less dependence on auditors by supervisors, in Luxembourg they are currently providing a level of detailed reporting on banks which CSSF could not itself undertake or hope to achieve in the short term. The assessment team did not identify any instances where the work of external auditors was compromised by appearance of conflict of interest.

73. Currently a tripartite dialogue between the CSSF, auditor and the bank to discuss and review long-form reports does not take place routinely: tripartite meetings are usually ad hoc in nature and set up to discuss particular issues arising. The CSSF might wish to consider tripartite discussions on a more routine basis as a useful way of extending its own understanding and analysis of the report's findings, especially as the reports themselves are now becoming more qualitative and their methodology ever more critical.

#### ***Information requirement***

74. Banks incorporated in Luxembourg have to produce annual audited financial statements based on accounting principles and audited in accordance with internationally accepted audit practices and standards. The CSSF relying primarily on the work of the external auditors requires that the bank appoint auditors who have been submitted to a series of conditions and who have to comply with the instructions given to them by the supervisor.

75. Given the major increase of the external auditor's participation in the responsibilities to the supervisory process, the CSSF could benefit from a revisiting of the existing relations with the external auditors and organize periodic review meetings with the auditors on their long-form reports.

#### ***Formal powers of supervisors***

76. The CSSF has an adequate range of informal and formal corrective measures that can be employed depending on the circumstances. Informal measures are applied in cooperation with management, for instance the establishment of plans to improve the financial position of

the bank by issuing new capital or suspending dividend. Other informal measures could include additional reporting requirements and special audits in order to check the deficiencies at the root of the crisis.

77. The CSSF also has a range of formal corrective measures that it can impose under FSL article 59. If an entity subject to the supervision of the CSSF fails to observe the required legal, regulatory or statutory provisions, or if its management or financial situation does not inspire full confidence as to the fulfillment of its obligations, the CSSF can direct the entity, by registered letter, to remedy the situation within a specified period. Failure to comply will result in the potential: (i) suspension of directors or management or decision-making bodies or any other persons who, by their action, negligence or imprudence, have brought about the situation in question or whose continuation in office could prejudice the implementation of measures aimed at recovery or reorganization; (ii) suspension of voting rights to the shares or partnership shares owned by the shareholders or members whose influence is likely to be detrimental to the sound and prudent management of the entity; and (iii) suspension of the carrying-on of the entity's business or, if the situation in question relates to a specific branch of activity, the continuation of such an activity.

#### ***Cross-border banking***

78. The CSSF's approach to global consolidated supervision emphasizes the work of external auditors through the long form audit requirements (set out by circular 2001/27), regulatory reporting, and onsite inspections (albeit infrequent). As already stated, the CSSF imposes prudential requirements on a consolidated and individual basis for the banking group and subsidiaries.

79. There appear to be no impediments to direct or indirect supervision of all affiliates and subsidiaries of banking groups foreign or domestic.

80. The CSSF routinely exchanges information and holds discussions with home country supervisors through regular bilateral meetings. The meetings are held to exchange prudential information on supervised banks active in both countries; those represented are Belgium, France, Germany, Switzerland, Ireland, Netherlands, United Kingdom, Italy, Denmark, Sweden, Norway and Finland. In addition, the CSSF has concluded a trilateral MOU (memorandum of understanding) with foreign supervisors with respect to the larger financial groups. The CSSF has regular contacts with other supervisory authorities (United States, Brazil, Hong Kong, Singapore, and Japan) where no MOUs exist.

81. The CSSF has signed 12 MOUs with foreign supervisory authorities that set out principles for cooperation and information sharing regarding prudential supervision. MOUs with Poland and Turkey are currently pending.

#### **Recommended actions and authorities' response**

82. Given the high level of compliance, no material recommendations were made by the mission. The authorities indicated their commitment to fully implement the AML Action

plan and to continue upgrading their supervisory capabilities to meet emerging challenges. The CSSF recognizes that there are additional risks related to the acceptance of nonbank controlling shareholders of banks as described in the section on licensing and structure. Therefore the CSSF applies a strict specific acceptance policy in order to ensure that only high quality commercial/industrial companies are allowed to own banks. Presently, there exist only three such cases. The CSSF is in the process of finalizing a code of conduct for its staff holding and trading of financial instruments.

## VI. IAIS CORE PRINCIPLES FOR INSURANCE SUPERVISION

### General

83. The assessment of the observance of IAIS Core Principles by Luxembourg aims at providing information on the way Luxembourg tackles the issue of financial stability of its financial schemes in the field of insurance. Therefore, the evaluation mainly focuses on the process of supervising the insurance companies by the regulatory authorities in charge of it. The assessment is based on the detailed IAIS Core Principles that deal with the regulation of insurance companies by the supervisory authorities.<sup>3</sup>

84. In the case of Luxembourg, this assessment was based on several items:

- the study of several laws and texts: in particular the Law of December 6, 1991 (relating to the insurance sector as amended),
- Grand Ducal regulation of December 14, 1994 specifying the agreement and application terms for insurance companies,
- Grand Ducal regulation of December 30, 2000 specifying the complementary oversight terms of the insurance companies forming a group,
- several circular letters by the Commissariat aux Assurances,
- several EC directives on insurance: life insurance third directive 92/96 of November 10, 1992; and non-life insurance third directive 92/49 of June 18, 1992,
- EC accounting directive N° 91/674 of December 19, 1991,
- The Sienna protocol between insurance supervisors of 1995,
- 2000 annual report of the Commissariat aux Assurances,
- Pre-FSAP questionnaire as filled in by the Commissariat aux Assurances.

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<sup>3</sup> The assessment was conducted by Guillaume Leroy, JWA Actuaries, France.

85. Other documents were also studied and provided by the Commissariat aux Assurances:

- several on-site inspection reports in the field of life insurance, non-life insurance, and reinsurance; and
- specific accounting and solvency tests set up by the Commissariat aux Assurances in the field of insurance companies.

86. The IAIS self-assessment report by the Luxembourg authorities was also discussed and taken into account.

87. The Board of Directors of Commissariat aux Assurances met several times with the mission to discuss compliance with the different IAIS principles. The mission also met with the Association of Luxembourg Insurance Companies and the Association of Luxembourg Reinsurance Companies to discuss the CAA's supervision of their members.

#### **Institutional and macroprudential setting —overview**

88. The 1991 Law is the key text that regulates the insurance sector in Luxembourg. It establishes the CAA as an independent body under the authority of the Minister of Treasury and Budget. It provides the specific information on the way insurance companies may be established, including on licensing or withdrawal of license (which is granted by the Minister upon recommendation of the CAA). Articles 1 to 25 of this law establish how the CAA works and its operational independence. Additional information, including the Grand Ducal decree of July 8, 1992 (modified in 1995), specify the way the Commissariat aux Assurances is funded through the levying of taxes on insurance companies. This supplies the CAA with adequate resources to carry out its duties.

89. The Commissariat aux Assurances is not only the supervisory authority but also the very influential authority over the regulatory framework. The Commissariat aux Assurances typically prepares the legislation concerning the insurance sector. Ultimately, the legal framework as well as the supervisory framework is strongly influenced by the EC directives that have been passed since 1964. The legal framework provides the CAA with several tools to carry out its supervision task.

90. Within this supervisory as well as legal background, the insurance sector in Luxembourg has grown rapidly over the last ten years. The EC directives of 1992, dealing with freedom of services have allowed the Luxembourg life insurance sector, and to a lesser extent non life insurance sector, to expand significantly.

91. In 1986, the life sector accounted for roughly 24 percent of the total activity of the Luxembourg insurance sector. By 2001, this sector accounted for 86 percent of total activity. Activity has sharply developed by expanding throughout the EU so that in 2001 about 95 percent of the life business was carried out in other EU countries through the freedom of services. This situation is very specific to Luxembourg insofar as no other country in the EU

has managed to develop its EU foreign business as Luxembourg. At the same time, the life business has shifted from interest rate guaranteed policies to unit linked policies. These unit linked policies and other dedicated funds policies accounted for more than 84 percent of the market in year 2001 and funds were mainly invested in mutual funds and shares, and to a lesser extent bonds.

92. In 2001, the Luxembourg market under the supervision of the Commissariat aux Assurances consisted of 94 direct insurance companies, of which 32 were pure non-life companies, 58 were pure life companies, and 4 were composites. The life business accounted for EUR 6 billion and the non-life business accounted for EUR 0.8 billion. At end-2000, the assets of insurance companies in Luxembourg amounted to EUR 26 billion, of which the life business accounts for more than 90 percent. There were also more than 260 reinsurance companies supervised by the Commissariat aux Assurances, with premiums of EUR 2.8 billion and assets of EUR 14 billion. The Luxembourg reinsurance sector consists mainly of captives of big European industrial companies.

93. At the end of 2001, Luxembourg life insurance companies exceeded by 1.8 times the minimum EC solvency requirements.<sup>4</sup> Moreover, the shift from interest guaranteed business to unit-linked policies has led to a risk transfer, which is eventually borne by the customer. This has enabled life insurance companies to improve their risk profile over the last few years. The risk transfer to the policyholders reduces the risk of the insurance companies ultimate shareholders, which are often EU insurance groups or financial holding companies. Therefore, this evolution reduces the financial systemic risks emanating from Luxembourg insurance companies. The non-life insurance sector also appears not to pose a systemic vulnerability. At end-2001, non life insurance companies exceeded by 3.8 times the EU minimum of 23 percent of claims or 16 percent of premium income.

### **General preconditions for effective insurance supervision**

94. Luxembourg, in close connection with its neighboring countries (Belgium, France and Germany) and as a member of the EU, has set up a clear and detailed legal framework for insurance operations. Partly because of this influence, the legal framework for insurance operations is very strong in Luxembourg. One major text, the 1991 Law, is especially significant and details most of the regulations dealing with the insurance companies. All major texts are published in the daily official, le Mémorial. In addition, most texts are referred to in the CAA's Annual Report, which lists the most important legal texts at the end of the report.

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<sup>4</sup> EU solvency requirements for life companies call for the available solvency margin (own funds effectively available) to at least equal the sum of 4 percent of non-linked technical provisions, 0.3 percent of sums at risks, and 1 percent of linked technical provisions.

95. With regard to the relationship between policyholders and companies, insurance law is clearly influenced by civil law and written law as a whole. With regard to accounting standards, Luxembourg has developed an insurance accounting system, which is very close to the European directive 91/674. This is codified in the 1994 Law on accounting standards and provides detailed regulations for the insurance sector in line with the fourth European directive on accounting standards for companies. Some specific items in the field of insurance including the notion of “réviseur aux comptes” (auditors) and “actuaire” (actuary) for life business have been introduced by the Luxembourg supervisory authorities. These regulations provide a clear and up to date accounting framework.

96. Luxembourg has an independent body, the Commissariat aux Assurances (funded according the decrees of July 8, 1992 and June 7, 1995), which from the beginning of the 1990s has been in charge of the supervision of the insurance sector. The Minister of Treasury and Budget remains legally responsible for issuing regulations, but this is on recommendation of the CAA. The CAA has played a major role in the supervision of the sector and the enforcement of new regulations over the last ten years. Its annual report, as well as its circular letters, which are available to insurance companies as well as the public, make clear its objectives and provide transparency to the supervision of the insurance sector in Luxembourg.

### **Main findings**

97. The assessment of compliance with IAIS Insurance Core Principles found that the essential conditions for effective supervision have in general been put in place and for the most part are being administered satisfactorily and all relevant principles were observed. Some recommendations were made in some areas.

### ***Organization of an insurance supervisor***

98. The size of the staff of the Commissariat aux Assurances might prove to be small when it comes to supervising a large number of reinsurance companies. The Commissariat aux Assurances should consider increasing the number of its trained staff to face the rapid growth in the number of supervised companies and size of balance sheets.

### ***Licensing and changes in control***

99. Companies are licensed by the Ministry of Treasury and Budget on proposal of the CAA (article 31 of the modified Law of December 6, 1991 on the Insurance Sector). The licensing process for the different classes of companies in Luxembourg is detailed according to the EC directives on insurance supervision and freedom of services. The actual Luxembourg system of licensing seems to be rather strict and enables the CAA to assess the fitness and soundness of the “dirigeants agréés” (the managers of Luxembourg companies, which must be licensed by the Commissariat aux Assurances just like the companies themselves) and different tests made in this field make it clear that Luxembourg actually carries out an in depth supervision of the licensing process (as required by EU directives).

As far as non-Luxembourg EU companies are concerned, the EU regulation provides the different supervisory authorities within the EU with adequate tools to carry out an effective licensing information process. Some protocols, including the Sianna protocol and the Helsinki protocol on insurance supervision, detail the way information is being exchanged in this field.

100. The process for changes in control is described in articles 29 points 3 to 8 for direct insurance companies and article 95 points 4 to 8 for reinsurance companies of the modified Law of December 6, 1991 on the Insurance Sector. The Luxembourg law explains the process by which the Commissariat aux Assurances (and the Minister of Treasury and Budget) must be informed of a change in control of a company and by which the CAA will grant its approval for the change.

### ***Corporate governance and internal controls***

101. Written law in Luxembourg, as well as in other EU countries, usually deals with the corporate governance principles through the general provisions of corporate law. The insurance supervisory authorities are not responsible for exercising control over the roles of the different bodies of the company apart from the provisions of the law dealing with insurance. The general corporate law, which was enacted in 1915 in Luxembourg, has been modified several times ever since.

102. The internal controls of a company must be implemented in accordance with articles 34.3 and 79.4 of the modified Law of December 6, 1991 on the Insurance Sector. The Luxembourg authorities have also implemented new regulations in the field of internal controls in the late 1990s. These regulations require insurance and reinsurance companies to set up an internal control system. Additionally, several reports on internal control in different fields of activity (e.g., asset/liability management, use of derivatives, etc.) have been established through circular letters of the Commissariat aux Assurances. In addition to the several regulations that deal with the setting up of internal controls, the Commissariat aux Assurances has set up a practical framework of control that enables it to check the quality of the internal controls of insurance companies.

### ***Prudential rules***

103. Specific regulation in the field of high interest life insurance policies has been compulsory for insurance companies for the last few years. After the September 11 events, the Luxembourg supervisory authority carried out a special stress test for asset market values. Since then, the Commissariat aux Assurances has conducted an internal quarterly stress test on share values. Nonetheless, the regulatory framework of Luxembourg might be enhanced in the field of stress test and asset liability management. This issue has proved to be a very significant one in different countries and such tests have already been implemented in several other EU countries. Therefore, the Commissariat aux Assurances might add new rules to the existing ones in this field so as to establish a more comprehensive process of asset liability management and stress tests.

### ***Market conduct***

104. A number of the tasks of the supervisory authorities in the field of market conduct are detailed in article 43 of the modified Law of December 6, 1991 on the Insurance Sector. A number of these specific rules deal with customer information obligations for insurance companies as well as intermediaries. Sanctions exist for companies that do not behave properly with customers or are not compliant with the directives of the Commissariat aux Assurances. A number of regulations have been implemented in the field of market conduct in Luxembourg. Insofar as consumer protection, the Commissariat aux Assurances is in charge of the supervision. The compliance of companies with these texts is checked through on-site inspections. The Commissariat aux Assurances is in charge of the supervision of Luxembourg based intermediaries companies. Therefore, it tests the ability of the intermediaries in Luxembourg to face their commitments in terms of quality of relationship with customers, due diligences, and legal requirements. Apart from the legal framework for insurance policies in Luxembourg, a number of circular letters by the Commissariat aux Assurances have provided the market with information on the due process of work in the insurance market in Luxembourg. All important decisions are published in the official paper, le Mémorial.

### ***Monitoring, inspection, and sanctions***

105. Articles 35.2, 35.3 of the modified Law of December 6, 1991 on the Insurance Sector explain the way the annual reporting of insurance companies to the supervisory body is to be provided. The accounting law of December 8, 1994 sets adequate standards for companies in line with EC 91/674 directive. The Commissariat aux Assurances has set up a specific number of reports that have to be sent by the companies under its supervision or by the "Réviseur aux Comptes," whose specific report must comply with a number of rules and several circular letters of the Commissariat. These different pieces of information provide the Commissariat aux Assurances with significant information on the way insurance companies deal with their commitments towards their customers. They address the issues of solvency requirements as well as the coverage of insurance liabilities by adequate assets.

106. In the field of life insurance policies, asset liability management is reviewed in the case of high interest rate policies (circular letter 98/1) and recommended for traditional life insurance (circular letter 99/9). Stress tests carried out by the Commissariat aux Assurances on share values have also been implemented on a quarterly basis for all companies since June 2001. Additional assessment of the asset liabilities management adequacy should be set up as is done in other EU countries.

107. The Commissariat aux Assurances has carried out on a regular basis on-site inspections of insurance companies for years. Direct insurance companies are reviewed on-site every 4 years and reinsurance companies are reviewed every 7 to 8 years. Specific instruction manuals have been set up by the Commissariat to conduct on-site inspections. The Luxembourg supervisory authority is trained to carry out in depth on-site inspection on an individual basis. It had developed extensive experience in this field for years. However, the

small number of the staff of the Commissariat aux Assurances may make it difficult to carry out an adequate number of on-site inspections of reinsurance companies.

108. The Commissariat aux Assurances has an adequate legal framework to sanction insurance companies that behave inappropriately. It used its power on certain occasions. Yet the number of companies dealt with has been low. The different features of the regulatory tools of the Commissariat aux Assurances (described in the articles of the modified law of December 6, 1991) make it clear that the Commissariat is provided with the adequate tools to face difficult situations.

***Cross-border operations, supervisory coordination and cooperation, and confidentiality***

109. The soundness and effectiveness of supervision in Luxembourg is dependent on satisfactory international cooperation, especially in the field of reinsurance and life insurance since the bulk of the business conducted by Luxembourg insurance companies is done in foreign countries. At the company level, cooperation among supervisors appears to be effectively implemented. However, at this stage, intermediaries in the life sector and reinsurance companies probably cannot be supervised as effectively as the direct insurance companies in Luxembourg. This situation may create some problem for some Luxembourg based life insurance companies and to a lesser extent for reinsurance companies. Stronger cooperation in this area might enhance the soundness of the Luxembourg supervisory system. The newly adopted EU directive might be used to deepen cooperation in the EU in this field.

110. In the field of anti-money laundering, a more permanent and regular process of information sharing between the prosecutor of Luxembourg and the Commissariat aux Assurances might foster a better capability to fight money laundering in the field of life insurance.

**Recommended actions and authorities' response**

111. Given the high level of observance with respect to the IAIS Core Principles, no material recommendations were made by the mission, but several observations were made. The authorities concurred with the assessment and provided the following comments on some of the observations made.

112. ***Organization of an insurance supervisor***—Commissariat aux Assurances plans to increase its current trained staff by about 10 percent annually during the period 2001–2004, primarily to reinforce supervision of reinsurance companies and life companies. It should be noted, however, that in spite of the large number of reinsurance companies falling under the authority of Commissariat aux Assurances, most are so-called “captive” companies, serving only their own shareholders’ reinsurance needs and thus operating on a limited scale. Funding for the staff increase is available.

113. ***Prudential rules***—The Commissariat aux Assurances intends to issue further instructions for enhanced and more regular stress testing and adequacy testing to be carried out by insurance companies, namely, in the area of asset liability management.

114. ***Cross-border operations, supervisory coordination and cooperation, and confidentiality***—Commissariat aux Assurances is prepared to strengthen cooperation with the prosecutor in order to improve the effectiveness of the anti-money laundering fight in the field of insurance.

115. The future adoption of the draft EU directive on insurance intermediaries currently under discussion at EU Council level will provide for stronger cooperation among authorities in the field of insurance intermediaries. For the time being, there is no harmonized approach to this issue in the EU member states. However, there are already bilateral exchanges of information on insurance intermediaries between the Commissariat and most of the neighboring authorities.

## VII. IOSCO OBJECTIVES AND PRINCIPLES OF SECURITIES REGULATIONS

### General

116. This assessment on Luxembourg's observance of the IOSCO Objectives and Principles of Securities Regulation, conducted as a part of a Financial Sector Assessment Program<sup>5</sup> report on Luxembourg, was based on: (a) a review of the legal framework, (b) self-assessment questionnaires prepared by the staff of the CSSF, and (c) discussions with CSSF staff, the Luxembourg Stock Exchange, and market organizations.

### Institutional and macroprudential setting, market structure

117. Prudential supervision and regulation of securities is the responsibility of the CSSF, which was created by a law of December 23, 1998 and started its activities on January 1, 1999. The CSSF, which is an independent agency created under the authority of the Minister of Treasury and Budget, supervises the entire financial sector (except the insurance sector), having taken over the supervisory tasks of the Luxembourg Central Bank and the Exchanges Commission. Other relevant laws are the financial sector law of April 5, 1993, the law of March 30, 1988 (establishes the legal framework for Units of Collective Investments based on the EU Directive of 1985) and the law of June 8, 1999 (establishes the legal framework for pension funds). Certain precise functions (e.g., admission of members to the exchange and securities to the official listing; real-time market supervision) are carried out by the Luxembourg Stock Exchange (LSEx) under the supervision of the CSSF pursuant to the 1998 Law and the Grand-Ducal regulation of March 31, 1996 on the concession and terms and conditions of the LSEx.

118. Luxembourg has been strongly developing as an international financial center since the 1960s, with the advent and growth of the Eurobond market and synergies with banks. More recently, some factors have helped the financial center to remain competitive and

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<sup>5</sup> The assessment was conducted by Lennart Torstensson, of Finansinspektionen, Sweden.

continue growing: fast implementation of EU directives<sup>6</sup> (which provide a clear legal status from which to access other EU markets), as well as a highly-skilled workforce, efficient supervision, and a transparent and flexible legal and regulatory framework that allows for the introduction of variety of financial services and products (sometimes not offered in other countries). In addition, Luxembourg benefits from a favorable and stable macroeconomic environment, including strong and steady growth, low inflation, and fiscal surpluses.

119. The investment funds sector, which is largest in Europe, has grown consistently. During the last eight years, the number of funds has grown from 1,283 to 1,908 and the net assets from EUR 247.5 billion to EUR 928.4 billion. During 2001, the number of funds and their net asset values continued to grow despite the sharp downturn in the stock markets. The registered investment funds generally operate outside of Luxembourg. Thus, most of the funds that are handled by the securities sector come from abroad. There are also Financial Sector Professionals (FSPs) licensed in Luxembourg, which numbered 145 at end-December, 2001. They comprise various types of entities, both of the investment firm type (e.g., commission agents, private portfolio managers, distributors of investment fund units) and other types (e.g., financial advisors, brokers, custodians). The total assets posted by FSPs have also risen, climbing from about EUR 635 million in 1998 to about EUR 2,500 million at end-December, 2001.

120. The Luxembourg Stock Exchange (LSEx), the only exchange licensed under Luxembourg law, started operations in 1929 and has always been run as a for-profit company. Its present trading system, SAM (Système Automatisé de Marché), was launched in 1996 and is fully automated and has two segments: (a) MFX (MultiFixing Market), which is order-driven, and (b) MCD (On-demand Continuous Market), which is quote-driven. The LSEx has evolved into a leading exchange for listing eurobonds. Of the 23,438 securities listed at end-2001, bonds made up about 70 percent. The majority of other listings consisted of undertakings for collective investments and warrants; only 278 stocks (of which 224 are foreign) are listed. The rapid growth of listings can be illustrated by the fact that in 1995, 11,874 securities were listed. Turnover has varied more over the years, amounting to EUR 2,820 million and EUR 2,419 million in 2000 and 2001, respectively, and is low relative to the market value of securities listed (most securities are traded over-the-counter).

### **General preconditions for effective securities regulation**

121. A sound macroeconomic environment, good market and legal infrastructure, professional market participants, and good regulatory conditions support the operations of securities markets. The factors that could affect the stability of the securities sector are broadly similar to those affecting the banking sector.

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<sup>6</sup> EU directives set out the legal and regulatory framework, but must be implemented at the national level by specific legislation and regulations.

122. The legal and accounting framework in which securities markets operate is harmonized by EU directives and is fully adequate to support the securities regulatory system. As far as taxation is concerned, the introduction of a withholding tax could affect Luxembourg's competitiveness in the securities market over time, although this effect should be limited if the level playing field, as foreseen, with third countries will be realized; moreover, these changes are not expected to lead to financial instability.

123. The CSSF has a range of tools for effective regulation. According to the 1998 Law, the CSSF can request any information needed from financial sector professions, et al., as well as exchange information with other supervisory authorities. In the case of the Luxembourg Stock Exchange, for OTC traded securities, a Grand-Ducal regulation of December 28, 1990 requires that information be disclosed, except in very specific instances as permitted by the EU Directives. The CSSF also has effective enforcement powers. It can, by a reasoned ruling, object to any decision of the LSE; cancel public offerings if they are made in Luxembourg without the CSSF's prior authorization; and prescribe remedies and impose fines; or suspend market intermediaries, members of management and/or board, and also suspend part or all of an entity's business if they fail to observe the legal, regulatory or statutory provisions. Upon recommendation of the CSSF, the Minister of Treasury and Budget would undertake the ultimate sanction of withdrawal of license.

124. The CSSF in its capacity as the supervisor of both the banking and securities sectors has issued a number of regulatory circulars regarding anti-money laundering requirements. The circulars apply uniformly to banking and securities activities in Luxembourg. The CSSF's procedures were recently strengthened in conjunction with the implementation of a comprehensive action plan.

### **Main findings**

125. The assessment of compliance with the IOSCO Objectives and Principles of Securities Regulation found that the essential conditions for the effective supervision of the securities markets have in general been put in place, and for the most part are being administered satisfactorily.

126. In general the CSSF, has sufficient functions and powers to perform an effective supervision and regulation of the securities market. However, the mission observed that the CSSF lacks an internal Code of Conduct, which in particular addresses staffs' holding and trading of financial instruments, and that such a code should be developed. The CSSF has agreed to develop and implement a Code.

127. The mission also observed that a study of the total supervisory process, including resource allocation, should be undertaken in assessing further development of the supervision process. The CSSF has taken note of the suggestion and will address this at a later date.

128. Below are the findings and recommendations that correspond to eight groupings of the IOSCO Objectives and Principles of Securities Regulation as follows: (i) Regulator (Principles 1–5); (ii) Self-regulatory Organization (Principles 6–7); (iii) Enforcement

(Principles 8–10); (iv) Cooperation (Principles 11–13); (v) Issuers (Principles 14–16); (vi) Collective Investment Schemes (Principles 17–20); (vii) Market Intermediaries (Principles 21–24); and (viii) Secondary Market (Principles 25–30).

### ***Regulator***

129. The CSSF's responsibilities are clear and objectively stated. The CSSF is an operationally independent body, with a council that is responsible for approval of budgets, sanctions, and rules of management. The CSSF is funded by taxes applied to entities under its supervision. The Minister of Treasury and Budget approves the licensing upon recommendation of the CSSF. The Government does not interfere in the operational matters of the CSSF and the agency has the powers and resources to effectively regulate and supervise the industry.

### ***Self-regulatory organization***

130. The 1998 Law delegates to the Luxembourg Stock Exchange some regulatory functions, such as the task of organizing the market for a fair access by its members and of supervising the market on a real-time basis, including the trade-execution process. The CSSF exercises effective supervision over the LSEx.

### ***Enforcement***

131. Appropriate regulatory powers exist for effective supervision and enforcement. Supervision is mainly based on reporting and external auditors, while on-site supervision by CSSF plays a minor role. The CSSF can attend meetings of Stock Exchange bodies, suspend rulings, fine persons for not declaring transactions concerning listed securities, suspend decision makers in market intermediaries if they fail to observe legal, regulatory, or statutory provisions, and also suspend whole or part of an entity's business. The ultimate sanction of withdrawal of license must be done by the Minister of Treasury and Budget (on recommendation of the CSSF). An evaluation of the effectiveness of the CSSF supervision is expected to be conducted within the next 12 months.

### ***Cooperation***

132. CSSF is the sole regulatory, except for some pension funds and insurance. Banks do most of the securities business, and there is good cooperation between the respective supervisors within the CSSF. In addition, according the 1998 Law, the CSSF has the ability to exchange information with other supervisory authorities. Internationally, the CSSF has entered into a number of memorandums of understanding. The CSSF has approved the "Rio Declaration" concerning mutual assistance on market oversight.

### ***Issuers***

133. According to the 1998 Law and Grand-Ducal regulation of 1996, the LSEx, under the supervision of the CSSF, is responsible for organizing a fair market. The rules of the LSEx

stipulate the conditions required for listing, which include accurate and timely disclosure of pertinent financial information and, in conjunction with Luxembourg company law, contain provisions for equal treatment of shareholders. For OTC traded securities, a Grand-Ducal regulation of 90-12-28 also requires that information be disclosed, except in very specific instances as permitted by the EU Directives. Luxembourg company law requires, except for small companies, to have their accounts audited by an external auditor. All offerings require an audited financial statement.

### ***Collective investment schemes***

134. Legislation is based on EU directives and is well developed, including terms of entry (including financial and professional capacity of operators), structure of UCITS, segmentation and protection of assets, and information to be included in prospectuses. However, no pre-defined policy on disclosure on investment risk or fee structures has been formulated by the CSSF, which handles this issue on a case-by-case basis. The UCITS law ensures that the prospectus must state the rules for asset valuation and pricing/redemption rules.

### ***Market intermediaries***

135. Licenses are granted by the Minister of Treasury and Budget, on recommendation by the CSSF based on an application, which includes assessment of professional capacity, internal controls, etc. (in line with EU directives). Capital adequacy and risk control systems are monitored through on-going supervision. A licensed market intermediary has to guarantee by law a strict segregation of client assets from own assets.

### ***Secondary market***

136. The LSEx, under the supervision of the CSSF, is the only authorized exchange. The Luxembourg Stock Exchange reports daily all its trades in listed securities. All OTC-transactions as well as trades on another stock exchange are reported to the CSSF by investment firms. Daily reports are also received from the market surveillance unit of the LSEx. If the CSSF, after investigation, decides that a breach of the law regarding insider trading or market manipulation has occurred, it must promptly report this to the public prosecutor. These reports give the CSSF the possibility to detect large exposures of intermediaries. Both the CSSF and the LSEx have responsibilities towards combating market disorders. Settlement is mainly done through Clearstream Banking, S.A., which is supervised as a bank by the CSSF, but its clearing functions are subject to oversight by the BcL (which is a participant in the process).

Table 6. Recommended Actions to Improve Compliance with the IOSCO Objectives and Principles of Securities Regulation

Reference Principle	Recommended Action
Principles relating to the regulator (5)	The CSSF should develop a Code of Conduct for their staff.

### Authorities' response

137. The authorities concur with the above assessment. The CSSF is in the process of finalizing a Code of Conduct for their staff's holding and trading of financial instruments. The CSSF will also address the question of evaluating its supervisory effectiveness.

## VIII. CPSS CORE PRINCIPLES FOR SYSTEMICALLY IMPORTANT PAYMENT SYSTEMS

### General

138. The objective of this sector is to assess observance of Core Principles for Systemically Important Payment Systems by two systems, the RTGS system LIPS-Gross<sup>7</sup> and the net settlement system LIPS-Net.<sup>8 9</sup> The assessment also covers the Central Bank Responsibilities in Applying the Core Principles, both as the technical agent for LIPS-Gross and the settlement agent for LIPS-Net systems and as overseer of both. This assessment of the two payment systems and of the Central Bank Responsibilities in applying the Core Principles forms the basis input into the Financial Sector Assessment (FSAP) report, the Financial Stability Assessment (FSSA) report and the Financial Sector modules of the reports on Observance of Standards and Codes (ROSC).

139. The two payment systems, LIPS-Gross and LIPS-Net have been assessed against the ten principles put forward in the Committee on Payment and Settlement Systems report entitled "Core Principles for Systemically Important Payment Systems." The review was conducted on the basis of several items, including (i) the Luxembourg chapter of the ECB Blue Book on payment systems published in June 2001, (ii) answers to the IMF questionnaire on the legal, regulatory and supervisory framework for payment systems, (iii) the assessment of rules of the two systems, and (iv) legal documents. In addition, meetings were held with representatives from the Central Bank of Luxembourg (BcL) to receive additional information and clarify open issues. Discussion also took place with representatives from three banks participating in one or both systems. All information

<sup>7</sup> Luxembourg interbank payment system – gross settlement system

<sup>8</sup> Luxembourg interbank payment system – net settlement system

<sup>9</sup> The assessment was conducted by Marianne Palva, Bank of Finland.

requested was readily forthcoming including relevant ECB documentation, rules for the two systems and associated information. No difficulties were encountered in obtaining access to appropriate personnel for related discussions during the course of the mission. Both systems are operated under the responsibility of two economic interest groupings, RTGS-L Gie in the case of LIPS-Gross and SYPAL Gie in the case of LIPS-Net. These groupings encompass the participants and are chaired by a representative of the BcL.

140. The LIPS-Gross system is part of the EU-wide RTGS-system TARGET. The TARGET-system as a whole was assessed against the CP SIPS in 2001 in the context of an IMF Report on Standards and Codes (ROSC) mission. That assessment did not cover individual RTGS-components of TARGET.

141. The BcL recently finalized its oversight mission, policy and procedures in respect of payment and security settlement systems for which it has oversight responsibility. As part of its oversight policy, the BcL has asked the operators of the two payment systems and of the security settlement system to make self-assessments of their systems against the BcL's policies and procedures, which include the core principles. As no self-assessments have been made so far, it has not been possible to make use of them in this assessment process. The draft report on the BcL's Oversight Policy and Procedures was distributed to parties involved for consultation before final approval by the BcL management.

#### **Institutional and market structure**

142. The LIPS-Gross system is an RTGS-system. It started operations on January 4, 1999 at the same time as the TARGET-system (Trans-European Automated Real-Time Gross settlement Express Transfer), which LIPS-Gross is part of. TARGET is an EU-wide RTGS-system operating in euros. It is a decentralized system consisting of 15 national RTGS systems, the ECB Payment Mechanism (EPM) and the Interlinking system. LIPS-Gross is owned and operated by RTGS-L Gie. The BcL is the technical agent for LIPS-Gross. There are 31 Luxembourg-based banks participating in the system today.

143. The LIPS-Net system is a fully electronic interbank payment system, which started operations in 1994. At first there were only three participants, but the number has increased over the years and at present there are 13 direct and 10 indirect participants in the system. The Post Office is one of the participants with all the other ones being Luxembourg-based banks. LIPS-Net has totally replaced manual clearing. The system is used to process credit transfers and checks. Credit transfers account for 90 percent of all transactions processed. The system is mostly used for retail payments, but there is no limit on the amount of payments to be processed in the system. Settlement for LIPS-Net takes place in LIPS-Gross five times a day.

144. The various payment instruments used in Luxembourg are cash, credit transfers, checks, credit and debit cards and, more recently electronic money. At the beginning of 2002 euro banknotes and coins were introduced in all countries participating in Monetary Union. They replaced all domestic notes and coins in all these countries by end February 2002.

Before the introduction of euro banknotes and coins, Luxembourg and Belgian banknotes and coins were legal tender in Luxembourg owing to the monetary association between Luxembourg and Belgium. The number of Luxembourg banknotes issued has been constantly decreasing over the past few years. From 1996 to 1999, the total value of LUF-denominated banknotes dropped 19 percent. Although no precise figures are available, the use of cash in purchase transactions has also been on the decline in recent years, with the wider acceptance of electronic means of payment by both consumers and retailers. According to an informal survey less than 50 percent of transactions are made by cash, the rest is in practice made by debit and credit cards, as the use of e-money is still very limited.

### **Main findings**

145. The two payment systems, LIPS-Gross and LIPS-Net are well designed and efficient and fulfill the needs of the participants and the economy as a whole. LIPS-Gross as part of the TARGET system offers also RTGS-processing of payments all over EU. LIPS-Gross and LIPS-Net both observe all the Core Principles for Systemically Important Payment Systems.

146. Below are the findings and recommendations that correspond to eight groupings of the CPSS Core Principles for Systemically Important Payment Systems as follows: (i) Legal foundation (Principle 1); (ii) Understanding and management of risks (Principles 2–3); (iii) Settlement (Principles 4–6); (iv) Security and operational reliability, and contingency arrangements (Principle 7); (v) Efficiency and practicality of the system (Principle 8); (vi) Criteria for participation (Principle 9); (vii) Governance of the payment system (Principle 10); and (viii) Central Bank responsibility in applying the CPs.

### ***Legal foundation***

147. The legal framework has been improved in recent years, as several EU directives relating also to payment and securities issues have been implemented in Luxembourg. The most recent improvement being the Law of January 12, 2001, implementing the Directive 98/26/EC on settlement finality in payment and securities settlement systems into the law of April 4, 1993 relating to the financial sector as amended. The Law aims to reduce legal uncertainty and minimize any disruption to which a payment or securities settlement system and its participants may be exposed in the event of insolvency proceedings against a participant in the system. The new Law and the rules for LIPS-Gross and LIPS-Net define the moment when transactions become irrevocable and final. The Law of January 12, 2001 establishes also a regime for the authorization and the oversight of payment and securities settlement systems. According to the Law, the CSSF is in principle the authority competent for the prudential supervision of payment and securities settlement systems, except for the systems in which the BcL or another member of the ESCB (European System of Central Banks) is participating. The BcL has defined its oversight framework just recently, as the Law was passed only early in 2001. The legal basis for the BcL's competence in the field of oversight is laid down in the article 105 of the EC Treaty and articles 3 and 22 of the protocol on the Statutes of the ESCB, the ECB and in national legislation. To clarify the conduct of its

oversight work the Eurosystem (EU Central Banks participating in the EMU and the ECB) has defined a common oversight policy, which was published in June 2000.

#### ***Understanding and management of risks***

148. The rules of the payment system cover the legal basis of the system and the roles of the participants, payment finality, message form, security and confidentiality provisions, and crisis management procedures. As the system is an RTGS system and intraday credit is granted only against adequate collateral, there is no financial risk involved. Intra-day liquidity is available free-of-charge from the BcL against adequate collateral. The rules for intra-day credit and eligible collateral are the same for the whole euro-area and set by the ECB. Risk control measures (initial margins, variation margins and valuation haircuts) are applied to the collateral in order to protect the Eurosystem against the risk of financial loss if such assets have to be realized owing to the default of a counterparty of the BcL. As intraday credit is provided without a limit except for the availability of adequate collateral, the liquidity risk is small.

#### ***Settlement***

149. LIPS-Gross is an RTGS-system settling over accounts at the central bank, thus eliminating any credit risk for participants. There is no credit risk for the BcL either, as according to ESCB rules intra-day credit is granted free-of-charge to credit institutions against adequate collateral only. Required reserve deposits can be used for settlement purposes during the day. LIPS-Gross has a queuing facility and a gridlock resolution mechanism, but they are hardly ever used in practice, as sufficient liquidity is available. LIPS-Net is a net settlement system with five clearing and settlement cycles during the day. Settlement takes place in LIPS-Gross. Transactions are forwarded to the receiving bank only after settlement has taken place. If enough funds are not available transactions are postponed to the next settlement cycle. In practice this seldom happens. The system is designed in such a way that participants are not exposed to credit risk. The BcL is not exposed to credit risk either as intraday credit is granted only against adequate collateral.

#### ***Security and operational reliability, and contingency arrangements***

150. The security, operational, and contingency arrangements (including a hot backup) are set out in the TARGET Guideline, which all RTGS-systems in TARGET have to fulfill. TARGET risk analyses are performed regularly. Services offered by TARGET are also reviewed yearly and the system is upgraded regularly. Access to the LIPS-Gross system is regulated by the rules of the system, which are in accordance with the TARGET Guideline. The system is governed by the TARGET Guideline and by the Board of RTGS-L Gie. Similar rules and procedures are in place for LIPS-Net, which is governed by the Board of the SYPAL Gie.

### ***Efficiency and practicality of the system***

151. The system provides a reliable real-time gross settlement service for its participants and customers, which is also used to effect settlement of the other domestic payment system LIPS-Net. Because of its link to the other EU RTGS systems, LIPS-Gross is also a valuable facility for RTGS-processing of cross-border payments in EU. The facility provided is very effective for participants with good liquidity availability and liquidity management facilities. It provides the security of real-time settlement in central bank money all over EU. The remarkable increase in the number and value of transactions proves the participants' contentment with the system. LIPS-Net meets the security policies and operational service level agreed by the participants and the system operator. It is secure, safe and reliable with back-up procedures and a test environment on a standby platform. The BcL, the technical agent CETREL, and representatives of the banks meet regularly. The system provides an effective and practical method of settlement of interbank claims arising from retail payment obligations and an efficient payment mechanism for customer payments. The basic principle as regards pricing is full cost recovery. Pricing comprises an on-off entrance fee and a transaction fee.

### ***Criteria for participation***

152. RTGS-L Gie, in its statutes, has defined admission criteria for LIPS-Gross in accordance with the TARGET Guideline. Admission prerequisites include the maintenance of an account with the BcL, operational capacity and solvency, legal security provisions and the payment of an admission fee. Access is free and fair and all the criteria are applied in a non-discriminatory manner. Thus, the system is accessible to relevant organizations, subject to legal confirmation of the suitability of the prospective account holder for participation. The same statement is true for the LIPS-Net system.

### ***Governance of the payment system***

153. The BcL, the technical agent CETREL, in the case of LIPS-Net, and representatives of the banks meet regularly. Similar arrangements by each of the NCBs ensure that a regular feedback is received on each target component. Similarly, the Eurosystem is regularly meeting with representatives from banks to discuss the views of users of TARGET at a wider level. The Governance arrangements in place for LIPS-Gross and the TARGET system as well as for LIPS-Net ensure that decisions are taken, as required, relevant data on operational matters are available promptly and provided to participants, and appropriate consultation with participants takes place.

### ***Central bank responsibilities in applying the CPs***

154. The Treaty establishing the European Community and the Statutes of the ESCB and the ECB grant the Eurosystem a competence in the field of payment system oversight. With reference to the Law of January 12, 2001 implementing the Directive 98/26/EC on settlement finality in payment and securities settlement systems, the BcL published the Circular BCL

2001/163 of February 23, 2001 relating to the oversight of payment and security settlement systems. The BcL is the technical agent and settlement agent of the LIPS-Gross system, the domestic RTGS system, which is also part of the EU-wide RTGS system TARGET.

155. The BcL is responsibility for the oversight of payment and security settlement systems is based on laws (for details refer to responsibility A above). According to the oversight policy and procedures the BcL will gather information using routine and ad hoc inspections. It can also ask the operator to provide external (auditors) reports to include particular items during routine or ad hoc audits or reviews. The BcL may also ask for an independent legal opinion, when needed. The BcL may also request to inspect the books, accounts, registers and all other deed and documents of the operator including management letters and internal audit reports.

156. The BcL as an integral part of the ESCB, cooperates with other national central banks and the ECB in the execution of the objectives and tasks of the ESCB. The BcL as all the other central banks and banking supervisor authorities in member states of the EU have signed a Memorandum of Understanding on cooperation and information sharing between payment systems overseers and banking supervisors in Stage Three of EMU. The BcL remains open for cooperation arrangements with other national and international authorities. At present there are no other formal agreements on such cooperation except the one mentioned above. The BcL responsibilities in applying the CPs are fully observed.

#### **Recommended actions and authorities' response**

157. Given the high level of observance with respect to the CPSS Core Principles, no material recommendations were made by the mission. The authorities are in full agreement with the assessment.

### **IX. THE IMF'S CODE OF GOOD PRACTICES ON TRANSPARENCY OF FINANCIAL POLICIES**

158. This chapter summarizes the transparency assessments made by the FSAP mission. It presents, in order, the Transparency of Banking Supervision (made by Michael Moore and Gianni De Nicoló), Insurance Supervision (made by Guillaume Leroy, JWA Actuaries, France; and Pamela Madrid), Securities Regulation (made by Lennart Torstensson (Finansinspektionen, Sweden; and Pamela Madrid), and Payment System Oversight (made by Marianne Palva, Bank of Finland; and Gianni De Nicoló).

#### **A. Banking Supervision**

##### **General**

159. Banking supervision in Luxembourg is conducted by the CSSF. The CSSF Law of December 1998 and the Financial Sector Law (FSL) of April 1993 underpin the supervisory responsibilities and objectives for the CSSF. All banks operating in Luxembourg and falling under the supervision of the CSSF can carry out a banking business in the other Member

States of the European Union, either by the establishment of a branch or by way of direct delivery of banking services.

160. The assessment of the transparency of CSSF practices regarding supervision of the banking sector was based on the IMF's Code of Good Practices on Transparency in Monetary and Financial Policies. The assessment was based on a review of the legal framework, a self-assessment questionnaire prepared by the staff of the CSSF, and discussions with CSSF officials and financial sector representatives.

161. There is a high level of transparency set out in the Financial Sector Law and other relevant legislation, circulars issued by the CSSF, and guidance to the industry. Circulars to the industry are a principal means of disseminating supervisory requirements to the industry. In addition, the CSSF's Annual Report gives a comprehensive account of market characteristics, the CSSF's activities, its policy objectives and supervisory practice. Transparency is further enhanced through the Central Bank's Annual Report, which includes macroeconomic data on the financial system. The CSSF seeks to adopt an open dialogue with the industry to ensure that the supervisory requirements are fully understood.

## **Main Findings**

### ***Clarity of roles, responsibilities and objectives of the banking supervisory agency***

162. The responsibilities of the banking supervisory agency (CSSF) are well defined in the law.

### ***Open process for formulating and reporting of banking supervisory policies.***

163. The conduct of financial policies is transparent. It is reported in the Annual Report, which provides a broad summary of the activities of the CSSF and the status of the banking industry.

### ***Public availability of information on banking supervision.***

164. The CSSF issues a comprehensive Annual Report, which gives an overview of its supervisory activities in the banking sector. It also presents an overview of legislative work pertaining to the banking industry, both passed and proposed laws. The Annual Report is also available on the CSSF website.

### ***Accountability and assurances of integrity by the banking supervisory agency.***

165. The management of the CSSF is available to explain the objectives and policies of the CSSF. Internal governance procedures necessary to ensure the integrity of operations, including internal audit arrangements, are in place.

## **Recommended actions and authorities' response**

166. Given the high level of observance, no material recommendations were made by the mission. The authorities agree with the above appraisal. They explained that most of the operations conducted by the CSSF are made public in their Annual Report and the website.

## **B. Insurance Supervision**

### **General**

167. The Commissariat aux Assurances is the supervisory authority of the insurance sector. The law of December 6, 1991 regulates the legal framework of the insurance sector in Luxembourg, which is essentially based on the EC directives issued in the past decades. There are very tight links between the CAA, which is in charge of ongoing supervision, and the legislator, whose texts are usually prepared by the CAA. The licensing or license withdrawing process by the Ministry of Finance is proposed by the CAA.

168. The assessment was carried out by using the IMF's *Code of Good Practices on Transparency in Monetary and Financial Policies*. The practice-by-practice assessment was done principally by interviewing the Commissariat aux Assurances and studying the information provided by the Commissariat aux Assurances and other texts that are available to test the supervisory framework in Luxembourg. Meetings with different officials in charge of insurance companies as well as the supervisory authority, the insurance and reinsurance associations, were held and enabled the mission to complete its assessment.

169. The regulatory framework of the insurance sector is available to the public on the website ([www.commassu.lu](http://www.commassu.lu)).

### **Main findings**

170. The responsibility for insurance supervision in Luxembourg is well defined in the regulatory framework. The Commissariat aux Assurances is assigned the main role in this area. The Minister of Treasury and Budget is in charge of the licensing as well as license withdrawal. However, this is done on proposal of the Commissariat aux Assurances.

171. The responsibility and roles of the CAA are clearly well known by the public as well as the insurance companies of Luxembourg. Members of the Association des Compagnies d'Assurances indicated that the regulatory framework as well as the practice of onsite inspection is clear, transparent, and well known to them.

### ***Clarity of rules, responsibility, and objectives of financial agencies***

172. The legal framework is complete and no major deficiencies were found in the text. The texts relating to the regulatory framework of the Luxembourg insurance sector seem to be quite clear and understood by the public as well as by the insurance companies. The

regulatory provisions that have been enacted in Luxembourg over the last 140 years have been made public by publishing them in the “Memorial,” which is the daily official bulletin.

173. In the field of pension funds, whose regulations were widely modified in 1999/2000, the responsibilities of the different financial agencies are clear from a legal point of view.

***Open process for formulating and reporting on the financial policies***

174. The legal framework, as well as the working procedures of the Commissariat aux Assurances is open and transparent. The authorities provide the market with information on a regular basis through an annual report and circular letters, which enable the insurance companies as well as the consumers to be informed of the practices as well as the legal provisions enforced by the Commissariat aux Assurances. The CAA often meets with insurance companies and consumer groups to inform them of the CAA’s policies and objectives. The small size of the Luxembourg market makes it easier to foster an open process.

175. The Commissariat is allowed to exchange information according to article 15 of the 1991 Law. According to this article, the CAA is allowed to exchange information with other authorities provided that such information is subject to professional secrecy conditions and the authority grants the same right to the CAA. However, due to recent evolutions and the growing interlinkages between different sectors, the coordination process between the different financial supervisory authorities as well as the prosecutor might be improved.

***Public availability of information on insurance regulatory and supervisory policies***

176. According to the law and as observed in practice, the Commissariat issues an annual report on the situation of the market, which provides aggregate data on the insurance sector. This document as well as the website of the Commissariat, which provides additional information on the legislation, enable the public to be informed of the supervision situation.

***Accountability and assurance of integrity by insurance regulatory and supervisory agencies***

177. The Commissariat is under the supervision of the Minister of Treasury and Budget as disclosed in the articles 1 to 24 of the 1991 Law. Moreover, the management of the Commissariat aux Assurances is controlled by the board of directors of the Commissariat aux Assurances, which creates an additional level of accountability. For confidentiality purposes, not all its internal governance procedures are made public.

178. The funding of the Commissariat aux Assurances is clearly disclosed in the 1991 Law as well as the decrees of 1992 and 1995 on the resources of the Commissariat aux Assurances. The accounts of the CAA are audited by an independent auditor according to the law. Therefore, the financial situation is very clear and transparent.

Table 7. Recommended Actions to Improve Observance of the IMF’s MFP Transparency Code Practices—Insurance Supervision

Reference Practice	Recommended Action
V. Clarity of Roles, Responsibilities, and Objectives of Financial Agencies Responsible for Financial Policies.	Disclose the establishment of stronger links and cooperation between supervisory authorities should they occur.
VIII. Accountability and assurance of integrity by insurance regulatory and supervisory agencies.	The procedures whose disclosure does not lead to a loss of confidentiality risk should be made public.

**Authorities’ response**

179. Commissariat aux Assurances is prepared to disclose the establishment of stronger links with other supervisory authorities if necessary.

**C. Securities Regulation**

**General**

180. The CSSF is the competent authority for the supervision of the activity of financial services firms and financial assets markets. Its mandate includes the supervision of the activities of undertakings for collective investment, financial operations advisers, brokers, market makers, professional depositories of securities and other financial instruments, and of the activities of the stock exchange. According to the law of January 12, 2001, the CSSF is in principle the authority competent for the prudential supervision of payment and securities settlement systems, except for the systems in which the BcL or another member of the European System of Central Banks is participating and for which the BcL is the competent authority.

181. The assessment of the transparency of CSSF practices regarding supervision of the securities market was based on the IMF’s Code of Good Practices on Transparency in Monetary and Financial Policies. The assessment was based on a review of the legal framework, a self-assessment questionnaire prepared by the staff of the CSSF, and discussions with CSSF officials and financial sector representatives.

**Main findings**

*Clarity of roles, responsibilities and objectives of securities regulatory and supervisory agencies*

182. The responsibilities of the single securities regulator (CSSF) are well defined in the law. The Luxembourg Stock Market has self-regulatory responsibilities, which are subject to oversight by the CSSF.

***Open process for formulating and reporting of securities regulatory and supervisory policies.***

183. The conduct of financial policies is transparent. It is reported in the Annual Report, which provides a broad summary of the activities of the CSSF and the status of the financial markets. Much of the CSSF's regulatory work is done by internal committees, which include representatives of the industry and other external representatives.

***Public availability of information on securities regulatory and supervisory policies.***

184. The CSSF issues a comprehensive Annual Report, which gives an overview of its supervisory activities in the different sectors of the securities market. It also presents an overview of legislative work in the financial sector, both passed and proposed laws. The Annual Report is also available on the CSSF website.

***Accountability and assurances of integrity by securities regulatory and supervisor agencies***

185. The management of the CSSF is available to explain the objectives and policies of the CSSF. Internal governance procedures necessary to ensure the integrity of operations, including internal audit arrangements, are in place.

**Recommended actions and authorities' response**

186. Given the high level of observance, no material recommendations were made by the mission. The authorities agree with the above appraisal. They explained that most of the operations conducted by the CSSF are made public in their Annual Report and the website.

**D. Payment System Oversight**

**General**

187. The Banque Centrale du Luxembourg, established in June 1998 in view of Luxembourg's entry into the European Monetary Union, oversees payment and securities settlement systems. Luxembourg has two payment systems, an RTGS (Real-Time Gross Settlement) system called LIPS-Gross and a net settlement system called LIPS-Net. Both systems have been designated as systems governed by the Law implementing the EU Settlement Finality Directive and have been notified to the European Commission. (Clearstream Banking S.A. is also designated under the above-mentioned law and notified to the Commission). LIPS-Gross is a domestic RTGS system, but it is also part of the EU-wide RTGS system TARGET. LIPS-Net is a net settlement system with five clearing and settlement cycles during the day. Settlement takes place over accounts in LIPS-Gross. The securities settlement system in Luxembourg is managed by Clearstream Banking Luxembourg SA (CBL).

188. The assessment of the transparency of the BcL practices regarding the payment and securities settlement system oversight was based on a review of relevant laws, regulations

and policies and discussions with officials at the BcL and with representatives from three banks participating in one or both of the payment systems and Clearstream Banking Luxembourg. Also the BcL's answers to the questionnaire on Code of Good Practices on Transparency in Monetary and Financial Policies in September 1999 were made available. The assessment was based on the IMF's Code of Good Practices on Transparency in Monetary and Financial Policies.

189. The BcL cooperated with the assessment and provided all the necessary clarification and documentation. The BcL is observant in all four areas covering transparency of payment and security settlement system oversight. The Report on Oversight Policy and Procedures for Payment System was approved recently by the BcL management. Before final approval the document was distributed for consultation to parties involved.

190. An assessment of transparency of the ECB's (European Central Bank) practices regarding payment system oversight was made in the context of an IMF Report on the Observance of Standards and Codes (ROSC) mission in 2001.

## **Main findings**

### ***Clarity of roles, responsibilities and objectives of payment system oversight agencies***

191. The role, responsibilities and objectives of the BcL are clearly defined in the Treaty and the ESCB Statutes and the national Law implementing the Directive 98/26/EC on settlement finality in payment and securities settlement systems. A detailed presentation of the role of the Eurosystem in the field of payment system oversight and the practical organization of oversight activities within the Eurosystem is contained in the policy statement entitled "Role of the Eurosystem in the Field of Payment System Oversight."

### ***Open process for formulating and reporting of payment system oversight policies***

The BcL published a circular on oversight of the payment and securities settlement systems in February 2001. The BcL published its Report on Oversight Policy and Procedures on its web site after it was approved.

### ***Public availability of information on payment system oversight policies***

The BcL publishes statistical data on the payment systems in its annual report. The pricing of the LIPS-gross system is included in the rules of the systems, which are available to the public. The prices for cross-border TARGET payments are published by the ECB on its web site.

192. The BcL is publishing its balance sheet on a monthly basis, with a lag not longer than one week, according to the rules of the Eurosystem.

*Accountability and assurance of integrity by payment system oversight agencies*

193. The BcL has standards for the conduct of personal financial affairs for the staff. It has published a “Code de conduite applicable auprès de la Banque Centrale du Luxembourg,” directly inspired by a document of the Eurosystem, that is available on the BcL’s website.

**Recommended actions and authorities’ response**

194. Given the high level of observance, no material recommendations were made by the mission. The authorities are in full agreement with the assessment.