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Luxembourg: 2009 Article IV Consultation—Staff Report; Public Information Notice on the Executive Board Discussion; and Statement by the Executive Director for Luxembourg

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2009 Article IV consultation with Luxembourg, the following documents have been released and are included in this package:

- The staff report for the 2009 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on March 30, 2009, with the officials of Luxembourg on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on May 8, 2009. The views expressed in the staff report are those of the staff team and do not necessarily reflect the views of the Executive Board of the IMF.

- A Public Information Notice (PIN) summarizing the views of the Executive Board as expressed during its May 22, 2009, discussion of the staff report that concluded the Article IV consultation.

- A statement by the Executive Director for Luxembourg.

The policy of publication of staff reports and other documents allows for the deletion of market-sensitive information.

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LUXEMBOURG

Staff Report for the 2009 Article IV Consultation

Prepared by the Staff Representatives for the 2009 Consultation with Luxembourg

Approved by Ajai Chopra and Anthony R. Boote

May 8, 2009

Executive Summary

Luxembourg faces its most severe recession since the steel crisis in the 1970s. Profitability in the financial sector—the main driver for growth and trade—is falling rapidly, and the contraction in activity is spreading decidedly across other key export sectors. GDP growth is projected to underperform the euro area in 2009 and contract by 5¼ percent in real terms, followed by a moderate decline in 2010.

Resolution of home-host country issues is vital to enhance financial stability and additional regulatory action is needed. Given the large size of the financial sector and dominant foreign ownership, any rescue efforts in response to a systemic event would need to rely on parent banks and possibly their home countries. However, the systemic nature of the financial crisis has called into question the longstanding axiom that parent companies would always support their troubled subsidiaries. The authorities agree that reaching an arrangement on burden sharing is of paramount importance, but point to likely political obstacles. Additional regulatory action is needed to address liquidity risks, curtail leverage and strengthen both capital and supervisory capacity.

International policy cooperation is also needed to mitigate reputational risks that may arise from a potential run on money market funds. The investments held by these funds exceed GDP by about eight times, therefore preventing the authorities from issuing credible guarantees on their own. Moreover, these funds play an important role in providing liquidity to Europe's banking sector. Any disruption would not only undermine Luxembourg's reputation as a well-run financial center, but could also lead to systemic liquidity shortages in Europe. To address these risks, the authorities should pursue burden-sharing agreements that would allow—in the case of strong redemptive pressure—the immediate issuance of a credible multilateral guarantee. The authorities consider the prospects of such a guarantee as uncertain.

The adverse impact of the crisis on the growth outlook is partly mitigated by the authorities' well-conceived fiscal policy response. It combines substantial fiscal stimulus, including subsidies aimed at stabilizing employment, with the full functioning of the automatic stabilizers. Consequently, this year's budget is projected to swing into a deficit that is likely to exceed the Maastricht ceiling by a small margin. Nevertheless, the increase in near-term financing requirements is not expected to call into question fiscal sustainability, given low public sector indebtedness. Over the medium term, however, a decisive strategy is needed to curtail rapid expenditure growth and address aging-related challenges.

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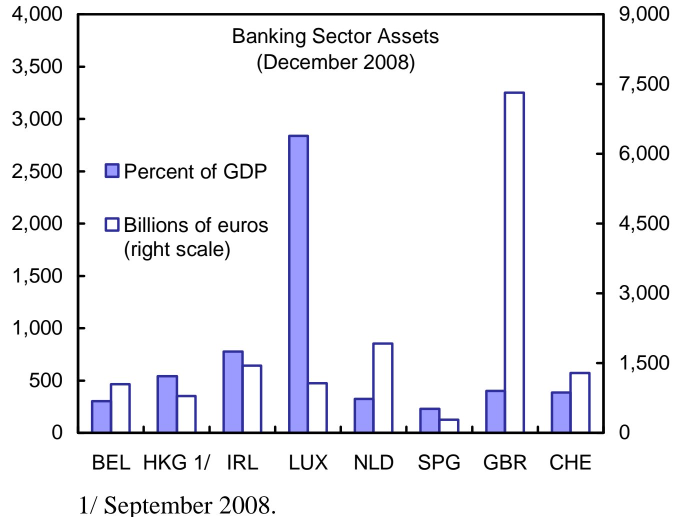
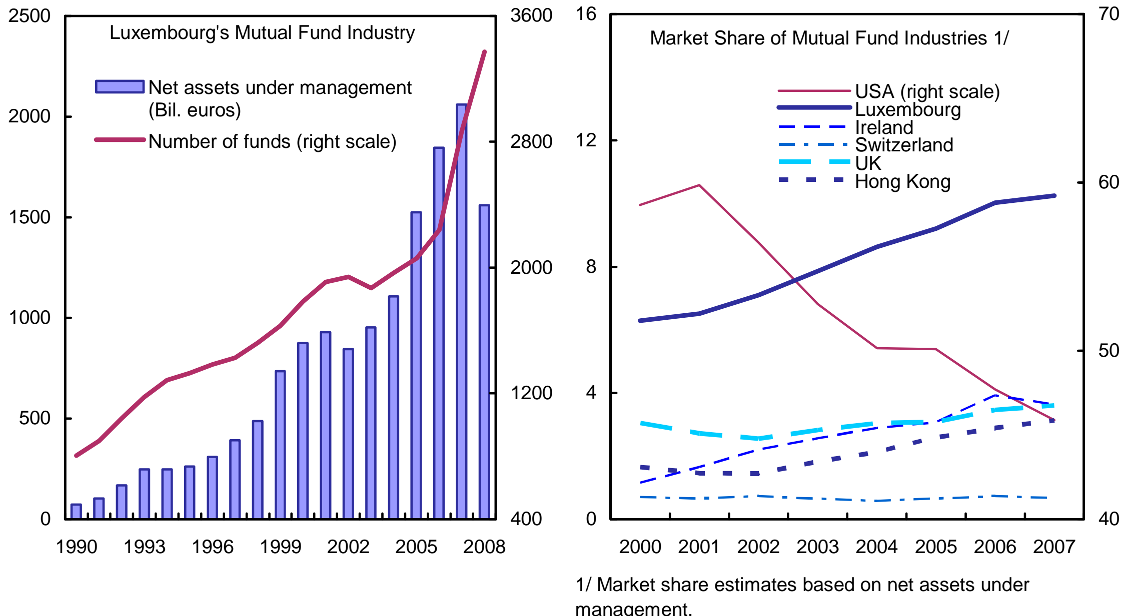
I. The Context

1. **Luxembourg hosts a financial center that is large by international standards, contributing substantially to the country's prosperity.** First-mover advantages, the steady strengthening of the regulatory framework under the auspices of the European Union (EU), and competitive taxation have fostered rapid financial sector development over the past three decades. Besides hosting 152 mostly foreign-owned subsidiary banks, the financial center also boasts Europe's largest investment fund industry (IFI). These foreign institutions tend to raise funding from abroad and, in turn, focus their lending and investment activities on opportunities abroad. Nevertheless, two of the largest foreign banks play a significant role in the domestic market, besides the state-owned savings bank. As such, the financial sector (FS) is the major engine of growth, the primary source of fiscal revenues, and the main reason Luxembourg's per capita income is highest in the euro area.



1/ September 2008.

2. **The financial sector's systemic importance extends well beyond national boundaries.** The sector's main activity is to "upstream" liquidity from the Luxembourg-based subsidiaries to their mostly European parent groups. About half of aggregate lending by Luxembourg banks is channeled to the international interbank market, largely in the form of short-term financing to parent banks. The money market fund (MMF) industry—the second largest in the EU—raises a substantial part of this liquidity. Any event that undermines the functioning of the financial center could therefore have immediate repercussions for Europe's banking sector.

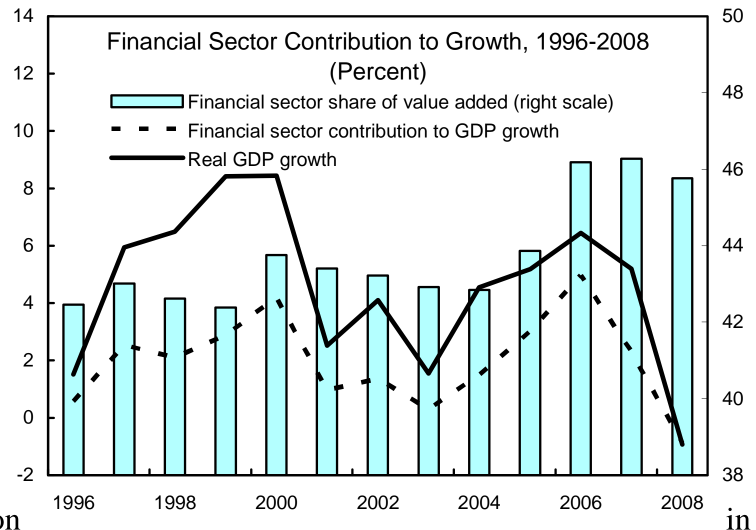


1/ Market share estimates based on net assets under management.

II. The Outlook: Macrofinancial Linkages and Spillovers

A. Financial Crisis Weighing on Near-Term Outlook

3. **Luxembourg's economy is experiencing a pronounced deterioration.** The FS and closely related sectors are responsible for nearly half of value added. As the financial crisis intensified, banking sector profits declined and the assets under management of the IFI contracted. Moreover, Luxembourg's economy is subject to the ebb and flow of international trade, given a share of exports in GDP of about 180 percent (2008). Falling exports in the fourth quarter of 2008 were largely responsible for a 5.2 percent year-on-year contraction in output, and for the almost 1 percentage point reduction in GDP for the year (Table 1). Reflecting trade developments, the current account surplus declined by about 4 percentage points of GDP (Table 2).



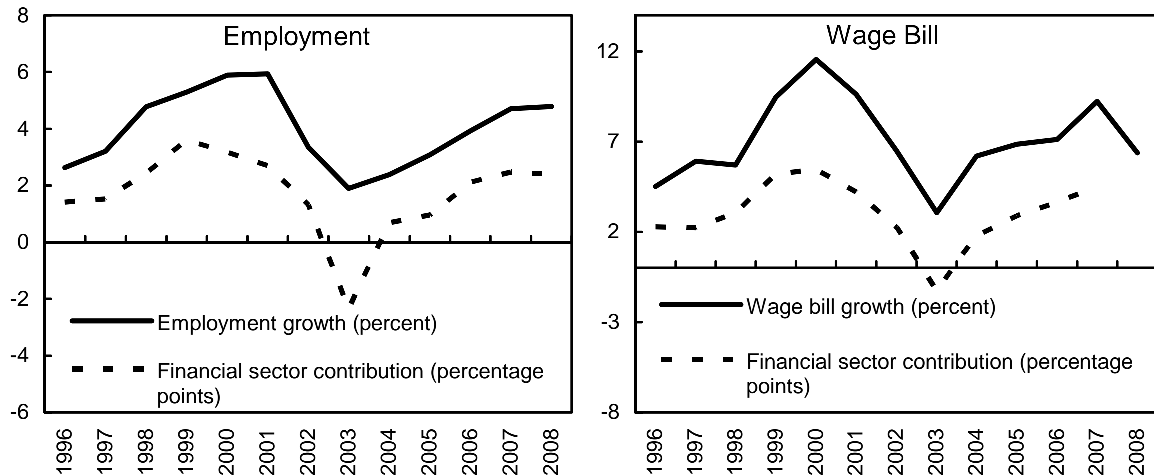
4. **The recession is deepening this year, but the authorities see the contraction as less pronounced than staff.** Three different agencies produce GDP growth projections, and the most conservative among these, albeit dated forecasts, is showing a 1.8 percent decline in real growth this year, followed by a brisk upturn of 2.1 percent in 2010. Given the large size of the FS and its ongoing contraction, it is unlikely that growth in Luxembourg could outperform that of the euro area. Staff forecasts a decline in real GDP this year of 5.3 percent, followed by a further moderate decline in 2010.

Comparative Macroframework, 2007-10
(Percent change in real GDP growth)

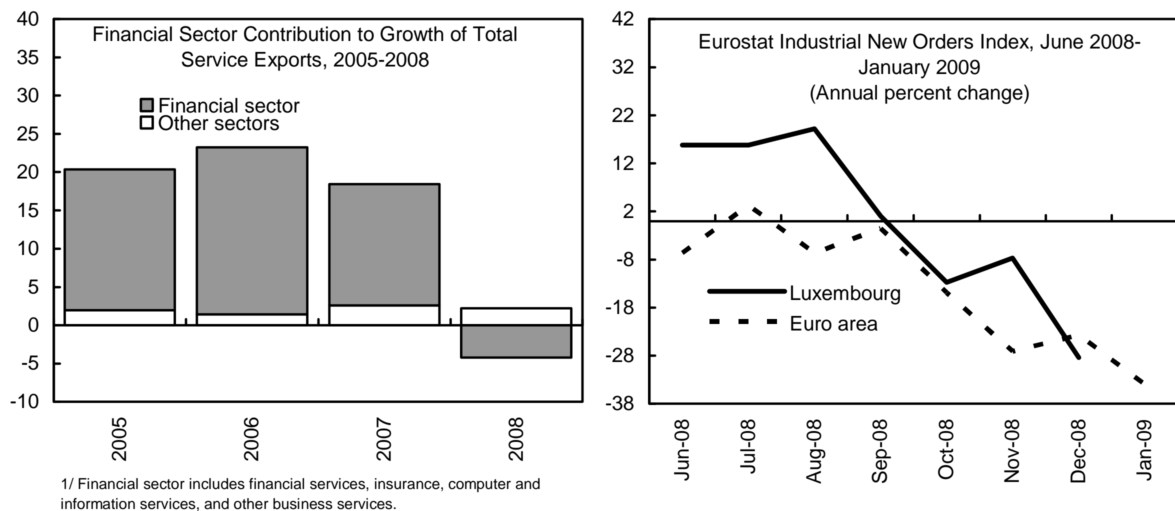
	2007	2008	2009	2010
			Proj.	
IMF staff (March 2009)	5.2	-0.9	-5.3	-0.3
European Central Bank	5.2	...	-3.0	0.4
Statec (March 2009)	5.2	-0.9	-1.8	2.1
Stability and Growth Program (January 2009)	5.2	1.0	-0.9	1.4
European Commission (January 2009)	5.2	1.0	-0.9	1.4

5. **All major expenditure components of GDP are likely to be adversely affected by the financial crisis, waning confidence, and euro area recession.**

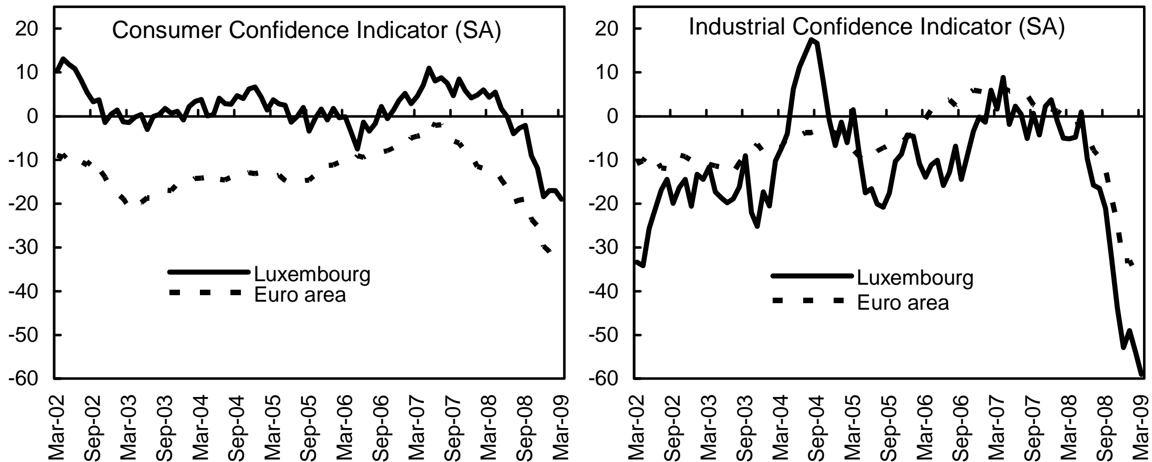
- *The FS has been a longstanding source of dynamic employment and income growth.* FS employment is likely to contract amidst global deleveraging, although the decline may be more moderate than in other financial centers, given the more steady activities of the IFI. Combined with a slowdown in wage growth, this would reinforce the sharp drop in consumer confidence and curb private consumption.



- *The FS is a major driver of exports.* An appreciable decline of the external trade surplus is expected this year, given the pronounced slowdown in FS activity and plummeting foreign demand for merchandise exports.

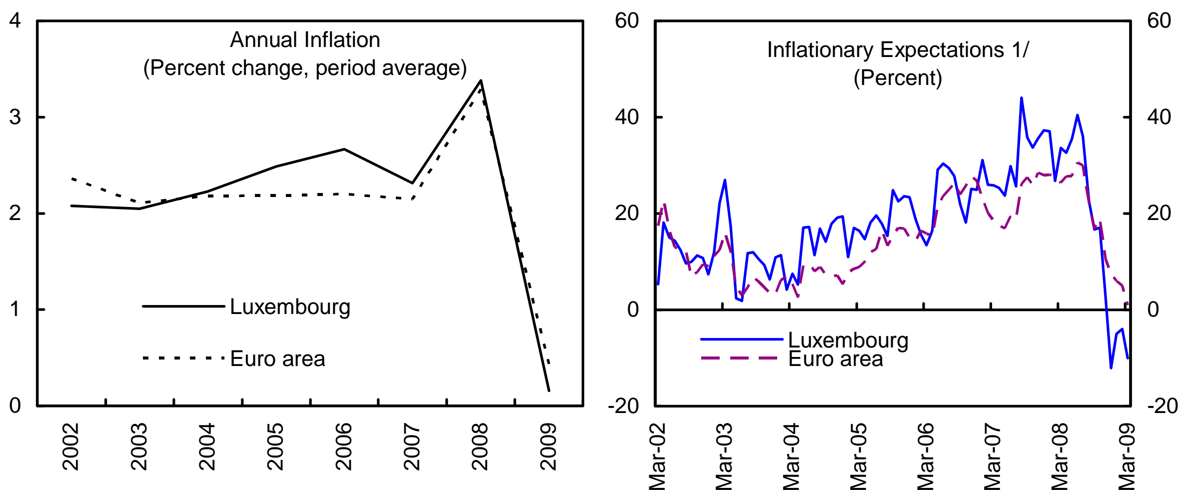


- *The adverse effects of the crisis on business confidence are pronounced.* Temporary plant closures and output reduction in key sectors, including manufacturing and transport, appear to have accelerated in the first quarter of this year, and point to a likely postponement of private sector investment decisions.



6. **The risks to the outlook are dominated by developments in Europe and the global financial system**. With the thawing of the financial system still in an early stage and some conjunctural indicators stabilizing, the risks to the outlook appear broadly balanced. However, a further deterioration in European trade volumes would heavily weigh on Luxembourg's prospects, given the close integration of its export sector with the EU. At the same time, a faster-than-expected recovery in financial markets could generate substantial upside risk.

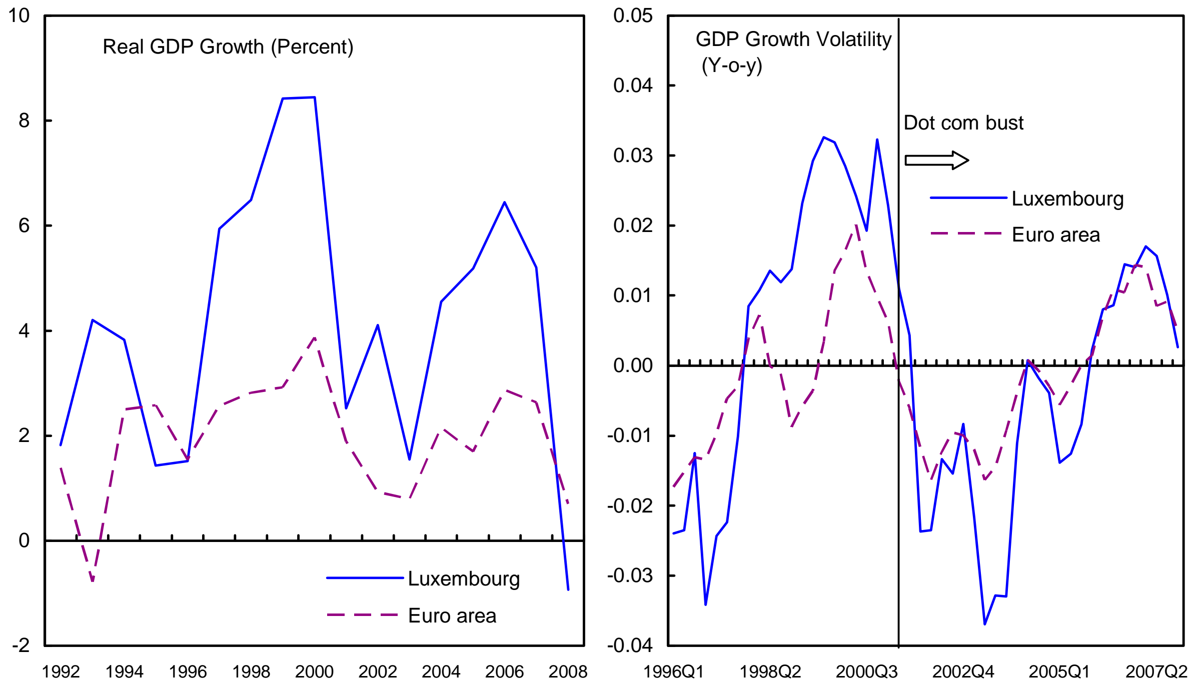
7. **Inflation declined sharply in late 2008 and is expected to remain low for the foreseeable future.** The partial reversal of earlier energy and food price increases lowered inflation to negative 0.3 percent year-on-year by March 2009, one of the lowest rates within the euro area. The pronounced decline in domestic demand is likely to curb wage demands and limit price increases in the non-tradable sector. Inflationary expectations have been falling rapidly, and inflation is forecast to remain low over the medium term.



1/ Balance of responses.

B. Spillovers and the Crisis' Adverse Effects on the Medium-Term Outlook

8. **With its large financial center, global financial developments spill over to Luxembourg.** While growth has been typically strong, it has also been volatile, given the financial sector's large share in output. Volatility in FS growth tends to mirror global financial market developments and is closely correlated with the volatility of overall GDP. Empirical analysis finds that a one percentage point increase in volatility of banking sector income leads to 0.2 percentage point deviation from trend growth.



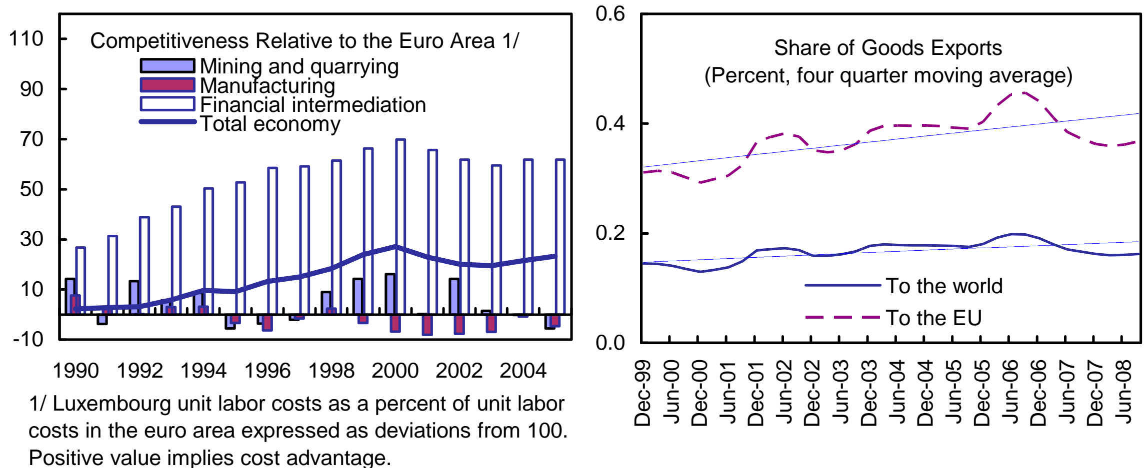
9. **The global financial crisis calls into question the viability of the business model underlying Luxembourg's FS.** Past rapid expansion of this sector was largely due to cost and tax differentials, which Luxembourg skillfully parlayed into a considerable first mover advantage. The financial sector has been vital to Luxembourg's competitive position (Box 1). However, the business model will need to adjust to the new financial architecture that emerges in the aftermath of the crisis, and it is prudent to assume that deleveraging will curtail the economy's growth potential over the medium term. The authorities agreed that the uncertainties surrounding the sector's growth potential had risen markedly. However, they emphasized that the diversification across the FS and the steady flow of back-office transactions carried out by the IFI would mitigate any fallout from deleveraging.

Box 1. Competitiveness

The financial sector has been supporting Luxembourg's competitive position.

- Relative unit labor costs point to a moderate overall competitiveness advantage. This is most pronounced in the financial sector, but is in part offset by traditional sectors, especially manufacturing. However, there are inherent difficulties in calculating and interpreting estimates of financial sector unit labor costs. Moreover, there is anecdotal evidence that some firms are relocating activities, especially back-office and custodian activities, to cheaper cost locations in the eastern part of the EU.

- Luxembourg's share of world merchandise exports is overall stable, while its share in the EU market is rising steadily.

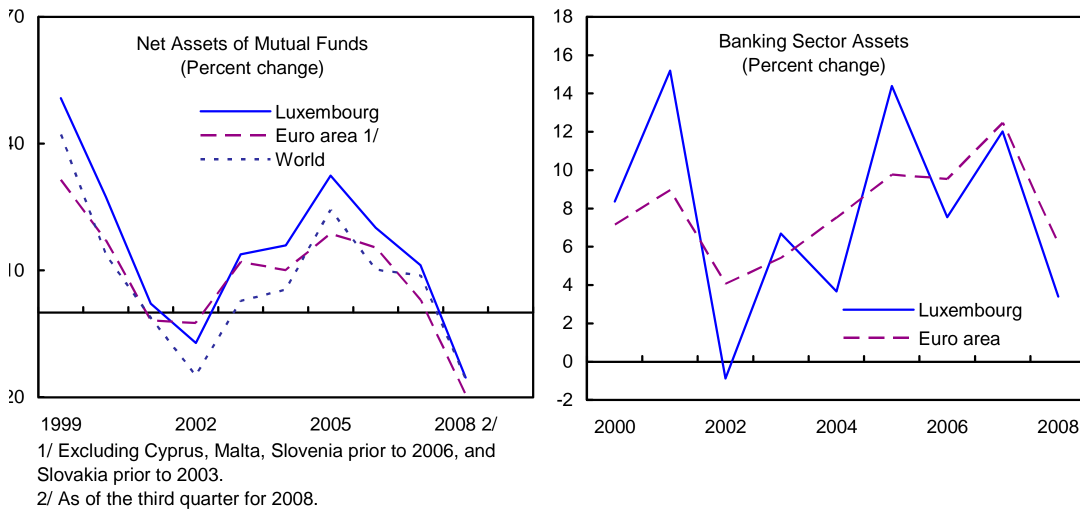


1/ Luxembourg unit labor costs as a percent of unit labor costs in the euro area expressed as deviations from 100. Positive value implies cost advantage.

- Similarly, application of CGER methodology cannot identify any competitiveness gap. Confidence intervals for the current account norm and the equilibrium real exchange rate both span the estimated values, implying a competitiveness gap of about zero.

CGER Assessment of Competitiveness

	Estimate	Confidence interval of the estimate	Significantly different from zero at 95 percent confidence level
Average competitiveness gap (in percent)	6.0	n.a	n.a
Macroeconomic balance approach	6.5	n.a	n.a
Equilibrium real exchange rate approach	8.7	-15.3 to 32.7	No
External stability approach	2.7	n.a	n.a
Memorandum items:			
Assessment of competitiveness gap	About zero	n.a	n.a
Current account norm (percent of GDP)	8.7	1.7 to 15.7	No
Projected current account (percent of GDP)	6.2	n.a	n.a



1/ Excluding Cyprus, Malta, Slovenia prior to 2006, and Slovakia prior to 2003.
2/ As of the third quarter for 2008.

III. Risks to Financial Stability

10. **The close integration of the Luxembourg-based subsidiaries with their mostly European parent groups poses a major risk to financial stability**.

- High intra-group exposures and over-reliance on wholesale funding create appreciable liquidity risks that would materialize if the health of the European banking sector deteriorates.

- Banks' thinning, though still comfortable, capitalization and relatively high leverage are additional risks.

- At the same time, there are systemic risks emanating from Luxembourg to the euro area, as a result of the large volume of money market and other short-term financing provided by the financial center to the European banking sector.

A. Intragroup Exposure and Liquidity Risks

11. **Luxembourg-based subsidiaries are closely intertwined with their parent groups.** Regulation facilitates the upstreaming of liquidity, as intragroup and interbank lending is exempt from large exposure limits. As a result, about half of the aggregate banking sector assets were interbank loans at end-2008, of which about two-thirds were intra-group liabilities (Figure 1). These exposures would become a substantive source of financial sector instability were the health of parent banks or other large banks to deteriorate.[1] At the same time, given their focus on opportunities abroad, the impact of a potential failure of most of the foreign-owned subsidiaries on the availability of credit to the domestic economy would be limited. Nevertheless, following their rescue in 2008 a substantial share of Dexia and

[1] For a study on these risks, see Banque Centrale Du Luxembourg, Bulletin 2004/1.

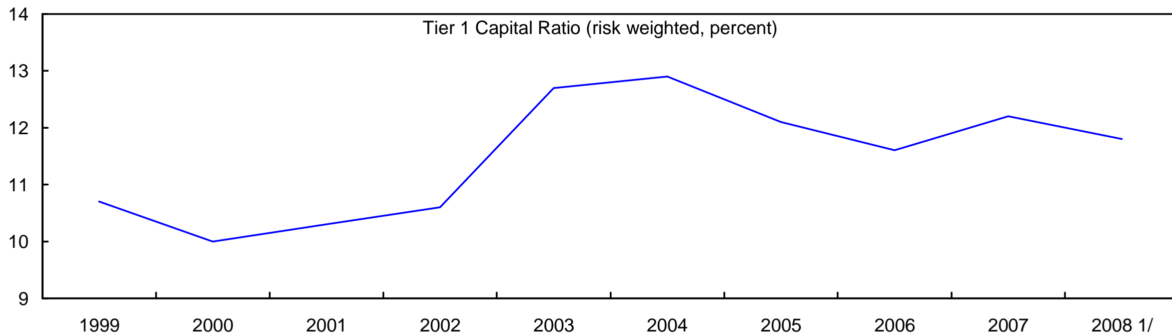
BGL, two of the largest banks, remains in foreign ownership. These subsidiaries continue to play a major role in the domestic market.[2]

12. **Wholesale markets are the primary source of funding.** Given their mostly international focus, banking sector deposit taking is limited, and interbank and intra-group loans are the single largest sources of funds. Difficulties in the international bond, interbank, or money markets would thus have immediate repercussions for banks' liquidity. The authorities agreed that liquidity conditions have tightened, but underscored that private banking and asset management activities had continued to allow most banks to raise substantial liquidity during the crisis (Figure 2).

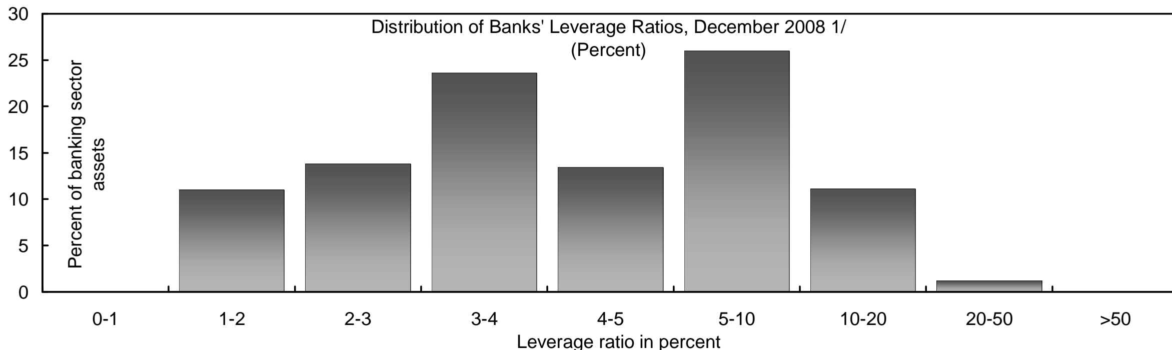
B. Leverage and Capitalization

13. **Capital levels appear comfortable when measured relative to risk-weighted assets, but the use of simpler leverage ratios point to less benign conclusions.** The tier 1 capital ratio has exhibited a moderate but steady decline from its peak in 2004 (Table 3). However, more than two thirds of the banking sector exhibited a leverage ratio—defined as the ratio of equity to the unweighted sum of assets—of less than 5 percent, a level that may be considered as too low.[3]

The tier 1 capital ratio remains comfortable overall, but has declined from its peak.



For about two thirds of the banking system, the leverage ratio fell below 5 percent.



1/ The leverage ratio is defined as eligible own funds divided by total assets.

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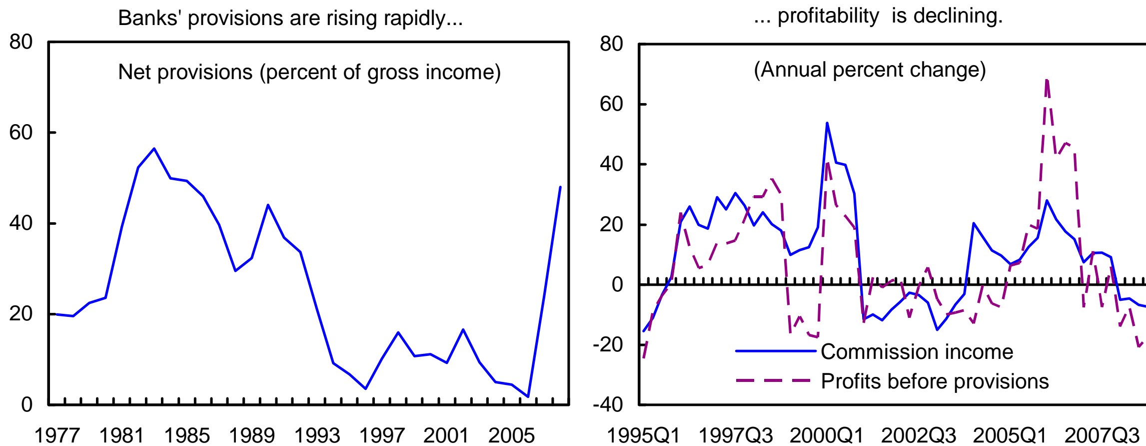
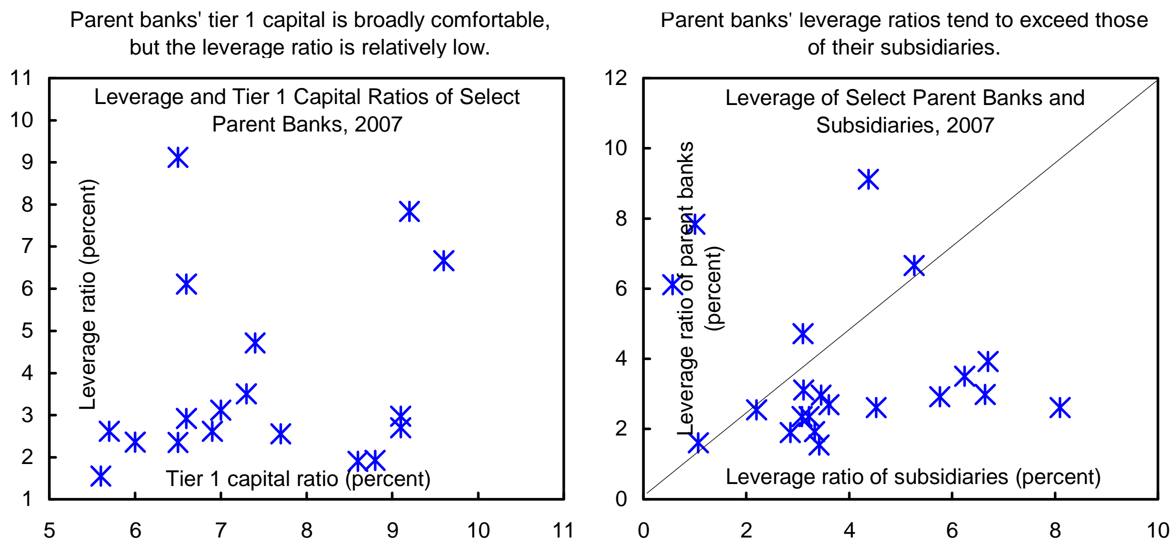
[2] BGL is the successor institution that emerged from the rescue of Fortis' subsidiary in Luxembourg.

[3] See GFSR October 2008, Box 1.2 for a discussion capital adequacy measures.

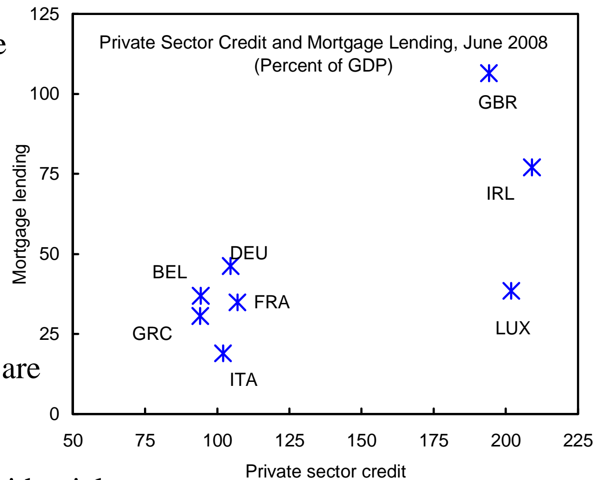
14. **The financial turmoil is weighing on banking sector profitability.** Cumulative banking sector profits declined by 17 percent year-on-year in 2008, in large part reflecting a sharp decline in one-off revenues and falling commission income. These were in part offset by an increase in the interest margin, as banks took advantage of high interbank rates. Nevertheless, interest income is expected to decline this year, mainly as a result of policy easing and normalizing interbank markets. These developments, combined with an appreciable increase in provisions, underscore the pressures on sector-wide profitability.



15. **The relatively high leverage of parent banks calls into question how effectively they could intervene if a subsidiary faced a shortfall in capital.** The equity-to-assets ratio suggests that subsidiaries tend to be better capitalized than their parent banks and group leverage ratios in many instances seem low, indicating risks to capital adequacy for both group and subsidiary banks.



16. **Looking ahead, Luxembourg's economic downturn and a cooling off in the real estate market could generate further pressures on banking sector capital.** Loans to the private sector in Luxembourg, including household mortgages, are concentrated in three banks. One of these, the state-owned savings bank, is estimated to have issued more than 40 percent of all household mortgages. Although a legal framework allowing securitization was introduced in 2004, mortgage loans are typically held on balance sheet. This poses a potential risk to banks' capital, given that residential real estate prices are estimated to have nearly doubled during the past decade and are now showing signs of weakening. Nonetheless, the default rate on residential mortgage loans in Luxembourg remains extremely low.



C. The Importance of Money Market Funds to Euro Area Banks

17. **MMFs provide substantial funding to Europe's banking sector (Box 2).** If these funds experience renewed redemption pressure, they would be forced to shed assets, potentially causing serious liquidity shortages for euro area banks. Although MMFs are not a vital source of financing for the Luxembourg economy, a potential run on Luxemburg's funds could jeopardize the country's reputation as a well run financial sector.

Box 2. Money Market Funding and Euro Area Banks

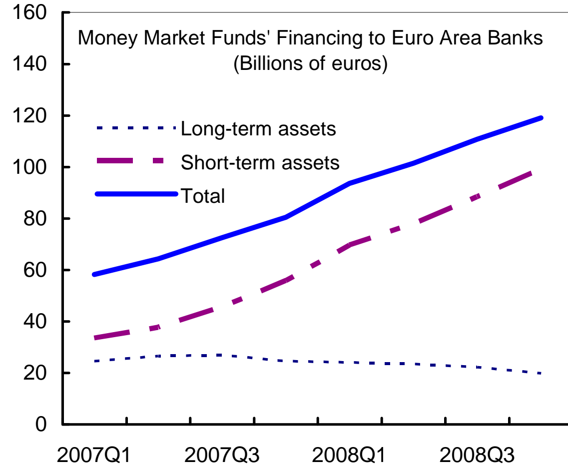
Luxembourg's hosts the second largest MMF industry in Europe, holding 340 billion euro in assets under management (December 2008). Among these assets, claims on euro area banks were 109 billion euro, mostly in the form of securities and deposits.

Tight liquidity conditions and limited credit losses resulting from the failure of Lehman Brothers caused serious redemption pressure on U.S. MMFs in September 2008. To avert a run on these funds the U.S. authorities set up a liquidity facility and provided a temporary guarantee to their investors.

The concerns over U.S. MMFs spilled over to Europe, and redemption pressures on MMFs in Ireland and Luxembourg were exacerbated in October 2008 by a guarantee from the German authorities to provide liquidity to resident MMFs. In the case of Luxembourg, parent institutions stepped in and provided some liquidity to their off-balance sheet funds. Although pressure eased and Luxembourg's funds recorded renewed inflows in November and December, they also tended to shorten the maturity of their investments. As a result, short-term funding to euro area banks by Luxembourg's MMFs rose to 99 billion euro.

In contrast to the U.S. approach that provided MMFs with direct access to liquidity from the Federal

Reserve System, the European Central Bank (ECB) relies on indirect provision of liquidity. A wide majority of European MMFs are sponsored by parent banks and, in principle, these banks could place MMFs' assets on their balance sheet, use these assets to raise liquidity from the ECB, and pass the liquidity on to their sponsored MMFs. However, weakened capitalization may limit the scope for banks to take assets onto their balance sheets. At the same time, providing direct access for MMFs to ECB liquidity is complicated by the lack of a precise, European-wide definition of admissible MMF investments and detailed data on assets that can serve as collateral.



Most importantly, however, there is no mechanism in place to coordinate a European guarantee to stem a potential run on MMFs.

IV. The Response to the Crisis

A. Policy Action

18. **The authorities' response to the crisis has so far been ad hoc.** When the European financial services conglomerate Fortis and Dexia bank experienced a severe loss of investor confidence in the fall of 2008, the Luxembourg authorities joined the rescue efforts of other host and home country authorities. The subsidiaries of Dexia and Fortis were the largest and third largest banks in Luxembourg in 2007, and the authorities contributed 2.9 billion euro, 8 percent of GDP, in capital to support them. Moreover, a one-year guarantee for over 4.5 billion euro was issued in support of Dexia's funding. These measures appear to have restored confidence in the subsidiaries. The authorities also intervened in three insolvent Icelandic banks.

19. **Under an EU-wide initiative, the limit on deposit insurance (DI) was raised fivefold.** Effective January 1, 2009 the DI limit increased to 100,000 euro for the indefinite future. The authorities are also revising the DI framework to address deficiencies of the existing scheme. In particular, they are concerned about the ex post funding of the current scheme, which obliges banks to cover the costs of an event that triggers the deposit insurance only once this event has occurred. It is their intention that the revised scheme will be funded on an ex-ante basis, although sufficient funding will need to be built up gradually. While the scheme will remain private and its membership mandatory, current plans call for it to be administered by the regulator.

B. Policy Implications

20. **The financial crisis has highlighted potent risks to financial stability and pertinent international initiatives are underway to address these.** The Committee of European Banking Supervisors (CEBS) has recommendations forthcoming that would address liquidity management and intragroup exposure issues. Additional recommendations from the CEBS and the Basel Committee with respect to increasing capital and liquidity buffers, improving the quality of capital, and imposing limits on leverage are under discussion. The authorities are prepared to implement reforms in tandem with their competitor jurisdictions.

21. **International policy coordination is needed to safeguard the stability of both the banking sector and the money market.**

- ***Resolution of home-host country issues is vital to enhance financial stability.*** Given the disproportionately large size of the financial sector and dominant foreign ownership, any rescue efforts in response to a systemic event would need to rely on parent banks and possibly their home countries. However, the systemic nature of the financial crisis has called into question the longstanding axiom that parent companies would always support their troubled subsidiaries. Reaching an agreement on burden sharing is thus of paramount importance and should be pursued, even if this requires concessions from the authorities. The authorities agree on the importance of resolving home-host country issues and recognize the potential benefits of a proactive approach in seeking burden sharing agreements, notwithstanding likely political obstacles to such agreements. They also point to the importance of harmonizing the crisis resolution framework across the EU.

- ***International policy cooperation is also needed to mitigate the risk of a potential run on MMFs.*** The investments held by MMFs exceed GDP by about 8 times, therefore preventing the authorities from issuing credible guarantees on their own. The continued flow of liquidity from Luxembourg's financial sector, however, is important to financial stability in the euro area and, consequently, Luxembourg's reputation as a well run financial center. The authorities are mindful of these risks. They recognize the importance of international cooperation, but consider the prospects for success as uncertain amid the heightened stress experienced in many countries' financial systems and, in some instances, an inward focus of policy makers.

22. **Financial stability should also be enhanced by strengthening the prudential and regulatory regimes.** Any policy tightening, however, needs to be phased in carefully, given the procyclical effects and the uncertain strength of banks' balance sheets.

- ***Improving liquidity management and mitigating risks from intra-group exposure.*** While intragroup exposures are essential to banks' business models, liquidity management has been largely shifted to the group level, effectively exposing subsidiaries to risks from liquidity shortages and maturity mismatches. As a result of legal changes in 2008, the central bank assumed responsibility for macro prudential surveillance of liquidity, while the regulator is stepping up its efforts at micro-prudential surveillance. Given that a one-size-fits-all liquidity requirement could be suboptimal, these institutions are jointly developing a tighter liquidity policy that takes due account of bank-specific circumstances. Following the development of a qualitative framework, the authorities intend to devise a quantitative framework. Close cooperation between these institutions will be essential to the success of this policy initiative.

- ***Raising capital buffers and setting leverage ratios.*** In order to curtail excessive leverage, the authorities support the introduction of leverage ratios, and additional Basel capital requirements. These initiatives, however, need to be coordinated on an international level.

23. **Moreover, there is scope for strengthening supervisory capacity.** Relative to the size of banking sector assets, the resources allocated to supervision in Luxembourg remain low by international standards, notwithstanding steady increases in recent years. Moreover, Luxembourg's IFI is larger than that of comparator countries, underlining the resource constraint. Separately, heavy reliance on external auditors for on-site work will need to be reconsidered—in light of global regulatory failures in identifying emerging risks, renewed effort are necessary to build those skills in house. It will be crucial to have a strong on-site supervision program aimed at identifying and managing risks.

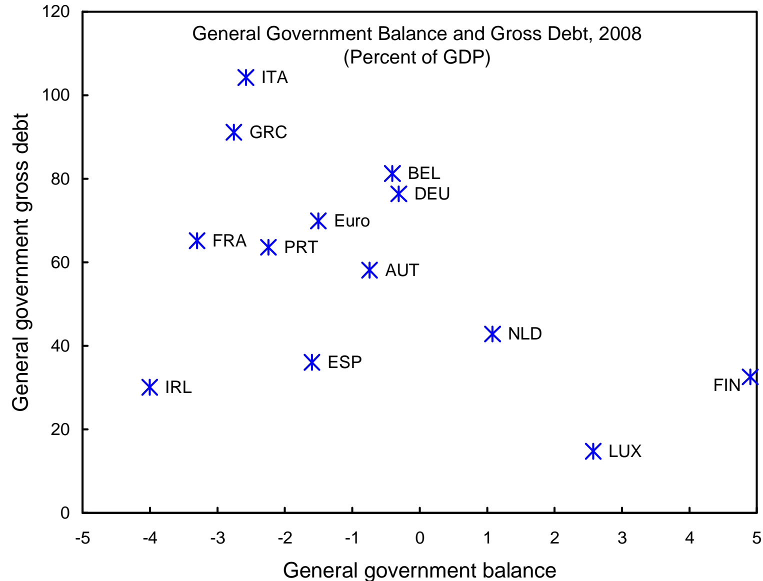
Resources Allocated to Financial Sector Supervision

	2007 budget (Millions of euro)	In basis points of banking sector assets	Banking sector assets 1/ (billions of euro)
Belgium (CBFA)	81.9	0.7	1,116
Ireland (FSA)	55.8	0.4	1,409
Luxembourg (CSSF)	28.0	0.3	1,031
Switzerland (FINMA)	64.6	0.5	1,350
UK (FSA)	435.9	0.5	8,287

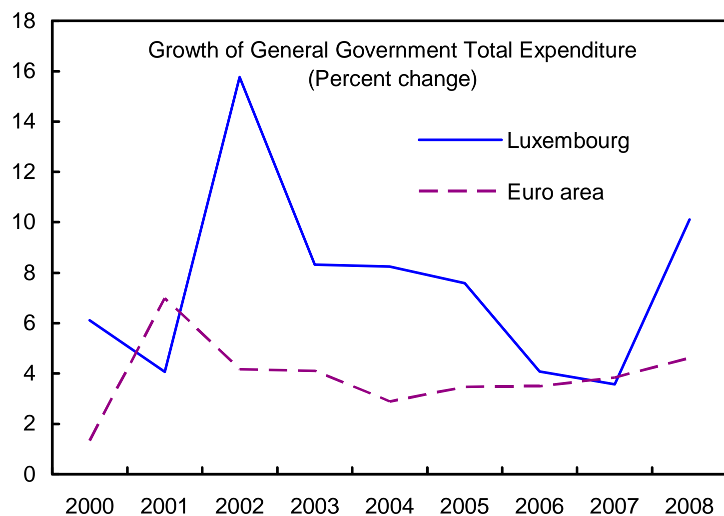
Sources: National regulators; IMF staff estimates.
1/ End 2007.

V. The Impact of the Crisis on the Budget

24. **Luxembourg's public finances are much better positioned than those of most other EU countries to weather the recession.** Notwithstanding recent bank rescue efforts, the public debt stock remains very low by international standards, owing to past fiscal surpluses. Following the tripartite agreement in 2006 to enhance the competitiveness of the economy, wage indexation was partially suspended and some expenditures were curtailed. The budget swung into a substantial surplus in 2007 (3.6 percent of GDP).



25. **However, past performance was in large part due to cyclical revenue strength and the 2008 budget was expansionary.** Revenues surprised on the upside during 2006-08, largely driven by the strength of the financial sector and one-off events, including from the merger between Arcelor and Mittal. The financial sector contributes an estimated 40 percent to corporate taxes, 25 percent to personal income taxes, and about 30 percent to overall budget revenues (Figure 3). The revenue impact of tax measures, including a child tax credit and indexation of income brackets to inflation to mitigate bracket creep, are estimated to have reduced overall 2008 revenues by 0.9 percentage point of GDP. At the same time, current expenditure growth accelerated, in part reflecting an appreciable increase in intermediate consumption and a further real expansion of the wage bill. The authorities emphasized that the increase in the wage bill was related to the development of university and research capacity and was thus in fulfillment with the objectives under the Lisbon Strategy. Against this background, staff estimates that the budget surplus declined in 2008 to 2.6 percent of GDP (Table 4).



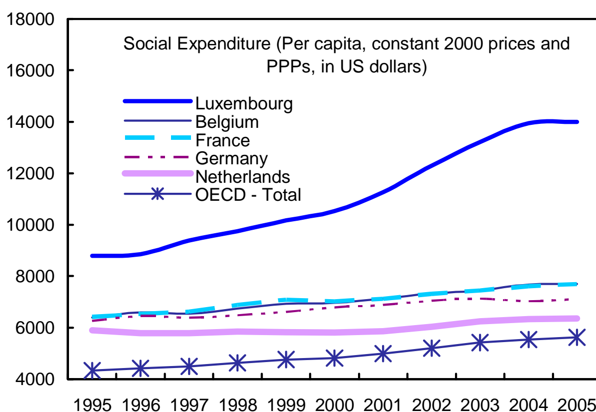
26. **The 2009 budget provides substantial fiscal stimulus**. It supports both consumption and employment by compensating workers of qualified firms for wages lost due to reductions in hours worked, while also helping to defer dismissal decisions. Furthermore, the execution of long-term public investment projects is being advanced, and domestic demand should also be supported by the generosity of welfare benefits (Figure 4). Given a broad range of additional tax and expenditure measures, the overall fiscal stimulus is expected to reach 3 percent of GDP in 2009.

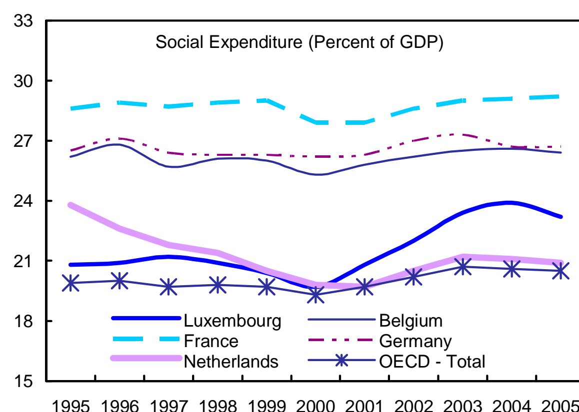
Luxembourg: 2009 Fiscal Stimulus Measures

Measures	Fiscal Impact (percent of GDP)
Expenditure side	1.5
Transfers to households	0.7
Unemployment benefit	0.3
Childcare subsidy	0.1
Allocation of allowances for social housing	0.3
Transfers to business	0.1
Public investment, incl. research and development	0.6
Revenue side	-1.5
Personal income taxes	-1.2
Indexation of the personal income tax brackets	-0.9
Increased tax credits	-0.3
Corporate income taxes	-0.3
Abolition of capital contribution tax	-0.3
CIT rate reduction (from 22 percent to 21 percent) 1/	0.0
Total fiscal impact	3.0

1/ Revenue impact starting in 2010.

27. **Automatic stabilizers should be allowed to operate fully, notwithstanding a material deterioration in this year's budget.** The authorities expect the 2009 deficit to reach about half of staff's forecast of 3.3 percent of GDP. These differences are in large part due to staff's forecast for a deeper recession and its more conservative assessment of the revenue impact of the financial crisis. However, all agreed that automatic stabilizers should be allowed to operate freely under either scenario.





28. **Nevertheless, over the medium and long term adjustment is necessary to foster fiscal sustainability, which is currently threatened on a number of fronts.**

- *Medium-term expenditure pressures.* The wage indexation mechanism will be applied in full again in 2010, following its partial suspension under the 2006 Tripartite Agreement, and social transfer payments and public wage expenditures will rise accordingly.

- *Medium-term revenue uncertainties.* Global deleveraging, likely regulatory tightening across Europe, and changes to bank secrecy and their adverse effects on Luxembourg's financial center will limit the revenues contributed by the single largest sector. Moreover, although proceeding gradually, changes in EU tax regulation are potentially curtailing the attractiveness of Luxembourg as a business location, including the introduction of the end-user principle under the VAT directive that will lower internet-related VAT revenues starting in 2015.

- *Long-term expenditure pressures.* Far-reaching reforms of the public, pay-as-you-go pension system remain overdue, given that substantial funding gaps continue to threaten its long-term viability.[4]

VI. Staff Appraisal

29. **Ongoing financial turmoil and the first global recession in 60 years pose daunting challenges to Luxembourg's small open economy.** The financial sector—hosting a large number of foreign-owned subsidiary banks, Europe's largest investment fund industry and second largest money market industry—is fully exposed to the turmoil. Besides financial service exports, the contraction in European demand is also weighing heavily on the economy's traditional export sectors. As a result, Luxembourg faces its most severe recession since the steel crisis in the mid-1970s.

30. **Continued economic success crucially hinges on the maintenance of financial stability.** The authorities' rescue efforts and intervention in the banking sector, while appropriate and decisive, were also ad hoc. There remains an urgent need to enhance crisis preparedness and devise an effective, multilateral response. Given that Luxembourg's financial center is testimony to Europe's advanced financial integration, the authorities should spearhead an initiative to develop an effective, multilateral crisis management strategy.

- *Resolving home-host country issues and seeking burden sharing commitments.* The systemic nature of the financial crisis has called into question the longstanding axiom

[4] For a comprehensive analysis see IMF Country Report No. 06/165, chapter III.

that parent companies would always support their subsidiaries in difficulty. Therefore, the authorities need to advance discussions with both parent companies and home countries with the aim of achieving burden sharing commitments.

- *Addressing the risks stemming from the close integration of Luxembourg-based subsidiaries with their parent groups.* While intragroup exposures are essential to banks' business models, liquidity management has been largely shifted to the group level, imposing undue risks of a liquidity shortage on subsidiaries. Addressing these risks requires comprehensive and continuous monitoring of liquidity at the local level; and devising a regulatory framework that embeds sufficient flexibility to take due account of bank-specific circumstances. In this regard, the joint efforts of the central bank and the regulator are welcome, and cooperation between these institutions will be vital for success.

- *Reining in excessive leverage.* Luxembourg's financial center has not escaped some of the excesses that have bedeviled the global financial system. More than half of Luxembourg's banking system seemed overly leveraged at end-2008, with gearing ratios in excess of 20 times. While system-wide capital levels appear adequate, these developments call for a further strengthening of the regulatory regime, tightening of capital requirements, and the introduction of binding limits on leverage. However, such steps need to be coordinated internationally, and care needs to be taken with regard to the speed and timing these measures, in order to facilitate an orderly adjustment of banks' balance sheets.

- *Safeguarding Luxembourg's reputation as a well run financial center.* The continued flow of liquidity from Luxembourg's financial sector is important to financial stability in the euro area and, consequently, the country's reputation as a well run financial center. The authorities should capitalize on this alignment of interests by pursuing burden sharing arrangements that would allow—in case of strong redemption pressures—the immediate issuance of a credible, multilateral guarantee to cover those funds' liabilities. This is also pressing as MMFs do not have direct access to central bank liquidity. Weakened capital positions may currently limit banks' ability to take MMFs' assets onto their balance sheets and, therefore, the extent to which banks can raise liquidity from the monetary authorities on behalf of their off-balance sheet MMFs. The need for a liquidity facility, therefore, should also be further explored.

31. **Notwithstanding their adverse impact on the deficit, the fiscal stimulus package is appropriate and the automatic stabilizers should be allowed to function fully.** Public finances are well positioned to weather the recession. Despite recent bank rescue efforts, the public debt stock remains low by international standards, providing ample scope to finance budget pressures over the near term. The deficit is projected to exceed the Maastricht ceiling

by a small margin this year, but the automatic stabilizers should be allowed to operate fully given the precipitous economic contraction.

32. **Looking ahead, once the economy begins to emerge from recession, appreciable efforts will be needed to enhance medium- and long-term fiscal sustainability.**

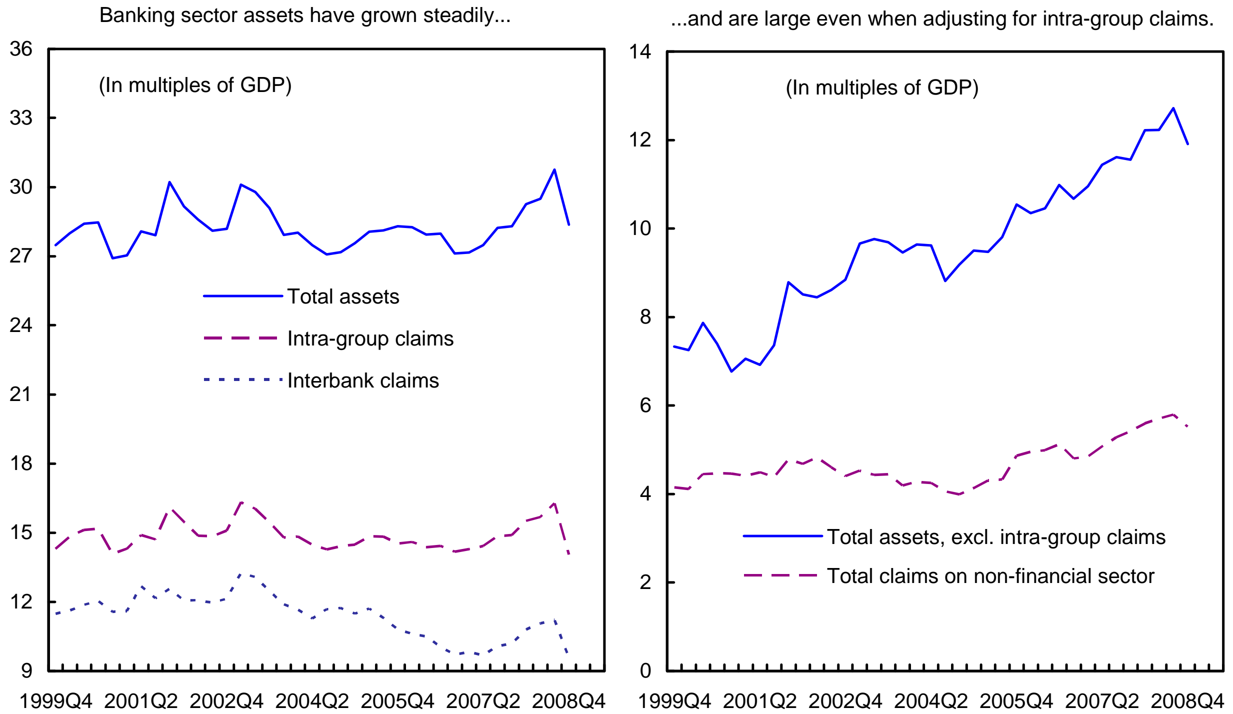
- Expenditures are rising—in spite of past fiscal adjustment undertaken, current spending returned to buoyant growth in 2008. The planned return to full indexation of wages and social benefits in 2010 will likely exacerbate this trend, and also hamper efforts to improve competitiveness.

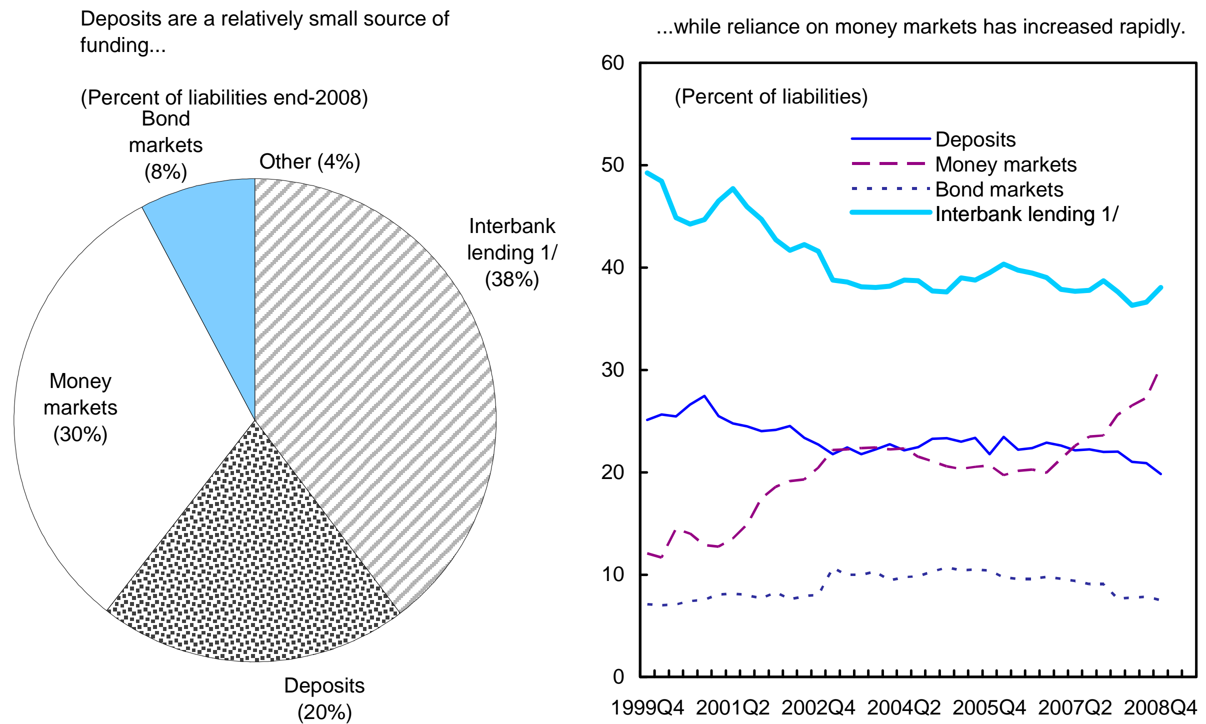
- At the same time, uncertainties have arisen concerning the evolution of medium-term fiscal revenues. These stem primarily from the potentially adverse impact of global deleveraging, likely regulatory tightening in Europe, and changes to rules governing bank secrecy and their dampening effects on the fiscal revenues raised from Luxembourg's financial center. Moreover, changes in EU tax regulation, including the 2015 introduction of the end-user principle that will curtail VAT revenues, are also a concern.

In light of these risks and uncertainties, the reintroduction of full inflation indexation of wages and benefits should be reconsidered. Furthermore, far-reaching reforms of the public, pay-as-you-go pension system remain overdue, and should proceed with priority, given that substantial funding gaps continue to threaten its long-term viability.

33. It is proposed that the next Article IV consultation with Luxembourg will be held within 24 months.

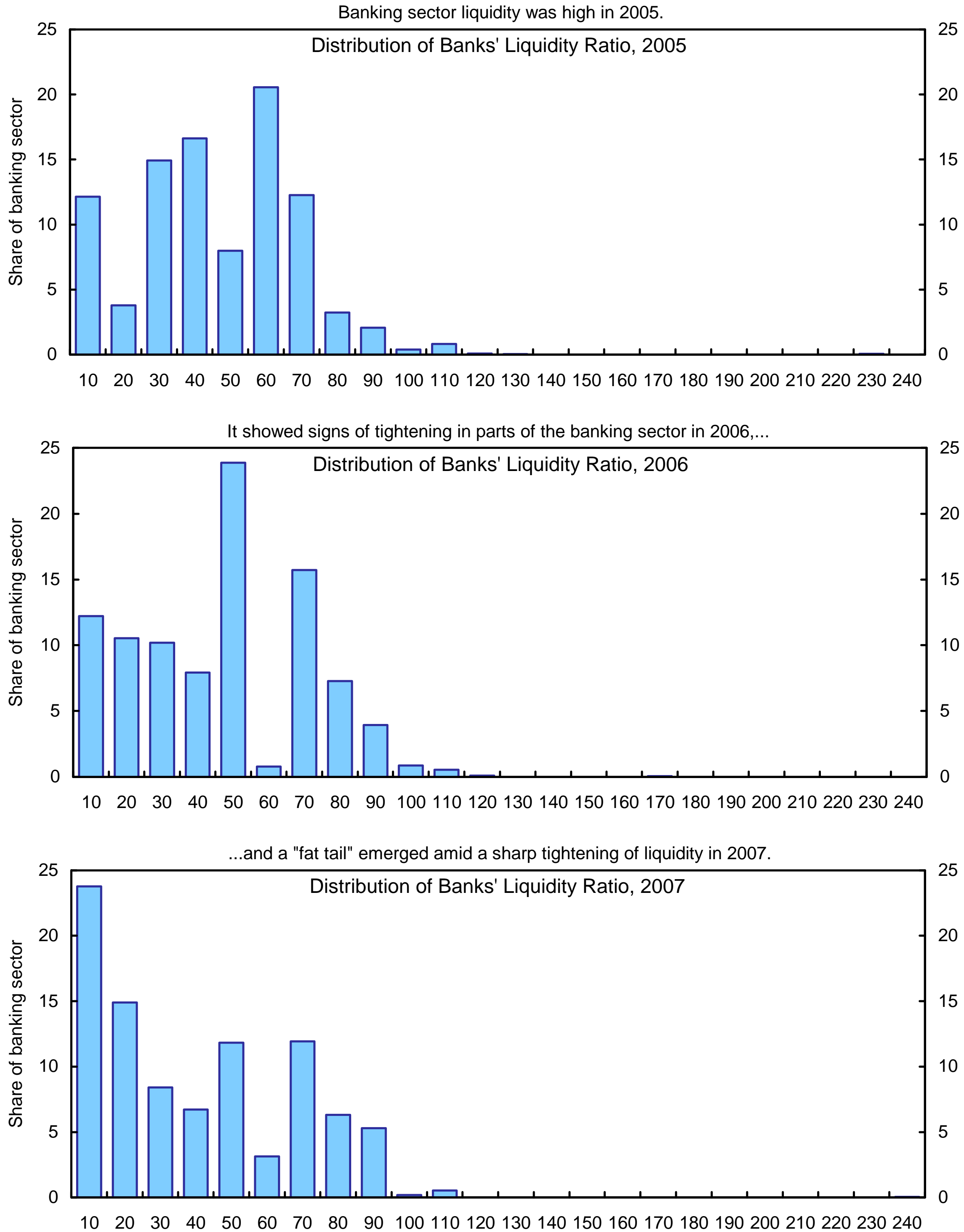
Figure 1. Luxembourg: Aggregate Banking Sector Assets and Funding





Source: IMF, IFS; and IMF staff estimates.
1/ Including liabilities to creditors outside the euro area.

Figure 2. Luxembourg: Distribution of Liquidity over the Banking Sector, 2005–07 1/ 2/ (Percent)



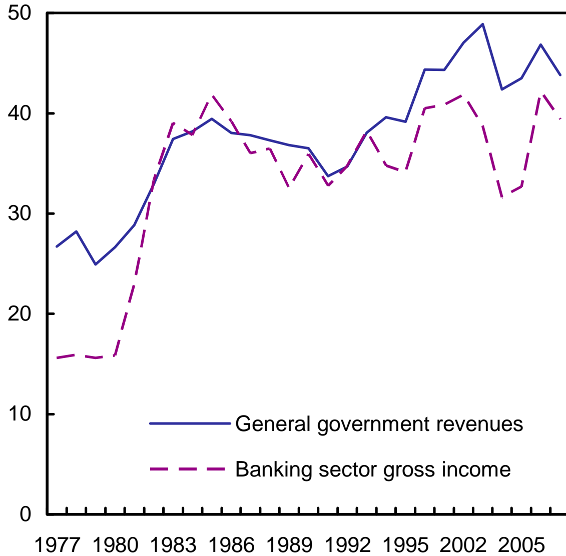
Sources: BCL; BankScope; and IMF staff estimates.

1/ In the absence of bank-specific liquidity data in accordance with the financial soundness indicators, liquidity is approximated by the ratio of liquid assets to customer and short-term funds.

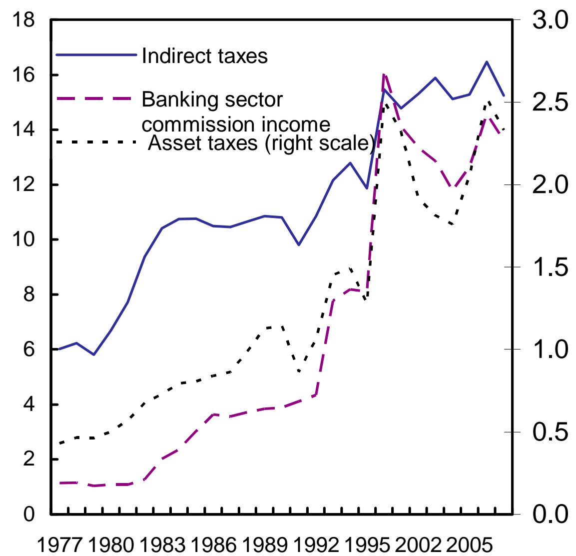
2/ Based on a sample covering 80 percent of customer and short-term funds.

Figure 3. Luxembourg: Fiscal and Banking Sector Indicators
(Percent of GNI)

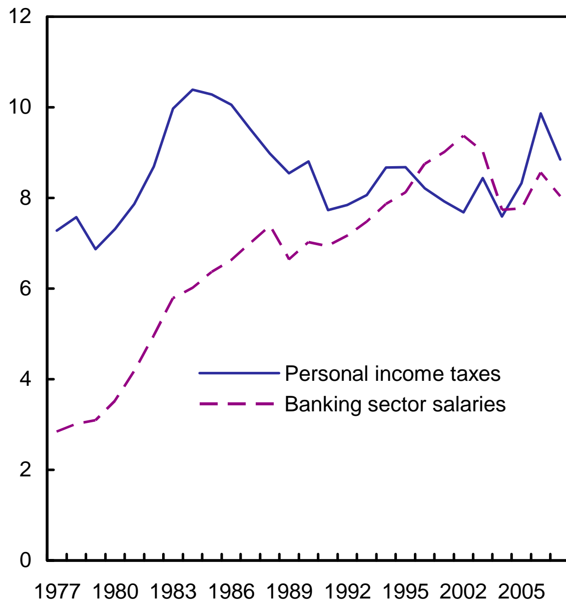
Budget revenues are highly correlated with banking sector income; a 1 percentage point decline in banking sector income-to-GNI ratio reduces the revenue-to-GNI ratio by 0.8 percentage point.



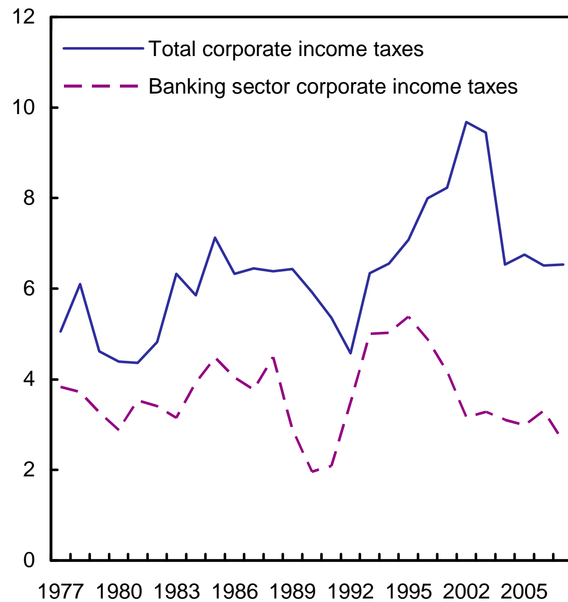
Indirect tax revenues are highly correlated with banks' commission income; a percentage point decline in the ratio of commission income to GNI reduces the indirect tax income-to-GNI ratio by a 0.9 percentage point.



Personal income taxes are increasingly correlated with banking sector salaries.

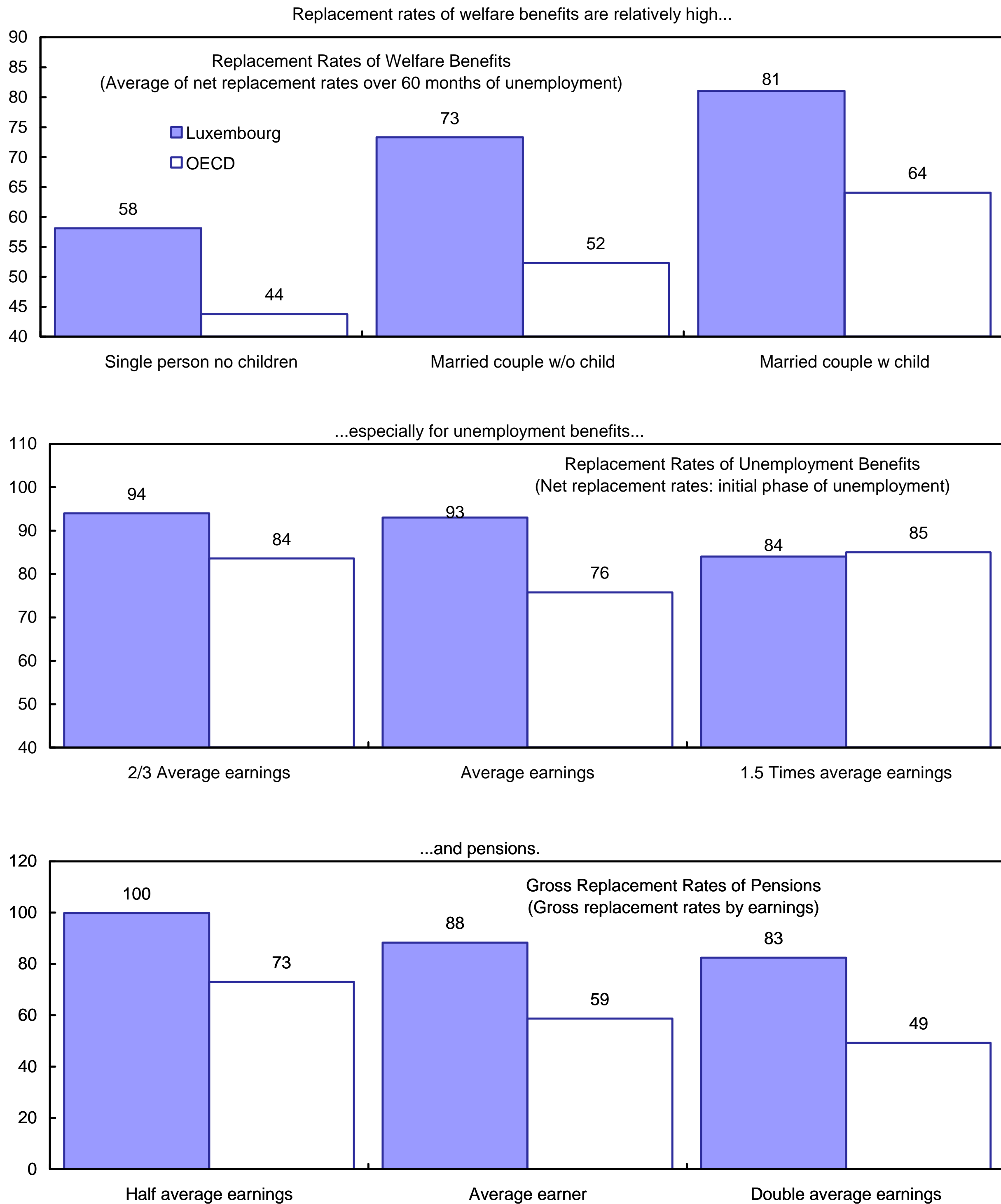


However, delays in banks' corporate income tax payments tend to obscure the correlation with overall corporate income tax revenues.



Source: Luxembourg authorities; and IMF staff estimates.

Figure 4. Luxembourg: Benefit Replacement Rates 1/
(In percent)



Sources: OECD, Benefits and Wages; and Pensions at a Glance: Public policies across OECD countries 2007.
1/ (Gross) replacement rate computed as the percentage of (gross) income support provided relative to most recent (gross) income from employment.

Table 1. Luxembourg: Basic Data, 2003-10

	2003	2004	2005	2006	2007	2008	2009	2010
						Est.	Projections	
Volume changes, in percent								
Supply and demand								
Gross domestic product	1.5	4.5	5.2	6.4	5.2	-0.9	-5.3	-0.3
Total domestic demand	0.5	3.3	5.0	1.4	3.8	1.6	-1.5	0.4
Private consumption	-5.3	2.7	1.9	2.9	2.1	1.8	-2.7	-0.5
Public consumption	4.1	4.6	3.4	2.7	2.6	1.3	5.7	2.9
Gross investment	8.8	3.2	11.2	-1.5	7.2	1.6	-4.1	-0.1
Gross fixed investment	6.3	0.8	3.4	1.0	11.8	1.7	0.4	-1.5
Inventory accumulation 1/	0.5	0.5	1.4	-0.3	-0.7	-0.1	-0.9	0.4
Foreign balance 1/	1.2	1.7	1.4	5.0	2.5	-2.1	-3.8	-0.6
Exports of goods and nonfactor services	6.8	11.2	6.0	14.6	4.4	0.3	-7.5	-0.9
Imports of goods and nonfactor services	6.9	11.8	6.0	13.4	3.5	1.7	-6.3	-0.7
In thousands, unless otherwise noted								
Employment and unemployment								
Resident labor force	201.3	204.3	207.7	212.7	216.8	220.6	224.0	227.3
Unemployed	7.0	8.0	8.9	9.5	9.6	8.8	15.4	12.8
(As a percent of total labor force)	3.5	3.9	4.3	4.5	4.4	4.0	6.9	5.6
Resident employment	194.3	196.3	198.7	203.2	207.1	211.8	208.6	214.5
(change in percent)	1.0	1.0	1.2	2.3	1.9	2.3	-1.5	2.8
Cross-border workers (net)	97.6	102.2	108.6	115.9	125.4	136.9	132.8	133.1
Total employment	292.6	299.1	307.8	319.0	333.2	348.7	341.4	347.6
(Change in percent)	1.8	2.2	2.9	3.6	4.5	4.7	-2.1	1.8
Annual changes, in percent								
Prices and costs								
GDP deflator	6.0	1.9	4.5	5.4	2.0	1.6	-0.2	1.8
CPI (harmonized), p.a.	2.5	3.2	3.8	3.0	2.7	4.1	-0.4	1.8
CPI (national definition), p.a.	2.0	2.2	2.5	2.7	2.3	3.4	0.2	1.8
Average nominal wage growth 2/	1.1	3.7	3.7	3.1	4.3	1.5	1.9	0.0
Nominal unit labor costs 2/	-4.3	-0.3	-2.7	-4.5	1.8	5.7	5.6	0.3
In percent of GDP								
Public finances								
General government revenues	42.2	41.4	41.6	39.9	40.8	43.3	43.5	44.4
General government expenditures	41.8	42.5	41.6	38.6	37.2	40.7	46.8	48.4
General government balance	0.5	-1.1	0.0	1.4	3.6	2.6	-3.3	-4.0
General government net debt	-52.1	-49.4	-45.6	-44.7	-48.8	-43.6	-42.8	-38.1
General government gross debt	6.2	6.4	6.1	6.7	6.9	14.8	18.9	22.6
Current account								
Current account balance	8.1	11.8	11.0	10.4	9.8	5.5	5.1	5.7
Balance of trade in goods and services	23.9	27.6	32.0	38.4	45.9	41.1	37.4	36.7
Factor income balance	-13.6	-12.7	-17.9	-24.8	-31.4	-30.1	-27.1	-26.2
Transfer balance	-2.1	-3.1	-3.1	-3.1	-4.7	-5.5	-5.2	-4.9
Period average								
Exchange rates								
U.S. dollar per euro	1.13	1.24	1.25	1.26	1.37	1.47	…	…
percent change	19.7	9.9	0.2	0.8	9.2	7.3	…	…
Nominal effective rate (2000=100)	105.7	106.5	104.9	106.3	108.2	107.9		
percent change	3.4	0.8	-1.5	1.3	1.8	-0.2	…	…
Real effective rate (CPI based; 2000=100)	107.0	107.8	106.7	108.6	110.9	110.3		
percent change	3.8	0.7	-1.1	1.8	2.1	-0.5	…	…
Interest rates								
Short term 3/	2.3	2.0	2.1	2.8	3.8	3.9	...	...
Long-term government bond yield 4/	3.3	2.8	2.4	3.3	4.2	...	...	...

Memorandum items: Land area = 2,586 square kilometers; population in 2008 = 488 thousand; GDP per capita = €75,066.

Sources: Data provided by the authorities; IMF, WEO database; and IMF staff calculations.
1/ Contribution to GDP growth.
2/ Overall economy.
3/ Average annual deposit rate for nonfinancial corporations with maturity up to one year.
4/ The yield refers to OLUX-4 series.

Table 2. Luxembourg: External Current Account, 2004-14

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
						Projections					
	(Billions of euro)										
Current account	3.3	3.3	3.5	3.6	2.0	1.8	2.0	2.2	2.3	2.5	2.7
Balance on goods and services	7.6	9.7	13.0	16.7	15.1	13.0	12.9	13.3	13.7	14.2	14.7
Export of goods and services	38.2	44.6	53.6	61.3	61.6	54.6	54.9	57.0	59.3	62.1	65.0
Import of goods and services	30.6	34.9	40.6	44.6	46.5	41.6	42.0	43.7	45.6	47.9	50.3
Balance on goods	-2.9	-3.4	-3.5	-3.5	-4.3	-4.3	-4.3	-4.6	-5.0	-5.5	-6.0
Goods exports	10.9	11.7	13.0	13.3	14.6	12.6	12.9	13.4	14.0	14.6	15.2
Goods imports	13.7	15.1	16.5	16.8	18.9	16.9	17.2	18.0	19.0	20.1	21.2
Balance on services	10.5	13.1	16.5	20.2	19.4	17.2	17.2	17.9	18.8	19.7	20.6
Service exports	27.3	32.9	40.5	48.0	47.0	41.9	42.0	43.6	45.4	47.5	49.8
Service imports	16.8	19.8	24.0	27.8	27.7	24.7	24.8	25.7	26.6	27.8	29.1
Net factor income	-3.5	-5.4	-8.4	-11.4	-11.0	-9.4	-9.2	-9.4	-9.6	-9.8	-10.0
Balance on current transfers	-0.9	-0.9	-1.0	-1.7	-2.0	-1.8	-1.7	-1.8	-1.8	-1.9	-2.0
	(Percent of GDP)										
Current account	11.8	11.0	10.4	9.8	5.5	5.1	5.7	6.0	6.1	6.2	6.4
Balance on goods and services	27.6	32.0	38.4	45.9	41.1	37.4	36.7	36.6	36.2	35.8	35.4
Export of goods and services	138.8	147.5	157.9	168.4	167.9	157.4	155.9	156.4	156.2	156.8	157.0
Import of goods and services	111.1	115.6	119.5	122.5	126.9	120.0	119.1	119.8	120.0	121.0	121.6
Goods	-10.4	-11.2	-10.2	-9.6	-11.7	-12.3	-12.1	-12.5	-13.2	-13.9	-14.5
Goods exports	39.5	38.8	38.4	36.6	39.7	36.5	36.7	36.8	36.8	36.8	36.8
Goods imports	49.9	50.0	48.7	46.2	51.4	48.7	48.8	49.3	50.0	50.7	51.3
Services	38.0	43.2	48.6	55.5	52.8	49.7	48.8	49.1	49.4	49.7	49.9
Service exports	99.2	108.7	119.5	131.8	128.3	120.9	119.2	119.6	119.4	120.0	120.3
Service imports	61.2	65.5	70.9	76.3	75.4	71.3	70.4	70.5	70.0	70.2	70.3
Net factor income	-12.7	-17.9	-24.8	-31.4	-30.1	-27.1	-26.2	-25.7	-25.2	-24.7	-24.1
Balance on current transfers	-3.1	-3.1	-3.1	-4.7	-5.5	-5.2	-4.9	-4.9	-4.9	-4.9	-4.9

Source: Statec and IMF staff projections.

Table 3. Luxembourg: Financial Soundness Indicators of the Banking System, 2002-08 1/
(Percent, weighted period average unless otherwise indicated)

	2002	2003	2004	2005	2006	2007	2007 2/	2008 Sept.
Capital adequacy								
Bank regulatory capital to risk-weighted assets	15.0	17.1	17.5	16.3	14.9	13.9	13.5	15.4
Bank capital to assets	5.5	5.8	5.5	5.3	5.0	4.6	na	4.5
Tier 1 regulatory capital ratio	13.1	14.4	14.7	14.1	13.6	13.0	12.3	na
Asset quality								
Net new value adjustments to own funds	5.1	2.1	2.7	0.8	...	...	na	na
Value adjustments on credit to total gross credit	0.4	0.3	0.3	0.2	0.1	0.1	0.1	na
Non-performing large exposures to total large exposures 3/	0.4	0.5	0.3	0.2	0.2	0.2	0.2	na
Real credit growth 4/					...	...	na	na
Non-financial corporate sector	-7.9	-11.2	-6.6	5.8	18.6	16.8	20.5	na
Luxembourg households	9.1	19.5	10.5	11.6	13.0	19.6	18.8	na
Liquidity					...	...		
Liquidity ratio	66.0	67.0	66.0	65.0	63.0	63.3	61.0	na
Coefficient of maturity transformation 5/	2.7	2.7	2.5	2.5	2.4	2.4	1.8	na
Market risks								
Total gross exposure in financial derivatives to own funds	3,302	2,815	2,986	2,745	3,152	2,903	2,760	na
Interest rate operations to own funds	2,127	2,083	2,216	1,913	2,108	1,766	1,622	na
Exchange rate operations to own funds	860	686	724	781	952	989	999	na
Other operations to own funds 6/	315	45	47	52	83	148	138	na
Net foreign currency position to own funds								
CHF positive net position	1.9	0.6	0.8	1.5	1.5	2.3	2.4	na
negative net position	-2.8	-3.2	-7.1	-8.5	-4.5	-1.3	-1.2	na
GBP positive net position	0.8	1.2	1.5	1.2	1.0	0.9	0.7	na
negative net position	-1.4	-0.8	-1.2	-0.8	-0.9	-0.8	-0.9	na
JPY positive net position 7/	0.5	7.6	7.4	0.9	0.6	0.4	0.1	na
negative net position	-2.2	-4.2	-1.9	-1.4	-1.3	-0.2	-0.1	na
USD positive net position	3.3	3.3	1.4	1.6	5.5	2.3	5.9	na
negative net position	-4.2	-2.9	-2.8	-3.8	-5.1	-8.3	-0.7	na
Asset composition								
Overall exposure to the corporate sector in total exposures	83.3	83.6	82.3	82.3	83.8	85.6	86.6	na
Financial corporations	70.0	71.0	70.8	71.2	71.6	71.9	72.4	na
Nonfinancial corporations	13.3	12.6	11.5	11.1	12.2	13.7	14.3	na
of which: to the corporate sector	65.0	66.7	64.7	65.6	68.9	75.0	78.1	na
Exposure to Luxembourg households in total exposures	1.3	1.5	1.6	1.6	1.7	1.8	1.9	na
Share of mortgage lending in total lending to the private sect	17.8	19.6	15.6	19.2	17.7	17.5	17.6	na
Large exposures to total exposures 3/	94.1	93.2	93.1	94.1	94.4	91.9	86.5	na
Profitability and Earnings Structure								
Return on assets	1.3	1.3	1.3	1.2	1.5	...	1.4	na
Income before provisions and taxes to total assets	0.7	0.6	0.7	0.7	0.9	0.8	na	0.7
Net after-tax income to total assets	0.4	0.5	0.5	0.5	0.8	...	0.7	na
Return on equity (Net after-tax income to regulatory capital)	9.0	8.9	9.9	10.5	16.5	15.1	na	8.0
Share in gross income								
Net interest income	58.4	57.2	53.1	48.4	50.6	...	57.3	na
Commissions and fees	38.0	36.3	38.8	42.9	41.8	...	40.9	na
Results on financial operations	3.6	6.5	8.2	8.7	7.6	...	1.8	na
Operating costs to gross income	41.7	41.2	43.1	42.3	36.6	...	39.0	na

Sources: Banque Centrale du Luxembourg.

1/ All banks operating on the basis of Luxembourg law, excluding branches of foreign banks.
2/ End of period data.
3/ Large exposures are defined as exposures above 6.2 million euros or 10 percent of banks' own funds.
4/ All banks including branches of foreign banks.
5/ A coefficient above 1 means that banks' assets have a longer average duration than liabilities.
6/ Variation in 2003 compared to 2002 due to a transfer of activities from a subsidiary to a branch within the same group.
7/ Increase in 2003 and 2004 compared to 2002 mainly due to a significant position of a bank at 31/12/2003.

Table 4. Luxembourg: General Government Operations 2006-10
(Percent of GDP)

	2006	2007	2008	2009	2010
			Est.	Projections	
Revenue	39.9	40.8	43.3	43.5	44.4
Current revenue	39.7	40.6	43.0	43.3	44.2
Tax revenue	25.6	26.1	27.2	26.7	27.5
Indirect taxes	12.5	12.6	12.8	12.8	13.5
Direct taxes	13.0	13.4	14.4	14.0	14.0
Social security contributions	10.8	11.0	11.7	12.3	12.4
Other current revenue	3.4	3.6	4.1	4.3	4.4
Capital revenue	0.2	0.2	0.3	0.2	0.2
Expenditure	38.6	37.2	40.7	46.8	48.4
Current expenditure	33.3	32.6	35.5	40.7	41.0
Wages and salaries	7.4	7.3	7.9	8.6	9.0
Goods and services	3.0	3.1	3.4	3.8	3.8
Social transfers in kind	4.8	4.8	5.0	5.6	5.9
Social transfers and pensions	13.5	13.1	14.4	17.1	16.4
Subsidies	1.5	1.5	1.6	1.8	1.7
Interest payments	0.2	0.2	0.3	0.4	0.5
Other current expenditure	2.8	2.6	2.9	3.3	3.6
Capital expenditure	5.3	4.7	5.2	6.1	7.5
Overall balance	1.4	3.6	2.6	-3.3	-4.0

Source: Statec; and IMF staff estimates.

INTERNATIONAL MONETARY FUND

LUXEMBOURG

Staff Report for the 2009 Article IV Consultation—Informational Annex

Prepared by European Department

May 8, 2009

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ANNEX I. LUXEMBOURG: FUND RELATIONS
(As of March 31, 2009)

- ***Mission***: March 19-31, 2009. The concluding statement of the mission is available at http://www.imf.org/external/np/ms/2009/033009.htm.

- ***Staff team***: Messrs. Odenius (Head), Daal, Oestreicher (all EUR), and Ms. Elliott (MCM).

- ***Country interlocutors included***: Prime Minister Jean-Claude Juncker, Mr. Jeannot Krecké, Minister of the Economy and Foreign Trade; Mr. Mars Di Bartolomeo, Minister of Health and Social Security; Mr. François Biltgen, Minister of Labor and Employment; Mr. Yves Mersch, Governor, Central Bank of Luxembourg; Dr. Serge Allegrezza, Director, Statec, Mr. Jean Guill, Director of Treasury, Ministry of Finance, and Mr. Claude Simon, General Supervisor, Financial Sector Supervisory Commission. Mr. Johann Prader, IMF Alternate Executive Director also participated in the discussions. Outreach activities included meetings with parliament's crisis committee, members of parliament, and a press conference.

- ***Fund relations***: The previous Article IV consultation took place on April 26, 2006 (IMF Country Report No.06/164). The staff report and associated Executive Board's assessment are available at http://www.imf.org/external/pubs/ft/scr/2006/cr06164.pdf.

- ***Data***: Luxembourg subscribes to the Fund's Special Data Dissemination Standard, and data provision is adequate for surveillance (Annex II).

I. **Membership Status**: Joined: December 27, 1945; Article VIII

II. **General Resources Account**:	**SDR Million**	**Percent Quota**
Quota	279.10	100.00
Fund Holdings of Currency	243.04	87.08
Reserve position in Fund	36.10	12.93

III. **SDR Department**:	**SDR Million**	**Percent Allocation**
Net Cumulative Allocation	16.96	100.00
Holdings	13.46	79.40

IV. **Outstanding Purchases and Loans**: None

V. **Financial Arrangements**: None

VI. **Projected Payments to the Fund** (SDR million; based on existing use of resources and present holdings of SDRs):

	Forthcoming				
	2009	**2010**	**2011**	**2012**	**2013**
Principal	0.00	0.00	0.00	0.00	0.00
Charges/Interest	0.01	0.02	0.02	0.02	0.02
Total	0.01	0.02	0.02	0.02	0.02

VII. **Exchange Rate Arrangement**:

Luxembourg's currency is the euro, which floats freely and independently against other currencies. Luxembourg has accepted the obligations of Article VIII, Sections 2, 3, and 4, and maintains an exchange system free of restrictions on payments and transfers for current international transactions, other than restrictions notified to the Fund under Decision No. 144 (52/51).

ANNEX II. LUXEMBOURG: STATISTICAL ISSUES
(As of April 21, 2009)

I. Assessment of Data Adequacy for Surveillance

General: Data provision is adequate for surveillance. The Central Service for Statistics and Economic Studies (Statec) regularly publishes a full range of economic and financial data and provides an advance release calendar for main statistical releases at: http://www.statistiques.public.lu/fr/calendrier/index.html.

On-line access to Statec's databases and those of other jurisdictions is available to all users simultaneously at the time of release through the Statistics Portal of Luxembourg.

Key publicly accessible websites for macroeconomic data and analysis are:

Statistics Portal of Luxembourg...........http://www.statistiques.public.lu/fr/
Statec...http://www.statec.public.lu/fr/index.html
Central Bank of Luxembourg..............http://www.bcl.lu/en/index.php
Ministry of Finance.............................http://www.mf.public.lu/

National Accounts: Luxembourg avails itself of the SDDS special flexibility for the timeliness of the national accounts, and generally disseminates national accounts data not later than four months after the reference period (the SDDS timeliness requirement for the national accounts is three months). Reduction of the reporting lag would aid surveillance.

II. Data Standards and Quality

Subscriber to the Fund's Special Data Dissemination Standard (SDDS) since May 12, 2006. Uses SDDS flexibility options on the timeliness of national accounts and analytical accounts of the central bank.	No data ROSC is available.

LUXEMBOURG: TABLE OF COMMON INDICATORS REQUIRED FOR SURVEILLANCE
(As of April 21, 2009)

	Date of Latest Observation	Date Received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of Publication[7]
Exchange Rates	04/21/09	04/21/09	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	February 09	03/30/09	M	M	M
Reserve/Base Money	February 09	03/30/09	M	M	M
Broad Money	February 09	03/30/09	M	M	M
Central Bank Balance Sheet	February 09	03/30/09	M	M	M
Consolidated Balance Sheet of the Banking System	February 09	03/30/09	M	M	M
Interest Rates[2]	04/21/09	04/21/09	D	D	D
Consumer Price Index	March 09	04/08/09	M	M	M
Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4]	2008	2008	A	A	A
Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government	2008 Q4	04/01/09	Q	Q	Q
Stocks of Central Government and Central Government-Guaranteed Debt[5]	2008 Q4	04/01/09	Q	Q	Q
External Current Account Balance	2008 Q4	04/30/09	Q	Q	Q
Exports and Imports of Goods and Services	January 2009	04/02/09	M	M	M
GDP/GNP	2008 Q4	04/09/09	Q	Q	Q
Gross External Debt	2008 Q4	03/30/09	Q	Q	Q
International Investment Position[6]	2008 Q4	03/30/09	Q	Q	Q

[1] Including reserve assets that are pledged or otherwise encumbered.
[2] Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes and bonds.
[3] Foreign, domestic bank, and domestic nonbank financing.
[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
[5] Including currency and maturity composition.
[6] Includes external gross financial asset and liability positions vis-à-vis nonresidents.
[7] Daily (D); weekly (W); monthly (M); quarterly (Q); annually (A); irregular (I); and not available (NA).

sustainability, given low public sector indebtedness. Price pressures should remain subdued throughout the year.

In the current environment, the large size of the financial sector, dominant foreign ownership, and close integration of local subsidiaries with their mostly European parent groups have implications for financial stability. High intra-group exposures and over-reliance on wholesale funding create liquidity risks that would materialize if the health of the European banking sector were to deteriorate. Banks' capital—though still comfortable—is thinning, while leverage remains relatively high. At the same time, there are systemic risks emanating from Luxembourg to the euro area, as a result of the large volume of money market and other short-term financing provided by the financial center to the European banking sector.

Executive Board Assessment

While Luxembourg's economy has outperformed most of the euro area in the recent past, it is now heavily exposed to the global crisis given its large, internationally-integrated financial sector and strong reliance on exports. With weakening activity in the financial system and falling export demand, output is expected to decline in excess of the euro area average in 2009, and changes to the global and European financial architecture could lower potential growth over the longer term.

Executive Directors emphasized that maintaining financial stability is a precondition for continued economic success, and welcomed the authorities' efforts to ensure the soundness of the financial sector. They supported the recent successful interventions in the banking sector, including the rescue of two major banks, and the initiative to improve banks' liquidity management. Strong cooperation between the central bank and the regulator will be vital for success.

Many Directors stressed the importance of further enhancing crisis preparedness. In light of the large size of the financial sector and its systemic importance, they suggested a multilateral and cooperative approach. This would require the resolution of home-host country banking issues, including through a proactive pursuit of burden-sharing arrangements, that should also cover the large money market fund industry as well. In this context, the need for a liquidity facility could be explored. A number of other Directors were, however, of the view that current arrangements in the European Union provide an adequate framework for cross-border cooperation on crisis management and resolution of financial stability issues.

Directors supported the authorities' proposed regulatory and supervisory actions to improve financial stability by strengthening the resilience of individual institutions, and welcomed the authorities' request for an Financial Sector Assessment Program update. While noting that system-wide capital levels appear adequate, they called for a further strengthening of the regulatory regime, a tightening of capital requirements, and the introduction of binding limits on leverage. However, Directors cautioned that such measures need to be phased in carefully and coordinated internationally, especially at the level of the European Union. Looking ahead, Directors noted that the financial sector will need to adjust to the new financial architecture that emerges in the aftermath of the crisis.

In this context, they welcomed the authorities' ongoing efforts to streamline the financial services industry as well as to diversify the services sector.

Directors noted that Luxembourg's public finances are well positioned to weather the recession. They considered the size and scope of the authorities' fiscal stimulus package to be appropriate, and supported their intention to allow the automatic stabilizers to function fully. Despite recent bank rescue efforts, the public debt stock remains low by international standards and provides ample scope to finance budgetary pressures over the near term. At the same time, Directors welcomed the authorities' recognition of the need, once recovery begins, for strong efforts to enhance medium- term fiscal sustainability, as expenditures are rising and the evolution of medium-term fiscal revenues is uncertain. Directors therefore advised the authorities to reconsider the planned return to full indexation of wages and social benefits in 2010, as this could exacerbate budgetary pressures, and also hamper efforts to improve competitiveness. Directors also stressed that far-reaching reforms of the public, pay-as-you-go pension system remain overdue, and should be pursed with priority, given that substantial funding gaps continue to threaten its long-term viability.

Public Information Notices (PINs) form part of the IMF's efforts to promote transparency of the IMF's views and analysis of economic developments and policies. With the consent of the country (or countries) concerned, PINs are issued after Executive Board discussions of Article IV consultations with member countries, of its surveillance of developments at the regional level, of post-program monitoring, and of ex post assessments of member countries with longer-term program engagements. PINs are also issued after Executive Board discussions of general policy matters, unless otherwise decided by the Executive Board in a particular case.

Luxembourg: Selected Economic Indicators, 2005-09

	2005	2006	2007	2008	2009 1/ Proj.
Real economy	(Change in percent, unless otherwise indicated)				
Real GDP	5.2	6.4	5.2	-0.9	-5.3
Unemployment (as a percent of total labor force)	4.3	4.5	4.4	4.0	6.9
Resident employment	198.7	203.2	207.1	211.8	208.6
Total employment	307.8	319.0	333.2	348.7	341.4
CPI (harmonized), p.a.	3.8	3.0	2.7	4.1	-0.4
Gross fixed investment (in percent of GDP)	3.4	1.0	11.8	1.7	0.4
Public finances	(Percent of GDP)				
General government revenues	41.6	39.9	40.8	43.3	43.5
General government expenditures	41.6	38.6	37.2	40.7	46.8
General government balance	0.0	1.4	3.6	2.6	-3.3
General government gross debt	6.1	6.7	6.9	14.8	18.9
Balance of payments					
Current account balance	11.0	10.4	9.8	5.5	5.1
Balance of trade in goods and services	32.0	38.4	45.9	41.1	37.4
Factor income balance	-17.9	-24.8	-31.4	-30.1	-27.1
Transfer balance	-3.1	-3.1	-4.7	-5.5	-5.2
Exchange rates					
Exchange rate regime	Member of the euro area				
U.S. dollar per euro	1.25	1.26	1.37	1.47	…
Nominal effective rate (2000=100)	104.9	106.3	108.2	107.9	
Real effective rate (CPI based; 2000=100)	106.7	108.6	110.9	110.3	

Sources: Data provided by the authorities; and IMF staff calculations and projections.
1/ Staff projections, if not otherwise indicated.

Statement by Johann Prader, Alternate Executive Director for Luxembourg and Dirk Mevis, Advisor to Executive Director
May 22, 2009

On behalf of the Luxembourg authorities, we thank the staff for the constructive and fruitful discussions during the 2009 Article IV consultation mission to Luxembourg. The current global environment is challenging for many countries. Luxembourg is no exception. It is particularly vulnerable because of its large financial sector and strong reliance on exports.

The Luxembourg economy is relatively well-prepared to confront the current downturn. The general government budget recorded surpluses in 2005—2008 and the central government and social security have accumulated sizeable reserves. In 2008, at 14.7 percent of GDP, public debt remains low by international standards. Consequently, there is fiscal space to support the economy in this challenging environment.

At the current juncture, the authorities are focusing their efforts on ensuring the soundness of the financial sector, and launching important infrastructure projects so as to mitigate the adverse effects of the downturn on economic activity and employment.

Economic developments and outlook

According to the latest estimates and forecasts published on May 18, Luxembourg experienced negative GDP growth in 2008 (-0.9 percent). In 2009, GDP is expected to contract by 4 percent. For 2010, the Luxembourg statistical office (Statec) projects a moderate resumption of economic growth (1.0 percent). However, risks to this outlook remain skewed to the downside.

In 2008, employment growth held strong at 4.7 percent and even in 2009, it is expected to remain positive at 1 percent. This may be related to effects of labor hoarding by firms due to a scarcity of skilled labor in Luxembourg. Nevertheless, the openness of the Luxembourg economy as evidenced by gross exports, which account for 180 percent of GDP, leaves the country vulnerable to a drop in trade in goods and services. While domestic demand is still strong, the sectors that are focused on exports suffer considerably. This affects mainly the manufacturing and services sectors, including the steel industry, automotive supplies, the plastic industry and metal construction. The construction sector is somewhat sheltered by the infrastructure projects that the government has implemented in the context of its stimulus package.

In order to counter these effects and help firms overcome the downturn while maintaining their human capital, the government has expanded and relaxed the partial unemployment

scheme. Under this scheme, the government subsidizes wages for enterprises which temporarily reduce their activity level. While in “normal” times, before the downturn, an average of three firms was participating in the scheme at a given point in time, in March 2009 participation had risen to 114 firms, covering about 9000 workers. The government is considering to expand this scheme further.

The financial sector in Luxembourg is dominated by foreign-owned banks of which a large number are subsidiaries. The banking sector has done fairly well during most of 2008, as interest income rose because of high credit spreads. The balance sheets of banks peaked in October 2008 and by March 2009 it had declined by roughly 5 percent. However, most of the decline in activity has taken place in off-balance sheet activities consisting mostly of guarantees and other commitments.

Nevertheless, besides the two large banks, Fortis and Dexia, where events in the group forced the government – in close coordination with the authorities in the neighboring countries – to step in to protect the domestic subsidiaries, the sector has remained quite stable. By March 2009, employment in the banking sector had somewhat declined.

During the past few decades, developments in international financial markets have shaped growth in Luxembourg. Therefore, any deleveraging in the global financial industry impacts growth in Luxembourg’s financial sector. In the past, the Luxembourg authorities have regularly adjusted the legal framework so as to create favorable business conditions for financial players. As confirmed by international organizations, great care has been taken to put in place sound financial regulation in line with international standards and promoting financial stability. The so-called Luxembourg “business model” provides a solid base for further adjustments in a post-crisis environment.

The diversity of the Luxembourg financial sector adds to its strength. Also, the sophisticated and extensive variety of services ranging from banking to asset management, insurance and re-insurance business and covering securitization activities, as well as extensive legal, auditing and IT expertise will ensure that Luxembourg maintains its place among the top international financial centers even in the future.

Apart from the financial sector, the authorities are always looking for niches to attract new industries to Luxembourg. The recent establishment by major players in the ICT and e-commerce field of their European headquarters in Luxembourg is an example of the authorities’ forward-looking policies. The authorities are also working on several action plans, including logistics and related services, biotechnology and clean energy. These action plans encompass investments in infrastructure, research and capacity building measures.

Financial sector issues

For many decades now, Luxembourg has been a well-established financial center with close links to other financial centers within and outside the European Union. Asset management, particularly private banking and investment funds administration, has been a key activity of the financial center of Luxembourg. Therefore, it is not surprising that the Luxembourg establishments of cross-border banking groups have become an important source of funding for their groups.
In October 2008, the law of the Banque centrale du Luxembourg (BCL) was amended, entrusting the BCL with the explicit responsibility of liquidity supervision of markets and market operators and with the possibility to provide emergency liquidity assistance. The BCL has recently issued a regulation that sets the framework for its liquidity supervision in line with internationally recognized rules and standards. The Commission de Surveillance du Secteur Financier (CSSF) is focusing on the supervision of the liquidity of individual banks. Currently, discussions are taking place between the two institutions to organize and coordinate their work in the area of liquidity supervision. The new legal framework, therefore, set up the foundations of a framework for liquidity surveillance of markets and market operators that takes on board the lessons from the current crisis, in particular the paramount importance of liquidity risk for financial stability.

Banks in Luxembourg continue to be well capitalized. In most cases, Luxembourg subsidiaries are better capitalized than their parent banks. While welcoming the use of leverage ratios as an additional indicator, the authorities note that leverage ratios have to be used with caution as their usefulness strongly depends on the business model of banks and the kind of instruments they hold (e.g. covered bonds have high leverage but very low risk).

The money market funds (MMF) segment has been fairly resilient during the past several months. The turbulence following the Lehman bankruptcy triggered some redemptive pressures which have been accommodated by the sponsoring banks. The authorities do not see a need for issuing a general guarantee for MMFs (like the one issued in the United States in autumn 2008), since the latter are being sponsored by banks, which in turn have access to the liquidity facilities of the ESCB. The Luxembourg authorities would welcome a common European definition of MMFs as well as increased transparency requirements for MMFs.

The mandatory private deposit insurance scheme in Luxembourg has proven its effectiveness following the failure of the Luxembourg subsidiaries of the Icelandic banks. Even though the system is funded ex-post, banks have built up provisions amounting to Euro 800 million. In order to foster the depositors’ confidence in the financial sector and given the recent increase of the covered amount from euros 20,000 to 100,000, an in-depth revision of the deposit guarantee scheme is under way. The main features of the

revision will be to turn the scheme into a publicly-run system, to introduce ex ante funding and to reduce considerably the payout period.

The Luxembourg supervisory authorities have comprehensive experience of close cooperation with home supervisors through regular bilateral and multilateral meetings. Recently, this cooperation and information exchange with supervisors from other countries (EU Member states and other countries) has intensified. The supervisory authorities consider that colleges are a valuable tool for promoting supervisory cooperation and welcome the changes in EU legislation that make the setting up of colleges a legal obligation in the banking and insurance sectors.

In the context of recent international developments, in March 2009, the government decided to adopt the OECD standards for exchange of information on request when concluding double taxation agreements.

During the Article IV consultation mission, the authorities formally requested an update of the 2002 FSAP exercise.

Fiscal policies

After several years of fiscal surpluses, 2009 will mark a turning point in this respect. The stimulus package that the authorities are implementing along with declining revenues will result in a deficit which, according to the latest Statec forecast, could reach 2.3 percent of GDP in 2009. The difference between the staff projection of 3.2 percent of GDP and the authorities' projection is mainly because of the different growth assumptions and their impact on revenues. On the expenditure side, social expenditures will weigh heavily on the budget. The lagged impact of the business cycle on certain taxes, notably corporate income taxes, will continue to exert pressure on public finances in 2010 and 2011.

The discretionary stimulus measures that will be implemented during 2009 and 2010 are expected to amount to 2.4 percent of GDP. They focus mainly on employment preservation, income redistribution, infrastructure investments, subsidies for clean energy and energy preservation and the promotion of research. However, due to large automatic stabilizers, the total budgetary support to the economy is even higher. The authorities are nevertheless proceeding carefully so that the country's sound fiscal position is not jeopardized in the medium term.

The Luxembourg social security system provides universal coverage and generous benefits. At the current juncture, it contributes significantly to offset the adverse impact of the downturn in living standards and social cohesion. Due to the strong economic and employment growth during the past couple of decades, the financial position of the social security system is sound in the short to medium-term. However, with unchanged policies

and on the basis of prudent assumptions regarding future economic and employment growth, the medium to long-term sustainability of the social security system is not ensured. The authorities are fully aware of the sustainability risk and are engaged in a dialogue with social partners in order to identify possible policy adjustments to improve and ensure the sustainability of the system.