



LUXEMBOURG

May 2014

2014 ARTICLE IV CONSULTATION—STAFF REPORT; PRESS RELEASE; 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 2014 Article IV consultation with Luxembourg, the following documents have been released and are included in this package:

- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on May 2, 2014, following discussions that ended on March 4, 2014, 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 April 18, 2014.
- An **Informational Annex** prepared by the IMF.
- A **Press Release** summarizing the views of the Executive Board as expressed during its May 2, 2014 consideration of the staff report that concluded the Article IV consultation with Luxembourg.
- A **Statement by the Executive Director** for Luxembourg.

The following document has been or will be separately released.

Selected Issues Paper

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

Copies of this report are available to the public from

International Monetary Fund • Publication Services
PO Box 92780 • Washington, D.C. 20090
Telephone: (202) 623-7430 • Fax: (202) 623-7201
E-mail: publications@imf.org Web: <http://www.imf.org>
Price: \$18.00 per printed copy

**International Monetary Fund
Washington, D.C.**



LUXEMBOURG

STAFF REPORT FOR THE 2014 ARTICLE IV CONSULTATION

April 18, 2014

KEY ISSUES

Context. With a strong policy framework, Luxembourg has weathered the crisis well, and the economy is rebounding. The fiscal position remains sound, and the large financial sector has been resilient. But trend growth has slowed substantially. The financial sector will have to adjust to a changing external landscape, public finances will come under strain from losses in e-VAT revenue and strong expenditure growth, and Luxembourg's cost competitiveness is being eroded. A new government took office in December 2013.

Fiscal policy. A moderate but sustained fiscal consolidation is essential to preserve the current healthy fiscal position, stabilize debt below 30 percent of GDP—a commitment of the new government—and strongly anchor the AAA rating. Given current low rates, the planned VAT hike is appropriate, and consideration should be given to increasing the yield of property taxes. But even after implementing revenue measures, it will remain critical to curb public spending growth; the expenditure review underway will be a useful tool to identify savings. A thorough assessment of social benefits should receive special focus and would also help boost growth potential through greater labor participation.

Financial sector policy. Banks' capitalization and liquidity remain high, the investment fund industry continues to grow, and financial sector oversight has been strengthened. Faced with lower growth in euro area activities, and the switch to automatic exchange of information, banks are diversifying businesses and retooling private banking activities. The decision to front-load the implementation of Basel III capital requirements will help safeguard the resilience of the financial sector. But consideration should be given to supplement it with additional measures for systemic banks over time and within the European framework. Supervisors need to continue to closely monitor domestic real estate exposures, interconnections in the domestic financial sector and new emerging risks from financial diversification.

Structural policies. Despite a strong external position, the country might be pricing itself out of some activities, following substantial labor cost increases since the crisis. The expiration of the temporary agreement on wage indexation offers an opportunity to adjust the mechanism in a way that better aligns wages and productivity movements. Measures to strengthen labor skills and the business environment would further support the authorities' strategy to diversify beyond the financial sector.

Approved By
Mahmood Pradhan
(EUR) and Mary
Goodman (SPR)

Discussions took place in Luxembourg February 28—March 4, 2014. The staff team comprised C. Allard (head), P. Kongsamut, S. Wang (all EUR), and M. Yanase (MCM), and was assisted at HQ by K. MacKinnon and D. Mason (all EUR). A. Hubic (OED) participated in the discussions. Staff met with Ministers P. Gramegna (Finance), and N. Schmit (Labor), Central Bank Governor G. Reinesch, Director General of the Financial Sector Supervisory Commission J. Guill, and other senior government officials, private sector and civil society representatives.

CONTENTS

GLOSSARY	4
RESILIENT SO FAR, BUT CHALLENGES LOOMING	5
OUTLOOK, RISKS, AND SPILLOVERS	8
POLICY PRIORITIES TO SECURE LUXEMBOURG'S ECONOMIC AND SOCIAL MODEL	10
A. Adapting Fiscal Policy	10
B. Navigating the Changing Financial Landscape	14
C. Supporting Economic Diversification beyond the Financial Sector	17
STAFF APPRAISAL	20
BOXES	
1. Luxembourg's Financial Sector	6
2. Housing Market Challenges	7
3. Uncertainty in Potential Output Growth and Output Gap Estimates	9
4. Inactivity Traps in Luxembourg	13
5. Wage Adjustment and Inflation Persistence	18
FIGURES	
1. Real Sector Developments	22
2. Credit and housing market conditions	23
3. External Developments and Labor Market	24
4. Financial Sector	25
5. Fiscal Developments	26
6. Public DSA: Composition of Public Debt and Alternative Scenarios	27
TABLES	
1. Selected Economic Indicators	28
2. Risk Assessment Matrix	29

3. General Government Operations	30
4. General Government Financial Balance Sheet	31
5. Public Sector Debt Sustainability Analysis (DSA) - Baseline Scenario	32
6. Financial Soundness Indicators	33

APPENDICES

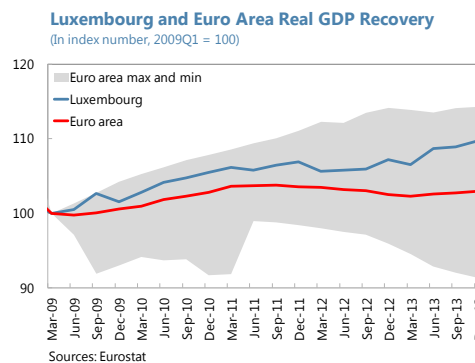
I. Exchange Rate Assessment	34
II. Implementation of Past Fund Advice	35
III. Implementation of 2011 FSAP Recommendations	36
IV. Financial Integrity and Transparency Issues	38

Glossary

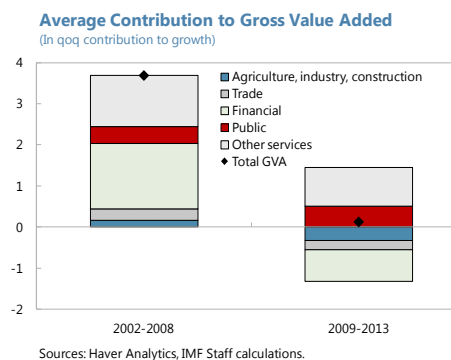
ADEM	Agence pour le Developpement de l'Emploi (Luxembourg's Employment Agency)
AIFM	Alternative Investment Fund Manager
AML/CFT	Anti-Money Laundering/Combating the Financing of Terrorism
BCL	Banque Centrale du Luxembourg
CAA	Commissariat aux Assurances
CET1	Common Equity Tier I
CNAV	Constant Net Asset Value
CRD	Capital Requirements Directive
CSSF	Commission de Surveillance du Secteur Financier
D-SIB	Domestic Systemically Important Bank
ECB	European Central Bank
EMU	European Monetary Union
ERER	Equilibrium Real Exchange Rate
EU	European Union
e-VAT	Value Added Tax applied to electronic commerce
FATF	Financial Action Task Force
ICT	Information, Communication, and Technology
ICSD	International Central Securities Depository
METR	Marginal Effective Tax Rate
MoF	Ministry of Finance
OECD	Organization for Economic Cooperation and Development
RCS	Registry of Business and Corporations
REER	Real Effective Exchange Rate
RMG	Revenu Minimum Guaranti
SSM	Single Supervisory Mechanism
TFP	Total Factor Productivity
UCITS	Undertaking for Collective Investments on Transferable Securities

RESILIENT SO FAR, BUT CHALLENGES LOOMING

1. Thanks to sound policy management, Luxembourg has weathered the crisis well. After a shallow recession in 2012, growth reached 2.1 percent in 2013—the second best performance in the euro area. The gradual improvement in the euro area supported a rebound in exports (Figure 1). Meanwhile, a healthy fiscal position, accommodative credit conditions and continued employment growth shielded domestic demand from external headwinds. Credit has been particularly dynamic for mortgage purposes, but less so to non-financial corporates (Figure 2). A new government based on a three-party coalition took office following early elections in October 2013.



2. But trend growth has slowed markedly from the pre-crisis period. The period of buoyant pre-crisis activity—with average growth of 4¾ percent over 2000–08, driven by rapidly expanding financial services—has come to an end. The ongoing changes in the EU financial landscape will call for adjustment. Meanwhile, labor costs have risen substantially more than in trade partners, and underlying productivity has been dented by the crisis (Figure 3). As a consequence, potential growth is estimated to have been cut to half the pre-crisis period, at about 2–2¼ percent.



3. While the external position remains strong, the economy faces several challenges from an evolving external environment. The current account surplus reached 5.2 percent of GDP in 2013, and the exchange rate is estimated to be broadly in line with fundamentals (Appendix I). However, Luxembourg’s role as a hub for EMU financial activities ties its fortunes intrinsically to the euro area (Box 1 and Figure 4). Deleveraging trends, EU-driven regulatory changes, and the global move toward higher transparency of cross-border financial flows will weigh on the banking sector. Large and volatile capital flows are dominated by cross-border banking and investment fund activities with limited linkages to domestic activity, but their sheer size in comparison to the economy could still generate inward spillovers in case of systemic shocks.

4. Luxembourg’s fiscal position is healthy, but there are looming challenges there too. The fiscal position is characterized by a structural surplus and very low general government debt (23 percent of GDP in 2013), and Luxembourg remains one of the few AAA-rated sovereigns in the region. However, the fiscal position will come under strain from upcoming losses in e-VAT revenue, and rapidly growing public expenditures. The G20-driven push to increase transparency in corporate taxation could also affect Luxembourg, as it hosts large multinational activities.

Box 1. Luxembourg's Financial Sector

Luxembourg hosts a large financial sector mostly focused on cross-border businesses. It hosts the second largest fund industry after the U.S., a large banking sector (15 times GDP) with diversified activities, and one of the largest primary markets for international bond issuance. A wide spectrum of specialized financial service providers gravitate around the industry, with support ranging from legal to accounting and IT activities. In 2012, the sector contributed 22 percent of GDP and 11 percent of employment.

The banking sector is dominated by subsidiaries and branches of foreign groups. These conduct mostly cross-border businesses, including wealth management, intragroup treasury and liquidity management, custody services to investment funds, and international wholesale lending. Unlike other countries with a large financial sector, the system is a net provider of liquidity, and overall non-resident deposits have remained stable, even after the move to automatic exchange of information for tax purposes was announced in April 2013. Only a handful of banks—less than 20 percent of total banking assets but about 250 percent of GDP—provide credit to the economy, with generally limited links with the internationally-oriented sector. Half of these domestically-oriented banks are stand-alone domestic banking groups, the rest are owned by European banking groups.

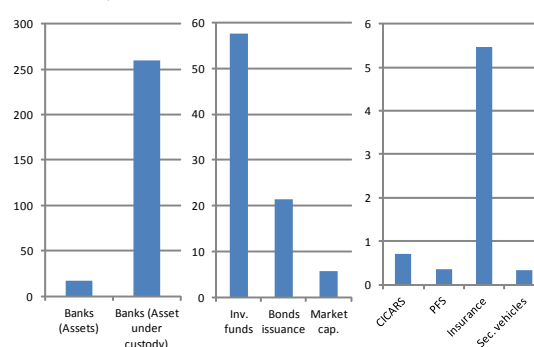
The investment fund industry manages assets amounting to 2.6 trillion euro. The industry benefits from the established trademark and passporting features of UCITS (Undertaking for Collective Investment on Transferable Securities) products, and caters to a diversified pool of non-resident investors. After a marginal decline in May 2013 in the context of global volatility, assets under management have resumed their increase. UCITS funds for retail distribution under EU regulation continue to dominate, with around 80 percent of assets. Money market fund activities have been curtailed in the wake of the crisis, and constant net asset value (CNAV) funds, which generated substantial liquidity pressures in 2009, account for only 5 percent of total fund assets. A large part of the investment funds' products are sold outside of the euro area, but similarly, a substantial part of the funds are invested in assets from non-euro area countries.

In synergy with those activities, the financial sector is also involved in bond issuance, and custodian and settlement activities. Luxembourg is one of the biggest international bond issuance markets in the world. It hosts an important global clearing and settlement player focusing on euro-denominated bonds. It is also home to various other financial services. The insurance sector is relatively large and growing, with total assets over 5 times GDP.

The country's business model benefits from several key comparative advantages:

- Stable political and economic conditions, as exemplified by the AAA sovereign rating, a central location within the euro area and a multi-lingual society.
- A first-mover advantage, as the country's financial center status was originally built on European banks' foreign exchange and euro loan businesses that were attracted by flexible regulations. The authorities have generally been proactive in implementing new European regulations.
- EU and euro area financial integration, in particular the European passport for financial intermediaries and single rulebooks for financial regulation, such as UCITS.
- A range of advisory and ancillary services that financial institutions and investors can access.

Size of Different Sectors of Luxembourg Financial Industry
(In multiples of GDP)



5. Despite an inclusive social model, the labor market is showing some signs of strain, and the housing market is posing multi-dimensional challenges. Unemployment has doubled since the early 2000s to reach 7 percent, even though employment has increased steadily, including during the crisis. Rapid pre-crisis growth allowed for a well-developed safety net and substantial income redistribution, but generous social benefits also tend to generate inactivity traps. The temporary adjustment to automatic wage indexation—limiting it to one tranche every twelve months—has mitigated the steady erosion in cost competitiveness, but the agreement expires at the end of 2014. Meanwhile, rapid income and population growth is feeding demand for residential real estate, while structural supply shortages persist (Box 2).

Box 2. Housing Market Challenges¹

House prices picked up strongly in 2013, by almost 9 percent, following a longer period of moderate but sustained growth between 2003 and 2011, and a slight decline in 2012.

Cyclical as well as structural factors are contributing to the imbalance between demand and supply.

- Continuing population and employment growth, as well as a very large group of non-resident workers (around 40 percent of employment) are pushing up structural demand.
- With mortgage interest rates at record lows, accommodative financial conditions provide further impetus to demand, while government policies (i.e. interest subsidies, tax deductibility of mortgage loan interest payments, and other assistance) strengthen incentives for home ownership.
- Meanwhile, supply is held back by constraints on building, including through environmental and zoning rules. Low recurrent taxation on immovable property is keeping the opportunity cost of holding unused land or property low, especially in a context of expectations of continuous price increases, further reducing turnover.

Domestically-oriented banks' exposure to Luxembourg's real estate market has risen significantly.

Mortgage credit never slowed during the crisis, even as credit to non-financial corporates fell sharply. As a consequence, mortgage credit has risen from 12 percent of domestically oriented banks' assets in 2008 to 24 percent in 2012, or almost 50 percent of GDP.

Households' financial position is strong, though with pockets of vulnerability. Household debt to GDP is around 55 percent, and households are among the wealthiest in the region. However, much of the wealth is held in real estate, and therefore sensitive to valuation changes. With most loans at floating interest rates, increases in interest rates, as well as higher unemployment, could pose risks for households with a more fragile financial position.

¹ See also Selected Issues Paper: "The Residential Real Estate Market".

OUTLOOK, RISKS, AND SPILLOVERS

6. **The outlook is for growth to firm up, but falling well short of the pre-crisis trend.**

Growth is forecast to reach 2 to 2½ percent over 2014–19, broadly in line with potential (Table 1). A more conducive regional outlook will support trade and investment. The financial sector will continue to contribute to growth, but at a slower pace than pre-crisis, as banks retool and reorient their activities toward new businesses.

7. **Short to medium-term risks are tilted to the downside** (see Table 2).

- On the external side, a protracted period of low growth in the euro area could hold back the recovery in the Grand Duchy, given its strong trade and financial linkages with the region.
- On the domestic side, failure to address forthcoming losses in revenue and strong spending growth would sharply worsen the fiscal position. As this would lead to a steady increase in public debt, investors could eventually come to doubt the stability of Luxembourg's AAA rating, a critical requirement for the financial sector's attractiveness.

8. **Longer-term risks pertain to the capacity to secure Luxembourg's business model in a changing environment and to the prevalence of a large financial sector.**

- The baseline scenario assumes that the banking sector successfully reorients its activities toward more dynamic regions—as the euro area banking sector continues to deleverage—and higher net-worth individuals—as the move to automatic exchange of information for tax purposes reduces private banking geared to less affluent non-resident clients. An overriding risk, however, is that these adjustments have a larger-than-expected impact, with knock-on effects on growth, employment, and public finances.
- Rising residential real estate exposures could also pose a risk in the (still low-probability) event of a sharp correction in housing prices. The three largest mortgage lenders are sizeable relative to the economy and support to any of these banks would add significantly to public debt. A few of these banks also remain subsidiaries of large European banks, posing a risk of contagion as happened with Dexia.

9. **Luxembourg is a recipient of inward spillovers and a conduit for outward spillovers, rather than a generator of spillovers in its own capacity.**

Internationally-oriented banks represent about 80 percent of assets. In the event of a systemic shock in one of the large euro area parent banks, the treatment of intragroup exposures in any bail-in decisions will be critical, given that such exposures account for half of the sector's assets. The 2.6 trillion euros managed by the fund industry are almost entirely invested in foreign assets. Thus, both inward and outward potential spillovers from a surge in global financial market volatility could be large—for example arising from the unwinding of unconventional monetary policies in the United States. The unwinding could affect the portfolio allocation of investment funds, but with likely limited effect on the domestic economy. Yet, the reallocation, if sizeable, could affect a wide range of countries in which these funds are invested.

10. Authorities' views. The authorities concurred that growth would not return to pre-crisis levels, but viewed short-term growth prospects slightly better than staff, on the basis of a more negative output gap. However, there was agreement that the measure of the output gap was surrounded with high uncertainty, given the small size of the economy and the ongoing adjustment in the financial sector (Box 3). They also saw risks more balanced, as they were optimistic that the financial sector would come out stronger from the regulatory changes implemented at the EU level and from the move toward greater transparency. Conversely, they viewed continued financial fragmentation within the euro area as a significant risk factor exacerbating the impact of regulatory changes in Europe and hence for financial activities in Luxembourg.

Box 3. Luxembourg: Uncertainty in Potential Output Growth and Output Gap Estimates

Luxembourg's output is highly volatile and difficult to predict. Furthermore, national accounts data can be revised significantly. In addition, a decomposition of growth shows that TFP growth turned negative during the crisis period and has yet to recover sustainably.

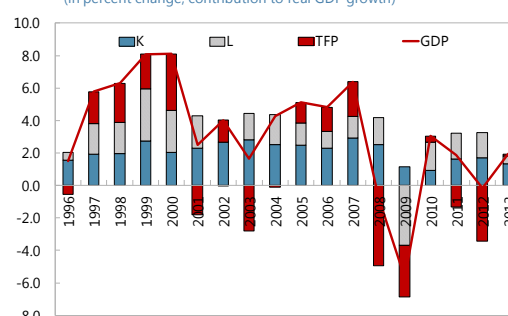
With such uncertainties, it is prudent to use various methodologies to estimate potential output. Staff estimates are based on three methodologies, with data going back to 1995:

- *Hodrick-Prescott (HP) filter.* This commonly-used procedure applied to quarterly data gives annual potential output estimates that attribute more of the decline in growth to structural factors, and hence ascribes a more permanent impact of the crisis on growth. This technique results in an output gap of around 1 percent of GDP in 2013.
- *Production function using annual HP-filtered inputs.* Labor is decomposed into working age population, participation rates, hours worked, and adjusted for cross-border workers. With this method, the output gap reaches around 3½ percent in 2013.
- *Production function using an estimated capital series based on the perpetual inventory method, and decomposing the labor components as in the previous method, while taking a view on structural unemployment and equilibrium participation rates and hours worked.* This refinement results in an output gap measure of 2¼ percent in 2013.

The authorities use various techniques, including well-elaborated macroeconomic models, and have adapted the European Commission's methodology to account for the large pool of cross-border workers. The 2013 output gap used in the budgetary framework was 2¾ percent.

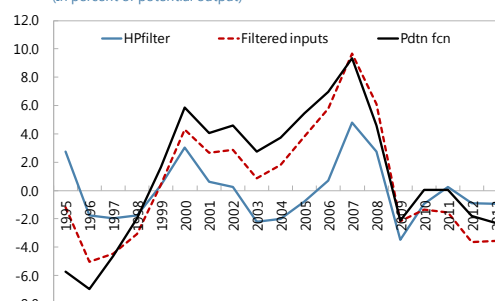
The wide range of estimates illustrates the need for a conservative approach, as revisions to the data tend to reduce the size of the output gap over time. Going forward, staff's medium term projections assume a very gradual recovery in potential growth, given headwinds to growth from the various challenges, and a slow pick-up in TFP reflecting diversification efforts. The output gap is projected to broadly close by 2016.

Decomposition of GDP growth: K, L and TFP
(in percent change, contribution to real GDP growth)



Sources: Staff estimates.

Uncertainty about the level of output gap
(in percent of potential output)



Sources: STATEC, staff estimates.

POLICY PRIORITIES TO SECURE LUXEMBOURG'S ECONOMIC AND SOCIAL MODEL

Luxembourg's success has been predicated on a model of strong public finances, dynamic financial services, and an attractive business environment. Together, these factors allowed for solid growth prior to the crisis and the financing of a generous social welfare system. Discussions focused on the priorities to preserve the main outlines of this model in a changing environment. Those revolved around actions to preserve the healthy fiscal position, manage the risks associated with the diversification of financial sector activities, and shore up competitiveness to ensure the economy can also diversify beyond the financial sector.

A. Adapting Fiscal Policy

11. Without corrective measures, the fiscal position would deteriorate substantially over the next five years. While the 2014 fiscal stance is projected to be broadly neutral, under unchanged policies the structural deficit is projected to worsen by as much as 3½ percent of GDP over 2015–2019. The deterioration would be driven broadly equally by the loss in e-VAT revenues and continued buoyant expenditure growth—which has outpaced that of revenue and GDP since 2009.¹ Public debt could reach close to 40 percent of GDP by 2019, substantially higher than the new government's target (Figure 5, Tables 3 and 4).

12. Staff advocated a moderate but sustained consolidation effort for the next five years. An annual effort of around ½ percent of GDP in structural terms (excluding the effect of e-VAT losses) over 2015–2019 would stabilize debt below 30 percent of GDP—an explicit commitment of the coalition partners. It would also allow Luxembourg to return to its medium-term objective of ½ percent of GDP structural surplus by 2018—a European commitment—while mitigating the negative impact on growth (Figure 6, Table 5).

13. The authorities have announced a VAT hike, as a first measure. The measure is expected to be adopted by Parliament in the second half of the year, with rate increases to take effect in January 2015, and an estimated yield of ¾ percent of GDP. Staff supported this move, noting that, given low current rates, the planned 2 percentage point hike would still allow Luxembourg to maintain the lowest VAT rate in the EU. The increase would apply to all rates but the lowest 3 percent rate on basic goods, helping to shield the poorest households.

¹ Based on the E-Business Directives, from 2015, VAT on digital content will be charged where the customer resides, not to the country of origin. 70 percent of the revenue (1½ percent of GDP) will be lost starting in 2015, an additional 15 percent in 2017, and the full amount in 2019.

Fiscal Adjustment Under Unchanged Policy and Consolidation Scenarios
(In percent of GDP)

	2013	2014	2015	2016	2017	2018	2019	2015-19 average
Unchanged policy scenario								
Revenue	43.6	43.8	42.3	42.2	42.0	42.1	41.9	
Expenditure	43.5	43.4	44.5	44.3	44.5	44.7	44.9	
Balance	0.1	0.3	-2.1	-2.1	-2.5	-2.6	-3.0	
Structural balance	0.5	0.4	-2.0	-2.1	-2.5	-2.6	-3.0	
Fiscal stance	-0.3	-0.1	-2.5	0.0	-0.4	-0.2	-0.4	
Fiscal stance (excluding e-VAT loss) 1/		-0.1	-1.0	-0.1	-0.1	-0.2	-0.2	-0.3
Public debt	23.1	24.1	26.9	29.4	32.2	34.9	37.8	
memo: GDP (in percent change)	2.1	2.6	2.0	2.1	2.2	2.2	2.2	
Consolidation scenario 2/								
Revenue	43.6	43.8	43.1	43.3	43.5	43.5	43.4	
Expenditure	43.5	43.4	43.6	43.2	43.1	42.6	42.4	
Balance	0.1	0.3	-0.5	0.1	0.4	0.9	1.0	
Structural balance	0.5	0.4	-0.4	0.1	0.2	0.7	0.8	
Fiscal stance	-0.3	-0.1	-0.9	0.6	0.1	0.5	0.1	
Fiscal stance (excluding e-VAT loss)		-0.1	0.6	0.5	0.4	0.4	0.3	0.5
Public debt	23.1	24.1	25.7	26.7	27.7	28.2	28.6	
memo: GDP (in percent change)	2.1	2.6	1.5	1.7	1.9	1.9	2.0	
GDP growth relative to baseline		0.0	-0.5	-0.3	-0.3	-0.3	-0.2	
Add'l consolidation relative to baseline		0.0	1.6	0.6	0.5	0.6	0.5	0.6

1/ Excludes the effect of eVAT losses, as those do not represent a fiscal stimulus to the domestic economy, despite the fact that without correction, they would appear as a relaxation of the fiscal stance.

2/ Under the assumptions of measures including (i) VAT adjustment totalling $\frac{3}{4}$ percent of GDP, spread over 2015-2016 (ii) increase in recurrent property taxes yielding $\frac{3}{4}$ percent of GDP spread over 2015-17, and (iii) moderation in expenditure growth in social benefits, purchases of goods and services, wages and salaries, current transfers, and subsidies of $2\frac{1}{2}$ percent of GDP. Total current expenditures would be assumed to grow by $1\frac{3}{4}$ percent per year on average in real terms as opposed to $3\frac{1}{2}$ percent, over 2015-19.

14. Property taxes would be another preferred source of revenue. Luxembourg's income from such taxes is currently less than 0.1 percent of GDP, while it averages $\frac{3}{4}$ percent of GDP in the euro area. Increasing the tax yield could take the form of an update in property valuations—which date back to 1941 and are out of line with current market prices. Raising revenue through this channel would also increase the holding costs of unused properties, potentially relieving pressures in the housing market.

15. However, staff stressed that significant steps were also required to curtail rapid expenditure growth:

- Staff welcomed the recently-initiated comprehensive expenditure review as a tool to prioritize savings to be included in the 2015 budget. As part of EU commitments, the planned introduction of multi-annual budgeting and expenditure ceilings for the central government could also help identify efficiency gains. A public sector reform bill which includes a wage agreement for 2014–16 is expected to generate short-term costs but will allow for a slowdown in the seniority system. Staff noted that, over the medium term, public sector staffing and compensation policies would need to be consistent with the new budgetary framework.

- Staff stressed that a specific area of focus should be social benefits, as they absorb about half of public spending, are the highest *per capita* in the region, and some of them create disincentives to work (Box 4). Consideration could also be given to partially means-testing family benefits.

16. Pension reforms remain an unfinished agenda. Despite the steps taken in 2012, without deeper reforms, pension obligations are still expected to remain unsustainable in the long term. Staff encouraged the authorities to consider measures well ahead of the 2017 scheduled review, including by permanently limiting indexation of pensions to inflation only.

17. The fiscal framework is to be adjusted to fulfill EU commitments and prepare for potential changes in international corporate taxation. A fiscal council to monitor deviations from fiscal targets is to be constituted. With the main fiscal target now defined in structural terms, staff underlined the importance of estimating output gaps conservatively, to avoid overstating the structural balance. The extent to which the global push for transparency in corporate taxation would affect revenues in Luxembourg is difficult to determine, as data is patchy; staff encouraged the authorities to develop a better capacity to assess tax revenues stemming from multinational activities.

Authorities' views

18. The authorities are keenly aware of the fiscal challenge, and plan to achieve consolidation mainly by slowing expenditure growth. They underscored that efforts had already started in 2014, with a limit on expenditure growth at the central government level, and that the VAT increase was also to come. They expressed a preference for front-loading measures in 2015, the year the revenue loss would materialize, stressed the role of the ongoing expenditure review, and took note of the recommendation on property taxes. They agreed that social benefits selectivity would need to increase—it is part of the coalition agreement—but noted, however, that reforms in that area might take longer to implement. While they recognized that more needed to be done to reform the pension system, they did not foresee any measures in the near term.

19. The authorities also planned a strategic review of both tax and expenditure policies to provide the basis for reforms. On the revenue side, a committee of experts will be established to conduct a comprehensive review of the tax system, in particular with a view to improving efficiency while maintaining tax competitiveness. Measures would be expected in 2017. On the expenditure side, the authorities noted that a move to a more flexible system, whereby public servants could be moved from one area to another more easily, would help respond to evolving needs. With respect to international corporate taxation, the authorities reiterated that, as long as a level playing field was established at a global level, they would favor those reforms.

Box 4. Inactivity Traps in Luxembourg¹

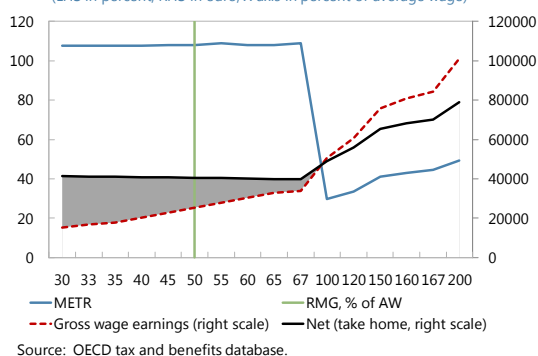
Incentives embedded in the social benefits system can give rise to “inactivity traps”. These operate when people taking up employment are financially worse off, because the additional net income from work is less than the social benefits foregone in the process, either from unemployment benefits and/or from other social assistance, deterring those affected from participating in economic activity. In those circumstances, the marginal effective tax rate (METR) exceeds 100 percent: more than 100 percent of the additional income is “taxed away”. These effects tend to be observed mostly at the low end of the wage scale.

The social benefit system in Luxembourg exhibits some of these features. Unemployment benefits are relatively generous, with an 80 percent replacement rate, for a maximum of 12 months. Those ineligible for unemployment benefits can access the minimum guaranteed income (RMG), with amounts received varying by family status and by income up to a certain level. The RMG also includes a small housing benefit portion. Other relevant benefits include family benefits, which are not means-tested, a cost-of-living type allowance (“allocation de vie chère”), and a minimal income tax credit for work.

This system results in very high METRs, particularly for those receiving unemployment benefits, for whom virtually all the additional income is taxed away when taking up employment. This effect is present up to relatively high wage income and across family status ranging from single persons to single earner couples and two-earner couples, with or without children. For example, the METR only declines below 100 percent levels at 90 percent of average wage for a single person, and at as high as 150 percent of average wage for the second earner of a two-earner couple.

In the case of the RMG, the inactivity trap effect operates at lower wage ranges than with unemployment benefits, but still applies to many types of family status. The METR is above 100 percent for singles earning below 50 percent of the average wage and for single earner couples up to 70 percent of the average wage, making it difficult to leave social assistance. The latter case is illustrated in the text chart: gross wage earnings cannot replace forgone benefits (including lower RMG, minus new taxes and social contributions to be paid), as seen in the grey shaded area. It is only when pay rises above 70 percent of the average wage that the earner is able to keep more than what is lost, and the METR drops to the “normal” tax, which would include income tax as well as social contributions.

Couple with one earner and two children, 2011
(LHS in percent, RHS in euro; X axis in percent of average wage)



Policies should focus on incentives to participate

in economic activity. While the social benefit system has helped support social cohesion, it is likely to have contributed to the high rate of unemployment for unskilled workers, and to a less dynamic economy through lower participation rates. The authorities have revamped the employment agency to more actively tackle this challenge. Experiences in neighboring countries such as Germany suggest indeed that more active labor market policies help, but they also highlight the need to combine them with a reform of social benefits to address the adverse incentives related to high METR. In that respect, a reduction in social transfers could be associated with the introduction of a well-targeted earned income tax credit system.

¹ See also Selected Issues Paper: “The Fiscal Position: Sound for Now, but Significant Challenges Ahead”.

B. Navigating the Changing Financial Landscape

20. The European regulatory and supervisory environment is undergoing substantial changes. As the euro area moves toward a banking union, banks and supervisors will have to prepare for the switch to the Single Supervisory Mechanism (SSM). The single rulebook is being enhanced through the transposition of Basel III framework, and harmonization of banks' recovery and resolution processes as well as of national deposit guarantee schemes. In parallel, the authorities announced that they will start the automatic exchange of information with other tax authorities under the EU Savings Taxation Directive on savings income from 2015.

21. The financial sector appears resilient and, faced with these new challenges, is moving toward diversification.² Despite a contraction of their balance sheets since the crisis—driven by deleveraging pressures in euro area parent banks—banks remain highly capitalized and liquid, and NPLs are low (Table 6). However, staff stressed that, with the euro area banking sector still ailing, activities geared toward the region were likely to grow only moderately. Progress toward banking union was seen as positive in the long run. But staff noted that strengthened capital requirements and the introduction of bail-in instruments might initially exacerbate euro area deleveraging pressures, and that more harmonized EU regulation and supervision might lessen Luxembourg's competitive advantage for some businesses. In that context, it was recognized that diversification already underway would mitigate some of the short-term effects of EU-driven changes:

- Luxembourg has been able to attract new institutions from emerging markets looking for a hub in the euro area, in part thanks to its extensive financial infrastructure.
- Banks are retooling private banking activities toward high net-worth individuals to mitigate the effects of the switch to automatic exchange of information in 2015—which could be challenging for some institutions.
- The investment fund industry has continued expanding, despite recent bouts of volatility in global financial markets. The rapid transposition of the Alternative Investment Fund Managers Directive was seen as an opportunity to develop new activities.

22. Financial sector oversight has been steadily improved. Since the 2011 FSAP, staffing at the *Commission de Surveillance du Secteur Financier* (CSSF) has been increased, techniques for stress testing banks have been enhanced, and investor protection has been stepped up (Appendix III). Cooperation between the *Banque Centrale du Luxembourg* (BCL) and the CSSF is being enhanced in the context of the preparations for the SSM. It will be further strengthened through the foreseen set-up of a national Systemic Risk Committee, involving the supervisors, the BCL, and the Finance Ministry. Preparation for the SSM, though taxing on resources, is proceeding according to schedule, with 80 percent of total assets expected to be supervised by the SSM, either directly or through

² See also Selected Issues Paper: "The Financial Sector: Strengths and Challenges".

parent banks.³ Staff noted that the operational independence of the CSSF could be further strengthened as part of the SSM-related revision of the legal framework.

23. The authorities are also taking steps to preserve the resilience of the banking sector.

The implementation of Basel III capital requirements is being front-loaded, with banks having to meet the minimum 7 percent CET1 from 2014. Given the already high level of capital, banks were generally expected to meet this requirement without difficulty. Staff viewed the measure as appropriate but encouraged the supervisors to remain vigilant and carefully monitor systemic banks to determine, in collaboration with European authorities, whether specific additional measures might be warranted over time. In parallel, each bank will be required to provision at least 1 percent of their insured deposits by end-2016—the aggregate provisioning already exceeds 2 percent of insured deposits. Work to transpose EU’s Deposit Guarantee Schemes and Bank Recovery and Resolution Directives has started, and banks will be mandated to prepare resolution plans in this context. Coordination with all parties involved, in the context of the future Single Supervision and Resolution Mechanisms, would be critical in the event of a potential systemic shock in one of the large euro area parent banks.

24. Domestic residential real estate exposures require monitoring. Exposures have risen substantially since 2008. The authorities have taken several positive steps, including by raising risk weights for mortgage loans exceeding 80 percent of loan-to-value ratios and by requiring frequent stress testing. While early indications suggest these measures are gaining traction, staff argued that supervisors should stand ready to take additional macro-prudential measures if exposures continued to rise. Given their systemic importance for the domestic economy, consideration could also be given to maintaining higher capital requirements for domestically-oriented banks, in collaboration with European authorities.

25. Interconnections and emerging risks should be carefully scrutinized.

- Staff underscored the need to closely monitor the entire financial sector. In particular, links between the various domestic financial actors—for example, from large deposits in the banking system from the fund industry, specialized financial service providers, financial holdings and via financial infrastructures—warrant close monitoring, including of potential inward and outward spillovers. The proposed Systemic Risk Committee would be well-placed to monitor these risks, possibly through system-wide stress testing covering both investment funds and banks.
- Staff stressed that diversification comes with both benefits and risks. In that context, emerging risks should receive enhanced attention; for example, currency mismatch risks could increase as banks’ business in foreign currencies expands. Staff encouraged the authorities to publish their assessments regularly to show that they are closely following new developments in the sector.

³ Seven banks with head offices in Luxembourg, including two domestically-oriented banks, will be subject to the comprehensive assessment directly. 62 other banks, including all other major domestically-oriented banks, will also be subject to the exercise through their head offices in other euro area countries.

- Likewise, to maintain the confidence in the financial sector and ward off reputational risks, staff called for more communication on the authorities' commitment to investor and depositor protection.
- Staff pointed to remaining shortcomings in the AML/CFT and tax information exchange frameworks to be addressed. While the Financial Action Task Force recently recognized efforts in addressing some of the shortcomings under the 2003 AML/CFT standard, further progress is needed in relation to the treatment of tax offences, transparency of legal persons and arrangements, and exchange of information with foreign counterparts (Appendix IV).

Authorities' views

26. The authorities and industry were optimistic about the financial center's prospects under the changing environment. They saw the financial industry capable of adapting to more transparency and to upcoming EU-driven regulatory changes. They noted that these trends, which they called for, could even have upside risks as they could strengthen the financial center's advantages. They pointed in particular to the "eco-system" developed over time in Luxembourg as a powerful selling point to attract new businesses—a unique concentration of diversified financial institutions and related services, providing services based on the EU rulebook and the civil law tradition, and supported by the multi-lingual workforce. They were also positive about the move toward a euro area banking union, as it would ensure a level playing field and contribute to the stability of the European banking system. The comprehensive assessment by the ECB was not seen as likely to raise any substantial issue as the authorities viewed banks as well capitalized and with limited exposures to risky assets. They emphasized that the national supervisors would continue to work closely with the SSM after its establishment, as envisaged in related regulations.

27. Supervisors stressed, though, the importance of moving in collaboration with European partners. They were open to consider additional capital buffers for systemic and domestically-oriented banks. They noted, however, that these measures would have to be carried out over time and in consultation with EU partners—once the full picture of CRD IV implementation became clearer in the euro area. The authorities explained their plan to move ahead expeditiously to set up an ex-ante deposit guarantee scheme and saw merit in maintaining the current overall level of protection even as they moved to this ex-ante system.

28. The authorities broadly shared staff's views on possible sources of risks for the financial sector. They agreed on the need to closely monitor banks' residential real estate exposure and to consider further measures if need be, but preferred for now to wait for the full effects of recent measures. They concurred on the need to continuously monitor risks arising from growing interconnections within the financial sector and from diversification efforts, but at this point, did not see those links posing a substantial risk to the sector's stability. The authorities agreed with the need to communicate more proactively their focus on investor protection. Finally, the authorities indicated that they are waiting for the adoption of the 4th AML/CFT Directive to revise their legal framework in line with international and regional standards, but that they had already taken preparatory steps with regard to tax crimes and the transparency of legal persons and arrangements.

C. Supporting Economic Diversification beyond the Financial Sector

29. The authorities are implementing a diversification strategy beyond financial activities.

They have been targeting specific sectors of growth (i.e. logistics, ICT, bio- and eco-technologies), and efforts are starting to bear fruit, in particular in the fledging but rapidly growing ICT sector.

30. However, despite a strong external position, underlying trends are less benign.

Wages have continued to increase rapidly, even after the crisis, and this despite a decline in productivity and slower employment growth. As a result, the increase in unit labor costs has outpaced that in euro area neighbors by about 20 percent since 2007. The automatic wage indexation mechanism played a critical role, making it difficult for wages to adjust to declining productivity since the crisis; staff analysis suggests that it contributed to more than half of the persistent wedge between Luxembourg and euro area inflation (Box 5). Despite strong economic performance in pre-crisis years, and a solid external position, structural problems in the labor market, as exemplified by the continuous increase in long term unemployment and skills mismatch at the lower end of the wage scale, could eventually erode competitiveness, and hamper long-term growth potential.

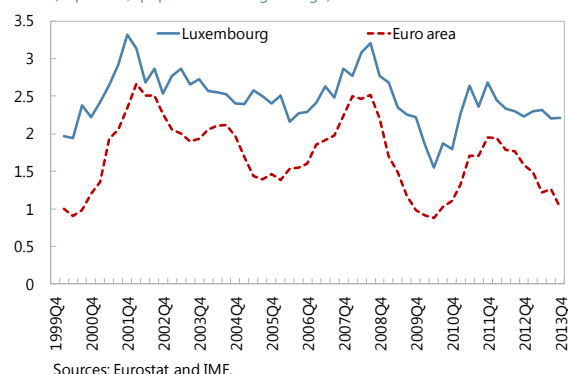
31. Adjusting the wage indexation mechanism would help halt these trends. Under a temporary agreement expiring in December 2014, efforts to alleviate the negative side-effects of indexation—by limiting wage adjustments to once a year—have helped contain unit labor costs. But staff underscored the need for further actions to better link wage and productivity developments, and suggested some complementary options:

- *Making the limit of one indexation round per year a permanent feature after the current arrangement expires, but setting the annual cap closer to the ECB price stability objective (close but below 2 percent) than the current 2½ percent threshold, with additional wage increases left to negotiations between employers and employees to reflect productivity developments.*
- *Supplementing the current mechanism with escape clauses when inflation among the main trade partners falls significantly below the annual cap on automatic indexation.*
- *Modifying the reference index to exclude volatile prices (notably food and fuel prices).*

Box 5. Wage Adjustment and Inflation Persistence¹

The automatic indexation of wages may be partially responsible for the strong dynamism of labor costs and inflation in recent years. Strong wage increases can trigger higher inflation than in euro area partners, as the rise in inflation automatically causes wages to increase, and as a second round response, the subsequent rise in wages increases inflation further—a process that can result in labor cost increases that diverge from productivity gains. As a first indication, the inflation differential between Luxembourg and the euro area has been relatively persistent, at close to 1 percentage point per annum. Furthermore, this wedge has almost always been positive since the inception of the euro, even during recessions. The bi-annual review of the official minimum wage can also contribute to wage dynamism; the minimum wage in Luxembourg is one of the highest among advanced economies.

Core inflation: Luxembourg and Euro Area
(In percent, qoq annual moving average)



Sources: Eurostat and IMF.

An econometric analysis suggests that at least half of the inflation differential with the euro area can be attributed to the automatic indexation mechanism. In a model linking Luxembourg inflation to the euro area inflation and idiosyncratic effects such as the automatic indexation and the review of minimum wages, the latter effects are found to contribute ½ to 1 percentage point to the annual inflation rate. Spikes in inflation are found to occur the quarter directly following an episode of automatic wage indexation. In this context, the temporary arrangements in place until end-2014 limiting the frequency of adjustment has helped, but a permanent system less conducive to high inflation persistence should be designed to preserve competitiveness. This is especially important in a context where the increase in labor compensation has been accompanied by a decline in labor productivity since the crisis.

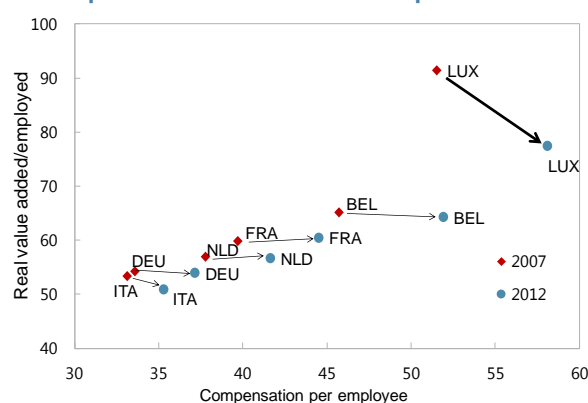
Luxembourg inflation	Diff 1/	Level	Level
Constant	0.55***	1.67***	1.25***
Euro area inflation	...	0.45***	0.58***
Output gap	...	0.02	0.03
Indexation (-1)	0.53***	...	0.59***
Minwage (-1)	0.37	...	0.40**
Observations	47	47	47
R ²	0.13	0.28	0.48
AR(1) error coef.	...	-0.36***	-0.52***
Durbin-Watson	2.61	1.97	2.09

1/ Differential with euro area inflation

2/"***" < 1 percent, "****" < 5 percent, "**" < 10 percent.

Sources: IMF staff estimations.

Compensation and real value added per worker



¹ See also Selected Issues Paper: "External Developments, Competitiveness, and Labor Market Policies".

32. Steps to increase labor participation, strengthen labor skills and reinforce the business environment would further support diversification efforts. Staff pointed to the need to:

- *Review social benefits to strengthen work incentives.* The 2012 pension reform increased the number of contribution years required for full pension, but did not touch existing early retirement schemes that result in a low effective retirement age. The recent reform of the employment agency (ADEM) improved job search assistance and training opportunities. But staff argued that a review of existing social transfers, including unemployment insurance benefits and minimum guaranteed revenue, would complement these efforts by increasing incentives to participate in the labor market.
- *Continue efforts to align skills to private sector needs.* Growing skill mismatches at the low end of the wage scale suggest a need to review some features of the education system—where Luxembourg ranks low compared to OECD peers—with a view to reducing dropout rates and increasing efficiency. In addition, efforts should continue to be made to match workers' skills with private sector needs, in collaboration with the private sector, including through support for training in the areas of targeted growth.
- *Reduce barriers to entry and competition.* As noted by the OECD, Luxembourg has more stringent product market regulations than other EU members, notably for professional services and network industries (i.e. retail distribution). In addition, the emergence of new firms could be facilitated by improving administrative processes to start a business.

Summary of Recommendations for Luxembourg: 2014 OECD Going for Growth Interim Report

Areas of improvement	Recommendations
Improve the design and integration of unemployment benefits and active labor market policies	Address early exit of older workers from the labor market
Reduce impediments to job creation	Review some provisions of employment protection legislation
Reduce barriers to entry and competition	Reduce entry barriers to professional services and network industries

Sources: OECD.

33. Authorities' views. The authorities agreed that some social transfers created disincentives to work and that competitiveness had deteriorated due to rising labor costs in a context of declining productivity. However, they viewed the business environment as conducive to attracting skilled foreign workers, and stressed that their diversification strategy was based on improving overall productivity—through increased public investment in the areas of targeted growth and through training efforts—rather than narrowly focused on cost competitiveness. In that context, they took note of the recommendations regarding the automatic indexation mechanism, but indicated that consideration so far had only been given to making the current arrangement permanent and limiting full indexation to the lower end of the wage scale.

STAFF APPRAISAL

34. The Luxembourg economy is rebounding. The fiscal position remains sound, the large financial sector has been resilient, and the outlook is for growth to gradually firm up, yet without returning to pre-crisis trend. Protracted low euro area growth as well as a larger-than-expected impact on banks from euro area deleveraging trends and from the move to automatic exchange of information constitute the main downside risks. EU-driven regulatory changes may also curtail growth of the financial sector.

35. Yet securing Luxembourg's economic and social model calls for a proactive approach to address the fiscal, financial, and structural challenges ahead. The fiscal position will soon come under strain from losses in e-VAT revenues, the financial sector will have to adjust to a changing external landscape, and Luxembourg's cost competitiveness is being eroded. It will be essential to adapt fiscal policies, manage the risks associated with the diversification of financial sector activities, and preserve competitiveness to allow for alternative sources of growth.

36. A moderate but sustained consolidation is essential to preserve the current healthy fiscal position, underpinned by significant efforts on the expenditure side. A consolidation effort of ½ percent of GDP for the next five years would allow public debt to stabilize below 30 percent of GDP, and the authorities to meet their medium-term objective by 2018, while mitigating the impact on growth. Given current low rates, the planned VAT hike is appropriate, and consideration should also be given to increasing the yield of property taxes. Yet, even after revenue measures are implemented, it will remain critical to curb public spending growth; the expenditure review underway will be a useful tool to identify savings. Changes to the design of some social benefits should be a specific area of focus, as they would also help boost the economy's growth potential through greater labor participation. In that context, a reduction in social transfers could be associated with the introduction of a well-targeted earned-income tax credit system.

37. Adjustments to the fiscal framework should improve transparency. The planned introduction of expenditure ceilings in the context of multi-annual budgeting, in line with EU commitments, should support efforts to moderate spending growth. Likewise, the future fiscal council should have the expertise and resources to monitor deviations from fiscal targets in full independence. With the main target now defined in structural terms, output gap estimates will need to be made conservatively—to avoid overstating the structural balance—and assessed independently—to prevent politicization. Better information on tax expenditures and revenues stemming from multinational activities would also help inform fiscal policy decisions.

38. The financial sector's resilience should be preserved as diversification proceeds. The decision to front-load the implementation of Basel III's capital requirements is welcome. Supervisors should remain vigilant and carefully monitor developments to determine, in collaboration with European authorities, whether specific additional measures may be warranted over time to reflect the systemic size of a number of banks. They should also stand ready to take additional actions if domestic real estate exposures continue to rise. Meanwhile, the authorities should move ahead

expeditiously to set up the ex ante deposit guarantee scheme and resolution fund required by European legislation. The switch to the SSM also offers an opportunity to further strengthen financial sector oversight, but a smooth transition will require the continued involvement of the national competent authorities in the supervision of banks. In addition, the future Systemic Risk Committee should play a leading role in monitoring the interconnections between domestic financial sector actors and new emerging risks from financial diversification. To ward off reputational risks, a more proactive focus on investor protection in the authorities' communication strategy would be beneficial.

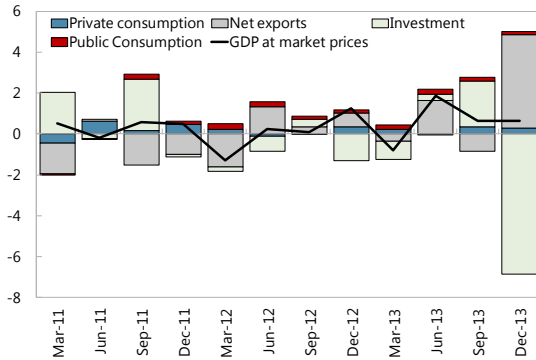
39. Structural policies should support Luxembourg's efforts to diversify beyond the financial sector. In particular, the expiration of the temporary agreement on wage indexation offers an opportunity to adjust the mechanism in a way that allows wage and productivity developments to be better aligned. At a minimum, annual indexation should be permanently capped at a level closer to the ECB price stability objective than the current 2½ percent threshold, and escape clauses considered when inflation among the main trading partners drops significantly below 2 percent. As high real estate prices put pressures on wages, measures to support housing supply would complement these efforts, including through more flexible rules on land use and higher holding costs on unused properties. Meanwhile, the authorities should continue their efforts to match workers' skills with private sector needs, and the emergence of new firms should be facilitated by improving administrative processes to start a business.

40. It is recommended that the next Article IV Consultation with Luxembourg be held on the standard 12-month cycle.

Figure 1. Luxembourg: Real Sector Developments

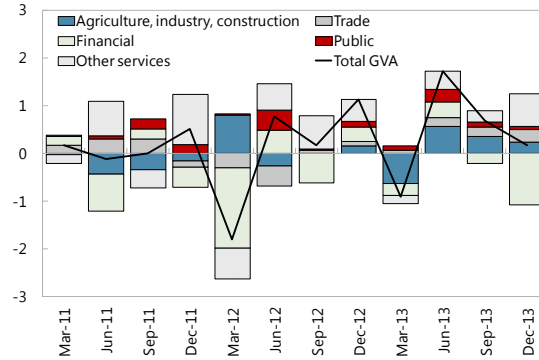
The economy is recovering gradually, helped by resilient exports and private consumption.

GDP Growth by Expenditure Component
(In qoq contribution to growth)



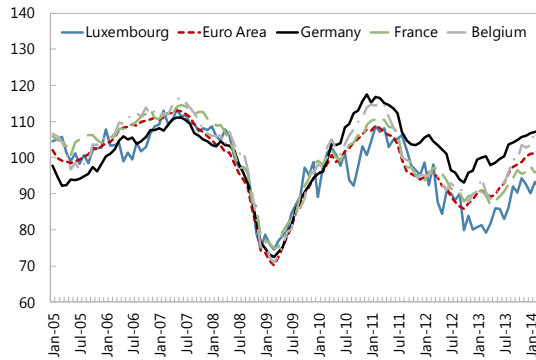
And the recovery has become more broad-based.

Real Gross Value Added by Industry
(In qoq contribution to growth)



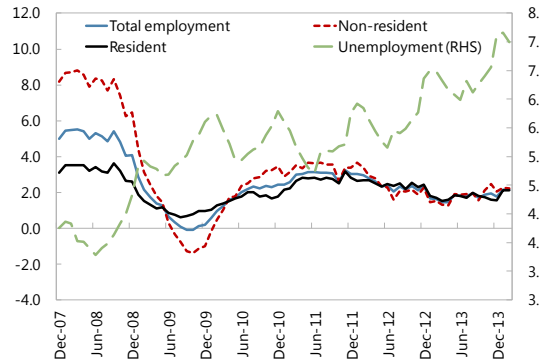
Improved performance is also reflected in better sentiment,

Economic Sentiment Indicator
(In index value, long-term average = 100)



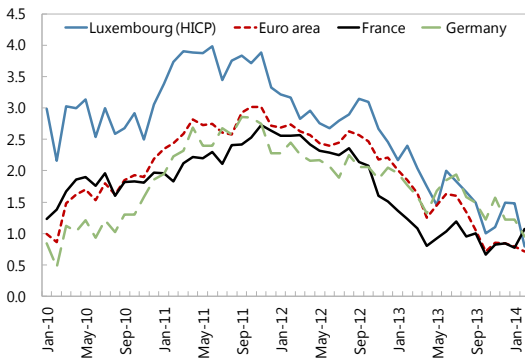
though employment growth has slowed since pre-crisis and unemployment has risen.

Total Employment and Unemployment
(LHS in yoy percent change; RHS in percent)



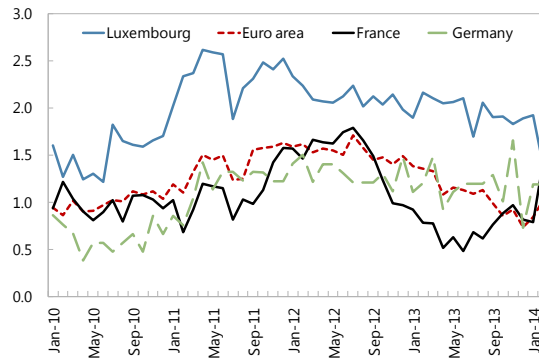
Inflation has come down significantly,

Harmonized Consumer Price Index
(In annual growth rate)



though core inflation remains persistently and significantly higher than euro area peers.

Harmonized Core Consumer Price Index
(In annual growth rate)

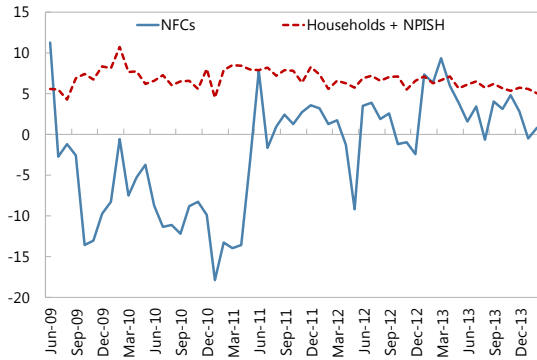


Sources: Haver Analytics, Data Insight, and IMF Staff calculations.

Figure 2. Luxembourg: Credit and Housing Market Conditions

Credit growth has remained dynamic for households, but flat for non-financial corporations.

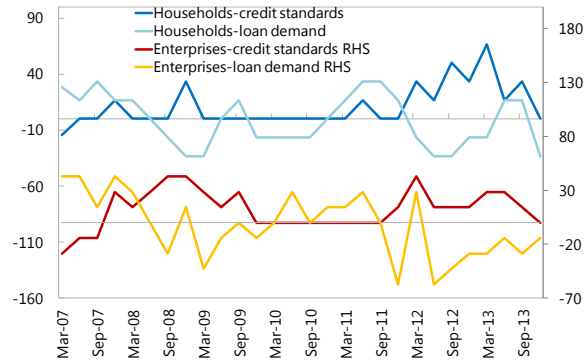
Credit to Households and NFCs in Luxembourg
(In percent change)



Credit conditions have remained accommodative, while loan demand has been relatively weak.

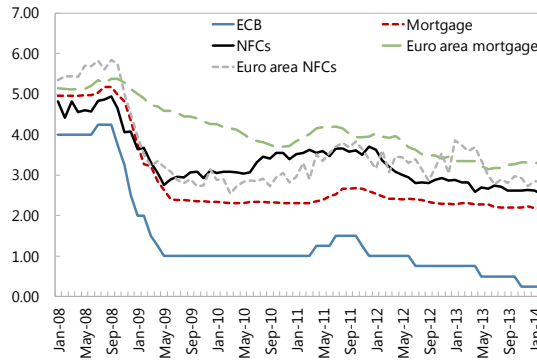
ECB Bank Lending Survey, Luxembourg

(In percent balance of responses; positive indicates tightening/increase)



The ECB's monetary policy transmission has been smooth, with mortgage interest rates especially low.

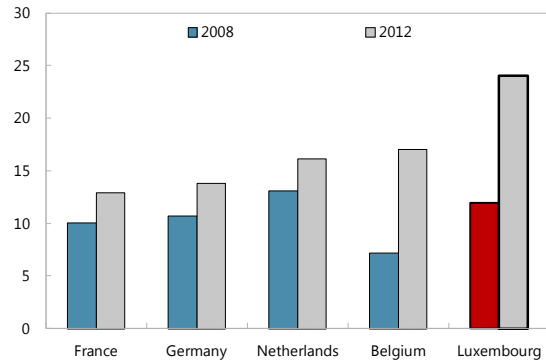
Interest Rates on Loans and ECB Policy Rate
(In percent)



Luxembourg domestically-oriented banks have expanded mortgage lending by much more than their peers.

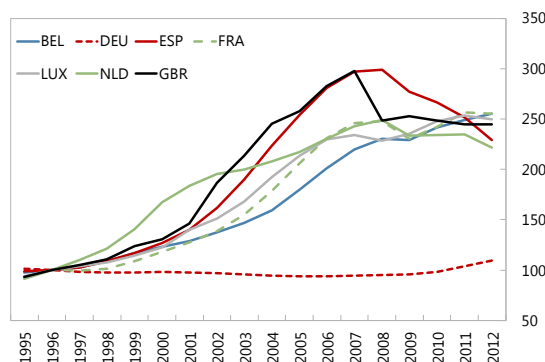
Mortgage Loans of Domestic Banks

(In percent of assets)



Real estate price increases have been in line with most neighboring countries ...

Residential Real Estate Prices, 1995-2012
(In index number, 1996 = 100, nominal)



... but the recent trend is squarely upward.

Sale Prices for Housing, in Real Terms
(In index value, 2005Q1 = 100)

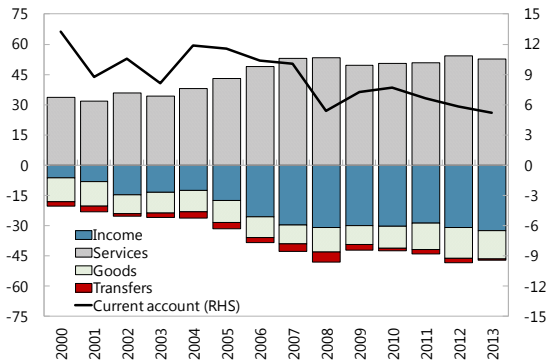


Sources: Haver Analytics, Data Insight, ECB, Luxembourg Authorities, and IMF Staff calculations.

Figure 3. Luxembourg: External Developments and Labor Market

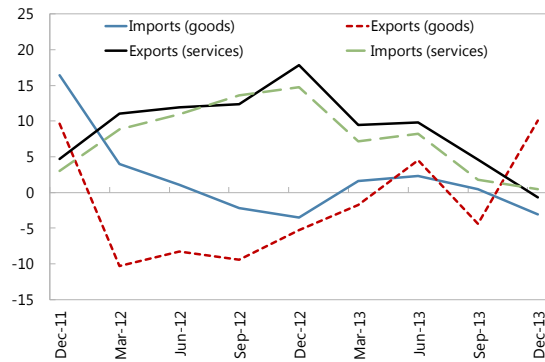
The current account surplus has been sustained for an extended period, largely due to financial services...

Current Account by Components
(In percent of GDP)



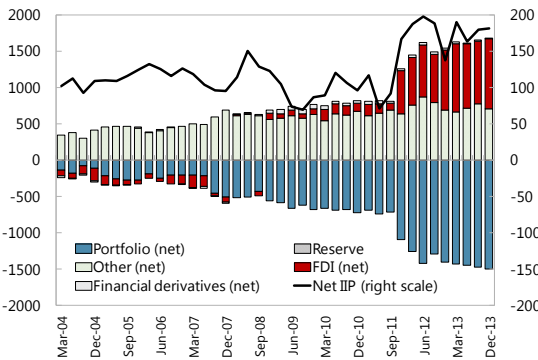
... as service exports had remained resilient, despite continued deleveraging in the euro area.

Exports and Imports Growth since 2011
(In yoy percent change)



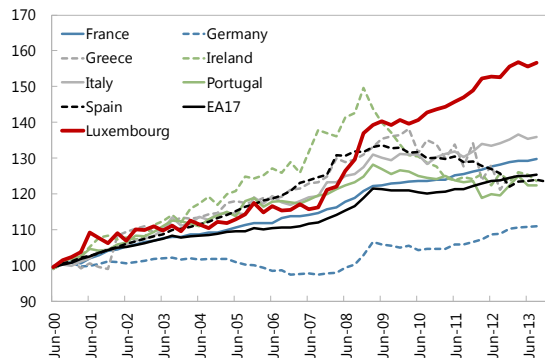
As a result, net IIP remains strongly positive.

International Investment Position
(In percent of GDP)



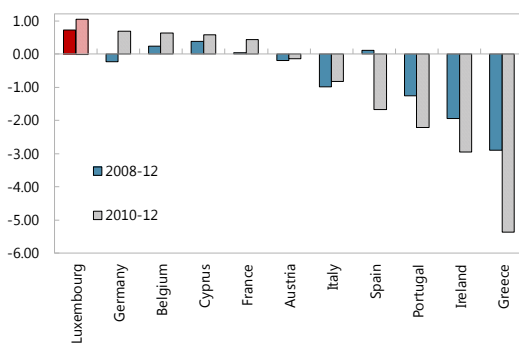
Yet unit labor cost has been rising rapidly, outpacing most EU peers...

Total Economy ULC Developments
(In index number, 2000 = 100)



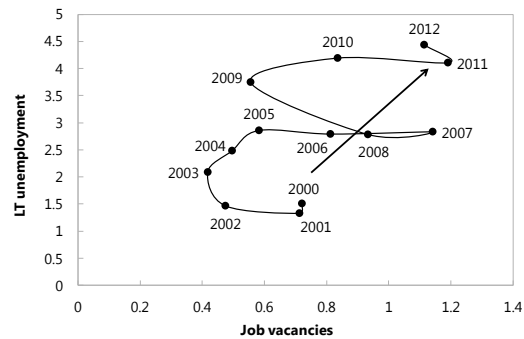
... primarily driven by relatively robust wage growth.

Annual Wage Inflation
(In percent relative to EA17)



Meanwhile, the outward shift of the Beveridge curve suggests a growing skills mismatch.

Beveridge Curve
(In percent of active population)

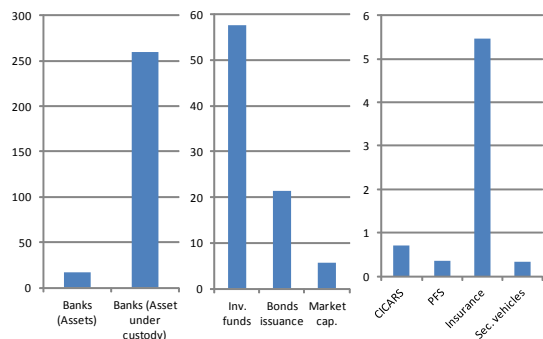


Sources: Haver Analytics, Luxembourg Authorities, and IMF Staff calculations.

Figure 4. Luxembourg: Financial Sector

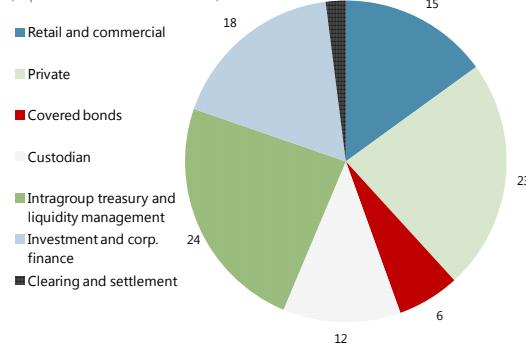
Luxembourg hosts various large financial industries...

Size of Different Sectors of Luxembourg Financial Industry
(In multiples of GDP)



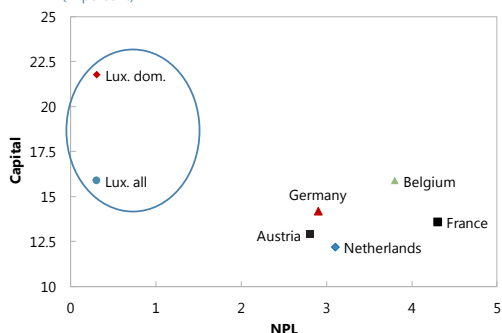
...and its banking sector has diversified businesses.

Diversity in Bank Business Lines, 2012
(In percent of total balance sheet)



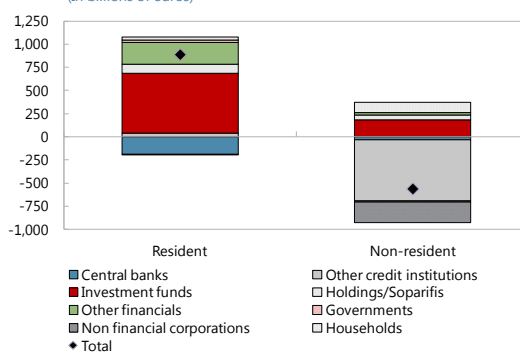
Financial soundness indicators are strong, especially for domestically oriented banks...

Capital and NPL, 2012
(In percent)



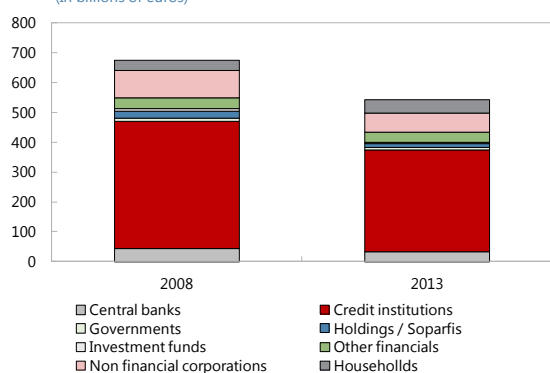
...and the country is a net provider of liquidity to the outside.

Net Deposits by Sector, 2013
(In billions of euros)



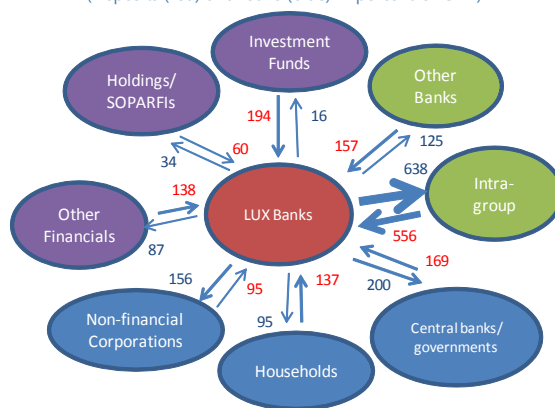
The banking sector has been deleveraging, though, with interbank lending (intragroup exposures) mostly affected...

Change in Bank Loans by Sector
(In billions of euros)



...and the banking sector is a core of various linkages.

Linkages Between Banks and Other Sectors, 2012
(Deposits (red) and loans (blue) in percent of GDP)

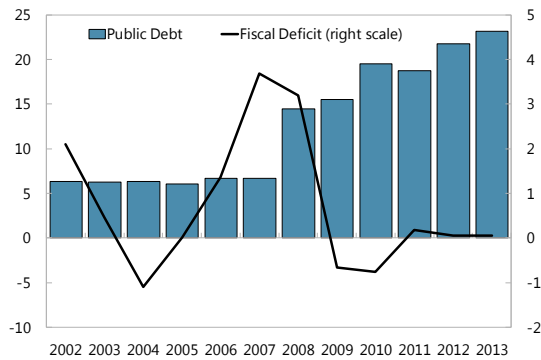


Sources: Luxembourg Authorities and IMF Staff calculations.

Figure 5. Luxembourg: Fiscal Developments

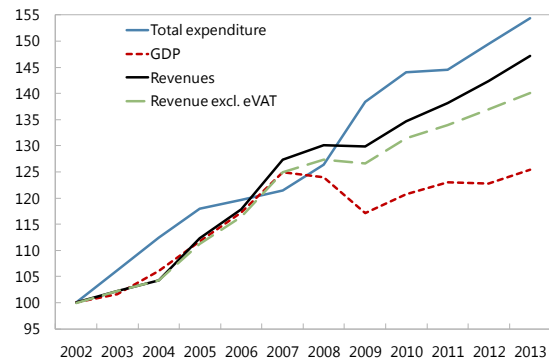
Deficits have been modest, and public sector debt low relative to euro area peers, although it has been deteriorating since 2008 ...

Fiscal Deficit and Public Debt
(In percent of GDP)



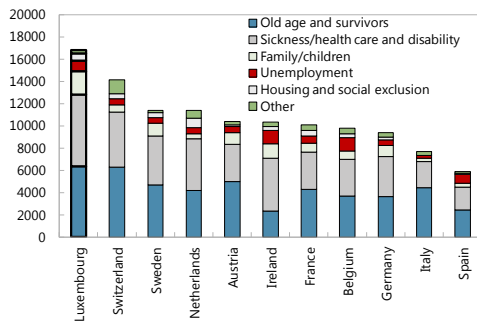
... as expenditure growth is persistently outstripping revenue growth..

Expenditures and Revenues and Real GDP
(In index value, 2002 = 100)



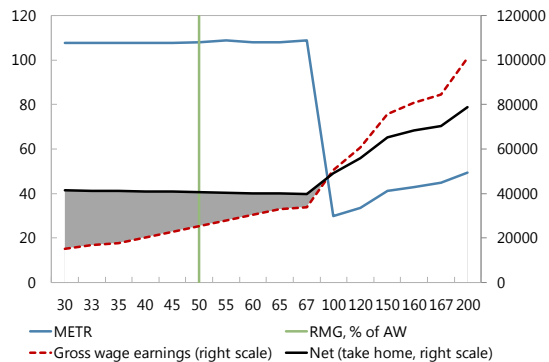
The fiscal model finances generous social benefits.

Social Benefits per Capita by Type, 2010
(In euros)



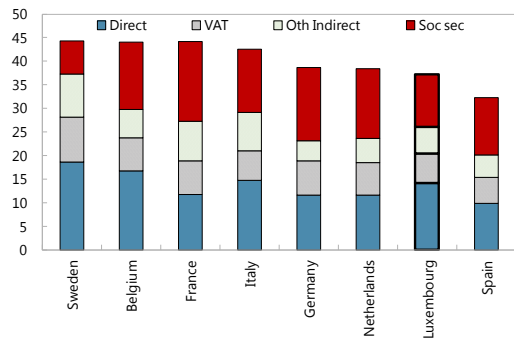
High marginal effective tax rates on employment relative to social assistance could be keeping many people inactive and contributing to elevated social expenditures.

Couple with one earner and two children, 2011
(LHS in percent, RHS in euro; X axis in percent of average wage)



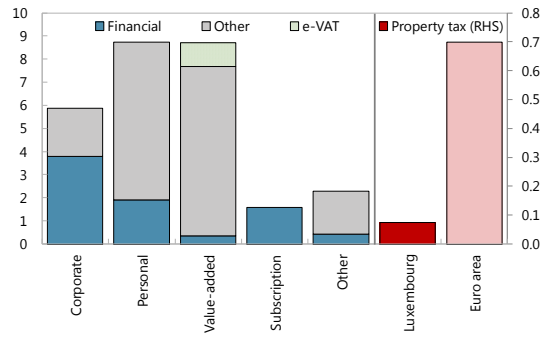
Luxembourg's revenue structure is relatively diversified,

Revenue Structure, Selected European Countries
(In percent of GDP)



though there is high reliance on the financial sector, and recurring property tax revenue is low relative to peers.

Sources of Revenue and Property Tax
(In percent of GDP)



Sources: Haver Analytics, Luxembourg Authorities, Eurostat, Etudes d'impact, and IMF Staff calculations.

Table 1. Luxembourg: Selected Economic Indicators

	Est/Prel			Projections					
	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real Economy (change in percent)									
Gross domestic product	1.9	-0.2	2.1	2.6	2.0	2.1	2.2	2.2	2.2
Total domestic demand	4.4	2.4	-1.0	2.2	2.2	2.1	2.2	2.2	2.3
Private consumption	1.3	2.1	1.7	1.9	1.9	2.0	2.0	2.1	2.1
Public consumption	1.4	4.8	4.3	2.9	2.1	1.9	2.2	2.2	2.1
Gross investment	11.4	0.9	-8.8	2.8	2.8	2.3	2.5	2.4	2.7
Foreign balance 1/	-1.6	-1.8	2.6	1.4	0.3	0.5	0.5	0.5	0.5
Exports of goods and nonfactor services	5.4	-1.9	2.6	2.2	1.6	2.0	2.2	2.2	2.3
Imports of goods and nonfactor services	7.4	-1.0	1.2	1.6	1.7	1.9	2.2	2.3	2.3
Labor Market (thousands, unless indicated)									
Resident labor force	237.7	244.7	250.9	257.7	262.5	267.3	272.3	277.3	282.5
Unemployed	13.5	15.0	17.2	18.4	18.3	17.9	17.5	16.4	15.6
(As a percent of total labor force)	5.7	6.1	6.9	7.1	7.0	6.7	6.4	5.9	5.5
Resident employment	224.2	229.7	233.7	239.3	244.2	249.4	254.7	260.9	266.9
(change in percent)	1.5	2.5	1.7	2.4	2.0	2.1	2.1	2.4	2.3
Cross-border workers (net)	142.2	145.6	148.0	149.9	152.4	154.6	156.8	159.1	161.4
Total employment	369.8	378.9	385.5	389.2	396.5	404.0	411.5	420.0	428.3
(Change in percent)	3.0	2.5	1.7	1.0	1.9	1.9	1.9	2.1	2.0
Prices and costs (change in percent)									
CPI (harmonized), p.a.	3.7	2.9	1.7	1.4	1.8	1.8	1.8	1.9	1.9
CPI core (harmonized), p.a.	2.4	2.1	2.0	1.6	1.9	1.8	1.9	1.9	1.9
CPI (national definition), p.a.	3.4	2.7	1.7	1.3	1.8	1.7	1.8	1.8	1.8
Wage growth 2/	2.4	2.0	3.7	2.5	2.5	2.2	2.2	2.2	2.2
Nominal unit labor costs 2/	3.4	4.7	2.8	1.4	2.4	2.0	1.8	2.1	2.0
Public finances (percent of GDP)									
General government revenues	42.7	44.0	43.6	43.8	42.3	42.2	42.0	42.1	41.9
General government expenditures	42.6	43.9	43.5	43.4	44.5	44.3	44.5	44.7	44.9
General government balance	0.2	0.0	0.1	0.3	-2.1	-2.1	-2.5	-2.6	-3.0
General government structural balance	0.3	0.8	0.5	0.4	-2.0	-2.1	-2.5	-2.6	-3.0
General government gross debt	18.7	21.7	23.1	24.1	26.9	29.4	32.2	34.9	37.8
Balance of Payments (percent of GDP)									
Current account	6.6	5.8	5.2	5.3	4.2	4.4	4.2	4.2	4.0
Balance on goods	-13.0	-15.3	-13.9	-13.2	-14.9	-14.8	-15.2	-15.2	-15.6
Balance on services	50.7	54.4	52.5	52.0	51.8	51.4	51.5	51.4	51.4
Net factor income	-28.9	-30.9	-32.6	-32.7	-32.0	-31.4	-31.3	-31.2	-31.1
Balance on current transfers	-2.1	-2.4	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8	-0.8
Exchange rates									
U.S. dollar per euro	1.391	1.286	...	...	...	...	...	...	...
percent change	-0.1	-3.1	...	...	...	...	...	...	...
Nominal effective rate (2005=100)	102.6	100.9	103.4	...	...	...	...	...	...
percent change	0.5	-1.3	...	...	...	...	...	...	...
Real effective rate (CPI based; 2005=100)	102.7	101.1	103.4	...	...	...	...	...	...
percent change	0.8	-1.2	...	...	...	...	...	...	...
Interest rates									
Government bond yield, end period	2.3	1.4	1.9	...	...	...	...	...	...
Memorandum items: Land area = 2,586 square kilometers; population in 2013= 537,000; GDP per capita = €83,140									
GDP (in billions of euro)	41.7	42.9	45.5	47.4	49.2	51.4	53.3	55.6	57.8
Output gap (in percent deviation from potential)	-0.3	-1.8	-1.1	-0.2	-0.2	-0.1	0.0	0.0	0.0
Potential output growth	1.2	1.4	1.4	1.7	2.0	2.0	2.1	2.1	2.2

Sources: Luxembourg authorities; IMF staff estimates and projections.

1/ Contribution to GDP growth.

2/ Overall economy.

Table 2. Luxembourg: Risk Assessment Matrix

Source of risks	Relative likelihood and channels of transmission	Impact if Realized
Surges in global financial market volatility (related to UMP exit)	High Financial sector impact on the investment fund industry through portfolio reallocation.	Low Impact deemed limited unless the global stress is particularly severe. <i>Policy response: Conduct stress tests covering the entire financial sector, beyond banks.</i>
Reemergence of financial stress in the euro area	Medium Due to its role as a hub for euro area financial activities, Luxembourg's financial sector health is intrinsically linked to that of the euro area's.	Medium Financial service activities further curtailed. <i>Policy response: Maintain existing financial sector buffers; preserve competitiveness, especially related to wage growth, to support diversification beyond financial sector.</i>
More protracted recovery in the euro area	High Strong trade and financial linkages make Luxembourg particularly vulnerable to developments in the euro area.	High Economic recovery in Luxembourg held back. <i>Policy response: Diversify toward more dynamic non euro area markets</i>
Failure to address forthcoming fiscal revenue losses and dynamic public spending	Low Under unchanged policy, losses of e-VAT and spending growth rate far outstripping revenue growth would lead to a substantial deterioration of the fiscal position.	High The impact would be high if it eventually comes to threaten Luxembourg's AAA rating. <i>Policy response: Articulate a clear medium term consolidation strategy.</i>
Impact of changes in regulatory European banking landscape larger than expected, and/or diversification strategy fails to offset those changes	Medium Luxembourg's attraction as a financial center for euro area cross-border activities is significantly diminished.	High Significant impact on growth, employment, and public finances. <i>Policy response: Proactively pursue diversification strategy while scrutinizing associated new risks.</i>
A sharp correction in housing prices	Low Real estate exposures have risen to 22 percent of domestically-oriented banks' assets. These banks' assets account for 2½ times GDP.	High Credit flows would slow substantially. In addition, given their combined size, if support to domestically-oriented banks is needed, it would add significantly to public debt. <i>Policy response: Monitor risk and stand ready to take additional macro-prudential measures.</i>

Table 3. Luxembourg: General Government Operations

	Projections									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	
	(In percent of GDP)									
Revenue	42.7	44.0	43.6	43.8	42.3	42.2	42.0	42.1	41.9	
Taxes	26.8	27.6	27.8	27.8	26.3	26.3	26.1	26.1	25.9	
Social contributions	12.2	12.6	12.2	12.3	12.4	12.4	12.4	12.4	12.5	
Grants	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Other revenue	3.7	3.8	3.5	3.5	3.5	3.4	3.4	3.4	3.4	
Expenditure	42.6	43.9	43.5	43.4	44.5	44.3	44.5	44.7	44.9	
Expense	40.6	42.3	42.2	42.1	42.6	42.7	42.9	43.0	43.2	
Compensation of employees	8.2	8.4	8.4	8.4	8.6	8.5	8.5	8.5	8.5	
Use of goods and services	3.6	3.8	3.8	3.7	3.8	3.8	3.8	3.8	3.8	
Interest	0.5	0.5	0.5	0.5	0.6	0.6	0.7	0.8	0.8	
Subsidies	1.6	1.8	1.8	1.7	1.8	1.8	1.8	1.8	1.8	
Grants	...	...	...	...	...	...	...	...	...
Social benefits	20.2	21.0	21.0	21.1	21.2	21.3	21.4	21.5	21.6	
Other expense	6.4	6.8	6.7	6.6	6.7	6.7	6.7	6.7	6.7	
Net acquisition of nonfinancial assets	2.0	1.6	1.3	1.3	1.9	1.6	1.6	1.6	1.6	
Gross operating balance	4.0	3.6	3.3	3.5	1.6	1.4	1.0	0.9	0.5	
Net operating balance	2.2	1.7	1.4	1.7	-0.3	-0.5	-0.9	-1.0	-1.4	
Net lending / borrowing	0.2	0.0	0.1	0.3	-2.1	-2.1	-2.5	-2.6	-3.0	
Net acquisition of financial assets	1.3	3.7	...	...	...	...	...	...	...
Monetary gold and SDRs	...	...	...	...	...	...	...	...	...
Currency and deposits	-1.1	0.4	...	...	...	...	...	...	...
Securities other than shares	0.1	-0.1	...	...	...	...	...	...	...
Loans	0.2	0.7	...	...	...	...	...	...	...
Shares and other equity	2.0	2.3	...	...	...	...	...	...	...
Insurance, pensions, and standardized guarantee schemes	...	...	...	...	...	...	...	...	...
Financial derivatives	0.0	0.0	...	...	...	...	...	...	...
Other accounts receivable	0.1	0.3	...	...	...	...	...	...	...
Net incurrence of liabilities	1.3	4.3	...	...	...	...	...	...	...
Special Drawing Rights (SDRs)	0.0	...	...	...	...	...	...	...	...
Currency and deposits	0.0	0.0	...	...	...	...	...	...	...
Securities other than shares	0.0	2.3	...	...	...	...	...	...	...
Loans	0.3	1.1	...	...	...	...	...	...	...
Shares and other equity	0.0	0.0	...	...	...	...	...	...	...
Insurance technical reserves	0.0	0.0	...	...	...	...	...	...	...
Financial derivatives	0.0	0.0	...	...	...	...	...	...	...
Other accounts payable	0.9	0.7	...	...	...	...	...	...	...
Memorandum items:										
GDP (in billions of euro)	41.7	42.9	45.5	47.4	49.2	51.4	53.3	55.6	57.8	
Structural balance	0.3	0.8	0.5	0.4	-2.0	-2.1	-2.5	-2.6	-3.0	
Output gap	-0.3	-1.8	-1.1	-0.2	-0.2	-0.1	0.0	0.0	0.0	
Public gross debt (Maastricht definition)	18.7	21.7	23.1	24.1	26.9	29.4	32.2	34.9	37.8	

Sources: Luxembourg authorities, and staff projections.

Table 4. Luxembourg: General Government Financial Balance Sheet
(In millions of Euros)

	2010			2011			2012		
	Trans- actions	Other economic flows	Closing Opening balance	Trans- actions	Other economic flows	Closing Opening balance	Trans- actions	Other economic flows	Closing Opening balance
Net worth and its changes	....	....	....	....	....	....	....	....	....
Nonfinancial assets	....	....	....	....	....	....	....	....	....
Net Financial Worth:	-319	260	20,791	21	-1,323	19,492	-241	2,196	21,439
Financial Assets	3,083	300	31,066	548	-1,156	30,458	1,580	2,354	34,392
Currency and deposits	1,420	1	5,328	-464	-1	4,863	177	-1	5,039
Debt securities	-462	-26	216	35	3	254	-31	-3	220
Loans	-23	1	570	103	-1	672	317	1	990
Equity and inv. fund shares	674	325	20,021	829	-1,157	19,693	993	2,356	23,042
Other financial assets	1,474	-1	4,931	45	0	4,976	124	1	5,101
Liabilities	3,404	40	10,275	524	167	10,966	1,829	158	12,953
Currency and deposits	13	0	207	14	0	221	16	0	237
Debt securities	2,000	41	4,131	0	165	4,296	1,000	160	5,456
Loans	131	0	3,465	118	0	3,583	493	0	4,076
Other liabilities	1,260	-1	2,472	392	2	2,866	320	-2	3,184
<i>Statistical Discrepancy</i>	-2			3			-8		
Memorandum items:									
Net financial worth (in % of GDP)			52.9			46.7			50.0
Financial assets (in % of GDP)			79.0			73.0			80.1
Liabilities (in % of GDP)			26.1			26.3			30.2
GDP			39,303			41,730			42,917

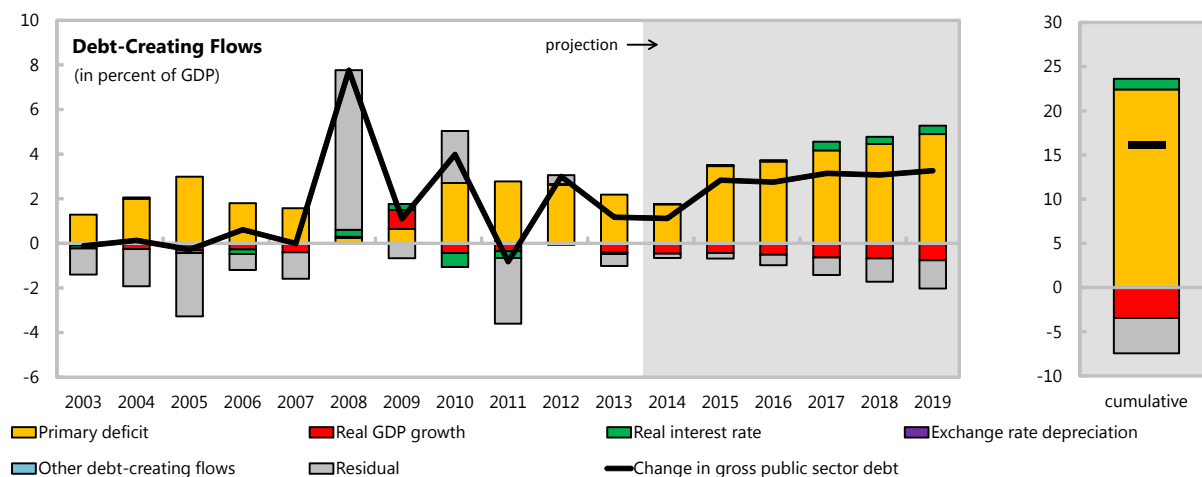
Sources: Luxembourg Statistical Office and Eurostat.

Table 5. Luxembourg: Public Sector Debt Sustainability Analysis (DSA) - Baseline Scenario
(In percent of GDP unless otherwise indicated)

	Debt, Economic and Market Indicators ^{1/}									As of January 15, 2014		
	Actual			Projections								
	2003-2011 ^{2/}	2012	2013	2014	2015	2016	2017	2018	2019	Sovereign Spreads	Foreign	Local
Nominal gross public debt *	11.1	21.7	22.9	24.0	26.8	29.6	32.7	35.8	39.0	EMBIG (bp) 3/	180	
Public gross financing needs	0.8	1.9	6.5	2.0	3.6	4.8	5.5	7.3	7.8	5Y CDS (bp)	n.a.	
Real GDP growth (in percent)	2.4	-0.2	2.0	2.1	1.9	2.0	2.2	2.2	2.2	Ratings		
Inflation (GDP deflator, in percent)	4.0	3.0	3.0	1.9	2.0	2.3	1.5	2.0	1.8	Moody's	Aaa	Aaa
Nominal GDP growth (in percent)	6.5	2.8	5.0	4.0	3.9	4.3	3.8	4.2	4.1	S&P's	AAA	AAA
Effective interest rate (in percent) ^{4/}	3.3	2.7	2.7	2.1	2.3	2.5	3.0	3.1	3.0	Fitch	AAA	AAA

*Differs slightly from figures presented in the selected economic indicators table due to differing projection methodologies.

	Actual			Projections						cumulative	debt-stabilizing primary balance ^{9/}
	2003-2011	2012	2013	2014	2015	2016	2017	2018	2019		
Change in gross public sector debt	1.4	3.0	1.2	1.1	2.8	2.7	3.1	3.1	3.3	16.2	
Identified debt-creating flows	1.6	2.6	1.7	1.3	3.1	3.2	3.9	4.1	4.5	20.2	
Primary deficit	1.8	2.6	2.2	1.7	3.5	3.7	4.2	4.5	4.9	22.4	-0.4
Primary (noninterest) revenue and grants	25.5	26.6	27.8	29.4	28.4	28.1	27.6	27.4	27.0	167.9	
Primary (noninterest) expenditure	27.2	29.3	30.0	31.2	31.8	31.7	31.8	31.9	31.9	190.4	
Automatic debt dynamics ^{5/}	-0.2	0.0	-0.5	-0.4	-0.4	-0.4	-0.2	-0.4	-0.4	-2.2	
Interest rate/growth differential ^{6/}	-0.2	0.0	-0.5	-0.4	-0.4	-0.4	-0.2	-0.4	-0.4	-2.2	
Of which: real interest rate	-0.1	-0.1	-0.1	0.0	0.0	0.1	0.4	0.3	0.4	1.2	
Of which: real GDP growth	-0.1	0.0	-0.4	-0.5	-0.4	-0.5	-0.6	-0.7	-0.8	-3.5	
Exchange rate depreciation ^{7/}	0.0	0.0	0.0	...	...	...	...	...	...	...
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Privatization/Drawdown of Deposits (+ r)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Contingent liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Other debt flows (incl. ESM and Euroarea)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Residual, including asset changes ^{8/}	-0.2	0.4	-0.5	-0.2	-0.3	-0.5	-0.8	-1.0	-1.3	-4.0	



Source: IMF staff.

1/ Public sector is defined as general government.

2/ Based on available data.

3/ Long-term bond spread over German bonds.

4/ Defined as interest payments divided by debt stock (excluding guarantees) at the end of previous year.

5/ Derived as $[(r - \pi(1+g) - g + ae(1+r)] / (1+g+\pi+gr)$ times previous period debt ratio, with r = interest rate; π = growth rate of GDP deflator; g = real GDP growth rate; a = share of foreign-currency denominated debt; and e = nominal exchange rate depreciation (measured by increase in local currency value of U.S. dollar).

6/ The real interest rate contribution is derived from the numerator in footnote 5 as $r - \pi(1+g)$ and the real growth contribution as $-g$.

7/ The exchange rate contribution is derived from the numerator in footnote 5 as $ae(1+r)$.

8/ Includes asset changes and interest revenues (if any). For projections, includes exchange rate changes during the projection period.

9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Table 6. Luxembourg: Financial Soundness Indicators
(In percent)

		2009	2010	2011 ^{1/}	2012	2013
ALL BANKS						
Capital Adequacy	Regulatory capital to risk-weighted assets	18.3	18.5	16.9	18.3	20.9
	Regulatory Tier 1 capital to risk-weighted assets	16.0	16.1	14.7	15.9	18.3
	Capital to assets	5.3	5.6	5.1	6.0	6.4
Profitability And Efficiency	Return on assets	0.7	0.7	0.6	0.7	0.6
	Return on equity	13.6	14.0	9.6	10.9	10.1
	Interest margin to gross income	38.7	28.9	30.0	32.1	29.2
Asset Quality And Structure	Residential real estate loans to total loans	2.6	3.0	3.1	3.3	3.9
	Household debt to GDP	48.6	52.2	53.0	55.1	56.5
	Nonperforming loans to total gross loans	0.7	0.4	0.3	0.3	0.2
	Sectoral distribution of loans (in percent of total loans)					
	Residents	25.9	23.1	22.2	25.1	21.4
Non Residents	74.1	76.9	77.8	75.0	78.6	
Liquidity	Liquid assets to total assets	55.5	54.7	58.5	59.3	59.8
	Liquid assets to short-term liabilities	64.2	64.2	67.1	69.0	69.9
	Customer deposits to total (non interbank) loans	136.1	130.1	127.7	123.0	146.9
DOMESTICALLY-ORIENTED BANKS						
Capital Adequacy	Regulatory capital to risk-weighted assets	23.4	24.0	22.2	24.4	26.0
	Regulatory Tier 1 capital to risk-weighted assets	20.4	21.2	20.1	21.8	23.0
	Capital to assets	6.9	7.4	7.0	8.5	9.0
Profitability And Efficiency	Return on assets	0.5	0.6	0.7	0.7	0.7
	Return on equity	6.7	8.1	8.3	7.8	8.0
	Interest margin to gross income	53.8	50.3	67.9	63.9	56.0
Asset Quality And Structure	Residential real estate loans to total loans	15.9	17.4	19.5	21.5	24.0
	Nonperforming loans to total gross loans	0.4	0.3	0.8	0.3	0.3
	Sectoral distribution of loans (in percent of total loans)	0.0	0.0	0.0	0.0	0.0
	Residents	42.8	46.8	50.9	51.9	55.0
	Non Residents	57.2	53.2	49.1	48.1	45.0
Liquidity	Liquid assets to total assets	40.3	45.4	42.2	44.4	43.0
	Liquid assets to short-term liabilities	47.0	52.1	48.2	54.4	53.0
	Customer deposits to total (non interbank) loans	167.3	171.5	156.5	160.5	160.0

Sources: Financial Soundness Indicators Database, BCL, and CSSF.

1/ Profit and loss data (end 2011) of one bank under restructuring excluded from profitability and efficiency indicators.

Appendix I. Exchange Rate Assessment

1. Luxembourg's current account gap is expected to narrow over the medium term.

Rising income and transfers, including the loss of e-commerce VAT revenue from 2015 and beyond, will weigh on the current account. As a result, the external position is projected to move closer to its equilibrium level in the medium term. These medium-term projections, however, do not reflect any policy changes and are subject to large uncertainty from the intrinsic volatility in financial service exports.

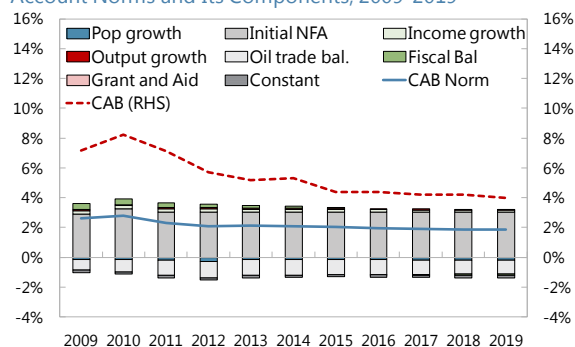
Staff estimates show that the exchange rate is broadly in line with fundamentals. The Macroeconomic Balance (MB) and External Stability (ES) approaches indicate a slight undervaluation of the real effective exchange rate (REER) while the Equilibrium Real Exchange Rate (ERER) approach points to a mild overvaluation. Taking all together, the exchange rate is estimated to be close to the equilibrium value implied by fundamentals, with no evidence of substantial misalignment.¹ Under the MB approach, the initial net foreign asset (NFA) position and relative income growth are the two main contributors to the current account balance norm for Luxembourg, with a prudent fiscal framework also playing a role, although to a lesser extent.

Exchange Rate Assessment for Luxembourg
(in percent)

	Estimate
Average REER gap of three methods	1.1
Macroeconomic balance (MB)	-2.0
Equilibrium real exchange rate (ERER)	6.5
External stability (ES)	-1.3
<i>Memorandum:</i>	
Current account Norm 2019 (% of GDP)	1.9
Projected current account 2019 (% of GDP)	4.0
Elasticity of REER to current account	-1.0

Sources: IMF WEO and staff estimates.

Macroeconomic Balance Approach: Estimated Current Account Norms and Its Components, 2009-2019



Sources: IMF April WEO 2014 and staff estimates.

¹ Economies that serve as hubs for international financial flows have tended to run substantial current account surpluses and net creditor positions. This effect is captured in the IMF exchange rate assessment framework by a financial center variable that represents the following economies: Belgium, Hong Kong SAR, Luxembourg, Netherlands, Singapore, and Switzerland.

Appendix II. Implementation of Past Fund Advice

Recommendations	Authorities' Response
Financial	
Promote cross-border cooperation among supervisors of non-EU banking groups and investment funds.	Cooperation agreements have been signed with a number of countries, particularly regarding AIFMs.
Continue pursuing regulatory enhancements not requiring legislation.	A new minimum provisioning requirement for the deposit guarantee scheme was introduced. Individual bank-level recovery and resolution plans are being discussed.
Continue encouraging banks to prepare for tighter liquidity standards under Basel III.	Discussion with banks is proceeding, to grant waivers for European bank subsidiaries where the standards will apply at the group-level.
Revisit institutional arrangements for regulation and supervision, to better align these with evolving international standards.	Cooperation between institutions is being enhanced in the context of the preparation for the Single Supervisory Mechanism. A Systemic Risk Committee will be established. The legal objectives of CSSF have been clarified.
Fiscal	
Undertake a more comprehensive reform of the pension and healthcare systems to ensure fiscal sustainability.	A pension reform was adopted in December 2012, but more is needed. Further reforms to health care are to be formulated.
Structural	
Improve active labor market policies and the social safety net with a view to minimizing work disincentives and addressing market rigidities.	Luxembourg has reformed the public employment agency, effectively stepping up job search assistance.
Revise or eliminate the wage indexation system in the medium term.	Revisions of the current system are being considered by the new government.
Review product market regulations to foster competition, productivity growth, and economic diversification.	OECD indicators show some progress in reducing barriers to entry and competition for professional services.

Appendix III. Implementation of 2011 FSAP Recommendations

Recommendations	Actions Taken to Date ¹
Overall Financial Sector Oversight	
Make the CSSF's oversight procedures and remedial actions more expeditious and effective.	<i>A number of organizational and procedural changes have taken place to expedite enforcement actions.</i>
Continue to increase resources and skills for the supervision of financial institutions in order to better perform risk-focused inspections and enforcement, and reduce reliance on the compliance-oriented work of external auditors.	Staff and resources for CSSF were further increased to around 500 full-time equivalent staff. A new department responsible for AIFMs was created. Improved supervisory techniques, including stress testing, and preparation towards SSM also contribute to better risk-focused supervision.
Revise the legal framework in order to ensure full operational independence of the CSSF.	Legal provisions that could be interpreted as giving CSSF an objective to promote the financial center were removed. Ongoing work to revise the law to prepare for the SSM could further improve the operational independence.
Clarify the respective responsibilities of the BCL and CSSF in the conduct of financial supervision, especially on liquidity risk and financial market infrastructures, and formalize the modalities of their collaboration and information exchanges.	The cooperation between the BCL and the CSSF is being enhanced in the context of the preparation for the SSM. The set-up of national Systemic Risk Committee is expected to further strengthen that collaboration and information exchange.
Banking Oversight	
Continue to closely monitor intragroup exposures to affiliate and parent banks, and take action to limit them, including through the use of formal sanctions, when necessary.	CSSF continues to closely monitor intra-group exposures and subjects them to periodic stress testing. The new law transposing CRD IV will give supervisors the power to restrict such exposures if needed.
Investment Funds/Securities Markets Oversight	
Enhance the duties of investment fund depositaries and clarify the investment fund shareholder/ownership rights.	<i>Guidance to require investment funds to clarify their shareholder/ownership rights was issued.</i> The duties of depositaries will be enhanced through UCITS V.
Crisis Management	
Strengthen the deposit insurance scheme through ex ante funding, speedier and automatic payments, the use of funds for bank restructuring, and improved governance.	<i>The payment period for the deposit insurance scheme was shortened.</i> Work to revise the scheme in line with European requirements is ongoing.

¹ Measures in italics denote those taken before the 2012 Article IV consultation.

Strengthen the bank resolution framework, including by providing for earlier control of problem banks and enhanced resolution tools.

Finalize contingency plans to ensure the continuity of the ICSD.

Formalize a multipartite domestic framework providing for operational procedures and decisive, quick and early intervention.

Work to revise the bank resolution framework in line with European requirements is ongoing.

Discussion with the ICSD on its contingency plans are ongoing.

A multipartite domestic framework for crisis preparedness consisting of the MoF, BCL, CAA and CSSF resumed its work.

Appendix IV. Financial Integrity and Transparency Issues

1. While highly attractive, Luxembourg’s financial center may also be vulnerable to misuse. Political stability and multilingual, qualified financial services advisors contribute to the attractiveness of Luxembourg’s financial center. The FATF recently decided that Luxembourg had made significant progress in addressing the deficiencies identified in its 2010 AML/CFT mutual evaluation report.¹ However, the AML/CFT and tax information exchange frameworks still suffer from some shortcomings, such as an inadequate treatment of tax offenses, (notably in relation to the revised (2012) AML/CFT standard), limited transparency of ownership of legal persons and arrangements, and weaknesses in the detection of and exchange of financial intelligence and tax information on non-residents. Both the OECD’s Global Forum on Transparency and Exchange of Information for Tax Purposes and the FATF have raised concerns in this regard. The authorities indicated that they were waiting for the adoption of the European Union’s 4th AML/CFT Directive to introduce the necessary amendments in their legal framework.

2. The authorities are encouraged to include tax crimes amongst the predicate offenses to money laundering. The scope of tax fraud² has a number of limitations. Both the substance and the implementation of this offense have been criticized. It may hamper international judicial cooperation relating to tax offenses. For instance, non-residents who bring funds to Luxembourg in order to evade taxes in their own country are not deemed to commit the offense covered by this provision because using the Luxembourg legal framework does not amount *per se* to a “systematic use of fraudulent means”. In addition, tax crimes are not predicate offenses to money laundering. In these circumstances, the AML/CFT framework is not applicable in cases of tax crimes, which hampers detection of, and international cooperation on, tax evaders. The authorities have indicated that they are working towards including tax crimes as predicate offenses to money laundering as recommended by the 2012 FATF standards.

3. The authorities are taking steps to increase the transparency of legal persons that issue bearer shares but have not taken similar measures with respect to legal arrangements. The lack of transparency over legal persons is widely recognized as offering opportunities to facilitate the laundering of criminal proceeds. On October 4, 2013, a bill providing for the immobilization of bearer shares was submitted to Parliament. If adopted, this would play an important role in increasing the transparency of legal persons. Nevertheless, further measures are necessary to ensure that information relating to the beneficial ownership of legal entities is readily available. This includes ensuring that adequate and accurate information on the beneficial owners of legal persons is available in all cases, and may require changes in the Registry of Business and Corporations (RCS)’s framework. Beneficial ownership information relating to trusts is only accessible

¹ See FATF, 2014, Mutual Evaluation of Luxembourg: 6th Follow-up report.

² The main tax crime in Luxembourg is the “*escroquerie fiscale*” as defined in Articles 396, paragraph 5, and 397 of the Tax Code. Additional tax offenses include the “*fraude fiscale*” (Article 396, paragraph 1, of the Tax Code) and offenses relating to indirect taxes, and customs and excise duties.

in the course of criminal proceedings and the identification of trusts and their beneficial owners is not carried out in a systematic manner. The Committee on Transferable Securities (within the CSSF) and the Committee on Company Law (within the Ministry of Justice) are currently conducting a joint analysis of the shortcomings in the area of transparency of legal persons, trusts and other legal arrangements.

The framework for exchanging financial intelligence on non-residents potentially misusing Luxembourg's financial sector is in place but would benefit from further strengthening. An important number of AML/CFT inspection missions have taken place over the past years, the number of suspicious transactions reports have increased and the number of sanctions pronounced has increased. In addition, the authorities appear to request information from foreign counterparts as soon as a foreign person appears in a suspicious transaction report—a critical element given that the majority of predicate crimes may be committed outside the country. Almost 10,000 AML/CFT-related information requests have been sent in 2012, as opposed to less than 3,000 in 2010. However, the decreasing number of inspections of banks in 2013, the short length of the onsite inspection missions (3-5 days) and the relatively low amount of fines imposed in 2013 (less than EUR150,000) could impact the effectiveness of the supervisory process.³ It also appears that one single bank disclosed more than 85 percent of all the suspicious transactions in 2012, and explains the high number of information exchanged. A draft law concerning the harmonization and update of the general legal framework on sanctions and prudential powers of the CSSF is being discussed by the authorities. With regard to exchange of information for tax purposes, the November 2013 Phase 2 Global Forum report indicated significant delays in responses to foreign requests, based on the analysis of the response timeframe for years 2009–11. The authorities indicate that communications with requesting partners have significantly improved in the last years.

³ Fund staff experience and indications from some FATF members with supervisory frameworks that are generally considered to be effective suggest that onsite inspections missions last 2-3 weeks on average, depending on the size of the financial institution. Similarly, much higher fines have been pronounced for non-compliance with AML/CFT requirements by some foreign supervisors, with several fines higher than US\$10 million (e.g.: JP Morgan Chase, TD Bank, TCF National Bank, HSBC Holdings in the US.; Standard Bank PLC in the U.K.; UBS France in France).



LUXEMBOURG

STAFF REPORT FOR THE 2014 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

April 18, 2014

Prepared By

European Department

CONTENTS

FUND RELATIONS	2
STATISTICAL ISSUES	4
TABLE OF COMMON INDICATORS REQUIRED FOR SURVEILLANCE	5

FUND RELATIONS

(As of March 15, 2014)

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

General Resources Account:

	SDR Million	Percent of Quota
Quota	418.70	100.00
Fund Holding of Currency (Exchange Rate)	342.07	81.70
Reserve Position in the Fund	76.64	18.30
Lending to the Fund		

SDR Department:

	SDR Million	Percent of Allocation
Net Cumulative Allocation	246.62	100.00
Holdings	244.30	99.06

Outstanding Purchases and Loans: None

Latest Financial Arrangements: None

Projected Payments to Fund (SDR Million); based on existing use of resources and present holdings of SDRs):

	Forthcoming				
	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Principal	0.00	0.00	0.00	0.00	0.00
Charges/Interest	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>

Implementation of HIPC Initiative: N/A

Safeguards Assessments: N/A

Exchange Rate Assessment: 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).

Last Article IV Consultation:

The last Article IV consultation was concluded on June 27, 2012. The associated Executive Board assessment is available at <http://www.imf.org/external/np/sec/pn/2012/pn1267.htm> and the staff

report (IMF Country Report No. 13/123) at <http://www.imf.org/external/pubs/cat/longres.aspx?sk=26033.0>. Luxembourg is on the standard 12-month consultation cycle.

FSAP Participation and ROSC: The last FSAP took place in 2011. The associated Financial System Stability Assessment and accompanying ROSCs are available at <http://www.imf.org/external/pubs/cat/longres.aspx?sk=24995.0>

Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT): See Appendix IV of the main staff report document.

STATISTICAL ISSUES

A. 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/agenda/calendrier-diffusion/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.

B. Data Standards and Quality

Luxembourg has been a subscriber to the Fund's Special Data Dissemination Standard (SDDS) since May 12, 2006. Luxembourg uses SDDS flexibility options on the timeliness of national accounts and analytical accounts of the central bank.

No data ROSC is available.

TABLE OF COMMON INDICATORS REQUIRED FOR SURVEILLANCE

(As of March 20, 2014)	Date of Latest Observation	Date Received	Frequency of Data ⁷	Frequency of Reporting ⁷	Frequency of Publication ⁷
Exchange Rates	03/20/14	03/20/14	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities ¹	02/28/14	03/07/14	M	M	M
Reserve/Base Money	12/31/13	02/28/14	M	M	M
Broad Money	12/31/13	02/28/14	M	M	M
Central Bank Balance Sheet	12/31/13	02/28/14	M	M	M
Consolidated Balance Sheet of the Banking System	12/31/13	02/28/14	M	M	M
Interest Rates ²	03/20/14	03/20/14	D	D	D
Consumer Price Index	02/28/14	03/05/14	M	M	M
Revenue, Expenditure, Balance and Composition of Financing ³ – General Government ⁴	2012 Q4	10/08/12	Q	Q	Q
Revenue, Expenditure, Balance and Composition of Financing ³ – Central Government	2013 Q4	02/28/14	Q	Q	Q
Stocks of Central Government and Central Government-Guaranteed Debt ⁵	2013 Q3	01/09/14	Q	Q	Q
External Current Account Balance	2013 Q3	12/30/13	Q	Q	Q
Exports and Imports of Goods	12/31/13	02/25/14	M	M	M
GDP/GNP	2013 Q3	01/09/14	Q	Q	Q
Gross External Debt	2013 Q3	12/31/13	Q	Q	Q
International Investment Position ⁶	2013 Q3	12/31/13	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).



INTERNATIONAL MONETARY FUND



Press Release No. 14/209
FOR IMMEDIATE RELEASE
May 9, 2014

International Monetary Fund
700 19th Street, NW
Washington, D. C. 20431 USA

IMF Executive Board Concludes 2014 Article IV Consultation with Luxembourg

On May 2, 2014, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation¹ with Luxembourg.

With a strong policy framework, Luxembourg has weathered the crisis well and the economy is rebounding. The fiscal position remains sound, and the large financial sector has been resilient. After a shallow recession in 2012, growth reached 2.1 percent in 2013. The improving economic and financial environment in Europe drove the recovery in services exports. Meanwhile, healthy public finances, accommodative credit conditions, and continued employment growth supported domestic demand.

The outlook is for growth to firm up but without returning to its pre-crisis trend. Output is forecast to grow broadly in line with potential (2 to 2½ percent) over 2014-19. The economy is facing several challenges. The financial sector will have to adjust to a changing external landscape, public finances will soon come under strain from losses in e-VAT revenue and strong expenditure growth, and Luxembourg's cost competitiveness is being eroded.

Securing Luxembourg's economic and social model calls for a proactive approach. A moderate but sustained fiscal consolidation is essential to preserve the sound fiscal position. Beyond revenue measures under consideration, steps will also be required to curtail rapid public spending growth. On the financial front, resilience should be preserved as diversification proceeds. The decision to front-load the implementation of Basel III's capital requirements is welcome, but systemic banks should be carefully monitored, in coordination with European authorities, to determine whether additional measures may be warranted over time. Supervisors also need to continue to closely monitor domestic real estate exposures, interconnections in the domestic financial sector, and new emerging risks from financial diversification. Finally, the expiration of the temporary agreement on wage indexation offers an opportunity to adjust the mechanism in a

¹ Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

way that better aligns wages and productivity movements. Measures to strengthen labor skills and the business environment would also further support the authorities' strategy to diversify beyond the financial sector.

Executive Board Assessment²

Executive Directors commended the authorities for their strong policy management, which helped Luxembourg weather the recent economic crisis well. Directors noted that while growth is rebounding, the country faces several external and internal challenges. To preserve the main features of Luxembourg's economic and social model, they agreed that policy priorities ahead should continue to focus on fiscal and structural reforms, adjustment to the changing external financial environment, and economic diversification.

Directors noted that although the fiscal position is reassuring, losses from e-VAT revenues and rapid expenditure growth would pose strains in the coming years. To ensure fiscal sustainability, they called for a moderate growth-friendly fiscal consolidation. Directors supported the planned VAT hike and encouraged the authorities to consider increasing the yield of property taxes. In addition, they saw need to curtail public spending, while preserving social cohesion. Directors welcomed the expenditure review underway as a useful tool to identify savings. They encouraged the authorities to reconsider the social benefits systems, particularly the pension system, as reforms in this area would also help boost the economy's growth potential through greater labor participation. The planned introduction of expenditure ceilings in the context of a multi-year budgetary framework should also support efforts to moderate spending growth.

Directors took note of high bank capitalization and liquidity, and the strong growth of the investment fund industry. They underscored the need to preserve the financial sector's resilience as diversification proceeds. Directors commended the authorities for their decision to front-load the implementation of Basel III's capital requirements. They noted that supervisors should remain vigilant and carefully monitor developments in the sector to determine whether specific additional measures may be warranted taking into account the systemic size of a number of banks. Directors underscored the need to continue to closely monitor domestic real estate exposures, interconnections in the domestic financial sector, and new emerging risks from financial diversification. They also encouraged the authorities to move expeditiously to set up the ex ante deposit guarantee scheme and resolution fund required by European legislation. Further improvements in transparency and strengthening of the Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) framework are also called for.

² At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: <http://www.imf.org/external/np/sec/misc/qualifiers.htm>.

Directors agreed that economic diversification beyond the financial sector is essential to improve Luxembourg's growth prospects and create new job opportunities. They noted that despite a strong external position, the country might be pricing itself out of some activities because of substantial labor cost increases. Directors encouraged the authorities to adjust the wage indexation mechanism to better link wage and productivity movements. Measures to tackle labor market rigidities and reduce skills mismatch would support the authorities' strategy to diversify beyond the financial sector.

Luxembourg: Selected Economic Indicators 2010–14¹

	2010	2011	2012	2013	2014 ²
				Est.	Proj.
Real economy	(Change in percent, unless otherwise indicated)				
Real GDP	3.1	1.9	-0.2	2.1	2.6
Gross investment	29.4	11.5	1.0	-9.0	2.8
Unemployment (as percent of the labor force)	5.8	5.6	6.1	6.8	7.1
Resident employment (thousands)	220.9	224.2	229.7	233.7	239.3
Total employment (thousands)	359.2	369.8	378.9	385.5	389.2
CPI (harmonized), p.a.	2.8	3.7	2.9	1.7	1.4
Public finances	(Percent of GDP)				
General government revenues	42.8	42.7	44.0	43.6	43.8
General government expenditures	43.5	42.6	43.9	43.5	43.4
General government balance	-0.8	0.2	0.0	0.1	0.3
General government gross debt	19.5	18.7	21.7	23.1	24.1
Balance of payments					
Current account balance	7.7	6.6	5.8	5.2	5.3
Balance of trade in goods and services	39.6	37.7	39.1	38.6	38.8
Factor income balance	-30.4	-28.9	-30.9	-32.6	-32.7
Transfer balance	-1.5	-2.1	-2.4	-0.8	-0.8
Exchange rates	Member of the euro area				
U.S. dollar per euro	1.3	1.4	1.3	1.3	...
Nominal effective rate (2005=100)	102.1	102.6	100.2	102.3	...

Sources: Data provided by the authorities; IMF, WEO database; and IMF staff calculations.

¹ Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board. At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities.

² Staff projections.

**Statement by Menno Snel, Executive Director for Luxembourg and Amela Hubic, Senior
Advisor to the Executive Director
May 2, 2014**

The Luxembourg authorities would like to thank staff for their comprehensive analysis. It provides an objective view of the macroeconomic situation in Luxembourg and the challenges the economy is facing. The authorities broadly agree with the staff's analysis and recommendations.

The country's continued stable political, social and regulatory environment has helped the economy and financial sector to weather the recent global financial and the European sovereign debt crisis well. The authorities have followed prudent macroeconomic and counter-cyclical fiscal policies, and have paid careful attention to developing a climate conducive to business and investment. Luxembourg is among the few European countries to maintain an AAA credit rating assessment with stable outlook from all three major credit agencies, clearly demonstrating the market's confidence in the country, and its macroeconomic and financial fundamentals. The new three-party coalition government took office in December 2013 following early elections in October 2013.

Recent economic developments and outlook

After a slight contraction in 2012, the economy recovered in 2013 and registered a real GDP growth of 2.1 percent in the context of the rebound of euro area economies. The authorities project the economy to grow by 3.2 percent of GDP in 2014 and on average by 3.5 percent of GDP over the period 2015-2018 - better medium-term prospects than estimated by staff. The projections are based on a number of factors, among others: (i) sustainable pick-up of the euro area growth; (ii) a recovery in the global economy; and (iii) favorable stock exchange developments. Nevertheless, the authorities are aware that the trend growth slowed down markedly from the pre-crisis period. Growth projections for the medium term, produced by the independent national statistical authority, are hence being considered with the necessary prudence. The authorities will carefully analyze and consider different policy options – to be included in the 2015 budget – which will be growth friendly and at the same time reflect the new economic reality, in particular in terms of public spending.

Inflation is expected to be 0.9 percentage point higher in 2015 than estimated by staff, on the account of a 2 percentage point increase of VAT. Employment has recorded an increase of 1.7 percent in 2013, less than its trend level. Close to one third of new jobs were created in the public sector. The government's latest projections show that the employment growth will accelerate in the coming years and amount to 1.9 percent in 2014, and will stabilize at 2.3 percent beyond 2015. The seasonally adjusted unemployment rate is on the rise, reaching a historical peak of 6.9 percent at the end of 2013. Unemployment tends to become more structural as rightly emphasized in the staff report. Almost half of the unemployed are lowskilled and a quarter of them are long-term unemployed. The authorities, conscious of this problem, have already adopted several measures in order to address it. For example, the employment agency is operating under new management with more staff and an upgraded IT system, with a new organizational system and a more proactive approach allowing for better matching. Further

measures are in preparation, and these will tackle in particular the inactivity and unemployment traps.

Public finances

The economic and financial crisis has weakened public finances. Nevertheless, Luxembourg has maintained its relatively low level of public debt, 23 percent of GDP in 2013 - among the lowest in the euro area - as well as a significant budgetary safety margin with respect to the Maastricht deficit reference value of 3 percent of GDP. The budget balance remained consistently well above this reference value. Moreover, significant assets to fund future pension liabilities - these amounted to 26.9 percent of GDP at the end of 2013 - have been accumulated and set aside in a dedicated Fund.

However, the country is facing a series of challenges of a structural nature that will have a direct impact on the public finances. Potential growth is declining and the high degree of openness of the economy and its specialization in financial services make public revenues vulnerable to high volatility. The recent move to automatic exchange of information adds additional uncertainty on revenues; and the entry into force of the new regime for VAT on e-commerce of the 2008 EU Council Directive (2008/8/EC) will generate a loss of around 1.5 percent of GDP of VAT revenue beginning 2015. At the same time, public expenditures display downward rigidity with a significant part growing autonomously, independent of the business cycle. The ageing population also impacts public finances over the long term.

The general government balance increased from a neutral stance in 2012 to a small surplus of 0.1 percent of GDP in 2013. Given the early elections in October 2013, the 2014 budget had to go through two steps. The first four months were run under a so-called 'current procedure', with a partial continuity of the 2013 budgetary articles to allow for the smoothing functioning of the State. Second, the 2014 budget was voted on April 24. In this budget, consolidation measures of 0.5 percent of GDP were announced: 60 percent of these savings are to be achieved through a reduction of public investments; 21 percent through a reduction of the operating costs of the central government; and the remaining part represents savings from a new scheme of financial grants and loans for students in higher education. These additional consolidation measures will lead to a surplus of 0.2 percent of GDP in 2014.

For 2015, the authorities are keenly aware that, without additional corrective measures, the fiscal situation will deteriorate significantly. This deterioration will be mainly driven by the loss in VAT revenue from e-commerce activities and continued buoyant expenditure growth. Therefore, the authorities are committed to act firmly. On the revenue side, as a first measure, the government has already decided that all VAT rates will be increased by two percentage points with the exception of the 3 percent rate on basic goods, in order to shield the poorest households. This measure is expected to generate 0.7 percent of GDP of additional revenue. Moreover, the 3 percent rate would be henceforth limited to purchases of owner-occupied homes, constituting a first step in reducing excessive government support for housing demand. The planned reduction of this important budget expenditure in the housing market is part of the authorities' efforts to provide an adequate policy response to the housing market, with a shift from demand-based policies to more supply-based policies. In this context, staff's recommendation to increase property tax is still under consideration. The remaining part of consolidation for 2015 is expected

to take place by implementing additional measures with a focus on slowing expenditure growth. On the outlay side, the authorities have initiated a comprehensive expenditure review as a tool to prioritize savings over the next four years. The review is conducted in four phases from conception to implementation, with analysis across both ministerial and functional lines. 20 working groups have been established. The analytical phase will be finalized in June and provide the government with a report that will list a menu of savings measures. In line with the country's 2014 update of the Stability Program, fiscal consolidation needs an amount of 1 billion euro in structural terms for the period 2015-2018. The aim is to ensure a gradual and sustainable return to balanced public finances by the end of the government's tenure in 2018.

The staff report rightly emphasizes that the debt-to-GDP ratio has tripled in the period 2007-2013, from 6.7 to about 23 percent. Nonetheless, Luxembourg's debt level remains well below the 60 percent level of the Maastricht criteria, the net public debt is significantly lower, and the public debt is entirely denominated in euro. The authorities are committed to keep the public debt below 30 percent - as the only sustainable trajectory.

The authorities are aware of the importance of putting the public finances on a sound footing in the long term, including keeping public debt levels low, and have introduced several new initiatives. An important healthcare reform became effective on January 1, 2011 - and further reforms are being discussed - while pension reform was adopted late 2012. The authorities concur with the staff's view about the need to place Luxembourg's old-age pension system on a sustainable path. The pension system still suffers from a number of costly rigidities, including the adjustment of benefits to both price and real wage developments. The authorities are aware that the recent reform might not be sufficient to solve the problems of the pension system. But, under the new pension regime, the authorities appraise every five years by means of an actuarial study the consistency between the assumptions underlying the reform and the updated financial trajectory of the scheme. This regular reassessment allows prompt corrective measures in case of expected shortfalls.

A law establishing a multi-year budgetary framework is currently undergoing the national legislative procedure. The framework would apply to all levels of government and include multi-year expenditure ceilings - consistent with the new EU requirements under the legislative "six pack" and the Fiscal Compact. Important steps have been taken to set up an independent *Fiscal council* that will be provided with sufficient resources and expertise in order to monitor deviations from fiscal targets.

Financial sector

Luxembourg's financial sector has weathered the recent crises relatively well and remains generally sound. Nevertheless, significant regulatory changes at the European level – in particular those related to the banking union - and the recent move to automatic exchange of information from January 2015 represent challenges. The authorities believe that these challenges could have upside risks as they could strengthen the financial center's advantages in the long term by ensuring a transparent environment, a level playing field and a more stable European banking system. Luxembourg's unique 'eco-system' – described by staff as '*a unique concentration of diversified financial institutions and related services, providing services based*

on the EU rulebook and civil law tradition, and supported by multilingual workforce - will also continue to attract new business and support its role as a financial hub within the euro area.

Banking sector. The aggregate banking sector balance sheet has contracted over the last few years, largely driven by a decline of asset values during the peak of the crisis, and more recently, the contraction in intragroup exposures with core euro area parent banks. The total assets recorded a level of 711 billion euro in February 2014. The capitalization and liquidity ratios remain sound, with Tier 1 capital ratio over 16 percent and liquid assets to total assets at around 60 percent. The NPLs are extremely low. The banking sector continues to be profitable and an important liquidity provider.

While some banks are leaving Luxembourg, mainly because of the deleveraging process of parent banks, large banking groups expand their presence in the country because of its role and expertise as a hub for back-office and custodian services within the euro area. Private banking is undergoing a transformation - partly in response to the switch to automatic exchange of information - becoming more service-oriented and catering increasingly to high net-worth individuals. The banking sector is strengthening its ties with emerging market economies. Eight new banks opened a branch or subsidiary in 2013 and a few more have applied for a banking license. The sector, together with the backing of the government, is also working to position itself as a European hub for the Renminbi business. Thus, diversification of the forward-looking financial sector across business activities, investment destinations and customer bases will help support and further develop banking activities.

The investment fund industry remains an important component of the financial system, and it continues to expand. The country is the second largest investment fund domicile in the world after the US. With over 2.6 trillion euro in March 2014, assets in Luxembourg-domiciled regulated funds reached a historical ceiling. This is a result of both revaluation of assets held and new inflows. The industry continues to invest in a diversified class of assets and caters to a diverse pool of investors. Furthermore, the authorities see the recent rapid transposition of the Alternative Investment Fund Managers Directive as another opportunity to develop new activities and support the industry. The authorities take note of staff's recommendation that an enhanced and proactive communication by the authorities and the industry would be beneficial, emphasizing ongoing efforts focused on investor and depositor protection. They stressed that the legal framework was in place but would need to be better communicated.

Regulatory issues. The authorities have made substantial progress in strengthening financial sector supervision and the regulatory framework. To improve the financial stability policy framework, they followed the FSAP recommendation on this issue, by further enhancing onsite supervisions and by hiring highly qualified staff. Indeed, staffing resources of the supervisory authority (CSSF) have been significantly increased to 500 full-time equivalent staff, which resulted in more frequent on-site inspections and augmented enforcement actions. The CSSF has also improved its supervisory techniques, including stress testing, and its preparation towards SSM also contributes to better risk-focused supervision. Similarly, the Central Bank (BCL) has expanded and strengthened its supervisory activities. Its liquidity monitoring and surveillance framework at the institutional level comprises qualitative and forward-looking quantitative analyses, which include both off-site analysis and on-site inspections. Moreover, the BCL requires from a large proportion of banks to provide their liquidity gap projections on a daily

basis. Nonetheless, the increasing number of tasks falling within the remit of the BCL's responsibilities calls for the strengthening of its human and financial resources. In this context, the Bank's need for an increase of capital has been brought to the attention of the government and has been corroborated by the BCL's external auditor.

The cooperation between the BCL and the CSSF is being enhanced through the evolution of institutional arrangements in the context of the preparation for the SSM. The recent proposal to establish a national Systemic Risk Committee (SRC) involving supervisors, the BCL and the Finance Ministry is expected to further strengthen that collaboration and information exchange. The authorities took note of staff's recommendation to closely monitor the links between the various domestic financial actors. Indeed, the SRC would be the right setting to monitor these risks through system-wide stress testing. However, the authorities do not share staff's concerns/analysis regarding the scenario on possible redemptions from investment funds' impact on banking sector liquidity needs. Investment funds have a number of options to address an increase in redemption requests: sell assets (highly liquid UCITS funds); suspend redemptions to avoid disruptions; and as a last resort, borrow from liquid banks.

The authorities also do not concur with the description of financial integrity and transparency issues, as they appear mainly in Appendix IV of the staff report. By bundling together AML/CFT, tax offences, transparency of legal persons and arrangements as well as exchange of information with foreign counterparts in a single, mainly negative sentence, the report ignores the very real progress made on all of them. This is discouraging and thus counterproductive. The staff report gives the impression of losing sight of the objective which is to fight money laundering and the financing of terrorism. This should first of all be achieved through efficient prevention and, secondly, through detection and penalizing of offenders. Its effectiveness cannot be measured in numbers of inspections, reportings of suspicious transactions and fines, but only in a decrease of actual money laundering or financing of terrorism. Finally, the authorities have provided staff with answers to show that the framework and actions implemented are effective in avoiding that financial institutions established in Luxembourg are abused for illegal or illicit activities.

Other issues

Diversification of the economy beyond financial activities. The authorities are committed to pursue efforts to diversify the structure of the economy, which is currently largely based on the financial sector activities. Specific sectors of growth such as logistics, ICT and bio- and eco-technologies have been chosen for this purpose. These diversification efforts are already starting to bear fruit, in particular in the rapidly growing ICT sector. As regards logistics, the government decided to re-use the existing facilities, close to railway and highway networks, to expand this sector without making significant investments. It has put in place a training facility to prepare staff for employment in this sector, which will partially tackle the problem of long-term unemployment of low-skilled workers.

Competitiveness and unit labor cost (ULC). The authorities noted the deterioration in price competitiveness over the last decade, due to relatively high wage increases coupled with low productivity growth. Wages and benefits are linked to inflation through an automatic indexation mechanism. The authorities took steps to improve competitiveness by introducing a law that

temporarily modified - until October 2014 - the system of wage indexation. Moreover, this law foresees that at least 12 months should elapse between each indexation step of 2.5 percent. From 2015 on, the automatic indexation will return to its previous mode. The authorities are aware that this modulation is only temporary and that the room for maneuver in terms of productivity gains is getting smaller. Therefore, it is essential to preserve the competitiveness by limiting the growth of ULCs. The authorities will use the coming months to work closely with unions and employers' representatives on a more permanent solution which should not undermine social cohesion in Luxembourg.

Housing market. Both structural and cyclical factors continue to contribute to the divergence between supply and demand in the housing market. On the demand side, several factors interfere: high demand from residents and cross-border workers; relatively high population and immigration growth; government housing benefits policies; and low mortgage interest rates. On the supply side, administrative constraints and low recurring taxes on immovable property seem to be the restraining factors. As mentioned above, the authorities are in the process of a review of expenditures where housing benefits will carefully be analyzed and if needed reconsidered. A measure on the VAT side, to be implemented in 2015, constitutes already a first step in reducing demand. Furthermore, staff notes that domestic residential real estate exposure of domestically-oriented banks has increased and would require monitoring. In this context, the authorities have taken several important steps such as raising risk weights for mortgage loans exceeding 80 percent LTV ratios as well as requiring frequent stress testing. In addition, the CSSF, in conjunction with the BCL, stands ready to take additional macro-prudential measures if exposures continue to rise.