INTERNATIONAL MONETARY FUND

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LUXEMBOURG

June 2015

2015 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; 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 2015 Article IV consultation with Luxembourg, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its May 11, 2015 consideration of the staff report that concluded the Article IV consultation with Luxembourg.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on May 11, 2015, following discussions that ended on March 17, 2015, 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 27, 2015.
- An **Informational Annex** prepared by the IMF staff.
- A **Staff Supplement** updating information on recent developments.
- A **Statement by the Executive Director** for Luxembourg.

The documents listed below have been or will be separately released.

Selected Issues

The IMF's transparency policy allows for the deletion of market-sensitive information and premature disclosure of the authorities' policy intentions in published staff reports and other documents.

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May 13, 2015

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IMF Executive Board Concludes 2015 Article IV Consultation with Luxembourg

On May 11, 2015, the Executive Board of the International Monetary Fund (IMF) concluded the 2015 Article IV consultation with Luxembourg.[1]

Luxembourg's economic model, emphasizing fiscal stability, openness, firm prudential oversight, and responsiveness to investor needs, is delivering strong growth. Buoyant financial services exports contributed to real growth of close to 3 percent in 2014, with strong job creation. Growth is projected at 2½ percent this year, bolstered by the ECB's quantitative easing.

Budget 2015 launched a multi-year fiscal consolidation aimed at offsetting falling revenues from electronic commerce. Faced with a projected reduction in these revenues by up to 1.3 percent of GDP this year, the budget targets a broadly balanced general government position in 2015, and moderate surpluses in 2016–18.

The economy faces important challenges going forward. Evolving international tax transparency standards, in which Luxembourg is participating fully, could impact the revenue base. Financial sector complexity occasionally tests oversight arrangements, where maintaining a strong regulatory and supervisory reputation is central to attracting international business. Finally, population aging will give rise to significant spending pressures over the long term, necessitating further reforms to the pension system.

[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.

Executive Board Assessment[2]

The Executive Directors commended Luxembourg's continued strong macroeconomic performance underpinned by fiscal prudence and sound institutions. Directors noted that the main policy challenge ahead is to strengthen an economic model that has served the country well but will be tested by changing international financial regulations and tax regimes. Continued further fiscal and structural reforms to diversify the economy and lift youth and women's employment are needed to support growth prospects.

Directors noted that the current budget and medium-term fiscal plan appropriately address falling value-added tax revenues from electronic commerce. They also supported the authorities' goal to maintain budget surpluses over the medium term. In this regard, Directors agreed that deeper reforms are needed to ensure that the pension system is resilient to population aging. They welcomed the decision to bring forward by one year a review of the impact of earlier reforms. Directors also welcomed the creation of the new sovereign wealth fund, and saw merit in boosting its funding with future windfall receipts, including from divestment proceeds.

Directors welcomed Luxembourg's continued participation in EU and OECD/G20 tax transparency initiatives. They encouraged the authorities to assess the impact of any tax base erosion at home and to develop options for diversifying revenue sources. Directors also pointed to the need to seek further expenditure savings based on expenditure reviews.

Directors encouraged the authorities to fully adopt legislation related to the EU banking union in order to maximize the benefits of Luxembourg's participation. They took note of the recent passage of the law to establish a systemic risk committee with an appropriately broad remit which will contribute to further strengthening of the financial sector. Directors also recommended reviewing the oversight of nonbank holding companies that control banks as well as their nonbank subsidiaries. In this regard, they welcomed the authorities' intention to advocate for strong arrangements at the EU level while exploring the limited options Luxembourg could take using national discretion given the harmonized EU rules.

Directors agreed that structural reforms to diversify the economy beyond the financial sector are helpful to improve Luxembourg's long-term growth. They welcomed the authorities' efforts to further enhance the business climate and raise youth and women's participation in the labor force. Directors also recommended additional active labor market policies, including more effective training programs, as well as reforms to reduce skills mismatches and boost incentives to work. A number of Directors noted that adjusting the wage indexation mechanism could help preserve the competitiveness of Luxembourg's economy.

[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.

Luxembourg: Selected Economic Indicators

	2011	2012	2013	2014 Est.	2015 Proj.
Real economy	(Change in percent unless otherwise indicated)				
Real GDP	2.6	-0.2	2.0	2.9	2.5
Gross investment	18.1	-5.7	-4.8	0.1	3.0
Unemployment (percent of the labor force)	5.7	6.1	6.9	7.1	6.9
Resident employment (thousands)	224.2	229.8	233.8	238.9	244.6
Total employment (thousands)	370.1	379.1	386.6	395.7	405.5
CPI (harmonized), p.a.	3.7	2.9	1.7	0.7	0.6
Public finances	(Percent of GDP)				
General government revenues	42.7	43.6	44.4	44.8	44.1
General government expenditures	42.3	43.5	43.6	44.2	44.5
General government balance	0.4	0.1	0.9	0.6	-0.5
General government gross debt	18.5	21.4	23.6	23.3	24.4
Balance of payments					
Current account balance	5.8	5.7	4.9	5.2	4.7
Balance of trade in goods and services	27.2	30.9	33.3	36.6	35.6
Factor income balance	-21.8	-24.5	-28.6	-31.4	-31.0
Transfer balance	0.3	-0.7	0.2	0.1	0.1
Exchange rates	Member of the euro area				
U.S. dollar per euro	1.4	1.3	1.3	1.3	…
Nominal effective rate (2005=100)	100.5	98.1	100.2	100.5	…

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

LUXEMBOURG

STAFF REPORT FOR THE 2015 ARTICLE IV CONSULTATION

April 27, 2015

EXECUTIVE SUMMARY

Luxembourg's main challenge is to strengthen an economic model that has served it well. Growth was close to 3 percent in 2014, and is projected at 2½ percent in 2015, with continued strong job creation. The model emphasizes maintaining fiscal stability and openness, practicing conservative prudential oversight, and responding to investor needs. This combination has been a magnet for international financial business, nowhere more so than in the investment fund industry, where assets under management have more than doubled since 2008, to €3½ trillion. Recent challenges to this model necessitate a proactive approach to adjust to a changing landscape.

The authorities' commitment to positive engagement in the international tax transparency agenda supports a proactive approach. Having adjusted fiscal policy for lower revenues from electronic commerce, they should also address the additional base erosion that could now arise, exploring options to make the tax system more robust. At the same time, they should pursue further reforms to make the pension system more resilient to population aging. These policy initiatives, along with the authorities' commitment to a modest budget surplus over the medium term, should fortify Luxembourg's 'AAA' sovereign credit standing.

Equally, Luxembourg also plans a series of actions to uphold its reputation as a firm and sophisticated financial regulator. These include faster passage of EU banking laws, where the banking union promises to be especially beneficial for Luxembourg, operationalizing a purposeful systemic risk committee, and being a voice for strong cross border oversight. On the latter, effective EU regulatory arrangements for nonbank companies that control banks should form a particular focus, given the large volume of intragroup activity transiting through Luxembourg.

Provided the challenges ahead are well managed, growth in the near term could beat staff's baseline, helped by a firmer euro area recovery. In the medium term, however, the success of the authorities' initiatives to diversify the economy will play out against a backdrop of lower potential growth. It is doubly important, therefore, that efforts are also underway to better equip workers with relevant skills and to lift youth and women's participation in the labor force.

Approved By
Jörg Decressin (EUR) and Mary Goodman (SPR)

Discussions took place on March 4–17, 2015 (in Luxembourg) and March 27 (teleconference with the ECB). The team comprised A. Bhatia (head), J. Bluedorn, M. Gorbanyov, and P. Kongsamut (all EUR) and J. Alvares (LEG), assisted from headquarters by D. Mason and A. Valladares. A. Hubic (OED) joined the discussions.

CONTENTS

Acronyms

AML/CFT	Anti-money laundering/combating the financing of terrorism
BCL	Banque Centrale du Luxembourg
BEPS	Base Erosion and Profit Shifting
BRRD	Bank Recovery and Resolution Directive
CSSF	Commission de Surveillance du Secteur Financier
EBA-lite	External Balance Assessment-lite
e-VAT	Value added tax on electronic commerce
FSA	Financial Stability Assessment
ICT	Information, communication, and technology
JST	Joint supervisory team
LTV	Loan to value
MNC	Multinational corporation
NPL	Nonperforming loan
OECD	Organisation for Economic Cooperation and Development
QE	Quantitative easing
RAM	Risk Assessment Matrix
RoW	Rest of the world
RWA	Risk weighted assets
SSM	Single Supervisory Mechanism
UCITS	Undertakings for the Collective Investment in Transferable Securities

BACKGROUND AND RECENT DEVELOPMENTS

1. **Luxembourg's economic success rests on the twin pillars of stability and openness**. Its responsive, low tax, financially centered economic model has served it well, with growth outpacing the euro area in most years (Box 1 and Figure 1). Latest figures show real GDP expanding by 2½ percent y/y in the first three quarters of 2014, with net service exports as the largest driver.

Box 1. Luxembourg: Some Defining Traits

- **A stable political environment with a tradition of consultation with social partners**. After 19 years under Prime Minister Juncker, a coalition of three other parties took office in late 2013. In its *Programme Gouvernemental*, the new government committed to focus on policies to manage the public finances soundly and keep gross debt below 30 percent of GDP; promote growth, sustainable development, and social cohesion; and fight unemployment.

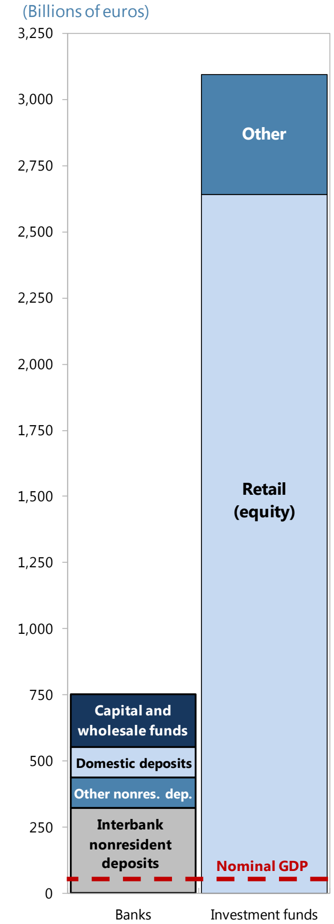
- **A demonstrated ability to adapt to large economic shocks and reposition the economy**. This has included early steps to embrace capital account openness and adapt prudential and legal frameworks, making Luxembourg a center for eurobond issuance and many other financial flows and activities.

- **A complex financial hub that serves all of Europe**. The focus is on low margin, high volume business, especially valuation, custody, settlement, and legal services to funds. The sector includes:
  - *A banking system with assets of some 16 times GDP*. Dominated by units of foreign banks, some with key roles in group liquidity management, the system also houses locally active banks (that lend domestically) with assets of about 2¾ times GDP.
  - *The second largest investment fund industry in the world*. Global assets of almost €3½ trillion amount to some one-tenth of the global total or 70 times GDP, with most funds enjoying EU "passports."
  - *A systemic international central securities depository, Clearstream Banking S.A.*. Active in custody, settlement, collateral management (including triparty repo and securities lending), and issuance services, Clearstream is an infrastructure platform of similar importance as Belgium's Euroclear and the U.S. Depository Trust & Clearing Corporation.
  - *A modestly sized insurance industry with assets of about 4 times GDP*. Life insurance dominates with some two-thirds of total assets, followed by reinsurance, then property and casualty.

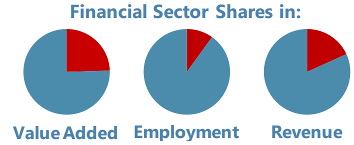
- **A record of fiscal conservatism**. A central government net asset position of about 20 percent of GDP leaves Luxembourg as one of two euro area sovereigns rated 'AAA' by all major rating agencies.

- **A large share of cross border workers**. Commuters from neighboring Belgium, France, and Germany account for more than 40 percent of domestic employment. Luxembourg thus provides important benefits to the regions immediately around it.

Bank and Fund Liabilities, 2014
(Billions of euros)

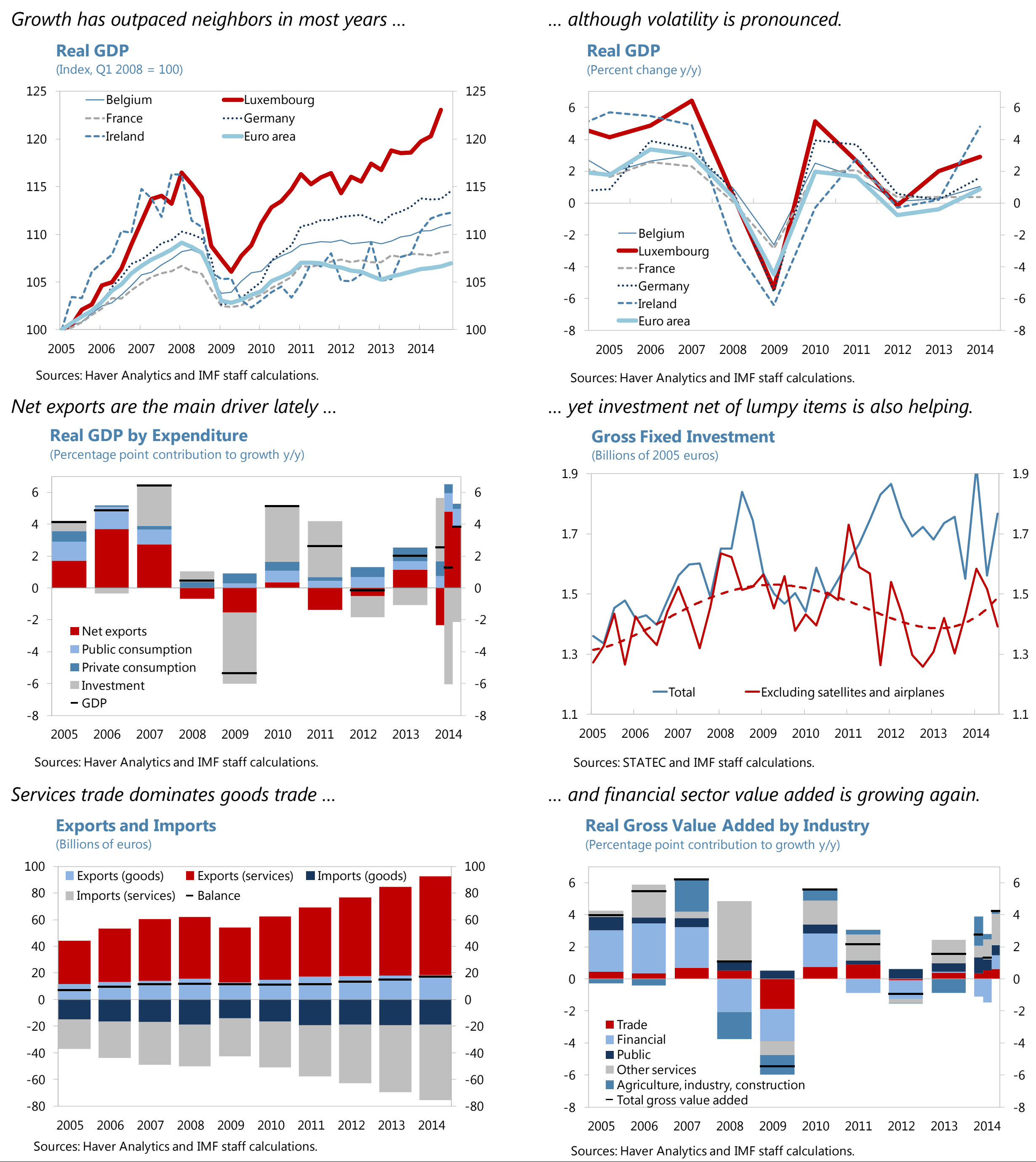


Financial Sector Shares in:



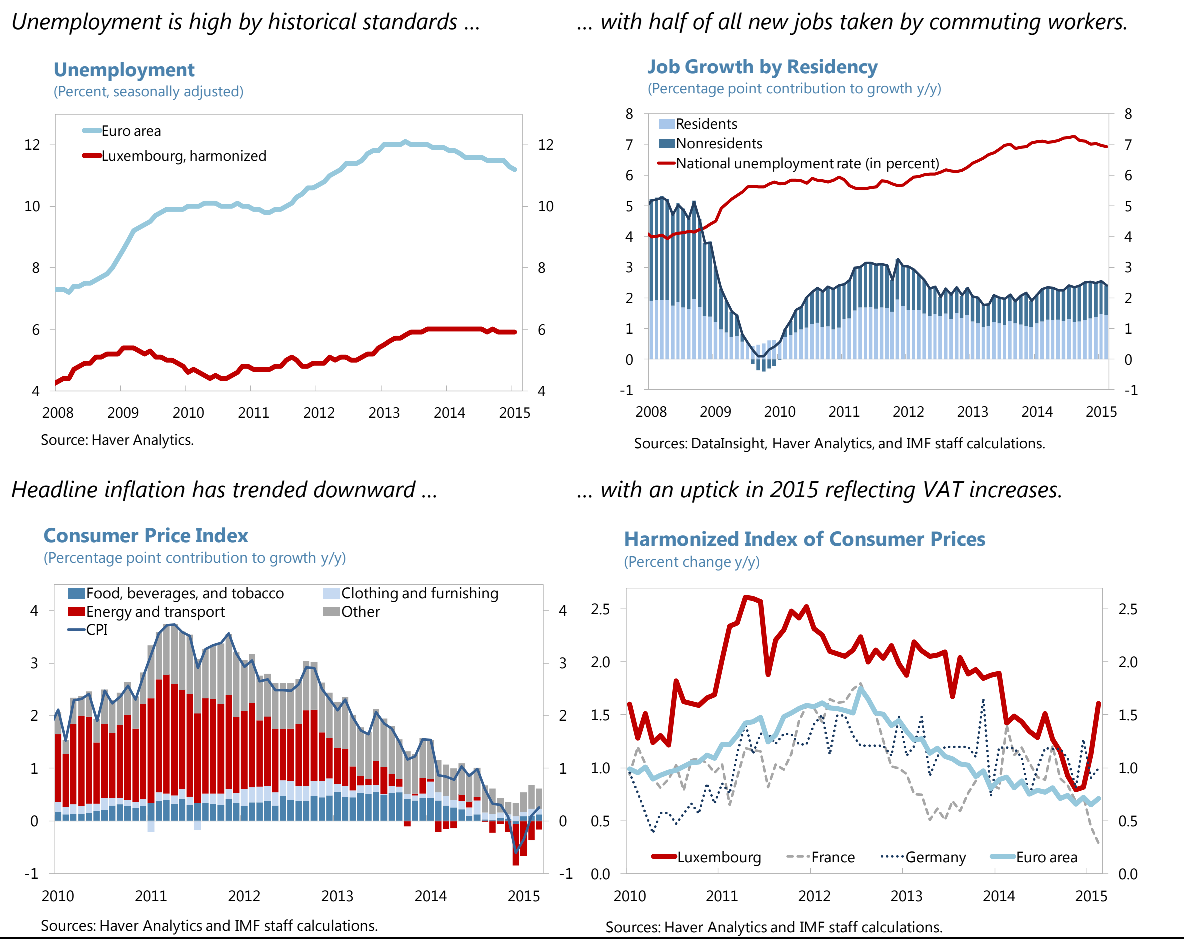
Sources: BCL, ECB, Haver Analytics, and IMF staff calculations.

Figure 1. Luxembourg: Economic Activity



2. **The large role of commuting workers leaves unemployment among residents relatively elevated despite strong job creation, while falling inflation has tracked euro area trends** (Figure 2). Job growth has exceeded 2 percent y/y, although almost half of the new jobs go to cross border workers, leaving the domestic unemployment rate at 7 percent. Residents' incentives to take low paying jobs are limited by a generous welfare system. Inflation has tended to exceed that in neighboring countries, reflecting in part wage indexation and, this year, a VAT rate increase.

Figure 2. Luxembourg: Unemployment, Employment, and Inflation



3. **The banking system appears well capitalized, although profit conditions are tight** (Figure 3). There were 143 credit institutions as of February 2015. Capital ratios are high, as is capital quality, with fully loaded Basel III capital requirements easily met by most banks. The ECB's Comprehensive Assessment identified an end 2013 capital shortfall at one bank operating in Luxembourg (an Italian bank with a Luxembourg subsidiary), but deemed this eliminated by capital raisings during 2014. Although only a few banks lend locally, credit to domestic households and firms amounts to some 90 percent of GDP. Declining interest margins are partly offset by growing fee income from various services for the investment fund industry. Banks with negative net income in 2014 accounted for some 4 percent of system assets.

4. **Search-for-yield inflows and buoyant equity markets are driving strong growth in the investment fund industry** (also Figure 3). The total number of funds stood at 3,893 as of February 2015. Assets under management have more than doubled since 2008, increasing by half a trillion euros in the last seven months alone. With some 85 percent of these assets in products compliant with the Undertakings for the Collective Investment in Transferable Securities (UCITS) Directive, equity is sourced through extensive distribution networks across the EU and beyond, and the

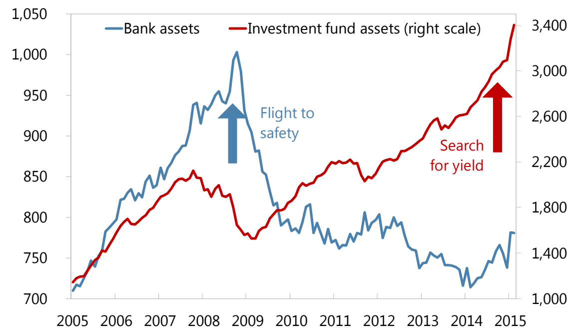
proceeds are mostly invested abroad. Strong net investment inflows reflect a search for yield at a time of falling bank deposit rates, with corporate cash pools playing a significant role.

Figure 3. Luxembourg: Financial Sector Developments

Bank assets have fallen while fund assets have grown …

Bank and Investment Fund Assets

(Billions of euros)

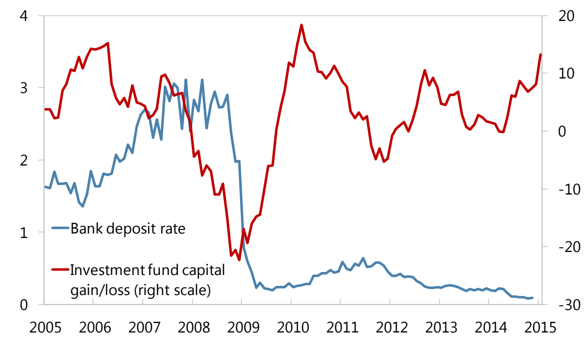


Source: BCL.

… reflecting a search for yield.

Bank Deposit Rates and Investment Fund Returns

(Percent per year)

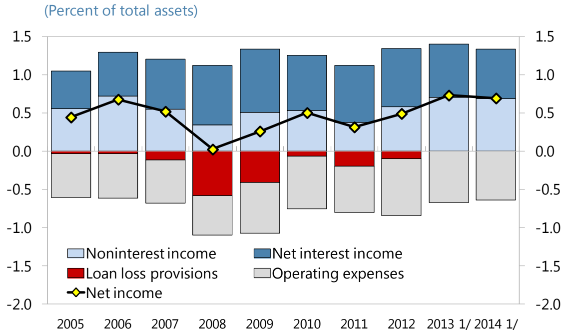


Sources: BCL and IMF staff calculations.

Fund management likely has lifted banks' net income …

Banking System Net Income

(Percent of total assets)



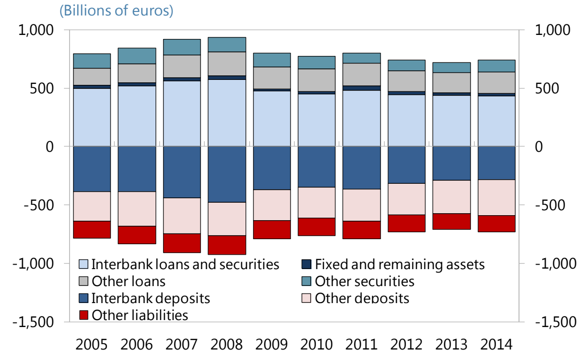
Sources: CSSF and IMF staff calculations.

1/ Net income before provisions; loan loss provisions not available.

… while interbank items dominate bank balance sheets.

Banking System Balance Sheet

(Billions of euros)

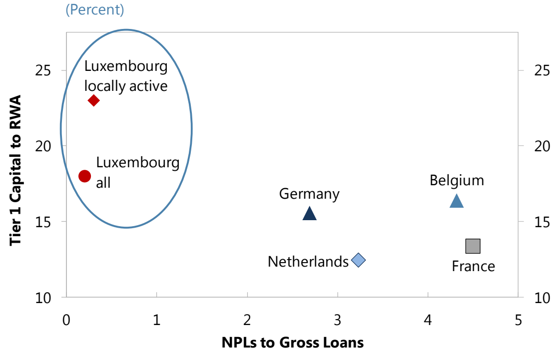


Sources: BCL and IMF staff calculations.

Banks report strong capital and asset quality …

Bank Capital and NPLs, 2013

(Percent)

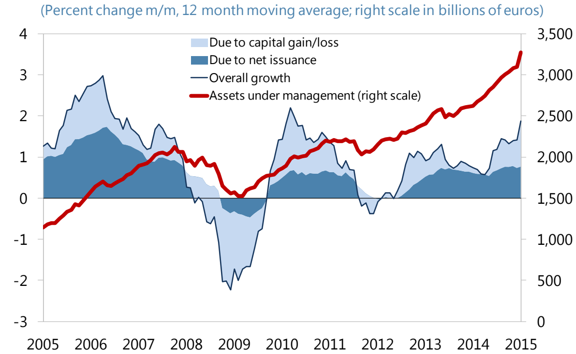


Sources: BCL and IMF Financial Soundness Indicators.

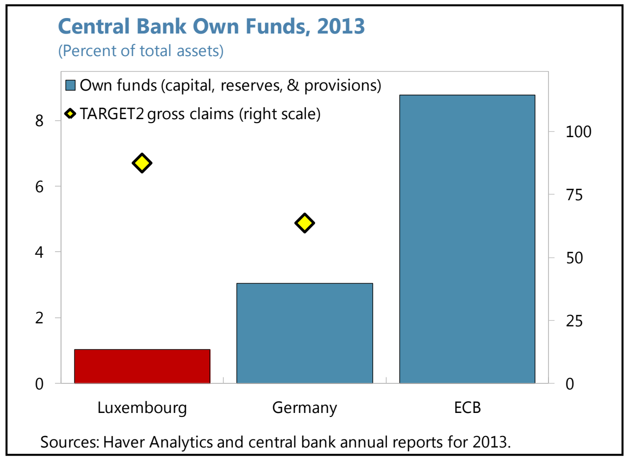
… and funds' growth reflects both inflows and valuations.

Investment Fund Assets

(Percent change m/m, 12 month moving average; right scale in billions of euros)



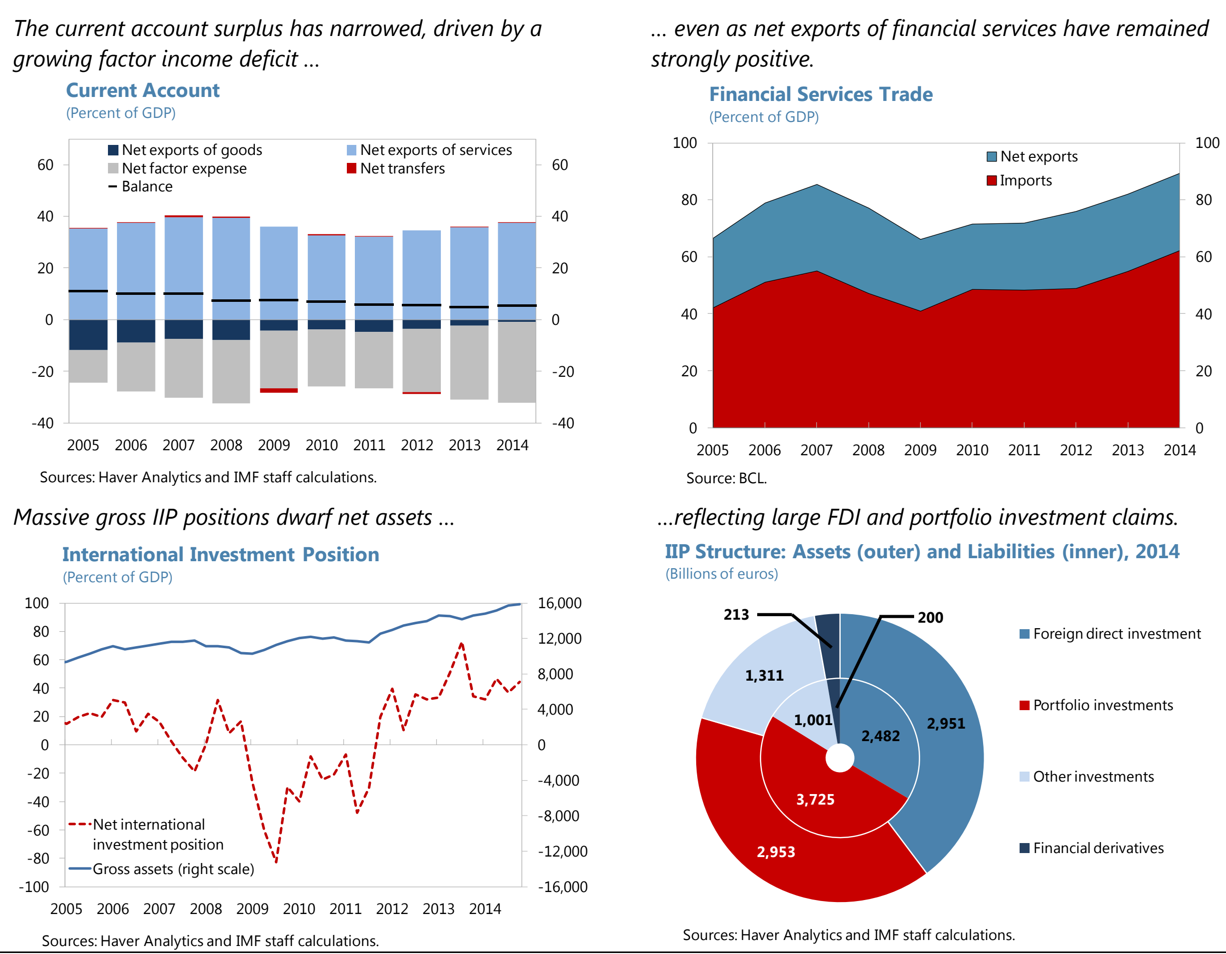
Source: BCL and IMF staff calculations.



5. **The central bank is a net creditor to the Eurosystem, and has asked the government for more capital**. Large TARGET2 net claims (reflecting banking system net foreign assets) expand the monetary authority's balance sheet, helping reduce its capital to asset ratio to the lowest in the Eurosystem. The government has pledged to augment the central bank's capital base going forward.

6. **Luxembourg's external accounts confirm its role as a financial hub** (Figure 4). The large surplus on financial and other services is increasingly offset by growing deficits on investment income linked to growth in investment fund assets. Staff's External Balance Assessment-lite (EBA-lite) suggests the current account surplus is somewhat below norm, and the real effective exchange rate remains close to its long-term equilibrium value (Appendix I). The positive net international investment position is dwarfed by gross asset and liability positions reflecting the domiciliation of multinational corporations (MNCs), securities issuers, banks, and funds.

Figure 4. Luxembourg: External Sector Developments



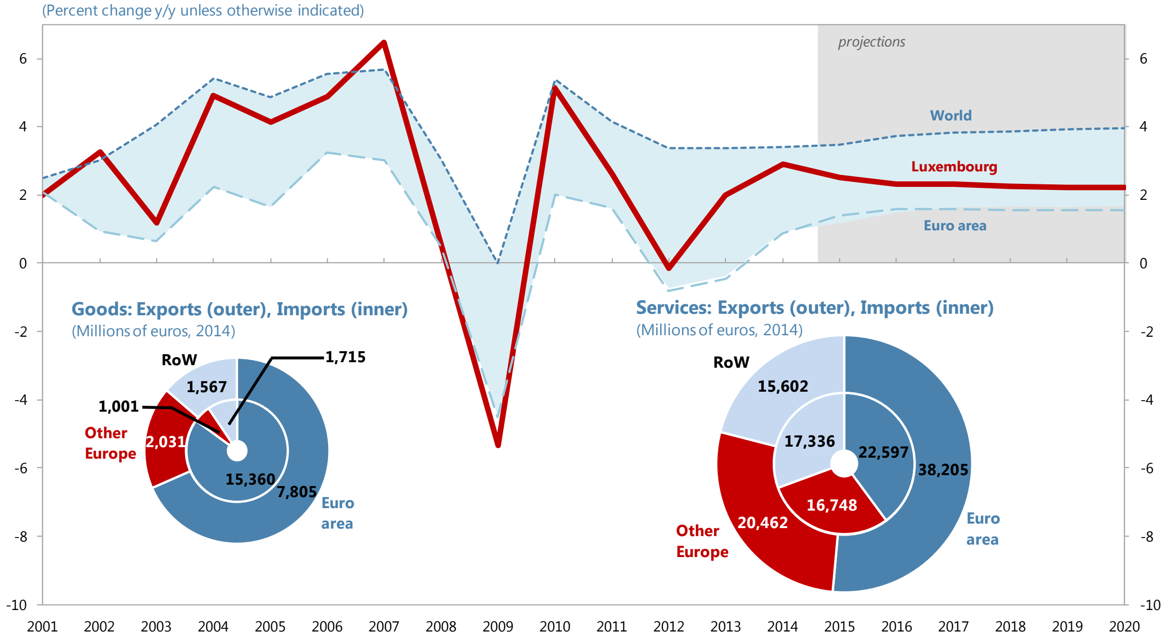
OUTLOOK AND RISKS

7. **Staff's baseline has growth slowing from almost 3 percent in 2014 to 2¼ percent over the medium term** (Figure 5). Near-term prospects have brightened with those for the euro area. Potential growth has likely fallen from pre crisis levels, however, including as a result of financial sector activity shifting from banks to funds, where value added is smaller. Combining filtering techniques and production function approaches, staff puts potential growth at 1½–2¼ percent.

Figure 5. Luxembourg: Growth Projections, Trade Links, Sentiment, and Potential

Luxembourg's growth rates are projected to remain bounded by euro area and world growth.

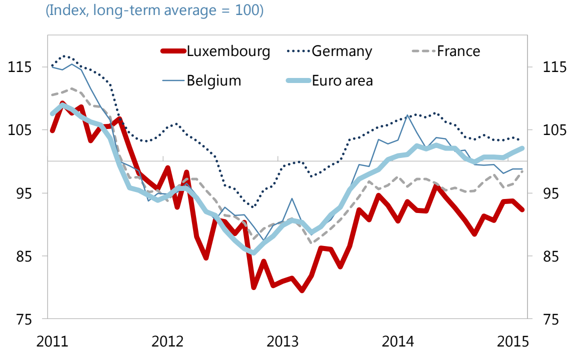
Real GDP Growth and Trade Links
(Percent change y/y unless otherwise indicated)



Sources: STATEC, IMF *World Economic Outlook*, and IMF staff calculations.

Domestic sentiment, while improving, remains below the long-run average ...

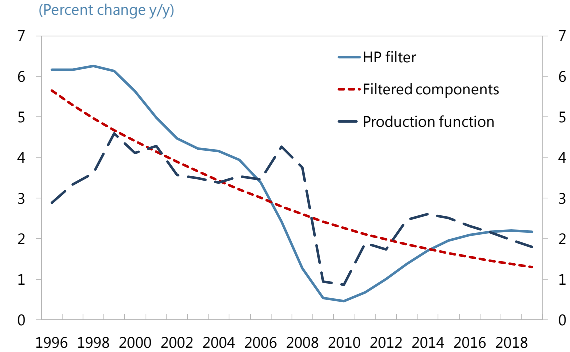
Economic Sentiment Indicator
(Index, long-term average = 100)



Source: Haver Analytics.

... and three methodologies suggest potential growth is lower than before.

Measures of Potential Output Growth
(Percent change y/y)



Source: IMF staff calculations.

8. **The macroeconomic projections are fraught with more than the usual degree of uncertainty**. As a city state economy, Luxembourg displays all the attendant patterns of strong growth, high output volatility, and sometimes large revisions to historical data. Migration, commuting, and financial services activity are especially difficult to forecast.

Luxembourg: Baseline Macroeconomic Framework, 2012–20

	2012	2013	2014	2015	2016	2017	2018	2019	2020
			Est.			Projections			
Real GDP (percent change)	-0.2	2.0	2.9	2.5	2.3	2.3	2.2	2.2	2.2
Domestic demand (percentage pt. contribution to growth)	0.0	0.4	1.3	1.6	1.5	1.7	1.7	1.7	1.7
Net exports (percentage pt. contribution to growth)	-0.5	1.1	1.7	1.3	0.8	0.6	0.6	0.5	0.5
CPI inflation (percent change)	2.9	1.7	0.7	0.6	1.6	1.7	1.9	2.0	2.2
General government balance (percent of GDP)	0.1	0.9	0.6	-0.5	0.1	0.1	0.2	0.2	0.3
General government gross debt (percent of GDP)	21.4	23.6	23.3	24.4	24.9	25.5	25.9	26.2	26.4
Unemployment rate (percent, national definition)	6.1	6.9	7.1	6.9	6.7	6.6	6.5	6.3	6.2
Current account balance (percent of GDP)	5.7	4.9	5.2	4.7	4.6	4.4	4.4	4.3	4.3

Source: Staff estimates.

9. **Foreign tax policy initiatives that could diminish Luxembourg's tax base and financial sector events that could blemish its strong reputation are the main country-specific risks**. EU and OECD initiatives to tighten tax transparency standards, along with U.S. proposals to tax offshore cash pools of U.S. firms, could hurt Luxembourg's standing as a destination for FDI and a center for corporate treasury operations (Box 2). The failure of the Espírito Santo group of companies last year reminded that Luxembourg's reputation for strong prudential oversight can be tested in unexpected ways even when other competent authorities are in charge under EU law. Although such processes or events could see some activities migrating away—with adverse impacts on total factor productivity, exports, jobs, and revenues—the authorities' strategy of engagement in the relevant international fora is the correct risk management approach.

10. **Near-term growth risks are broadly symmetric around staff's baseline**. Assuming the Luxembourg-specific challenges are well managed, domestic demand and net exports could beat the baseline. While the impact on disposable incomes of lower oil prices is largely offset by higher VAT (a rate hike took effect on January 1, 2015), that on investment from cheaper term funding and lower threshold returns on projects related to the ECB's quantitative easing (QE), and from the EU Investment Plan, could surprise positively. Goods exports would suffer should there be a protracted period of slow growth in advanced economies. Service exports are tied to demand from global investors for asset management services, where the positive effects of QE are tempered by expectations of U.S. tightening.

11. **Should geopolitical tensions or renewed financial stress in the euro area trigger a surge in global financial market volatility, the effects for Luxembourg could be mixed**. On the one hand, a severe reversal of benign financial conditions would hurt equity market performance and risk appetite, triggering valuation effects and outflows from the fund industry. On the other

hand, the banking system could once more receive safe haven inflows, as was the case during the global financial crisis in 2008–09.

Box 2. Luxembourg: Selected Tax and Tax Transparency Initiatives

Several tax initiatives underway abroad have ramifications for Luxembourg:

- *The OECD/G20 Base Erosion and Profit Shifting (BEPS) project*. Launched in 2013 at the G20's request, the project identifies 15 areas for action. In late 2014, the OECD issued recommendations in seven of these, proposing measures to curb hybrid mismatch arrangements that exploit differences in tax treatment across countries as well as "treaty shopping" and other forms of arbitrage. The OECD also called for automatic information sharing on the allocation of profits, economic activity, and taxation of MNCs. Recommendations in the remaining eight areas are due later in 2015.
- *EU rule changes and investigations:*
  - In 2014, the Directorate General for Competition launched probes into whether transfer pricing at four MNCs in the EU, two of which are in Luxembourg, could involve impermissible state aid.
  - In January 2015, new anti abuse provisions were added to the Parent-Subsidiary Directive that governs intragroup profit distribution, closing loopholes related to hybrid loans and mandating other steps to ensure that "tax arrangements reflect economic reality."
  - In March 2015, the Commission presented a package of tax transparency measures as part of its agenda to tackle corporate tax avoidance and harmful tax competition in the EU, including a legislative proposal for automatic sharing of advance cross border tax rulings.
  - Going forward, the Commission also plans to present an action plan on corporate taxation, which could include a re-launch of the Common Consolidated Corporate Tax Base proposal and ideas for implementing the BEPS recommendations.
- *U.S. overseas taxation*. The U.S. federal budget for fiscal 2016 proposes a one-time 14 percent tax on the stock of accumulated overseas profits of U.S. corporations and a 19 percent tax on future profits. These profits are currently not subject to U.S. taxation until repatriated, which motivates U.S. firms to hold an estimated $2 trillion abroad, including in jurisdictions such as Luxembourg.

Luxembourg, in turn, is increasing tax transparency. The authorities have commenced automatic exchange of information on interest payments under the EU Savings Directive (from 2015). They will extend this to other sources of income as well as account balances (from 2017), and are committed to implementing the OECD *Standard for Automatic Exchange of Financial Account Information in Tax Matters* (by 2017). They also exchange, upon request, firm specific tax rulings with other EU countries, and have strengthened information requirements for tax ruling applications and related procedures.

Luxembourg has also made progress in AML/CFT in recent years. Next steps will need to center on the 2012 Recommendations of the Financial Action Task Force, where effective implementation would necessarily include stricter approaches to tax crimes and transparency.

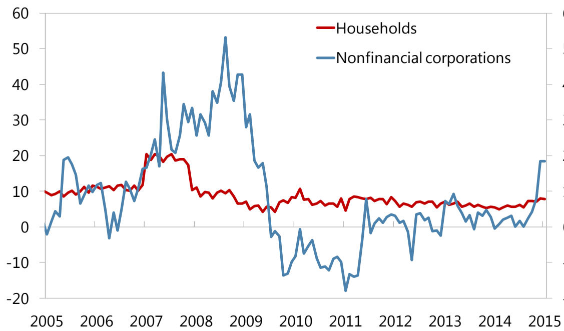
12. **In the macroprudential domain, there is some risk that a protracted period of low interest rates could spawn a credit fueled housing bubble** (Figure 6). Credit to households has been growing by about 7 percent y/y, yet household debt seems managable (data vary by source). If a bubble were to develop, housing prices could correct, compressing household consumption or triggering defaults and possibly disrupting credit to the economy. With rising housing prices spanning decades, reflecting population and job growth combined with zoning and other rules that

constrain supply, there seems no immediate reason to expect a correction, although pockets of risk are possible. Separately, volatile aggregate credit to firms reflects the prevalence of MNCs with cross border financing arrangements and treasury operations run out of Luxembourg.

Figure 6. Luxembourg: Credit and Housing Market Developments

Credit to households has grown steadily while that to firms tends to jump around …

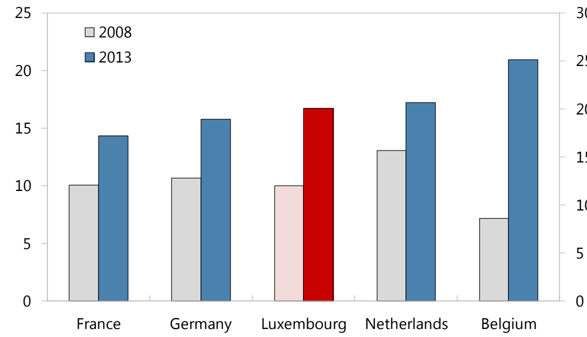
Credit to Households and Nonfinancial Corporations
(Percent change y/y)



Sources: DataInsight and IMF staff calculations.

… and the share of mortgages in locally active banks' assets has increased significantly.

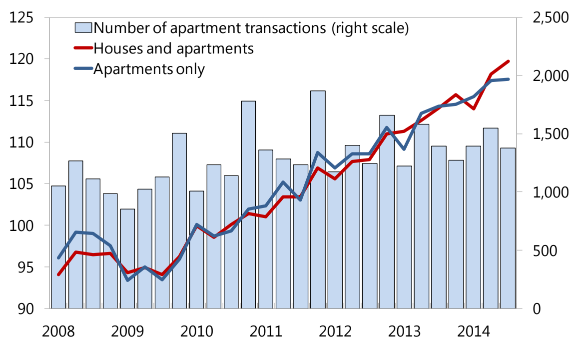
Mortgage Loans of Domestic Banks
(Percent of total assets)



Sources: Haver Analytics and IMF staff calculations.

Housing prices are on an upward trend …

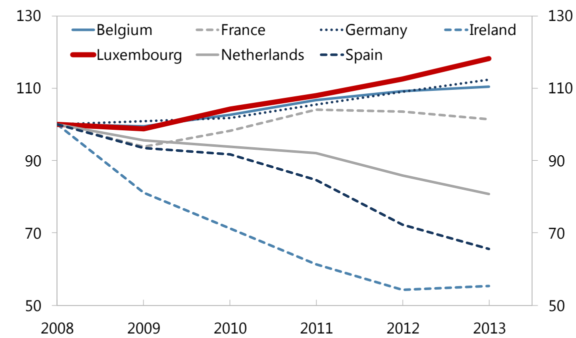
National Housing Prices and Transactions
(Index number, Q1 2010 = 100; right scale in units)



Source: BCL.

… outpacing most of the euro area.

Harmonized Housing Prices
(Index, 2008 = 100)



Sources: Haver Analytics and IMF staff calculations.

13. ***The authorities shared staff's assessment of macroeconomic risks, but viewed the challenges to Luxembourg's economic model and growth prospects more favorably.*** *Considering improving indicators for the euro area, boosted by QE, they view growth of almost 3 percent in 2014 as a reasonable guide to medium-term performance. The strength and diversity of the financial sector as well as government efforts to diversify the nonfinancial economy were highlighted as supporting factors, as were the commitment to fiscal prudence, the track record of political and social stability, the region's skilled multilingual labor force, and the business friendly environment with responsive authorities and modern infrastructures. Recognizing the importance of reinforcing financial sector oversight arrangements and engaging fully in EU and international processes to enhance tax transparency standards, and having refined the scope of advance tax agreements (or so-called rulings) for Luxembourg resident taxpayers, they expressed confidence that any resulting changes would serve to strengthen Luxembourg's economic model. To illustrate, they*

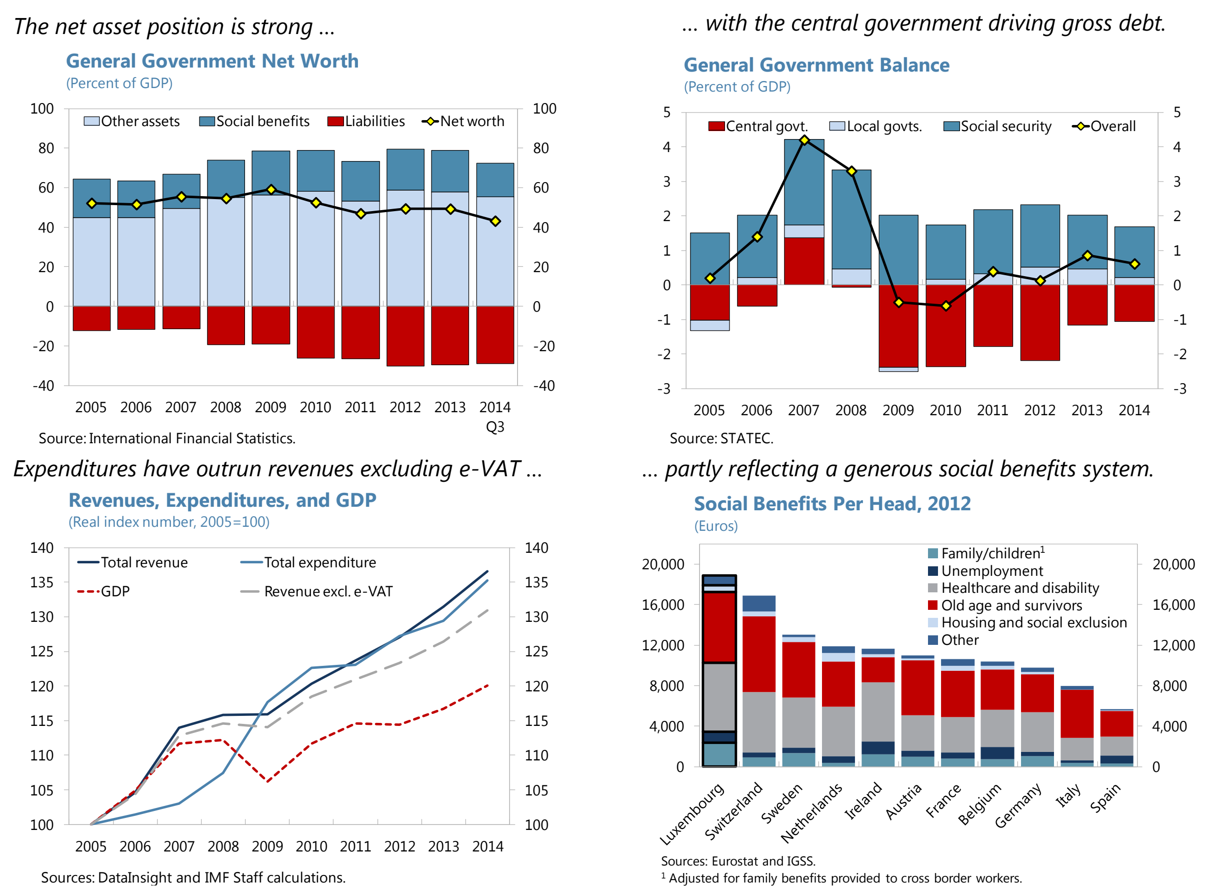
pointed to the fact that the move toward tax transparency had had no material impact on the level of bank deposits: inflows from high net worth clients and nonfinancial corporations attracted by sophisticated one-stop-shop services have smoothly offset outflows from smaller depositors.

POLICY DISCUSSIONS

A. Fiscal Policy

14. **Luxembourg's strong general government net asset position of over 40 percent of GDP affords some flexibility in tackling significant revenue and long-term pension challenges** (Figure 7). Budget deficits, when they occur, are driven by the central government, with the social security fund generating surpluses and borrowings by other arms of government limited by law. Gross debt, which has risen from single digits pre crisis to 23 percent of GDP in 2014 (driven in part by state support for Fortis, where shareholdings are now profitable), is still among the lowest in the EU. The long-term pension position is challenging, however, and international tax transparency initiatives could have adverse implications for the revenue base. As a small open economy, it is appropriate that the authorities are targeting a budget surplus over the medium term.

Figure 7. Luxembourg: Fiscal Sector Developments



15. **Budget 2015 launches a multi year fiscal consolidation to address falling e-VAT revenues**. Under a phased shift in EU taxation on e-commerce from domicile of seller to residency of purchaser as legislated in 2008, retained e-VAT revenue is set to more than halve in 2015, to about 1 percent of GDP, and halve again by 2018. In response, the authorities have raised VAT rates by 2 percentage points, expected to yield ½ percent of GDP in 2015 with the full impact kicking in from 2016, and have introduced a temporary personal income tax to balance the budget, set at ½ percent of income. After an expenditure review in 2014, some paring down of social spending is also to begin in 2015. Based on the authorities' macro framework, the budget targets a general government deficit of 0.2 percent of GDP in 2015, after a surplus of 0.6 percent in 2014. Based on staff's more conservative macro framework, the deficit for 2015 is projected at 0.5 percent of GDP, still consistent with the medium-term objective.

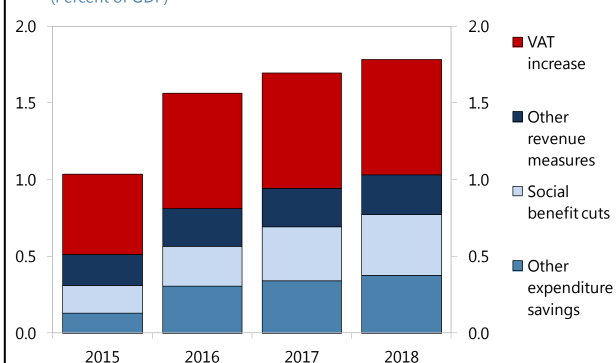
Impact of 2015 Budget Measures on Fiscal Balance
(Percent of GDP)

	2015
General govt. balance under unchanged policy (incl. e-VAT loss)	-2.1
Policy measures in Budget 2015	
VAT hike	0.5
Other revenue measures	0.2
Expenditure measures	0.3
Stronger macroeconomic projections and 2014 outcome	0.6
Staff baseline projection	-0.5

Source: Staff estimates.

16. **Luxembourg's first medium-term budgetary plan envisages additional cost savings, and should restore surplus by 2016**. On this plan and staff's macroeconomic framework, by 2018 the authorities will have completed a fiscal adjustment averaging about ⅓ percent of GDP annually. The contribution of spending measures is expected to increase as additional savings are realized. Total spending is slated to grow by 4 percent annually through 2018, down from about 5 percent in 2010–14. By 2018, the general government would reach a surplus of about 0.2 percent of GDP, with gross debt still below 26 percent of GDP. The new fiscal framework covers all three sub sectors of the general government, with adherence to the fiscal rules to be monitored by a newly established Fiscal Council, as required under the EU Fiscal Compact.

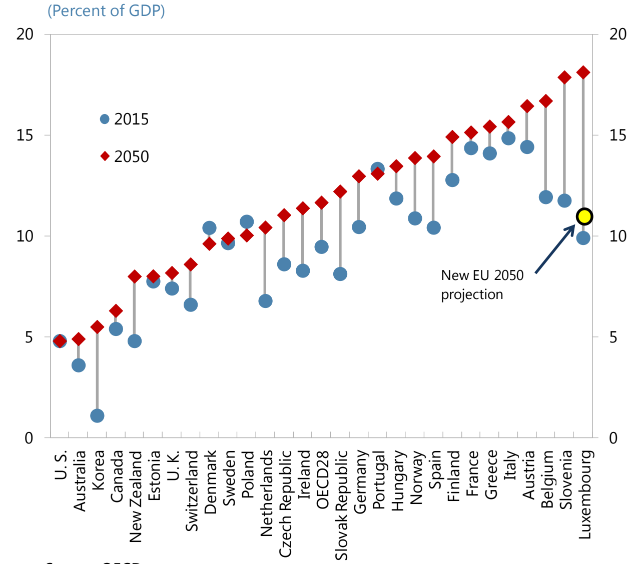
Fiscal Consolidation Measures
(Percent of GDP)



Sources: Luxembourg MoF and IMF staff calculations.

17. **The government's fiscal package also includes a small wealth fund**. Recognizing the transient nature of certain revenues, the plan is for fuel duties and remaining e-VAT totaling about €50 million annually to flow to the fund, which has a target size of €1 billion (just over 2 percent of 2014 GDP) by 2035. Observing that this is small relative to the projected future financing needs of the pension system, and too small to exert a meaningful disciplining impact on fiscal policy, staff suggested options be considered to transfer some central government financial assets to the fund, and that all future extraordinary receipts (divestment proceeds, principally) be channeled to it.

Projected Public Pension Expenditure
(Percent of GDP)



Source: OECD.

18. **Deeper pension reforms remain essential to make the benefits system more resilient to population aging**. New projections being prepared by the EU Working Group on Ageing suggest annual pension obligations will increase by only 2 percent of GDP through 2050, down sharply from the 8 percent of GDP increase projected by the OECD. These should be treated with caution, as almost half of the improvement comes from Eurostat demographic projections that assume net immigration will almost double Luxembourg's population by 2050. Staff underscored the need to contain future liabilities by implementing OECD recommendations to: (i) abolish early retirement schemes to raise the effective retirement age; (ii) introduce progressive reductions of the replacement rate; (iii) limit credits for time spent outside work; (iv) institute actuarial neutrality around the statutory retirement age; and (v) index the retirement age to longevity. The authorities could use the upcoming review of pension finances in 2016 to adopt at least some of these changes.

19. **In light of global tax initiatives, staff recommended the authorities develop options to make the revenue system more robust and achieve additional expenditure savings** (*Selected Issues*, Chapter I). Taxes on the financial sector and on cross border retail trade (in fuel, tobacco, and other goods) yield over a quarter of total revenues. Significant receipts could prove susceptible to changes in EU and OECD tax standards and U.S. moves to tax U.S. firms' profits held abroad. The tax challenge should be quantified as details evolve, with the 2015–16 tax policy review providing a good opportunity to assess options, including adjusting property related taxes, corporate tax exemptions, and selected financial sector levies. Further expenditure savings should also be sought, informed by regular expenditure reviews. On both the revenue and expenditure sides, the effort should be to identify measures that are equitable and durable and minimize the drag on growth.

20. **Staff also advised that care be taken to ensure that firm specific tax rulings avoid encouraging unduly complex structures, especially in the financial sector**. Demand for such rulings often reflects the lack of harmonization across national tax regimes, and there are benefits in providing certainty to firms. Recently, however, it has become apparent that some rulings could give rise to layers of holding companies transacting with each other in hybrid instruments, which in the financial sector can multiply challenges for regulators and supervisors.

21. ***The authorities stressed their commitment to sound fiscal policies***. *They expressed confidence that their budget targets for 2015 and the medium term will be met or exceeded, with planned consolidation measures either implemented in full or substituted with equally strong*

alternatives. On pensions, they agreed that long-term population projections by Eurostat that assume large net immigration should be viewed with caution, and acknowledged the importance of further structural reforms.

22. ***They underlined their commitment to engaging fully in EU and OECD standard setting on tax transparency, but maintained that it is still early to assess revenue impacts if any****. With most rules still evolving, they held that the various initiatives have not yet translated into specific risks to the revenue base that would warrant a policy response. The Ministry of Finance emphasized that it is closely monitoring developments in the EU and OECD in order to make adjustments as necessary to be fully compliant with international standards. In any event, Luxembourg is participating fully in exchanges of tax information, including for firm specific rulings upon request. Regarding corporate taxes, the Ministry of Finance noted that rates and exemptions are being analyzed in detail in view of the envisaged tax reform. Regarding taxes on fuel and tobacco, it asserted that initiatives aimed at EU harmonization have not gained traction and that rates are finely tuned to avoid increasing* CO_2 *emissions while preserving fiscal revenues. Regarding indirect financial sector taxation, the Ministry of Finance stressed that no comparable tax exists in other financial centers and hence any adjustment must be carefully pondered. Stressing the merits of approaching the tax policy review as a consultative process, the Ministry also emphasized the need for a continued strong role for expenditure measures.*

B. Financial Sector Policies

23. **The European banking union should be especially positive for Luxembourg, and the transition to it needs to be accelerated**. Financial stability issues center on the banking system given maturity transformation and leverage. Given the system's large size and extensive foreign ownership, Luxembourg will benefit particularly from the common backstop of the Single Resolution Fund, which will eventually exceed 100 percent of Luxembourg GDP. The more integrated prudential oversight under the Single Supervisory Mechanism (SSM) should help remove blind spots for Luxembourg supervisors, shedding light on potentially important risks emanating from foreign operations of large complex banking groups with units in Luxembourg. Resource constraints and other factors have delayed Luxembourg's transposition of the Fourth Capital Requirements Directive and the Bank Recovery and Resolution Directive (BRRD). Further delays should be minimized, and efforts made to also promptly adopt the Deposit Guarantee Schemes Directive.

24. **In anticipation of BRRD requirements, the authorities are proactively putting in place new bank resolution arrangements**. Hitherto, failing credit institutions have been resolved under Luxembourg's Banking Act of 1993, which provides a few bank specific provisions that prevail over the corporate bankruptcy code. The nascent resolution function is being assembled at the Commission de Surveillance du Secteur Financier (CSSF), the national competent authority for bank and investment fund regulation and supervision. The new resolution department in the CSSF is already collecting and reviewing bank information for resolution planning purposes, using existing supervisory powers to gather information. Once the BRRD is transposed into national law (which must occur by end 2015 at the very latest), the CSSF will become the recognized national resolution

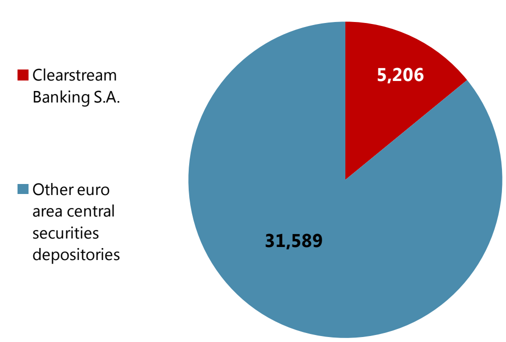
authority for both banks and bank holding companies and will interact closely with the Single Resolution Mechanism at the EU level.

25. **Recently exposed limitations in EU oversight arrangements for cross border banking groups suggest Luxembourg should move proactively to reinforce sound approaches** (*Selected Issues*, Chapter II). Banco Espírito Santo, Portugal's third largest bank, was brought down in mid 2014 by weaknesses at its Luxembourg based holding companies, at the bank itself, and other group entities. The experience highlighted potential lacunae in EU oversight arrangements for cross border banking groups, where the identification of nonbank companies exercising "dominant influence" over banks is principles based, and the approach to the mixing of banking and commerce is permissive. EU laws do not directly apply requirements on nonbank companies that control banks to hold capital and thus be a source of strength to their bank subsidiaries. However, although the EU Capital Requirements Regulation does not mandate such norms, it does not forbid member states from writing these or other rules for such companies into national law. Luxembourg's reputation for prudential conservatism would be well served by taking measured action at home, while also leading a broader debate at the EU level.

26. **Maximizing the benefits of participation in the banking union may require additional national supervisory resources and coordination arrangements**. Banks owning more than 80 percent of Luxembourg banking assets fall under the direct supervision of the ECB, either individually or through consolidated supervision of euro area parents. Both the CSSF and to a more limited extent the Banque Centrale du Luxembourg (BCL), responsible for liquidity supervision, contribute to SSM joint supervisory teams (JSTs) for these significant institutions. The CSSF's staff strength increased by one-quarter over 2013–14 while its complement of bank supervisors doubled. CSSF and BCL supervisors are now engaged in 32 JSTs (of which five are for banks headquartered in Luxembourg). Resources should be expanded further as needed, where the increase in CSSF fees from 2013 was helpful. The CSSF and BCL could also consider a memorandum of understanding formalizing their respective responsibilities on JSTs as well as modalities for information sharing.

27. **Luxembourg is set to benefit from the Central Securities Depository Regulation and the launch of the ECB's *TARGET2-Securities* platform for settlement in central bank money**. These developments should help expand the business of Clearstream and other Luxembourg depositories. Here too, CSSF–BCL cooperation will be important, to rigorously enforce requirements for settlement and depository functions, verify that contingency plans are in place to deal with operational risks that might arise in stress scenarios, and ensure that any ancillary banking operations are adequately capitalized.

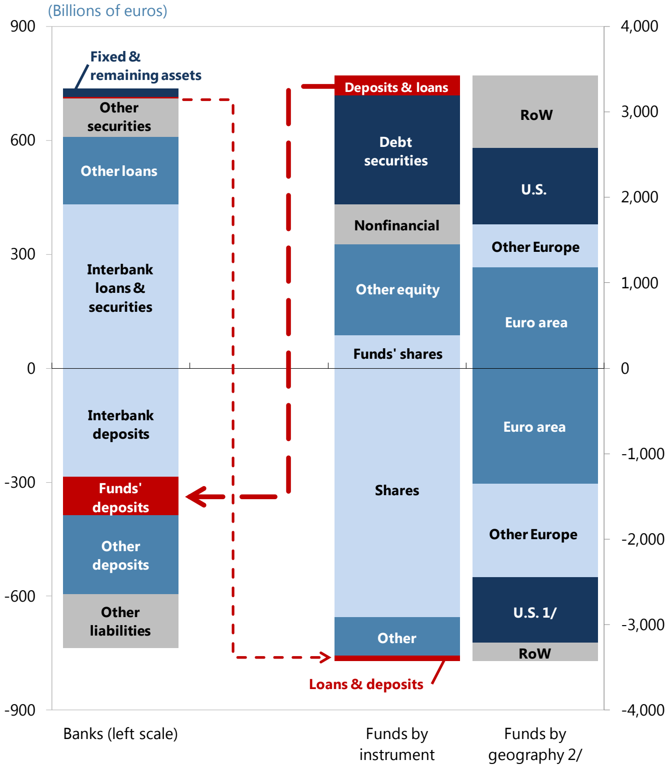
Securities in Custody, 2013
(Billions of euros)



Sources: ECB and IMF staff calculations.

28. **The growth of investment funds also requires that the authorities maintain strong oversight and are attentive to spillovers**. Regulatory norms are largely determined at the EU level, principally under the UCITS Directive (where Luxembourg was a first mover) and the Alternative Investment Fund Managers Directive of mid 2013 (also swiftly transposed). Enforcement is in the competency of national authorities. Links to banks, direct and indirect, should be closely monitored, primarily through banking supervision. Given the large size of the industry relative to the banking system, funds' cash balances, while small as a share of their total assets, make up a significant share of bank deposits. With almost 40 percent of fund assets in debt securities, global market liquidity issues could arise, especially in times of stress, with the related risk of sharp drops in fund value. The investor base that would absorb such losses is overwhelmingly in Europe (U.S. promoters are barred from marketing non U.S. fund products to U.S. retail investors and thus also distribute mostly in Europe). By contrast, roughly half of total assets are invested outside Europe, and roughly half of those in the United States. In parallel, the insurance industry's investment portfolios and profitability also merit close monitoring, where current low interest rate conditions may challenge the life segment in particular.

Bank and Investment Fund Assets and Liabilities, 2014
(Billions of euros)



Sources: BCL, CSSF, and IMF staff calculations.
1/ U.S. promoters distributing mostly in Europe.
2/ Domicile of incorporation of promoter.

29. **A systemic risk committee tasked with macroprudential oversight should be formed promptly**. After several iterations, recently passed legislation provides for an appropriately broad reach, extending well beyond banking. The committee will bring together the financial sector authorities (the BCL, the CSSF, and the Commissariat aux Assurances for insurance) and the Ministry of Finance, collectively tasked with analyzing and assessing macrofinancial stability and systemic risk and recommending corrective actions. Duties should include not only risk monitoring but also the identification of regulatory gaps and impediments to effective policy action. Thus one focus for the committee could be the housing market, another should be links between banks and funds, and yet another might be arrangements for holding company oversight in a cross border context.

30. **Growth in the housing exposures of locally active banks warrants continued monitoring and readiness to deploy additional macroprudential tools if needed**. Housing prices and mortgage lending continue to rise, raising concentration risks. Some households could become overstretched. In late 2012, the CSSF took positive steps to dampen these risks, advising banks to

limit loan-to-value (LTV) ratios to 80 percent and imposing higher risk weights on mortgages with higher LTV ratios. Staff advised the authorities to step up data collection on property lending, and to prepare appropriately targeted macroprudential tools for deployment if needed.

31. **The upcoming Financial Stability Assessment (FSA) will provide an opportunity for a deeper dive into financial sector issues**. As a systemic jurisdiction, Luxembourg is subject to mandatory FSAs. The last Financial System Stability Assessment was discussed by the IMF Executive Board on May 13, 2011. Assuming the next Article IV Consultation concludes on or before May 13, 2016, the next FSA may feed into the 2017 Article IV Consultation. Emphasizing the benefits, staff encouraged the authorities to proceed early with the next FSA.

32. ***The authorities agreed that the banking union presents important opportunities and that delays in transposing related EU directives are regrettable****. The CSSF noted that the integrated cross border approach to supervision under the SSM is already engendering a more timely flow of information on risks to the Luxembourg units of foreign banking groups. It stressed both ability and willingness to increase staffing contributions to JSTs, yet pointed out that, as its fees have been calculated for supervision of the domestic system, there may be constraints to its participation in the consolidated supervision of parent banks in other national jurisdictions. The CSSF also observed with satisfaction that the switch to automatic exchange of financial account information has been managed smoothly. The Ministry of Finance, in turn, attributed the legislative delays to the surge in EU directives just as a new national government took office. It assured that the transpositions are now underway. Keen to first build a track record implementing new AML/CFT standards, the Ministry deems a later FSAP more productive, but has not yet taken a formal decision.*

33. ***The authorities pointed to both national and EU initiatives that will reinforce Luxembourg's strong brand name in finance.*** *At the national level, the legislation that has established a systemic risk committee will improve financial sector oversight, as will implementation of a proposal to restrict the use of a bank's franchise name by unregulated and unaffiliated nonbanks, thereby cutting unwanted reputational linkages. The authorities agreed that Luxembourg's reputation would be well served by initiating and leading a debate on EU regulatory arrangements for nonbank companies that control banks, where Luxembourg is an important home and host jurisdiction, and decided in principle that they would do so. They felt that downside risks to the financial sector and the broader economy had receded with the improving euro area outlook. They underlined that the diversification of the financial sector is contributing to financial stability and is mitigating downside risks to the economy. At the same time, they recognized that the housing market merits continued monitoring, where better data collection is a work in progress.*

C. Policies for Growth

34. **Education and labor market reforms would help support economic diversification**. In the financial sector, several new activities look promising, including alternative investment funds, Islamic finance (where in September 2014 Luxembourg became the first sovereign issuer of a euro denominated *sukuk*), and renminbi operations (where the same month one Chinese bank subsidiary in Luxembourg was granted clearing privileges with the People's Bank of China). Beyond finance, the logistics sector has the potential to employ a relatively large number of low skilled workers, which would help lower structural unemployment. The remaining priority sectors (biotech, ICT, green technology) are more specialized, requiring more advanced skills. Staff asserted that the education system should deliver quality commensurable with high public spending. Vocational training, in particular, should be made more nimble. More active labor market policies and better targeting of social benefits could raise labor force participation rates and preserve incentives to work.

35. ***The authorities agreed that well crafted reforms would support diversification efforts, pointing to various initiatives aimed at improving labor market functioning****. They are focusing on increasing women's participation in the labor force, including by removing disincentives to work, and are continuing to modernize the employment agency so jobseekers can receive more personalized treatment, supported by better links to employers. A raft of training schemes is underway to increase the employability of youth and the long-term unemployed, while reforms of the minimum guaranteed income scheme for households seek to promote participation of second earners in the workforce.*

STAFF APPRAISAL

36. **The core challenge Luxembourg faces is to strengthen an economic model that has served it well, where reputation is critical**. The model emphasizes maintaining fiscal stability and openness to labor and capital, practicing prudentially conservative financial sector oversight, and responding swiftly to investor needs. The main priorities facing policy makers include making the tax system more robust, taking steps to buttress Luxembourg's reputation as a sophisticated and proactive financial regulator, and making the pension system more resilient to population aging.

37. **It is appropriate that Luxembourg, as a small open economy where labor and capital flow freely across borders, is targeting budget surpluses over the medium term**. Medium-term fiscal targets and measures to achieve them are broadly appropriate. Periods of strong growth should be used to increase buffers. Budget 2015 and the medium-term fiscal plan are a strong response to falling e-VAT revenues. The new wealth fund, too, is a positive step, although as set up it is too small to exert a meaningful impact on fiscal discipline. At a minimum, future divestment proceeds (including from significant state shareholdings in the financial sector) should flow to it.

38. **Deeper pension reforms should not be deferred**. Although the government's large net asset position affords some flexibility, social security assets of about 30 percent of GDP prefinance only part of the large future increase in age related spending. EU projections for very strong

population growth should be treated with caution because migratory flows are difficult to predict and are themselves a function of solid macroeconomic, including fiscal, fundamentals.

39. **The authorities should continue to engage fully in EU and OECD tax transparency initiatives, assess the impact of any tax base erosion at home, and work to develop options**. Taxes on the financial and corporate sectors and on cross border retail trade yield sizable revenues. Tax challenges and risks should be quantified, and the upcoming tax policy review used to identify options. Further expenditure savings should also be sought. On both the revenue and expenditure sides, measures should be found that are equitable and durable and minimize the drag on growth.

40. **Turning to the financial sector, the banking union is especially positive for Luxembourg, and no effort should be spared to promptly adopt related EU directives**. By taking an integrated approach across countries, the SSM is better able to shine light on important risks. The revised arrangements for a systemic risk committee, with a reach extending well beyond banking, are promising. Duties of the committee should include not only monitoring and containing macroprudential risks but also identifying regulatory gaps. As macroprudential tools are readied for use, the choice of instruments should be informed by relevant data gathering and analysis.

41. **Advocating for better EU oversight arrangements for groups that include banks will show Luxembourg in a positive light**. Luxembourg's tradition of capital account openness, itself supported by well articulated policies for exempting banks' claims on their affiliates from large exposure limits, has fostered large cross border financial flows. As many of these flows are intragroup, effective oversight of banking conglomerates is central to Luxembourg's standing as a financial hub. All options should be explored, therefore, all steps taken, and all lessons shared on how best to improve oversight of nonbank holding companies that control banks as well as their nonbank subsidiaries. Luxembourg's proposal to sever unwanted reputational links by restricting the use of a bank's franchise name by nonbanks claiming no affiliation is a sound starting point and should be implemented. This and other changes should be promoted at EU level.

42. **In other policies to lift growth prospects, diversification efforts need to be supported by steps to equip workers with relevant skills**. Job creation is strong, yet joblessness among residents remains elevated by historical standards, reflecting the important (and positive) role of cross border workers as well as generous benefits for, and skills mismatches among, residents. Vocational training in particular should be made more nimble. Steps being taken to lift youth and women's participation in the labor force are welcome.

43. **Staff recommends the next Article IV Consultation with Luxembourg be held on the standard 12 month cycle**.

Table 1. Luxembourg: Selected Economic Indicators, 2012–20

	2012	2013	2014	2015	2016	2017	2018	2019	2020
			Est.			Projections			
Real economy (percent change)									
GDP	-0.2	2.0	2.9	2.5	2.3	2.3	2.2	2.2	2.2
Domestic demand	0.0	0.5	1.8	2.2	2.1	2.3	2.3	2.3	2.4
Private consumption	2.0	1.5	2.0	1.7	1.9	2.2	2.2	2.3	2.4
Public consumption	3.7	5.1	3.4	2.6	2.6	2.4	2.3	2.1	2.3
Gross investment	-5.7	-4.8	0.1	3.0	2.2	2.4	2.4	2.4	2.4
Foreign balance 1/	-0.5	1.1	1.7	1.3	0.8	0.6	0.6	0.5	0.5
Exports of goods and nonfactor services	2.9	5.6	2.3	2.7	2.3	2.3	2.3	2.2	2.2
Imports of goods and nonfactor services	3.8	5.8	1.7	2.3	2.2	2.2	2.3	2.3	2.3
Labor market (thousands, unless noted otherwise)									
Resident labor force	244.7	251.0	257.3	262.6	268.4	274.3	280.3	286.5	292.8
Unemployed	15.0	17.2	18.3	18.0	18.0	18.1	18.1	18.1	18.1
(Percent of labor force)	6.1	6.9	7.1	6.9	6.7	6.6	6.5	6.3	6.2
Resident employment	229.8	233.8	238.9	244.6	250.3	256.2	262.2	268.4	274.7
(Percent change)	2.5	1.7	2.2	2.4	2.3	2.3	2.3	2.3	2.3
Cross border workers (net)	149.1	151.7	156.8	161.0	165.2	169.7	174.2	178.8	183.6
Total employment	379.1	386.6	395.7	405.5	415.6	425.9	436.4	447.2	458.3
(Percent change)	2.4	2.0	2.4	2.5	2.5	2.5	2.5	2.5	2.5
Prices and costs (percent change)									
CPI (harmonized)	2.9	1.7	0.7	0.6	1.6	1.7	1.9	2.0	2.2
CPI core (harmonized)	2.1	2.0	1.3	1.4	1.5	1.7	1.9	2.0	2.2
CPI (national definition)	2.7	1.7	0.6	0.7	1.4	1.6	1.9	2.0	2.2
Wage growth 2/	1.5	3.6	2.2	1.7	2.2	2.2	2.4	2.5	2.7
Nominal unit labor costs 2/	4.2	3.5	1.6	1.7	2.4	2.4	2.6	2.8	3.0
Public finances (percent of GDP)									
General government revenues	43.6	44.4	44.8	44.1	44.2	44.1	44.3	44.3	44.4
General government expenditures	43.5	43.6	44.2	44.5	44.2	44.1	44.1	44.1	44.1
General government balance	0.1	0.9	0.6	-0.5	0.1	0.1	0.2	0.2	0.3
General government structural balance	0.9	1.4	0.7	-0.4	0.1	0.0	0.2	0.2	0.3
General government gross debt	21.4	23.6	23.3	24.4	24.9	25.5	25.9	26.2	26.4
Balance of payments (percent of GDP)									
Current account	5.7	4.9	5.2	4.7	4.6	4.4	4.4	4.3	4.3
Balance on goods	-3.7	-2.4	-0.9	-2.7	-2.9	-3.4	-3.5	-3.9	-4.0
Balance on services	34.6	35.7	37.5	38.3	38.2	38.3	38.2	38.1	37.8
Net factor income	-24.5	-28.6	-31.4	-31.0	-30.8	-30.6	-30.3	-30.0	-29.6
Balance on current transfers	-0.7	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Exchange rates, period averages									
U.S. dollars per euro	1.29	1.33	1.33	...	...	...	...	...	...
(Percent change)	-7.6	3.3	0.1	...	...	...	...	...	...
Nominal effective rate (2005=100)	98.1	100.2	100.5	...	...	...	...	...	...
(Percent change)	-2.3	2.1	0.3	...	...	...	...	...	...
Real effective rate (CPI based; 2005=100)	98.6	100.7	100.2	...	...	...	...	...	...
(Percent change)	-2.2	2.1	-0.4	...	...	...	...	...	...
Credit growth and interest rates									
Credit to nonfinancial private sector (percent change)	3.1	6.4	11.0	...	...	...	...	...	...
Government bond yield, end of period (percent)	1.8	1.9	0.7	...	...	...	...	...	...
Memorandum items: Land area = 2,586 sq. km; population in 2015 = 563,000; GDP per head = €84,400									
GDP (billions of euro)	43.8	45.3	46.9	48.6	50.8	52.8	55.1	57.3	59.9
Output gap (percent deviation from potential)	-1.8	-1.2	-0.3	-0.1	0.0	0.0	0.0	0.0	0.0
Potential output growth (percent)	2.6	1.4	1.9	2.3	2.3	2.3	2.3	2.3	2.2

Sources: Luxembourg authorities; and IMF staff estimates.

1/ Percentage point contribution to GDP growth.

2/ Overall economy.

Table 2. Luxembourg: Balance of Payments, 2012–20[1/]

(Percent of GDP)

	2012	2013	2014	2015	2016	2017	2018	2019	2020
			Est.			Projections			
Current account	5.7	4.9	5.2	4.7	4.6	4.4	4.4	4.3	4.3
Balance on goods and services	30.9	33.3	36.6	35.6	35.3	34.9	34.6	34.2	33.8
Trade balance 2/	-3.7	-2.4	-0.9	-2.7	-2.9	-3.4	-3.5	-3.9	-4.0
Goods exports	39.7	39.9	38.9	36.4	35.6	34.9	34.5	33.9	33.4
Goods imports	43.4	42.3	39.8	39.1	38.5	38.3	38.0	37.8	37.5
Balance on services 2/	34.6	35.7	37.5	38.3	38.2	38.3	38.2	38.1	37.8
Services exports	134.9	147.1	158.2	161.3	159.4	158.7	157.6	157.0	155.7
Services imports	100.3	111.4	120.7	123.0	121.1	120.4	119.5	118.9	117.9
Net factor income	-24.6	-28.7	-31.4	-31.0	-30.8	-30.6	-30.3	-30.0	-29.6
Compensation of employees, net	-16.8	-17.1	-16.8	-16.8	-16.7	-16.7	-16.6	-16.6	-16.5
Compensation of employees, credit	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.0	3.0
Compensation of employees, debit	19.7	20.1	19.9	19.9	19.8	19.7	19.7	19.6	19.6
Investment income, net	-7.8	-11.6	-14.6	-14.2	-14.1	-13.9	-13.7	-13.4	-13.1
Investment income, credit	419.4	470.5	423.5	420.1	412.3	407.5	401.1	395.7	388.8
Investment income, debit	427.2	482.1	438.0	434.3	426.4	421.4	414.8	409.1	401.9
Balance on current transfers	-0.7	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Capital and financial account	-5.7	-4.9	-5.4	-4.7	-4.6	-4.4	-4.4	-4.3	-4.3
Capital account	-0.9	-1.4	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1	-1.1
Financial account	4.8	3.4	4.2	3.6	3.5	3.3	3.3	3.2	3.1
Direct investment, net	-89.4	17.5	-26.7	-24.5	-22.2	-20.1	-18.1	-16.4	-14.8
Abroad	772.4	742.8	218.6	196.5	176.8	159.0	143.1	128.8	115.9
In reporting economy	861.9	725.4	245.3	221.0	199.0	179.2	161.3	145.2	130.7
Portfolio investment, net	-438.7	-204.3	-197.8	-197.8	-197.8	-197.8	-197.8	-197.8	-197.8
Portfolio investment, assets	234.1	356.2	502.7	502.7	502.7	502.7	502.7	502.7	502.7
Portfolio investment, liabilities	672.8	560.5	700.5	700.5	700.5	700.5	700.5	700.5	700.5
Financial derivatives, net	-9.0	-14.1	-6.6	-6.6	-6.6	-6.6	-6.6	-6.6	-6.6
Other investment, net	541.8	204.1	235.5	232.7	230.3	228.1	226.1	224.2	222.6
Other investment, assets	428.8	209.9	363.1	363.1	363.1	363.1	363.1	363.1	363.1
Other investment, liabilities	-113.0	5.8	127.6	130.4	132.8	135.1	137.1	138.9	140.5
Reserve assets	0.2	0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2	-0.2
Errors and omissions	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0

1/ Balance of Payments Manual 6 (BPM6) presentation.

2/ Under the BPM6 methodology, merchanting trade operations previously recorded under the service account have been reclassified into the trade account, resulting in a sharp reduction of the trade deficit.

Sources: STATEC; and IMF staff estimates.

Table 3. Luxembourg: Risk Assessment Matrix[1/]

Source of risks	Relative likelihood and transmission channels	Impact if realized	Policy response
Business model risk: Impact of changes in financial sector regulatory landscape larger than expected	**Medium** Luxembourg's attraction as a financial center for cross border activities could diminish, and financial and commercial flows routed through Luxembourg could decline	**High** Significant impact on total factor productivity, growth, exports, jobs, and revenues	A range of proactive steps, consistent with relevant standards, to preserve Luxembourg's reputation as a solid financial jurisdiction
Business model risk: Changes in EU and international taxation rules result in further revenue losses	**Medium** A significant share of revenue relates to cross border activities, including remaining e-VAT, corporate taxes, and fuel and tobacco excises	**High** Significant hit to revenues, growing deficits, and shrinking government net worth	Proactively adjust tax and expenditure policies and advance pension reform
G-RAM risk: Protracted period of slower growth in advanced economies (including the euro area)	**High** Strong trade and financial linkages make Luxembourg particularly vulnerable to developments in the euro area.	**Medium** Exports and overall growth held back	Diversify financial services exports toward non euro area markets and advance structural reforms to boost competitiveness
G-RAM risk: A surge in financial market volatility as investors reassess underlying risk	**High** Portfolio reallocation in investment fund industry, bond market stress in euro area, and possible safe haven inflows through the banking system	**Low** Moderate impact on domestic economy unless the global stress is especially severe	Monitor financial sector exposures, conduct stress tests, and ensure robust contingency planning for operational risks
G-RAM risk: Protracted period of low interest rates spawns excessive mortgage borrowing and housing price increases	**Low** Stability risks limited by large buffers at banks and full recourse lending, so the greater risk may be of compression of consumption if households become overstretched	**Medium** Hit to domestic demand and overall growth, with possible modest disruption of domestic credit	Monitor risk concentrations and stand ready to take well targeted macroprudential measures

1/ The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 percent and 30 percent, and "high" a probability between 30 percent and 50 percent). The RAM reflects staff's views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non mutually exclusive risks may interact and materialize jointly.

Table 4. Luxembourg: General Government Financial Balance Sheet, 2012–14

(Millions of euros unless noted otherwise)

	2012			2013			2014 Q3		
	Trans-actions	Other economic flows	Closing balance	Trans-actions	Other economic flows	Closing balance	Trans-actions	Other economic flows	Closing balance
Net financial worth	32	1,577	21,190	287	927	22,404	-1,564	-654	20,259
Financial assets	1,797	1,738	34,151	1,048	668	35,867	-1,797	-104	33,966
Currency and deposits	148	0	5,744	413	0	6,157	73	0	6,230
Debt securities	760	-4	6,828	348	-2	7,174	500	-4	7,670
Loans	229	0	1,474	144	0	1,618	64	0	1,682
Equity and inv. fund shares	892	1,741	15,299	968	670	16,938	647	-100	17,485
Other financial assets	-231	0	4,805	-825	0	3,981	-3,082	0	899
Liabilities	1,765	161	12,962	762	-260	13,464	-306	550	13,707
Currency and deposits	16	0	237	12	0	249	8	0	257
Debt securities	1,000	161	5,456	1,050	-260	6,247	0	550	6,796
Loans	501	0	4,144	226	0	4,370	-1	0	4,369
Other liabilities	249	0	3,125	-527	0	2,598	-313	0	2,285
Statistical discrepancy	0			0			73		
Memorandum items:									
Net financial worth (percent of GDP)			48.4			49.5			43.2
Financial assets (percent of GDP)			77.9			79.2			72.4
Liabilities (percent of GDP)			29.6			29.7			29.2
GDP			43,812			45,289			46,944

Sources: IFS; and IMF staff estimates.

Table 5. Luxembourg: General Government Operations, 2012–20

(Percent of GDP)

	2012	2013	2014	2015	2016	2017	2018	2019	2020
			Est.			Projections			
Revenue	43.6	44.4	44.8	44.1	44.2	44.1	44.3	44.3	44.4
Taxes	27.1	27.8	28.2	27.4	27.6	27.4	27.4	27.3	27.3
Social contributions	12.2	12.3	12.4	12.5	12.5	12.6	12.7	12.8	12.9
Other revenue	4.2	4.2	4.2	4.2	4.1	4.1	4.1	4.1	4.1
Expenditure	43.5	43.6	44.2	44.5	44.2	44.1	44.1	44.1	44.1
Expense	41.6	42.1	42.5	43.1	42.8	42.7	42.7	42.7	42.8
Compensation of employees	8.2	8.2	8.4	8.6	8.6	8.6	8.5	8.5	8.5
Use of goods and services	3.7	3.7	3.7	3.8	3.8	3.8	3.9	3.9	3.9
Interest	0.5	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4
Subsidies	1.8	1.7	1.9	1.8	1.8	1.8	1.8	1.8	1.8
Social benefits	20.6	21.1	21.3	21.5	21.5	21.4	21.4	21.4	21.4
Other expense	8.7	8.6	8.6	8.8	8.6	8.5	8.6	8.6	8.6
Net acquisition of nonfinancial assets	1.9	1.5	1.7	1.5	1.3	1.4	1.3	1.3	1.3
Gross operating balance	4.1	4.5	4.5	3.3	3.8	3.9	4.1	4.1	4.2
Net operating balance	2.0	2.3	2.3	1.0	1.4	1.4	1.6	1.5	1.6
Net lending / borrowing	0.1	0.9	0.6	-0.5	0.1	0.1	0.2	0.2	0.3
Net acquisition of financial assets	4.1	2.3	...	...	...	...	...	...	...
Monetary gold and SDRs	...	...	...	...	...	...	...	...	...
Currency and deposits	0.3	0.9	...	...	...	...	...	...	...
Securities other than shares	1.7	0.8	...	...	...	...	...	...	...
Loans	0.5	0.3	...	...	...	...	...	...	...
Shares and other equity	2.0	2.1	...	...	...	...	...	...	...
Insurance, pensions, and standardized	...	...	...	...	...	...	...	...	...
Financial derivatives	0.0	0.0	...	...	...	...	...	...	...
Other accounts receivable	-0.5	-1.8	...	...	...	...	...	...	...
Net incurrence of liabilities	4.0	1.7	...	...	...	...	...	...	...
Special Drawing Rights (SDRs)	...	...	...	...	...	...	...	...	...
Currency and deposits	0.0	0.0	...	...	...	...	...	...	...
Securities other than shares	2.3	2.3	...	...	...	...	...	...	...
Loans	1.1	0.5	...	...	...	...	...	...	...
Shares and other equity	0.0	0.0	...	...	...	...	...	...	...
Insurance technical reserves	0.0	0.0	...	...	...	...	...	...	...
Financial derivatives	0.0	0.0	...	...	...	...	...	...	...
Other accounts payable	0.6	-1.2	...	...	...	...	...	...	...
Memorandum items:									
Structural balance	0.9	1.4	0.7	-0.4	0.1	0.0	0.2	0.2	0.3
Output gap	-1.8	-1.2	-0.3	-0.1	0.0	0.0	0.0	0.0	0.0
Public gross debt (Maastricht definition)	21.4	23.6	23.3	24.4	24.9	25.5	25.9	26.2	26.4

Sources: Luxembourg authorities; and IMF staff estimates.

Table 6. Luxembourg: Measures Underlying the Consolidation Scenario, 2015–20

	2015	2016	2017	2018	2019	2020	2015	2016	2017	2018	2019	2020
			(Millions of euros)						(Percent of GDP)			
Expenditures	-150	-286	-363	-422	-437	-444	-0.3	-0.6	-0.7	-0.8	-0.8	-0.7
Wages	-6	-10	-11	-11	-11	-12	0.0	0.0	0.0	0.0	0.0	0.0
Purchases of goods and services	-13	-33	-36	-39	-40	-42	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Subsidies	-15	-59	-66	-80	-81	-82	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Social benefits	-88	-133	-186	-216	-224	-227	-0.2	-0.3	-0.4	-0.4	-0.4	-0.4
Other	-28	-51	-64	-76	-79	-80	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1
Revenues	-347	-241	-375	-359	-497	-517	-0.7	-0.5	-0.7	-0.7	-0.9	-0.9
VAT revenues (including e-VAT loss)	-445	-324	-467	-460	-604	-631	-0.9	-0.6	-0.9	-0.8	-1.1	-1.1
Projected e-VAT loss	-700	-706	-864	-875	-1,035	-1,082	-1.4	-1.4	-1.6	-1.6	-1.8	-1.8
VAT rates increase	255	382	397	414	431	451	0.5	0.8	0.8	0.8	0.8	0.8
Other measures	98	83	92	101	107	114	0.2	0.2	0.2	0.2	0.2	0.2
Total fiscal balance change	-197	45	-12	63	-60	-73	-0.4	0.1	0.0	0.1	-0.1	-0.1
Memorandum items:												
Real GDP (percent change)							2.5	2.3	2.3	2.2	2.2	2.2
Nominal GDP	48,581	50,821	52,799	55,065	57,304	59,882						

Sources: Luxembourg authorities; and IMF staff estimates.

Table 7. Luxembourg: Financial Soundness Indicators, 2010–14

(In percent)

		2010	2011	2012	2013	Q3 2014
All Banks						
Capital adequacy	Regulatory capital to risk weighted assets	17.0	16.0	19.0	21.0	19.0
	Regulatory tier 1 capital to risk weighted assets	15.0	14.0	17.0	18.0	17.0
	Capital to assets	5.0	5.0	6.0	6.0	6.0
Profitability and efficiency 1/	Return on assets	0.7	0.3	0.6	0.6	0.7
	Return on equity	13.0	5.0	10.0	10.0	12.0
	Interest margin to gross income	31.0	34.0	31.0	29.0	27.0
Asset quality and structure	Residential real estate loans to total loans	3.0	3.0	4.0	4.0	4.0
	Household debt to GDP	49.0	54.0	55.0	55.0	59.0
	Nonperforming loans to total gross loans	0.2	0.4	0.2	0.2	...
	Sectoral distribution of loans (in percent of total loans)					
	Residents	22.0	25.0	23.0	21.0	20.0
	Nonresidents	78.0	75.0	77.0	79.0	80.0
Liquidity	Liquid assets to total assets	56.0	59.0	58.0	60.0	60.0
	Liquid assets to short-term liabilities	66.0	69.0	69.0	70.0	70.0
	Customer deposits to total (non interbank) loans	131.0	119.0	129.0	147.0	160.0
Domestically Oriented Banks						
Capital adequacy	Regulatory capital to risk weighted assets	24.0	22.2	24.4	26.0	22.0
	Regulatory tier 1 capital to risk weighted assets	21.2	20.1	21.8	23.0	21.0
	Capital to assets	7.4	7.0	8.5	9.0	8.0
Profitability and efficiency 1/	Return on assets	0.7	0.7	0.8	1.0	1.0
	Return on equity	9.0	8.3	9.0	8.0	12.0
	Interest margin to gross income	50.3	67.9	63.9	56.0	59.0
Asset quality and structure	Residential real estate loans to total loans	17.4	19.5	21.5	24.0	23.0
	Nonperforming loans to total gross loans	0.3	0.8	0.3	0.3	...
	Sectoral distribution of loans (in percent of total loans)					
	Residents	46.8	50.9	51.9	55.0	55.0
	Nonresidents	53.2	49.1	48.1	45.0	45.0
Liquidity	Liquid assets to total assets	45.4	42.2	44.4	43.0	45.0
	Liquid assets to short-term liabilities	52.1	48.2	54.4	53.0	53.0
	Customer deposits to total (non interbank) loans	171.5	156.5	160.5	160.0	151.0

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

1/ Values for 2011 exclude one bank under restructuring.

Table 8. Luxembourg: Public Sector Debt Sustainability Analysis Baseline Scenario, 2015–20

(In percent of GDP, unless otherwise indicated)

Debt, Economic and Market Indicators [1/]

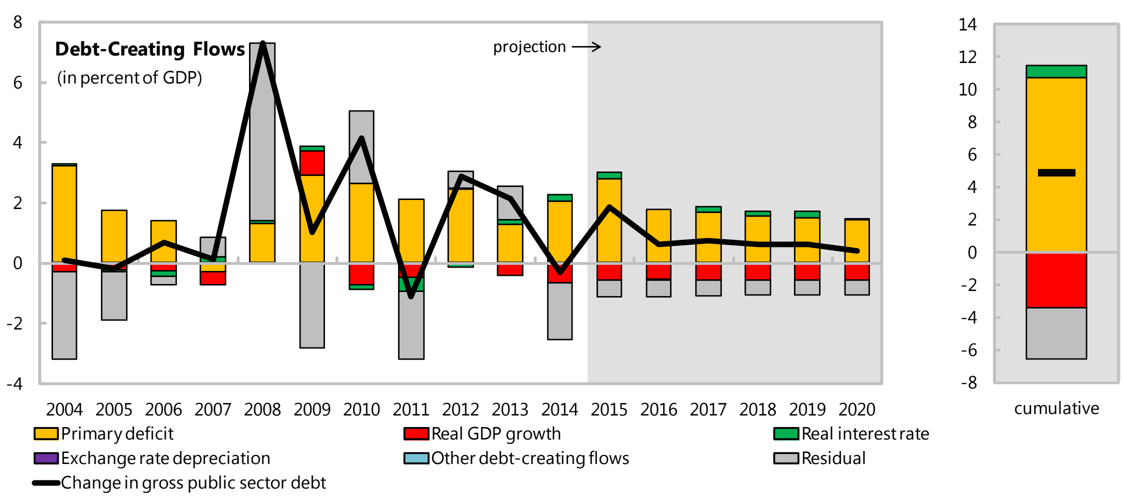
	Actual			Projections					
	2004-2012 [2/]	2013	2014	2015	2016	2017	2018	2019	2020
Nominal gross public debt *	12.9	23.6	23.3	25.1	25.7	26.5	27.1	27.8	28.2
Public gross financing needs	1.0	0.7	1.4	2.6	3.2	2.1	3.1	2.0	1.7
Real GDP growth (in percent)	2.6	2.0	2.9	2.5	2.3	2.3	2.2	2.2	2.2
Inflation (GDP deflator, in percent)	3.5	1.4	0.7	0.9	2.2	1.5	2.0	1.8	2.2
Nominal GDP growth (in percent)	6.2	3.4	3.7	3.5	4.6	3.9	4.3	4.1	4.5
Effective interest rate (in percent) [4/]	3.4	2.1	1.6	1.9	2.2	2.3	2.7	2.7	2.4

As of March 31, 2015		
Sovereign Spreads		
EMBIG (bp) 3/		10
5Y CDS (bp)		n.a.
Ratings	Foreign	Local
Moody's	Aaa	Aaa
S&Ps	AAA	AAA
Fitch	AAA	AAA

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

Contribution to Changes in Public Debt

	Actual			Projections							
	2004-2012	2013	2014	2015	2016	2017	2018	2019	2020	cumulative	debt-stabilizing primary balance [9/]
Change in gross public sector debt	1.7	2.1	-0.3	1.8	0.6	0.7	0.6	0.6	0.4	4.9	
Identified debt-creating flows	1.7	1.0	1.6	2.4	1.2	1.3	1.1	1.1	0.9	8.0	
Primary deficit	1.9	1.3	2.1	2.8	1.8	1.7	1.6	1.5	1.4	10.7	-0.6
Primary (noninterest) revenue and gra	27.9	30.0	29.5	29.1	29.5	29.5	29.6	29.6	29.7	177.0	
Primary (noninterest) expenditure	29.8	31.3	31.6	31.8	31.3	31.2	31.2	31.1	31.1	187.7	
Automatic debt dynamics [5/]	-0.2	-0.3	-0.5	-0.3	-0.6	-0.4	-0.4	-0.4	-0.6	-2.7	
Interest rate/growth differential [6/]	-0.2	-0.3	-0.5	-0.3	-0.6	-0.4	-0.4	-0.4	-0.6	-2.7	
Of which: real interest rate	-0.1	0.1	0.2	0.2	0.0	0.2	0.2	0.2	0.0	0.8	
Of which: real GDP growth	-0.2	-0.4	-0.7	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-3.4	
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 (	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 Euro	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/]	0.0	1.1	-1.9	-0.6	-0.6	-0.5	-0.5	-0.5	-0.5	-3.2	



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 - π(1+g) - g + ae(1+r)]/(1+g+π+gπ)) 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 - π (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.

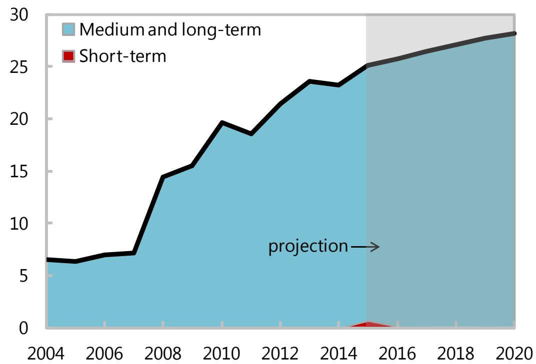
9/ Assumes that key variables (real GDP growth, real interest rate, and other identified debt-creating flows) remain at the level of the last projection year.

Table 9. Luxembourg: Public Sector Debt Sustainability Analysis Composition of Public Debt and Alternative Scenarios, 2015–20

Composition of Public Debt

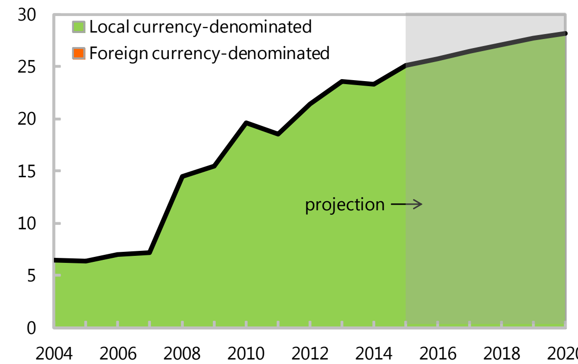
By Maturity

(in percent of GDP)



By Currency

(in percent of GDP)

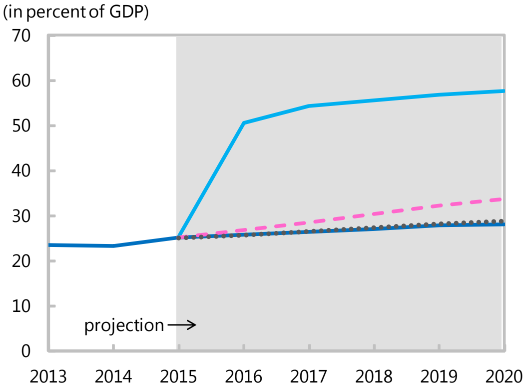


Alternative Scenarios

Baseline
Historical
Constant Primary Balance
Contingent Liability Shock

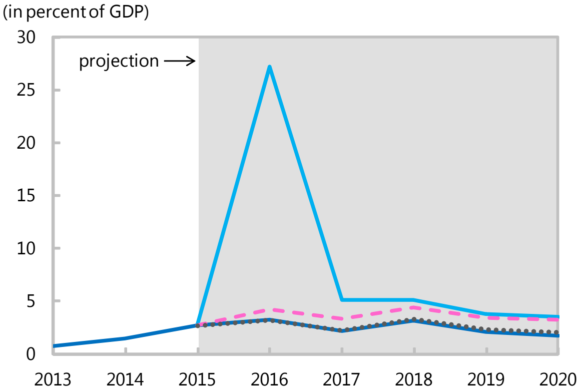
Gross Nominal Public Debt

(in percent of GDP)



Public Gross Financing Needs

(in percent of GDP)



Underlying Assumptions

(in percent)

Baseline Scenario	2015	2016	2017	2018	2019	2020
Real GDP growth	2.5	2.3	2.3	2.2	2.2	2.2
Inflation	0.9	2.2	1.5	2.0	1.8	2.2
Primary Balance	-2.8	-1.8	-1.7	-1.6	-1.5	-1.4
Effective interest rate	1.9	2.2	2.3	2.7	2.7	2.4
Constant Primary Balance Scenario						
Real GDP growth	2.5	2.3	2.3	2.2	2.2	2.2
Inflation	0.9	2.2	1.5	2.0	1.8	2.2
Primary Balance	-2.8	-2.8	-2.8	-2.8	-2.8	-2.8
Effective interest rate	1.9	2.2	2.3	2.5	2.5	2.2

Historical Scenario	2015	2016	2017	2018	2019	2020
Real GDP growth	2.5	2.3	2.3	2.3	2.3	2.3
Inflation	0.9	2.2	1.5	2.0	1.8	2.2
Primary Balance	-2.8	-1.8	-1.8	-1.8	-1.8	-1.8
Effective interest rate	1.9	2.2	2.3	2.5	2.5	2.2
Contingent Liability Shock						
Real GDP growth	2.5	-1.1	-1.1	2.2	2.2	2.2
Inflation	0.9	1.4	0.7	2.0	1.8	2.2
Primary Balance	-2.8	-25.5	-1.7	-1.6	-1.5	-1.4
Effective interest rate	1.9	2.6	4.9	4.7	4.5	4.2

Source: IMF staff.

Appendix I. External Sector Assessment

1. **The EBA-lite approach extends to more countries than the EBA**. The EBA-lite methodology estimates a country's current account norm based on economic fundamentals, cyclical factors, and desirable policy variables. Using a calculated elasticity, exchange rate misalignment is derived as the adjustment necessary to restore the current account balance to its norm.

2. **Luxembourg's shrinking current account surplus is somewhat below the norm as estimated using the EBA-lite methodology**. The growing surplus on financial and other nonfactor services (over 37 percent of GDP) is increasingly offset by deficits on workers' remittances (17 percent of GDP) and net investment income (15 percent of GDP). The latter reflects the distribution of investment returns linked to the strong growth in investment fund assets booked in Luxembourg. As a result of this and other factors, the current account surplus narrowed from more than 10 percent of GDP in 2006–07 to about 5 percent in 2013–14. Using the EBA-lite approach, it is projected at some 3½ percent of GDP below its norm of 8 percent of GDP in 2015, suggesting scope for modestly higher domestic savings going forward, consistent with the thrust of staff's policy advice. Nonetheless, the deviation from the norm is relatively small for so open an economy.

3. **On staff estimates, the exchange rate remains broadly in line with fundamentals**. The EBA-lite methodology indicates Luxembourg's real effective exchange rate is overvalued by about 2½ percent relative to its equilibrium level. Thus there is no evidence of substantial misalignment.

Summary of EBA-lite Findings

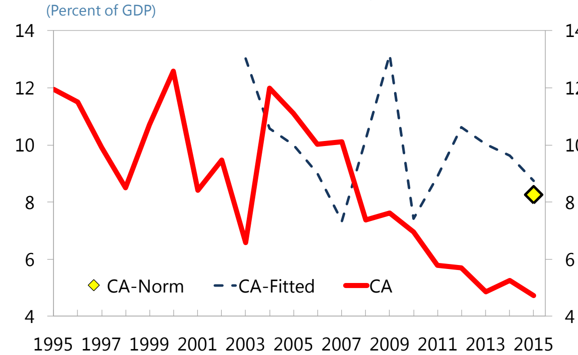
(Percent of GDP unless otherwise indicated)

		2015
(1)	Current account: Projected	4.7
(2)	Current account: Fitted	8.7
(3)	Policy gap	0.5
(4)=(2)-(3)	Current account: Norm	8.2
(5)=(1)-(4)	Current account: Gap	-3.5
(6)	Elasticity of CA to REER (ratio)	-1.3
(7)=(5)/(6)	Real exchange rate gap (percent)	2.6

Sources: Luxembourg authorities; and IMF staff estimates.

Current Account (CA) Sustainability Assessment

(Percent of GDP)



Sources: Luxembourg authorities; and IMF staff estimates.

Appendix II. Implementation of the 2014 Article IV Recommendations

Recommendation	Authorities' Response
Fiscal	
Embark on fiscal consolidation to preserve the healthy fiscal position, stabilize debt below 30 percent of GDP, and anchor the 'AAA' rating	The authorities have adopted a medium-term fiscal adjustment strategy aiming at a general government structural surplus of ½ percent of GDP
Proceed with the planned VAT hike and consider raising property taxes	VAT rates were increased by 2 percentage points on January 1, 2015. Higher property taxes may be considered in the context of the tax policy review.
Curb public spending growth, relying on the expenditure review and a thorough assessment of social benefits to identify savings	Based on the expenditure review in late 2014, Budget 2015 introduced a number of measures, many of which involved rationalizing social security benefits
Financial	
Supplement front loading of Basel III capital requirements with additional measures for systemic banks over time and within the EU framework	Implementation is ongoing, although the transposition of the Fourth Capital Requirements Directive is behind schedule
Closely monitor domestic real estate exposures, interconnections in the domestic financial sector, and new risks from financial diversification	The supervisory authorities have stepped up monitoring of banks' exposures to real estate and are enhancing data gathering
Set up the *ex ante* deposit guarantee scheme and resolution fund as required by EU legislation	The Bank Recovery and Resolution Directive and the Deposit Guarantee Schemes Directive are expected to be transposed by end 2015
Improve transparency of financial sector operations and strengthen the AML/CFT framework	Luxembourg began automatic exchange of bank deposit information on January 1, 2015 and committed to enhancements from 2017
Structural	
Use the expiry of the temporary agreement on wage indexation as an opportunity to adjust the mechanism in a way that better aligns wages and productivity movements	No major changes to the basic scheme are envisaged currently
Further strengthen labor skills and the business environment in the context of the authorities' strategy to diversify the economy beyond the financial sector	The authorities are proactively promoting diversification in specific sectors and working to improve training and education systems in support of this effort

INTERNATIONAL MONETARY FUND

LUXEMBOURG

April 27, 2015

STAFF REPORT FOR THE 2015 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

Prepared By European Department

CONTENTS

FUND RELATIONS

(As of March 31, 2015)

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	387.04	92.44
Reserve Tranche Position	31.67	7.56
Lending to the Fund		
New Arrangements to Borrow	99.29	

SDR Department:

	SDR million	Percent of allocation
Net cumulative allocation	246.62	100.00
Holdings	244.45	99.12

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				
	2015	2016	2017	2018	2019
Principal	0.00	0.00	0.00	0.00	0.00
Charges/Interest	0.00	0.00	0.00	0.00	0.00

Implementation of HIPC Initiative: Not applicable

Safeguards Assessments: Not applicable

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 May 2, 2014. The associated Executive Board assessment is available at http://www.imf.org/external/np/sec/pr/2014/pr14209.htm and the staff report (IMF Country Report No. 14/118) at http://www.imf.org/external/pubs/cat/longres.aspx?sk=41542. Luxembourg is on the standard 12 month consultation cycle.

Financial Sector Assessment Program (FSAP) Participation and ROSC: The last FSAP was completed on May 13, 2011. The associated Financial System Stability Assessment and accompanying Reports on the Observation of Standards and Codes (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): In February 2014, the Financial Action Task Force (FATF) recognized that Luxembourg had made significant progress in addressing deficiencies identified in the February 2010 mutual evaluation report and decided to remove the country from the regular follow-up process. The FATF report is available at http://www.fatf-gafi.org/countries/j-m/luxembourg/documents/fur-luxembourg-2014.html.

STATISTICAL ISSUES

A. Assessment of Data Adequacy for Surveillance

General: Data provision is adequate for surveillance, although macroeconomic data are sometimes released with a significant lag. 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.

Online access to Statec's databases 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 flexibility under the Special Data Dissemination Standard (SDDS) for the timeliness of its national accounts, generally disseminating 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 SDDS since May 12, 2006. Luxembourg uses SDDS flexibility options also on the timeliness of the analytical accounts of the central bank.

No data ROSC is available.

TABLE OF COMMON INDICATORS REQUIRED FOR SURVEILLANCE

(As of April 1, 2015)	Date of Latest Observation	Date Received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of Publication[7]
Exchange Rates	03/20/15	03/20/15	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities[1]	02/28/15	03/06/15	M	M	M
Reserve/Base Money	1/31/15	03/05/15	M	M	M
Broad Money	1/31/15	03/05/15	M	M	M
Central Bank Balance Sheet	1/31/15	03/05/15	M	M	M
Consolidated Balance Sheet of the Banking System	1/31/15	03/05/15	M	M	M
Interest Rates[2]	03/20/15	03/20/15	D	D	D
Consumer Price Index	02/28/15	03/04/15	M	M	M
Revenue, Expenditure, Balance and Composition of Financing[3] – General Government[4]	2014	04/01/15	A	A	A
Revenue, Expenditure, Balance and Composition of Financing[3]– Central Government	2014 Q4	01/30/15	Q	Q	Q
Stocks of Central Government and Central Government-Guaranteed Debt[5]	2014	04/01/15	Q	Q	Q
External Current Account Balance	2014	03/26/15	Q	Q	Q
Exports and Imports of Goods	12/31/14	02/25/15	M	M	M
GDP/GNP	2014 Q3	01/08/15	Q	Q	Q
Gross External Debt	2014	03/26/15	Q	Q	Q
International Investment Position[6]	2014	03/26/15	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, and 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, extrabudgetary funds, and social security funds) and the 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).

LUXEMBOURG

May 6, 2015

2015 ARTICLE IV CONSULTATION—SUPPLEMENTARY INFORMATION

Prepared By European Department

This supplement provides information that has become available since the issuance of the staff report on April 27, 2015. The thrust of the staff appraisal is unchanged.

The authorities have published their Stability and Growth Program update, with new macroeconomic and fiscal projections through 2019. Released on April 30, the update shows a small general government surplus in 2015, rising to 0.7–0.9 percent of GDP in 2016–19. The projected impact of fiscal measures is broadly unchanged, as is the list of measures. The revenue path, however, benefits from notably stronger growth assumptions than those of staff: in 2015–16, real GDP is projected to expand by 3.6–3.8 percent on foot of better near-term prospects for the euro area supported by quantitative easing; in 2017–19, it is shown settling at around 3 percent reflecting more conservative estimates for potential growth relative to those at the time of the budget.

Luxembourg: Updated Fiscal Estimates and Projections, 2014–19
(Percent of GDP unless otherwise indicated)

	2014	2015	2016	2017	2018	2019
	Est.	Projections				
General government balance						
Budget proposal October 2014	0.2	-0.2	0.6	0.9	1.5	…
Staff report	0.6	-0.5	0.1	0.1	0.2	0.2
Authorities' April update	0.6	0.1	0.7	0.7	0.9	0.8
Of which: impact of measures	…	1.0	1.5	1.7	1.7	1.7
General government gross debt						
Budget proposal October 2014	23.0	24.1	23.9	23.5	21.8	…
Staff report	23.3	24.4	24.9	25.5	25.9	26.2
Authorities' April update	23.1	23.9	24.2	24.2	24.0	23.8
Memorandum items:						
Real GDP growth (percent)						
Budget proposal October 2014	2.8	2.7	3.6	3.7	3.8	…
Staff report	2.9	2.5	2.3	2.3	2.2	2.2
Authorities' April update	3.0	3.8	3.6	3.3	3.0	2.8

Source: Luxembourg authorities; and IMF staff estimates.

Statement by Menno Snel, Executive Director for Luxembourg and Amela Hubic, Senior Advisor to Executive Director May 11, 2015

The authorities thank the staff for their analysis. The country report provides a broadly fair and balanced assessment of the economic situation in Luxembourg.

A stable political and social environment, sound public finances and a modern legal and regulatory framework are key elements of the strong Luxembourg economic model. This model is further supported by a skilled and multilingual workforce, a business-friendly environment with modern infrastructure and the country's openness to the world. Luxembourg is one of the two euro area countries to maintain an AAA credit rating with a stable outlook from all three major credit agencies, demonstrating the market's confidence in the country, and its macroeconomic and financial fundamentals.

Recent economic developments and outlook

After a slight contraction in 2012, the economy started to recover in 2013 and is expected to register a real GDP growth of 3 percent or more in 2014, driven by resilient domestic demand and strong net services exports. The authorities project the economy to grow by 3.8 percent in 2015 and on average by 3 percent over the period 2016-2019. The projected lower medium-term growth is based on a number of factors, namely: (i) slower recovery of the euro area economies; (ii) progressive exit from accommodative monetary policy in the euro area; and (iii) less favorable stock exchange developments.

In line with plunging oil prices, average inflation fell sharply in 2014 to 0.6 percent, down from 1.7 percent in 2013. The low inflation environment is likely to limit the impact of the 2 percentage point increase in VAT rates in 2015. It is expected to be 0.3 percent in 2015. Over the medium term, the inflation is projected to average 1.4 percent.

Strong and dynamic job creation led to an employment increase of 2.4 percent in 2014. Employment is projected to further increase by 2.7 percent in 2015, and to average 2 percent over the medium-term. The seasonally adjusted unemployment rate stabilized at 6.9 percent at the end of 2014 and is expected to decline slowly in the coming years. Unemployment tends to become more structural, reflecting some skill mismatches. The authorities' efforts to tackle this issue include continued modernization of the employment agency in order to better connect the job seekers and employers, as well as the removal of disincentives to work.

Also, they took several steps to increase women and youth participation in the workforce. For example, the EU initiative called 'The Youth Guarantee' has now been implemented.

The authorities have also paid careful attention to developing a climate conducive to business and investment, which should help pursuing efforts to diversify the structure of the economy. 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 and logistics. Some of these new activities will also help to tackle the long-term unemployment of low-skilled workers. The diversification of the financial sector across business types, investment destinations and customer bases is expected to further enhance the diversification of the financial sector itself.

Public finances

Luxembourg's public finances remain sound. The country has managed to maintain its low level of public debt as well as a significant budgetary safety margin with respect to the Maastricht deficit reference value of 3 percent of GDP. Moreover, significant assets to fund future pension liabilities - 29 percent of GDP at the end of 2014 - have been accumulated and set aside in a dedicated and specialized fund. However, the country is facing a series of structural challenges that may impact its public finances. Potential growth is declining and the high degree of openness of the economy and its specialization in financial services make public revenue vulnerable to high volatility. Also, several tax initiatives - such as the OECD/G20 BEPS project or EU rule changes and investigations - that are underway might have some consequences for the public revenues. The ageing population will also impact public finances over the long-term.

In line with the 2015 update of the Stability Program, fiscal consolidation needs to amount to €1 billion in structural terms for the 2015-2019 period. The aim is to ensure a gradual and sustainable return to a balanced central government budget by the end of the government's tenure. The recently adopted *Zukunftspak* details the legislative agenda and sets out the priorities for these consolidation measures and beyond.

In 2015, public finances are characterized by three main factors: (i) entry into force of the new regime for the VAT on e-commerce that resulted in a loss of VAT revenues of about 1.2 percent of GDP; (ii) implementation of a counter-financing strategy with an estimated impact of more than 1 percent of GDP; and (iii) improvement of the macroeconomic conditions with a positive impact on government revenue. The conjunction of these three elements is expected to allow the general government balance to reach a broadly neutral stance in 2015, from a surplus of 0.6 of GDP in 2014.

On the expenditure side, the authorities finalized a comprehensive expenditure review which has been used as a tool to prioritize savings over the next five years. The analytical phase was finalized in June 2014 and provided the government with a report that lists a menu of potential savings measures. Commitment to these spending cuts is underscored by the government's *Zukunftspak*, amounting to 1.7 percent of GDP. Knowing that the fiscal situation would deteriorate significantly in 2015 in the absence of additional consolidation measures, the authorities decided to act firmly by frontloading a significant number of the identified measures and incorporating them in the 2015 and 2016 budgets. They remain committed to fully implement all planned consolidation measures.

On the revenue side, the implementation of the 2008 EU Council Directive in the area of supply of services has, as expected, had a negative impact on e-commerce VAT revenue. In order to compensate this revenue loss of around €617 million (1.2 percent of GDP), the authorities privileged the use of indirect and personal income taxation. In their view, this type of consolidation measures is less harmful for economic growth. The government increased all VAT rates by 2 percentage points with the exception of the reduced 3 percent rate on basic goods, in order to shield the poorest households. This measure is expected to generate 0.6 percent of GDP of additional revenue. A temporary personal income tax, set at 0.5 percent of income, has also been introduced and is expected to generate additional revenue of 0.2 percent of GDP. Lastly, the favorable economic developments are expected to generate additional revenue of about 0.3 percent of GDP, and additional expenditure savings of about 0.15 percent of GDP.

The authorities believe that it is premature to assess the revenue impacts, if any, potentially stemming from the EU and OECD standard settings on tax transparency. With most rules still evolving, the various initiatives have not yet translated into specific risks to the revenue base that would warrant a policy response. The authorities are closely monitoring developments in the EU and OECD in order to make the necessary adjustments to be fully compliant with the international standards. The authorities remain committed to sound fiscal policies. Therefore, in addition to the recent expenditure review, a *tax policy review* will take place in 2015-2016. The authorities' objective is to review the structure, composition and economic rationale behind several taxes while preserving the current level of fiscal revenue.

The debt-to-GDP ratio is at 23 percent in 2014 - entirely denominated in euro - well below the 60 percent level of the Maastricht criteria. Also, taking government assets into account the public sector is even a net creditor. In order to diversify the public debt structure and to further develop Islamic finance in Luxembourg, the authorities have successfully issued the first euro-denominated Sukuk in October 2014. The public debt is projected to remain around 24 percent of GDP over the period 2015-2019, demonstrating the authorities' commitment to keep the public debt below 30 percent of GDP.

A law establishing a multi-year budgetary framework was adopted in 2014 and has already been implemented for the 2015 Budget. The framework applies to all levels of government and includes multi-year expenditure ceilings for the central government - consistent with the new EU requirements under the legislative "six-pack" and the Fiscal Compact. Furthermore, an independent *Fiscal council* has been set up. The council is provided with sufficient resources and expertise in order to perform its mandate as defined under the relevant law, and is expected to be fully operational for the 2016 budgetary process.

The authorities are aware of the importance of putting the public finances on a sound footing in the long-term and have already introduced several initiatives, namely: health care reform (since 2011), pension reform (since 2013) and consolidation measures following the expenditure review (since 2015). They concur with the staff's view about the need to place the old-age pension system on a sustainable path and that the pension system still suffers from some costly rigidities. Therefore, deeper pension reforms remain necessary. Under the 2013 pension regime, the authorities have an opportunity to appraise, using actuarial studies, every 5 years, the consistency between the assumptions underlying the reform and the updated financial trajectory of the scheme. Given the importance of this expenditure item and the need for its further reform, the authorities have decided to advance the review by 1 year. In this context, the authorities agreed with staff that the long-term population projections by Eurostat, assuming large net immigration, should be viewed with some caution.

Financial sector

Luxembourg's financial sector, a financial hub within the euro area that serves private and institutional investors from all over the world, remains resilient and sound. Staff rightly notes that significant regulatory changes at the European and international level represent challenges. The authorities are closely monitoring the regulatory changes under way and stand ready to take the necessary measures with a view towards consolidating and strengthening the competitiveness of the financial sector in the long run. The continued efforts of the Luxembourg authorities to diversify the forward-looking financial sector across business activities, investment destinations and customer bases will also in the future contribute to financial stability, growth and job creation.

Banking sector. The aggregate banking sector balance sheet has contracted with the financial crisis. However, it stabilized in 2013-2014, reflecting an increase of asset values but also some new inflows. The capitalization and liquidity ratios are sound, and the non performing loans (NPLs) are very low. The banking sector continues to be profitable and remains an important liquidity provider. The ECB's Comprehensive Assessment did not identify any capital shortfall in Luxembourg banks and showed that the six Luxembourg credit institutions which underwent the Comprehensive Assessment, are robust, reliable and sustainable. The authorities believe that the European banking union will be especially positive for Luxembourg - a view supported by staff - as the more integrated prudential oversight under the Single Supervisory Mechanism (SSM) will eliminate eventual 'blind spots' for the national supervisors. In this regard, the authorities are committed to reinvigorate the country's tradition of prompt implementation of EU financial services directives.

The investment fund industry remains an important component of the financial system, and it continues to growth rapidly. The industry has benefited from favorable financial markets and has increased the amount of assets under management, also thanks to new inflows. It continues to invest in a diversified class of assets and caters to a diverse pool of investors.

Regulatory issues. The authorities have continued to make substantial progress with strengthening financial sector supervision. They have further enhanced on-site supervisions and increased significantly the staffing resources of the supervisory authority (CSSF). Similarly, the Banque centrale du Luxembourg (BCL) has expanded and reinforced its supervisory activities. The BCL will also provide the Secretariat for the recently formed national *Systemic Risk Committee*. Lastly, the authorities committed to progressively increase the capital base of the BCL starting this year.

The *Systemic Risk Committee* (SRC), involving the banking, market and insurance supervisors, the BCL and the Ministry of Finance - established by law on April 1, 2015 - will further strengthen the collaboration and exchange of information. The SRC will improve financial sector oversight by, among other duties, closely monitoring the links between the banks and the fund industry as well as the developments in the housing market. The authorities took note of staff's recommendation that the Committee's duties should include the identification of regulatory gaps and impediments to effective policy action.

Lastly, the authorities are looking forward to undertake the Financial Stability Assessment (FSA) exercise scheduled for 2016. This exercise should help strengthen Luxembourg's financial model further, which has proven to be resilient in the recent global crisis.

Other issues

Tax transparency. The authorities underline their strong commitment to engaging fully in the EU and OECD standard settings on tax transparency. This commitment has been supported by several recent actions by the authorities, namely: an introduction of automatic exchange of information on interest payments under the EU Savings Directive (since January 1, 2015), an extension of this automatic exchange to other sources of income as well as account balances (starting in 2017), and an implementation of the OECD Standard for Automatic Exchange of Financial Account Information in Tax Matters (by 2017).

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 play a role, such as: high demand from residents and cross-border workers; relatively high population and immigration growth; government policies on housing benefits; and low mortgage interest rates. On the supply side, administrative constraints and low recurring taxes on real estate property seem to be the restraining factors. In the recent expenditure review, the authorities introduced changes to some policies regarding housing that are expected to reduce somewhat the demand. Also, the SRC is expected to monitor high domestic residential real estate exposure of domestically-oriented banks, which is important for financial stability. The Committee will be in a position to recommend additional macro-prudential measures should financial stability become in peril.

Remark

The authorities regret that some of their concerns expressed during various meetings with the staff about the selected issues report were not taken into account. In particular, they believe that the issue of the holdings' regulation and supervision should rather be dealt with in a different report (e.g. the IMF euro area staff report) instead of in the Luxembourg selected issues report, as it mainly highlights potential shortcomings in the EU legislation. These shortcomings need further consideration at the EU level, and cannot be solved unilaterally by the Luxembourg authorities. Preserving a level playing field in financial markets at the European level is a priority for the authorities.