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1 Executive Summary

The reporting period was largely characterised by long debates on an appropriate *pension reform* in order to better link active working life to longevity and to ensure equity of the disposable income of the economically active population and the pensioners. A bill was finally deposited at the Chamber of Deputies by the end of January 2012.

The proposed change of the pension formula is considered a soft measure to increase the retirement age. It remains up to each person (and, admittedly, his/her job opportunities) either to accept the reduction or to prolong the working career by at least three years in order to end up with the same level of pension as today with 40 eligible pension years. Otherwise, the reduction will amount to 15% of the current pension level, but the full effects will only be experienced by those who enter the labour market by 2013.

Unfortunately, the reform leaves aside the many opportunities to contribute a more important role to the highly underdeveloped second and third pension tiers. It would have been a good opportunity, for instance, to widen the well-accepted but unfortunately only inconsistently implemented second tier to all employment sectors, including public services and the self-employed. Such systemic change could have gradually replaced the public pension benefits at their outer edge with a newly defined second pension pillar. At least a study on a new national provident fund is under way, which aims at analysing the access to a second tier pension scheme for those population groups for which no such offer yet exists (civil servants, self-employed).

The implementation of the *health reform* of 2010 mainly involves filling in the many details left open by the new health law, as this determined only the principal structural modifications of the system. As the economic pressure on the budget of the national health insurance was released by a quick economic recovery and the effectiveness of immediate financial measures, the zest for action seems to have lessened. However, in order to face the challenges ahead, such as demographic change and costly technology, further measures are needed to render the system sustainable. Thus, in future, incentives other than financial ones will have to be found to ensure the participation of all actors when restructuring the system in order to face the challenges ahead.

The path which has now been chosen aims at bringing the utmost transparency into the system. The government has made a wise decision by starting the reconstruction of the health care system with this reform with an improved medical documentation system in its centre and some partial corrections of the structure of the existing system at the periphery. In this respect, valuable data on the system's performance will, at a later stage, allow for a sound efficiency analysis, the identification of aspects that prove problematic, and the projection of various scenarios for their improvement.

The *long-term care insurance*, implemented as of 1999 as the youngest branch of the social security system, turned out to be a true blessing for elderly and dependent people as well as for a large number of caregivers. Today, expenditures are rising primarily because of the growing number of beneficiaries and the constantly expanding range of care and services. Trends in long-term care, however, are very much influenced by demographic, behavioural and technical challenges, for which the sharp increase of expenditure is only one indicator, but a very strong one. As a logical consequence, the long-term care insurance and its financial model needs to be thoroughly evaluated and revised. Such a reform is envisaged for 2013, and it remains to be seen what strategies the government will adopt.

2 Current Status, Reforms and the Political and Scientific Discourse during the previous Year (2011 until February 2012)

2.1 Overarching developments

As regards social protection, Luxembourg is characterised by a period of transition. From the beginning of the financial crisis it became obvious that partial corrections of the structure of the existing pension, health and long-term care systems are absolutely vital.

Introduced by the law of 17 December 2010, the health care sector marked the beginning of this restructuring process. Aiming at better quality of health and flow of precise and valid health information, the year 2011 was characterised by preparing the effective implementation of the law, by maintaining a close and trustworthy collaboration with the major stakeholders concerned. Austerity measures, for instance, were designed in a way that the burden had to be shared. The physicians and laboratories had to accept a moratorium as regards the regular mark-up of their tariffs, for hospital care the annual increase of expenditure was determined to a maximum of 3%, and patients were charged with a moderate increase in contributions and co-payments. System innovations and new tools, such as a new function of the family doctor in the form of a (soft) gatekeeper function or the selection of an appropriate national classification for health interventions, as well as the specification of its implementation, were determined in close consultation with the providers. It resulted in one postponed decision or another, but bears the chance of being gainful in the long run.

For the pension reform process that was continuously subject to heavy controversial debate since the announcement of a first immature reform concept in 2010, an important milestone was celebrated by the end of January 2012. The Minister of Social Security not only deposited the pension reform bill at the Chamber of Deputies, but in parallel, a law on the moderate adjustment of the automatic price-index was passed, which postponed the next index tranche, usually due in March 2012, to October 2012, and introduced a minimum space before any subsequent adjustment. In particular the latter provides for a necessary semblance of calm and continuity for the index debate and allows the partners, contrary to previous attempts, to concentrate the debate on the core measures of the reform concept.

They consist of a moderate adjustment of the pension formula, which foresees a lower replacement rate after 40 years of contribution, but gives room for amplification if the economically active person decides to remain in the labour market until 65. As a cornerstone of the reform bill, the future value of certain parameters will be made conditional on the wealth of the pension fund. Once the balance of current revenues and expenditures turns negative, a scenario that is expected as of 2022, the wage index will be reduced by at least half of the wage increase, the end-of-life allowance will be abolished and, in addition, the contribution rate can be raised with a maximum binding period of 5 years.

In addition to the pension reform, the government negotiated with the employers' association to increase the public subsidies for further education measures from 14.5% to 25% of the expenses per training with the intention that, in return, the employers will keep employees in the workforce for longer.

Apart from the decided harmonisation of the rate of state contributions to both health and long-term care insurance, the latter was not subject to any major reform. Already confronted with substantial cost increases, such reform will not be long in coming. Preparations are under way.

2.2 Pensions

2.2.1 The system's characteristics and reforms

The public pension system in Luxembourg is divided into a general scheme for private sector employees and the self-employed as well as a special scheme for civil servants and other public sector employees. Both systems are organised as pay-as-you-go (PAYG) systems and, together, cover the whole of economically active society on a mandatory basis. The civil servants' scheme, despite being harmonised with the general scheme as regards contributions and determination of benefits, is still kept separate.

Pension benefits are provided to the insured based on the length and accumulated amount of lifetime contributions. In addition the system grants survivors' and invalidity benefits.

The financial model of the public system is based on a contribution rate, which is always fixed for a period of seven years, a government participation of one third of the individual pension contribution, and a reserve fund for compensation. The contributions are paid in equal shares of 8% of gross salary by employers, employees and the state. Over the last decades, Luxembourg has enjoyed a period of continuous economic growth, which, along with a relatively young population based on a large influx of cross-border workers, has built a very solid economic basis for the pension fund. By the end of 2010 the pension system was able to accumulate a large reserve of 3.8 times yearly expenditure, which equalled 27% of GDP[1].

The old-age pension formula is composed of three major shares that are paid all together in one-twelfth instalments:

- A lump sum of 23.5% of the minimum income for up to 40 years of an insurance career as well as an end-of-year allowance of EUR 1.67 per year (at index 100), both taking into account the periods of contributions and recognised non-contributable pension periods (studies, child-raising, etc). Under the current index level (as of 1 January 2012), the lump sum element (for 40 pension years) equates to EUR 423 + EUR 58 = EUR 481 per month.[2]
- An accrual rate of 1.85% of the sum of lifetime contributable wages and income;
- An additional increase of 0.01% of the accrual for each eligible pension year beyond the age of 55, on the one hand, and exceeding 38 eligible pension years, on the other (combined up to a total maximum of 2.05%).

Pension benefits are calculated on both length of contributions and the accumulated lifetime amount[3] and are linked to two indices, a consumer-price and a wage index. Price-linking becomes automatic as pensions directly follow increases in the consumer-price index. If the six-monthly cost-of-living index exceeds the index for the preceding period by 2.5%, an index-linked increase is made to pensions the following month. The last automatic adjustment of the price index became effective from 1 October 2011 (+2.5%). Wage indexation of pension benefits is done bi-annually by means of a specific law. Every two years the government proposes to the Chamber of Deputies an appropriate wage indexation that takes into account the financial resources of the pension scheme and the evolution of the average level of wages and income. The wage index, also called the adjustment factor, is added to the price-index, but calculated by a separate procedure.

1 IGSS 2011, 195; Statec 2011b, 19.
2 Social parameters, valuable as of 1 January 2012, www.mss.public.lu.
3 Accrued benefit rights also encompass periods of involuntary unemployment and temporary work-incapacity due to illness and accidents.

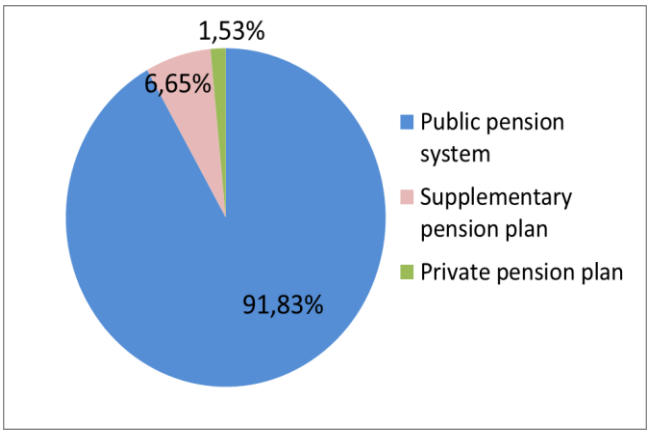
The public pension system guarantees a minimum pension at a level of 90% of minimum income in case of completion of 40 eligible pension years, or a proportion of that amount otherwise.[4] This minimum pension (of which the maximum amount equals EUR 1,621 in January 2012) is paid for an insurance career of at least 20 years, but then proportionally reduced by 1/40 for each missing year below 40. In 2010, the average gross pension amounted to EUR 1,974 per month for men and EUR 1,283 for women. These figures are somewhat misleading, as almost 50% of it represent partial pensions that are subject to international transfers according to European social security coordination under Regulation 883/2004/EC. In comparison, for the same year, the average gross pension of male residents was equal to EUR 3,102 per month [5].

In order to become eligible for a pension at the age of 65, a minimum of 10 contributable years have to be met. Early retirement is possible from the age of 60 by fulfilling a total of 40 pension or eligible years with a minimum of 10 mandatory insurance years. Under certain circumstances, a person can already qualify for early retirement from the age of 57 as soon as the professional career amounts to the minimum of 40 mandatory pension insurance years.

In periods of unemployment, the benefits are subject to pension contributions, of which two thirds are paid by the state and one third by the beneficiary. The unemployment period is included in the qualifying periods. Baby-years are also credited as insured time, counting as qualifying period, with two years for one and four years for four children. Pensionable earnings are based on pay immediately before the baby years. Employees who could not claim baby-years due to an insufficient contribution period have the right to a special monthly allowance in retirement, the so-called "Mammarent", of EUR 87 per child per year.[6] As of 2011, payment of the latter is postponed to the age of 65 and over (previously 60).[7]

The second and third pension tiers play an increasing but still marginal role in Luxembourg. Based on an estimated overall contributory amount of EUR 4,386 million in 2010 to all pension systems together[8], the public system alone represents 91.83 % of all pension investments, followed by the supplementary company-based pension plan with 6.65%. Almost exclusively, the latter are provided by group insurance policies. Direct pension commitments and pension funds play only a marginal role.

Figure 1: Annual contributions in 2010 to the different tiers



Private insurance-based plans, as the third pension tier, enjoy a constant increase (9% in 2010), but with a total of 1.53% of all annual pension contributions, they still remain insignificant. [9]

4 Art. 223 of the Social Security Code (CSS).
5 IGSS 2011, 185-186.
6 Social parameters, valuable as of 1st January 2012, www.mss.public.lu.
7 Law of 16 December 2010, Memorial A236, 3909.
8 IGSS 2011, 193; Commissariat aux Assurances, 2011, 101; own calculation. The public system includes both the general public pension system and the special civil servant scheme. As any information for the second tier is only available for 2003, the increase in contributions between 2003 and 2009 has been set equivalent to the increase in the number of supplementary pension plans, a method that is also used by Wictor 2009.
9 Wictor 2009, 8. Commissariat aux Assurances, 2011, 101.

2.2.2 Debates and political discourse

During the first wave of the international financial and economic crisis, Luxembourg's long-lasting period of considerable economic expansion came to an end. Since then, continuous debates on necessary austerity measures to keep both the pension system and the public budget in balance have dominated political affairs.

In July 2009, right from the start of the legislative period, the current government announced the development of a strategy for a pension reform guided by principles of linking active working life to longevity, ensuring equity of disposable income between the working population and pensioners, guaranteeing an adequate level of pensions and avoiding poverty among pension beneficiaries.[10] Among the parties on the relevant stakeholders' committee, composed of representatives of government, employers organisations and trade unions, which meet bi-annually at so-called "Tripartite" meetings, there was a strong commitment to the need to raise the effective retirement age and overcome drawbacks related to work incapacity and professional reintegration measures. A first reform proposal was presented in spring 2010, which proposed limitations on the level of wage- and price-related indexations of pensions and the implementation of sanctions or bonuses for early or late retirement.[11] It was part of a huge package of planned austerity measures, which projected possible savings of EUR 7 million for the social budget from the pension adjustments alone.[12] However, the non-conciliatory extreme positions brought forward by the employers' and employees' organisations, which revolved around the question of whether or not these cuts were necessary to maintain the country's competitiveness, caused a substantial crisis in the government coalition.

One year later, on March 17, 2011, the government again put forward a new pension reform proposal, which after another year of negotiations with the social partners, resulted in the creation of a draft bill on pension reform, which was deposited on 31 January 2012 at the Chamber of Deputies[13].

The concept lays its main emphasis on a moderate adjustment of the pension formula, which foresees a lower replacement rate after 40 years of contribution, but gives room for amplification if the economically active person decides to remain in the labour market until 65. The proposal, however, keeps the current configuration of benefits unchanged. Its macro-economic assumptions are built on an underlying demographic and financial model with continuing constant annual 3% growth of the Luxembourg economy, workforce growth of 1.5%, productivity growth of 1.5% and net yield of the reserve fund of 3%.[14] Admittedly, these projections are much more cautious than the 2011 mid-term provisions until 2014, which portrayed an annual growth of GDP (+3.5%) and of workforce (+2%).[15]

A temporary remedy was found for the highly-controversial indexation policy[16], which in 2011 was once more subject to strong criticism by the International Monetary Fund (IMF)[17]. By means of a particular law, the calculated wage increase for 2011 (+1.9%) was staggered over two years, and was thus awarded at +0.95% from the beginning of the years 2011 and 2012

[10] Government of the Grand-Duchy of Luxembourg, July 2009, 122-125.
[11] http://www.mf.public.lu/actualites/2010/04/frieden_tripartite_130410/index.html (retrieved on 5 Jan 2012).
[12] Schronen and Urbé 2011, 21.
[13] Government of the Grand-Duchy of Luxembourg 2012.
[14] Government of the Grand-Duchy of Luxembourg 2012, 31 and 37
[15] MF 2011, 6; Statec 2011a, 7.
[16] Chambre des Salaries 2011, 17-39.
[17] IMF 2011, 14; IMF 2011b, 3. The IMF described the wage indexation as backward looking and recommended limiting the pension benefit indexation to no more than cost of living adjustments.

respectively.[18] Finally, the law of 31 January 2012[19] temporarily modified the price index mechanisms for the period until 2014. It stipulates postponement of the next index adjustment to 1 October 2012 (which under constant legislation would have been due as of March 2012) and to introduce a minimum space of 12 months before any subsequent adjustment. After that period, the automatic price-index mechanism will be re-established, without, however, compensating for any loss of intermediate adjustments that might result from these temporary measures.

As a cornerstone of the reform bill, the future value of certain parameters will be made conditional on the wealth of the pension fund. Once the balance of current revenues and expenditures turns negative, a scenario that is expected as of 2022, the wage index will be reduced by at least half of the wage increase, the end-of-life allowance will be abolished and, in addition, the contribution rate can be raised with a maximum binding period of 5 years.[20] Some of these instruments were inspired by some concrete reform proposals that the Union of Employers (UEL) presented in June 2011.[21] A so-called sustainability coefficient as proposed by Kieffer (2011)[22] was not upheld in its original disposition. The idea, however, remains clearly recognisable.

Other reform issues, equally largely parametric, are as follows: [23]

The lump-sum element of the annual pension, based on a percentage of the minimum income, should be increased from 23.5 to 26%. Together with a (for the time being) unchanged end-of-year allowance it will lead to a nominal increase of EUR 45 (from EUR 481 to 526)[24] at current prices and will thus be particularly beneficial for low-income earners.

In contrast, the pro-rata enhancement as a percentage of the sum of lifetime contributable wages is supposed to be lowered from 1.85% to (ultimately) 1.6%. This measure will lower the replacement rate (limited to this factor) after 40 contributable years from 75 to 65%.

Further, this reduction can optionally be compensated through additional pro-rata points for prolongation of a fictive 100 age points, composed of the sum of employment above both 60 years of age and 40 years of eligible pension years, of which each additional age point (age plus pension year) will bring 0.05 percentage points (from currently 0.02 for each age point above 93 (sum of years above 55 years of age and 38 eligible pension years).

Eligibility criteria will largely remain unchanged (minimum pension at a level of 90% of minimum income in case of completion of 40 years, and minimum condition for early retirement from the age of 57). However, supplementary (self-) employment during retirement will be simplified. In the future, only those additional revenues above the previous annual average salary will result in partial benefit cuts. Finally, the number of years spent studying, which will count as non-contributory complementary pension years, is proposed to be lowered from currently 9 to a maximum of 7.

The proposed change of the pension formula is considered a soft measure to increase the retirement age. It remains up to each person (and, admittedly, his/her job opportunities) either to accept the reduction or to prolong the working career by at least three years in order to end up with the same level of pension as today with 40 eligible pension years. Otherwise, the

[18] Law of 17 December 2010, Memorial A236, 3911.
[19] Law of 31 January 2012, Memorial A16, 224.
[20] Government of the Grand-Duchy of Luxembourg 2012, 42-51.
[21] UEL 2011a.
[22] Kieffer 2011, 23-24.
[23] Government of the Grand-Duchy of Luxembourg 2012, 42-52.
[24] See section 2.2.1 of this report.

reduction will amount to 15% of the current pension level, but the full effects will only be experienced by those who enter the labour market by 2013.

On the second and third pension tiers, there is ample room for measures aiming at the enhancement of private pension plans to increase pension income. A study on a new national provident fund is under way, which aims at analysing the access to a second tier pension scheme for those population groups for which no such offer yet exists (civil servants, self-employed).[25]

2.2.3 Impact of EU social policies on the national level

The latest National Reform Programme under Europe 2020 dates back to April 2011. Therein, the Government professes to the necessity of a pension reform in order to face the consequences of an ageing population. The document explains the reform proposal elaborated at that time in notable detail.[26] To data, the currently discussed proposal for a pension reform[27] is still built on many recommendations expressed by the Europe 2020 strategy regarding the reform of pension systems as well as the EU Green Paper on pensions (ensure financial adequacy, implement social and financial incentives to work longer, expand complementary private saving schemes).[28] It remains relatively moderate, however, and lags behind earlier reform scenarios. Therefore, it is little surprise that the Council recommendations of 12 July 2011[29] still list a broad pension reform among the four recommendations for Luxembourg. They also include required adjustments to the generous wage indexation mechanisms, which over the period 2000-2010 had a strong impact on the significantly higher comparative increases in unit labour costs (1.5 times the average in the EU-15 and 5 times above Germany). By Law of 31 January 2011, a temporary deceleration of the latter until 2014 was implemented, already explained in greater detail in the previous chapter.

The European Commission's Annual Growth Survey for 2012[30] is the second of its type. In contrast to the first one of January 2011, which focussed on determining the priority areas and their proposed main actions, the current one lays the foundation for a common understanding about the priorities for action at national and EU level. Emphasis on pension reforms is laid within three of the five elaborated priority areas (No.1 "Pursuing differentiated growth-friendly fiscal consolidation" and No. 4 "Tackling unemployment and the social consequences of the crisis"). In addition, they are specially mentioned in volumes 3 (macro-economic report) and 4 (draft joint employment report) to the Annual Growth Survey 2012.

These documents and the above mentioned Council recommendations of 12 July 2011 consistently emphasise the necessary alignment of the effective retirement age to increasing life expectancy and the stimulation of second and third-tier supplementary pension schemes[31]. In this regard, the apparently well-balanced reform proposal deviates considerably from the European recommendations. The purely voluntarily induced postponement of the retirement age, based on both an individual decision of the economic (still moderately) negative impact of early retirement and the corresponding labour opportunities in old-age, calls the effectiveness of this measure into question. In addition, regulatory measures and stimuli for a general employer-based secondary pension pillar are totally missing.

[25] Source: IGSS
[26] Government of the Grand-Duchy of Luxembourg 2011, 12-15.
[27] Government of the Grand-Duchy of Luxembourg 2012.
[28] European Commission 2011, 6.
[29] Council of the EU 2011.
[30] European Commission 2011a
[31] European Commission 2011a, Vol.1, 4-5,11; Vol.3, 11: Vol. 4, 5.

The European Council of February 7, 2011, at which France and Germany undertook advocacy efforts for a "Pact of Competition", brought Luxembourg under pressure as regards its pension indexation aiming at a decent (minimum) pension level at old age. The Council also ascertained the EU 2020 strategy's plea for social inclusion as another measure to imbalance the equilibrium between social and economic policy in favour of the latter. Reduced to a single focus on social inclusion and poverty reduction, it has to be proven that the EU 2020 still considers the merits of social protection as a solution for keeping Europe as a confederation of welfare states rather than its degeneration into a hotbed of obstacles.[32] Here, the Luxembourg pension reform still defends a today unpopular counterexample that aims at counterbalancing the abolition of social values against economic gains. Here, the different Luxembourg approach constitutes the maintenance of an enriched European debate on how to best tackle the challenges of both the crises and the ageing population.

With an employment rate of 39.8% in 2009[33], Luxembourg is among the countries that largely missed the 2010 Lisbon employment target of at least 50% of persons aged 55-64. Given the fact that this emerged from a level of only 25.6% in 2001 and was backed by several policy measures to promote further training and part-time employment for older workers, the results appears much less unsatisfactory.[34] Also, older female nationals show an employment rate of 38.5% (2009)[35], which according to projections by STATEC is expected to reach 47% in 2040.[36]

Therefore, in addition to the pension reform, the government negotiated with the employers' association Union of the Luxembourg Enterprises (UEL) to increase the public subsidies for further education measures by EUR 20 million to EUR 200 million (from 14.5% to 25% of the expenses per training) and clearly expects that, in return, the employers will keep employees in the workforce for longer.[37] Well implemented, this measure exactly corresponds to the proposals of the Europe flagship initiative for new skills and jobs as well as the priority for tackling unemployment and the social consequences of the crisis as expressed by the Annual Growth Survey 2012[38]. At national level, it is backed by a handbook on the valuation of the elderly within enterprises, realised by the Union of Luxembourg Enterprises (UEL) in collaboration with the Institute Universitaire Internationale Luxembourg (IUIL), the Personal Officers Group (POR) and the trade-union-affiliated Centre Jean-Baptiste Rock (CJBR).[39]

2.2.4 Impact assessment

In 2010, the pension system showed a gross replacement rate of 87% for an average-earner retiring after a 40-year contribution period, which places Luxembourg together with Iceland, Greece and the Netherlands at the top end of all EU countries[40] at a significant distance from the neighbouring countries France (49%), Germany and Belgium (both 42%). By including the voluntary private pension strands, the two latter reach 59% and 58% respectively. In addition, the OECD (2011) underscores the huge gap between the effective and official retirement age (65 years). It shows Luxembourg, with a men's effective retirement age of 57.3 years, at the

32 Schronen and Urbé 2011, 287.
33 Statec 2011b, 32. Council of the EU (2011/C210/6).
34 Leduc 2010, 10.
35 Guastelli et al. 2010, 56.
36 Schronen and Urbé 2011, 282.
37 Schronen and Urbé 2011, 29. Prime Minister's State of the Union speech on 6 April 2011.
38 European Commission 2011a, Vol. 1, 10-12, Vol. 2, 13-14.
39 IUIL, POR, CJBR, UEL 2010.
40 OECD 2011, 129-135.

bottom end of OECD countries.[41,42] Finally, the so-called "Gross pension wealth by earnings", a new OECD indicator, expresses the total amount of pensions received over the pension period in relation to the gross average annual income during the professional career. According to this indicator, a Luxembourg average-earner receives a total pension income of 21.2 times the average of his gross annual salary during the professional career. Comparisons with the EU27 average (10.2 times), France (9.3), Germany (7.7) and Belgium (6.8) require no further explanations.[43]

As good as the economic situation of the elderly in Luxembourg might sound, the drawback of this comfortable situation for today's elderly is that the long-term sustainability of the pension system is far from being secured. As of 2022, the combination of demographic and structural changes will bring the sustainability of the Luxembourg pension system into a really precarious situation. By then, the effects of labour-induced immigration and cross-border commuting will attain a high level of maturity. It will fall together with a significant increase in number of pensioners as well as the transfer of pensions outside Luxembourg, as the group of cross-border workers starts to retire en masse.[44] Thus, the balance of current revenues and expenses will also turn negative and as of 2029, the currently huge reserve is expected to fall below the minimum level of 1.5 times annual contributions.

Costs associated with the ageing of the population will also put pressure on the sustainability of public finances of the Grand Duchy of Luxembourg.[45] In case increased contributions are necessary, it remains questionable whether the government will be able to enlarge its already considerable financial participation proportionally. The ageing population will create not only a new burden for the pension system, but will also result in significant rises in expenditure for health and nursing care, both also depending on public co-funding. The weight of these expenditures in GDP is estimated to rise from 20% in the 2010 period to 38% in 2060.[46]

The Union of Employers (UEL), for instance, calculated the impact of a different than the assumed 3% annual growth rate of GDP on the wealth of the pension system. According to their projections under constant legislation, by 2050 the pension system will accumulate a deficit of 112% (for a 3.2% growth scenario of GDP), 120% (for a 3% scenario) and 223% (for a 2% scenario).[47] In order to tackle this danger, the document further outlined a number of concrete reform proposals, of which the significant reduction of wage-indexation, the increase in the pension age and the expansion of complementary pension systems under second and third pension tiers were given clear preference.[48] The Chamber of Employees (CSL), in contrast, defend the current indexation policy, which they consider as one but by far not the driving force for the comparatively high increase of services of 3.4% per year.[49]

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41 OECD 2011. http://dx.doi.org/10.1787/888932381836 Luxembourg (women): 58; OECD average: 63.9 (men) and 62.4 (women).

42 In contrast, life expectancy increased and evolved for women from 80.3 years in 2000 to 83.3 years in 2009 and for men from 74.6 to 78.1 years respectively. Thus, in only ten years, it climbed by 3 years for women and 3.5 years for men, which represents the highest increase in Europe (OECD Health Data 2011, Statec 2011, 96, Statec 2011c). Eurostat projections for 2060 anticipate a further increase of 5 years for both women and men (Eurostat EUROPOP 2008).

43 OECD 2011, 143.

44 Schronen and Urbé 2011, 282.

45 The Council of the European Union in its Opinion on the updated Stability Programme for Luxembourg has pointed to the danger for the public finances in view of the long-term budgetary impact of ageing, against which no measure has been taken so far (Council of the European Union, 7329/09, point 8), MF 2011, 21-23.

46 MF 2011– 12th Update of the Luxembourg Stability and Growth Programme, 21.

47 UEL 2011a, 23-35.

48 UEL 2011a, 40-50.

49 Chambre des Salaries 2011, 17-35.

Already today, Luxembourg is experiencing a tremendous increase in elderly residents (41% between 1980 and 2010 for the group aged 65 and above, and 85% for those aged 75+ during the same period). In comparison to other countries, however, the total share of the elderly (65+), at 14% in 2010, still remains below that of the neighbouring countries (Belgium 17.2%, Germany 20.7%).[50]

The crisis negatively affected the Luxembourg labour market and turned the average annual employment growth of above 3% into stagnation. A study conducted by Brosius (2011) analyses fluctuation of the labour force in the Luxembourgish employment market between 2007 and July 2010. It surprisingly revealed that since 2009, the proportion of workers who lost or changed their jobs was even lower than in the period before the crisis. An increasing loss of jobs was only observed in the first half of 2009, and affected the industrial and construction sector at most, whereas the significant reduction in the change of jobs is mainly responsible for the obtained results.[51] Temporary large-scale short-time working schemes were successfully implemented, which compensated employers for the wages paid to their employees for pre-defined non-performing working-hours of their contractual working time. This labour market study comes to the conclusion that in the aftermath of the crisis, the stagnation of the Luxembourg labour market was clearly caused by the reduction in recruitments, which affected people below 35 years of age, and was more prominent in the financial and service sector.[52] Since 2009, unemployment has fluctuated around a rate of 6%. In December 2011, it reached a level of 6.6%, which (seasonally-adjusted) represents 6.2%.[53]

Considering early retirement pensions before the age of 65, studies reveal that almost 90% of men and women are early retirees. In 2009, the employment rate of workers aged 55-64 years at only 38% was at the bottom end of the EU.[54] 50% of men were already out of employment at the age of 58, whereas for women this held true only at the age of 60.[55] The fact that 35% of manual workers but only 10% of highly qualified employees take early retirement demonstrates the impact of education on the ability to build up sufficient contributable periods to qualify for an early labour market exit before the age of 60.

Several incentives aimed at the voluntary extension of professional careers, which were introduced by the 2002 pension reform, have not shown the expected results.[56] The incentive of additional pro-rata points of 0.01% of the accrual rate for every year between the age of 55 and the final age of retirement is not of sufficient economic interest to stimulate postponement of the exit from employment after full pension rights have been accumulated. Similarly, as additional earnings during early retirement lead to implicit taxation, such as direct reduction of the pension (or its suspension for the self-employed) as soon as they exceed one third of the minimum wage, (which currently equals EUR 600 per month) a minority only uses the measure. In 2009, around 10% of the pensioners below 65 received an income from an additional job.[57] Changes to the additional pro-rata points are subject to the current reform

[50] Zahlen 2011, 1.
[51] Brosius 2011, 4.
[52] Brosius 2011, 18.
[53] http://www.statistiques.public.lu/stat/TableViewer/tableView.aspx?ReportId=1146&IF_Language=fra
[54] UEL 2011, 9.
[55] Genevois 2009, 1.
[56] Beneficiaries of an early retirement pension may continue to engage in a salaried or non-salaried activity as long as the income earned over one calendar year does not exceed one third of the minimum wage. Otherwise, the additional income will reduce the pension according to the anti-cumulation provision of Article 226 CSS. In contrast, revenues of an independent or self-employed activity above the threshold will be deducted from the pension in full (Art. 184 CSS).
[57] Luxemburger Wort 2011a.

proposal presented in the previous section. Concerning the additional income of pensioners, the relinquishment of any upper limit and thus the sanctions for paid economic activities beyond pension age are also under discussion.

The privately managed pension system differentiates between a supplementary pension scheme (second tier), established by private undertakings for a certain category of employees, and private pension plans (third tier) offered on an individual basis by financial institutions.

The legal framework of the law of 8 June 1999 puts the various company-based supplementary pension regimes on an equal footing with regard to internal and external financing and tax provisions. It also stipulates the rights of entitled claimants. The individual employment contract needs to specify the nature of the entitlements (retirement, death, survival or invalidity). Companies are obliged to be covered by insolvency insurance or a pension security fund in order to guarantee the vested rights of the pension fund members. Contributions for supplementary pension benefits stem from taxed income, and hence pensions are not subject to taxation. Personal contributions by the employee, if any, are deductible up to an annual amount of EUR 1,200.

Private pension plans are offered as financial products to individuals. They are governed by Art. 111bis of the Income Tax Law of 11 December 2002 and the Grand-Ducal regulation of 25 July 2002. They enable everyone to take out complementary pension provision to supplement the state pension system, and allow tax deduction on an amount of income between EUR 1,500 und EUR 3,200 per year depending on the age of the policy holder. Benefits are paid from the age of 60 at the earliest. The beneficiary can opt to receive up to a 50% share of the accumulated savings as a lump-sum capital payment. The remaining part is paid in the form of an annuity. 50% of both capital and annuity benefits are taxable at the time of their receipt. The tax concessions offered for private pension plans are by far the major incentive to join, and thus to supplement the public pension. However, the public system is neither subject to any restrictions nor has it declined in efficiency; privately managed pensions have neither become very popular nor are they considered financially substantial.

Unfortunately, these complementary private savings of second and third tiers still play a marginal role in the Luxembourg landscape of pensions, which in 2010 made up roughly 6,7% (company-based supplementary pension plans) and 1.5% (private pension plans)[58] of the total contributions. Thus, there is ample room for measures aiming at the enhancement of private pension plans to increase pension income.

Property ownership is another form of private saving for old age and contributes greatly to social cohesion. In Luxembourg, a large percentage of people are private property-owners. Studies revealed that the risk of descending into poverty (threshold: 60% below average disposable income) related to housing is estimated to be more than three times higher for citizens living in rented properties (29.4% in 2009) compared to those living in their own property (70.1%). For the particular group aged 65+ the shares are 16% and 84% respectively.[59]

2.2.5 Critical assessment of reforms, discussions and research carried out

The Luxembourg bill on pension reform with its relatively moderate measures to voluntarily increase the retirement age by three years in order to safeguard, for the individual, the same pension level compared to the existing pension formula, absolutely perpetuates the

[58] IGSS 2011, 193. Commissariat aux Assurances 2011, 101.
[59] Zahlen 2011, 2.

configuration of the well-established system. Furthermore, the maintenance of the generous minimum pension provisions underpins the continuous value of both inter-generational and cross-generational solidarity.

In spite of this, it has to be assessed whether the ingredients of the reform proposal can prove to intend more than just some cosmetic measures to the status quo. In its explanatory memorandum, the Government impressively outlines the financial impact that the pension reform will bring across. The proposed reform measures and, in particular, the reduction and potential (temporary) abolition of the wage index as of 2022 will reduce the burden for future contributors by scaling down the dramatic increase in the pure redistribution rate from 21% in 2011 to an estimated rate of 43% in 2060, under current legislation, to 35% or 31% respectively by that time.[60] In the same regard, it will help to keep the supplementary public budget participation to the pension system under better control. Instead of more than 6% of GDP in 2060, the public budget will by then still be challenged, but with a financial burden that is lower by at least one percentage point of GDP.

Further challenges as regards the comparatively high replacement rate are only very cautiously addressed. The moderate reduction of the accrual rate is only implemented on a voluntary basis and can fully be compensated by postponement of the retirement age by three years. The reduction will, at least for the better-off, only have narrow-reaching financial consequences and its use is likely to be influenced much more by future labour market opportunities for the elderly than by economic reasons.

With regard to the risk of impoverishment, Luxembourg pensioners are in a very favourable situation. In 2009, the at-risk-of-poverty rate for the population of 65+, at only 6%, was on the EU baseline and nearly two thirds below the EU 27 average (17.8%). They only show minor deviation from the prospects for 2010 (Luxembourg 5.9% vs. EU27 15.9%). For the population of 75+ the situation is quite similar (Lux 5.3 vs. EU27 20% in 2009). The situation is surprising in that the risk of impoverishment for the elderly is less than 40% as high as the average for the country's population below 65 (15.8% in 2010). Equally contrary to the general development in Luxembourg, the risk of poverty among the elderly has even decreased since 2003.

This comfortable economic situation for the elderly may be explained by the following factors:

- Generous pension benefits, including minimum pensions, which grant at least 90% of the minimum salary for a full pension career.
- Compulsory membership of the social security system that avoids penalising the self-employed, people with interrupted careers and other insecurities.
- A guaranteed minimum income of monthly EUR 1,283 in 2012 and a yearly tax credit of EUR 300 equally apply to the elderly.
- Long-term care insurance grants generous long-term care benefits with almost no co-payments.
- The elderly spend a relative low share of disposable income on housing, as roughly 85% of the population aged 65 or over are owner-occupiers.[61]
- A particular situation of migration with a high share of non-national residents (43% in 2010)[62] does not apply to the elderly (only 15%). The fact that migrant workers have both shorter careers in Luxembourg and, on average, less income than the autochthonous resident

[60] Government of the Grand-Duchy of Luxembourg 2012, 52-53.
[61] Zahlen 2011, 2.
[62] Statec 2011

population, may lead to the assumption that those who return in old age to their home countries receive pensions below the average of the resident pensioner population.[63] This phenomenon further reduces the number at risk of poverty among the elderly.

However, a situation in which the younger and active population, already today, is faced with a much higher risk of poverty is alarming information itself. Indeed, the state is also obliged to respond adequately to the needs of other population groups apart from the elderly, such as the young, migrants, and single parents, but also to other human requirements, like satisfactory housing, transport and education.[64]

The individualisation of pension rights, as planned to be introduced by a draft legislation on divorce (No. 5155)[65], will bring an end to the fundamental inequality caused by non-sharing of acquired pension rights during marriage in the event of divorce. The bill proposes to re-define the notion of personal requirements with an equal share of the economic consequences of the divorce, including the acquired pension rights during the marriage, which is later supported equally by the State Council.[66] However, the bill, which was deposited for the first time in 2003, is still subject to continuous discussion. The last debate by judicial commission of the Chamber of Deputies took place on 25 January 2012.[67] The fact that by 2008 one third of the couples who married during the 1980s were divorced[68] and that the average rate of divorce between 2000 and 2010 reached a level of 54%[69], underpins the necessity of the measure, but calls into question the extremely long duration of processing, to the detriment of the predominantly female population concerned.

Overall, the current reform proposal is to be seen as an important first step towards breaking with the almost fossilised social rights of the former and past economically active population. The really long and difficult path to initiate this reform, with obstacles and resistance along the way, explains why a number of the previously further-reaching issues, had to be left behind, at least for the time being. Therefore, it is highly unlikely that the reform, once adopted, will prove sufficient to avert the future financial risks of the pension scheme. The underlying assumption of continuous 3% economic growth, for instance, appears very optimistic. More recent forecasts of the national statistical office have downsized the 2012 growth projections to about 1.5%.[70] Therefore, subsequent reforms are most likely to follow.

Although the bill includes interesting proposals to expand the possibilities and set incentives for supplementary limited employment during pension age, it totally omits to set directives for a mandatory increase of the effective exit age or, for instance, further provisions for pro-rata cuts in the pension amount in case of early retirement. The generous minimum pension provisions, as appreciable as they are for poverty alleviation in old-age, often grant replacement rates of up to 100% and beyond. In addition, roughly 20% of all pensioners even receive a supplement to the level of the minimum pension. Why should the full amount not be linked to pension entry at legal pension age? In the same direction, high income groups with presumably highly qualified skills should contribute to the Luxembourg economy for as long as possible.

63 Schronen and Urbé 2011, 282.
64 Schronen and Urbé 2011, 288.
65 http://www.chd.lu/wps/portal/public/RoleEtendu?action=doDocpaDetails&id=5155# (retrieved on 19.02.12).
66 MSS 2011, 30.
67 http://www.chd.lu/wps/portal/public/RoleEtendu?action=doDocpaDetails&id=5155# (retrieved on 19.02.12).
68 Bodson and Segura 2010, 13-16.
69 The indicator "rate of divorce" expresses the relation between divorces and marriages in one year. Luxembourg lies in the EU trend with 40% for EU-27 and 70% for Belgium at peak. (Statec 2011b, 21-22.
70 Statec 2011d, 2-3.

Here, early retirement before the legal retirement age could equally result in additional pro-rata cuts for exactly those parts of their pension rights which surpass the average earning level.

Furthermore, the reform leaves aside the many opportunities to contribute a more important role to the highly underdeveloped second and third pension tiers. It would have been a good opportunity, for instance, to widen the well-accepted but unfortunately only inconsistently implemented second tier to all employment sectors, including public services and the self-employed. Such systemic change could have gradually replaced the public pension benefits at their outer edge with a newly defined second pension pillar.

Finally, the reform proposal provides no comprehensible indication as to why the majority of the included rescue provisions require such a long prior notice and transitional period of 8 to sometimes 40 years before being (fully) implemented.

2.3 Health Care

2.3.1 The system's characteristics and reforms

Based on the principle of universal coverage, the Luxembourgish health care system offers a comprehensive package of health services to both residents and the working population. Contribution to the only public health insurance *Caisse nationale de santé* (CNS) is mandatory for all economically active persons (employed, self-employed or recipients of replacement benefits)[71] and further covers family members, as well as minor children and students who are not insured as such.

The contribution rate to the CNS currently amounts to 5.6%, which is equally split between employer and employee. Provisions include amongst others medical and dental treatment, hospitalisation, medicines, laboratory analyses and investigations, paramedical treatment, visual aids, dental, orthopaedic and other prostheses. Services are provided via the liberal exercise of the medical profession. Patients can freely choose their doctors, including direct access to specialists. All authorised health care providers must enter into collective contracting with the CNS, which allows them to charge patients according to the national fee schedule for medical acts, the so-called nomenclature.

As a rule, patients have to prepay their medical treatment and apply to the CNS for reimbursement; the costs of hospitalisation, medicines, laboratory analyses and test and surgeries are offered as a benefit in kind. The CNS reimburses about 90% of the costs of benefits and services agreed on in the nomenclature.[72] Hospital care is offered as a benefit in kind, with the exception of the doctor's bill, which, similarly to outpatient care, has to be pre-paid by the patients themselves. In 2008, the total sum of out-of-pocket expenditure on health amounted to 11.6 % of total expenditure on health.[73] Despite the large coverage of health care benefits by the public health insurance, more than half of the insured population (55.8%) opted for a complementary private health insurance in order to better cover the remaining costs not met by the sickness fund or in order to be eligible for certain first-class services in hospitals, like for instance a single room.[74] [75] The majority chose the *Caisse Médicaux-Chirurgicale*

[71] Recipients of replacement benefits refer to sickness, maternity and unemployment, invalidity, old age and survivors' pensions, guaranteed minimum wage etc.

[72] http://cns.lu/files/statuts/Stat201005.pdf (retrieved on 22 February 2012).

[73] OCDE 2011, 157. This figure refers to all out-of-pocket payments including the part of the health care bills not reimbursed by health insurance.

[74] OCDE 2011, 133. ; Feist 2011b; http://www.guichet.public.lu/de/citoyens/sante-social/affiliation-remboursement-soins/assurance-complementaire/mutuelle/index.html (retrieved on 22 February 2012).

Mutualiste (CMCM), the mutual health insurance association for supplementary health coverage. Since the beginning of 2012, the CMCM not only increased its contribution rates for a particular insurance package (by around 28% on average), but reduced the reimbursement rate for services and benefits at the same time. [76]

A component was added to the benefit package "prevention and health promotion": since 1 January 2012, women under the age of 25 are reimbursed 80% of the costs of contraceptives that do not necessitate a medical intervention.[77]

The ratio between insurance holders and the resident population is an interesting one. Firstly, about 5% of the resident population is not subject to the Luxembourgish social security system, because they work as civil servants for the European Union and are thus affiliated to the EU social security scheme. Secondly, only 69% of the population covered by the national health insurance is actually living in Luxembourg. The huge number of cross-border workers and their family members who have their legal residence in a neighbouring country but are affiliated to the Luxembourgish health insurance system following Regulation 883/2004/EC explains this phenomenon.[78] This ratio is beneficial to the social security system as it cushions the demographic trend.[79]

The state contributes substantially to the financing of the social security system in a direct manner. 40% of all benefits covered by the CNS are financed by the state.[80] Further, the hospital investment fund, set up for investments in hospital infrastructure and governed by the Ministry of Health, is supported by funds from the state (80%). These high investments, as well as the comprehensive benefit package, account for a public expenditure share of 84.2% of total health care expenditure in 2008, this being the highest in Europe. In 2009, 7.8% of GDP was spent on health care, which represents USD 4,808 PPP (in EUR: 3,449)[81] per insured persons.[82] Looking at the different fields of activity, data from the OECD reveals the following figures: 27% of total health care expenditure could be attributed to hospital care, 37% to ambulatory care and 20% to long-term care.[83] [84]

The health care reform of 2010 and various financial measures in the form of a stability pact agreed on by the government, social partners and health care providers at the Quadripartite

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75 Feist 2011b.

76 http://www.patientevertriedung.lu/mmp/online/website/menuvert/services/28/file___2773/pressemitteilung_cmcm.pdf (retrieved on 22 February 2012).

77 http://www.legilux.public.lu/leg/a/archives/2011/0275/a275.pdf (retrieved on 22 February 2012).

78 The covered non-resident population amounts to 214 154 persons in 2010 and further includes some pensioners (6665). IGSS 2011, 36-37.

79 http://www.isog.public.lu/gbe/owards.prc_show_pdf?p_id=10314&p_sprache=D (retrieved on 22 February 2012).

80 Art. 31 of the Social Security Code (CSS). For 2010, the state contribution amounted even to 41,5%, as following the law of 17 December 2010 on the reform of the health care system, a supplementary temporary compensation of EUR 20 million per year is granted to compensate the CNS for the surcharges related to the previously fully subsidized maternity benefits. This measure will expire end of 2013.

81 Based on an annual average exchange rate for 2009 of USD 1 = EUR 0.71736. www.neded.org/files/international/exchange.pdf.

82 OCDE 2011, 147-149.

83 Hospital care typically does not include the hospital doctors' fees due to some accounting rules.

84 OCDE 2011, 153 Attention has to be paid when comparing these numbers to those from different sources, as the numbers presented here include long-term care and others do not.

meeting[85] in October 2009 shall counteract the increasing costs of the health system, cushion the economic crisis help to better handle the challenges facing the health care system.

Measures of the stability pact made provision to reduce the minimum reserve of the national health insurance, which is usually set at a level of 10%[86], to 5.5% in 2010. The new health law protected this measure for the year 2011. From 2012 onwards, the level of the minimum reserve shall be increased in three steps to finally arrive at 10% again in 2015.[87]

Other financial measures set out by the health care reform were

- an increase in the contribution rate by 0.2% to currently 5.6%;
- slight rises of co-payments for doctor visits, hospital stays and drugs; freezing of the mark-ups of fee schedule tariffs (lettre-clés) for 2011 and 2012, which went hand in hand with tariff cuts for certain provisions, above all regarding laboratories;
- a maximum increase of 3% of the hospital budget envelope for 2011 and 2012[88];
- a standardisation of the state's budget contribution by means of a global subsidy of around 40% to all health care costs.[89]

The health care reform further entailed the following structural changes to the system:

- Priority to primary health care by introducing a non-mandatory "soft" gatekeeping system in form of a GP model.
- Improved documentation of medical activity by implementing a procedure classification system and an improved documentation of diagnoses in in-patient care by applying the ICD-10 coding at four digits.
- Parallel, a national eHealth platform shall improve the exchange of data and introduce an electronic global health file.
- Coherent planning and financing of hospitals by developing specialised centres of competence, promoting ambulatory surgery and introducing a unified analytical accounting system.

2.3.2 Debates and political discourse

The new health law only determined the principal structural modifications of the health system; the details had and still have to be specified by means of regulations. Thus, the debates in the past month mainly focused on the implementation of the health reform.

The global budget for hospital financing was one of the sensitive topics in the reporting period. The negotiation of budgets itself has been in place since 1993; the innovation concerns the globality of the budget which is now applicable for all hospitals in Luxembourg and its duration of two years. The first provisional global budget covers the years 2011 and 2012. Although the budget is distributed by the CNS, the Governing Council decides on the volume

[85] The Quadripartite is the most important extra-parliamentary biannual coordination mechanism between government, social partners (employers' and employees' organisations as well as representative bodies of the health care providers.
[86] Stipulated in Art. 28 of the Social security Code (CSS).
[87] IGSS 2011, 127.
[88] Excluding indexation.
[89] http://cns.lu/assures/?m=78-0-0&p=235 (retrieved on 22 February 2012).

of the budget. Fears have been expressed on behalf of the Chamber of Employees regarding a deterioration concerning the quality of treatment, as the global budget may enforce savings.

Further, tensions arose regarding the establishment of centres of competence, which are specified by the health care reform and shall be defined by the hospital association *L'Entente des Hôpitaux Luxembourgeois* (EHL). However, one hospital (CHL) signed an agreement with the Congregation Foundation (*Kongregationsstiftung*) and thereby caused competition rather than collaboration among the hospitals.[90]

The elaboration of a GP model with its modalities, procedures, forms and the roles of the different actors advanced quickly. The model foresees a soft gatekeeping role for the general practitioner, who shall become the first point of contact and trusted adviser of the patient. This relationship shall be symbolised by signing a contract. The general practitioner further administers the global patient file and establishes a general overview of the patient's most important health data. A further component is the regular filling in of a prevention form.[91] The introduction of the GP model was planned for 1 January 2012. However, two months later an agreement could still not be reached on the remuneration of the doctors. A new round of negotiations is planned for the end of the first quarter.

The health care reform further calls for improved medical documentation in the hospitals as does the patients' rights directive in cross-border health care (2011/24/EU). After a seminar involving all relevant stakeholders and providing an overview of all procedure classification systems that seemed relevant for Luxembourg, the decision to implement the French CCAM was confirmed by the Governing Council. An implementation plan is currently under development. Further, the documentation of diagnoses (ICD-10, extended to four digits) will be introduced in the coming months. In the long run, this modification will have a positive impact on the quality of hospital care and treatment outcomes.

While the number of doctors constantly increased by 4.3% annually in the last decade, a study undertaken by the Luxembourgish association of medical students (ALEM) on the demographic development of doctors in Luxembourg presents a different scenario for the future. While in 2009 there were 2.8 doctors per 1000 inhabitants, many of them will retire in ten to 20 years time and the situation is expected to deteriorate. Hence, ALEM demands better coordination and collaboration between the Ministry of Health and the Ministry of Higher education and Research in order to better face this challenge. Moreover, in order to render Luxembourg more attractive for students ALEM proposes a remuneration of internships.[92] Yet, a recently published newspaper article describes an increasing shortage of doctors in the border region, which is caused by a movement of doctors to Luxembourg. This phenomenon is explained by the good salary opportunity.[93] A parliamentary question dealt with the issue of whether the nursing profession might lose attractiveness in Luxembourg. Statistics show an increase in graduates qualified for the profession. Moreover, Luxembourg reacted to a remark made by the European Commission that the training for nurses does not conform to EU law (Directive 2005/36/CE), and prolonged its duration accordingly.[94]

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90 Feist 2011c.

91 More information can be found at: http://www.sante.public.lu/fr/systeme-sante/organisation/medecins/index.html (retrieved on 22 February 2012).

92 ALEM 2011, 7 & 62

93 http://www.tageblatt.lu/nachrichten/story/19127305 (retrieved on 22 February 2012)

94 Parliamentary question n° 1457 http://www.chd.lu/wps/PA_1_084AIVIMRA06I4327I10000000/FTSByteServingServletImpl/?path=/export/exped/sexpdata/Mag/120/057/101596.pdf (retrieved on 22 February 2012)

In order to disburden the poor or financially disadvantaged and improve their access to health care, the health care reform introduced a so-called "tiers payant sociale" system. Affected people can demand at the CNS to receive all medical services as a benefit in kind, as it normally is the rule. Instead, the CNS will pay the service provider directly.[95] As another measure for guaranteeing access to the health care system, the symbolic fee of EUR 2.50 each in one of Luxembourg's hospital in-house polyclinics, just introduced as of 2011, was abolished again twelve months later. However, the fee of EUR 9.20 to be paid when receiving psychiatric health care persists for the time being.[96]

2.3.3 Impact of EU social policies on the national level

Two European directives impact the national policy level to a great extent: the implementation of the Regulation 883/2004/EC on the coordination of social security systems and the preparation to incorporate Directive 2011/24/EU on the application of patients' rights in cross-border health care. The former is highly relevant as expenses for health care services abroad amounted to 19.1% of total health insurance expenditure in 2010, amounting to a 7.1% increase compared to 2009.[97] The resident population alone makes use of around 4% of foreign health care services, representing a proportion four times higher than the assumed EU average of 1%.[98] Since its enactment in May 2010, the Regulation has not presented any content-related difficulties for implementation. Rather, the provision to convert the administrative procedures among Member States into an exclusively electronic data exchange system (EESSI) as of 2012 presents a huge challenge.[99]

For Luxembourg, the implementation of Directive 2011/24/EU means getting a clear and transparent picture of costs related to health care services for both national and European health care services. Without this knowledge it is almost impossible to guarantee access to high quality services, develop budgets and assess the needed human, financial and technical resources. Hence, an improvement in medical documentation is indispensable. Until now, the cost of a particular treatment cannot be determined. This is insufficient for another reason: the Directive provides that patients can demand information regarding the quality and security of care, as well as the price for services and therapeutic options. Further important propositions are the creation of a European network for centres of competence and the transfer of medical data online.[100] The decision to introduce the CCAM, as well as the coding of ICD-10 with four digits and the unified analytical accounting system can be considered steps in the right direction.[101] Further, the introduction of a full-cost-model is being discussed.[102] National contact points for patients that demand any information listed above still need to be identified and an efficient way of conveying the information in an appropriate form need to be determined.[103] The national health day (15 June 2011) was devoted to patients' rights, informing about the directive and patient empowerment.[104]

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95 http://www.cns.lu/employeurs/?m=79-0-0&p=235 (retrieved on 22 February 2012)
96 L'essentiel 2011.
97 IGSS 2011, 100.
98 This is mostly due to the fact that Luxembourg does not have enough patients to build up special competences for every field. MS/MSS 2011, 2.
99 MS/MSS 2010, 2.
100 MS/MSS 2011, 2-3.
101 MS/MSS 2011c, 19-20.
102 MS/MSS 2011b, 6.
103 MS/MSS 2011a, 2.
104 MS/MSS 2011a, 6.

Although the Lisbon Strategy, the OMC and the EU 2020 strategy are not in the limelight of daily politics, this does not mean that the concepts are not touched upon. The contributions of Luxembourg to the EU 2020 strategy were presented by the Minister of Health and Social Affairs Mars Di Bartolomeo at the first European hospital conference on 18 November 2011. Many of the so-called flagships can be found at national level, such as the Innovation Union, the Digital Agenda, increasing the competitiveness and new skills for new jobs.

Regarding the Innovation Union, Luxembourg plans to invest 2.6% of GDP in innovative research, where health and social research play a crucial role.[105] Research activities focus on biotechnology, bio monitoring and micro simulation in social-fiscal policy.[106]

eHealth plays an important role when looking at the Digital Agenda. Hence, a secure online access to patient records on the part of the patients is one of the main objectives. Luxembourg has founded a national eHealth agency and is working on a national eHealth platform, e-prescriptions and the harmonisation of IT infrastructure in the hospitals.[107]

The health technology industry feeds into the goal to increase the competitiveness of Europe. Health technology assessments support the development of products regarding effectiveness, security and costs – the network EUnetHTA[108] shall diminish the duplication of research and thus help to identify synergies between the countries. The health care reform established a Luxembourgish centre for medical expertise (*Cellule d'expertise médicale*) which is going to contribute to the mentioned European network.

Finally, social innovation promoting healthy and active ageing is registered on the national agenda. Within the framework of the European year for active ageing, several initiatives and events take place to support this project. Launched in 2006, the national campaign of the Ministry of Health "Gesond iessen, méi bewegen" (eat healthily, exercise more), focuses this year on people aged 64 and older and aims at sensitising the target group to realise the importance of healthy food and enough exercise. More than 32% of the people aged 64 and older suffer from obesity, and more than 20% did not exercise in 2008, resulting in worse health outcomes and illness. Only 50% of the target group is declared to be healthy.[109]

2.3.4 Impact assessment

The health care reform was introduced mainly as a "structural" reform in order to face the challenges that are common to most Western health care systems: demographic change and an increase in life expectancy, both coupled with an increase in chronic diseases, advances in life and engineering sciences and the demand for more personalised health care. These challenges give rise to a constant increase in health and long-term care costs.[110] In the long run, the reform shall contribute to the sustainability of the financing of the health care system, to a continual improvement of the quality and efficiency of the care provided and of interregional and cross-border competitiveness. The details of the various elements of the health reform and immediate measures have been presented in the last annual report. In the following, the impact of the different measures of the reform and other aspects will be discussed.

[105] http://www.innovation.public.lu/en/ir-luxembourg/panorama/ri-en-chiffres/index.html (retrieved on 22 February 2012)
[106] Government of the Grand-Duchy of Luxembourg 2011, 26-29.
[107] http://www.gouvernement.lu/salle_presse/communiques/2011/12-decembre/13-agence/index.html (retrieved on 22 February 2012).
[108] www.eunethta.org (retrieved on 22 February 2012).
[109] http://www.sante.public.lu/fr/actualites/2012/02/vieillisement-actif/index.html (retrieved on 22 February 2012)
[110] Gaßner and Strömer 2011.

Cost containment

The financial situation of the health insurance system cannot be regarded as stable. Accelerating health care spending growth when compared to real GDP growth has been a mentioned reason for consideration. Although the reported increase in health spending of 3.6% in 2010[111] can be regarded as an improvement when compared to the 6.3% in 2009[112], health expenditure is still increasing at a faster pace than real GDP growth (3.6% versus 2.7%). Prior to the health care reform, the CNS had accumulated a structural deficit, which was expected to increase in the years to come. In 2009, without taking into account the reserves, the reported balance accounted to EUR -20.4 million. Numbers looked different in 2010, when the negative balance decreased to EUR -4.8 million. The accumulated surplus amounts to EUR 82.9 million.

Looking at the reasons for the smoothened increase of health care expenditure and the decrease of the deficit, one may suggest that the development is only a short-term trend. For 2011, an accumulated surplus of EUR 139.4 million is expected. These positive numbers are particularly due to the reduction of the minimum legal reserve of the national health insurance fund to 5.5%. Other factors have further contributed to this outcome, such as the pickup of economic growth from 2010 onwards and the increase of the contribution rate in 2011.[113] The impact of the structural changes (e.g. global budget for the hospitals and GP model), once implemented, must be awaited.

The positive balance gave rise to discussions of how far the decided cost containment measures are still relevant. The abolition of the EUR 2.50 fee for the visit of polyclinics just one year after its implementation is one example. Another case in point is the demand from the *Association of Physicians and Dentists* (AMMD) to repeal the following measures set out in the new health law: the freezing of the mark-ups for the years 2011 and 2012 at the level of 31 December 2010, and the reduction by 4.35% of applicable medical services and procedures listed in the nomenclature. They justify their demand with the argument that the law was based on the assumption that the CNS will have a huge deficit in 2010, which will endanger its financial equilibrium. As these assumptions no longer hold true, the argumentation on which the law is based lapses and no reason for further financial cuts persists. Furthermore, the legal reserve of the health insurance fund currently is at 9.6%, a rate that exceeds the planned one for 2014.[114] The law regarding the State's budget[115] however induces the prolongation of the financial measures concerning the doctors for the year 2012. The tariffs for laboratories, on the other hand, can be reset from 1 January 2012.

Regarding the laboratories, a revision of the nomenclature is planned for the coming months. Due to the modernisation of the sector in the past years, which resulted in efficiency gains, the remuneration and the nomenclature have not developed on equal terms. Fluctuations in expenditure took place. Thus, a reduction by 19.36% of the tariffs was applied in 2009, which was partly balanced by an increase of undertaken analyses (+12.6%).[116]

The biannual global budget across the entire hospital sector is in place for the first time (2011/2012). A budget increase compared to 2010, when each hospital had its individual budget, is limited to 3%. However, this percentage does not include any indexation. Following an analysis of the *Chamber of Employees*, the increase of the budget including indexation

[111] IGSS 2011, 94.
[112] IGSS 2010, .97.
[113] IGSS 2011, 130.
[114] Le Corps Médical 8/2011
[115] Article 34 de la loi du 16 décembre 2011
[116] IGSS 2011,.89.

accounts to 6.25% and is thus higher than the budget increase of the years before. As has been stated earlier, other concerns regarding the global budget for the hospitals have been raised with respect to quality of care. Doubts have further been expressed regarding the strategic idea to force the hospitals to collaborate in order to use synergies by pooling their expertise, which in turn would result in efficiency gains. The opposite might be the case: as hospital budgets are always calculated based on past expenditure, the hospitals may try to maximise their activities in order to get a big part of the global budget.[117] On the other hand, a new so-called *carte sanitaire* is under preparation. This document provides information on the fixture of all hospitals, their services, their arrangements in general and their utilisation in particular, their personnel and the health status of the population. It serves as a decision making tool.[118] Further, a new hospital plan is elaborated until the end of 2012, which will provide additional information.[119]

In order to improve cost-transparency, and also with regard to the European patients' rights directive, and to increase comparability between hospitals, a unified analytical accounting system is under development and will be implemented as of 2013. This system, however, shall not be confused with a DRG system. The reasons why Luxembourg currently is not considering the implementation of such a system are that Luxembourg is a very small country with a low number of hospitals, which would make the commissioning and maintenance very costly and difficult. Also, one cannot simply copy a system from another country, as each country has its particularities. For instance, the majority of the doctors working in a hospital do so as self-employed attending doctors, being remunerated separately from the hospital according to the tariffs stipulated in the nomenclature.[120]

Although the planned sanctions for doctors for not respecting the prescription targets for generics were removed from the health reform plan, the pharmacist will be obliged to inform the patient whether a generic is on the market in future. The patient is free to choose between the original and the generic medicinal product, however, the CNS calculates the rate for reimbursement on the price of the generic product. In turn, this means for the patient a higher co-payment if he chose the original medicinal product.[121]

Access to health care

Although the health reform introduced the possibility for people with financial difficulties to receive medical care as a benefit in kind (tiers payant), the exact procedure for this measure is relatively unclear and the measure itself not well promoted. This might change once the GP model enters into force, as it foresees a prepayment for all participating patients.[122] As has been stated earlier, the introduction of the model currently is at a halt as disagreement on tariffs persists. The measure itself is an important contribution to increase access to care for people in vulnerable situations as the reimbursement system tends to negatively affect low-income groups – the inability to prepay medical bills can result in the omission of delaying of necessary health appointments.[123]

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[117] Feist 2011c.
[118] http://www.sante.public.lu/fr/catalogue-publications/systeme-sante/politique-nationale-sante/carte-sanitaire-4e-edition-1998-2005/index.html (retrieved on 23 February 2012).
[119] IGSS 2011, 71.
[120] Parliamentary question n°1608 http://www.chd.lu/wps/PA_1_084AIVIMRA06I4327I10000000/FTSByteServingServletImpl/?path=/export/exped/sexpdata/Mag/135/052/103541.pdf (retrieved on 23 February 2012).
[121] http://cns.lu/assures/?m=78-0-0&p=238 (retrieved on 23 February 2012).
[122] http://www.legilux.public.lu/leg/a/archives/2011/0276/a276.pdf.
[123] TNS-Ilres 2009.

The last report mentioned that there is a small group of students studying at the University of Luxembourg that were forgotten by the health care reform. Those without direct or derived affiliation rights, to whom the state previously provided health care services free of charge, were in a precarious situation when those rights were abolished.[124] The University of Luxembourg paid the contribution rate of about 100 EUR charged by the CNS until September 2011. Since then the State assumes the contribution rate until the student reaches the age of 30.[125] Being 30 years or older the student has to pay the contribution rate, calculated on the minimum guaranteed income himself.[126]

Medical documentation

As has been mentioned several times already, improved medical documentation that applies ICD-10 and the procedure classification system CCAM is under preparation. Its relevance and necessity can be understood when looking at the 20 commonest reasons for hospitalisation: unknown reason for hospitalisation is placed fourth. Without an exhaustive and correct coding of diagnoses and medical activity, quality control of hospitals becomes a difficult task to accomplish and makes international comparability impossible. The European directive on patients' rights enforces the implementation of the systems.[127]

Institutional development

The newly created institutes, namely the *Cellule d'expertise médicale* (Unit for medical evidence) and the *Agence nationale des informations partagées* (National agency of shared information) have started their work and will play an important role in the modernisation of the health care system. With its reports, the *Cellule d'expertise médicale* supports the decisions made by the Commission de nomenclature regarding the tariffs of medical services. For the first time, scientific evidence is systematically considered and decisions are not exclusively made by negotiation.[128]

The CNS is currently working on its image, its internet presence and the quality and efficiency of its services. A presentation held at the eHealth day at the beginning of this year revealed some insights into the new strategy aiming at becoming more client oriented service provider. This shall be accomplished by simplifying and modernising the administration and its process, by realising a more direct and faster exchange with its clients (including for instance health information on the webpage, interactive web services and making use of latest communication technology).[129]

Health outcomes

A study undertaken by the scientific institute CEPS/INSTEAD on social disparities in mortality in Luxembourg examined the causes of death between 2002 and 2006, taking into account profession, nationality and gender. The five most frequently reported causes of death were tumour diseases, diseases of the circulatory system, diseases of the digestive system and diseases of the nervous system. The general results showed that the inequalities are moderate. However, the study concluded that a more profound analysis would be possible if death certificates revealed more information. The Ministry of Health has created a working group

[124] 400 students from EU third countries were affected.
[125] Art. 32 of the Social Security Code (CSS).
[126] http://wwwen.uni.lu/etudiants/informations_utiles_de_a_a_z/assurance_sociale (retrieved on 22 February 2012)
[127] IGSS 2011, 109.
[128] http://www.sante.public.lu/fr/systeme-sante/acteurs/ministere-secu/commission-nomenclature/index.html (retrieved on 26 February 2012).
[129] CNS 2012

with the objective to ameliorate the current death certificate, to improve the health information system in general and the system generating mortality data in particular.[130] [131]

Although life expectancy for men rose faster than for women in the last decade (3.5 versus 3 years), women still have a higher life expectancy than men (78.1 versus 83.3). In any case, Luxembourg is one of the countries with the highest life expectancy in Europe. Today, only a quarter of the population older than 85 years are men. Healthy life expectancy at the age of 65 is similar for both men and women. Differences exist when looking at the causes of death: men die more often of external causes (e.g. accidents, suicides, falls) than women (9% versus 5%).[132]

A high-level group on work absenteeism commissioned the scientific institute *CEPS/INSTEAD* in collaboration with IGSS with the monitoring and analysis of the reasons for absenteeism. In spring 2011, the first two studies were published.[133] The studies include only data on work absenteeism due to illness, which is distinguished from absenteeism caused by work accident or maternity (see above). The first one reports an average rate of 3.3% for the year 2009, including all sectors and age classes. The rate is below comparable data from the neighbouring countries.[134] The second study highlights the multidimensionality of the phenomenon. It reveals that long-term absenteeism (above 22 days), which only represents 6.8% number of episodes, but 52.2% in terms of days and 50.5% in terms of costs, represents a real quandary for the economy and the social security system and requires further analysis.[135] Another surprising result is that the health and social services sector, with a rate almost 50% above the trade sector that served as the reference level, is by far the most severely confronted with the phenomenon of work absenteeism.[136]

Prevention

As mentioned earlier, the reimbursement of contraceptives is part of the prevention programme. It aims at emotional and sexual health promotion and education, the adoption of a healthy lifestyle, improved access to reliable contraceptives, the reduction of unwanted pregnancies and sexually transmitted diseases and the prevention of sexual abuse. The reimbursement of 80% of the contraceptives itself does not burden the budget of the CNS, as it is paid by the state. The CNS has to pay the attributable medical examinations, however.[137]

A recently published study shows that the number of smokers is decreasing steadily in Luxembourg. Whereas 33% of the population smoked in 2003, it is only 22% today amongst which 5% only smoke occasionally.[138] The Minister of Health and Social Affairs presented a proposition for a new anti-smoking law in February. It foresees a strict prohibition of smoking in bars and restaurants. An owner of an establishment may apply for a smoking room permit, which is granted under strict circumstances only.[139]

Assessment of the health care system

[130] Tchicaya and Lorentz 2011.
[131] http://www.sante.public.lu/publications/maladies-traitements/statistiques-causes-deces/mortalite-luxembourg-evolution-historique/mortalite-luxembourg-evolution-historique.pdf (retrieved on 22 February 2012)
[132] STATEC 2011c
[133] Zarnadelli et al. 2011 and 2011.
[134] Zarnadelli et al. 2011, 5.
[135] Zarnadelli et al. 2011a, 17.
[136] Ibid, 21,
[137] http://www.legilux.public.lu/leg/a/archives/2011/0275/a275.pdf
[138] http://www.info-tabac.lu//sites/infotabac/files/files/Tabagisme_Luxembourg_2011.pdf
[139] Luxemburger Wort 2012

Two surveys have been conducted assessing the patients impression of the health care system. A study undertaken by Deloitte reveals information on well-being and lifestyle, information sources, traditional medical services, alternative medical services, health insurance and health policy. Mexico, Belgium, France, Germany, Portugal, Switzerland and the UK were also included in the study. The study showed that only 11% of the surveyed participants are unsatisfied with the performance of the system. The most frequently mentioned points for improvement are a reduction of waiting times (47%), more consumer orientation (24%) and a better access to health services (14%).

A second study was presented by the Ministry of Health and the Health Directorate. It turned out that the majority of the participants (95%) were satisfied with their last medical examination in terms of time spent with the patient, understandability of the given explanations, the possibility to ask further questions and the involvement of the patient in the treatment decision. Though 93% of the participants asking for an appointment do not regard the time taken to obtain one as challenging, 22% view waiting longer than 15 minutes in the waiting room as problematic. The study revealed further that 39% perceive their health status as good. This percentage decreases with age: only 22% of the persons older than 60 years report a good health status, in the age group of persons older than 70 years old the percentage drops to 13%. It is, however, noticeable that the majority of people not consulting a doctor when encountering medical problems are young and educated.[140]

2.3.5 Critical assessment of reforms, discussions and research carried out

The two studies on patients' experiences with the health system point to a positive conclusion. This is not surprising when one considers the generous benefit and service package. The question remains for how long the system can perform at such a high level, and the basic principles, namely the principles of social security protection within a one-tier health care system. The health reform laid the basis for future reforms to come. It was the first one for the past 20 years, and the first one to impact on providers' revenues for 30 years. Once the reform bears fruit, further well-targeted alterations are possible. The improved documentation of medical activity and transparency regarding costs will enable cost-containment measures and add to a better quality of care.

If implemented as currently planned, the eHealth platform will have a positive impact on the modernisation of the health system and make a major contribution to the quality of care, as patients' medical information can be shared in a much better way. The security features of the planned system are on a higher level than currently seen in any other country.

The self-governance of the system carried out in all social security organisations by the social partners many times slows down the pace at which changes occur, and ensures that initial measures lose sharpness. This could be observed with the prescription targets of generic medical products, as well as with the enforced gatekeeping role of the GP. The economic and financial crisis supported Luxembourg in bringing about some changes. Yet, as the demands on behalf of the Medical Association have shown, the support for changes fades when cost pressure decreases. The upcoming elections will not enforce any changes either.

In future, incentives other than financial ones will have to be found in order to ensure the participation of all actors when restructuring the system in order to face the challenges ahead. Although the measures as well as the quick recovery after the crisis enabled a sound balance of the CNS, this does not mean that the common challenges, e.g. of demographic change and

[140] Tns-Ilres 2011

costly technologies, have now been tackled. The care for the chronically ill, whose number will rise in the years to come, is not being discussed sufficiently. Approaches such as integrated care need more attention devoted to them, but also co-payments for this group need to be better organised.

2.4 Long-term Care

2.4.1 The system's characteristics and reforms

A public long-term care insurance scheme exists as of 1999 as a separate branch of the social security system. Affiliation is mandatory and access to continuous insurance benefits is guaranteed from the first day of membership.[141] Currently this nursing-care insurance scheme accounts for around 11,700 beneficiaries receiving benefits in kind or cash benefits on a regular basis.[142] The comparatively low percentage of elderly aged 65 and above, a group which in 2009 represented around 10% of the insured population in Luxembourg[143] (OECD average 15%) including 3% aged 80 and over (OECD 4%), once again confirms the country's favourable demographic situation. The number of long-term care recipients accounts for around 13.2 % of this target group above the age of 65.[144] The latest available figures on public and private long-term care expenditure [145] date back to 2008, where it equalled 1.23% of GDP.[146] National data is available only on public long-term care insurance, which in 2010 year amounted to EUR 456.3 million and by then already equalled 1.6% of GDP.[147] By 2050, according to an OECD study, the expenses for long-term care are expected to increase to 3.1% of GDP.[148]

Contributions to long-term care insurance have to be paid at a rate of 1.4% on all earnings (including fringe benefits and capital) without any upper threshold. This unique feature remains in contrast to the other social security branches (pension, health), where the contributable income is limited to five times the minimum salary. From 2006-2011, the state contribution to the long-term care insurance fund was fixed to a nominal amount of EUR 140 million. Initially, this part represented 45% of total revenue, but has constantly been reduced to only 33% in 2010.[149] By Art. 38 of the law of 16 December 2011, the government put an end to these differences in state contribution between health and long-term care insurance and adjusted the provisions of the relevant article 375 of the Social Security Code to a level to 40% of all

[141] Only people covered for long-term benefits by international organisations are excluded, and voluntary health insurance members are restricted for benefit entitlements to a one-year qualifying period.
[142] IGSS 2011, 143.
[143] The insured population included all people covered by the statutory health and long-term care insurance, including non-resident cross border workers and their dependent relatives and some pensioners. The group of the non-resident insured accounts for up to 30% of all insured.
[144] IGSS 2011, 144.
[145] According to the joint questionnaire on Social Health Accounts (OECD – Eurostat - WHO HQ) as used in indicator HC-P13 (Total spending on long-term care as a percentage of GDP).
[146] http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=hlth_sha_ltc&lang=en. (retrieved on 24 February 2012).
[147] IGSS 2011, 173 and 235. www.statec.lu (retrieved on 24 February 2012). The public expenditure on long-term care includes: 1. Current expenditure of the long-term care insurance system and those costs for accommodation in nursing homes that are borne by the National Solidarity Fund (accueil gérontologique).
[148] Colombo et al. 2011, 74.
[149] The amount equals the state contribution from 2006, when it still represented 45% of total revenue. IGSS 2011, 174. A smaller additional source of revenue comes from a special earmarked electricity tax for high-volume electricity consumption.

expenses.[150] The measure, however, will only become effective as of 2013. For 2012 as a derogation to the new provision, the state contribution was fixed at 35% of expenses.[151]

Despite relatively higher social security contributions, long-term care insurance still enjoys a high degree of acceptance among the population. One of the reasons might be the generous benefit package for long-term care that is offered without almost any co-payment[152]. The provision is to a large extent offered in kind by a specialised, well-organised and labour-intensive service sector. In 2009, roughly 9,500 persons (7,100 full time equivalents) were employed by the providers for home care and institutional care.[153] It represents around 3% of the national labour force and is dominated by females. In 2009, the previously experienced rapid annual increase of employment of more than 5% started to slow down for the first time (+2.9%). [154] In addition, a total of 4,800 persons are registered as informal caregivers to partly replace the professional caregivers for up to maximum 10.5 hours per week.

Market entry to the care-giving sector is restricted to organisations approved by the Ministry of Family Affairs based on the fulfilment of certain quality standards and after adhesion to a framework contract with the long-term insurance organisation, which determines the rights and obligations for executing the nursing care services.

The sector acknowledges four types of service. In 2010, there were

- 15 ambulatory networks for home care with two dominating institutions (Stëftung Hëllef Doheem, Help),
- 50 day care institutions
- 37 intermittent care centres (for alternating short-term stays according to the actual level of dependence)
- 52 nursing homes and integrated homes for the elderly with a capacity of 5,154 beds in 2010 (48.8 per 1,000 population above the age of 65).[155]

Whether or not and to what extent a person is eligible to receive long-term care benefits depends on an individual assessment of dependency status by the *Cellule d'évaluation et d'orientation* (CEO), the competent public organisation for this task under the responsibility of the Ministry of Social Security. In 2010, the organisation received around 4,700 requests to classify or reclassify the individual need for nursing care services. Another 8,000 applications concerned (minor) technical aids and housing adaptations[156], likewise covered by the long-term care insurance.

The system allows many people in need of assistance with their personal care to remain in their home environment. Indeed, the majority of long-term care recipients receive the services at home (67%).[157] It is also possible to (partly) replace the benefits-in-kind provided by a professional organisation through an informal caregiver, but limited to a maximum of 10.5

[150] Art. 38 of law of 16 December 2011 on the state budget 2012, Memorial A-266, 4380.
[151] Art. 39 of law of 16 December 2011 on the state budget 2012, Memorial A-266, 4380. MS/MSS 2011c, 8.
[152] A participation of 12% was introduced in 2011 for medical services provided by nurses during home care and in institutions. They only represent a minor range of the long-term care services and are covered by health insurance (and not by long-term care insurance). See also parliamentary question No. 1270, http://www.chd.lu/wps/portal/public/RoleEtendu (retrieved on 24 February 2012).
[153] IGSS 2011, 141.
[154] Ibid. See also: www.statec.lu (retrieved on 24 February 2012).
[155] IGSS 2011, 139 and OECD ECO-Health Data 2011.
[156] www.isog.public.lu , statistics on Assurance dependence (retrieved on 24 February 2012).
[157] IGSS 2011, 145. Colombo 2011, 40 and OECD Key Facts Luxembourg.

hours per week. In this case, the long-term care insurance grants the care recipient a cash benefit of EUR 25 per hour in order to pay for the informal caregiver, takes over the costs for counselling of the informal caregiver and also pays the latter's pension fund contribution.[158] 66% of home care recipients opt for this voluntary combination of professional and informal caregivers.[159] The majority of the latter are (female) family members.[160] Occasionally the services might also be provided or augmented by illegal caregivers. This phenomenon, however, is not the subject of any public debate.

Institutional care is provided in nursing homes and integrated centres for the elderly (CIPA). Around one third of residents in the latter are elderly people who are not dependent on nursing care services.[161] In 2008, this last area employed 60% of the sector's workforce. The staffing level with a caregiver-to-resident ratio of 1:1.88 is well beyond the norm of other EU Member states.[162] The providers are remunerated by the long-term care insurance scheme according to a sector-specific fee per hour (*valeur monétaire*), which is negotiated between the long-term care insurance and COPAS, the representative association for nursing homes and integrated homes for the elderly and was set at EUR 46 for 2012.[163] In the year 2010, the average costs per resident were EUR 4,662 in CIPAs and EUR 5,454 in nursing homes, which does not include the costs for board and lodging that have to be paid by residents themselves.[164]

A law on palliative care entered into force in July 2009. Although the services are financed by the long-term care insurance, according to the procedures, it is the Medical Control Service of the Social Security (CMSS), usually in charge of assessing the lawful utilisation of health insurance benefits, which authorises or denies palliative services[165] However, benefits of the long-term care insurance can be provided in addition to palliative care services,[166] because essential benefits are not simultaneously on the list of palliative services. Complementary training programmes for palliative care are offered for professionals in the health and long-term care sector to become acquainted with these particular circumstances.

The long-term care insurance scheme delivers a solid foundation for keeping the care of the elderly on a secure footing and has created the above-described prosperous economic sector and labour market for home and inpatient care. These strengths also have their costs. Between 2008 and 2010 the costs of long-term care insurance rose on average by 12.2% annually compared to an annual 5% increase in the number of beneficiaries during the same period.[167] The consequences of such precarious development are not unknown. An earlier deficit period between 2004 and 2006 was finally remedied in 2007 by a substantial increase of 40% in the individual contribution rate (from 1 to 1.4% of gross salary) and brought about an annual reserve of 8-11% of total revenues.[168] Only two years later, the current expenses once again

[158] Art. 171, 13 and 354 of the Social Security Code (CSS). In 2009, the pension fund contribution accounted for a total of EUR 4.1 million, which in comparison to 2008 represented an increase of 13%. MSS 2011, 24. Colombo 2011, OECD Key Facts Luxembourg.
[159] Colombo 2011, OECD Key Facts Luxembourg.
[160] Fleury and Lorentz 2011.
[161] Gantenbein 2011, 2.
[162] Luxemburger Wort 2011. For the German federal state of Saarland, the article reports a caregiver-to-resident ratio between 1:2.07 and 1:3.92 according to the level of care-dependency (measured in three classes).
[163] COPAS 2012, 6.
[164] Gantenbein 2011, 2. See also section 2.3.2 of this report.
[165] Art. 351 No. 2 of the Social Security Code (CSS).
[166] Art. 349, No. 4 of the Social Security Code (CSS).
[167] IGSS 2011, 143 and 173.
[168] IGSS 2011, 173. MSS 2011.44.

almost equalled the current revenues and will tend to substantially surpass them in the future. Thus, further adjustments will be unavoidable.

During the reporting period 2011/2012, long-term care insurance was not subject to any major reform. Despite the financial crisis, its financing situation is still basically stable, which has enabled the government to concentrate on major reforms of the health and pension system. Within the sector, the actors used this period of tranquillity to gain transparency through the mutual development of a unified analytical accounting system (*Kostenträgerrechnung*), the application of which is mandatory as of 2011 for all institutional care establishments, and through some administrative restructurings of the CEO to substantially improve the procedures as regards the individual assessment of the dependency status of an applicant for long-term care services.[169]

2.4.2 Debates and political discourse

The crucial criterion for entitlement to the benefits is proven dependency on assistance from a third person for the activities of daily living (ADL) for a minimum of 3.5 hours per week, which is expected to be indefinite. As described above, the CEO determines the number of hours individually on a continuous scale, unlike certain case stages as applied in some neighbouring countries.[170] In 2010, a long-term care beneficiary received weekly on average 34.3 hours of care provision. For 18% of the recipients, services were even granted for more than 9 hours a day (> 64 hours per week).[171] Even below the 3.5 hours minimum threshold, there is still a possibility of receiving means-tested financial assistance from the National Solidarity Fund to pay for the services.

Reimbursement rules for domestic services

In addition to nursing services, allowances for domestic services can be added. With the exemption for some extremely dependent persons, they amount to 2.5 hours for home care. Within institutions, this allowance was subject to a controversial debate between providers and the long-term care insurance, which finally resulted in development of a unified analytical accounting system (*Kostenträgerrechnung*) over several years (see below). In the future, these domestic allocations in the framework of institutional care will be determined in terms of the specific extra workload for care-dependent residents in excess of the workload for non-dependent residents. It will be applied in form of two flat rates, expressed in weekly hours per person. One represents the directly attributable extra effort per dependent resident (i.e. cleaning and tidying up of the room) and one the extra effort that is only indirectly linked to an individual resident (i.e. cleaning of common rooms, food tray preparation, distribution and collection).[172] The exact amount will be determined by the respective results of self-evaluations conducted three times per year in all long-term care institutions, covering all services provided by employees and service providers. As of 2010, the extensive self-recording on all services rendered by all nursing-home employees and contracted service providers takes place three times a year over a 48-hour period. Due to the lack of meaningful baseline data, for a transitional period until 2012 the law applies two flat rates, which reflect the same volume as applied for the home care sector.[173]

[169] MSS 2011, 36-41.
[170] Colombo 2011, OECD Key Facts Luxembourg.
[171] IGSS 2011, 153.
[172] Art. 357, No. 2 of the Social Security Code (CSS).
[173] Idem.

Price for accommodation

In inpatient nursing homes or homes for the elderly, the price for accommodation (including board, lodging, basic domestic services, laundry, etc.) is individually determined by each establishment and has to be paid by the resident himself. Despite the remuneration of all services related directly to care provision by either the health insurance or the long-term care insurance, the price of accommodation remains quite high. Unfortunately, there is no publicly available comparable information of the accommodation price per institution. In its latest practical guide for senior citizens, the Ministry of Family and Integration only publishes the monthly minimum rate for a bed in a double room of EUR 1,548 in 2010.[174] As an example, a newspaper article from February 2011 compares the accommodation prices of two institutions of the one provider (Zitha Group), which range from EUR 1,637 to EUR 2,483.[175] And the Hospices Civils of the City of Luxembourg, to mention another, raised the price for a single accommodation in 2012 (EUR 2,467) by 17% in relation to the previous year.[176]

The National Solidarity Fund provides mean-tested support of these costs (*accueil gérontologique*). In 2010, approximately 700 people received on average EUR 864 per month. This amount, however, represents an increase of 7.4% in only one year, for which the increase of the accommodation price is given as sole explanation.[177] Therefore, a comparable and transparent accommodation-price scale of all institutions is considered absolutely vital.

2.4.3 Impact of EU social policies on the national level

Long-term care was an absolutely neglected issue in the EU Annual Growth Survey from January 2011 and its annexes[178]. For the Annual Growth Survey 2012, despite having slightly improved through a very brief mention of its role for employment and the protection of the vulnerable, it still remains insufficient.[179]

This is surprising insofar as the nursing care industry has long represented a prosperous and labour-intensive economic sector with a high proportion of female employment.[180] The number of professionals in the long-term care sector (expressed in full-time equivalents) has increased since 2005, on average, by more than 5% per year (whereas between 2008 and 2009 the growth rate fell for the first time below 3%.[181] As such, the sector contributes by and large to the headline targets concerning national employment and economic growth and is in the focus of the 2012 European Year of Active Ageing.

Disregard of the long-term care sector in both the NRP 2011 and the "12th update of the Luxembourg Stability and Growth Programme" [182] may reflect the low value that the Ministry of Economy places on it as regards the OMC and the EU 2020 strategy.[183] Against its current focus on life science as the sole mentioned branch of health care, the quality of the NRP 2011

[174] MiFa, 2011, 78
[175] Lepage 2011, 2.
[176] http://www.hcvl.lu/FR/forfaits.html (retrieved on 24 February 2012).
[177] IGSS 2011, 233-235.
[178] European Commission 2011.
[179] European Commission 2011a, Vol. 1, 10-11; Vol. 2,18; Vol. 4, 11.
[180] IUIL, 2011; Colombo et al. 2011, 77. www.statec.lu (retrieved on 24 February 2012).
[181] IGSS 2011. 141.
[182] The NRP 2011 has been drafted under the responsibility of the Ministry of Economy and Foreign Trade. Government of Luxembourg 2011, 31. The update of the Luxembourg Stability and Growth Programme is published by the Ministry of Finance. MF 2011.
[183] Government of Luxembourg 2011.

could be much enhanced by the addition of various strategies on how nursing sciences can gainfully complement the heavily subsidised life science industry.

The atypical composition of the social security membership with a share of above 30% of cross-border workers makes Regulation 883/2004/EC of the utmost relevance. Therefore, Luxembourg is especially exposed to all the challenges that long-term care coordination brings.[184] Though the issue has been of minor importance until now, the comparatively huge benefits granted by the Luxembourg long-term care insurance will sooner or later lead to increasing demand by future immigrants.

An in-depth analysis of the surprisingly low risk of impoverishment among the elderly population has already been elaborated in section 2.2.5 of this report. With an at-risk-of-poverty rate of 6% for the population aged 65+, Luxembourg is nearly two thirds below the EU27 average of 17.8%.[185] The generous long-term care benefits, granted without any co-payment, are among the crucial factors for this favourable situation of the elderly in Luxembourg. Admittedly, the price for accommodation in a nursing home is quite high and has to be paid by the resident himself. As explained above, the National Solidarity Fund provides mean-tested support of these costs for the dependent elderly with a low income (*accueil gérontologique*). In Luxembourg, roughly 85% of the population aged 65 or over are owner-occupiers. Consequently, the costs for housing represent a much lower share of disposable income than in other countries. For recipients of home care, the pecuniary advantages for the elderly are even more striking. The fact that roughly 85% of the population aged 65 or over are owner-occupiers reduces the costs to be spent on housing considerably. [186] As unbelievable as it may sound, there is currently no political necessity for any poverty reduction measure for the elderly population.

For the European year of active ageing, Luxembourg plans to conduct a world congress on long-term care in collaboration with the International Orem Society on Nursing Sciences (IOS).[187] The congress bears the title "Preparing Nursing Systems for 2020: New Approaches – New Evidence" and will take place from 10-13 May 2012 in Luxembourg. In fact, Luxembourg has had very positive experience with its nursing-care philosophy based on a self-care approach, as equally pursued by IOS.[188] The congress will provide ample room for exchange on international research and scientific analysis on the characteristics, developments and trends in the supply and demand for formal and informal care. Evidence-based nursing processes and care documentation will be covered as well as the role of new technologies applicable in long-term care. The government expects around 500 professional delegates from all over the world.

2.4.4 Impact assessment

Trends in long-term care are very much influenced by demographic, behavioural and technical challenges. Thanks to the effect of immigration, Luxembourg still enjoys a relatively moderate old-age dependency ratio in comparison to other EU countries, with a proportion of older

[184] Jorens et al. 2011.
[185] Eurostat 2011. http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tessi012&language=en (retrieved on 31 May 2011).
[186] Zahlen 2011, 2.
[187] www.ioscongress2012.lu (retrieved on 24 February 2012).
[188] It is based on the assumption that according to cultural and societal customs, every person wants to maintain his/her autonomy as long as possible and to make use of his/her capabilities for self-care and the fulfilment of needs to the utmost possible extent. Necessary nursing care measures to be performed by a third person are therefore to be planned and evaluated in collaboration with the care recipient.

people aged 65+ in relation to the number of persons of working age (from 15 to 64) of 20% in 2010 (EU27 = 26%)[189]. This ratio is expected to rise to 30% (LU) and 38% (EU27) in 2030, and to 45% (LU) and 53% (EU27) respectively in 2060.[190] This will have major implications on the demand for long-term care in general, but also on the range and main emphases of long-term care provision.

In 2010, about 13.2% of the population above 65+ was registered as a beneficiary of the long-term care insurance.[191] The probability of suffering from more than one chronic disease increases significantly in the population aged over 65. Especially dementia is expected to increase substantially. In 2010, it already represented 30% of the primary cause of long-term care dependency of people at the age of 80+.[192] In the medium term, increasing demand for more developed and hence more costly health and long-term care services will bring the system under further financial pressure. A market analysis from 2010 came to the conclusion that by 2015, the country will need 1,400 to 2,100 beds for long-term care in addition to the 5,000 that already exist, and estimated the demand for investment in new nursing homes at between EUR 230 and 480 million.[193] It will also imply a growing shortage of qualified nursing staff, as even today, the labour market faces difficulties in meeting the specific demand.[194]

In March 2011, a Working Group "ICT for a healthy and ageing population" of the Luxembourg ICT Cluster was launched. Together they exchange know-how and experience and foster collaborative projects on a national as well as on an international level to enhance independent living and improve the quality of life of elderly and disabled people.[195] The group is composed of representatives from companies, public research, health care and other stakeholders. Very surprisingly, the long-term care insurance does not participate in the working group of the cluster.

It is important to know that the two largest home care providers, *Hëllef doheem* and *Help*, are very active members of the cluster. In 2005, they introduced for the first time smart housing elements in form of movement, smoke or gas detection.[196] This further developed into virtual sensor technology, able to link up to 40 individual sensors, which are available as of 2012.[197]

One of the cluster's research partners, the national public research centre *CRP Tudor*, developed telemonitoring devices for congestive heart failure, one of the leading causes of hospital admission in the population aged over 65, and brought them to market maturity.[198] The centre furthermore conducted a randomised clinical trial to compare a group of home-monitored patients to a group of conventionally treated patients in order to analyse the effects of the device on quality of life, re-admission rates and health care costs in general.[199] Another ICT product and related scientific impact analysis concerns the management of food allergies through a mobile expert and networking device helping to distinguish permitted and non-

[189] Eurostat 2011, Old-age dependency ratio (tsdde 510). However, this indicator must not be confused with the ratio of elderly people to the overall insured population, which represents only around 10% for the same year. See section 2.4.1 of this report.
[190] Source: Eurostat 2011, Projected old-age dependency ratio (tsdde511).
[191] IGSS 2011, 144.
[192] IGSS 2011, 151.
[193] Ernst &Young 2010.
[194] IUIL 2011, 30-32.
[195] http://www.ictcluster.lu/Cluster-Working-Groups/ICT-for-a-healthy-and-ageing-population (retrieved on 24 February 2012).
[196] In 2010, the service counted 4,300 active clients, of which 91% were above 70 years. MiFa 2011a, 266.
[197] http://www.shd.lu/ and www.help.lu (both retrieved on 24 February 2012).
[198] www.santec.lu/project and www.monitor-it.lu/ (both retrieved on 24 February 2012).
[199] http://www.santec.lu/project/luhf (retrieved on 24 February 2012).

permitted food.[200] Other members are the Luxembourg based company Actimage, which is involved in eHealth projects on managing insulin for diabetic patients in real time (Actelin) or in international ambient assisted living (AAL) research programme on the development on a mental wellness toolset.[201]

Applied research focuses on quality improvements

The quality commission on long-term care is responsible for defining the norms and quality standards of the long-term care services that are provided on behalf of the long-term care insurance. A system to regularly monitor the quality of services and advise the providers on constant improvement is under development.[202] Art. 361 of the Social Security Code mandates the quality commission to additionally pilot certain quality-enhancing activities. These activities are subject to scientific monitoring and evaluation.[203] During the reporting period the following pilot and research activities were conducted:

- The project "Night watch" started in March 2009 and aims at developing and evaluating the concept, demand and costs of professional night watch services, for which demand was initially estimated at 350 persons. In 2011, the preliminary results did not point in any clear direction, so for this reason the night watch will not be implemented as an additional benefit of long-term care insurance.[204]
- In November 2011, a patient satisfaction study, conducted by the national research centre CRP Santé between August 2009 and July 2010 was presented. The study was commissioned by the Cellule d'Evaluation and Orientation (CEO) and followed a comparable study from 2006 on home care. In general, the results show a high degree of satisfaction by the interrogated nursing home residents. Despite the fact that the atmosphere of the particular nursing homes, and an impression of feeling at home got relatively high scores, only 63% were willing to recommend their institution to others. Critical comments concerned, for instance, the lack of time for a personal conversation with the personnel or a lack of trust in a number of care-givers.[205]

Development of a sector-wide cost unit accounting system (Kostenträgerrechnung)

The preparation and introduction of this analytical accounting system represents the most far-reaching innovation of the long-term care sector. The Ministries of Social Security and Family Affairs commissioned this relatively complex development as a steering and planning instrument for the sector of institutional care (nursing homes and integrated centres for elderly) in order to better cope with the new challenges of long-term care. After three years, the development was completed by July 2011. Results of the first comparable data set will be available as of April 2012.[206]

As to its methodology, the approach pursues a transparent allocation of care provisions and costs to certain performance categories (basic nursing care, treatment care, domestic services, etc.) and type of residents (beneficiary or not of benefits covered by the long-term care insurance). Thus, it aims to enable a direct comparison between the financing and output of long-term care performance. Although based on sector-wide average values as the main

[200] http://www.santec.lu/project/menssana (retrieved on 24 February 2012).
[201] www.actimage.net (retrieved on 24 February 2012).
[202] MSS 2011, 33.
[203] Art. 361 of the Social Security Code (CSS).
[204] MSS 2011, 36.
[205] Lair et al 2011. MS/MSS 2011c, 5-7.
[206] Source: IGSS.

orientation of comparison, individual specifics of infrastructure, composition and care-dependence of residents as well as care concept are taken appropriately into account.

After the successful completion of a pilot study in 2009, all stakeholders together (including representatives of the association of long-term care institutions COPAS), made the unified analytical accounting system ready for its unified sector-wide implementation and its continuous further development. It required separate development of the following three areas, which were later reassembled. A fourth area is concerned with the financing of domestic services in nursing homes and is described in further detail in section 2.4.2 of this report.

- Standard form of accounts: The existing accounting charts have to be harmonised to be integrated into the accounting systems of all nursing homes. Furthermore, the allocation logic of types of costs (personal costs, real estate costs, etc.) to costs centres (administration, care services, canteen, etc.) had to be developed mutually. The interference with a parallel new government project to prepare for a standardised chart of accounts for all economic sectors, represented by far the biggest challenge but, due to the postponement of the latter, finally only played a tangential role.
- Collection of performance data: A comprehensive and scientifically validated questionnaire was developed, to be used for collecting all services rendered by all nursing homes. Data-collection is performed in the form of an anonymised exhaustive self-recording approach, conducted by all active employees and service providers of one nursing care establishment within the collection period. As of May 2010 the collection recurrently takes place on six days a year (3 times 2 consecutive days per institution). Details on the collection methods were described in a handbook and a training-of-trainers concept was implemented. The completed questionnaires are run through a particular scanning procedure in order to permit statistical analysis.
- Data conflation into a cost unit accounting system (*Kostenträgerrechnung*): The cost unit accounting system requires an unambiguous allocation of financial and performance data to the pre-identified performance complexes and types of recipients. All individual distribution keys were determined by a participatory decision-making process among all relevant stakeholders. The latter made the cost unit accounting system quite lengthy and costly, but at the same time constitutes an effective measure towards far-reaching acceptance.

Preparation for a long-term care reform

During the reporting period, the government priorities were clearly laid on the reforms of the health and pension insurance system. A comprehensive report on long-term care is in preparation and expected for the second quarter of 2012. On the one hand, it will describe the historical development and status quo of the current system. On the other, it is expected to lay the foundation for a major reform of the long-term care sector as of 2013 at the earliest.

2.4.5 Critical assessment of reforms, discussions and research carried out

Since its implementation in 1999, the long-term care insurance scheme has led to a substantial change in the market for long-term care provision. Expenditures are rising primarily because of the growing number of beneficiaries and the constantly expanding range of care and services. The capacity of specialised home care services and the number of beds in nursing homes and CIPAs have admittedly improved access to the system, but also weakened the originally good financial situation of the long-term care insurance scheme.

Therefore, the government's impetus to foster quality improvements, enhance standardisation, strengthen technical progress and master system inefficiencies can only be acknowledged.

Especially those projects which aim at bringing transparency and performance standards to the system seem to appropriately serve the political requirements for better steering of the sector. The implementation of more effective and transparent procedures to assess dependency status and evaluate the volume and specificity of the support needed also help to increase people's faith in the administrative system. However, there is still room to improve the information on service quality and the relevant prices of nursing home accommodation.

The system-wide unified analytical accounting system, which over the last three years was meticulously developed by the responsible Ministries of Social Security and of Family and Integration in close collaboration with COPAS, CEO and CNS, is now in its critical phase of implementation. During its development, the attention was laid on a laudable, but time-consuming, participatory decision-making process, through which all individual distribution keys were determined on the basis of a joint agreement. For a successful long-lasting implementation, however, it is the system's legal base which will be challenged by its opponents. Only rigorous application of the developed instruments will finally bring the reliable data necessary for greater transparency, which the cost unit accounting system was intended to deliver from the beginning. This database could also serve Luxembourg as an important source for an evidence-based study on long-term care.

The phenomenon of medically intended absence from work of pregnant women, often as of the day the pregnancy becomes confirmed, has a delicate and serious negative impact on the female-dominated labour market in long-term care. Human resources management in the long-term care business becomes extremely difficult as a consequence. This internationally exceptionally generous protection of pregnant women seems to be granted to the detriment of the quality of services for elderly dependent persons and society as a whole. It is just inconceivable that this labour-intensive sector could be unable to allocate physically less demanding tasks to pregnant women and to keep them as long as possible as important reference persons for the dependent elderly.

From today's perspective, the long-term care insurance system is a true blessing for elderly and dependent people as well as for a large number of caregivers. It can only be hoped that it can keep up its momentum, increase the service quality and stabilise its financial basis. Even though the nursing care services are quite domestically orientated, any research and actions taken that bring and keep Luxembourg's nursing care services at a top level of quality and cost-efficiency by international standards should be welcomed. Furthermore, the comfortable financial situation of many elderly people in comparison to the general public would allow the introduction of co-payments for people above a certain pension income as well as in possession of sufficient financial and property assets without jeopardising the solidarity paradigm of the long-term care insurance.

In the very near future, the ageing of the population will unavoidably lead to further increases in the demand for long-term care infrastructure and services. As a logical consequence, the long-term care insurance scheme and its financial model need to be thoroughly evaluated and revised. Given the economic importance of this area of social security, it is quite astonishing that the long-term insurance scheme does not play any active role in research on ICT in nursing care environments, which is expected to provide the largest impetus for transformation in this field of activity. As host of the world congress on the future of nursing systems, Luxembourg has a fantastic opportunity to reflect its own long-term care approach against the experiences of the rest of the world.

2.5 The role of social protection in promoting active ageing

2.5.1 Employment

As has been reported in the chapter on pensions, a new reform is under way. Today, incentives for working longer than 40 years of an insurance career do not exist, and the disincentive for not completing the 40 years is cushioned by the high minimum pension rate. The new reform plan only marginally promotes a longer working life. It foresees a lower replacement rate after 40 years of contribution, but leaves room for amplification if the economically active person decides to remain in the labour market until the age of 65. Furthermore, supplementary (self-) employment during retirement is planned to be simplified. These, and other measures presented previously seek to increase the retirement age. The approach can be considered a soft one. Unequal opportunities, such as working conditions and health status do not play a role in the discussion. The current status as well as the reform plans do not set out a mandatory requirement age. Envisaged, however, is a retirement age of 65. [207]

2.5.2 Participation in society

Baby-years are also credited as insured time, counting as qualifying periods, with two years for one and four years for four children. Pensionable earnings are based on pay immediately before the baby years. Employees who could not claim baby-years due to an insufficient contribution period have the right to a special monthly allowance in retirement, the so-called "Mammarent", of EUR 87 per child per year.[208]

Further, a possibility exists to contribute voluntarily to the pension system, either in order to guarantee a continuing contribution to the assurance or to fulfil all insurance periods. The minimum contribution equals 239.61 EUR per month.[209] The new reform proposal foresees a reduction of the contribution to 100 EUR. The following example represents one option of the target group.

The care of a dependent person can be credited as contributory period under certain circumstances. Firstly, the dependency of a person needs to be approved by the long-term care insurance. Secondly, if the informal caregiver does not benefit from a personal pension, the dependent person can claim for him/her to have the pension contribution insurance paid by the long term care insurance. The dependent person can further claim cash benefits for the informal caregiver.

Further, young people are insured with the health insurance if they exercise a voluntary service.[210]

2.5.3 Healthy and autonomous living

There is a clear political priority to provide support for home care as opposed to institutional care. As has been described in the previous chapter, the benefit package of the long-term care insurance is very generous and does not involve any co-payment. Informal caregivers can partly replace the professional caregivers for a maximum of 10.5 hours per week. Ambulatory networks for home care, day care institutions as well as intermittent care centres can provide

[207] See chapter 2.2.1 in this report.
[208] http://www.guichet.public.lu/fr/citoyens/sante-social/assurance-pension/pension-vieillesse/demander-forfait-education/index.html (retrieved on 27 February 2012).
[209] http://www.cnap.lu/fileadmin/file/cnap/assurance/Demande_pension_continuee_instructions.pdf#pageMode=bookmarks (retrieved on 27 February 2012).
[210] Art.1er (17) Social Security Code.

help for the dependent person. Further, nursing homes and integrated homes for the elderly exist. The political preference for home care can be confirmed by the fact that two thirds of the beneficiaries of long-term care insurance receive their nursing services at home.[211]

In Luxembourg, the so-called Club Seniors, organised and managed by the Ministry for Family Affairs and Integration, provide plenty of opportunities for people aged 50 and older to stay active and involved. They further advance social integration and participation, and support the prevention of physical and mental deficiencies. Each of the 16 club offers a variety of activities, such as yoga, language course, handicraft courses, and computer courses. A number of other organisations support the voluntary work of the elderly.

Various associations further support the independent living of the elderly, such as help lines for questions regarding activities, care, consultation etc.

[211] See chapter 2.4.1 in this report.

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3 Abstracts of Relevant Publications on Social Protection

[R] Pensions
- [R1] General trends: demographic and financial forecasts
- [R2] General organisation: pillars, financing, calculation methods or pension formula
- [R3] Retirement age: legal age, early retirement, etc.
- [R4] Older workers activity: active measures on labour market, unemployment benefit policies, etc.
- [R5] Income and income conditions for senior workers and retired people: level of pensions, accumulation of pensions with earnings from work, etc.

[H] Health
- [H1] Health expenditures: financing, macroeconomic impact, forecasting, etc.
- [H2] Public health policies, anti-addiction measures, prevention, etc.
- [H3] Health inequalities and access to health care: public insurance coverage, spatial inequalities, etc.
- [H4] Governance of the health system: institutional reforms, transfer to local authorities, etc.
- [H5] Management of the health system: HMO, payments system (capitation, reimbursement, etc.)
- [H6] Regulation of the pharmaceutical market
- [H7] Handicap

[L] Long-term care

[R] Pensions

[R4] BROSIUS, Jacques (March 2011), L'impact de la crise économique sur l'emploi au Luxembourg; journal; CEPS/INSTEAD, Cahier no. 2011-08, retrieved from: http://www.ceps.lu/pdf/3/art1645.pdf.

"Impact of the economic crisis on the labour market in Luxembourg"

Inspired by recent studies showing that labour markets are much more volatile than is made apparent by official statistics of the global evolution of the salaried job, the author analyses the impact of the economic crisis on numerous underlying movements of the workforce in Luxembourg between 2007 and 2010. Looking at these flows separately, he reveals that the proportion of workers who lost or changed their jobs was even lower after the crisis than before, and that an increase in job losses was only observed in the first half of 2009. The latter affected the industrial and construction sector at most. In summary, he comes to the conclusion that in the aftermath of the crisis, the stagnation of the Luxembourg labour market was clearly caused by another reason, namely the reduction in recruitment, which affected people below 35 years of age and was more prominent in the financial and service sector.

[R1, R5] CHAMBRE DES SALARIÉS LUXEMBOURGEOIS, Inflation, modulations de l'index et compétivité, journal, No. 2, October 2011 Luxembourg.

"Inflation, index adjustments and competitiveness"

This publication of the Chamber of Employees (CSL) is dedicated to the analysis of the comparatively high consumer price inflation in Luxembourg. The price evolution for services is the subject of a particular chapter of the publication. Separated into three different categories, administered service prices (health services, water supply, waste disposal), labour intensive services (domestic services, repairs and maintenance, education) and other services (communication, transport), the authors come to the conclusion that the automatic indexation of salaries has an important impact on consumer price inflation, which is often further accentuated by a disproportional mark-up of service prices, which are prima facie justified by the indexation policy.

[R1, R2, R3] FORUM für Politik, Gesellschaft und Kultur "Retraites", No. 303, Luxembourg, January 2011.

"Pensions"

This edition of a national socio-political magazine dedicates its main topic to the national pension system. Various articles examine the subject from its historical development via the current and expected future financial situation of the public fund. The central articles cover the difficulties in identifying an appropriate reform proposal to be supported by all major stakeholders concerned as well as a socially responsible investment policy of the pension reserve fund.

[R1, R2, R3, R4, R5, H1, H2, H3, L] IGSS (INSPECTION GÉNÉRALE DE LA SÉCURITÉ SOCIALE), Rapport général sur la sécurité sociale 2010, November 2011.

"General report on social security 2010"

The general report on social security is the annual reference document on all aspects of social security. The predominantly key statistical information on all Social Security branches is enriched with plenty of explanation and detailed evaluation. It contains chapters on the covered population, health insurance, long-term insurance, pensions, occupational accident insurance, family allowance and social inclusion. The entire statistical report is only available online, where the general report is also made available at: www.statsecu.etat.lu.

[R1, R2, R3] GOVERNMENT OF THE GRAND-DUCHY OF LUXEMBOURG (2012), Projet de loi no. 6387 portant réforme de l'assurance pension et modifiant : 1. Le Code de la sécurité sociale ; 2. La loi modifiée du 3 août 1998 instituant des régimes de pension spéciaux pour les fonctionnaires de l'Etat et des communes ainsi que pour les agent de la Societé nationale des Chemins de Fer luxembourgeois ; 3. le Code du travail. (bill), Chambre des Députés – retrieved from : http://www.chd.lu/wps/PA_1_084AIVIMRA06I4327I10000000/FTSByteServingServletImpl/?path=/export/exped/sexpdata/Mag/172/075/107714.pdf

"Draft bill no. 6387 of the reform of the pension scheme"

Despite being a bill, the document and in particular the explanatory memorandum reads like a comprehensive overview of the Luxembourg pension system from its early stages at the beginning of the 20th century via the present structure to its forecasts until 2060. Written in an informative and interesting manner, the document develops a logical sequence of arguments, which lead to the proposed reform as an appropriate answer to the challenges of the system. As unusual it might sound to classify a bill as a relevant publication of a pension system, an interested French-speaking reader will be able to derive a lot of important background information.

[R1, R2, R3, R4, R5] OECD, Pensions at a Glance 2011 – Retirement Income Systems in OECD countries and G20 countries, book, 2011, OECD publishing

The OECD edition "Pensions at a Glance 2011" provides a useful updated comparative overview on pension systems and policy trends in the OECD and also encompasses, for the first time, G20 non-OECD countries such as Argentina, Brazil, China, India, Indonesia, Russia, Saudi Arabia and South Africa. This 2011 update looks in particular at the interdependencies between pensions, retirement and life expectancy. It assesses the various measures to

incentivise work in old age instead of retirement, against the labour market shortages for older people. In its various chapters it evaluates a full range of pension policies and further deals with the finances of pension schemes, private pensions and reserve funds. Finally it provides a taxonomic overview of different country profiles based on 2008 data.

[R1, R4, R5] SCHRONEN, Danièle and URBÉ, Robert (Editors), Sozialalmanach 2011, March 2011, Luxembourg.

"Social Almanac 2011"

The Social Almanach 2011 is a book, developed in collaboration with Caritas Service Research and Development, which analyses by means of a variety of national and international authors the development of Luxembourg social policy over the past one-and-a-half years. This year, this annual publication focuses in particular on the potential and visions of Luxembourg in the frame of the 2020 strategies. The book brings together very interesting and well-researched insights into and assessment of the Luxembourg policy processes and their outcomes. Its main focus lies on the impact of different measures on social cohesion and the relief or additional burden of the vulnerable population groups. The book encompasses subjects regarding pensions, health, minimum income, education and labour market and appealingly alternates between current political, historical, sociological and philosophical point of view.

[R1, R3, R4, R5, H1, H2] STATEC, Rapport travail et cohesion sociale, No. 112, Cahier économique, October 2011, retrieved from: http://www.statistiques.public.lu/fr/publications/series/cahiers-economiques/2011/112-cohesion-sociale/index.html

"Report on employment and social cohesion"

The document provides a comprehensive picture on the Luxembourg labour market as well the income situation and living conditions of the Luxembourg population. The detailed analysis of multiple issues is enriched by many explanatory statistics and illustrative graphs. Information is very often distinguished by sex age, education and migratory background. Especially migration has a significant influence on the demographic development of Luxembourg. That is why demographic forecasts are of crucial importance for anticipating future demand and qualifications on the labour market, which in parts might have to be satisfied by an increasing population or a new cross-border or migrant workforce. They will have an impact on the planning of necessary infrastructure in the areas of transport, culture, education, health and long-term care.

[R1, R2, R3] UNION DES ENTREPRISES LUXEMBOURGEOISES (UEL), Une retraite pour tous, June 2011, Luxembourg.

"A pension for all"

The report is composed as a guide that describes the challenges of the current pension system followed by a number of concrete proposals able to tackle, at least to reduce the adverse effects on its financial long-term stability. Enhanced with visual statistical information, the document is intended to provide supporting arguments for reform decisions. In comparing earlier versions of the Government reform proposals with the deposited bill, the authors and supporters of this report really achieved their objective to launch some inspiring suggestions for the pension reform.

[R5] ZAHLEN, Paul, Regard sur les 65 ans et plus, Regards 9-2011, April 2011, Statec, retrieved from : http://www.statistiques.public.lu/catalogue-publications/regards/2011/PDF-9-2011.pdf, pp. 1-4

"Regards of the aged 65 and above".

Despite its brevity, this publication provides an excellent analysis of the elderly population in Luxembourg from a demographic and living-conditions point of view. Although this age-class shows a strong increase, relative to the European Union it remains comparatively small. Besides, more than four out of five people of age 65 live in their own properties, which is one of the reasons for a comparatively weak risk of poverty of the elderly, compared to the population in general.

[H] Health

[R1, R2, R3, R4, R5, H1, H2, H3, L] IGSS (INSPECTION GÉNÉRALE DE LA SÉCURITÉ SOCIALE), Rapport général sur la sécurité sociale 2010, November 2011.

"General report on social security 2010"

The general report on social security is the annual reference document on all aspects of social security. The predominantly key statistical information on all Social Security branches is enriched with plenty of explanation and detailed evaluation. It contains chapters on the covered population, health insurance, long-term insurance, pensions, occupational accident insurance, family allowance and social inclusion. The entire statistical report is only available online, where the general report is also made available at: www.statsecu.etat.lu.

[R1, R4, R5, H1] SCHRONEN, Danièle and URBÉ, Robert (Editors), Sozialalmanach 2011, March 2011, Luxembourg.

"Social Almanach 2011"

The Social Almanach 2011 is a book, developed in collaboration with Caritas Service Research and Development, which analyses by means of a variety of national and international authors the development of Luxembourg social policy over the past one-and-a-half years. This year, this annual publication focuses in particular on the potential and visions of Luxembourg in the frame of the 2020 strategies. The book brings together very interesting and well-researched insights into and assessment of the Luxembourg policy processes and their outcomes. Its main focus lies on the impact of different measures on social cohesion and the relief or additional burden of the vulnerable population groups. The book encompasses subjects regarding pensions, health, minimum income, education and labour market and appealingly alternates between current political, historical, sociological and philosophical point of view.

[H1, H5] ZANARDELLI, Mireille et al. (2011), L'absentéisme pour maladie dans les entreprises privées implantées au Luxembourg ; L'absentéisme au travail: un phénomène multidimensionnel? CEPS/INSTEAD, Cahiers no. 2011-09 and 2011-10, Luxembourg.

These two studies are the first of a series of four publications on an in-depth analysis of the phenomenon of work-absenteeism in Luxembourg. Commissioned by the high-level group on work absenteeism in 2009, the authors embarked on a multiple perspective investigation of work-absenteeism over a period of two years. The first publication draws attention to the whole framework on work-absenteeism and makes a comparison between countries, sectors, size of businesses and age. The second publication shows the multidimensional facets of the

phenomenon of work absenteeism, which are portrayed from the perspective of different behavioural mechanisms. It reveals that long-term absenteeism (above 22 days), which only represents 6.8% of the number of episodes but 52.2% in terms of days and 50.5% in terms of costs, represents a real quandary for the economy and the social security system and requires further analysis. Another surprising result is that the health and social services sector, with a rate almost 50% above the trade sector which served as the reference level, is by far the most confronted with the phenomenon of work absenteeism. At least two more publications of this series will follow.

[H1, H3] OECD, (2011) Health at a Glance – OECD Indicators.

This sixth edition of *Health at a Glance* provides the latest comparable data on different aspects of the performance of health systems in OECD countries. It provides striking evidence of large variations across countries in the costs, activities and results of health systems. For the first time, it also features a chapter on long-term care.
This edition presents data for all OECD member countries. Where possible, it also reports data for Brazil, China, India, Indonesia, the Russian Federation and South Africa, as major non-OECD economies.

[H3] ALEM (LUXEMBOURGOISE DES ETUDIANTS EN MEDECINE) (2011), Démographie médicale du Luxembourg, édition 2011.

"Medical demography in Luxembourg"

This study report provides a comprehensive overview of the medical demography in Luxembourg of the key statistics of the medical profession and the student population in Luxembourg. It further sheds some light on the demographic development and provides some useful recommendations for the future in terms of education and shortcoming of doctors in Luxembourg. The general tenor is that irrespective of their disciplines, a large number of doctors will retire in 10 to 20 years time and thus a shortage of doctors is very likely.

[H3] TCHICAYA, Anastase & LORENTZ, Nathalie (2011), Disparités sociales de mortalité au Luxembourg, CEPS/INSTEAD Working Paper No 2011-37.

"Social disparities in mortality in Luxembourg"

The working paper tried to examine the different causes of death, looking especially at socioeconomic characteristics (nationality and profession). It revealed that no marginal differences exist, but that conclusions would be much more meaningful if statistics were stronger. A revision of death certificates and improvement of medical documentation in general are recommendations.

[H1, H2, H3] DELOITTE (2011), étude 2011 sur les consommateurs de soins de santé au Luxembourg

"Patients' experience"

The study, representative in terms of age and gender, provides information the satisfaction of patients with the Luxembourgish health care system. It further investigates where patients obtain medical information. Although the study was designed as an online survey, only 40% of the participants reported that they use the internet for information regarding treatment. Hospitals were named as the most trustable source of information regarding this aspect.

[H4] BRAAS, Tanja (June 2011), étude de l'élaboration, de l'instruction et de l'évacuation parlamentaires de deux reformes d'envergure du secteur de la santé. Chambre des Depues du Grand-Duche de Luxembourg

"Study on the parliamentary elaboration, instruction and evacuations of the two last health reforms"

The study compares two reform projects in the health care sector, namely the reform of 1992 and the latest one of 2010. It turns out that the reform of 1992 paved the way for the reform in 2010, the latter being more ambitious and not only addressing the financial issues of the national health insurance. Both reforms are characterised by a participative approach involving all actors concerned.

[L] Long-term care

[L] IGSS (INSPECTION GÉNÉRALE DE LA SÉCURITÉ SOCIALE), Rapport général sur la sécurité sociale 2010, November 2011.

"General report on social security 2010"

The general report on social security is the annual reference document on all aspects of social security. The predominantly key statistical information on all Social Security branches is enriched with plenty of explanation and detailed evaluation. It contains chapters on the covered population, health insurance, long-term insurance, pensions, occupational accident insurance, family allowance and social inclusion. The entire statistical report is only available online, where the general report is also made available at: www.statsecu.etat.lu.

[L] COLOMBO, Francesca et al., Help Wanted? Providing and Paying for Long-Term Care, OECD Health Policy Studies, 2011, OECD Publishing.

This report presents a comprehensive overview of current key policies and strategies pursued by OECD countries to address the challenges of the current and future demand for long-term care and the related implications of an ageing society on the required sector-specific workforce and financing. The study used a mix of quantitative and qualitative methods. In particular it stresses attention to the role and public support of informal caregivers. Finally it makes a strong plea for advancing evidence-based research on long-term care. As such, it is an excellent compilation of various national and international policies, which allow policy-makers to learn from other countries' experiences.

[L] JORENS, Yves (ed.) et al., Coordination of Long-term Care Benefits – current situation and future prospects, tress – Think Tank Report 2011, November 2011, retrieved from: http://www.tress-network.org/TRESSNEW/PUBLIC/EUROPEANREPORT/trESSIII_ThinkTankReport-LTC_20111026FINAL_amendmentsEC-FINAL.pdf
The European network on Training and Reporting on European Social Security (trESS) is funded by the European Commission and covers all EU member states, EEA states and Switzerland. One of its outcomes are the so-called "think tank reports" written by a group of independent experts. The 2011 edition covers the subject on long-term care coordination in the EU. This report superbly directs attention to the complexity and difficulty encountered in the coordination of long-term care benefits among member states. Although ostensibly regulated by Art. 34 of Regulation (EC) 883/2004, the report impressively depicts the many challenges caused by the different perceptions of member states of what defines long-term benefits and the non-homogeneous granting of such provision within their social and social security

programmes. Illustrated by typical cross-border examples, the reader get an impression of the enormous complexity of the subject and understands that the administrative provision of Regulation 8883/2004 to coordinate long-term care benefits in conformity with health benefits is far from being satisfactory. The authors of the report introduce three alternative options to the existing provisions as regards explicit responsibilities for the state of residence or the first state granting benefits or to move the co-ordination to the provisions of pensions. The analysis of all these options shows interesting aspects that might help with solving the issue. However, each of them brings new disadvantages, too. Thus, the report does not deliver the solution, but its fantastic analysis enriches the ongoing international discussion on this important field of social security.

4 List of Important Institutions

Association des Médecins et Médecins-Dentistes (AMMD) - Association of Physicians and Dentists

Contact person: Claude Schummer (General Secretary)
Address : 29 rue de Vianden, L-Luxembourg
Webpage : www.ammd.lu

The AMMD is a professional association with the aim of protecting the financial interests and needs of the medical and medico-dental community at ministerial and parliamentary level and vis à vis the health insurance and the Inspection Générale de la Sécurité Sociale (IGSS), in particular with respect to the tariffs of the nomenclature.
Publications: Le Corps Médical, Bulletin, Volumes 2011-2012

Caisse Nationale d'Assurance Pension (CNAP) - National Pension Fund

Contact person: Robert Kieffer (President)
Address: 1a boulevard Prince Henri, L-2096 Luxembourg
Webpage: www.cnap.lu

As a consequence of the introduction of uniform employment status in 2009, the National Pension Fund (CNAP) was created in the same year as a merger of four former pension schemes. It manages the public pension fund for old age and disability for all private sector employees. Its main tasks are to administer the individual pension benefit records, to calculate pensions according to the pension formula and to make all pay-outs of pension benefits.

Caisse Nationale de Santé (CNS) - National Health Insurance Fund

Contact person: Paul Schmit (President)
Address: 125, route d'Esch. L- 1471 Luxembourg
Webpage: www.cns.lu

The National Health Fund (CNS) is a public institution established by the law of 13 May 2008 and is part of the public social security system. It is responsible for the organisation and management of sickness and maternity in Luxembourg as well as for the management of the long-term care insurance scheme. It decides on the offer of benefits, contribution rates for health insurance and long-term care insurance. As a negotiating partner for all health care providers, it negotiates agreements, rates and budgets.

Centre d'Etudes de Populations, de Pauvreté et de Politiques Socio-Economiques (CEPS/INSTEAD) - Research Centre on Populations, Poverty and Socio-Economic Policies

Contact person: Pierre Hausman (Director)
Address: 3, avenue de la Fonte, L-4364 Esch-sur-Alzette
Webpage: www.ceps.lu

CEPS/INSTEAD is a research institute specialised in economic and social sciences. The main activities are:

- *studies on population, poverty and socio-economic affairs*
- *development and comparative analyses of large-scale scientific databases nationally*
- *research on Luxembourg's social security system (solidarity, personal responsibility, social security)*
- *developing analytical tools for modelling and simulating socio-economic scenarios*
- *conducting statistical, econometric, geographic and cartographic analysis*
- *providing postgraduate training programmes*

Publications:

- *Publisher and editor of the scientific journal Population & Emploi*
- *Évolution et place des femmes sur le marché du travail*
- *Multiple publications on labour, health, social inclusion, housing, etc.*
- *Zanardelli et al.: L'absentéisme au travail: un phénomène multidimensionnel ?, 2011*
- *Leduc, Kristell : Le Luxembourg face au vieillissement de sa population active, 2011*
- *Brosius, Jacques: L'impact de la crise économique sur l'emploi au Luxembourg, 2011*
- *Bodson and Segura : Le divorce au Luxembourg en droit et en chiffres, 2010*
- *Guastelli, Lejealle,Vanni : Les femmes et les hommes sur le marché de l'emploi, 2010*
- *Tchicaya and Lorentz : Disparités sociales de mortalité au Luxembourg, 2011*

Chambre des Salariés - Chamber of employees
Contact person: Jean-Claude Reding (President)
Address: 18, rue Auguste Lumière, L – 1012 Luxembourg
Webmail: www.csl.lu

The Chamber of Employees is the representation of the employees in the social dialogue. It also performs an advisory function to the government and all publicly managed organisations. The government is obliged to seek the opinion of the Chamber of Employees on all draft laws and regulations affecting the interests of workers, on the bill of the public budget and on all issues concerning the creation and amendment of collective agreements.
Publications:

- *Inflation, modulations de l'index et compétitivité, Dialogue Analyse, 2011*
- *Panorama Sociale 2011, Dialogue analyse, 2011*
- *Droit de la sécurité sociale, La coordination des règles dans l'UE, 2011*
- *Oui à l'indexation automatique et intégrale des salaires, Dialogue analyse, 2010*

Commissariat aux Assurance - Supervision Authority of Insurance Institutions
Contact person: Victor Rod (President)
Address: 7, boulevard Royal, L – 2449 Luxembourg
Webpage: www.commassu.lu

This is a public institution under the authority of the Minister for Treasury and Budget. The Commissariat is responsible for the approval of insurance, reinsurance and insurance intermediaries as well as for developing common standards on the international level and drafting laws and regulations for the insurance sector.

Confédération des organismes prestataires d'aides et de soins (COPAS) - Confederation of providers for aid and care
Contact person: Michel Simonis (President)
Address: 4, rue Jos Felten, L-1508 Howald
Webpage: www.copas.lu

COPAS is the association of the major long-term care providers. As of 2010, COPAS counted 46 members with a total of 9,500 employees, which represent almost all providers of all types of nursing care institutions (nursing homes, homes for the elderly, centres for handicapped). It defends its members' interests in negotiations with public authorities to agree the remuneration fee (valeur monétaire) payable from the long-term care insurance scheme, or subsidiarily with trade unions on collective labour agreements.

Centre de Recherche Public – Henri Tudor (CRP-Henri Tudor) - Public Research Centre in the field of ICT, environmental and health care technologies
Contact person: Robert Lemor (Head of Department)

Address: 2A rue Kalchesbrück, L-1852 LUXEMBOURG
Webpage: www.santec.lu

The mission of the Public Research Centre Henri Tudor (named after the engineer who invented Tudor batteries) is to strengthen the economic and social fabric of the Grand Duchy of Luxembourg. It targets a large variety of sectors from services, through finance, production and construction, to health care and social security. The department CR SANTEC is the Resource Centre for Health care Technologies. Its primary objective is to help health care professionals to better focus their activities on the patient by implementing efficient solutions and tools. Its research and development projects concern:

- *DICOM Tools - a Java library to perform high-level DICOM operations.*
- *eSante - Analysis & Feasibility Study for eHealth*
- *Dose DEO (reference dose level in Computer Tomography)*
- *GECAMed - Free & Open Source Application on medical records, electronic prescription and billing for medical practices*
- *Biomap LIMS - IT platform that will be responsible for biospecimen information management and analysis*
- *Luxembourg Heart Failure Project* - a home monitoring system
- *EHR QTN* - systematic and comparable quality assurance and certification of e-Health products
- *Optimage - Optimal Image Quality for Modalities to facilitate control in radiology*

Publications:

- *Pruski et al: Adaptive Ontology-Based Web Information Retrieval: The TARGET Framework, 2011*
- *Bonacin et al.: Careflow Personalization Services: Concepts and Tool for the Evaluation of Computer-Interpretable Guidelines, 2011*
- *Pruski et al.: Towards the Formalization of Guidelines Care Actions using Patterns and Semantic Web Technologies, 2011*
- *Benzschawel and Da Silveira: Protecting Patient Privacy when Sharing Medical Data, 2011.*

Centre de Recherche Public de la Santé (CRP - SANTÉ) - Public Research Centre for Health

Contact person: Marie-Lise Lair-Hillion (Head of Department)
Address: 1A-B, rue Thomas Edison, L-1445 Strassen
Webpage: www.crp-sante.lu

The CRP-Santé is a public institution performing basic, pre-clinical and clinical research in biomedicine and health care. A second mission is to promote public health through evaluation and information campaigns, to perform studies on health care financing and to advise the Luxembourg authorities on health issues. CRP-Santé also encourages the debate between professionals and the general public in areas of Biomedical Research and Public Health. CRP-Santé delivers academic training and higher education in close collaboration with major European universities and with the University of Luxembourg. It consists of five research departments (Public Health; Virology, Allergology and Immunity; Immunology; Oncology; and Cardiovascular Diseases) and two competence centres (Clinical and Epidemiological Investigations and Biomedical Research Resources). Through its research activities, CRP-Santé generates new knowledge and technological innovations that will foster economic activities in the biotechnology sector.

Publications (of the Department of Public Health):

- *Satisfaction survey of residents in long-term care institutions, 2011.*

- *Reduced sympathetically driven heart rate variability during sleep in Parkinson's disease: a case-control polysomnography-based study, 2011*
- *Prevalence of the metabolic syndrome in Luxembourg according to the Joint Interim statement definition estimated from the ORISCAV-LUX study, 2011*

Entente des Hôpitaux Luxembourgeois (EHL) - Luxembourg Hospital Association

Contact person: Marc Hastert (Director)
Address: 5, rue des Mérovingiens, L- 8070 Bertrange
Webpage: www.ehl.lu

The EHL represents the providers of in-patient health care (hospitals and clinics and long-term care facilities). The association aims to defend the interests of its members and to channel all forms of progress in hospital care to improve the hospitals' competition and the well-being of the patients.
Publications:

- *EHL-info, six-monthly revue*

Fondation "Stëftung Hëllef Doheem" - Foundation: Help at home

Contact person: Pierette Biver (Director of Care Services)
Address: 50, avenue Gaston Diderich, L-1420 Luxembourg
Webpage: www.shd.lu

With over 1,500 employees, Hëllef Doheem is not only the largest ambulatory care provider in Luxembourg, but among the biggest employers in Luxembourg. Hëllef Doheem currently supplies services to patients, fully or partly covered by both health and long-term care insurance. The organisation plays a very active role in the development of care concepts and applied research.

Inspection Générale de la Sécurité Sociale (IGSS) - General Inspectorate of Social Security

Contact person: Raymond Wagener (Director)
Address: 26, rue Sainte Zithe L-2763 Luxembourg
Webpage: www.mss.public.lu

Under the authority of the Ministry of Social Security, IGSS is entrusted with

- *development of legislation and regulations on social security*
- *control of social institutions under government responsibility*
- *actuarial analysis of pension and health systems*
- *collection of the necessary statistical data both nationally and internationally*

IGSS is further responsible for the supervision of the supplementary pension schemes as well as the assessment of applications to receive nursing care benefits. The latter service, Cellule d'évaluation et orientation (CEO) is attached to IGSS. On an international level, IGSS acts as the reference institution for social security issues related to cross-border aspects.
Publications:

- *Rapport général sur la sécurité sociale 2010, November 2011, www.statsecu.public.lu*
- *Bulletin luxembourgeois des questions sociales, Volume 28, 2011*
- *Droit de la sécurité sociale, January 2011*

Integrated BioBank of Luxembourg (IBBL) - General Inspectorate of Social Security

Contact person: Robert A. Philips (CEO)
Address: 6, rue Nicolas Ernest Barblé, L-1210 Luxembourg
Webpage: www.mss.public.lu

The IBBL is a newly founded independent, not-for-profit biobank designed to promote new, high quality research in Luxembourg and to contribute the next generation of health care. The

IBBL provides a wide variety of the highest quality samples alongside cutting-edge technology in order to attract new international research partners for the sciences in Luxembourg and to stimulate the development of new biotechnology companies to the area.

Ministère de la Santé - Ministry of Health

Contact person: Mars di Bartolomeo (Minister)
Address: Allée Marconi, Villa Louvigny, L - 2120 Luxembourg
Webpage: www.ms.etat.lu

The Minister of Health is responsible for the definition and implementation of health policy, monitoring of the implementation of laws and health regulations, supervision of institutions and health services. The supervision of health services is ensured by the Directorate of Health.
Publication:

- *The health system of the Grand-Duchy of Luxembourg, 2010*

Service central de la statistique et des études économiques (STATEC) - Central service for statistics and economic studies

Contact person: Jean Langers (Head of Department)
Address: 13, rue Erasme L-1468 Luxembourg
Webpage: www.statec.lu

STATEC is responsible for collecting as well as for analysing and modelling data to better understand phenomena of an economic and social nature. It is a scientific and administrative independent statistical office, which collects and computes data in areas ranging from production of goods and services to social cohesion and (un)employment, prices and wages, innovation and entrepreneurship. Statec is further involved in micro and macroeconomic forecasting, partly undertaken for third parties.
Publications:

- *Economie et statistiques*
- *Cahiers économiques*
  - *No. 112, Rapport travail et cohésion sociale, 2011*
  - *Regards Nr 22 sur les conditions de vie des hommes au Luxembourg, 2011*

Union des Entreprises Luxembourgeoises (UEL) - Union of Luxembourg Enterprises

Contact person: Pierre Bley
Address: 7, Rue Alcide de Gasperi, Luxembourg
Webpage: www.uel.lu

UEL is the non-profit umbrella organisation of employers. In the social dialogue it defends the convergent interests of businesses and employers. The composition of the UEL bodies reflects the economic sectors that it represents. Working groups are established on a permanent basis covering topics including legislation, overtaxation, economic studies, education and training schemes, environment and land use. The UEL also serves as a forum for topics concerning the European Union.
Publications:

- *Regular publication of position papers on various topics.*
- *Contribution de l'UEL au Programme national de réforme dans le cadre de la stratégie Europe 2020, March 2011*
- *Une retraite pour tous, June 2011*

This publication is financed by the European Community Programme for Employment and Social Solidarity (2007-2013). This programme was established to support the implementation of the objectives of the European Union in the employment and social affairs area, as set out in the Social Agenda, and thereby contribute to the achievement of the Lisbon Strategy goals in these fields. The seven-year Programme targets all stakeholders who can help shape the development of appropriate and effective employment and social legislation and policies, across the EU-27, EFTA and EU candidate and pre-candidate countries. The Programme has six general objectives. These are:

(1) to improve the knowledge and understanding of the situation prevailing in the Member States (and in other participating countries) through analysis, evaluation and close monitoring of policies;
(2) to support the development of statistical tools and methods and common indicators, where appropriate broken down by gender and age group, in the areas covered by the programme;
(3) to support and monitor the implementation of Community law, where applicable, and policy objectives in the Member States, and assess their effectiveness and impact;
(4) to promote networking, mutual learning, identification and dissemination of good practice and innovative approaches at EU level;
(5) to enhance the awareness of the stakeholders and the general public about the EU policies and objectives pursued under each of the policy sections;
(6) to boost the capacity of key EU networks to promote, support and further develop EU policies and objectives, where applicable.

For more information see:
http://ec.europa.eu/social/main.jsp?catId=327&langId=en