
# Annual National Report 2011

# Pensions, Health Care and Long-term Care

## Luxembourg

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# 1 Executive Summary

Over the last two years, the Luxembourg's social security system has been in a phase of transition. As a result of the financial crisis, which caused substantial adverse effects on the country's fiscal sustainability and the labour market, among other aspects, it has become indisputably clear that partial corrections of the structure of the existing pension, health and long-term care system are absolutely vital. Whereas in pensions, long-term sustainability is the major cause of concern, the sectors of health and long-term care insurance are challenged by the fact that in the medium term the costs tend to get out of control. In July 2009, right from the start of the legislative period, the current government announced the development of a social security reform strategy. The health system reform, effective as of January 2011, marked the kick-off of the wave of reforms. A pension reform will follow in 2012 and the revision of the long-term care system is expected to complete this reform agenda in 2013.

In *pensions*, the reform strategy is 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. The necessity for raising the effective retirement age and overcoming drawbacks related to work incapacity and professional reintegration was initially largely agreed by the social parties. The terms of this agreement also stipulated that that the current configuration of benefits needed to be maintained, which is why a 2010 government proposal for a potential reduction, interruption or even abandonment of part of the wage and price indexation immediately caused the social partners to take up strongly contentious positions and has remained inconclusive for the time being. Nevertheless, two moderate modifications of the indices finally found agreement in the fall of the same year.

In spring 2011, the government put forward another attempt for reforming the pension system. This proposal mainly concentrates on the adjustment of the pension formula as a soft measure to increase the retirement age. It remains up to each person 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. Admittedly, the proposal lags behind the 2010 reform scenarios, but still takes into account many recommendations expressed in the Europe 2020 strategy regarding the reform of pension systems as well as the EU Green Paper on pensions.

As of 2030, however, 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. Against this background, it is highly unlikely that the current proposal will prove sufficient to avert these future financial risks of the pension scheme. Therefore, other further-reaching reforms will have to follow.

In the *health care system*, cost control in spending is considered relatively weak, the flow and quality of health information could definitely be improved and the role of the health insurance fund and hospital managers with regard to validity-control of the physicians' performance and bills could be strengthened. Therefore, containing costs in order to reduce the deficit of the national health insurance fund (CNS) and to assure its financial sustainability in the long run is one of the principal objectives of the present health system reform, which passed through the Chamber of Deputies in December 2010 and became effective as of January 2011.

It consists of some financial measures, such as a slight increase in the contribution rate and the restructuring of the public budget participation in the health sector, but mainly concentrates on structural reforms. Among others, these encompass a declared priority for

primary health care with the introduction of a GP model at its centre, and substantial improvements in medical documentation based on the introduction of a new classification system for medical procedures and the expansion of the mandatory ICD-10 coding to at least four digits, both corresponding to the up-to-date international documentation norms and standards. These improvements are considered absolutely urgent and as vital as a more coherent planning, coordination and financing of the hospital sector, which is equally part of the reform measures.

Indeed, the legal path which has now been chosen has to be acknowledged as appropriate to bring transparency into the system. The government has made a wise decision by starting the reconstruction of the health care system with this reform that mainly concentrates on partial corrections of the structure of the existing system. In this respect, only 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.

It is much too early to anticipate the overall impact of the reform on the health care system, the provision and utilisation of services, and its financial structure. However, it is worth mentioning that the last health reform dated back to 20 years previously, and this is the first time for 30 years that the constant increase in providers' revenues has been subjected to any restriction. As initially mentioned, the current health care reform still preserves the fundamental principles of the one-tier health care system, which is characterised by universal health insurance coverage of the whole population and cross-border workers, a compulsory collective agreement of all health providers with the health insurance scheme, and the self-governance of the latter by the social partners.

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. The capacity of specialised home care services and the number of beds in nursing homes and integrated centres for the elderly (CIPAs) have admittedly improved access to the system, but have also weakened the originally good financial situation of the long-term care insurance scheme. However, despite the financial crisis, its financing situation is still basically stable. Therefore, during the reporting period 2010/2011, it was not subject to any major reform. 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.

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 young population in comparison to other EU countries, with a proportion of older people aged 65+ in the overall population of just 14% in 2008. As a logical consequence, the long-term care insurance and its financial model needs to be thoroughly evaluated and revised. 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 (2010 until May 2011)

## 2.1 Overarching developments

In the aftermath of the financial crisis, Luxembourg looks back on a much smaller-than-expected contraction of its economy. Already during 2010, the economy rebounded from the previous year's decline and grew by 3.5%. In particular, the sectors of manufacturing, trade and transport have benefitted from the partial unemployment measures that were introduced in 2009 and largely helped industry to maintain the workforce. Equally, the fiscal deficit, which reached a peak of 2.3% of GDP in 2009, slightly recovered during 2010 to 1.7% and has proved to be far lower than the expected 3.9% of GDP.[1]

Currently, the Luxembourgish social security system is undergoing a phase of transition. As a result of the financial crisis, which caused substantial adverse effects on the country's fiscal sustainability and the labour market[2], among other aspects, it has become indisputably clear that partial corrections of the structure of the existing pension, health and long-term care system are absolutely vital. Whereas in pensions, long-term sustainability is the major cause for concern, the sectors of health and long-term care insurance are challenged by the fact that in the medium term the costs tend to get out of control. In July 2009, right from the start of the legislative period, the current government announced the development of a social security reform strategy. In 2010, the public administration put all its efforts into preparing the health reform, consulting on it with social partners and providers and ensuring that a bill was deposited in time for parliamentary discussion so that the law could pass the Chamber of Deputies before the end of the year.[3] This endeavour was successful in that the health system reform became effective as of January 2011.

The first attempt at a pension reform proposal, likewise presented in spring 2010, met fierce resistance from the social partners. Nearly one year later, another and much more moderate reform proposal was launched, which is currently under debate. The government seems to be confident that in 2012, a pension reform will be executed as next wave to modernise the social security system.[4] Finally, the long-term care system is expected to complete this reform agenda in 2013. Over the last three years, this branch had largely been left untouched. This report will provide in-depth information on these three major pillars of social security.

As of 2011, a smaller reform of accident insurance also became effective. Luxembourg decided to abolish the previous different contribution rates based on 21 branch-specific risk classes in favour of a unified rate of 1.15% for all companies in Luxembourg. However, this tiny-looking modification represents a significant change to the international practice in this area, where premiums still differ widely among business sectors, based on the specific risk-exposure. The measure demonstrates the value of solidarity among all economic actors and brings an end to very high non-wage labour cost for small businesses in the craft sector. Admittedly, the reform more than doubles the contribution rate for the dominant financial sector, but leads to reductions of up to 4.8% for some construction branches, like electrical installation. The new system further facilitates the introduction of a malus/bonus system as intended by the legislator.[5]

1 IMF 2011a, 5.
2 Government of the Grand-Duchy of Luxembourg 2011, 6-7.
3 MS/MSS 2010d.
4 Government of the Grand-Duchy of Luxembourg 2011, 12-15.
5 MSS 2011, 53.

The requirement for fiscal consolidation, with which the country first became acquainted as a result of the crisis after a long period of economic growth, has turned into a continuous challenge. Particularly with regard to preparation for demographic ageing, it is inevitably linked with substantial reforms of the social security system. Thus, the intention to improve the efficiency of the health care system and contain its cost was largely applauded by many stakeholders.[6] Whether the upcoming pension reform will garner the same level of appreciation remains to be seen. The continuing tough debate over indexation demonstrates the difficult political enforceability of those measures aimed at abandoning elements of the broad social achievements that had accumulated over decades. Demographic and economic changes may not significantly alter their fervent defence by their beneficiaries.

## 2.2 Pensions

### 2.2.1 The system's characteristics and reforms

The public pension system in Luxembourg is organised as a pay-as-you-go (PAYG) system and covers the whole of economically active society on a mandatory basis. Since 1911 the system has evolved from a blue-collar workers' plan and reached its current universal dimension as long ago as 1964, when independent workers were the last eligible group to be encompassed. Over the years, the four original private sector schemes were harmonised and, as of 2009, merged into one single scheme as part of the introduction of a uniform social security status. Civil servants and other employees of the government, local authorities, public institutions and the national railway kept their own separate statutory pension system.

Pension benefits are calculated on both length of contributions and the accumulated lifetime amount[7] and are linked to two indices: the consumer-price and the 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. Wage indexation on the other hand is done bi-annually by means of a specific law. Every two years the government proposes to the Chamber of Commerce 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.

At the beginning of 2010, the government proposed a potential reduction, interruption or even abandonment of part of the indexation[8], which immediately caused the social partners to take up strongly contentious positions and has remained inconclusive for the time being. However, in prospect of the crisis, two moderate modifications of the indices were finally agreed upon in the fall of the same year.

The last automatic adjustment of the price index became effective from 1 July 2010 (+2.5%)[9], whereas the wage index as of 1 January 2011 (+0.95%) only represented half of the calculated wage increase during the years 2008 and 2009 (+1.9%). The temporary modifications resulted in a staggering of the wage index over two years[10], of which the second part will only become

6 Schronen and Urbé 2011, 67.

7 Accrued benefit rights also encompass periods of involuntary unemployment and temporary work-incapacity due to illness and accidents.

8 http://www.mf.public.lu/actualites/2010/04/frieden_tripartite_130410/index.html (retrieved on 25 April 2011).

9 http://www.luxembourg.public.lu/fr/actualites/2010/06/28-salaires/index.html (retrieved on 25 April 2011).

10 Art. 225 of the Social Security Code. Back in 2006, the Chamber of Delegates already decided to stagger the January 2007 adjustments between July 2007 (by 1%) and July 2008 (by 0.9%) in order to consolidate public finances (Law of 22 December 2006).

effective as of 1 January 2012[11] and application of the next adjustment to the price index not before 1 October 2011.[12] According to the inflation statistics of Statec, the latter concerned the price-index adjustment which, under constant legislation, would have been due as of 1 May 2011.[13]

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 1.69 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, the lump sum element for 40 pension years equates to EUR 413+ EUR 40 = EUR 453 per month.[14]
- 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 on the one hand beyond the age of 55 on the one hand, and exceeding 38 eligible pension years (up to a total maximum of 2.05%) on the other.

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.[15] The minimum pension 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 2009, the average gross pension amounted to EUR 3,020 per month for men and EUR 1,505 for women[16].

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.[17] As of 2011, payment of the latter is postponed to as of the age of 65 (previously 60).[18]

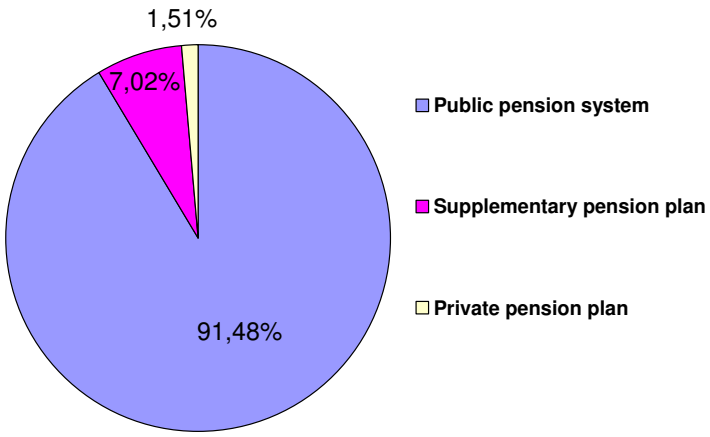
Governmental reports and analyses on the pension system are regularly made available for the public through the governmental websites (www.etat.lu). The members of the pension funds are informed in writing on a yearly basis about their acquired years of pension rights. A

[11] Law of 17 December 2010.
[12] Prime Minister's State of the Union speech on 6 April 2011. http://www.gouvernement.lu/gouvernement/etat-nation/2010/etat-nation-2010-fr/index.html.
[13] http://www.statistiques.public.lu/fr/actualites/economie-finances/prix/2011/05/20110504/20110504.pdf
[14] Social parameters 2011, www.mss.public.lu. See also: Feist 2011a, 6.
[15] Art. 223 of the Social Security Code (CSS).
[16] The figures include neither data for partial pensions nor for those transferred abroad. Taking all pensions into account, in 2009 the average pension amounts to EUR 1,934 for men and EUR 1,240 for women respectively. IGSS 2010, 190-191.
[17] OECD 2011, 267. See also: Social Parameters 2011 (www.mss.public.lu).
[18] Law of 16 December 2010.

preliminary determination of the pension amount to be expected is only made available on request. However, according to the AXA pension survey 2010, roughly 42% of the economically active population of 50+ is not aware of the amount of their future pension, and another 40% claim to have an approximate knowledge of this amount.[19]

The second and third pension tiers play an increasing but still marginal role in Luxembourg. Based on an estimated overall contributory amount of EUR 4,069 million in 2009 to all pension systems together[20], the public system alone represents 91.48% of all pension investments, followed by the supplementary company-based pension plan with 7.02%, and the private insurance-based plan of the third tier at 1.51%. Whereas roughly 25% of the active population benefits from a supplementary pension fund, the same is true for only 15% for the third tier pension plan. For 2010, the Supervisory Authority of Insurance Institutions (Commissariat aux assurances) reports an increase of 8.92% of annual contributions to the third tier.[21]

Figure 1: Annual contributions in 2009 to the different tiers




*Sources: IGSS 2010, Kneip 2008, Wictor 2009, Commissariat aux Assurances 2011, own calculations*

The financial model of the public system and the many previous years of continuous economic growth, which went along with the large influx of cross-border workers, have build a very solid economic basis for the pension fund. The system is based on a contribution rate which is fixed for a period of seven years, a government participation of one third of the individual pension contribution (= 24% of gross salary for all shares together)[22] and a reserve fund for compensation. By the end of 2009 the pension system was able to accumulate a large reserve of 3.6 times yearly expenditure, which equalled 26% of GDP[23]. Furthermore, cautious

[19] AXA 2010, 16. According to this study, more than two thirds of the active population estimate that their future pension will be sufficient for an adequate standard of living in their old age. Almost 90% of current pensioners are of this opinion.

[20] IGSS 2010, 193, Kneip 2008, 5 ; Commissariat aux Assurances, 2011; 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 of the number of supplementary pension plans, a method that is also used by Wictor 2009.

[21] Wictor 2009, 8. Commissariat aux Assurances, 2011.

[22] The contributions are paid in equal shares of 8% by employers, employees and the state.

[23] IGSS 2010, 199.

investment rules (less than 2% is invested in shares) granted the Luxembourg pension fund respite from the hazards of the financial and economic crisis. In 2010, the reserve fund realised an annual yield of almost 6%, which represents its best result ever.[24] For the future, the fund announced the application of a social responsible investment strategy to employ environmental, social and government criteria in their decision-making processes.[25] In 2009, the growth of pension expenses surpassed that of revenues for the second time, which at the different respective levels of both still led to a 4% increase of the surplus.[26]

In order to keep the financial system in balance, the General Inspection of Social Security (IGSS) re-analyses the financial situation of the pension fund every seven years, which last happened in 2005. In 2005, the actuarial projections encompassed for the first time a long-term period up to 2050. IGSS estimated the level of public spending on pensions at roughly 14.2% of GDP in 2030 and 23.9% in 2060,[27] which will by then greatly exceed the EU average. This approach gave rise to doubts for the first time about the system's financial sustainability.

Within the next few decades, however, this comfortable-looking public pension scheme will be confronted with major shocks which, although not caused by the crisis, will be negatively amplified by it. As of 2025, today's beneficial high percentage of relatively young workers will subsequently turn into a growing number of pensioners, for which a structural slowdown in employment growth may have disastrous effects. The future pension liabilities are expected to increase from 7.2% of GDP in 2009 to 24% in 2060, presenting the highest increase in age-related expenditure of all EU-countries[28]. 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 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%).[29]

### 2.2.2 Debates and political discourse

The international financial and economic crisis heavily affected Luxembourg's economy, with substantial adverse effects on the national labour market and fiscal sustainability. The 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.[30] Among the relevant stakeholders, which meet bi-annually at so-called "Tripartite"[31] meetings, there was a strong commitment to the need to raise the

[24] Fonds de Compensation de la Sécurité Sociale, SICAV-FIS 2011, 4.
[25] Luxemburger Wort 2011b of 06.05.2011.
[26] MSS 2011, 29.
[27] European Union 2010, Annex, 52.
[28] European Commission 2009.
[29] Zahlen 2011, 1.
[30] Government of the Grand-Duchy of Luxembourg, July 2009, 122-125.
[31] The Tripartite committee is composed of representatives of government, employers' organisations and trade unions. It normally allows well-conciliated negotiations in order to endorse the government in taking measures to stimulate economic growth and guarantee full employment. In the same light, however, it clearly limits the government's decision-making power, as the parties can barely reach consensus among themselves in favour of strong reforms. See: Hohmann 2009.

effective retirement age and overcome drawbacks related to work incapacity and professional reintegration measures. All parties also agreed to keep the current configuration of benefits, for which a further continuous inflow of labour and economic growth remains vital.

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.[32] 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.[33] However, the non-conciliatory extreme positions brought forward by the employers' and employees' organisations[34], which revolved around the question of whether or not these cuts were necessary to maintain the country's competitiveness, not only led to an inconclusive outcome of the "Tripartite"[35], but that time also caused a substantial crisis in the government coalition.

In autumn 2010, the government used this temporary failure of the strong and well-established extra-parliamentary concertation body for labour, employment and social issues' by holding separate meetings with the trade unions and the employers' organisation, which the given designation "Bipartite" provided with an official character. Indeed, they were quite successful in breaking the state of deadlock and came up with some pragmatic solutions. The negotiations with the trade unions resulted in (1) the application of any necessary price-indexation by no earlier than 1 October 2011[36] under the condition that no further manipulation of the index will take place before 2013, (2) to limit the announced crisis tax to the years 2011 and 2012 and (3) to establish an Observatory of price development[37]. The employers' associations finally accepted these initially highly criticised bi-lateral agreements by negotiating itself (1) a state subsidy both to the accident insurance (EUR 20 million) and the employers' mutuality responsible for the continued payment of wages for employees in case of illness-induced work incapacity (EUR 25 million) and (2) an increase in the state subsidisation of measures for further training (by EUR 20 million).

The deviation from the usual Tripartite meeting somehow re-established a constructive climate for a socio-economic debate with the social partners. With reference to the financial sector, which as the main responsible party for the crisis seemed unjustifiably to be spared from the austerity measures for its recovery, some authors describe the compromises as a missed opportunity to take the crisis for more substantial reforms.[38] Indeed, as of 1 January 2011 only some of the announced austerity measures, in particular revenue-generating measures, were implemented[39], of which pensions were only concerned with respect to the narrow index postponement measures.

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[32] http://www.mf.public.lu/actualites/2010/04/frieden_tripartite_130410/index.html (retrieved on 25 April 2011).

[33] In total, the austerity measures announced in 2010 were planned to cut the social security budget by EUR 125 million, those for investments by EUR 340 million and State operational costs by EUR 28.5 million. In addition, an increase in the maximum tax rate by 1% (to 39%) and increase in the solidarity surcharge from 2.5% to 4% and a crisis tax of 0.8% on revenues above the minimum income were planned to generate additional revenues of EUR 160 million annually. Schronen and Urbé 2011, 21.

[34] Union des Entreprises Luxembourgeois 2009, Chambre des Salaries 2010.

[35] Reference is made to the Tripartite meeting in spring 2010.

[36] As mentioned earlier, this measure now applies for the price-index adjustment, which under constant legislation would have been due as of 1 May 2011.

[37] At the time of writing, the establishment of this institution has not yet taken place.

[38] Schronen and Urbé 2011, 32-33.

[39] Law of 17 December 2010 on fiscal measures related to the financial crisis (http://www.legilux.public.lu/leg/a/archives/2010/0247/index.html) retrieved on 08 May 2011.

Nearly one year after the 2010 Tripartite crash, on 17 March 2011, the government again put forward a new pension reform proposal. 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 pensioner decides to remain in the labour market until 65.

### 2.2.3 Impact of EU social policies on the national level

Whereas the Luxembourg draft NRP 2011, dated November 2010, remained relatively vague with regard to the reform of the pension system and refrained from mentioning any concrete strategy to be taken to reach the Luxembourg 2020 target, the situation changed significantly in the final version of the NRP 2011, published in April 2011. There the above-mentioned reform proposal of 17 March 2011, is explained in notable detail.[40]

It shows that the agenda given by the European semester was too tight for preparing a national strategy within the government in time for the fall of 2010 and for consulting on it with the relevant stakeholders. The period until April 2011 for submitting the final NRP 2011 was absolutely necessary to accomplish both, for the latter at least in its initial attempt.

As regards content, the proposal is built on many recommendation 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).[41] It remains relatively moderate, however, and lags behind last year's as well as earlier reform scenarios. It builds on the following measures:

*Adjustment of the pension formula*: [42]

- The lump-sum element of the annual pension, based on a percentage of the minimum income, will increase from 23.5 to 26%. Together with an unchanged end-of-year allowance it will lead to a nominal increase of EUR 44 (from 453 to 497) 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 employment above both 60 years of age and 40 years of eligible pension years, of which each additional year (age and pension year) will bring 0.025 percentage points (from currently 0.01 each, above 55 years and 38 eligible pension years).

*Further provisions*:

- 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 qualification for early retirement from the age of 57). Only the number of years spent studying, which will count as non-contributory complementary pension years, should be lowered from currently 9 to a maximum of 5.

[40] Government of the Grand-Duchy of Luxembourg 2011, 12-15.
[41] European Commission 2011, 6; European Commission 2010, 9-11.
[42] Feist 2011a, 6.

- The individualisation of pension rights will bring an end to the fundamental inequality caused by non-sharing of acquired pension rights during marriage in the case of divorce. In 2009, following the draft legislation on divorce (No. 5155)[43], the judicial commission of Chamber of Deputies proposed 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 was later equally supported by State Council.[44] The fact that by 2008 one third of the couples who married during the 1980s were divorced[45], underpins the necessity of the measure.

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 2012.

The projections are based on a constant 3% growth of the Luxembourg economy, workforce growth of 1.5%, productivity growth of 1.7% and net yield of the reserve fund of 3%. Indeed, they perpetuate the already more prudent long-term projections from 2005[46] and correspond exactly with the macro-economic predictions for 2011[47] and are more cautious than the government mid-term provisions until 2014, which are based on an annual growth of GDP (+3.5%) and of workforce (+2%).[48]

The reform proposal, once it has been accepted by the social partners, will slow down the inevitable increases in pension expenditures to 5% of GDP in 2060 and assure that the current contribution rate will remain below 30% of gross wages by that time. In comparison, under continued application of the current legislation, the pension expenditure would increase to 9% of GDP and, consequently, the contribution rate would then exceed 41%.[49]

In addition, 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.[50]

Against the background of last year's political turmoil, the current government reform proposals are appreciable indeed. However, in the light of the long-term sustainability and adequacy of pensions there are at least two features which require further analyses:

1) The impact of the modification of the two indices (wage- and price-index):

In 2009, the UEL calculated the impact of the extreme scenario to abolish the wage-index and to limit the price-index to pensions below 1.5 times the minimum income as of 2011. They came to the conclusion that these measures would reduce the financial debt of the pension

[43] Bodson and Segura 2010, 13-16. see also: www.chd.lu.
[44] MSS 2011, 30.
[45] Bodson and Segura 2010, 13-16.
[46] IGSS 2009, 53.
[47] retrieved on 15 April 2011 from http://www.statistiques.public.lu/stat/TableViewer/tableView.aspx?ReportId=934&IF_Language=fra&MainTheme=5&FldrName=1.
[48] Prime Minister's State of the of the Union speech on 6 April 2011. http://www.gouvernement.lu/gouvernement/etat-nation/2010/etat-nation-2010-fr/index.html.
[49] Source: IGSS.
[50] Conféderation Caritas Luxembourg 2011, 29. Prime Minister's State of the Union speech on 6 April 2011.

system in 2050 by 66% and 10% respectively.[51] The indexation, its historical development, political and economical role as well as the methods of application, was equally subject to an in-depth analysis undertaken by the trade unions[52].

The indexation policy was also a subject of the 2011 consultations between the International Monetary Fund (IMF) and Luxembourg, which took place on May 13, 2011. There, the IMF described the wage indexation as backward looking and recommended limiting the pension benefit indexation to no more than cost of living adjustments.[53]

2) Complementary private savings:

The second and third tiers still play a marginal role in the Luxembourg landscape of pensions, which in 2009 made up roughly 7% (company-based supplementary pension plans) and 1.5% (private pension plans)[54] of the total contributions. Thus, 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).[55]

### 2.2.4 Impact assessment

The section on the debates and political discussions shows a broad political consensus concerning the challenges of sustainability that the Luxembourgish pension system is faced with. However, when it comes to concrete measures on how to achieve long-term reforms of the pension system, the positions of the employers' and employees' representatives greatly differ. As a consequence, inevitable adjustments to the current system are postponed from year to year. The situation calls to mind the special round table meetings (Rentendësch), at which the government and social partners met a full decade ago in order to prepare the pension system for its long-term viability. Since then, the General Inspectorate of Social Security (IGSS) has simulated various reform scenarios based on parametric adjustments. So far, the social partners have not agreed to any of these.

The OECD (2010) 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 bottom end of OECD countries in the period 2004-2009.[56,57] With an employment rate of 38.2% in 2009[58], 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.[59] Also, older female nationals show an employment rate of 34% (2009), which according to projections by STATEC is expected to reach 47% in 2040.[60]

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51 UEL 2009, 18-21.
52 Chambre des Salaries Luxembourg 2010a.
53 IMF 2011, 14; IMF 2011a, 3.
54 IGSS 2010, 193. Commissariat aux Assurances 2011.
55 Source: IGSS.
56 http://www.oecd.org/dataoecd/3/1/39371913.xls, Luxembourg (women): 58; OECD average: 62.1 (men) and 60.7 (women).
57 In contrast, life expectancy increased and evolved for women at the age of 60 from 78.8 years in 1970 to 83.1 years in 2008 and for men from 75.1 to 78.1 years respectively. (Statec 2011, 96). Eurostat projections for 2060 anticipate a further increase of 5 years for both women and men (Eurostat EUROPOP 2008).
58 Source: Eurostat.
59 Leduc 2010, 10.
60 Schronen and Urbé 2011, 282.

The cause of the non-compliance with the Lisbon target is to be found in the pension system and its generous benefits. The former, irrespective of the financial crisis, is still economically in a very comfortable situation. However, in the long run, its sustainability is subject to a number of risks, which without any robust countermeasures leaves it precariously in deficit as of 2030. Its main cost-drivers are:

- Low effective retirement age due to early retirement.
- The above-mentioned low employment rate of older people aged 55 to 64 years.
- Very generous pension benefits with an average replacement rate close to 100%.
- Changes in the demographic pattern, characterised by an increasing life expectancy in combination with an exceptionally large number of new retirees from 2020.

Considering early retirement pensions before the age of 65, studies reveal that almost 90% of men and women are early retirees. In 2007, 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.[61] 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.[62] 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 586 per month) the measure is only used by a minority. In 2009, around 10% of the pensioners below 65 received an income from an additional job.[63] Changes to the additional pro-rata points are subject to the current reform proposal presented in the previous section. As regards 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.

In any case, the redistribution principle of the system requires continuous and sustainable economic and employment growth in order to ensure its long-term viability. The 40-year forecasts are currently based on assumptions of stable 1.5% workforce growth and 1.7% productivity growth, which have already been downsized from previous assumptions of 2% each[64] and will thus result in an additional shortage of financial resources.

Similar to all EU countries, the crisis negatively affected the Luxembourg labour market. The average annual employment growth of above 3% turned into stagnation. Nevertheless, a study conducted by Brosius (2011), which analyses fluctuation of the labour force in the Luxembourgish employment market between 2007 and July 2010, 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, which affected the industrial and construction sector at most, whereas the significant

[61] Genevois 2009, 1.

[62] 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).

[63] Luxemburger Wort 2011a.

[64] Source: IGSS.

reduction in the change of jobs is mainly responsible for the obtained results.[65] 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. Since 2009, unemployment has risen to a rate constantly above 6%. In April 2011, the *Comité de Conjoncture* analysed the new labour market statistics, which show that in March 2011 the labour market situation is getting better and unemployment stands at 6.1%. This, however, nearly equals the figure from a year before (6.2% in March 2010).[66] The fact that in the same time the number of vacancies has more than doubled indicates the easing trend much better. Indeed, the above-mentioned 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.[67]

Costs associated with the ageing of the population will also put pressure on the sustainability of public finances of the Grand Duchy of Luxembourg.[68] 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 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 19.9% in 2010 period to 38% in 2060.[69]

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

[65] Brosius 2011, 4.
[66] http://www.mte.public.lu/actualites/communiques/2011/04/20110427_cdc/index.html.
[67] Brosius 2011, 18.
[68] 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 2010, 22-24.
[69] MF 2010– 11th update of the Luxembourg Stability and Growth pact, 22.

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, official statistics are not published for any of the privately managed schemes. However, in its press release for 2010, the Luxembourg insurance supervision body (Commissariat aux Assurance) reports a total of around 47,140 contracts (an increase of 10% compared to 2009) under the private pension plan with an accumulated saving of roughly EUR 456 million.[70] Comparing the private pension contribution for 2009 of around EUR 61.4 million with the overall contributory amount of EUR 4.069 billion in 2009 for all tiers together,[71] it concludes that this type of pension insurance represents only 1.51 % of the total amount invested into pensions.

For the supplementary pension scheme, the latest available financial statistics date back to the year 2003. At that time, the second tier pension plans consisted of 930 participating companies with an investment volume for amounted to EUR 141 million.[72] Based on a more than 200% increase in companies that have registered a complementary pension plan, the estimated second tier investment volume for 2009 amounts to EUR 285.5 million, which represents 7% of the total annual pension investment. As of the end of December 2009, IGSS registered 1,897 companies which have established one or more supplementary pension plans.[73]

Consequently, Luxembourg seems to have ample room to improve the information on privately managed pension schemes. An actuarial study undertaken by Guigou, Bovat and Schiltz analyses, for Luxembourg, the sustainability of the pure PAYG pension system in comparison to a mixed system with a larger share of capitalised pension components.[74] In contrast to the high dependency of the PAYG system on demographic development, the study shows that a 10% saving rate for a capitalised pension plan results in a gain in sustainability for all income groups. The less progressive the development of income during the working career, the higher the expected sustainability gain.[75]

Since 2009, this government is eager to support to reconsidering the public pension formula and to give more importance to the second third tier, as well-mentioned in the programme of the current government.[76] Since then, various reform proposals can be observed, of which the reform of the pension formula of the public pension scheme is broadly described in section 2.1.3 above. With regard to the supplementary pensions, a database on core financial data that was originally announced for 2010 is now scheduled to be fully operational as of 2012. In particular some objections made by employer's association concerning the recording of individual salaries are the major cause of the delay. Furthermore a proposal for a new national provident fund is under way in order to enable access to the second tier for those population groups for which no such offer was previously available (civil servants, the self-employed).[77]

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

[70] Commissariat aux Assurances, 2011.
[71] IGSS 2010, 193, Kneip 2008, 5 ; Commissariat aux Assurances, 2011; own calculation.
[72] Kneip 2008, 5.
[73] Source: IGSS.
[74] Guigou, Lovat and Schiltz 2010.
[75] Guigou, Lovat and Schiltz 2010, 34-36.
[76] See section on Social Security in the Government Programme of the Grand-Duchy of Luxembourg (2009).
[77] Source: IGSS.

property (70.1%). For the particular group aged 65+ the shares are 16% and 84% respectively.[78]

### 2.2.5 Critical assessment of reforms, discussions and research carried out

In the European Council of February 7, 2011, France and Germany undertook advocacy efforts for a "Pact of Competition", which not only brings under pressure the Luxembourg policy to guarantee through the measure of pension indexation a decent (minimum) pension level at old age, but also demonstrates that the EU 2020 strategy's plea for social inclusion shows up 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.[79]

In contrast, Luxembourg is definitely a prime example of an approach on pension reforms in which the abolition of social values is still well-counterbalanced against economic gains. The new Luxembourg pension reform proposal with its moderate measures to 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 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.

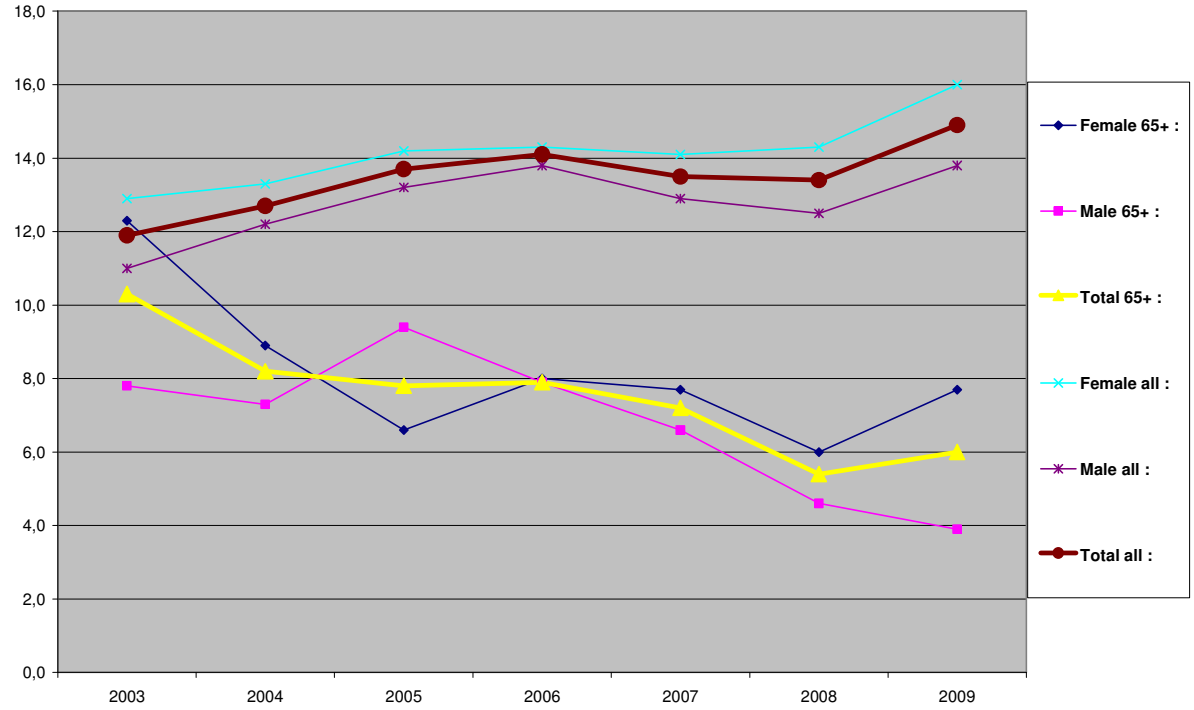
As of 2030, however, the combination of demographic and structural changes will bring the sustainability of the Luxembourg pension system into a really precarious situation. By then, the effects of labour-induced immigration and cross-border commuting will attain a high level of maturity. Since prior to 1990 the number of immigrants and cross-border workers was relatively small and only grew extensively thereafter, the number of pensioners as well the transfer of pensions outside Luxembourg will gain importance from 2025, and then regularly increase.[80]

Against this background, the reform proposal can also be characterised as the largest possible defence of acquired social values against future economic and stability gains. It is highly unlikely that it will prove sufficient to avert the future financial risks of the pension scheme. More and further-reaching reforms will have to follow.

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%). As in many other countries, the situation for men (3.9%) is even more favourable than for women (7.7%). The situation is surprising in that the risk of impoverishment for the elderly is only half of the average for the country's general population. Equally contrary to the general development in Luxembourg, the risk of poverty among the elderly has even decreased since 2003. However, in the wake of the crisis, older women in particular are now exposed to an increase in impoverishment risk similar to that of the average population.

[78] Zahlen 2011, 2.
[79] Schronen and Urbé 2011, 287.
[80] Schronen and Urbé 2011, 282.

Figure 2: Development of the "At-risk-of-poverty rate" of population and older people (65+)




Source: Eurostat 2011, At-risk-of-poverty statistic, indicator SI-P1

But which factors make the economic situation for the elderly so comfortable?

*Generous pension benefits, including minimum pensions:*

With the completion of a 40-year insurance period (including voluntary and additional periods), a pension is not allowed to be below 90% of a minimum income. The latter is set at EUR 1,758 as of January 2011.[81] This actually makes the replacement rate degressive. If an individual pension amounts to less than the minimum, the pensioner, if residing in Luxembourg, gets a supplement for the missing residual. This measure applies to roughly 20% of all pensioners.[82] The generous provisions lead on occasion to a gross replacement rate of more than 100%, in cases of individuals with a full career at an income of less then twice the minimum wage.[83] The generosity also applies proportionally to everyone who has completed or exceeded the minimum number of 20 pensionable years, whereas the minimum pension level is likewise reduced by the missing years. Survivors' pensions are subject to the same minimum levels.

*Compulsory membership of the social security system:*

The mandatory membership of the whole economically active population in the social security system grants all insured the same benefit entitlements irrespective of the nature of their contract of employment, and manages to avoid penalising people with interrupted careers and other insecurities.[84] Thus, not only do self-employed people have equal access to the same public health and pension funds, but affiliation is mandatory and the government contributes to their individual pension at the same percentage as for employees (8%). The pension fund contribution for people with very low professional earnings is only computed for

81 Social parameters 2011, www.mss.public.lu.
82 Source: IGSS.
83 IGSS 2009, 84, OECD 2010. 36.
84 Clément 2009.

one third of the minimum wage[85], and voluntary affiliation is offered to those individuals with atypical or interrupted careers during their non-working periods, under the condition of a previous minimum one-year membership. For older workers receiving social assistance, the National Solidarity Fund continues pension contributions, under the condition that they have been affiliated to the pension system for at least 25 contributable years.

*Guaranteed minimum income and tax credit:*

In any case, the means-tested guaranteed minimum income (EUR 1,252 in 2011)[86] applies to the elderly in the same manner as to the rest of the population. In the over-60 age-group, roughly 2.2% receive supplements to fill the gap.[87] In 2009, the former tax deductions allowable for employees and pensioners were replaced, by the law of 19 December 2008 concerning direct taxes, with an annual tax credit of EUR 300 paid to every taxable person, which will enable people with little income to enjoy nominally the same advantages as high income tax payers.

*Generous long-term care benefits (no co-payments):*

Since long-term care is usually demanded by older people, they gain from the situation that the services statutorily covered by long-term care insurance, be it at home or in a nursing-home, are provided to the beneficiary without any co-payment. Such moderate co-payment has just been applied for nursing care services paid for by the health insurance and performed by (long-term care) nurses.[88] Despite this near-full remuneration of all services related directly to care provision by either the health insurance or the long-term care insurance, the price for accommodation in a nursing home which, furthermore, is quite high, has to be paid by the resident himself. In its latest practical guide for seniors, the Ministry of Family and Integration only publishes the monthly minimum rate for a bed in a double room of EUR 1,437.19 in 2008[89]. However, for the dependent elderly with a low income, the National Solidarity Fund provides mean-tested support of these costs (accueil gérontologique). In 2009, 701 people received on average EUR 808 per month. [90]

*Relative low share of disposable income to be spent for housing:*

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. In 2009, only 1.1% of the elderly in Luxembourg spent more than 40% of their income on housing compared to 4.1% of the population aged 16-64 years. In the EU-15, the equivalent figures are 12.6% and 12.9% and in Germany even 25.2% and 23.3% respectively.[91]

*Particular situation of migration:*

The population and social security membership structure in Luxembourg with a high share of non-national residents (37% in 2001)[92] puts Luxembourg in a unique situation. For the population of 65+ and above, the share of non-Luxembourgish residents (15%) is much lower. The fact that migrant workers have both shorter careers in Luxembourg and, on

[85] Art. 180 of the Social Security Code.
[86] Social parameters 2011, www.mss.public.lu.
[87] http://www.isog.public.lu/gbe/owards.prc_show_pdf?p_id=9162&p_sprache=D.
[88] Art. 48 of CNS statutes, version applicable as of 1 April 2011. The measure is, however, only applicable to those care recipients that are not entitled to benefits under the long-term care insurance.
[89] MiFa, 2008, 76.
[90] IGSS November 2010, 234-237.
[91] Zahlen 2011, 2.
[92] Statec 2011, 85.

average, less income than the autochthonous resident 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.[93] Thus, these returnees further reduce the number at risk of poverty among the elderly.

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. A situation in which the younger and active population is faced with a much higher risk of poverty is alarming information itself. Indeed, the state, apart from the elderly, is also obliged to respond adequately to the needs of other population groups, such as the young, migrants, and single parents, but also to other human requirements, like satisfactory housing, transport and education.[94]

## 2.3 Health Care

### 2.3.1 The system's characteristics and reforms

Luxembourg's health care system is characterised by the principle of universal coverage of the whole population for both health and long-term care insurance. Affiliation to the single public health insurance (CNS) is compulsory for all persons participating in the Luxembourg economy as employed, self-employed or recipients of replacement benefits (sickness, maternity and unemployment, invalidity, old-age and survivors' pensions, guaranteed minimum wage, etc.). In addition, derived rights are granted to non-insured family members. The system confers access to and broad financial coverage for a modern, comprehensive package of health services. Organised predominantly as a reimbursement scheme, the CNS refunds around 90% of the members' prepaid health expenses for the statutory benefit package. Hospital care is offered as a benefit in kind, with the exception of the doctors' bills, which, similarly to outpatient care, have been pre-paid by the patients themselves. In 2006 the total sum of out-of-pocket payments for health care amounted to 6.5% of total current health spending in 2006[95]. As of 2010, due the increase in patients' co-payments for a number of services, it is expected to rise on average by 1%.[96]

A unique and essential characteristic of the system is the huge difference between the resident population and the population covered by national health insurance. The latter equates to 130% of the country's population[97]. This is due to the numbers of cross-border workers who have their legal residence in a neighbouring country. In accordance with Regulation 883/2004/EC, like the resident population they are mandatory affiliated to the Luxembourg health insurance system. For Luxembourg, the cross-border population is anything but a disadvantage. It places the Luxembourg social security system in a favourable demographic situation. This population is nine years younger, on average, and includes only 0.2% of people over the age of 65 years.[98] However, health statistics must always show financial figures in relation to the covered and not just the resident population, in order to preserve comparability with other countries.

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93 Schronen and Urbé 2011, 282.
94 Schronen and Urbé 2011, 288.
95 Source: ECO-Health OECD 2010. Data from 2006. This figure only refers to the part of the health care bills not reimbursed by health insurance, and does not include over-the-counter payments for non-refundable drugs and health commodities and private expenditure for long-term care.
96 http://www.cns.lu/files/Information_a_la_presse.pdf (retrieved on 25 May 2011). Own calculations.
97 The covered non-resident population includes the cross-border workers and their dependent relatives (together 206,000 persons in 2009) and also some pensioners (5,200). 2010, 36-37.
98 http://www.isog.public.lu/gbe/owards.prc_show_pdf?p_id=10314&p_sprache=D (retrieved on 25 May 2011).

Of minor importance but worth mentioning is the fact that 5% of the resident population does not belong to the Luxembourg social security system. This group consists to a large extent of EU civil servants, who are affiliated to their own EU social security scheme[99].

In the eyes of the public and among international experts, the health sector in Luxembourg enjoys an excellent reputation for the outstanding quality of its services[100]. The system offers health services at all levels but is strongly orientated towards hospital care, where the infrastructure is modern and meets the latest technical standards. The hospital sector is divided into three geographical areas and counts for 2,312 acute beds in five general hospitals and two specialised institutions (centres of excellence in cardiovascular and nuclear medicine), which accounts for 4.6 beds per 1000 inhabitants. The occupation rate was 72%.[101]

Expenses for investments in hospital infrastructure are largely financed through the state's hospital investment fund (80%), governed by the Ministry of Health, and only require 20% of co-funding from the health insurance scheme. The latter is threatened, however, with substantial charges on all running and maintenance costs of the new infrastructure. Unfortunately, such long-term costs are not or not sufficiently subjected to cost-efficiency analyses prior to investment decisions. In 2009, 49% of health insurance expenditures were spent on hospitals, which due to some accounting rules do not include the hospital doctors' fees. If these costs were added to the hospital expenses, the share of hospital expenses would rise even more.[102]

The health service provision consists predominantly of a liberal exercise of the medical profession with a free choice of doctors for patients, including direct access to specialists. All authorised health care providers must enter into compulsory collective contracting with the national health insurance, which both allows and limits them to charge the patients according to the national fee schedule for medical acts (the "nomenclature"). In the period from 2004 to 2009, the number of doctors rose by 27%. The population, in contrast, only grew by 6% and the protected population by 12% over the same period.[103] With the exception of one hospital (Centre Hospitalier de Luxembourg), all hospital doctors work as self-employed attending doctors and are remunerated separately from the hospital according to the tariffs stipulated in the nomenclature. In 2009, the average annual gross income (after deduction of expenses) of general practitioners is reported at EUR 121,822 and that of specialists at EUR 247,890 with radiologists, nephrologists neurosurgeons, cardiologists and pneumonologists on the top earnings.[104] The system does not provide for recovery of any rental charges from doctors for the use of hospital equipment or support staff.

The state makes substantial direct contributions of 40% to all benefits covered by the national health insurance[105] and EUR 140 million for the long-term care insurance system (around 34% in 2009)[106]. By the Law of 17 December 2010 on the reform of the health care system, the state contributions to health and maternity benefits were harmonised from the previously different rates for health care benefits (37.5%), benefits-in-cash (29.5%) and maternity

[99] Those who are covered in another Member State are in the absolute minority. IGSS 2010, 36.
[100] Health Consumer Powerhouse 2009, TNS-Ilres 2009.
[101] Consbruck 2010, 1.
[102] IGSS 2010, 96.
[103] IGSS 2010, 36 and 82.
[104] IGSS November 2010, 80-89.
[105] Art. 31 of the Social Security Code (CSS). By the Law of 17 December 2010 on the Reform of the Health Care System, the state contributions to health and maternity benefits were harmonised from the previously different rates health care benefits (37.5%), benefits-in-cash (29.5%) and maternity benefits 100%). A supplementary temporary compensation of EUR 20 million per year is granted to compensate the CNS for the surcharges related to the maternity benefits. This measure will expire end of 2013.
[106] IGSS 2010, 179.

benefits 100%).[107] In 2008, the reported total expenditure on health care (TEH) represented 6.8% of GDP [108] and amounted to USD 4,237 PPP (in EUR: 2,876)[109] per insured person[110]. Due to the comprehensive benefit package of the mandatory social health insurance system as well as the government's huge investment in the health infrastructure, the public expenditure share of TEH amounts to 84.2% in 2008, the highest in Europe. Private expenditure accounts for 9.1% of TEH, including out-of-pocket payments and private insurance that only represents 1.7% of TEH.[111]

Despite the limited scope of private and supplementary mutual health insurance benefits, which contain only supplementary coverage for co-payment under the public scheme and certain first-class medicine services in hospitals, nearly 60% of affiliates of the public insurance opted for it[112], with a huge preference for the Caisse Médicaux-Chirurgicale Mutualiste (CMCM), the mutual health insurance association for supplementary health coverage.[113] In 2010, CMCM launched a new supplementary insurance product to cover part of the costs for dentistry and ophthalmology services.[114]

The financial situation of the health insurance system is far from being stable. A particular cause for alarm are figures showing 3.4% higher health care spending growth versus real GDP growth in the favourable period between 2004 and 2009 and almost 6.8% annually in real terms.[115] For 2009, IGSS reports an increase in health spending of 7.1% and expects another increase for 2010, again exceeding 4.7%.[116]

As a result of the financial crisis, it has become indisputably clear that partial corrections of the structure of the existing health and long-term care system are absolutely vital. The health care system is challenged, in particular, by the fact that the costs tend to get out of control.

In 2009, right after its formation, the current government demonstrated that it not only realised this necessity, but also invited the social partners to jointly identify strategies to tackle these country-specific problems. The first step was the agreement of a so-called "stability pact" between the government, social partners and health care providers at the Quadripartite meeting[117] in October 2009. The "stability pact" aimed at sensitising all stakeholders towards sharing the responsibility for making the system more transparent and more efficient, but also towards re-establishing cost containment and financial stability. The latter was previously planned on the assumption of an annual economic growth rate of around 4% of GDP, which then became unrealistic because of the crisis.

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[107] A supplementary temporary compensation of EUR 20 million per year is granted to compensate the CNS for the surcharges related to the maternity benefits. This measure will expire end of 2013.

[108] Source: Eco-Health OECD Health Data 2010, total health expenditure as a percentage of GDP (ind HC-P12) http://www.irdes.fr/EcoSante/DownLoad/OECDHealthData_FrequentlyRequestedData.xls#'.

[109] Based on an annual average exchange rate for 2008 of USD 1 = EUR 0.6789. www.neded.org/files/international/exchange.pdf.

[110] As mentioned above, the figure includes resident and non-resident insured people. Source: Eco-health, OECD Health Data 2010 total health expenditure per head of population in PPP (ind HC-P11).

[111] Source: ECO-Health OECD Health Data 2010, Expenditure on health by financing agent, % of total expenditure on health, 2006 (ind HC-C3).

[112] Consbruck 2010, 1.

[113] www.cmcm.lu (retrieved on 25 May 2011).

[114] http://www.cmcm.lu/fr/pages/denta_optiplus.php (retrieved on 25 May 2011).

[115] MSS 2011, 13. This might partly be explained by the annual 3% increase in the population covered during the same period, and by important investments in the modernisation of health care infrastructure and health technology during this period.

[116] IGSS November 2010, 136.

[117] The Quadripartite is the most important extra-parliamentary biannual coordination mechanism between government, social partners (employers' and employees' organisations as well as the representative bodies of the health care providers.

As an immediate measure of this pact, the government has reduced the minimum reserve of the national health insurance to 5.5% in 2010, from its usual level of 10%, as stipulated in Art. 28 of the Social Security Code (CSS). This made it possible to cover the expected deficits in 2010 without any increase in the contribution rate. The measure relieved any immediate additional financial burden on employers, employees and the public budget, from which a substantial part of the additional contributions will have to be paid. On the other hand, the government gained time to prepare for the overall reform.

In 2010, after the elaboration of a first concept for the health system reform by various inter-ministerial working groups, the social partners and health providers were consulted and invited to join the working groups. Later, based on the results of the working groups, a bill was prepared which, after several revisions, was finally presented to the Chamber of Deputies in October 2010. At this point, it no longer commanded the support of all stakeholders. In particular, the physicians went on strike and, for around one month, closed their medical practices on all afternoons. The measure was of only minor success, but nevertheless led to some final amendments of the law. Thus, the introduction of a voluntary GP system was postponed by one year to 2012 and the planned sanctions for not respecting the prescription targets for generics were removed. Finally, the new health law passed through the Chamber of Deputies on 16 December 2010, and became effective as of 1 January 2011.

The general outline of the new structural and financial measures presents as follows[118]:

- Priority to primary health care: The introduction of a GP model is planned for 2012, which will be based on a non-mandatory "soft" gatekeeping system. In order to stimulate its acceptance, incentives will be designed for patients and physicians.
- Improved medical documentation: The currently used nomenclature (tariff system) no longer seems appropriate or up-to-date with international standards for the classification of medical procedures. Therefore, the prospect of mapping with an established foreign reference system (preferably the French CCAM) is under scrutiny. Also, the current ICD-10 coding limited to three digits will be extended to at least four. The parallel preparation of a national eHealth platform aimed at the electronic exchange of health data among the actors of the health care system by safeguarding data protection standards at the most stringent technical level will further stimulate this development.
- Coherent planning and financing of hospitals: The development of the hospital sector towards specialised centres of competence will be given priority. The restructuring will equally promote ambulatory surgery and the development of clinical pathways. Financial transparency will be guaranteed by the implementation of a unified analytical accounting system, similar to the one recently established for nursing homes.
- Financial measures:
    - The contribution rate has moderately increased by 0.2% to currently 5.6% (paid by employers and employees on equal terms).
    - Slight rises of co-payments for doctor visits, hospital stays and drugs.

[118] A more detailed summary of the reform measures can be consulted at: http://www.mss.public.lu/maladie_maternite/reforme_soins_sante/resume_6196.pdf (retrieved on 25 May 2011).

- Freezing of the mark-ups of fee schedule tariffs (lettre-clés) for the years 2011 and 2012, along with tariff cuts for certain provisions, especially for laboratories.
- Restructuring of the public budget contribution to the financing of the health care sector. Previous varying subsidies for different benefits (maternity, in-kind benefits, cash benefits) have been abolished and replaced by a global subsidy of 40% of all health care costs. These as yet cost-neutral measures are aimed at administrative simplification and, prospectively, better cost control.

### 2.3.2 Debates and political discourse

The debates during the legislative process of the reform were dominated by the worries about potential negative implications on the stakeholders. The protection of patients' interests and their rights as well as dangerous repercussions on the quality of care were the prevailing arguments put forward by opponents to the reform.[119]

Indeed, as a result of the parliamentary and extraparliamentary discussion with health care providers and the social partners, some of the original reform proposals were finally postponed or even dropped. This held true, for instance, for the proposal of using medicinal products rationally and exploiting the price potential of medicines in the form of authorised drug substitution by pharmacists after product patents have expired. A drug substitution policy persisted and is now planned as of 2012, but doctors are totally released from their responsibilities to appropriately consult the patient and to bear part of the financial consequences of continuously prescribing substitutable branded drugs. [120]

The medical board, the social partners, the Council of State and the data-protection authority were explicitly asked to give their opinion on the reform proposal. Despite some individual points of critique, the bill in general commanded wide agreement across the stakeholders. For instance, the Chamber of Employees expressed its dissatisfaction with the rejection of its proposal to abolish the upper-limit threshold of contributable income, as practiced for a long time with regard to long-term care insurance. The Council of State required a definition of what is meant by a competence centre in the hospital sector and proposed amendment of the composition of the nomenclature commission. Nearly all parties consulted reminded the government that many passages of the bill include provisions for further implementation regulation, which were all still missing at the time.[121]

Indeed, the new health law, effective as of 2011, only manifests the principal structural modifications of the health system, but leaves many details open to be determined by particular implementing regulations. New interministerial working groups were established to compile proposals for the design, procedures and timetable for implementation of the main subjects. An important output is to draft those implementing grand-ducal regulations which the health law expressly provided for. Unsurprisingly, the current debates revolve around the content of these stipulations, which will be sent to the relevant stakeholders for consultation.

[119] http://www.wort.lu/wort/web/letzebuerg/artikel/2010/09/115839/gesundheitsreform-fuehrt-zu-zweiklassensystem.php (retrieved on 15 May 2011).
[120] Chambre des députés 2010, 9 and 19-22.
[121] Chambre des députés 2010, 16-18.

### 2.3.3 Impact of EU social policies on the national level

Access to and sustainability of health and long-term care services is neither part of the National Reform Programme (NRP) 2011[122] nor of the EU Annual Growth Survey from January

2011[123]. The first document in this context that refers to the sustainability of health care is the "Pact for the Euro". Thus, there is little criticism to make of the NRP 2011 for not elaborating on this topic at the last moment.

From a national perspective, the health care system is particularly influenced by EU policy and legislation with regard to the obligation related to implementation of the Regulation 883/2004/EC on the coordination of social security systems and the preparation to transpose the Directive 2011/24/EU on the application of patients' rights in cross-border health care. Quite similarly to the Lisbon Strategy and the OMC, the EU 2020 strategy is relatively unknown.

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. In 2008, the expenses for foreign health care services amounted to 17.5% of total health insurance expenditure and rose by 10.6% in relation to the year 2008.[124] The resident population alone makes use of around 4% of health care services abroad.[125] Even this proportion is four times higher than the assumed EU average of 1%. Since its enactment in May 2010, Regulation 883/2004/EC has caused barely any problems as regards its content, whereas the provision to convert the administrative procedures among Member States into an exclusively electronic data exchange system (EESSI) as of 2012 poses almost insurmountable challenges.

The debate on how to transpose Directive 2011/24/EU has only recently started. Indeed, the legislation just passed on 9 March 2011, and the deadline for its transposition into national law ends in October 2013. At the centre of attention are the provisions concerning the future responsibilities of the Member States for ensuring that patients receive from their national health authorities, contact points and health care providers relevant information regarding cross-border health care, setting out the availability, applied standards on quality of safety, as well as the cost of such care. The mechanism for calculating the costs of cross-border health care and whether the existing reimbursement rules for health care abroad require modifications are equally under scrutiny.[126]

It is certainly no coincidence that the next national health conference, scheduled for June 2011, will revolve entirely around patients' rights and interests. In the context of this event, the national draft bill on patient's rights is announced to be presented for the first time.[127]

Directive 2011/24/EU also promotes the enhancement of collaboration of health care providers and centres of expertise among Member States and the establishment of specialised networks on rare disease, eHealth, and health technology assessment (HTA). In that respect, the EU Interreg Programme in the "Greater Region" [128], co-financed by the European

[122] Government of the Grand-Duchy of Luxembourg 2011.
[123] European Commission 2011.
[124] IGSS 2010, 102.
[125] MS/MSS 2011, 2.
[126] MS/MSS 2011a, 1-2. MS/MSS 2011, 4.
[127] MS/MSS 2011a, 6-7.
[128] As the geographical and financial centre of a the so-called Greater Region, a synthetic area composed of the Grand Duchy of Luxembourg and surrounding regions of Lorraine in France, Saarland and Rhineland-Palatinate in Germany and the Belgian Provinces of Luxembourg and the Belgian German-speaking areas, its international importance should not be underestimated. 11 million inhabitants live in this "Greater Region",

Regional Development Fund (ERDF), has already shown remarkable progress in intensifying cross-border cooperation in the field of health care. During the current phase INTERREG IV-A (2007-2013), Luxembourg is involved in numerous projects that aim to align national health policies with a future orientation of a cross-border health care competence in the Greater Region based on enhanced cooperation and synergies. By way of examples, one may mention the projects on i. Technology transfer and innovation, ii. Prevention and support of mental health, iii. Nutrition, environment and cardiovascular health or iv. International academy of palliative care.[129]

The above-mentioned points in no way mean that the health sector is neither affected by the EU 2020 strategy nor contributing to the achievement of its main objectives. In fact, the contrary is true.

a) With regard to the objective on research and development, the key measures to achieve the national target of R&D intensity level of 2.6% of GDP are largely based on the national research strategy on health, biotechnology, biomonitoring and socio-economic policy, to be performed by the national research centres Santé, Henri Tudor, Gabriel Lippmann, CEPS and the University of Luxembourg in collaboration with international partners.[130] In the field of biotechnology an important large investment of EUR 140 million spread over the period between 2009-2014 is directed towards the creation of centres of excellence in the life sciences, contributing to defining future health care provision.[131] It encompasses the Integrated BioBank of Luxembourg (IBBL), founded in 2008 and being operational as of 2010, the Luxembourg Centre for Systems Biomedicine (LCSB) at the University of Luxembourg and the Biomedical Research Centre at the CPR-Santé. The main thematic emphases of the biomarker research are currently laid on the fields of cancer (lung, intestinal, breast), diabetes type 2 and Parkinson's disease. In addition, a database of around 10,000 people in good health is built up for control studies.[132]

b) Guaranteed universal access to a very large benefit package, in particular, has turned the health and nursing care industry into a prosperous and labour-intensive economic sector and thus contributes by and large to the headline target concerning employment. The number of health professionals has increased between 2004 and 2008 by 2.3% per year on average.[133] Employment in nursing homes and the home care sector rose by 6.2% on average between 2006 and 2008.[134]

c) Regarding the social inclusion objective, it is noticeable that the risk of impoverishment caused by barely affordable expenses for health and long-term care services for the poorer layers of the population does not play any role in the national strategy on combating poverty and social exclusion.[135] It once again confirms that a public social protection scheme is a real asset of the European welfare model to

but the mobility of employees and consumers is nowhere near as high as in the direct surroundings of Luxembourg. Luxembourg accounts for 150,000 cross-border workers, who reside in one of the neighbouring countries. It includes a substantial number of doctors, nurses and other professionals employed in the domestic health sector. The rapidly increasing mobility of citizens makes the cross-border situation with regard to health and social security relatively complex.

129 http://www.interreg-4agr.eu/admin/upload/page/file/107-knvxsk917.doc (retrieved on 27 May 2011).

130 Government of the Grand–Duchy of Luxembourg 2011, 26-29.

131 Ibid, PwC 2010, 44-45.

132 MS/MSS 2010c, 1-3. http://www.ibbl.lu (retrieved on 29 March 2011).

133 IGSS 2010. 91.

134 IGSS 2010, 146.

135 Government of the Grand –Duchy of Luxembourg 2011, 43-48.

achieve and stabilise social cohesion, and is worth reinstating as a prime recommendation to combat social exclusion.[136]

### 2.3.4 Impact assessment

Introduced as mainly "structural", the health care reform aims to make the health care and health insurance system ready to successfully encounter future challenges. These are described in terms like demographic change and lengthening of life expectancy, on the one hand, and the increase in chronic diseases, notably those linked to lifestyles, such as cardio-vascular diseases, cancer, respiratory diseases, obesity or diabetes, on the other. They all have in common that in one way or another they put the financial balance of the health insurance system at risk. In the long run, the reform shall contribute to the sustainability of the health financing system, to constant improvement of the quality and efficiency of the care provided and of interregional and cross-border competitiveness.

Given that a large number of the reform measures have either just started or are still in preparation, an analysis of the relevance of the measures as regards to the declared objectives as well as their coherence with international trends and standards is considered an appropriate approach.

Looking at the health financing data in the period from 2001 to 2010, in which health spending has increased by an average of 5.1% per year and even passed the rate of GDP growth[137], one would like to believe that Luxembourg has long been facing the described future challenges already. Admittedly, the rise is partly caused by an increase in the number of beneficiaries and a shift to more specialised and expensive care, but also by a significant extension of health services and a substantial increase of the level of income earned by providers. For the year 2010, the government has reduced the minimum legal reserve of the national health insurance by nearly half, to 5.5%, in order to avoid a mandatory increase in contributions if the deficit were too high. In addition to keeping any immediate additional financial burden from employers, the measure has also bought time to prepare for the current reform. By 2015, the legal reserve will now gradually be replenished.[138] Under the current circumstances, the recovery of the economy alone might make this strategy successful. Further austerity measures will be applied for both providers and consumers of health care, and the envisaged efficiency gains should then bring the health insurance system back to financial stability.

*Cost containment*

On the provider side, the immediate austerity measures were decided as follows:

> Reduction of medical tariffs and freezing of their mark-ups (lettre-clés) for the 2011 and 2012 operations: The applicable tariffs for medical services and procedures listed in the nomenclature will be reduced by 4.35% and the mark-ups for the 2011 and 2012 operations will be frozen at the level of 31 December 2010. The financial gains for the former are estimated at EUR 6-6.5 million and the latter at EUR 3 million per year. As regards the medical biology analyses, the reduction of the tariffs goes beyond that of the medical procedures and will realise savings of EUR 2-2.5 million.[139] The efficiency gain of laboratories due to enormous technical advancement and automation of routine analysis has not yet been reflected in the tariff system.

[136] Schronen and Urbé 2011, 287.
[137] Art. 3 of the Law of 17 December 2011 on the health care reform.
[138] IGSS 2010, 130.
[139] Art. 4-5 of the Law of 17 December 2010 on the health care reform.

However, the principle of automatic adjustments of the tariffs to the consumer-price index (see chapter 2.1.1) will remain unchanged.[140]

- Introduction of a biannual global budget across the entire hospital sector: So far the budgets of the individual hospitals were established purely on the basis of their specific activities. This will change insofar as the reform foresees the introduction of a biannual sector-wide global budget across hospitals. For the 2011 and 2012 operations, the annual increase is determined at 3% against the comparable budget for 2010. Thereafter, the CNS will re-enter into individual negotiations with each hospital in respect of the limits of the then established sector-wide global budget.[141]

  In order to improve the cost-transparency and comparability across hospitals, a unified analytical accounting system will be developed and is to be implemented as of 2013. It particular, it will enable a better insight in the hospital costs that arise or can be attributed to each patient. However, the approach should not be confused with a DRG system, which it definitely is not. The introduction of an analytical accounting system for the hospitals is a logical development and follows on from the sector of long-term care, where it was already started a few years ago.

  Further innovations are envisaged as regards the hospital plan, where new specifications on ambulatory surgery and the establishment of specialised centres of competence are foreseen. Some of the latter are expected to take on an international dimension, at least in the Greater Region.

*Health Insurance*

As regards health insurance, the reform modified the existing system by introducing the following measures[142], which will affect the various stakeholders differently:

- Moderate increase of contributions and co-payments: As already mentioned in section 2.2.1 the contribution rate has slightly increased from previously 5.40% to 5.60% now. Rather than being stipulated by law, the increase was subject to a decision by the guiding committee of the CNS on 10 November 2010. During the same meeting, adjustment to the patients' co-payment level for statutory health care services as stipulated in the CNS statutes were agreed upon, too. As of 2011 they are estimated to result in an annual saving of EUR 20 million for the CNS or, from the patient's perspective, in supplementary expenses of EUR 40 per insured per year on average. It goes without saying that, for ill people, this measure can amount to a multiple of the average additional charge. The statutes of the CNS limit the maximum co-payment to 2.5% of the previous year's contributable income, which for 2011 amounts to around EUR 500 for a member having the minimum income.[143] It is to be expected that the number of people reaching this threshold will rise. Until 2014, the government has excluded any further increase in social security contributions.[144]
- Integration of maternity benefits into the statutory CNS benefit package: [145] The fact that, until 2010, maternity benefits were already administered by the CNS makes this part of the reform for the general public somewhat difficult to understand. The current

[140] MS/MSS 2010d, 14.
[141] Art. 1, no. 44 of the Law of 17 December 2010 on the health care reform.
[142] MS/MSS 2010d.
[143] Art. 154bis of the Statutes of the CNS (applicable as of 1 April 2011). This maximum also includes the co-payments to be paid for the dependent family member covered under co-insurance.
[144] Prime Minister's State of the Union speech on 6 April 2011. http://www.gouvernement.lu/gouvernement/etat-nation/2010/etat-nation-2010-fr/index.html.
[145] IGSS 2010, 127 and 137.

inclusion into the health-insurance benefit package brings an end to the curiosity that maternity benefits, namely salary replacement during medical absence from work during pregnancy and statutory maternity leave (16 weeks) as well as for taking care of the child in case of illness in early childhood, were completely borne by the state in parallel to the health insurance system. Over the last twenty years, the benefit package including medical absence from work during almost the whole period of pregnancy became more and more popular, with an annual increase of 4.7%. In the economic sector of hotel and gastronomy, such additional leave from work was granted to over 70% of pregnant women; in the health and social sector it reached nearly 85%. Consequently, the costs went out of control (EUR 156.3 million in 2009). In the future, as an integrated part of the health insurance benefit package, the maternity expenditures, like all other benefits, will be divided between the insured, the employers and the state. The participation of the state in all health insurance benefits is set at 40%, and includes the amount that was previously paid in parallel for the maternity benefits. In addition, an allocation of EUR 20 million for a period of three years is granted to the CNS, to support the CNS regarding the incorporation of the cash maternity benefits into the general system.[146] It is expected that the shared financial responsibility now taken by all three parties together (insured, employer, state) will lead to better control of the abusive use of elements of maternity benefits which is assumed to occur to some extent.

- Introduction of a benefit-in-kind scheme for people in financial distress: The principle of benefits-in-kind (tiers payant) currently applied for prescription-based drug purchase at pharmacies and for hospital services is starting to be extended to people in economically vulnerable situations. As such, the reimbursement system tends to negatively affect low-income groups which, as they are unable to pre-pay the health care bill, might omit or postpone necessary health appointments in order to avoid stigmatisation by the health insurance scheme.[147] Financial obstacles exist in particular for dental care, where liberalisation of price-setting by dentists results in high out-of-pocket contributions of above 40%. Postal orders, which are almost non-existent for other social benefits, remain the default form of payment where the insured does not communicate any bank account details to the health insurance. Out of the annual total of around 3.2 million payment transfers in 2009, 21,237 were effectuated as postal orders, which nearly equals 1%.[148]

  A regulation stipulating the implementation rules for the social benefit-in-kind scheme (tiers payant sociale) is still in preparation. Questions already arose as to whether the system is necessary at all. Based on the law on social aid, the Grand-Ducal Regulation of 8 November 2010 makes the social assistance offices responsible for the prepayments or coverage of costs for essential services, which go beyond the person's financial capacity or are not reimbursed within an acceptable period of time.[149] It is not clear how the tiers payant social will interact with this provision.

There is a small group of students who were just forgotten by the health reform. Those without direct or derived affiliation rights, to whom the state previously provided health care services free of charge, find themselves almost out of the system following the reform. Roughly 400 students from EU third countries, in particular those in development, are affected. As of 2011, the abolition of the provision brings them into a precarious situation.

[146] Art. 14 of the Law of 17 December 2010 on health care benefits.
[147] TNS-Ilres 2009, Hohmann 2009.
[148] Source: IGSS, 2010, CNS, 2010.
[149] Art. 8 of the Grand-ducal Regulation of the Social aid. Feist 2011, 10. Schronen and Urbé 2011, 64.

The CNS now charges them around EUR 100 monthly (equal to the level of contributions for people earning the minimum income). Until September 2011, the University of Luxembourg agreed to pay the contributions on their behalf. The students union ACEL demands a special regulation, stipulating that health insurance contribution for students, if not otherwise covered, must not surpass the amount of EUR 25 per month.[150]

Despite its exclusive position, the purchasing power of the public health insurance institution (CNS) seems unexpectedly low. To date, the health insurance scheme has little discretion to influence the volume of services. Fee-for-service is still the predominant payment system for medical services, and is also applied in hospitals for doctors' remuneration, independent of the hospitals' budget-based payment. As a public body responsible for orchestrating health care consumption to maximise value for its members and society, much stronger requirements for medical justification of charged services and stricter control of providers to operate economically should be expected.

Following the implementation of uniform social security status in 2009, which brought equal rights for the previously distinct groups of manual workers and employees under one single employment status, employers must continue to pay wages for up to 13 weeks during sickness leave. In order to cover the risk of the sick-pay obligation, a new mutual insurance fund was established. The contributions have to be borne only by the employer. Its rate is set at four different levels (in 2011 between 0.62% and 2.38%) of the accumulated gross wages subject to health insurance contributions) depending on the volume of insured risk and the sickness rate of the covered employees. Membership is, in general, mandatory. The self-employed can affiliate on a voluntary basis.[151]

A newly established 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.[152] 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.[153] 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.[154] 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.[155]

*Primary Health Care*

Another important objective of the health reform is to strengthen the role of primary health care. For this purpose, a specific general practitioner (GP) system will be implemented as of January 2012. The system, called "médecin referent" (MR), is currently in preparation and is planned to be implemented voluntarily for both the patient and the participating general

[150] http://www.wort.lu/wort/web/letzebuerg/artikel/2011/05/150125/krankenversicherung-acel-fordert-schnelle-loesung.php. (retrieved on 26 May 2011). Schronen and Urbé 2011.66.
[151] Art. 3 of Statutes of the Mutualité des employeurs. http://www.mde.lu/?p=300 (retrieved on 27 May 2011).
[152] Zarnadelli et al. 2011 and 2011.
[153] Zarnadelli et al. 2011, 5.
[154] Zarnadelli et al. 2011a, 17.
[155] Ibid, 21,

practitioners.[156] The future MR is planned to become the primary point of contact for the patient and to be responsible for providing diagnosis and appropriate treatment to the patients seeking medical care. He or she will be given a central role for information, prevention and guidance of the patient through the health care system, when the provision of health care services by specialists or a hospital is considered necessary. Depending on the consent of the patient, the MR will also provide the function of supervising the patient's global health file. Its potential to improve the cost-effectiveness and coordination of the health care system is a welcome side effect, including the rising demand for integrative long-term care arrangements. The system, planned as a purely voluntary measure, follows a number of voluntary examples in neighbouring countries.[157]

Unfortunately, a comparable analysis of these systems has shown that a penalty system, based on co-payments for non-participation as applied in France, shows much better results in terms of participation rates than those systems in Germany and France that are built on conceptual conviction combined with incentive systems.[158] As key factors of success the study mentions an established integration and collaboration concerning preventive and curative services between the MD and other service providers, including specialists, as well as an appropriate payment mechanism with capitation at its base combined with (risk-adjusted) fees to promote cooperation among disciplines.[159]

*Medical documentation*

The drafters of the reform are very much concerned with the poor quality of medical data caused by an inappropriate medical documentation systems as regards the international standards required for health performance and outcome measures and comparisons. Instead of applying the ICD-10 code in its full shape, Luxembourg only makes use of three digits, and even worse, transmits the code of the discharge diagnosis disconnected from the information on medical performance. Even though considered mandatory, it can reach the health insurance fund two years later and is sometimes still manually documented. Such procedures make plausibility checks extremely difficult and often impossible. A similar misery applies to the national nomenclature of medical procedures, serving as the tariff system for medical procedures and services. This classification is equally of considerably low granularity and is absolutely obsolete as regards the draft European standard prISO EN 1828 on the category-structure for classifications and coding systems of surgical procedures.[160] The system's intransparency also negatively affects solid health planning, the negotiation of fair tariffs and any combat of fraud and abuse.

The reforms foresee three major changes:

- To extend the mandatory ICD-10 coding to at least 4 digits, to limit it to digital data transmission and, if authorised by the data protection authority, to combine it with the documentation of the performed medical procedures.
- So as to gain information on morbidity and the use of primary health care, to add the International Classification of Primary Care, ICPC-2, as the recommended documentation system for the planned GP system (see above).

[156] Berthet, Françoise, Presentation of the stage of preparation of the Médecin référent at the Quadripartite meeting on 11 May 20011. http://www.mss.public.lu/maladie_maternite/reforme_soins_sante/medecin_referent.pdf (retrieved on 26 May 2011).
[157] Or 2009, 20.
[158] Budiani 2011.
[159] Idem.
[160] https://www.astandis.at/shopV5/Preview.action?preview=&dokkey=377727 (retrieved on 29 May 2011).

- The Luxembourg tariff system based on medical procedures and services (nomenclature) should be revised and be built on more scientific evidence and potentially use an established foreign system as a reference, such as the French CCAM[161] or the US American procedure-coding system ICD-10-PCS. The decision is planned to be taken in the course of the year 2011. The WHO acknowledgement of the CCAM, and the Canadian classification CCI, both absolutely conform with the prISO EN 1828, the model for the WHO International Classification of Health Interventions[162], which makes the choice of the CCAM more likely.

If successfully implemented, the reform will bring the health authorities into a position to assess the health status of the population before and after treatment and to some extent define the value of the latter. It will equally serve to inform the use of health services, the frequency of use, the circumstances of their application as well as the resources implied.

*Institutional innovations*

The health care reform brings about the modification of the composition and mission of some existing institutions, such as the supervisory committee of social security, which instead of dealing with individual decisions in the future, will concentrate on an investigative role into potential infringement of the social security law, or the new nomenclature commission, which will get a larger stake in the reform of the existing classification. The real institutional innovation lies in the creation of the following two institutions.

a) The Cellule d'expertise médicale (Unit for medical evidence): It is an interministerial department under the authority of the Ministry of Social Security, established on three interrelated objectives:
    a. To technically and scientifically support the further development of the national medical classification and tariff systems.
    b. To assess the effectiveness, quality and economic efficiency of selected diagnostic and therapeutic interventions based on scientific evidence.
    c. To collaborate with the national scientific council on the elaboration, regular adaptation and implementation of evidence-based clinical practice guidelines.

    The CEM works as requested by the Ministries of Health and Social Security as well as of the national health insurance CNS. Its status guarantees CEM independence in the execution of its assigned tasks. The law itself recommends CEM to work in close partnership with specialised national and international organisations and networks.[163] As such, it acts as Luxembourg's first Collaborate Associate member of the European network on Health Technology Assessment (HTA), as promoted as one of the three specialised European collaboration networks by the Directive 2011/24/EU.

b) The Agence nationale des informations partagées (National agency of shared information) : The agency is a necessary organisational prerequisite to implement and to operate an national electronic health record (EHR) platform aiming to share each patient's most relevant medical information. [164] It is still in the development stage and requires the interoperability of the numerous electronic information systems operated

[161] CCAM is the French medical classification for clinical procedures, which also includes a tariff system for the payment of clinicians (Classification Commune des Actes Médicaux - CCAM).
[162] Hanser, S. and Zaiβ, A. 2010, 3.
[163] Art. 65 of the Social Security Code (CSS).
[164] MS/MSS 2010d, 13.

by the different hospitals, too often on a stand-alone basis.[165] This mission is expected to gain from the recently established Luxembourg HL7-association, affiliated to the international normation authority for the interoperability of health information technology (HL7).[166] The sharing of health data also implies the danger of misuse. For this reason, the research institution Henri Tudor is about to develop a Privacy Enhancing Technology (PET)[167] for the particular use of the EHR platform, which can protect the system against misuses and even enable secure statistics, and is absolutely in line with the Commissions' proposal to strengthen the concept of "privacy by design".[168]

*Prevention*

In the previous years, Luxembourg recognised the key role that prevention plays in addressing global health challenges. Risk factors, social determinants of health, unhealthy lifestyles, climate change and most notably infectious diseases unfold their impact on health globally. The answer to global threats lies in evidence-based, coordinated, global policy and public health efforts, coined global health. Mammography, colonoscopy or prostate examination are among the well-proven diagnostic instruments for prevention and early detection applied for some long time. These programmes follow almost the same standards across Europe. As of 2008 new programmes were added, such as the detection of congenital anomalies, withdrawal of tobacco dependency, vaccination against human papilloma virus, a prevention centre for back exercises, promotion of healthy nutrition and physical activity.

The recent outbreak of well-known epidemics (polio in Azerbaijan, measles in Germany and France) show the importance of vaccination for the protection from infectious diseases is. It equally requires appropriate health education and information as regards compliance with recommended first and re-vaccination schedules. In Luxembourg, around 95% of children are vaccinated against the main infectious illnesses.[169] Under the coordination of WHO, Luxembourg participates in regular vaccination campaigns, of which the last took place at the end of April 2011.

Despite a veritable governmental effort in health prevention, this area is neither centrally coordinated nor reported or budgeted in a concise manner. Apart from the presentation of the major programmes (www.sante.lu), only little is known about the programmes' preparation, responsibilities for implementation, impact and cost-benefit analyses. According to IGSS, at least the financial investment is substantial. In 2008, prevention expenses amounted to EUR 98 per inhabitant[170] About two thirds of these expenses are covered by the Ministry of Health, 10% is spent by the CNS and the remaining part is attributed to other policy areas like the

[165] Art. 60ter and 60quater of the Social Security Code (CSS). MS/MSS 2011, 10-12.

[166] Press release on 18 April 2011 http://www.hl7.org/search/viewSearchResult.cfm?search_id=155643&search_result_url=%2Fpress%2FPressReleasesRSS%2Ecfm (retrieved on 20 May 2011).

[167] Its technical cornerstones are (a) certificate-based user authentication, (b) role-based user management with pre-registered users, (c) separated storage of identification data and medical data, (d) encryption of medical data, (e) individual access restrictions through IT-consent declarations, (f) logging and automatic notifications as psychological barrier against unjustified "emergency" accesses, (g) technical non-disclosure guarantee with respect to administrators and intruders. Benzschawel and Da Silveira 2011.

[168] European Commission COM (2010) 609.

[169] These include polio, diphtheria, tetanus, whooping cough, gasp cough, haemophilus influenzae type B, measles, rubella, mumps, chickenpox, rotaviruses. http://www.sante.public.lu/fr/actualites/2011/04/05-vaccination/communique-presse-vaccination.pdf (retrieved on 28 May 2011).

[170] Source: IGSS. This amount equals EUR 69 per insured population. As most of the prevention programmes are paid by the Ministry of Health, whose responsibility is limited to the resident population, the figure per inhabitant is given priority in the text.

Ministry of Family Welfare and Integration or the Ministry of Education. These include, for instance, school health programmes or social medical centres.

*Health Information*

The national Health Portal (www.sante.lu), operational as of 2009, provides an experienced French-speaking internet user with a good orientation in the health sector, including alerts and the latest news on health related issues. The Health Portal brings together all information about health on one website for both citizens and health professionals. It provides information on prevention, background information and fact sheets on diseases, and the payment rules and procedures of care consumption. Furthermore, it contains a directory of all health services in Luxembourg.[171] In the frame of the 2010 information on the health reform, it became obvious that the Health Portal is only one of three websites regularly accessed by the general public on health and social security issues. The others are the Internet portals of the health insurance (www.cns.lu) and the one established by the Luxembourg administration on common administrative procedures, including forms allowing for certain of them to be carried out online (www.guichet.lu). Since then, the three portals have been well connected.

The range of media also includes an online-newsletter "Insight SantéSécu" of the Ministries of Health and Social Security, which provides information 3-4 times a year about the latest developments in the sector. It is distributed to the main health actors and interested subscribers and available on the Health Portal and the website of both ministries.

### 2.3.5 Critical assessment of reforms, discussions and research carried out

Despite its excellent reputation among the population and health care providers, the numerous aspects of the structural and economic challenges in the Luxembourg health care system can become a difficult equation to resolve. On the one hand, documentation requirements on health system delivery are growing in terms of both quantity and quality, in order to put health care planning on a sound footing so as to appropriately prepare the system for its demographic impact, for the appearance of new diseases, and to evaluate the quantity and quality of its performance in both national and international comparison. On the other, they will hardly help to solve the financial constraints upon the social security system, i.e. paying for an ever growing market for health care services with an increasing complexity of diagnostic and therapeutic processes, or to preserve the value of the solidarity system at the utmost level.

Cost control in health care spending is considered relatively weak by international comparison; the flow and quality of health information could definitely be improved and the role of the health insurance fund and hospital managers with regard to validity control of the physicians' performance and bills could be strengthened. High labour costs further challenge the system's attractiveness for foreigners.

Indeed, the government made a wise decision by starting the reconstruction of the health care system with a reform that mainly concentrates on partial corrections of the structure of the existing system. Appropriate cost-containment measures combined with quality-improvement of health care services represent the overarching goals of Luxembourg's health policy. In this respect, only valuable data on the system's performance will at any stage allow for a sound efficiency analysis, the identification of aspects that prove problematic, and the projection of various scenarios for their improvement.

As such, the current health care reform still preserves the constituting principles of social security protection within a one-tier health care system, which is characterised by

[171] www.sante.lu (retrieved on 27 May 2011).

- the mandatory affiliation of the whole population as well as all cross-border workers (and their families) to the national health insurance (CNS).
- a compulsory collective agreement of all health care providers with the CNS, which binds the partners to respect a uniform fee schedule (nomenclature).
- budget-based payment of hospitals, and
- the self-governance of all social security organisations by the social partners.

The legal path which has now been chosen has to be acknowledged as appropriate to bring transparency into the system. The improvement of the medical documentation system is absolutely urgent and as vital as a more coherent planning, coordination and financing of the hospital sector. The financial measures absolutely remain within the bounds of what is feasible and could, at least on the provider side, be more extensive than planned. A continuous increase of service will easily bring them back to the previous level of revenues. The burden of more co-payments on patients, in contrast, will constantly and noticeably increase, in particular for the chronically ill.

It is much too early to anticipate the overall impact of this reform. However, it is worth mentioning that the financial and economic crisis supported Luxembourg in launching its first major health reform for 20 years, and the first one for 30 years that restricts the increase in providers' revenues.

## 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 separate branch of the social security system. Affiliation is mandatory and access to continuous insurance benefits is guaranteed from the first day of membership.[172] Currently the nursing-care insurance scheme accounts for more than 11,000 beneficiaries receiving benefits in kind or cash benefits on a regular basis.[173] The comparatively low percentage of elderly aged 65 and above, a group which in 2009 represented around 10% of the insured population in Luxembourg[174] (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 16% of this target group above the age of 65.[175]

The latest available figures on public and private long-term care expenditure [176] date back to 2008, where it equalled 1.23% of GDP.[177] National data is available only on public long-term care insurance, which for the same year amounted to EUR 363.8 million and equalled 0.92%

[172] 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.
[173] IGSS 2010, 149.
[174] 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.
[175] Colombo 2011, OECD Key Facts Luxembourg.
[176] 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).
[177] Retrieved on 30 May 2011 from: http://epp.eurostat.ec.europa.eu/portal/page/portal/employment_social_policy_equality/omc_social_inclusion_and_social_protection/health_long_term_care_strand, HC-P13.

of GDP. For the year 2009, this share rose to 1.1% of GDP.[178] By 2050, according to an OECD study, the expenses for long-term care are expected to increase to 3.1% of GDP.[179]

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. The state itself contributes an additional fixed amount of EUR 140 million to the long-term care insurance fund, representing 34% of the total revenue in 2009.[180]

Despite relatively higher social security contributions, the 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 any co-payment. The provision is to a large extent offered in kind by a specialised, well-organised and labour-intensive service sector. In 2009, roughly 7,000 full time equivalents were employed by the providers for home care and institutional care.[181] It represents around 2% of the national labour force and is dominated by females.[182] 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 2009, there were

- 15 ambulatory networks for home care with two dominating institutions (Stëftung Hëllef Doheem, Help),
- 46 day care institutions
- 36 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 (7.8 per 1,000 insured population).[183]

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 4,300 requests to classify or reclassify the individual need for nursing care services. Another 1,600 applications concerned (minor) technical aids and housing adaptations[184], likewise covered by the long-term care insurance.

[178] MSS 2011, 44. IGSS 2010, 237. www.statec.lu (retrieved on 30 May 2011). 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).
[179] Colombo et al. 2011, 74.
[180] The amount equals the state contribution from 2006, when it still represented 45% of total revenue. A smaller source of revenue comes from a special earmarked electricity tax for high-volume electricity consumption.
[181] Gantenbein 2011. Source IGSS.
[182] www.statec.lu (retrieved on 27 May 2011).
[183] IGSS 2010, 145-146 and OECD ECO-Health Data 2010.
[184] MSS 2011, 37.

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 (68%).[185] 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 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.[186] 66% of home care recipients opt for this voluntary combination of professional and informal caregivers.[187] The majority of the latter are family members. 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.[188] 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.[189] 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 44.55 for 2011.[190] 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.[191]

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[192] However, benefits of the long-term care insurance can be provided in addition to palliative care services,[193] because essential benefits are not simultaneously on the list of palliative services. As of 2011, a modification of the Social Security Code remedied this inconsistency[194]. 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 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 2009 the costs of long-term care insurance rose by 13.2% compared to a 5% increase in the number of beneficiaries during the same period.[195] The consequences of such

[185] IGSS 2010, 150. Colombo 2011, 40 and OECD Key Facts Luxembourg.
[186] 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.
[187] Colombo 2011, OECD Key Facts Luxembourg.
[188] Gantenbein 2011, 2.
[189] 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).
[190] MSS 2011, 35.
[191] Gantenbein 2011, 2. See also section 2.3.2 of this report.
[192] Art. 351 No. 2 of the Social Security Code (CSS).
[193] Art. 1 No. 55 of the Law of 17 December 2010 on health care reform.
[194] MSS 11, 45.
[195] MSS 2011, 42-44.

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.[196] Only two years later, the current expenses once again 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 2010/2011, 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.[197]

### 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.[198] Even below this 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).[199] 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 transitional period until 2012 the law applies two flat rates, which reflect the same volume as applied for the home care sector.[200]

[196] IGSS 2010, 177. MSS 2011.44.
[197] MSS 2011, 36-41.
[198] Colombo 2011, OECD Key Facts Luxembourg.
[199] Art. 357, No. 2 of the Social Security Code (CSS).
[200] 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 1,437.19 in 2008.[201] 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.[202] The latest aggregated information dates back to 2005, when prices varied between EUR 1,440 and EUR 2,896 per month for integrated centres for the elderly and between EUR 1,335 and EUR 3,120 for nursing homes.[203] The National Solidarity Fund provides mean-tested support of these costs (*accueil gérontologique*). In 2009, approximately 700 people received on average EUR 808 per month.[204] Due to the importance of the accommodation price for the individual selection of one institution, the non-availability of a comparable and transparent accommodation-price scale is considered inexcusable.

### 2.4.3 Impact of EU social policies on the national level

Long-term care is an absolutely neglected issue in the EU Annual Growth Survey from January 2011 and its annexes[205] and thus, unsurprisingly, is not mentioned in the Luxembourg NRP 2011 either.[206] 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.[207] The number of professionals in the long-term care sector (expressed in full-time equivalents) has increased between 2005 and 2008, on average, by 6.5% per year.[208] As such, the sector contributes by and large to the headline targets concerning national employment and economic growth.

Disregard of the long-term care sector in the NRP 2011 may reflect the low value that the Ministry of Economy places on it as regards the OMC and the EU 2020 strategy.[209] Against its current focus on life science as the sole mentioned branch of health care, the quality of the NRP 2011 could be much enhanced by the addition of various strategies on how nursing sciences can gainfully complement the heavily subsidised life science industry.

An in-depth analysis of the surprisingly low risk of impoverishment among the elderly population has already been elaborated in section 2.1.5 of this report. With an at-risk-of-poverty rate at 6% for the population aged 65+, Luxembourg is nearly two thirds below the EU27 average of 17.8%.[210] The generous long-term care benefits, granted without any co-

[201] MiFa, 2008, 76
[202] Lepage 2011, 2.
[203] Kerger and Wolf 2008, 162.
[204] IGSS 1010, 234-237.
[205] European Commission 2011.
[206] The NRP 2011 has been drafted under the responsibility of the Ministry of Economy and Foreign Trade. Government of Luxembourg 2011, 31.
[207] Hilgert 2010. Colombo et al. 2011, 77. www.statec.lu (retrieved on 27 May 2011).
[208] IGSS 2010. 147.
[209] Government of Luxembourg 2011.
[210] Eurostat 2011. http://epp.eurostat.ec.europa.eu/tgm/refreshTableAction.do?tab=table&plugin=1&pcode=tessi012&language=en (retrieved on 31 May 2011).

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. [211] 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).[212] 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.[213] 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 young population in comparison to other EU countries, with a proportion of older people aged 65+ in the overall population of just 14% in 2008[214] (EU27 > 25%)[215]. This ratio is expected to rise to 30% (LU) and 38% (EU27) in 2030, and to 39% (LU) and 53% (EU27) respectively in 2060.[216] 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. 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 2009, it already represented 27% of the primary cause of long-term care dependency.[217] 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.[218] It will also imply a growing

[211] Zahlen 2011, 2.
[212] www.orem-society.com (retrieved on 31 May 2011).
[213] 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 fulfillment 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.
[214] Eurostat 2010, 282
[215] Source: Eurostat 2011, Old-age dependency ratio (tsdde 510).
[216] Source: Eurostat 2011, Projected old-age dependency ratio (tsdde511).
[217] IGSS 2010, 157.
[218] Ernst &Young 2010.

shortage of qualified nursing staff, as even today, the labour market faces difficulties in meeting the specific demand.

Furthermore, a 2010 cross-national survey of health care consumers shows increasing interest in a monitoring tool with remote health monitoring devices to be used at home. With a percentage of 53% in France at bottom and 68% in the UK[219], it shows a clear trend on the future importance of eHealth and supportive electronic devices for the area of long-term care, further supported by the increasing digitalisation, miniaturisation and portability of such devices.

Luxembourg responds to the numbers of its so-called "online population" even among the elderly and benefits from its high-performance IT-infrastructure. 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 it to market maturity.[220] 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.[221] 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-permitted food.[222]

The Ministry of Health recognises a need for better monitoring of drug prescription behaviour combined with an e-prescription system in order to significantly improve drug safety for elderly patients. An analysis revealed that 39% of all drugs were prescribed for patients aged 65 and above. Undesired side effects and interactions of polypharmaceutical treatment represent a genuine danger, the level of which is difficult to grasp, even for specialists. According to the study, in the year 2007 patients above 75 were on average exposed to almost 14 different prescribed pharmaceutical substances, with painkillers, therapeutic drugs for cardiovascular diseases, psychopharmaca and antibiotics most frequently involved.[223]

*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.[224] 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.[225] 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.[226]

[219] Deloitte 2010, 11.
[220] www.santec.lu/project and www.monitor-it.lu/ (both retrieved on 31 May 2011).
[221] http://www.santec.lu/project/luhf (retrieved on 31 May 2011).
[222] http://www.santec.lu/project/menssana (retrieved on 31 May 2011).
[223] MS/MSS 2010c, 9-10.
[224] MSS 2011, 33.
[225] Art. 361 of the Social Security Code (CSS).
[226] MSS 2011, 36.

- The results of another pilot approach conducted between 2008 and 2010 on a relatively new neuro-psychiatric method of care provision, where patients suffering from dementia are accommodated in small self-contained sheltered units, so-called "care oases", demonstrated that the approach contributes to a slowdown of progressing care dependences. However, these conclusions were not sufficient to pass the requirement for an evidence-based practice.[227]
- Following the 2006 patient-satisfaction study on home care, a similar study has been commissioned in 2009 for the sector of institutional care. The results are expected to be released by July 2011.[228]

*Development of a sector-wide cost unit accounting system (Kostenträgerrechnung)*[229]

The preparation and introduction of this analytical accounting system represents the most far-reaching innovation of the long-term care sector. In 2007, 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. The development and implementation process was technically prepared and moderated by PriceWaterhouseCoopers with scientific support from the University of Applied Sciences of Jena. It will be completed by July 2011.

As to its methodology, the approach pursues a transparent allocation of care provisions and costs to certain performance categories (basis 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 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 2.3.2 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

[227] Ruthenkröger and Kuhn 2010.
[228] MSS 2011, 36.
[229] MS/MSS 2010b, 2-13.

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 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 first 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. As the hospital sector is equally about to develop a cross-sector unified analytical accounting system to achieve greater transparency in pricing and planning, it is very surprising how little attention the drafters of the latter pay to analysing the strengths and weaknesses of the similar approach that has just been accomplished in the sector of 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.

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 and its financial model needs to be thoroughly evaluated and revised. At first sight, there does indeed seem to be some room for manoeuvre. From a financial perspective, the government could raise its participation up to 40% of revenues, which will just harmonise it with the established policy for health care. 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. It remains to be seen what detailed strategies the government will pursue in its reform of the long-term care insurance system, announced for the year 2013.

# References

AXA (2010). Baromètre AXA de la retraite 2010 : Etude sur le comportement des résidents luxembourgeois face à l'épargne de la retraite, presentation of study results, retrieved on 25 April 2011 at: http://www.axa.lu/pdf/presse/Barometre%20AXA%202010%20-%2006-09-2010%20VF%20web.pdf.

BENZSCHAWEL, Stefan and DA SILVEIRA, Marcos (2011), Protecting Patient Privacy when Sharing Medical Data, conference paper, eTELEMED 2011, retrieved on 28 May 2011 at: http://www.santec.lu/_media/team/publications/etelemed11_-_protecting_patients_privacy_when_sharing_medical_data_etelemed_2011_5_10_40072.pdf.

BODSON, Lucile and SEGURA, Jordane (2010). Le divorce au Luxembourg en droit et en chiffres, CEPS/INSTEAD, Cahier no. 2010-1, January 2010.

BROSIUS, Jacques (March 2011). L'impact de la crise économique sur l'emploi au Luxembourg. CEPS/INSTEAD, Cahier no. 2011-08.

BUDIANI, Ni Ketut Sri (2011), Introducing "Hausarztmodell" in Countries That Have Free Choice of Doctors: A Comparative Study of "Hausarzt" models in Belgium, France and Germany, study report, Luxembourg, unpublished.

CLÉMENT, Franz (2009), La "flexicurité": définitions et applications au Luxembourg, Cahier, March 2009, CEPS/INSTEAD, Gouvernance & Emploi No. 7.

CHAMBRE DES DÉPUTÉS (2010), Rapport de la commission de la santé et de la sécurité sociale sur le projet de loi portant réforme du système de soins de santé, Session 2010-2011, No. 6196, December 2010, retrieved on 20 May 2011 at : http://www.ammd.lu/documentation/projet-de-loi-6196/117-rapport-de-la-commission-sante-et-securite-sociale/download.

CHAMBRE DES SALARIÉS LUXEMBOURGEOIS (2010), Viabilité à long terme du système de pension – Eléments de reflexion, journal, No. 1, February 2010, Luxembourg.

CHAMBRE DES SALARIÉS LUXEMBOURGEOIS (2010a). Oui à l'indexation automatique et intégrale des salaires, journal, No. 2, September 2010, Luxembourg.

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

COMMISSARIAT AUX ASSURANCES (2011), Press release, retrieved on 25 April 2011 at http://www.commassu.lu/upload/files/193/COMMUNIQUE%202010_4.pdf.

CONSBRUCK, Roger (2010). The health system of the grand-Duchy of Luxembourg in 2010 - synthetic version, , Ministère de la Santé, Luxembourg, retrieved on 25 May 2011 at: http://www.sante.public.lu/publications/systeme-sante/politique-nationale-sante/systeme-sante-luxembourgeois-luxembourgeois-2010-synthes/systeme-sante-luxembourgeois-luxembourgeois-2010-synthese-en.pdf.

DELOITTE (2010), 2010 Global Survey of Health Care Consumers: Behaviors, attitudes and unmet needs, Cross-national survey, Deloitte Center for Health Solutions, Washington DC.

ERNST & YOUNG (2010), Quo Vadis Investionsbedarf stationäre Alterspflege 2015? Kostenfalle oder Pflegechance, Market Study, November 2010, Luxembourg.

EUROPEAN COMMISSION (2009), Pension Schemes and Pension Projections in the EU-27 Member States – 2008-2060, Volume I, October 2009, Occasional Papers No. 56, Brussels, retrieved on 25 April 2011 at: http://ec.europa.eu/economy_finance/publications/publication16034_en.pdf.

EUROPEAN COMMISSION (2010). Towards adequate, sustainable and safe European pension systems. Green Paper.

EUROPEAN COMMISSION (2010a). A comprehensive approach on personal data protection in the European Union, Communication COM (2010) 609 of 04.11.2010, Brussels, retrieved on 25 May 2011 at: http://ec.europa.eu/justice/news/consulting_public/0006/com_2010_609_en.pdf.

EUROPEAN COMMISSION (2011). Annual Growth Survey: advancing the EU's comprehensive response to the crisis, COM (2011) 11 final, Brussels.

EUROPEAN UNION (2010), Joint Report on Pensions: Progress and key challenges in the delivery of adequate and sustainable pensions in Europe, Occasional Paper 71 and annexes, Brussels.

FONDS DE COMPENSATION DE LA SÉCURITÉ SOCIALE, SICAV-FIS (2011), Annual Report as of 31.12.2010, retrieved on 20 May 2011 at http://www.fdc.lu/pdf/Rapport%20annuel_20101231.pdf.

FEIST, Peter (2011), Schwergeburt, newspaper article, 14.01.2011, d'Land.

FEIST, Peter (2011a), Mit der Rentenformel auf du und du, newspaper article, 08.04.2011, d'Land.

GANTENBEIN, Michèle (2011), "Mit 66 Jahren, da fängt das Leben an …", newspaper article, 24.01.2011, Luxemburger Wort.

GENEVOIS, Anne-Sophie (2009), Zoom sur les retraités au Grand-Duché, collection, November 2009, CEPS/INSTEAD, Vivre au Luxembourg No. 60, retrieved on 25 April 2011 at http://www.ceps.lu/pdf/3/art1447.pdf.

GOVERNMENT OF THE GRAND-DUCHY OF LUXEMBOURG (2009). Governmental Programme 2009-2014, Luxembourg, retrieved on 01 May 2011 at: http://www.gouvernement.lu/gouvernement/programme-2009/programme-2009/programme-gouvernemental-2009.pdf.

GOVERNMENT OF THE GRAND-DUCHY OF LUXEMBOURG (2011). Luxembourg 2020 – Programme national de reforme du Grand-Duché de Lxuembourg dans le cadre de la stratégie Europe 2020, Luxembourg.

GUIGOU, Jean-Daniel, LOVAT, Bruno and SCHILTZ, Jang (February 2010). Les retraites au Luxembourg: modélisation et évaluation d'un système diversifié avec répartition et capitalisation, Luxembourg.

HANSER, Susanne and Zaiβ, Albrecht (2010), Aktuelles zur International Classification for Health Interventions (ICHI) der WHO, Presentation at the GMDS symposium 2010, retrieved on 28 May 2011 at: http://www.imi2.uni-luebeck.de/gmds-ag-stm/archiv/2010/symposium_100909/11_Hanser.Zaiss_GMDS.Mannheim_100909.pdf.

HEALTH CONSUMER POWERHOUSE (2009), Euro Health Consumer Index 2009, Brussels.

HILGERT, Romain (2010), Boombranche Pflege, newspaper article, d'Land, 13.08.2010.

HOHMANN, Jürgen (2009), Stakeholder involvement in the OMC, Country report Luxembourg, http://www.stakeholders-socialinclusion.eu/site/en/cr.

IGSS (INSPECTION GÉNÉRALE DE LA SÉCURITÉ SOCIALE) (2009), Rapport sur les mesures envisageables pour garantir la viabilité à long terme du système du pension, Luxembourg.

IGSS (INSPECTION GÉNÉRALE DE LA SÉCURITÉ SOCIALE) (2010), Rapport général sur la sécurité sociale 2009, book, November 2010, Luxembourg, www.statsecu.etat.lu.

IMF (INTERNATIONAL MONETARY FUND) (2011), LUXEMBOURG, Staff Report for the 2011 Article IV Consultation, report, April 2011, retrieved on 20 May 2011 at: http://www.imf.org/external/pubs/ft/scr/2011/cr11108.pdf.

IMF (INTERNATIONAL MONETARY FUND) (2011a), IMF Executive Board Concludes 2011 Article IV Consultation with Luxembourg, Public Information Notice (PIN) No. 11/55, May 17, 2011, retrieved on 20 May 2011 at: http://www.imf.org/external/pubs/ft/scr/2011/cr11108.pdf.

KERGER, Andrée and WOLF, Pascal (2008), Dépendance et gériatrie, in: Bulletin luxembourgeois des questions sociales, 2008, Volume 24, 132-169.

KNEIP, Laurent (2008). L'avenir du système des retraites au Luxembourg, Master's Thesis, February 2008, Universities of Poznan and Freiberg.

LEDUC, Kristell (2010). Le Luxembourg face au vieillissement de sa population active: des politiques publiques aux politiques d'entreprises. CEPS/INSTEAD, Cahier no. 2010-07, May 2010.

LEPAGE, Alexa, Die Herausforderungen des "vierten Alters", newspaper article, Luxemburger Wort, 22.01.2011.

LUXEMBURGER WORT (2011), Altenheime: Kein Pflegenotstand, newspaper article, 07.02.2011.

LUXEMBURGER WORT (2011a). Wenn die Rente nicht reicht – Nebenverdienst ja, nur wer und wieviel?, newspaper article, 06.05.2011.

LUXEMBURGER WORT (2011b). Ethische Vorgaben für den Rentenfonds, newspaper article, 06.05.2011.

MF (MINISTÈRE DES FINANCES) (2010), 11th update of the Luxembourg Stability and Growth Programme, Luxembourg, January 2010.

MiFa (MINISTÈRE DE LA FAMILLE ET DE l'INTÉGRATION) (2008), Guide pratiques pour seniors, pamphlet, March 2008, Luxembourg.

MS/MSS (MINISTÈRE DE LA SANTÉ/MINISTÈRE DE LA SÉCURITÉ SOCIALE) (2010), InSight SantéSécu, newsletter, Vol 1/2010.

MS/MSS (MINISTÈRE DE LA SANTÉ/MINISTÈRE DE LA SÉCURITÉ SOCIALE) (2010a), InSight SantéSécu, newsletter, Vol 2/2010.

MS/MSS (MINISTÈRE DE LA SANTÉ/MINISTÈRE DE LA SÉCURITÉ SOCIALE) (2010b), InSight SantéSécu, newsletter, Vol 3/2010.

MS/MSS (MINISTÈRE DE LA SANTÉ/MINISTÈRE DE LA SÉCURITÉ SOCIALE) (2010c), InSight SantéSécu, newsletter, Vol 4/2010.

MS/MSS (MINISTÈRE DE LA SANTÉ/MINISTÈRE DE LA SÉCURITÉ SOCIALE) (2010d), InSight SantéSécu, newsletter, Special Edition.

MS/MSS (MINISTÈRE DE LA SANTÉ/MINISTÈRE DE LA SÉCURITÉ SOCIALE) (2011). InSight SantéSécu, newsletter, Vol 1/2011.

MS/MSS (MINISTÈRE DE LA SANTÉ/MINISTÈRE DE LA SÉCURITÉ SOCIALE) (2011a). InSight SantéSécu, newsletter, Vol 2/2011.

MSS (MINISTÈRE DE LA SÉCURITÉ SOCIALE) (2011). Rapport d'activité 2010, March 2011, Luxembourg.

OECD (2010), Economic Surveys Luxembourg 2010, book, OECD, Volume 5, 2010.

OECD (2011), Pensions at a Glance 2011: Retirement-income Systems in OECD countries and G20 countries, book, OECD Publishing.

OR, Zeynep et al. (2009). Are Health Problems Systemic? Politics of Access and Choice under Beveridge and Bismarck Systems, Working Paper, DT 27, Irdes, France, September 2009.

PRICEWATERHOUSECOOPERS (PwC) (March 2010). HealthCast – The customisation of diagnosis, care and cure, Dallas, US.

RUTHENKRÖGER, Anja and KUHN, Christina (2010), "Da-sein" Pflegeoasen in Luxembourg – eine Evaluationsstudie, June 2010.

SCHRONEN, Danièle and URBÉ, Robert (Editors) (2011), Sozialalmanach 2011 – Schwerpunkt: Leben in Luxemburg 2020, Book, Conféderation Caritas, Luxembourg.

STATEC (2010), Projections socio-économiques 2010-2060, Bulletin du Statec no. 5-2010, October 2010, retrieved on 31 May 2011 at: http://www.statistiques.public.lu/catalogue-publications/bulletin-Statec/2010/PDF-Bulletin-5-2010.pdf .

STATEC (2011), 2010 Annuaire statistique du Luxembourg, book, Luxembourg.

TNS-ILRES (2009), National Health Survey. Le Luxembourg dans le contexte international. Ministère de la Santé, presentation, February 2009, Luxembourg, http://www.sante.public.lu/publications/systeme-sante/politique-nationale-sante/national-health-survey-luxembourg-contexte-international/national-health-survey-luxembourg-contexte-international.pdf.

WICTOR, Jean-Paul (2009), Commémoration du dixième anniversaire de la loi sur les régimes complémentaires de pension. In: Vol. 26, Bulletin luxembourgeois des questions sociales, Luxembourg, 2009, pp. 3-30.

ZAHLEN, Paul (2011), Regards sur les 65 ans et plus, newsletter, Regards 9-2011, Statec Luxembourg.

ZANARDELLI, Mireille et al. (2011), L'absentéisme pour maladie dans les entreprises privées implantées au Luxembourg, CEPS/INSTEAD, Cahier no. 2011-09, April 2011.

ZANARDELLI, Mireille et al. (2011), L'absentéisme au travail: un phénomène multidimensionnel? CEPS/INSTEAD, Cahier no. 2011-10, May 2011.

# 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**

**[R5]** AXA, Baromètre AXA de la retraite 2010: Étude sur le comportement des résidents luxembourgeois face à l'épargne et la retraite, Septembre 2010.

*"AXA retirement barometer 2010: Study on the savings and retirement behaviour of Luxembourg residents"*

The AXA barometer on pensions is an internationally conducted survey based on a 20-minute telephone interview with a representative population from Luxembourg (505 people) selected according to age, gender and place of residence, as well as composition and main source of family income. Conducted in 27 different countries it allows a comparison of public opinions and reported experiences related to pensions. The 2010 report is limited to the annotated poll results, which were conducted and analysed in collaboration with the University of Luxembourg and are presented as PowerPoint presentations in the forms of graphs and tables. Further explanations are provided extremely sparingly.

**[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 theses flows separately, he reveals that the proportion of workers who lost or changed their jobs was even lower since 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 recruitments, which affected people below 35 years of age and was more prominent in the financial and service sector.

**[R1, R2, R3]** CHAMBRE DES SALARIÉS LUXEMBOURGEOIS, Viabilité à long terme du système de pension – Eléments de réflexion, journal, No. 1, February 2010, Luxembourg.

*"Long-term viability of the pension system – Elements of reflexion"*

In its reflection report on the long-term viability of the pension system, the Chamber of Employees (CSL) opposes all proposals concerning the reduction of the replacement rate, the abolition of pension indexation or the early retirement measure as well as the change towards a more capitalised pension system. Instead, it sees room for increasing pension fund revenues by increasing the labour market participation of women and older workers, the abolition of the upper threshold of contributable income, levying income tax and introducing added value as a contributable base for employers. The report further summarises various recent national and international studies on the Luxembourg pension system.

**[R1, R5]** CHAMBRE DES SALARIÉS LUXEMBOURGEOIS, Oui à l'indexation automatique et intégrale des salaires, journal, No. 2, September 2010 Luxembourg.

*"Yes to an automatic and integral indexation of salaries"*

This publication of the Chamber of Employees (CSL) is dedicated to the system of automatic indexation of salaries and pensions, its historical development, political and socio-economic role. It explains in detail the determination of the index and methods of application as regards consumer prices, salaries and pensions. It furthermore studies from the point of view of the unions the impact of various scenarios of changing or abandoning the index, which are topics of the current political debate, on the costs of workforce, the competitiveness of the economy and the social system. The final conclusion already figures in the heading of the publication.

**[R5]** GUIGOU, Jean-Daniel, LOVAT, Bruno and SCHILTZ, Jang, Les retraites au Luxembourg: modélisation et evaluation d'un système diversifié avec répartition et capitalisation, Luxembourg, February 2010.

*"Pensions in Luxembourg: modelling and evaluating of a system, diversified by redistribution and capitalisation"*

This actuarial study analyses, for Luxembourg, the sustainability of the pure PAYG pension system in comparison to a mixed system with a larger share of capitalised pension components. In contrast to the highly dependency of the PAYG system on the demographic development, the study shows a sustainability gain for all income groups for a capitalised pension plan, assuming a 10% saving rate. The less progressively income develops during the working career, the higher the expected sustainability gain.

**[H3]** IGSS (INSPECTION GÉNÉRALE DE LA SÉCURITÉ SOCIALE), Rapport général sur la sécurité sociale 2009, November 2010.

*"General report on social security 2009"*

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, 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 rather than 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]** OECD, Economic Surveys: Luxembourg 2010, Volume 2010/6, 2010

Based on a comprehensive external assessment of Luxembourg's economy at large, the OECD presents an extensive analysis, in this volume, focusing in particular on the impact of the financial crisis on fiscal sustainability, employment, Luxembourg's financial sector and living conditions. The pension system is examined in the chapter "Recovering from the crisis", which also covers fiscal policy. The report distinctively calls attention to the challenge arising from high future pension costs due to ageing, generous benefits and the eligibility of increasing numbers of cross-border workers. It urges the swift initiation of pension reforms and proposes a variety of well-known measures, ranging from increasing the retirement age to reducing the replacement rate and abolishing the early retirement age. In this volume, health is only covered in a negligible manner. One paragraph deals with cost control in health care, another with the restrictions of the number of pharmacies' concessions. Overall it is an outstanding international publication on Luxembourg.

**[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]** STATEC (2010), Projections socio-économiques 2010-2060, Bulletin du Statec no. 5-2010, October 2010, retrieved on 31 May 2011 from: http://www.statistiques.public.lu/catalogue-publications/bulletin-Statec/2010/PDF-Bulletin-5-2010.pdf

*"Socio-economic projections 2010-2060"*

Migration has a significant influence on the demographic development of Luxembourg. For more than 100 years the country has experienced a high level of net immigration, which additionally shows indirect effects on the annual number of births by virtue of an increasing

female population. 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. One chapter of the bulletin is particularly dedicated to the elderly population.

**[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**

**[H3]** IGSS (INSPECTION GÉNÉRALE DE LA SÉCURITÉ SOCIALE), Rapport général sur la sécurité sociale 2009, November 2010.

*"General report on social security 2009"*

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.

**[L] Long-term care**

**[L]** IGSS (INSPECTION GÉNÉRALE DE LA SÉCURITÉ SOCIALE), Rapport général sur la sécurité sociale 2009, November 2010.

*"General report on social security 2009"*

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.

# 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 2010-2011*

**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: Jean-Marie Feider (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, 2011*

**Chambre des Salariés** - Chamber of employees
Contact person: Réné Pizzaferri (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:*

- *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 9,000 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.: Towards the Formalisation of Guidelines Care Actions using Patterns and Semantic Web Technologies., 2011*
- *Benzschawel et al.: Protecting Patient Privacy when Sharing Medical Data, 2011*
- *Da Silveira et al: Toward an adaptive computer-interpretable clinical guideline for personalisation of treatments. 2011*

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

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|---|---|
| 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):*

- *An algorithm to identify patients with treated type 2 diabetes using medico-administrative data, 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*
- *A population-based economic analysis of cross-border payments for fertility services in Luxembourg, 2010*

**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 2009, November 2010, www.statsecu.etat.lu*
- *Bulletin luxembourgeois des questions sociales, Volumes 27, 2010*
- *Droit de la sécurité sociale, April 2010*

**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. 111, Rapport travail et cohésion sociale 2010, 2020*
  - *No. 110, Luxgem: modèle d'équilibre général calculable, 2010*

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

Contact person: ierre Bley c/o Chambre de Commerce
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.*
- *Réponse de l'UEL au livre vert de la Commission européenne "Vers des systèmes de retraite adéquats, viables et sûrs en Europe", November 2010*
- *Feuille de route "Soigner mieux en dépensant moins", October 2010*

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(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