



Study on State asset management in the EU

Final study report for Pillar 2 – Luxembourg

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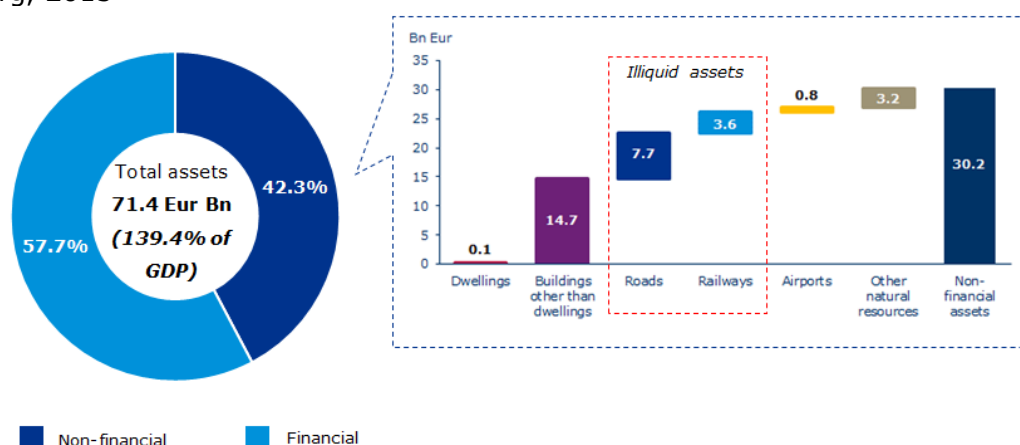
This Country fiche presents a quantitative overview of the mix of non-financial assets owned by the Luxembourg General government.

A recap and a summary table on sources of data and valuation methods used to map and assess (as far as possible) non-financial assets owned by the Luxembourg General government is reported in the Appendix (Table B).

1. OVERVIEW OF NON-FINANCIAL ASSETS

In 2015, the estimated value of Non-financial assets owned by the Luxembourg General government was equal to 30.2 Eur Bn, accounting for about 42.3% of the estimated value of all assets (including Financial assets) owned by the General government¹.

Figure 1 General government's Financial and Non-financial assets (Eur Bn), Luxembourg, 2015



Source: KPMG elaboration. Data on Gross Domestic Product were directly retrieved from Eurostat on 19th September 2017.

- (1) Estimated values refer to 2015 as the latest available year for both financial assets and all clusters of non-financial assets.
- (2) In this chart, the "estimated value" of financial assets is reported in terms of Total Assets of the country's PSHs as weighted by the stake(s) owned by the Public sector into the PSHs themselves².
- (3) Values of Dwellings, and Buildings other than dwellings were directly retrieved from Eurostat, while values for other Non-financial assets were estimated according to the valuation approaches explained in the Methodological Notes for Pillar 2.
- (4) In this chart the estimated value of Other natural resources only includes the estimated value of lands.
- (5) In Luxembourg, Ports and Mineral and Energy reserves are not included among the Non-financial assets identified in this Study as they are not present in the country.
- (6) Since roads and railways are an illiquid asset we applied a Perpetual Inventory Method (PIM). However, this valuation method tends to slightly overestimate the value of the asset. Therefore the chart shows the lower bound figure of the range of road and railways valuation estimates only.

2. DWELLINGS

In 2015, the value of non-financial assets owned by the Luxembourg General government was equal to 0.1 Eur Bn, accounting for about 0.4% of the value of all assets (including Financial assets) owned by the General government.

¹ As explained in the Methodological Notes for Pillar 2, Non-financial assets that are owned by PSHs are evaluated through the equity method. Therefore their value is not represented in this Pillar as it has already been accounted for in Pillar 1. The allocation of Non-financial assets between Pillar 1 and 2 is listed in Table A in the Appendix to the EU Fiche.

² For more details on how Total Assets for Financial Assets are calculated, please see Pillar 1.

Table 1 General government's dwellings (Eur Mn), Luxembourg, 2010-2015

Data in Eur Mn	2010	2011	2012	2013	2014	2015
General government	71	72	73	91	97	114
Share of the total economy	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%

Source: Eurostat database, 2010-2015, Balance sheets for non-financial assets, Available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama_10_nfa_bs&lang=en [downloaded in July 2017].

(1) The share of dwellings in the economy refers to the value of dwellings (rather than the number of dwellings).

3. OTHER BUILDINGS AND STRUCTURES

- *Buildings other than dwellings*

Eurostat provides good coverage of data on the value of buildings other than dwellings owned by the Luxembourg General government, hence data on this cluster of assets is retrieved from Eurostat only.

As shown in Table 2, the value for this type of assets was equal to about about 14.6 Eur Bn in 2015 – or 38.9% of all Luxembourg Buildings other than dwellings.

Table 2 General government's Buildings other than dwellings (Eur Mn), Luxembourg, 2010-2015

Data in Eur Mn	2010	2011	2012	2013	2014	2015
General government	11,374	12,215	13,074	13,616	14,194	14,655
Share of the total economy	40.0%	39.7%	40.2%	39.9%	39.4%	38.9%

Source: Eurostat database, 2010-2015, Balance sheets for non-financial assets, Available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama_10_nfa_bs&lang=en [downloaded in July 2017].

(1) The share of Buildings other than dwellings in the economy refers to the value of Buildings other than dwellings (rather than the number of Buildings other than dwellings).

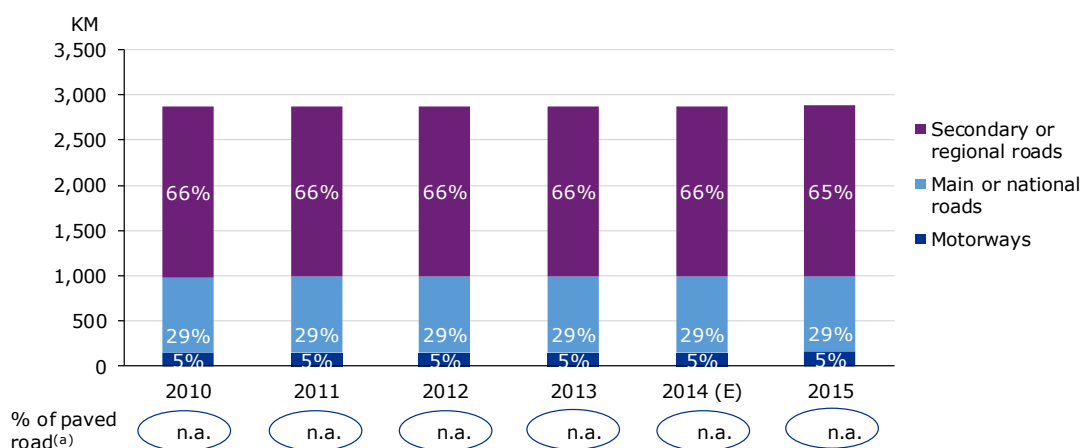
- *Ports*

Luxembourg does not have maritime ports.

- *Roads*

According to current legislation, Motorways and other national roads are owned by the Central Government. "L'Administration des ponts et chaussées" is the body responsible for construction, maintenance and modernisation of the main road network.

Figure 2 Length (in km) of Motorways, Main or national roads and Secondary or regional roads, Luxembourg, 2010-2015



Source: Directorate-General for Mobility and Transport (DG MOVE) database, 2010-2015 [downloaded in September 2017]. Values for percentage of paved road were calculated using Eurostat data on length of other roads by type of surface.

- (1) DG MOVE's data does not report the length of Main or national roads and Secondary or regional roads for year 2014. Therefore, the values for the year 2014 have been estimated as average between 2013 and 2015 values.
- (2) Data on Secondary or regional roads includes also the length of other roads.
- (3) For the sake of accuracy and comparability among the EU28 Member States, the valuation includes Motorways, Main or national roads and Secondary or regional roads only.
- (4) According to DG MOVE's data, the extension of the Luxembourg road network is equal to 2,889 Km (including the length of Motorways, Main or national roads, Secondary or regional roads and Other roads) in 2015.
- (5) Eurostat does not report the length of paved road network for years taken into account.
- (a) The percentage of paved road has been calculated based on the total extension of the road network (including other roads). It represents the length of paved road network over the total length of road network.

Table 3 reports the results of the valuation exercise carried out according to the valuation procedure described in the Methodological Notes for Pillar 2. In this respect, please be reminded that, to ensure accuracy and comparability, the valuation includes Motorways, Main or national roads, and Secondary or regional roads only.

In Luxembourg, overall, in 2015, the estimated value of roads ranged between 7.7 Eur Bn to 8.4 Eur Bn.

Table 3 Estimated road value for Motorways, Main or national roads and Secondary or regional roads only (Eur Mn), Luxembourg, 2010-2015

Data in Eur Mn		2010	2011	2012	2013	2014	2015
Motorways	Min	1,154	1,225	1,297	1,376	1,427	1,508
	Max	1,264	1,337	1,410	1,489	1,540	1,620
Main or national roads	Min	2,483	2,589	2,670	2,715	2,733	2,725
	Max	3,004	3,121	3,208	3,254	3,267	3,251
Secondary or regional roads	Min	2,915	3,097	3,245	3,346	3,412	3,439
	Max	3,047	3,232	3,382	3,483	3,547	3,572
Total	Min	6,552	6,911	7,211	7,437	7,571	7,673
	Max	7,315	7,690	8,001	8,226	8,353	8,443

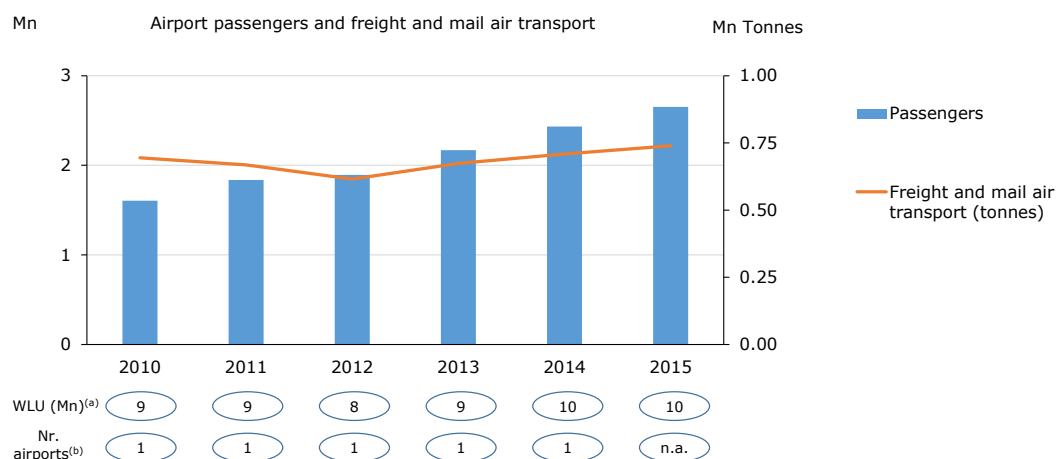
Source: KPMG calculations on Directorate-General for Mobility and Transport (DG MOVE) and Eurostat data [downloaded in July 2017].

- Airports

Luxembourg Airport is the only airport in Luxembourg. It is state-owned and its management is granted through concession to the Airport operator according to the Grand Ducal act of 26th July 2002³.

As shown in Figure 3 below, the airport traffic in Luxembourg has been increasing over the 2010–2015 time period⁴.

Figure 3 Airports passengers, freight and mail air transport, Luxembourg, 2010-2015



Source: Eurostat database, 2010-2015, [downloaded in March 2017]. Air passenger transport by main airports in each reporting country (available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=avia_paoa&lang=en), Freight and mail air transport by main airports in each reporting country (available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=avia_gooa&lang=en) and Number of commercial airports with more than 15,000 passenger units per year (available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=avia_if_arp&lang=en).

(1) The number of passengers refers to all on board passengers.
 (2) All freight and mail air transport is included.
 (3) Eurostat does not report the number of commercial airports for 2015.
 (a) A Workload Unit (WLU) is defined as one passenger or 100 kg of cargo.
 (b) Total number of airports (with more than 15,000 passenger units per year).

To assess the value of airports, an income approach was applied (for more details, please see the Methodological Notes for Pillar 2).

According to the estimates reported in Table 4, in 2015, the overall estimated value of Luxembourg airport was equal to about 0.8 Eur Bn.

Table 4 Estimated value for airports (Eur Mn), Luxembourg, 2010-2015

Data in Mn Eur	2010	2011	2012	2013	2014	2015
Airports	720	717	677	749	801	845

Source: KPMG calculations on Eurostat database, 2010-2015 [downloaded in May 2017].

³ Loi du 26 juillet 2002 sur la police et sur l'exploitation de l'aéroport de Luxembourg ainsi que sur la construction d'une nouvelle aérogare. Available at: <http://legilux.public.lu/eli/etat/leg/loi/2002/07/26/n2/jo> [Accessed 19th May 2017].

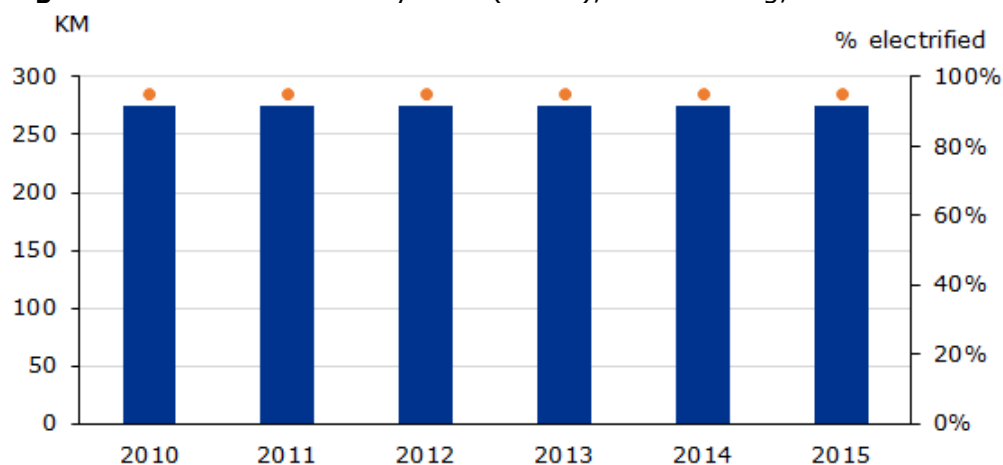
⁴ For the list of Airports included in this Study, please see Table A in Appendix.

- *Railways*

The state owns the railway infrastructures. It has financial responsibility over the network, while delegating to the “*Société nationale des chemins de fer luxembourgeois*” (CFL) the responsibility its management.

As shown in Figure 4, the extension of the railway network in Luxembourg was constant over years and equal to about 275 km in 2015.

Figure 4 Extension of railway lines (in Km), Luxembourg, 2010-2015



Source: Directorate-General for Mobility and Transport (DG MOVE), 2010-2015 [downloaded in October 2017]. The percentages of electrified lines were calculated using Eurostat database “Railway transport - length of tracks” available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=rail_if_tracks&lang=en [downloaded in October 2017].

(1) The percentage of electrified network represents the length of electrified railway tracks over the total length of railway tracks for year.

According to the estimates reported in Table 5 in 2015, the overall estimated value of public railways ranged between 3.6 Eur Bn to 3.8 Eur Bn.

Table 5 Estimated value for railways (Eur Mn), Luxembourg, 2010-2015

Data in Mn Eur		2010	2011	2012	2013	2014	2015
Railways	Min	2,807	3,005	3,155	3,290	3,437	3,646
	Max	2,924	3,124	3,275	3,410	3,555	3,762

Source: KPMG calculations on Eurostat database, 2010-2015 [downloaded in March 2017].

4. NATURAL RESOURCES

- *Mineral and Energy reserves*

As reported by the CIA’s World Factbook Database Luxembourg does not have any proven Oil or Natural Gas reserves⁵.

⁵ The estimated value of Mineral and Energy reserves for Luxembourg is zero because it reflects the estimates reported by the CIA’s World Factbook Database regarding proven Oil and Natural Gas reserves.

- *Other natural resources*

Eurostat and National Statistics do not provide figures for the cluster of “Other natural resources” in Luxembourg.

The value of other natural resources has been estimated through a market approach, as outlined in Methodological Notes. As Table 6 shows, the estimated value of Other natural resources is equal to 3 Eur Bn in 2015.

Table 6 Estimated values of General government's Other natural resources (Eur Mn), Luxembourg, 2010-2015

Data in Eur Mn		2010 (€)	2011 (€)	2012 (€)	2013 (€)	2014 (€)	2015 (€)
Land (net)	General government	3,371	3,453	3,285	3,110	3,107	3,234
	Share of the total economy	13.0%	13.0%	13.2%	13.1%	12.7%	12.4%

Source: KPMG calculations on Eurostat database, 2010-2015 [downloaded in July 2017].

(1) The share of the economy refers to the estimated value of natural resources (rather than the volume of the natural resources).

Appendix I Luxembourg

Table A List of airports, Luxembourg, 2015 (Number of airports: 1)

List of airports

Non-financial (Pillar 2)^(a)

LUXEMBOURG airport

Source: Eurostat database, 2015 [downloaded in May 2017].

(1) The list above includes the airports defined by Eurostat as "main airports", which meet the following criteria: at least 150 000 passenger movements per year.

(a) Within the scope of this Pillar.

Table B Overview of the valuation approaches and the sources used to value Non-Financial assets in this Study, Luxembourg

Clusters of Non-financial assets	Valuation approach	Sources
Dwellings	Market value	- Eurostat
Buildings other than dwellings	Market value	- Eurostat
Ports	Not present in this Country	n.a.
Roads	Perpetual Inventory Method (PIM)	- DG MOVE - Eurostat - EIB - Other sources
Airports	Market value	- Eurostat
Railways	Perpetual Inventory Method (PIM)	- DG MOVE - EIB - Other sources
Mineral and Energy reserves	Market value	- World Factbook Database
Other natural resources	Market value	- Eurostat

Sources: KPMG elaborations

(1) For more details on "other sources" used to carry out road valuations, please see Table 3, 4 and 5 at the Annex.

(2) For more details on "other sources" used to carry out railways valuations, please see Table 6 at the Annex.