



Study on State asset management in the EU

Final study report for Pillar 2 – Poland

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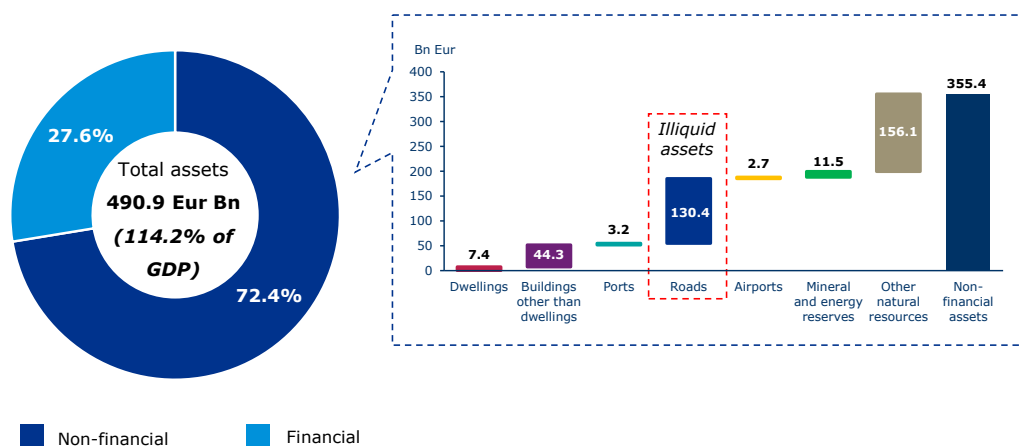
This Country fiche presents a quantitative overview of the mix of non-financial assets owned by the Polish General government.

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 Polish General government is reported in the Appendix (Table C).

1. OVERVIEW OF NON-FINANCIAL ASSETS

In 2015, the estimated value of Non-financial assets owned by the Poland General government was equal to 355.4 Eur Bn, accounting for about 72.4% 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), Poland, 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 this chart, the value of railways is not represented as it has already been accounted for in Pillar 1.
- (6) Since roads 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 valuation estimates only.
- (7) The estimated value for Mineral and Energy reserves refers to the estimate computed on 2015 average prices. Since the prices of Oil and Natural Gas can present many fluctuations over the year, the average of all price points was used as an accurate representation of the annual value of this assets, in order to better account for possible outliers.

2. DWELLINGS

Eurostat provides a comprehensive coverage of data on the value of dwellings; therefore, data on Polish dwellings are retrieved from Eurostat only.

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.

As shown in Table 1 below, the value of the Polish General government's dwellings in 2015 was equal to about 7 Eur Bn, accounting for 4.8% of the value of all the dwellings within the country.

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

| Data in Eur Mn | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 (€) |
|-----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| General government | 7,314 | 7,231 | 7,147 | 7,181 | 7,354 | 7,354 |
| Share of the total economy | 5.1% | 5.1% | 5.0% | 4.8% | 4.8% | 4.8% |

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).
- (2) Eurostat does not report the values for 2015 for the General government institutional sector, and no other official national sources provide information on the value of General government's Dwellings for 2015. Therefore, the value for 2014 is held to be constant for the following year.

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 Polish 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 has slightly increased since 2010 reaching a value to about 44 Eur Bn in 2014 – or 26.6% of all Polish buildings other than dwellings.

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

| Data in Eur Mn | 2010 (€) | 2011 (€) | 2012 | 2013 | 2014 | 2015 (€) |
|-----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| General government | 40,933 | 40,933 | 40,933 | 42,688 | 44,272 | 44,272 |
| Share of the total economy | 27.9% | 27.9% | 27.9% | 27.9% | 26.7% | 26.6% |

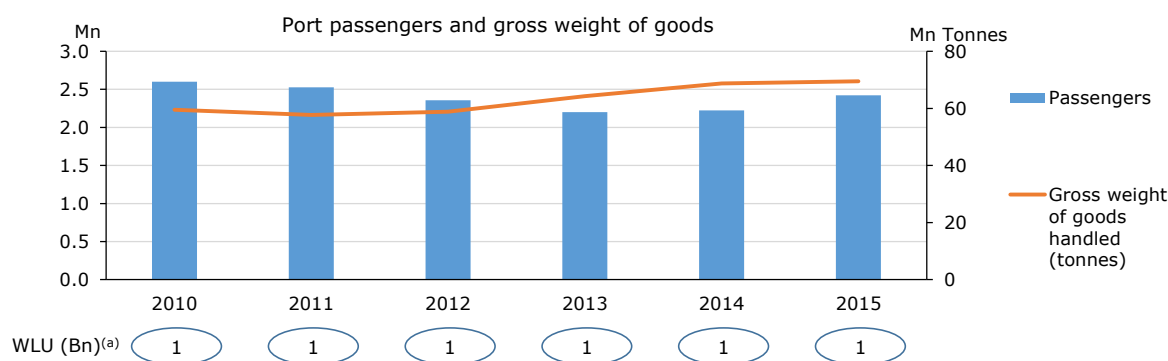
Source: Eurostat database, 2010-2015, Balance sheets for non-financial assets, Available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nama_10_nfa_bs&lang=en [downloaded in July 2017].

- (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).
- (2) Eurostat does not report the values for 2010 and 2011, because of the fact that data transmission from countries to Eurostat for this type of assets was on a voluntary basis until 2012. In addition, no other official national sources provide information on the value of General government's Buildings other than dwellings for 2010 and 2011. Therefore, values for these years were estimated so to reflect the general trend of the market value of the Total Economy's Buildings other than dwellings in each of these years. Moreover, Eurostat does not report the values for 2015 for the General government institutional sector too, and no other official national sources provide information on the value of General government's Buildings other than dwellings for 2015. Therefore, the value for 2014 is held to be constant for the following year.

- Ports

According to the *Act on Seaports and Harbours* of 2001, Polish ports are state-owned; however, their management can be delegated to private companies. In addition, such permission must be granted through a joint administrative decision of the state treasury minister with the maritime economy minister.

Figure 2 Port passengers and gross weight of goods, Poland, 2010-2015



Source: Eurostat database, 2010-2015 [downloaded in March 2017]. Country level - passengers embarked and disembarked in all ports by direction (available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=mar_mp_aa_cphd&lang=en) and Gross weight of goods handled in all ports by direction (available at: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=mar_go_aa&lang=en).

(1) With regard to passengers, all passengers embarked from and disembarked to all maritime ports within the country have been considered.

(2) With regard to the gross weight of goods handled, the Gross weight of goods handled in all maritime ports within the country have been considered.

(a) A Workload Unit (WLU) is defined as one passenger or 100 kg of cargo.

On the basis of the market value (per workload unit) for ports, retrieved from recent transactions³, the estimated value of maritime ports in Poland was estimated to be equal to about 3.2 Eur Bn in 2015 (Table 3).

Table 3 Estimated value for maritime ports (Eur Mn), Poland, 2010-2015

| Data in Mn Eur | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|----------------|-------|-------|-------|-------|-------|-------|
| Ports | 2,752 | 2,670 | 2,719 | 2,970 | 3,175 | 3,212 |

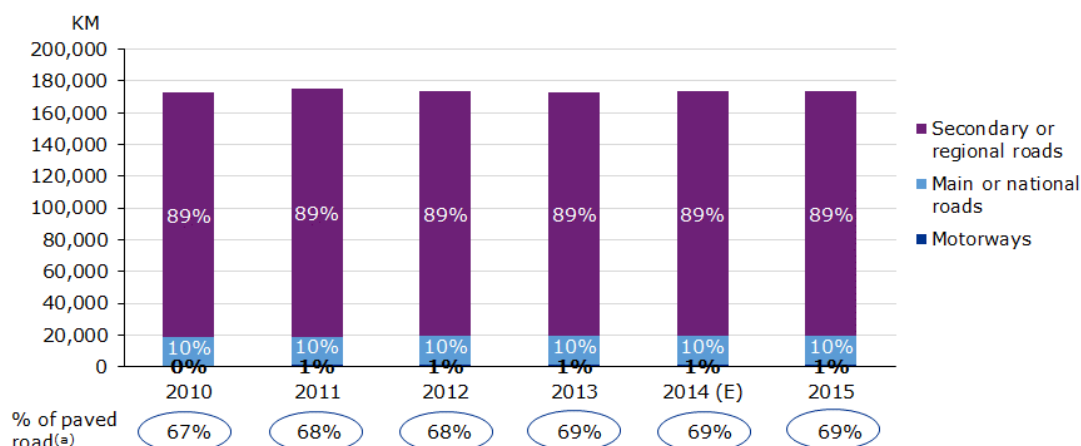
Source: KPMG calculations based on Eurostat and the Mergermarket database, 2010-2015 [downloaded in March 2017].

- **Roads**

The central administration authority with responsibilities of the national road system is the *General Directorate for National Roads and Motorways* (GDDKiA). The *General Directorate* manages National roads and implements the state budget to the extent of the national road system.

³ For the list of the so-called "comparable" transactions included in our "peer group", please see Table 8 in the Annex.

Figure 3 Length (in Km) of Motorways, Main or national roads and Secondary or regional roads, Poland, 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) 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.
- (3) According to DG MOVE's data, the extension of the Dutch road network is equal to 139,124 Km (including the length of Motorways, Main or national roads, Secondary or regional roads and Other roads) in 2015.
- (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 4 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 2015, the overall estimated value of Polish roads ranged between 130 Eur Bn to 144 Eur Bn.

Table 4 Estimated road value for Motorways, Main or national roads and Secondary or regional roads only (Eur Mn), Poland, 2010-2015

| Data in Eur Mn | | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|-----------------------------|------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Motorways | Min | 6,310 | 11,129 | 13,032 | 13,677 | 13,946 | 14,002 |
| | Max | 6,660 | 11,487 | 13,398 | 14,040 | 14,303 | 14,351 |
| Main or national roads | Min | 55,278 | 56,894 | 58,314 | 58,008 | 57,248 | 56,101 |
| | Max | 66,413 | 68,280 | 69,928 | 69,525 | 68,589 | 67,178 |
| Secondary or regional roads | Min | 50,925 | 55,343 | 58,875 | 59,920 | 60,117 | 60,323 |
| | Max | 52,916 | 57,379 | 60,950 | 61,978 | 62,144 | 62,303 |
| Total | Min | 112,513 | 123,366 | 130,220 | 131,605 | 131,310 | 130,426 |
| | Max | 125,989 | 137,146 | 144,276 | 145,544 | 145,036 | 143,832 |

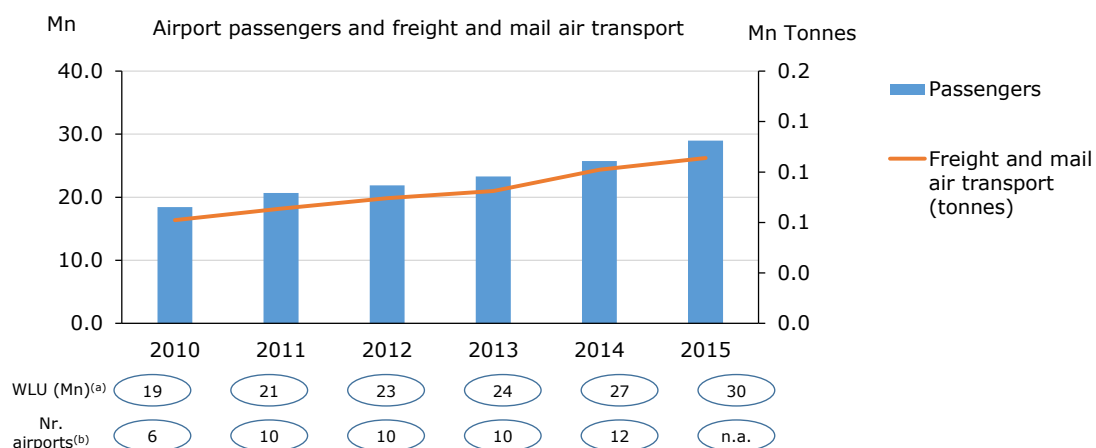
Source: KPMG calculations on Source: Directorate-General for Mobility and Transport (DG MOVE) and Eurostat data [downloaded in July 2017].

- *Airports*

Airport infrastructures are state-owned (with minor exceptions)⁴, while their management is entrusted to airport operators.

Then, *Polish Airports State Enterprise (PPL)* directly manage some of them (e.g. Warsaw Chopin Airport and Zielona Góra), while the other airports run their businesses as separated commercial law companies, though PPL still owns substantial shares in them⁵. Typically other minority shareholders may include cities or voivodship.

Figure 4 Airports passengers and freight and mail air transport, Poland, 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_qooa&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 5, in 2015, the overall estimated value of Public Airports was equal to about 2.7 Eur Bn, with an increase of about 58.9% since 2010.

Table 5 Estimated value for airports (Eur Mn), Poland, 2010-2015

| Data in Mn Eur | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|----------------|-------|-------|-------|-------|-------|-------|
| Airports | 1,672 | 1,896 | 2,056 | 2,132 | 2,369 | 2,656 |

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

- (1) The WLUs used to calculate the value of airports do not match those represented in Figure 6 as they were computed by adding the WLUs of all airports considered within the scope of this Pillar (see Table A in Appendix).

⁴ Olsztyn Mazury Airport is owned by the voivodship, Łódź airport is owned by the City of Łódź. Radom airport runways and apron is owned by the State Treasury – Ministry of Defense.

⁵ Organisation for Economic Cooperation and Development (OECD). *Economic Surveys: Poland 2014*

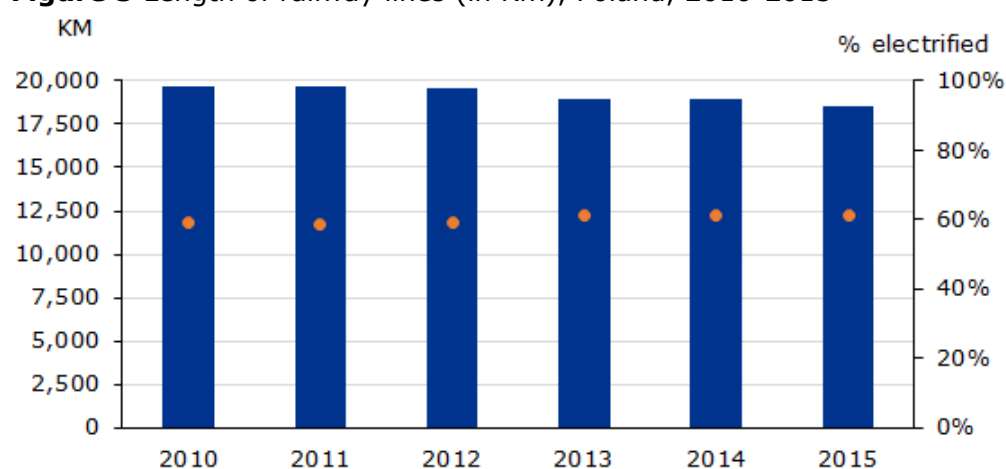
- *Railways*

The property of railway infrastructures belongs to the Polish railway infrastructure company *PKP Polskie Linie Kolejowe SA* (PKP PLK SA). The State owns 100% of PKP PLK SA, 85% directly and 15% indirectly through the company *Polskie Koleje Państwowe (PKP SA)*.

The *PKP Group* was established in 2001 following the restructuring of the *Polskie Koleje Państwowe* (Polish State Railways) state enterprise. The purpose of these changes was to separate railway transport from the management of railway lines in compliance to the *European Union Directive 1991/440*.

As shown in Figure 5, the extension of the railway network in Poland was equal to about 19,200 km in 2015.

Figure 5 Length of railway lines (in Km), Poland, 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.

Since the Polish railway network is owned by a PSH (*PKP PLK SA*), then its value is assessed using the equity method (please see the Methodological notes for Pillar 2 for more details), and results are reported in Pillar 1 of this Study.

4. NATURAL RESOURCES

- *Mineral and Energy reserves*

Geological and mining operations are regulated by the *Polish Geological and Mining Act (Prawo górnictwa i geologiczne)*, novated in July 2016. Under Polish law, deposits are covered by "mining ownership", i.e. they belong to the state treasury, regardless of the location where they are found. The state treasury is entitled to claim ownership, or, by contrast, to dispose of this right through a mining concession.

Polish Energy Act (Prawo Energetyczne) regulates the concessions in relation to production of energy.

Table 7 Proven reserves of mineral and energy reserves, Poland, 2015

| Data | Oil (Barrels) | Natural gas (cubic meters) |
|-----------------|---------------|----------------------------|
| Proven reserves | 100,000,000 | 81,660,000,000 |

Source: Central Intelligence Agency (CIA). World Factbook Database, 2015 [downloaded in March 2017].

As shown in Table 8, the estimated value for Oil reserves in Poland in 2015 was equal, on average, to 4.8 Eur bn. With regard to Natural Gas, the estimated value was instead equal to an average of about 6.6 Eur bn.

Table 8 Estimated value of oil and natural gas proven reserves (Eur Mn), Poland, 2015

| Data in Mn Eur | Min | Max | Average |
|----------------|--------------|---------------|---------------|
| Oil | 3,257 | 6,112 | 4,834 |
| Natural gas | 4,423 | 8,678 | 6,619 |
| Total | 7,680 | 14,790 | 11,453 |

Source: KPMG calculations on World Factbook Database, 2015 [downloaded in March 2017].

(1) Proven reserves are valuated using average prices for 2015.

(2) Range is calculated using the minimum and the maximum prices for 2015.

- Other natural resources

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

The value of other natural resources has been estimated through a market approach, as outlined in Methodological Notes. As Table 9 shows, the estimated value of Other natural resources is equal to 156 Eur Bn in 2015.

Table 9 Estimated values of General government's Other natural resources (Eur Mn), Poland, 2010-2015

| Data in Eur Mn | | 2010 (E) | 2011 (E) | 2012 (E) | 2013 (E) | 2014 (E) | 2015 (E) |
|----------------|-----------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Land (net) | General government | 161,795 | 166,185 | 158,554 | 150,122 | 149,961 | 156,071 |
| | 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 value of natural resources (rather than the volume of the natural resources).

Appendix I Poland

Table A List of airports, Poland, 2015 (Number of airports: 12)

| List of airports |
|---|
| Non-financial (Pillar 2) ^(a) |
| BYDGOSZCZ/SZWEDEROWO airport |
| CHOPINA W WARSZAWIE airport |
| GDANSK IM LECHA WALESY airport |
| KATOWICE/PYRZOWICE airport |
| KRAKOW/BALICE airport |
| LODZ/LUBLINEK airport |
| LUBLIN airport |
| POZNAN/LAWICA airport |
| RZESZOW/JASIONKA airport |
| SZCZECIN/GOLENIOW airport |
| WARSZAWA/MODLIN airport |
| WROCLAW/STRACHOWICE 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 List of ports, Poland, 2015 (Number of ports: 14)

| List of ports |
|---|
| Non-financial (Pillar 2) ^(a) |
| Darlowo |
| Elblag |
| Gdansk |
| Gdynia |
| Hel |
| Kolobrzeg |
| Miedzyzdroje |
| Police |
| Sopot |
| Stepnica |
| Swinoujscie |
| Szczecin |
| Trzebiez |
| Wladyslawowo |

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

(1) The list above includes those ports defined by Eurostat as "reporting ports", for which statistics of inward and outward maritime transport flows are compiled.

(a) Within the scope of this Pillar.

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

| Clusters of Non-financial assets | Valuation approach | Sources |
|----------------------------------|----------------------------------|---|
| Dwellings | Market value | - Eurostat |
| Buildings other than dwellings | Market value | - Eurostat |
| Ports | Market value | - Eurostat - Mergermarket |
| Roads | Perpetual Inventory Method (PIM) | - DG MOVE - Eurostat - EIB - Other sources |
| Airports | Market value | - Eurostat |
| Railways | Equity method (Pillar 1) | - Bureau van Dijk (BvD) Orbis |
| 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 in Annex.

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