

Paris Agreement - Economic Implications for Transition Economies The Case of Romania

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Transition economies to free market economy are still on map

- After the fall of the Soviet Union, the list of transition economies include 14 nations in Central and Eastern Europe (Albania, Bosnia and Herzegovina, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Republic of Macedonia, Montenegro, Poland, Romania, Serbia and Slovakia) and 12 nations in the CIS (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan).
- There are also transition economies in Asia, Africa, and Latin America. In Asia the transition economies include Cambodia, China, Laos, Mongolia, Thailand and Vietnam. Transition economies in Africa include Mozambique and Angola, and in Latin America the economies of Brazil and Chile are considered to be transition economies.

Transition economies have characteristics that need to be taken into account (1)

- Specific processes: the role of remittances on consumption and investment, geopolitic orientation (as the accession to the European Union), price liberalization, the challenge of maintaining the macroeconomic stability (especially through maintaining the inflation rate under control), state owned enterprises restructuring and privatization, legal and institutional reforms.
- An average output fall of around 40% at the beginning of the transition period and a first decade with a lower output despite constant economic growth.
- A two speed economy: the modern private sector and the old and big state sector.

Transition economies have characteristics that need to be taken into account (2)

- A dualism as regards the currencies - dolarisation/euroisation of the economies.
- Limited access to financial and capital markets, procyclical capital flows (FDI), underdeveloped financial and capital markets, but still a great need for fiscal and budgetary discipline (in order to gain markets trust).
- Increase of external debt, economic growth based on external financing, the destruction of the manufacturing sector and selling the assets to foreign companies (that impacted the potential growth by both limiting the R&D and financial outflows through dividends).
- Significant influence of the international financial institutions (by 1994, almost all the transition economies had programmes with the IMF, the main objective being to implement reforms to market economy; 10 of the European transition economies are already EU members).

'90s - The beginning of transition in Romania

- From a major **producer of primary fuel resources** since early XX century (first significant producer of natural gas in Europe and largest oil producer in CEE) to **significant decreases** in the first 10 years of transition.
- Price developments in the energy sector did not follow the costs, so **subsidies** were used. Together with the inefficiency in the sector, it did not allow resources to be channeled to research and innovation.
- **Energy consumption fell** by almost a half - from 60 TWh to 40 TWh from 1990 to 1999 (mainly in industry, as the households remained relatively flat). As the energy efficiency improved, the energy consumption expressed as GDP % decreased less (1/3).
- The **output collapse, as well as huge shifts in relative prices** following liberalization have affected profitability.
- The banking reforms resulted in **limited access to soft credit**, with implications in the energy sector.
- The **weak legal framework** (especially on bankruptcy and liquidation) allowed for fiscal indiscipline, with significant implications on profitability of companies and costs for the state budget (in order of 4% of GDP only for subsidies).

2015: The Paris Agreement...

- A historical, legally binding agreement on mitigation, adaptation, technology and finance. In fact, is the recognition of the problem climate change is and that the financial means are key for deployment.
- Art. 2.2 - 'This Agreement will be implemented to reflect equity and the principle of common but differentiated responsibilities and respective capabilities, in the light of **different national circumstances.**' - NDC's (National Determined Contributions)
- Recognition of the related costs: need to ensure the right balance between reducing **poverty, sustainable development and climate change goals.**
- The recognition of the different levels: **national and local** (art. 11).

... a subjective assessment

- In fact, although the problem is recognized, we still have the 2 groups (the developed and the developing), each trying to minimize its own costs.
- The success in Paris was due to several factors: IPCC results, recognizing the strength and weaknesses of each of the 2 groups and a good diplomacy to build on the common grounds.
- The Paris Agreement, although important, represents only the foundation. Its implementation will be the key to deliver or not and there is a long way ahead.
- The ambition and implementation will go hand in hand with the global economic outlook: in case of a new crisis, the available means will diminish and the pace of implementation will slow down.
- The trust between partners is essential: thus the transparency framework is key.

The Paris Agreement for Romania

- The Paris Agreement ambition is **surpassed by the EU commitments Romania adhered to.**
- At a meeting on **23-24 October 2014**, the European Council agreed on the 2030 climate and energy framework for the EU. It also adopted conclusions, and in particular **endorsed four important targets**:
 - a binding EU target of at least **40% less greenhouse gas emissions** by 2030, compared to 1990
 - a target, binding at EU level, of at least **27% renewable energy** consumption in 2030
 - an indicative target at EU level of at least **27% improvement in energy efficiency** in 2030
 - support the completion of the internal energy market by achieving the existing **electricity interconnection target of 10%** as a matter of urgency no later than 2020, in particular for the Baltic states and the Iberian Peninsula, and the objective of arriving at a 15% target by 2030
- On **energy security**, the European Council endorsed further measures to **reduce the EU's energy dependence** and increase the security of its electricity and gas supplies.
- The agreement on the 2030 framework, specifically the EU domestic greenhouse gas reduction target of at least 40%, formed the basis of the EU's contribution to the **new global climate change agreement**. This contribution, known as the Intended Nationally Determined Contribution (INDC) was **formally approved** at an Environment Council meeting on 6 March 2015. The EU and its member states were the first major economy to communicate their INDCs for the negotiations.

Romania today - delivering on ambitious commitments

- Romania's obligation under the Kyoto Protocol is to reduce by 8% the greenhouse gas emissions (using 1990 as baseline).
- According to the latest available data from the National Greenhouse Gas Inventory Report (NGHGIR), in 2015, related to the base year 1990, GHG emissions index (excluding LULUCF) is 47.28 (these emissions decreased from 246.27 million tonnes CO₂ equivalent, in 1990, to 116.43 million tonnes CO₂ equivalent, in 2015) and GHG emissions index (including LULUCF) is 43.27 (these **emissions decreased from 226.89 million tonnes CO₂ equivalent, in 1990, to 98.17 million tonnes CO₂ equivalent, in 2015**).
- Romania **continues the measures to reduce GHG emissions in the energy sector and to stimulate the production of energy from clean sources, reduce GHG emissions in the transport sector;**
- In order to mitigate the effects of climate change, in 2016, **afforestation works** on degraded lands and creation of green spaces in urban areas continued.
- According to the value reported by Romania to EC through the Progress Report on the Promotion and Use of Energy from Renewable Sources, in 2014, **the share of energy from renewable sources** in the gross final consumption was of 26.27%, and in 2015, according to Eurostat, the level was **24.8%**. The indicator values for the period 2014-2015 overpasses practically the European target established for 2020 (i.e. 24%).

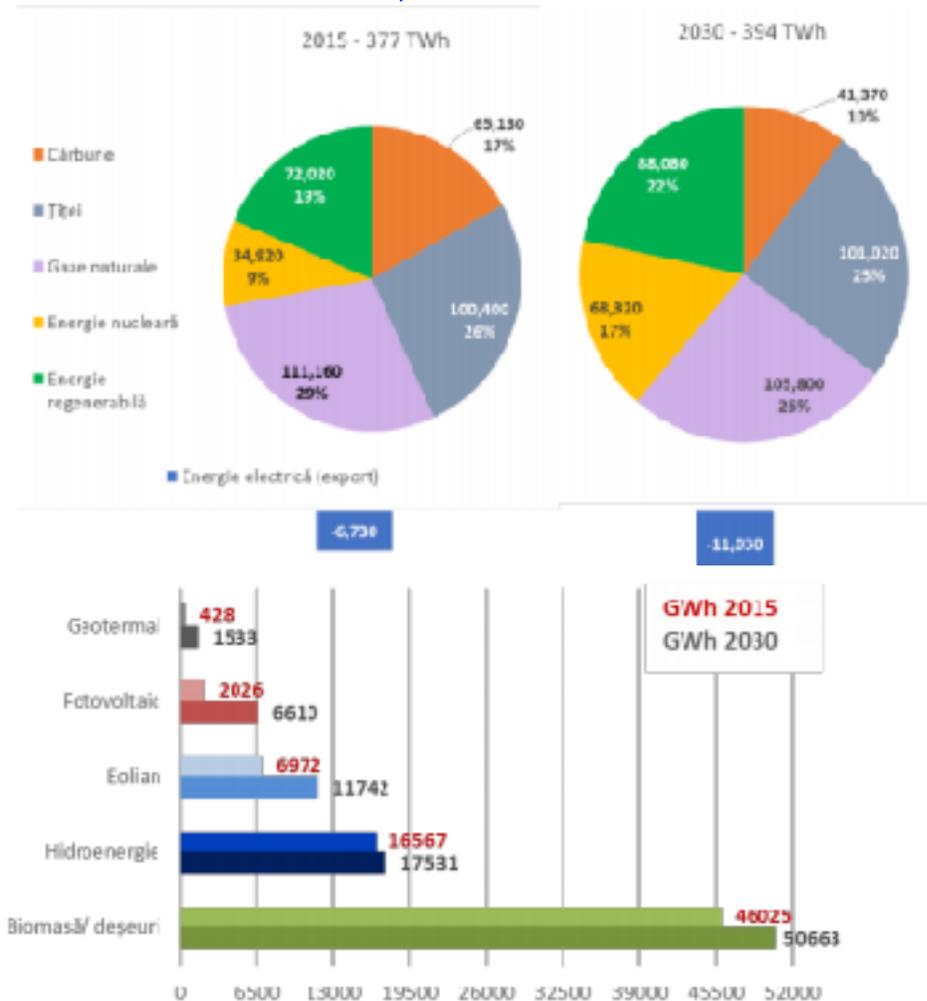
Romania today - strategies and financing sources

- In the European and international framework, Romania developed its **Energy Strategy**, that aims:
 - energy security, competitiveness and price affordability;
 - a diversified and well balanced energy mix;
 - to develop nuclear energy (essential to achieve decarbonization targets);
 - use the potential of energy efficiency;
 - involve the local capital in investments.
- **Multiple sources of financing:**
 - The National Investment Plan and other local funds;
 - Derogation from the EU provisions from the free allocation of emission (under EU-ETS - allowances to the energy producers in order to finance the modernization of the system);
 - European Funds;
 - Other IFI (like EIB) or donors (Swiss Romanian Cooperation Program).
- **Relevant know how** from the European Union, World Bank and private sector.

Romania tomorrow

- Good economic outlook on medium term (**GDP growth rates above 5% in the next 5 years**) -> but increase in final energy consumption will be balanced by energy efficiency gains.
- Still, **important investments are needed** (25 bn. Euro only for renewing energy production capacity by 2030; investments need for gas infrastructure; investments for energy efficiency in residential sector and co-generation, investments in the transport sector).
- The investments have to potential to stimulate growth and jobs, but in the same time the ambitious climate targets pose the risk of carbon leakage.
- The **gas will continue to be one pillar of the energy mix** (the transition from coal to gas will also have a decarbonizing role).
- Nuclear energy will continue to play its role.
- The **policies** will continue to be **shaped by the EU and international framework** (including markets or geopolitics).

Romania tomorrow – quite constant energy mix, with low energy dependence



- Increase in nuclear and renewables.
- Constant for oil.
- Decrease for coal (from 17% to 10%) and natural gas (from 29% to 26%).
- Cleaner energy mix by 2030 (coal+oil to decrease from 43% in 2015 to 35% in 2030).
- Romania has one of the second lowest energy dependency rate in the EU, at fret Estonia (17.1% in 2015 and 2015)

Natural Gas – the main energy source



Source: Romania's Energy Strategy 2016-2030

- 29% of the internal consumption of primary energy in 2015
- Annual production of 10.8 bn. m³ in 2015, that covered more than 95% of the internal consumption.
- Decreasing imports in the last years in the context of constant production and diminishing demand (15% in 2013, 7.5% in 2014, 2.5% in 2015).
- Reserves of 101.4 bn. m³ in 2015.
- Extraction, infrastructure and storing capacities all over the country (but low pressure and old technology transport network - half older than 40 years - require investments).
- The exploitation projects (both onshore and offshore) are priorities, but require significant investments (exploitation, connecting infrastructure for the resources found in the Black Sea).
- The most important interconnection projects are BRUA (Bulgaria-Romania- Hungary-Austria) and ensuring transport capacity with Moldavia.
- Modernization and new technology for the national transport network, storing and distribution requires financing.

Some concluding remarks

- The transition economies' specificities may represent an opportunity for a smooth transition to a decarbonized economy (the potential of the energy efficiency and transport sector, the low starting point after the first output fall in the beginning of the transition, the changing structure of the economy).
- Significant financial resources, as well as know how transfer are needed, so divers mechanisms need to be in place (as the derogation Romania benefits of in the context of the EU-ETS, dedicated funds).
- A triggering factor is the membership to a regional organization (as the Eu is for Romania), but this also comes with financial costs.
- The Paris Agreement expresses willingness, but there is a long way ahead in order to achieve its goal and the trust between parties is essential.
- The private sector role is key (both as regards technology and financial means).
- The local/regional involvement are essential.
- National ownership and minimum social costs are key, as well as legal predictability and stability.

Thank you for your attention!

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