

The future challenges: Globalization, Energy or Environment?

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Input data

- *"A green economy implies the decoupling of resource use and environmental impacts from economic growth... These investments, both public and private, provide the mechanism for the reconfiguration of businesses, infrastructure and institutions, and for the adoption of sustainable consumption and production processes."* - According to the United Nations Governing Council of the UN Environmental Programme (UNEP),

1.The globalization

- Post Cold-War environment- a new world is designed from social and economic point of view
- First step: regionalization
- The globalization-a irreversible process
- The Transatlantic (USA+EU) system is comprised of a political, economic, and military linkages:
 - OSCE (Organization for Security and Co-operation in Europe);
 - OECD (Organization for Economic Co-operation and Development), which originally started out as the Organization for European Economic Co-operation;
 - Massive business and corporate ties within aircraft and shipping industries, petroleum and petro-chemical companies, defense and aerospace ventures, all major automobile manufacturers;
 - NATO (North Atlantic Treaty Organization);
 - Various joint commissions and private policy groups;

2. Main actors: Energy

We consider the main fuels that influence the energy market in the future:

- The oil
- Nuclear

The oil

"Stone Age did not end for lack of stone and the Oil Age will end long before the world will run out oil";

- 2000-2008, higher price of oil since 1986
- A reason for the increase in oil price was obviously weak U.S. dollar. Matching a term of five years of oil price and exchange rate EUR / USD is now 88.2%.
- Oil prices: up 90 to 100 USD in first half of 2010, and in the second half of the year will be a reversal of the trend, the 2010 average of \$ 72 per barrel

The oil price

Real vs. inflation-adjusted average price since 1982



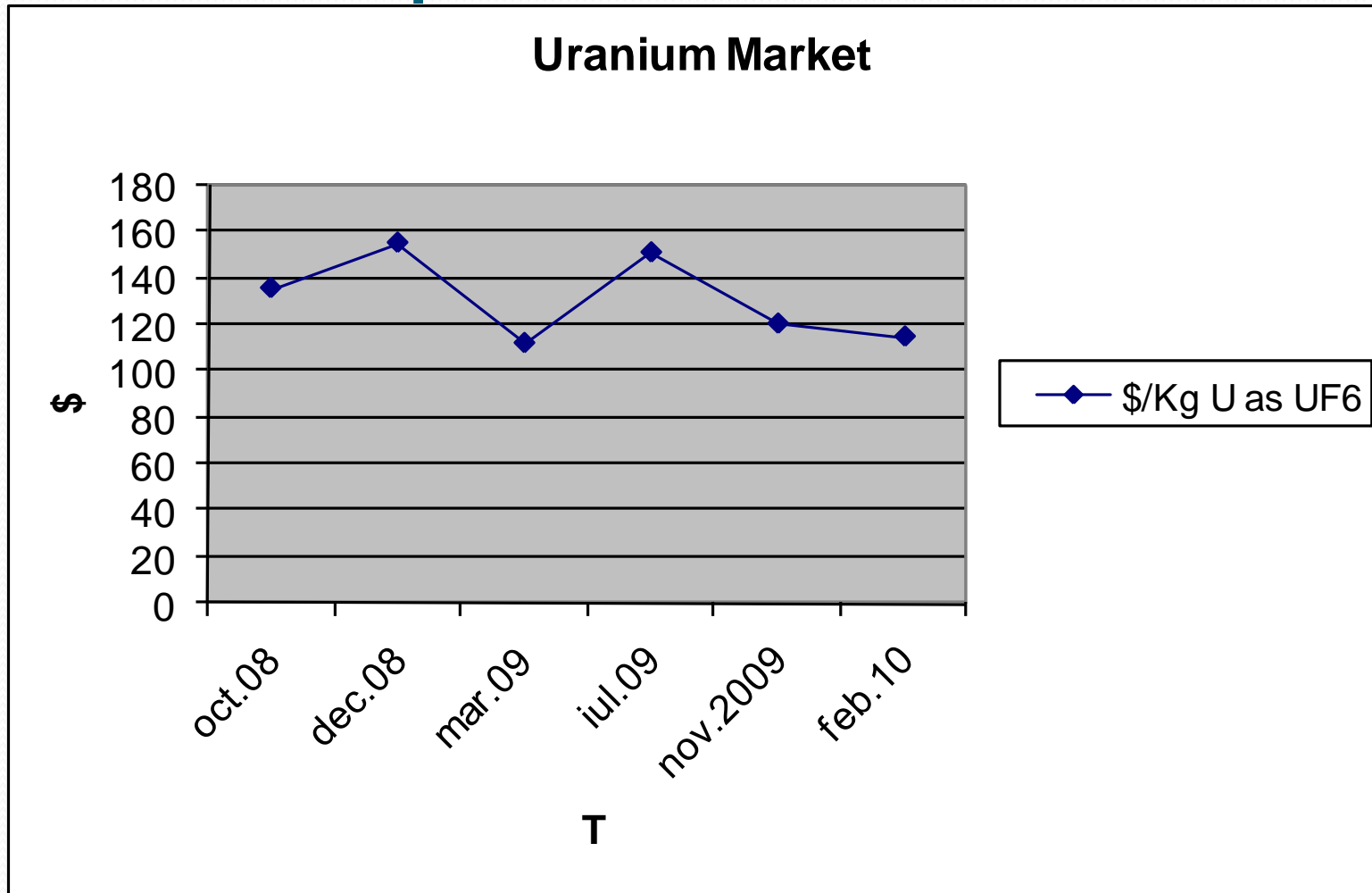
Sources: *Datastream, Erste Group Research, sharelyrx.com, Bloomberg*

At its current oil price is over 100% higher than average long-term value- U.S.D 30.9 and median value- 24 USD

Nuclear fuel

- The **Ux U₃O₈ Price[®]** indicator is the **longest-running weekly uranium price series**, dating back two decades. In addition to being used by the industry in sales contracts, Ux price indicators have been referenced by the U.S. Government in the determination of price-tied quotas and for determination of prices in the highly enriched uranium (HEU) deal between the U.S. and Russian Governments;
- The price was converted to UF₆;
- In the last period the range is between 120-140\$/ Kg U;

Uranium price



3. Environment

- Sustainable development- linkage between economical processes in general and energy in particular and environmental protection from concept-Stockholm 1972 to Agenda 21-Rio de Janeiro 1992;
- Energy is essential to poverty reduction and economic development, including industrial development.
- At the same time, fossil fuel combustion for energy, industry and transport is a major source of air pollution and greenhouse gas emissions.
- Energy for sustainable development, industrial development, air pollution/atmosphere and climate change are closely interlinked;
- Addressing in an integrated manner the sustainable development challenges relating to all four issues under review in the current implementation cycle can serve to enhance synergies;
- Pervasive and persistent poverty remains an important obstacle to greater access to modern and cleaner energy services, including electricity, in developing countries.
- A key challenge is to prioritize and integrate energy into poverty reduction and national sustainable development strategies.

The link: Greenhouse effect

- Adverse impacts from climate change could affect not only ecosystems, but also social and economic systems, threatening to undermine sustainable development.
- There is growing evidence that anthropogenic emissions are a major cause of global warming. If effective action is not taken to reverse the current trend of emissions growth by 2030, there may be irreversible changes to the climate system.
- Carbon dioxide (CO₂) emissions from energy and industry by developed countries increased between 1990 and 2003 by between 14 and 15 per cent according to the International Energy Agency, and
- The current developed country share of global emissions amounts to 47 per cent.
- Overall carbon dioxide emissions are likely to increase by 62 per cent by 2030.

Some measures

- The climate change challenge, a broad range of measures for both mitigating climate change and adapting to its adverse effects are required;
- These include further energy efficiency improvements, new energy and carbon capture and storage technologies, changes to unsustainable patterns of consumption;
- The goal: improving energy efficiency, promoting renewable energies, reducing the cost of low greenhouse gas-emitting-energy technologies, and supporting sustainable transport.

What's new?

- The beginning: One of the key elements of the Kyoto Protocol of the United Nations Framework Convention on Climate Change, implementation of the Clean Development Mechanism accelerated in 2005;
- The first Clean Development Mechanism project was registered in November 2004, and a total of 70 projects had been registered by mid-January 2006. These projects are expected to generate some 200 million tons of certified emission reductions;
- On the world horizon appears to occur a new global currency that could replace all paper currencies and the economic system upon which they are based .

New currency

- The new currency, called **“Carbon Currency”**, is designed to support a revolutionary new economic system based on energy (production, and consumption), instead of price;
- Perhaps our current price-based economic system and its related currencies that have supported fascism, communism, socialism and capitalism, will be forgot in order to make way for a new carbon-based world.

The scenario

- What is Carbon Currency and how does it work? Simple, Carbon Currency will be based on the **regular allocation** of available energy to the people in each country;
- If not used within a period of time, the Currency will expire (as of monthly minutes on cell phone) so that the same people can receive a new allocation based on new energy production quotas for the next period;
- Positive elements of scenario: new Carbon Currency - the ultimate solution to global calls for poverty reduction, population control, environmental control, global warming, energy allocation and blanket distribution of economic wealth;
- Negative elements of scenario: because the energy supply chain is already dominated by the some “international elite”, setting energy production quotas will limit the amount of Carbon Currency in circulation at any one time; it will also naturally limit manufacturing, food production and people movement.

The status

- Carbon Currency has grown from a continental-USA proposal to a global proposal+Europe;
- It has been consistently discussed over a long period of time;
- The participants include many prominent global leaders, banks and think-tanks;
- The context of these discussions have been very consistent ;
- Today's goals for implementing Carbon Currency are virtually identical to Technocracy's original Energy Certificates goals;
- Whoever controls the currency also will influence the economy and possible the political structure that goes with it ;

The challenge=The triad

- The link between globalization, energy and environment is the important challenge for the future;
- This “triad” will affect human life increasingly more side effects, of which only some have been presented.

Cleaner energy

- They are many forms of clean energy, but for estimated world consumption, particularly for industrial needs is mandatory to take into consideration nuclear energy;
- Recognition of nuclear energy as part of sustainable development plans is necessary;
- Romania must be “member of the club”.

Lesson learned(1)

- Socio-economic development requires energy for improved living standards, enhanced productivity, the transport of goods to markets and as input to a wide range of other economic activities;
- The transition from traditional energy sources to modern energy sources is associated with a variety of social benefits, including improving the health and facilitating access to employment, education and social services;
- Extending access to affordable, cleaner energy is thus integral to the process of social and economic development. It contributes to addressing the cross-cutting issues of poverty eradication, improved health and gender equity;
- Increasing the efforts to sustain the nuclear energy as cleaner energy;
- Romania case: restarting the Nuclear Power Programme in order to built new nuclear power plants is mandatory for present and future in order to be prepare for new challenges.

Lesson learned(2)

- Development of Knowledge Management including the new trends and limits of world economy is a request;
- Prepare the peoples, and especially the youths for new challenges, some of them presented in this paper is a measure of international equity;
- The involvement of research community in order to analyze and prioritize the future challenges is mandatory.

Instead of conclusion

- “Who believes that education is expensive try ignorance”

Thank you for your attention!