

10. SOVEREIGN WEALTH FUNDS – ACTIVITY, DEVELOPMENT AND FORECASTING

Doina-Ana DRĂNICEANU*
Elena-Doina DASCĂLU**
Lucian-Florin ONIȘOR***

Abstract

The way the SWF activity has intensified in the last 7 years asks for a more detailed analysis of these financing-development methods. The field of financing by sovereign wealth funds is currently less explored by the scientific literature and it can underlie the current and near future development of the post-modern society. Starting from a documentary research, based on centralization and communication of the information published by other researchers in scientific articles and in official papers of the specialized institutes, this study ends with a forecast regarding the evolution of how SWFs will be formed in the near future. The value added is represented by the identification, centralization and summarization of the main relevant results recorded by experts and presents a new approach regarding the opening of new sovereign wealth funds. The study also explores the possible establishment of a Romanian SWF, highlighting the natural resources of strategic importance, which Romania may use for this purpose.

Keywords: sovereign wealth funds, development, forecasting, communication, Romania

JEL Classification: F21, G23, I38

I. Introduction

The lack of specialized literature aiming at a detailed analysis of Sovereign Wealth Funds (SWFs) activity prompted, on one hand, the elaboration of this paper. On the other hand, the purpose is to centralize the information existing in the specialized literature and to slightly enlarge it with a forecast of the evolution of the use of such

* Romanian Court of Accounts, E-mail: doina.draniceanu@rcc.ro.

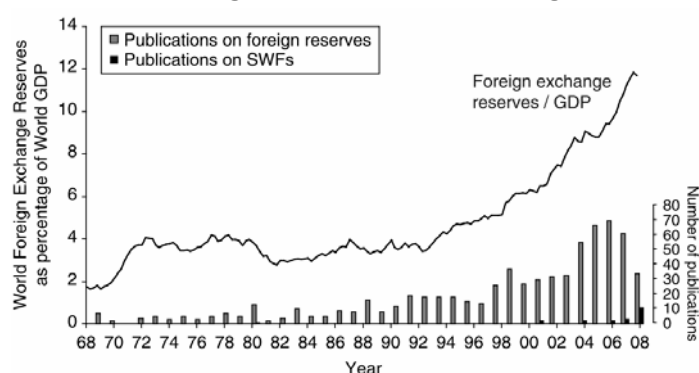
** Romanian Court of Accounts, E-mail: doina.dascalu@rcc.ro.

*** Bucharest University of Economic Studies, E-mail: luciano@ase.ro.

funds and to implementat them in the future. Figure 1 shows the evolution of the documentation brought to public knowledge (Berkelaar *et al.*, 2010), related to the reserve and sovereign funds management, as compared to foreign exchange reserves, over GDP. A year later after the beginning in 2007 of the last financial crisis, in 2008 there were only 10 papers that explicitly dealt with and analysed the method of financing by sovereign wealth funds.

Figure 1

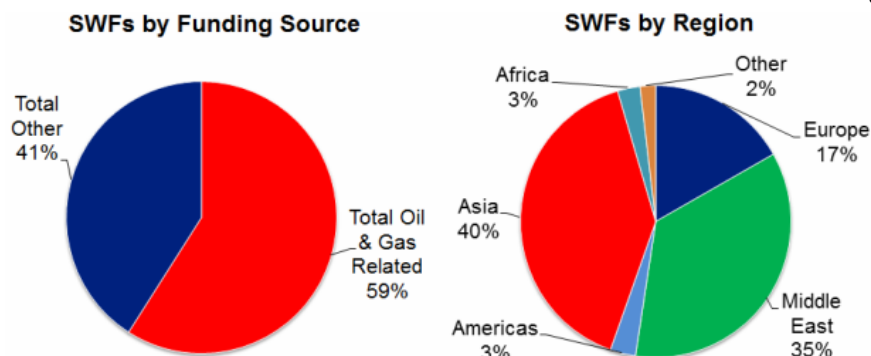
Reserves Growth and the Number of Academic Publications on Reserves and Sovereign Wealth Funds Management



Source: Figure taken from (Berkelaar *et al.*, 2010, p. xxxii).

Analysing the origin of the sources that feed the sovereign wealth funds, we find that they are divided into two large categories (Castelli and Scacciavillani, 2012): oil and gas, plus all related fields, and other categories, among which we mention copper, phosphates, diamonds & minerals and non-commodity raw materials extraction. If we look at the origin of sovereign wealth funds by continents, we find that the first place is occupied by Asia, followed by Middle East, Europe, the two Americas and Africa. In Figure 2, these elements are graphically presented by source of funds and their area of origin.

Figure 2



Source: SWF Institute – Last Update of January 2014 (SWF Institute, 2014a).

Although the SWFs were created almost five decades ago, only recently the sovereign funds revealed a spectacular growth and began to be monitored by government decision-makers around the world (DePamphilis, 2014). SWFs assets available in international investments amounted to \$ 3 000 billion in 2007 and are expected to reach \$ 12 000 billion by 2015 (Truman, 2007 - in O'Neill, 2013). In January 2014, the total funds that declared their value amounted to \$ 6 282.8 billion (SWF Institute, 2014a). The sovereign wealth funds are made up of different titles, have multiple and different objectives and rules, but they share the fundamental objective of helping the governments to deal with problems created by relatively high receipts or revenues which have a variable character (Kalyuzhnova, 2011).

II. Development and Evolution of the Sovereign Wealth Funds

Although the sovereign wealth funds were established in the mid-1940s, they have grown in importance recently, following the world economic situation in the last years (Berkelaar *et al.*, 2010) and dominate the market in three types of countries (Sun *et al.*, 2013): oil-exporting Arab countries (Abu Dhabi, Algeria, Dubai, Kuwait, Libya, Qatar and Saudi Arabia), other oil exporting countries (Norway and Russia) and East Asian emerging economies (China, Hong Kong and Singapore). The sovereign wealth funds are investment instruments meant to achieve certain political and economic objectives and they are subordinated to the governments, but they are managed separately from the national reserves of the states (Sun *et al.*, 2013).

Recently (DePamphilis, 2014), these funds began to grow in importance and invest in foreign companies, and often even in public companies. Currently, the SWFs are classified into four categories, out of which three, absorbing most of the resources available, are frequently used, and a fourth category, which is of the nature to normalize, if necessary, some current financial operations (Griffith-Jones and Ocampo, 2008). The first category is the category of rescue funds that ensure the continuation of the economic activity when the natural resources are depleted. They are provisions for the time after the depletion of primary resources (Reiche, 2010c). The second category is the category of stabilization funds, which are designed to reduce the price and tax collection volatility of the products that have a cyclic nature in the export volume for certain periods of time. The money in excess (Reiche, 2010c), resulting from the export of raw materials used to create the SWFs may be also viewed as elements of financial reserves for the times when either a raw material price drop occurs or the demand for such materials on the market diminishes. The third category, relatively new, is the category of the development funds used for socio-economic priority projects, i.e. infrastructure investments, sub-regional development areas, etc. The fourth category is the category of financial funds used to balance the budgets of the countries, absorbing the surplus or financing the deficit (Griffith-Jones and Ocampo, 2008).

Along with the exponential growth of the Chinese economy, China is the country that uses the largest sovereign wealth funds, when they are combined, but that also has the biggest political and financial limitations imposed by the governments of the

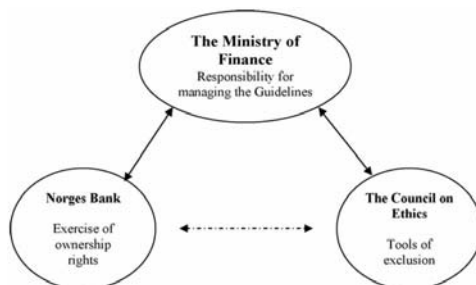
investors' countries of origin (Sun *et al.*, 2013). Norway's SWF is the largest SWF in nominal value, which is operated by a country with high democratic standards, which also determines the degree of transparency of the origin of funds and investments made (Reiche, 2010c).

The use of sovereign wealth funds from China to secure the funding of various development programs, especially for long-term programs, is progressively stopped by increasingly different barriers that discretionary apply, depending on the origin of the investors who call for financing by such funds (Sun *et al.*, 2013). Although the SWFs operate according to commercial criteria, they incorporate possible limitations due to political influence, both from the governments that manage the SWF funds (Kalyuzhnova and Nygaard, 2009) and the governments of countries where the investments are made (Sun *et al.*, 2013).

Taken together, the SWFs from China, India and the oil-exporting countries represent more than half of the total world reserves used for such investments (Griffith-Jones and Ocampo, 2008). Norway's SWF was the second largest in the world since late 2007, reached the first place in 2013 and is the first fund that defined its investments based on moral criteria (Reiche, 2010c). Decisions regarding the ethic of investments in certain sectors or companies are made in consultation of three institutions: Norges Bank, the Council on Ethical Standards and the Ministry of Finance (Nilsen, 2010). The decision-making circuit is carried out according to the scheme shown in Figure 3. The dotted line indicates that, so far, there has been little contact between the Norwegian Central Bank and the Council on Ethics (Nilsen, 2010).

Figure 3

Communication Links and Responsibilities for Implementing the Ethical Guidelines



Source: The schema is taken from (Nilsen, 2010, p. 127).

Norway ranks fifth worldwide in oil exports and third in natural gas export, and in terms of processed production, it ranks tenth in oil processing and fifth in natural gas processing (Reiche, 2010c).

The Norwegian SWF, by monitoring the compliance with ethical issues, created a new way of investing money (Reiche, 2010c). Thus, initially, or subsequently, considering the relevant findings, the businesses that violate certain rules of business conduct (staff discriminating policies, activities damaging in time the health of the entire society, and so on) are excluded from investment.

Climate changes in the recent times, increasingly severe and faster, need taking into account all the investment instruments that can provide for a major change in environmental policies (Nilsen, 2010) and even in the mentality of contemporary citizens. The increasing importance worldwide of funding by sovereign wealth funds calls for finding all the arguments that may underlie the normal and responsible development of the society as a whole, by choosing the directions of sustainable development. The most important strategic option for investment is the renewable energy sector (Sun *et al.*, 2013).

Sovereign wealth fund managers have sought so far to invest in very large companies, which face financial difficulties and whose activity does not lead to optimal results in investment - profits ratio (Kotter and Lel, 2011). Investments in resources are accompanied by long-term risks (Sun *et al.*, 2013). The SWFs act contrary to rational investors, who try to limit the risk as much as possible and maximize their profits (Knill *et al.*, 2012b). The investments in resources and strategic equities are classified as non-trading investments (Sun *et al.*, 2013). Commercial investments do not cause the significant problems as the SWFs do. SWFs have more cash on hand than both the equity hedge funds and the equity private funds (Kotter and Lel, 2011).

The SWFs, as an economic instrument of state power, can be used as a bargaining element in international political relations to support regional and global policies and the action plans undertaken worldwide (Sun *et al.*, 2013). SWFs are similar to institutional investors in terms of preference for the target companies' characteristics and their impact on target firms' performance (Kotter and Lel, 2011).

Transparency of sovereign wealth funds affects their impact on the value of firms from the investment panel and, vice versa, the performance of firms influences the transparency degree of the SWFs (Kotter and Lel, 2011). As shown in Figure 1, even today there is very little public information about SWFs activity (Dewenter *et al.*, 2010). Just as efforts are made to increase fiscal transparency (Wehner and the Renzio, 2013) regardless of the analysed economic field, also for the sovereign wealth funds classification and public information mechanisms have been created regarding their management activity. In order to increase the transparency of the management of sovereign wealth funds, two researchers from the SWF Institute designed a tool to measure the transparency policy for SWFs. This indicator received the name of the two economists and it is known as the Linaburg-Maduell Transparency Index (SWF Institute, 2014b).

According to this transparency index, the SWFs are classified ranging from very transparent funds to less transparent and to totally non-transparent funds. The management team of a sovereign investment fund shall make available to the public, by one or more tools, data (regular reports, supporting documents) on both the origin and the destination of the managed funds.

Based on the nature of sovereign wealth funds, forecasting studies were carried out about future investment directions, and some of them estimated the diversification of investments in companies from countries with a political and economic structure as different as possible from the country of origin of the SWFs (Nie *et al.*, 2010). Moreover, to increase diversification and minimize risk of investment in a single field,

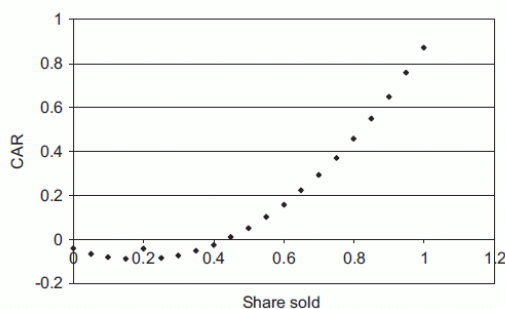
since their inception the SWFs invested the obtained money in as many and varied fields as possible (Knill *et al.*, 2012a).

Analysing the political relations between countries, researchers (Knill *et al.*, 2012a) found that the investments using SWFs are made mainly between countries that have weak political connections with each other.

Investments made by SWFs can greatly influence the value of the companies in which the fund managers decide to invest or, later, to disinvest (Dewenter *et al.*, 2010). A study by Dewenter, Han and Malatesta (2010) shows an increase in the value of the companies in which the SWFs are planning to invest, an increase initially preceded by a small decrease (Figure 4), and vice versa, a decrease in the value of companies from which the SWFs seek to withdraw their capital, after a small increase is firstly observed (Figure 5).

Figure 4

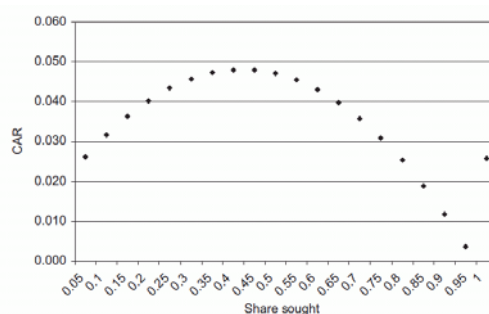
Predicted Cumulative Adjusted Returns-Investment Sample. The Figure Depicts Predicted CAR's for Sovereign Wealth Fund Investments



Source: The charts are taken from Dewenter, Han and Malatesta, 2010, pp. 268-269.

Figure 5

Predicted Cumulative Adjusted Returns -Disinvestment Sample. The Figure Depicts Predicted CAR's for Sovereign Wealth Fund Investments

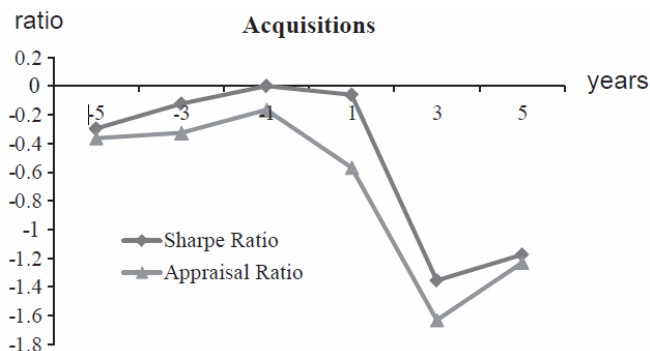


The research carried out by Knill, Lee and Mauck (2012b) regarding the return-to-risk performance of target firms is correlated with the study conducted by Dewenter, Han and Malatesta (2010). Figure 6 reveals a trend in the value of the firm opposed to the risk associated with investing in that firm.

Source: The charts are taken from Dewenter, Han and Malatesta, 2010, pp. 268-269.

Figure 6

Graphs for Benchmark-Adjusted Sharpe and Appraisal Ratios



The mean target Sharpe and Appraisal ratio for each year beginning 5 years prior to SWF investment and ending 5 years after SWF investment. The Sharpe ratio uses the standard deviation of returns as the denominator of the dependent variable and excess returns as the numerator. The Appraisal Ratio uses the standard deviation of residuals from a market model regression as the denominator and alpha from a market model regression as the numerator. Source: The figure and clarifications are taken from (Knill, Lee and Mauck, 2012b, p. 330)

In studies undertaken by other researchers, it was noticed that the most important factors taken into account by the SWFs investments in the European area were: budget balance as compared to GDP, applied trade policies, the trade balance and political and commercial openness of the countries (Maltritz, 2012). Based on the study conducted by Maltritz (2012), we may estimate that in the future, or at least in the near future, the destination of investments envisaged by the managers of sovereign wealth funds will continue to be influenced by internal budgetary balance, by the index that quantifies the countries' openness to trade, and by the new ways of doing business abroad.

A new approach is represented by the change in the strategies of the largest sovereign wealth funds, in the sense of their active involvement in the election of directors of companies in which they hold a significant percentage of shares (Stan, 2013). During the financial crisis and following the banks' decision to strengthen their position through mergers and acquisitions, a good portion of the shares issued as part of the banks' takeover or merger were bought by the managers of several sovereign wealth funds (Pistor, 2009). Owning a number of control shares of the companies may, therefore, affect the way in which the economic activity in these markets will be governed in the future. The SWFs are now used in innovative ways to influence the strategic behaviour of all economic actors and policies in the future. Institutional innovations, brought on the market by major players at some point, will be a critically important mechanism, by which new rules governing the countries will be outlined. Thus, the funds obtained from resources may have a long-term influence on the political relations between the countries (Tsan, 2013), in the same way in which the alternative policies that take into account the oil revenues significantly influence the current economic growth (Benedictow *et al.*, 2013).

Among the results of the SWFs/based investments, we can mention the high standard of living in Norway (Human-Development-Report, 2013); where in the cities the energy systems based on fossil fuels were almost eliminated. Moreover, a large-scale pilot project is about to become a reality in 2016 in the United Arab Emirates (Reiche, 2010b). It is about a new city to be built on the outskirts of the desert, a city that could really underlie the development of the urban civilization today. Masdar City in Abu Dhabi will be completely independent of the traditional energy sources. Based on SWFs investments, the latest technologies developed by researchers around the world were and will continue to be implemented, including in the renewable energy field. Masdar City in Abu Dhabi (Reiche, 2010a) will be one of the first cities in the world that will not depend on carbon (carbon-neutral cities).

The Chinese SWFs are invested in business on emerging markets of the developing countries (Sonia, 2012). On the Romanian market, the Norwegian SWF (Government Pension Fund - Global) has been present (Slyngstad, 2013), by buying shares at the Bucharest Stock Exchange (Chirileasa, 2013). Shares in companies carrying out activities related to oil and electrical industries (Meld. St. 27 Report, 2013), as well as in the banking field were purchased, and at the same time shares of the Bucharest Stock Exchange were also bought (Chirileasa, 2013). With interests in more than 7,000 organizations, and as a holder of 1.2% of the world's securities exchanges, Norway becomes, owing to its largest SWF, the world's biggest state investor that places part of its reserves in Romania through the Bucharest Stock Exchange (WWF Norway, 2013). Other sovereign wealth funds are similarly stimulated by placing resources into the Romanian capital business in their quest to slowly reach out new asset classes, such as private equity and infrastructure investments (PSWFR, 2014).

III. Romanian Sovereign Wealth Fund Prospects

Because of the current economic and social situation, Romania is in a position to solve some of the long-term development challenges by setting up a domestic sovereign wealth fund. The inherent benefits of such a fund are at least three: domestic financing relaxation by giving up to additional foreign loans from the IMF, the World Bank, or other international financial institutions. The total loans of Romania, calculated up to September 2014, sums up the long-term and short-term foreign debts amounting to EUR 95895.7 (BNR, 2014); stimulating the Romanian economy to develop on its own bootstraps; setting up and enhancing a sustainable economy, based on sustainable development principles on long term, even after the depletion of resources used for setting up the Fund.

The SWFs are generally based on the exploitation of non-renewable natural resources, and this provides an advantage to Romania, which has rich deposits of subsoil precious assets (gold, silver, platinum, crude oil, natural gas, etc.). Precious metals mining stopped in 2003, when it was considered that resources were fully or largely depleted, the Mining Act laying down the operating conditions (Law 85, 2003). However, recent geotechnical studies (Sântimbrean, 2001), but also those conducted in 1980-1990 by the team of the former chief geologist of Romania Aurel Sântimbrean, make a foresight that exploitable resources still exist. In addition to precious metals

deposits, some other raw materials and precious elements could be exploited and turned to the best account with the help of appropriate technologies: uranium, lead, copper, zinc, argon, tungsten, etc.

Romanian experts and researchers working in the Romanian chemical industry have recently developed new technologies related to mining and treatment of these diversified precious deposits, patents (Goldstein, 2000) being already registered with the Romanian (OSIM), European (Euro Patent Office) and American (US Patent Office) specific offices. The developed technology is environmentally friendly and is designed to replace the operating technologies existing on the market, which are currently using cyanide-based solutions. The technology developed by the Romanian engineers is adapted to the new rules to be imposed on the market beginning in 2016 by the European Directive No 21/2006, which bans the use of cyanide in the mining operations (Directive EC 21, 2006).

In addition to the mining of precious metals, drinking water resources could also be exploited in Romania, since there are some of the most pure mineral water sources, certified by the relevant international bodies (Feru, 2012). Nowadays, and even more so in the near future water is and will be an asset of increasingly strategic importance, and the drinking mineral water exploitations may form a sound basis for establishing a Romanian SWF.

On the other hand, during the transition to a decentralised economy there were many privatisations of the formerly state-owned companies. The most important in value was the privatisation of the Romanian Commercial Bank (Buscu, 2006), by selling the controlling shares to Erste Bank in 2006. This transaction was one of the largest transactions recorded at European level in 2006, being similar to establishing a development fund according to the lines of SWFs and it would have been the first Romanian SWF. In this context, a legislative proposal establishing the Fund also existed (Draft Law No 189, 2006). Nevertheless, as a result of certain disagreements and due to the difficulties faced by the Romanian economy in that year, the money from privatisation went to consumption and social protection. The current problems have been solved, but the sovereign wealth fund failed to be established, though it would have been a guarantee for the future.

The costs of introducing a Romanian SWF have to find the political will to redirect a part of the domestic funds for the development of technological installations, which could ensure the start-up of underground resources exploitation, in an environmentally friendly manner, adapted to international circumstances and standards tailored to the future. Romania owns multiple natural resources, which can still be exploited for many years in an environmentally friendly manner.

IV. Sovereign Wealth Funds Activity Forecasting

When attempting to forecast the characteristics of future SWFs, the question of the funds nominal size estimation arises. The working assumption is that the new funds to be set up from now on will be increasingly small-scale instalments.

Correlating the variables corresponding to the year of setting up the funds and the nominal size of the funds, a low intensity inverse correlation (Spearman's rho = -

0.285) can be observed, which is significant at the 0.05 level (2-tailed). This means that the largest funds were set up first, and those set up in the last years have smaller size stand-in funds. That is, furthermore, a normal part of the development of these funds related to their intrinsic nature. The sovereign wealth funds are dependent on non-renewable natural resources. In the 1960s, the natural reserves were of large dimensions, and some of them could not be even estimated at the time of their discovery. Thus, sovereign wealth funds could be set up, and they had huge financial reserves at their foundation.

The first SWFs, in early 2014, by the order of their magnitude, were the Government Pension Fund - Global (Norway), the Abu Dhabi Investment Authority (UAE - Abu Dhabi), SAMA Foreign Holdings (Saudi Arabia), which were founded in 1990, 1976 and 1964, respectively, as shown in Figure 7.

Figure 7

Size of Largest Sovereign Wealth Funds

No	Country	Sovereign Wealth Fund Name	Assets \$Billion	Inception	Origin	Linaburg-Maduell Transparency Index
1	Norway	Government Pension Fund – Global	\$818	1990	Oil	10
2	UAE – Abu Dhabi	Abu Dhabi Investment Authority	\$773	1976	Oil	5
3	Saudi Arabia	SAMA Foreign Holdings	\$675.90	1964	Oil	4
4	China	China Investment Corporation	\$575.20	2007	Non-Commodity	7
5	China	SAFE Investment Company	\$567.9	1997	Non-Commodity	4
6	Kuwait	Kuwait Investment Authority	\$410	1953	Oil	6
7	China – Hong Kong	Hong Kong Monetary Authority Investment Portfolio	\$326.70	1993	Non-Commodity	8
8	Singapore	Government of Singapore Investment Corporation	\$285	1981	Non-Commodity	6
9	Singapore	Temasek Holdings	\$173.30	1974	Non-Commodity	10
10	Qatar	Qatar Investment Authority	\$170	2005	Oil & Gas	5
11	China	National Social Security Fund	\$160.60	2000	Non-Commodity	5
12	Australia	Australian Future Fund	\$88.70	2006	Non-Commodity	10
13	Russia	National Welfare Fund	\$88	2008	Oil	5
14	Russia	Reserve Fund	\$86.40	2008	Oil	5
15	Kazakhstan	Samruk-Kazyna JSC	\$77.50	2008	Non-Commodity	n/a
16	Algeria	Revenue Regulation Fund	\$77.20	2000	Oil & Gas	1
17	UAE – Dubai	Investment Corporation of Dubai	\$70	2006	Oil	4
18	Kazakhstan	Kazakhstan National Fund	\$68.90	2000	Oil	8
19	UAE – Abu Dhabi	International Petroleum Investment Company	\$65.30	1984	Oil	9
20	Libya	Libyan Investment Authority	\$65	2006	Oil	1

Source: Compiled by authors from last Update of January 2014 (SWF-Institute, 2014a). For full details, see: <http://www.swfinstitute.org/fund-rankings/>.

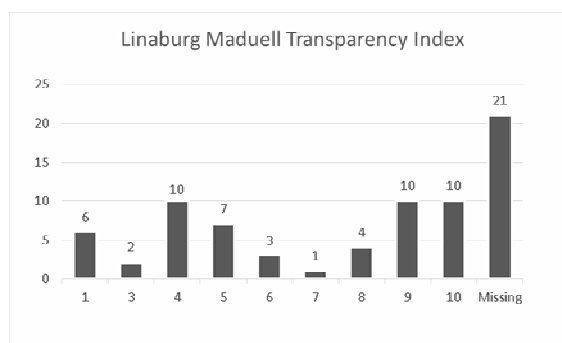
Therefore, the new SWFs that will be created in the future (although their number will be increased) will be of relatively small dimensions, as long as they will keep on the current trends and no other natural resources will be open for trading. A special case is represented by Bolivia (Romero, 2009) with its lithium resources, not yet subject to intensive exploitation (Jaskula, 2013). If in the future electricity will impose itself and will overtake the fossil fuels market, even if we just limit ourselves to the automotive market, the needs for lithium will be continuously on the rise. Bolivia could become the first world exporter of lithium and could establish a large SWF based on export incomes. Another special case that begins to take shape, at least in researchers studies (Foran, 2011), is the use of mechanisms of sovereign wealth funds in sustainable development, without relating these funds to a surplus of non-renewable natural resources. There are forecast schemes to feed the sovereign wealth funds with the money collected from taxes currently paid for the use of appliances,

equipment or facilities that consume fuels produced from non-renewable natural materials, i.e. fossil fuels.

Another SWFs issue is the transparency of means used for the capture of cash reserves of start-up funds and, further on, their destinations for undertaken investments.

In an attempt to find out why some sovereign wealth fund managers prefer not to publish usual data on the exact amounts used to create funds and the destination of their investments, the hypothesis that the value of the fund influences the degree of transparency was forwarded. If analysing the factors underlying the Linaburg-Maduell Transparency Index, this assumption is not justified. Furthermore, no link can be established between the value and the degree of transparency using the correlation coefficients with regard to the data from the SWF Institute. Correlation analyses were run between the nominal value of the fund and the score obtained by the Linaburg-Maduell Index. The results showed that there is no connection between the analysed values (Sig. = 0.129), the correlation being insignificant at the 0.05 level (2-tailed). Normally expected results, since the degree of transparency determined according to the Linaburg-Maduell Index depends on the following factors (SWF – Institute, 2014b): the fund provides history including reason for creation, origins of wealth, and government ownership structure; the fund provides up-to-date independently audited annual reports; the fund provides ownership percentage of company holdings, and geographic locations of holdings; the fund provides the total portfolio market value, returns, and management compensation; the fund provides guidelines for ethical standards, investment policies, and enforcer of guidelines; the fund provides clear strategies and objectives; if applicable, the fund clearly identifies subsidiaries and contact information; if applicable, the fund identifies external managers; the fund manages its own web site; the fund provides the main office location address and contact information. None of these factors relate to the value of the fund, they are specific aspects of fund management activities only. As regards the records of the funds, maintained by the SWF Institute, to twenty-one of them cannot be assigned even the transparency score 1; ten funds score 10, 9 and 4 respectively; seven funds score 5; six funds score 1; four funds score 8; three funds score 6; two funds score 3 and one fund scores 7, as shown in Figure 8.

Figure 8



Source: Compiled by authors from last Update of January 2014 (SWF-Institute, 2014a).

V. Discussion

The sovereign wealth funds have increasingly drawn attention, following the economic difficulties faced by the global economy since 2007-2008. The nature of these funds, being at the same time investment instruments to achieve long-term political and economic objectives, and the fact that although they were subordinated to governments they were managed separately from the reserves of the states, led to an increasing importance in international financing through this mechanism. SWFs are more attractive as they differ in terms of their manner of operating on the market, apparently opposite to that used for purely rational economic investments, which seek to limit the risk as much as possible and maximize the profit. Using funding from the sovereign wealth funds involves the development of interdependent and long-term economic and political relations between the states involved.

The upcoming financing mechanism through SWFs began to be altered in an attempt to ensure the continuity of these financing methods. Economists are already thinking to separate the capital accumulation from the exploitation of unrenovable resources and to replace it or to connect it to duties and taxes on the consumption of non-renewable resources, regardless of their nature (fossil fuels, minerals, and so on). Finding innovative ways to exploit these investment funds and their implementation will implicitly lead to a greater transparency of their use.

As regards the establishment of a Romanian SWF, it is forecasted that the window of opportunity would be when Romania adopts the euro. The accession to the European Monetary Union is diminishing losses and the uncertainties related to exchange rate volatility, capital movement being a benefit to both the investments in Romania and the Romanian funds' investments in other countries.

Romania has a complex diversity of sub-soil resources, from deposits of precious metals, hydrocarbons, radioactive elements to vast sources of drinking water. Drinking water is already seen now as a resource of strategic interest for any country in the world.

Due to the upgraded technology for raw materials, mining and processing, in some cases developed at domestic level, ores of the types existing in our country may be extracted, simultaneously recovering all the elements to be capitalized. Therefore, a Romanian SWF would provide, besides the general characteristic of SWF, the diversification of investments in manifold areas and the funds used for the start-up would come from exploiting various natural resources, as Romania is recognised, from the physical-geographical standpoint, for the harmonious natural resources distribution and for the high diversity of underground resources.

VI. Conclusions

This paper presents the SWFs activity and a range of possible development scenarios for the establishment of new sovereign wealth funds based on new resources, chosen in an innovative manner. The paper brings together the existing information in the field of financing through sovereign wealth funds, a research area less developed by academic circles, and contributes to expanding the specialised literature. The goal

was to centralise the information and explanations in the field of financing by these methods, to present the history of the funds and the means for their implementation. A forecast was made for the future implementations and use of these funds and the perspectives for establishing a Romanian sovereign wealth fund were presented. Aspects of transparency of trading with these types of investments were also outlined.

Being a newly revitalized area of academic study, future studies will take into account the results of the current investments and the new trends that will be adopted in the financing mechanisms by sovereign wealth funds.

Acknowledgments

Lucian-Florin Onisor was co-financed for this paper from the European Social Fund, through the Sectorial Operational Programme Human Resources Development 2007-2013, project number POSDRU/159/1.5/S/138907 "Excellence in scientific interdisciplinary research, doctoral and postdoctoral, in the economic, social and medical fields - EXCELIS", coordinator The Bucharest University of Economic Studies.

References

- Benedictow, A. Fjærtøft, D. and Løfsnæs, O., 2013. Oil dependency of the Russian economy: An econometric analysis. *Economic Modelling*, 32, pp. 400-428.
- Berkelaar, A.B. Coche, J. and Nyholm, K., 2010. *Interest rate models, asset allocation and quantitative techniques for Central Banks and Sovereign Wealth Funds*, Palgrave Macmillan.
- Buscu, S., 2006. *PRCB privatisation, in the top of European transactions*. [Online]. Available at: <<http://www.curierulnational.ro/Economie/2006-05-18/Privatizarea+BCR%2C+in+topul+tranzactiilor+europeneandhl=Privatizarea%20BCR,%20in%20topul%20tranzactiilor%20europeneandtip=toate>> [Accessed 4.11 2014].
- Castelli, M. And Scacciavillani, F. 2012. *The New Economics of Sovereign Wealth Funds*. New York: John Wiley and Sons.
- Chirileasa, A. 2013. *The huge Norwegian fund of 560 billion euro entered Romanian Stock Exchange on the sly* [Online]. Ziarul Financiar. Available: <http://www.zf.ro/burse-fonduri-mutuale/fondul-urias-de-560-de-miliarde-de-euro-al-norvegiei-a-intrat-pe-tacuta-la-bvb-11226232> [Accessed 05.02 2014].
- Depamphilis, D.M., 2014. *Mergers, acquisitions, and other restructuring activities: an integrated approach to process, tools, cases, and solutions*, Academic Press - Elsevier Inc.
- Dewenter, K.L. Han, X. and Malatesta, P.H., 2010. Firm values and sovereign wealth fund investments. *Journal of Financial Economics*, 98, pp. 256-278.

- Feru, A., 2012. *Guide on natural mineral waters*. National Company of Mineral Waters. Cluj Napoca, Bucharest: Novis s.r.l. Publishing House.
- Foran, B., 2011. Low carbon transition options for Australia. *Ecological Modelling*, 223, pp. 72-80.
- Goldstein, J., 2000. *Method for obtaining ammonium thiosulfate*. Baia Mare, RO, State Office for Inventions and Trademarks, Official Industrial Property Bulletin - Patents Section, 9.
- Griffith-Jones, S. and Ocampo, J.A., 2008. Sovereign wealth funds: a developing country perspective. *Andean Development Corporation*. London.
- Jaskula, B. W., 2013. *Mineral Commodity Summaries, January 2013, Lithium* [Online]. U.S. Geological Survey. Available at: <<http://minerals.usgs.gov/minerals/pubs/commodity/lithium/mcs-2013-lithi.pdf>> [Accessed 10.02 2014].
- Kalyuzhnova, Y., 2011. The National Fund of the Republic of Kazakhstan (NFRK): From accumulation to stress-test to global future. *Energy Policy*, 39, 6650-6657.
- Kalyuzhnova, Y. and Nygaard, C., 2009. Resource nationalism and credit growth in FSU countries. *Energy Policy*, 37, pp. 4700-4710.
- Knill, A., Lee, B.-S. and Mauck, N., 2012a. Bilateral political relations and sovereign wealth fund investment. *Journal of Corporate Finance*, 18, pp. 108-123.
- Knill, A.M., Lee, B.S. and Mauck, N., 2012b. Sovereign wealth fund investment and the return-to-risk performance of target firms. *Journal of Financial Intermediation*, 21, pp. 315-340.
- Kotter, J. and Lel, U., 2011. Friends or foes? Target selection decisions of sovereign wealth funds and their consequences. *Journal of Financial Economics*, 101, 360-381.
- Maltritz, D. 2012. Determinants of sovereign yield spreads in the Eurozone: A Bayesian approach. *Journal of International Money and Finance*, 31, 657-672.
- National Bank of Romania, 2014. *Foreign debt - BPM6*, [Online] BNR. Available: <<http://www.bnr.ro/Datoria-externa---BPM6-11333.aspx>> [Accessed 3.11 2014].
- Nie, G., Yang, H., Wang, Y., Chen, W. and Yu, J., 2010. Decision support for target country selection of future generation sovereign wealth funds: Hedging the country industry risk. *Procedia Computer Science*, 1, pp. 2499-2507.
- Nilsen, H.R., 2010. Overlapping consensus versus discourse in climate change policy: The case of Norway's Sovereign Wealth Fund. *Environmental Science and Policy*, 13, pp. 123-130.
- O'Neill, B., 2013. Edwin M. Truman, Sovereign Wealth Funds: Threat or Salvation?, Peterson Institute for International Economics, Washington, DC

- (2007), 186 pp. \$23.95, ISBN: 978-0-88132-498-3. *Journal of Asian Economics*, 24, 172-173.
- Pistor, K., 2009. Global network finance: Institutional innovation in the global financial market place. *Journal of Comparative Economics*, 37, pp. 552-567.
- Reiche, D., 2010a. Energy Policies of Gulf Cooperation Council (GCC) countries—possibilities and limitations of ecological modernization in rentier states. *Energy Policy*, 38, pp. 2395-2403.
- Reiche, D., 2010b. Renewable Energy Policies in the Gulf countries: A case study of the carbon-neutral “Masdar City” in Abu Dhabi. *Energy Policy*, 38, pp. 378-382.
- Reiche, D., 2010c. Sovereign wealth funds as a new instrument of climate protection policy? A case study of Norway as a pioneer of ethical guidelines for investment policy. *Energy*, 35, 3569-3577.
- Romero, S., 2009. *In Bolivia, Untapped Bounty Meets Nationalism* [Online]. New York Times edition. Available at: <http://www.nytimes.com/2009/02/03/world/americas/03lithium.html?pagewanted=all&_r=0> [Accessed 10.02 2014].
- Sonia. 2012. *El fondo soberano chino recibe capital para la compra de activos en Europa* [Online]. Available at: <http://spanish.china.org.cn/china/txt/2012-03/05/content_24807745.htm> [Accessed 04.02 2014].
- Sântimbrea, A., 2001. Education mining. *Apulum: Archaeology. History. Ethnography*, 38(2), pp. 147-154.
- Slyngstad Y., 2013. Norway’s Government Pension Fund and Challenges of Capital Flows. *International Forum of Sovereign Wealth Funds*, 3 October 2013.
- Stan, Ș. 2013. *The largest sovereign wealth fund in the world starts placing its staff in key positions of the European corporations whose stakeholder is* [Online]. Ziarul Financiar. Available at: <<http://www.zf.ro/business-international/cel-mai-mare-fond-suveran-de-investitii-din-lume-incepe-sa-si-plaseze-oamenii-in-pozitii-cheie-la-gigantii-europeni-la-care-este-actionar-10804107/>> [Accessed 03.02 2014].
- Sun, X. Li, J. Wang, Y. and Clark, W.W., 2013. China's Sovereign Wealth Fund Investments in overseas energy: The energy security perspective. *Energy Policy*.
- SWF- Institute., 2014a. *Sovereign Wealth Fund Institute - Fund Rankings* [Online]. Available at: <<http://www.swfinstitute.org/fund-rankings/>> [Accessed 10.02 2014].
- SWF-Institute., 2014b. *Sovereign Wealth Fund Institute - Linaburg-Maduell Transparency Index* [Online]. Available at: <<http://www.swfinstitute.org/statistics-research/linaburg-maduell-transparency-index/>> [Accessed 12.02 2014].

- Tsani, S. 2013. Natural resources, governance and institutional quality: The role of resource funds. *Resources Policy*, 38, 181-195.
- Pswfr, T., 2014. *The 2014 Preqin Sovereign Wealth Fund Review, A comprehensive guide to sovereign wealth funds*. Preqin Ltd, London, Equitable House.
- Wehner, J. and De Renzio, P, 2013. Citizens, Legislators, and Executive Disclosure: The Political Determinants of Fiscal Transparency. *World Development*, 41, pp. 96-108.
- WWF Norway, 2013. *Norwegian savings invested in the world's climate crisis*, [Online]. WWF. Available at: <http://wwf.panda.org/?209214/Norwegian-savings-invested-in-the-worlds-climate-crisis#disqus_thread> [Accessed 02.12 2014].
- *** *Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC* - Statement by the European Parliament, the Council and the Commission.
- *** Human-Development-Report. *Norway - Human Development Indicators* [Online]. Available at: <<http://hdr.undp.org/en/countries/profiles/NOR>> [Accessed 13.02 2014].
- *** *Mining Law no. 85 of March 18, 2003*, Official Journal no. 197/27 March 2003.
- *** *Law 189, Draft law on setting up the destination of funds obtained by Romanian State by selling the controlling shares to the Romanian Commercial Bank, 22-11-2005*.
- *** Meld. ST. 27 Report. The Management of the Government Pension Fund in 2012, *Meld. St. 27 (2012-2013) Report to the Storting (white paper)*, Norwegian Ministry of Finance, 07 Oslo AS 06/2013.