

Center for Economic and Social Development (CESD), Azerbaijan



STRATEGY FOR STATE OIL FUND OF AZERBAIJAN REPUBLIC

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Center for Economic and Social Development (CESD)

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I. EXECUTIVE SUMMARY

We have oil. It is like winning a lottery ticket, it is like getting a huge patrimony and it is like a gift from heavens. And like a winning lottery ticket, a patrimony and a gift, oil can easily spoil. It will spoil if the resources are spent to satisfy the short-term interests. Contrarily, oil may become an advantage, if managed wisely, through properly defining and keeping in mind the long-term interests of the entire society owning the resources. This will ensure that the improvements are cumulative, sustainable and consistent. And when these interests are not well-defined, agreed, and followed there remains no other way to spend the life and resources, but act randomly and satisfy short-term and small group interests only.

The paper analyzes different scenarios of using the oil money and advocates for the strategy that would involve the followings:

- All the oil rent money need to be isolated from the economy, and collected in the Oil Fund, meaning that should not be transferred into the State Budget, and at the same the Fund shouldn't replicate any of the functions of the State Budget
- The Fund should select the saving strategy and employ the smooth distribution function at the expense of the stabilization function
- The Fund resources should initially be invested abroad only
- The diversification principle need to be prepared to illustrate the ceilings expressed in percentages of the Fund's resources can be allocated in each country, each type of the business, and each company
- The ethical principles need to be prepared to outline the countries, the businesses and the companies where the Fund money cannot be allocated
- The correlation needs to be determined, where the more the Fund grows, the more the percentage share of it can be invested in equity shares rather than in the T-bills
- The relationship between the risk, expected return, number of investments and overall Fund resources needs to be determined for the investors to serve the maximization principle, sticking to the Fund's rules but not on their own discretion that may have a goal not fully overlapping with the Fund's goal

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- Principles need to be developed for the future possibilities in investing in the domestic business sector, in the form of the separate bank that would expect the return for the Fund from the investing in the local business higher than from the investment abroad

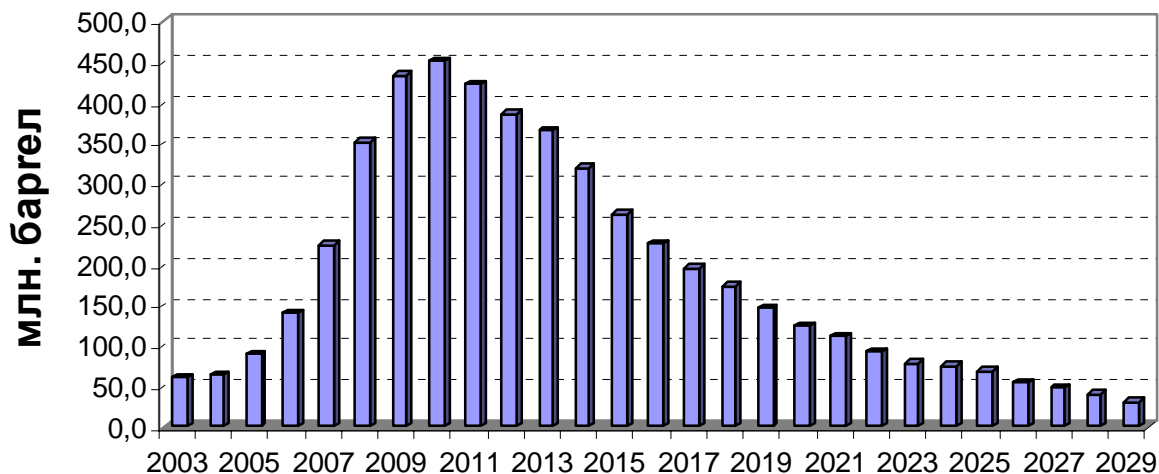
II. INTRODUCTION

2.1. Azerbaijan economy and oil revenues

The rapid increase in oil production resulted in Azerbaijan's economy posting its fifth consecutive year of double-digit growth in 2006. Gross domestic product (GDP) expanded by a record 34.5% in real terms, the world's highest growth rate for the second year running. By far, the greatest engine of growth has been the industrial sector, in which value added was up by just over 56%, bringing cumulative growth in 2005–2006 to almost 150%. Within the industry sector, it is the oil and gas sector that is driving the growth. The non-oil economy is still growing strongly, expanding by 11.2% in 2006, but its contribution to GDP is falling as the oil economy expands. Non-oil sectors provided 47% of nominal GDP in 2006, down from 58% a year earlier and 61% in 2004. The medium-term outlook for the economy of Azerbaijan is positive. GDP growth is expected to continue posting high double-digit growth over the next few years, mainly from increased oil and gas production and exports. Foreign investment is expected to decline over time as the major oil and gas projects move toward less intensive stages. However, the Government of Azerbaijan expects increased domestic public investment to offset some of this decline. Government expenditure rose by over 80% in 2006 and is projected to rise by a further 50% in 2007, which puts considerable pressure on inflation. In the long term, Azerbaijan's high dependence on oil exports poses a potential threat to the economy given the potential volatility in the international oil market. The main challenge for Azerbaijan is to develop the non-oil sector to ensure that the economy continues to grow on a sustainable path after the oil boom, meeting both short-term expectations and longer-term demands. A key objective is to develop income-generating and new employment opportunities in the non-oil sector, in such priority areas as banking and finance, trade, and small and medium-sized enterprise (SME) development.

25 oil contracts with 33 foreign companies from 15 countries have been signed by the government in order to produce crude-oil in Azerbaijan. Within these contracts 60 billion USD is predicted to be invested in the oil sector where 4 billion ton conditional fuel are expected to be produced. According to these contracts explore of oil deposits should be finished during 3-5 years, in case of finding deposit which has commercial importance this time can be extended to 25 years. If oil deposits are not discovered then explore costs is not paid back.

Oil Production, Forecast



Source; SSC, 2007

The above mentioned graph shows that Azerbaijan will have huge oil revenues starting from 2009 to 2015. The highest income from oil sale is expected to be obtained in 2010. 450 million barrel is planned to be produced that year. With current price (1 barrel/76 USD) it is 34,2 billion income from oil sale only for one year.

2.2. Is the economy ready for oil windfalls?

The economic life of Azerbaijan is closely tied to the oil. Baku is said to have produced half of the world's oil in XIX century and in the beginning of XX century. Azerbaijan used to produce large share of the oil in the Soviet Union. But the economy was never so tied to the oil. Now, after separating from the rest of the USSR, Azerbaijan got a chance to benefit from the oil itself, but this also changed the situation dramatically making the economy heavily oil-dependent and bringing huge duty of deploying the oil resources efficiently and in responsible manner.

We don't have a big experience of using our oil resources independently; the short term independence between 1918 and 1920 did not provide enough time and opportunity to develop the

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oil strategy of the country. All the time, since the industrial production of the oil, it has been controlled either by Tsarist Russia or from Moscow during the Soviet era, and thus took into the account the needs and strategy of the country much larger than Azerbaijan itself. The independence brings the opportunity and accompanying responsibility of developing the strategy of using the country's resources in a manner that would serve to its best interests in the longest term.

All these serve as premises to conclude we live a historical period and there are huge variations in the implications for the future between different scenarios of our managing the resources now. Opportunities imply responsibilities, and today there are big opportunities to positively construct the future that put huge responsibilities on the shoulders of the current generation. We will rely on this paradigm to construct the arguments throughout the paper.

Table 1: GDP, oil sector and non-oil sector growth in Azerbaijan

	2004	2005	2006	2007
overall GDP change, %	10.2	26.4	34.5	30.5
non-oil sector growth, %	14.0	8.3	12.0	10
oil sector growth, %	3.0	66.3	63.1	51

Source: IMF & Ministry of Economic Development 2007

2.3. Income tracking of State Oil Fund of Azerbaijan Republic

According to the SOFAZ Reports, budget revenues of the State Oil Fund of the Republic of Azerbaijan (SOFAZ) for the period of January-June, 2007 reached 832, 7 million manats (AZN), while budget expenditures constituted AZN 436, 9 mln.

Revenue of AZN 802 mln. was received from implementation of oil and gas agreements, including AZN 748,7 mln. from the sale of profit oil, AZN 0,8 mln. as acreage payments, AZN 35,1 mln. as bonus payments, and AZN 0,9 mln. from sale of assets received from foreign companies. SOFAZ

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received AZN 16,5 mln. as the price difference between the contract value and domestic wholesale price of exported oil.

The revenues from managing assets of the Fund for the reporting period amounted to AZN 30,7 mln.

As per 2007 budget of the Fund, the expenditures in the amount of AZN 73,9 mln. were directed to financing of building of housing and improvement of social condition of refugees and internally displaced persons, AZN 19,4 mln. and AZN 29,9 mln. were accordingly used for financing the reconstruction of the Samur-Absheron irrigation system and financing construction of the Oghuz-Gabala-Baku water supply system. AZN 224,5 mln. were transferred to the state budget and AZN 87,6 mln. were directed to regulating some issues on the State Oil Company's share in the projects on joint using Azeri, Chirag and Guneshli oilfields. The Fund's administrative and operation expenses in six months of 2007 were AZN 1,6 mln.

The Fund's extra-budgetary expenditures in January-June 2007 were AZN 16,5 mln. due to asset revaluation expenses.

The assets of SOFAZ as at July 1st 2007 grew by 29,9 % compared to the beginning of the year and stood at AZN 1646,7 mln. (USD 1924,2 mln).

Budget revenues of the State Oil Fund of the Republic of Azerbaijan (SOFAZ), however, for the period of January-December, 2006 reached 985,9 million manats (AZN), while budget expenditures constituted AZN 981,3 mln.

Revenue of AZN 930, 0 mln. was received from implementation of oil and gas agreements, including AZN 896,3 mln. from the sale of profit oil, AZN 12,7 mln. as transit fees, AZN 1,8 mln. as bonus payments, AZN 7,6 mln. as acreage payments and AZN 0,6 mln. from sale of assets received from foreign companies under PSAs and AZN 11,0 mln. was received from State Oil Company of the Republic of Azerbaijan as the price difference between the contract value and domestic wholesale price of exported oil. The revenues from managing assets of the Fund for the reporting period amounted to AZN 55,9 mln.

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As per 2006 budget of the Fund, the expenditures in the amount of AZN 110, 0 mln. were directed to financing of building of housing and improvement of social condition of refugees and internally displaced persons. AZN 75, 4 mln. was utilized for financing of AzBTC Co.'s share in Heydar Aliyev Baku-Tbilisi-Ceyhan pipeline project and AZN 585,0 mln. was transferred to the State Budget. AZN 82,7 mln. was used for financing construction of the Oghuz-Gabala-Baku water supply system and AZN 37, 0 mln. was utilized for financing the reconstruction of the Samur-Absheron irrigation system. AZN 90,0 mln. was directed to formation of the statutory capital of the State Investment Company. The Fund's administrative and operation expenses in 2006 were AZN 1,2 mln.

The Fund's extra-budgetary expenditures and payments in 2006 were AZN 17, 6 mln., including asset revaluation expenses of AZN 17, 5 mln. and AZN 0,1 mln. as other expenditures.

Net return on the Fund's assets in 2006 constituted 2.9% in the Fund's reporting currency (AZM) and 8.5% in the Fund's base currency (USD).

The assets of SOFAZ as at January 30, 2007 stood at AZN 1 267, 4 mln. (USD 1 454,5 mln)

According to SOFAZ's reports, total assets of the fund is USD 2 017.2 mln (August 17, 2007).

Money was directed from Fund to following projects;

1. Financing of the participation of the Republic of Azerbaijan in Heydar Aliyev BTC Main Export Pipeline Project (the project's financing closed in 2006) - 297,9 mln.AZN
2. Settlement of the problems of refugees and internally displaced persons - conflict - AZN 309,3 mln.AZN
3. Construction of the Oguz-Qabala-Baku water supply system – 129,9 mln.AZN
4. Reconstruction of the Samur-Absheron irrigation system - 61,0 mln. AZN
5. Transfers to the state budget – 1306,3 mln. AZN
6. Formation of the statutory capital of the State Investment Company (implemented in 2006) – AZN 90mln.

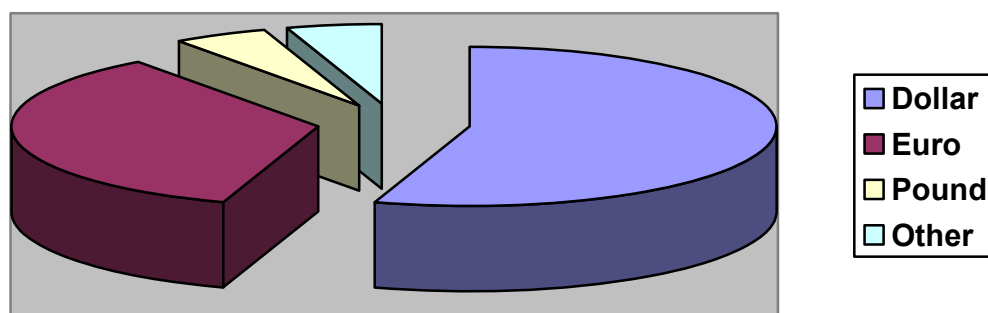
Based on current asset management guidelines of the Fund SOFAZ is allowed to invest only in the investment grade instruments. As of year end 2005, the Fund's assets were invested in the following categories of debt instruments: Foreign government securities, debt issued by foreign governmental agencies, debt issued by financial institutions and banks. External asset managers of

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the Fund are Deutsche Bank AG and Clariden Bank (Credit Suisse). Both external managers operate under fixed income mandate. SOFAZ has trading arrangements with various financial institutions and banks such as Barclays UK), BNP Paribas (France), Deutsche Bank, Dresdner Bank (Germany), JP Morgan (USA), HSBC (GB), Credit Suisse (Switzerland), Royal Bank of Scotland (GB), Society Generale (France), Commonwealth Bank of Australia.

Deutsche Bank was a custodian for SOFAZ in 2002 – before the custodian business share of this bank was purchased by State Street Corporation of the USA, which has been custodian for SOFAZ since 2003.

Currency Allocation of the SOFAZ



Source: SOFAZ, 2007

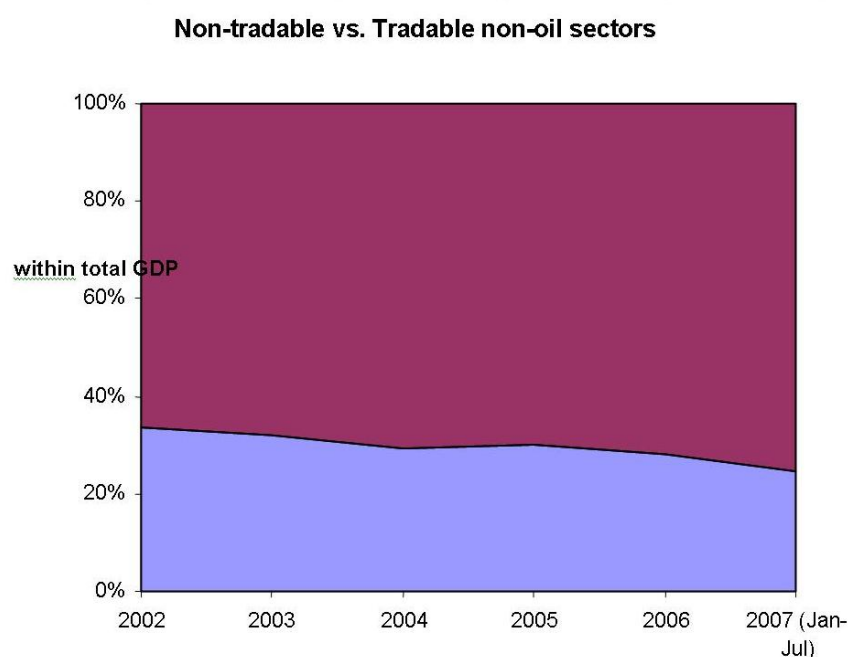
Above diagram shows that currency allocation of the Fund is as follows: US dollars (55%), Euro (35%), and British pounds (5%). The remaining 5 percent could be allocated into currencies of countries that have a long-term country rating of not less than A (Standard & Poor's, Fitch) or A2 (Moody's). Nominal annualized return of the Fund during the period 2001-2005 was 3 percent; annualized real return during the same period was 0.91 percent.

III. PROBLEM

Until the separation from the rest of the USSR, the republic was financially controlled from Moscow. Thus Azerbaijan had little experience in independently managing the oil industry and the revenues accumulated (the only chance was during the short-term independence between 1918 and 1920 years).

We have an Oil Fund where we accumulate the oil money, so the huge part of responsibility of administering the oil falls on the managing the Oil Fund resources. This is to say that as one of the ways of making the oil advantage not only for this generation, we need to rescue the fund from popular programs. Like in every issue concerning the nation's life, the society's long-term interests need to be central in managing the fund's resources in order to avoid the annoying signals of short-term or small group interests. But for that those long-term interests need to be identified, then the mechanism of sticking to those interests need to be identified and implemented.

Figure 1: Dynamics of non-oil economy of Azerbaijan: percentage shares of tradable and non-tradable goods



Source: NBA, Azerbaijan

The fund is founded 8 years ago. Just the existence of the fund, already separates the part of the oil money from the rest of the economy. However the more clear resource management principles needed to ensure that the fund's operation serves to the best of the overall economy. Money is spent from the fund, but no strategy and no criteria to measure the effectiveness of the decisions against the alternative ways of the use of the fund.

Also, there is a reciprocative role on the impact on democracy; not only the democracy guarantees effective management of the fund, but the effective management also will add to the feeling of ownership and responsibility among citizens; they will discuss it more as their own money for the children and grandchildren and so forth, and will always be watchful if public officials do the efficient job.

Sabit Bagirov outlines the following risk areas in the management of oil revenues:¹

- the government is inexperienced in managing revenue windfalls;
- laws are imperfect;
- the judiciary is dependent on the executive branch;
- the legislature is dependent on the executive branch;
- democratic institutions are weak;
- civil society is underdeveloped;
- independent media are weak.

He comments the current SOFAZ budget concept as allowing its assets to be used to finance state projects and programs, and argues for the rejection of it.

Instead, he suggests that the fund should make portfolio investments and the only expenses for the fund to be the operation expenses for the fund. We however, in this paper, while agreeing with the

¹ Problems of Good Governance in Extractive Industries, Sabit Bagirov

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portfolio strategy recommend the ceiling for budget transfers, and exclude the administrative expenditures from the Oil Fund budget regard to and treat the Oil Fund as a state agency, and thus include their administrative expenses within the state budget.

The author also lists the state organs most interested in the transfers into the state budget. These are, according to the author, the Ministry of Taxation and the State Customs Committee as the main sources of the budget revenues in the first place, and the Finance Ministry and “a lot of state bodies” because, with this situation, they are likely to receive a portion of them.

The other dimension, besides the institutional, is the social side of the problem, where the citizens support the short-term oriented government expenditures and popular programs, and as the author puts it, it makes it easy for the state agencies “to convince ordinary citizens that the existing practice is correct and is socially-orientated”.

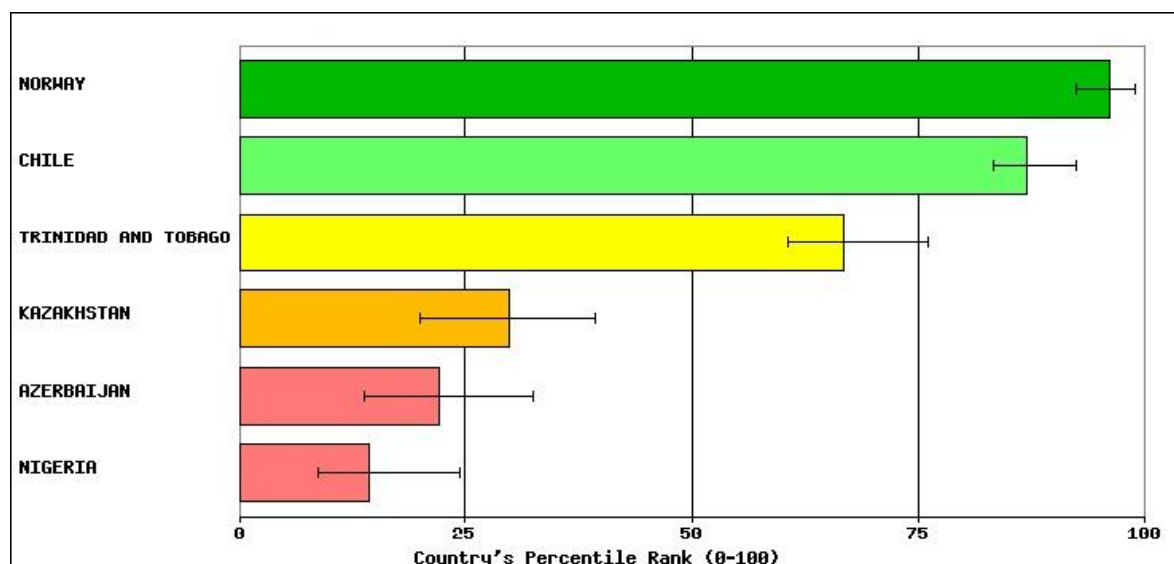
IV. SEVERITY OF THE PROBLEM

What can be done with the Oil Fund can theoretically be done without it. In reality “oil funds can allow some revenues to be “protected,” allowing larger surpluses than would be possible otherwise”. So the benefit from creating the fund lies in the political economy and the point in having the fund is to isolate the oil money from the irresponsible government decisions. And the research shows that the countries who managed to develop a separate institution that would at least partly sterilize the economy from the oil money, have better managed the economy during the boom years and could better save the oil money to be consumed by the internal rent pumps.²

Many other countries producing oil had a bad experience resulting in the emergence of an umbrella term of “oil curse”. Now the government of Azerbaijan has officially acknowledged the need for careful handling of the oil revenues.

Government effectiveness, Rule of law, Regulatory quality and Voice and accountability is very low in Azerbaijan based on the study mentioned in the figures below.

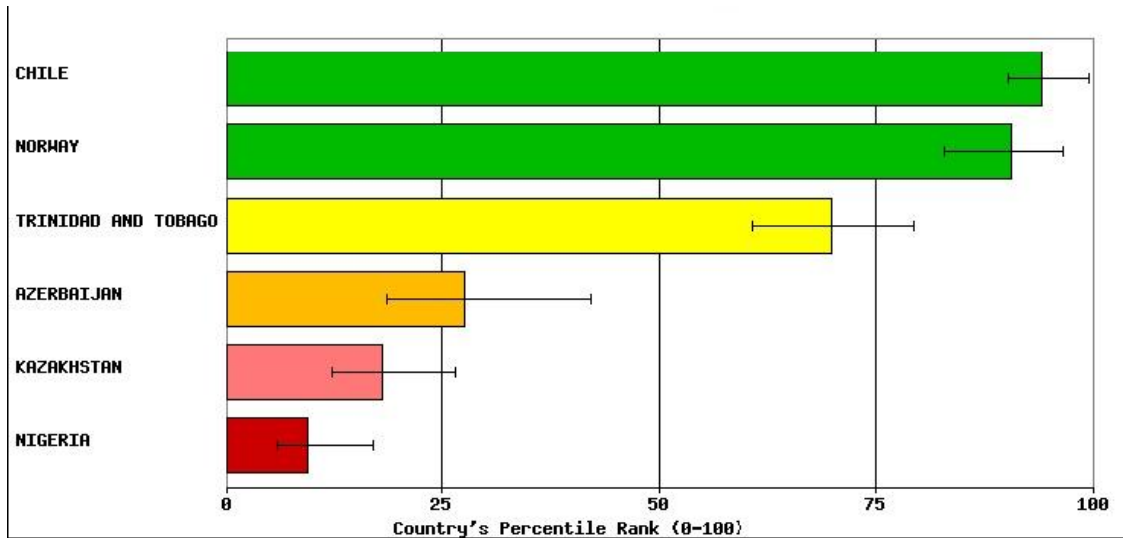
Figure 2: Government effectiveness in selected countries (all dependent on the single resource)



Source: Converting black gold into human gold

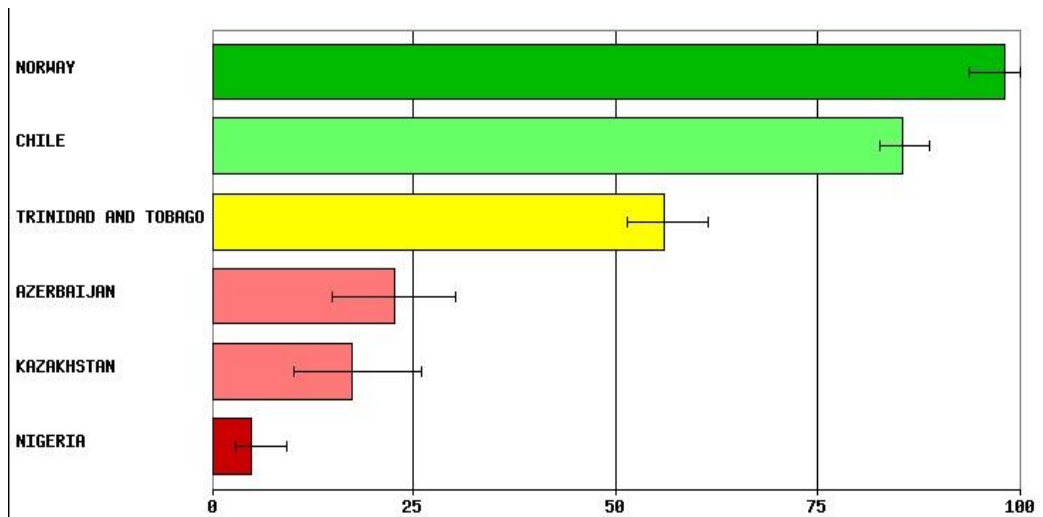
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Figure 3: Regulatory quality in selected countries (all dependent on the single resource)



Source: Converting black gold into human gold

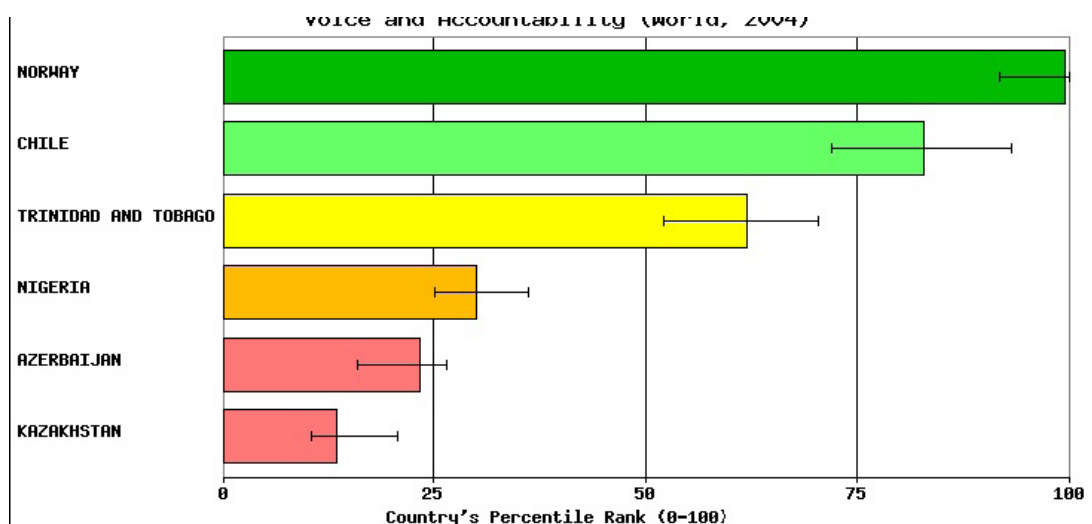
Figure 4: Rule of law in selected countries (all dependent on the single resource)



Source: Converting black gold into human gold

Figure 5: Voice and accountability in selected countries (all dependent on the single resource)

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Source: Converting black gold into human gold

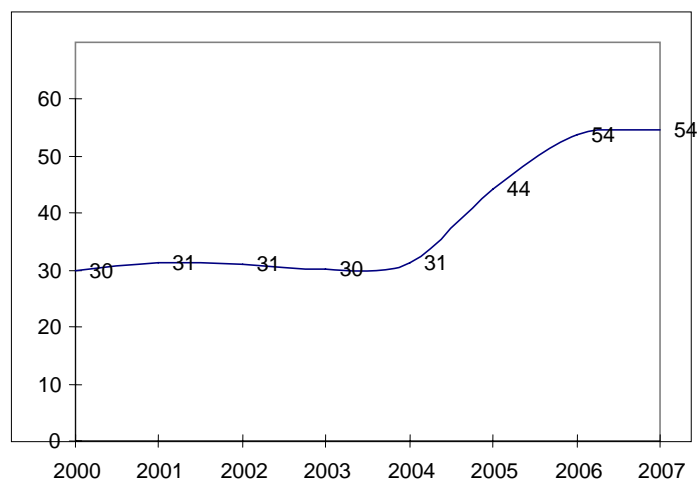
Above graphs show that all these make the more inefficient use of the oil money possible, and all these make the short-term boom to translate into the disaster in the post production years.

Amar Inamdar summarized the potential negative effects from the management of oil resources in 3 statements:

1. Spend today, don't save for tomorrow.
2. Spend on the powerful, not on the weak.
3. Draw down inherited capital, don't work.³

³ International Best Practice In Sustainable Development
Amar Inamdar
For Project Design & Management Pty Ltd

Figure 6: Percentage of oil & gas output in total GDP



Source: NBA, 2007

Above graph shows that the share of oil and gas output has increased recent years. In the last 7 years the share increased about 2 times and at present the oil sector is the only engage of the economy.

Table 2: Oil Fund Balance and non-oil economy thru years, mln AZN

year	2007	2008	2009	2010	2011	2012
Oil Fund assets ¹	2659.9 8	11063.7 9	23112.3 2	34799. 1	45293. 5	5660 2
Oil Fund expenditures ²	1107	767	705	705	655	655
Return from Fund assets ³	106	443	924	1392	1812	2264
Oil Fund balance	-1001	-324	219	687	1157	1609
Non-oil GDP ⁴	10366	12755	14859	17038	19513	2234 6
Fund returns/non-oil GDP	1	3	6	8	9	10

Source: IMF 2007, MOF 2007 & author's calculations

1. IMF projections (2007-2008 baseline scenario; 2009-2012 sustainable scenario)
2. Ministry of Finance projections
3. With 4% return rate as estimated with Pension Fund in Norway
4. IMF projections

In the early years, the revenues the fund generates are less than its expenditures that are either transfer to budget or other social expenditures that duplicate the budget's function thus can be considered as the transfers. The government is expected to increase the expenditures further and spend more in the social sphere and in the infrastructure due to the upcoming elections in 2008. Later, the government may have more reasons to follow the strategy aiming the long-term goals.

Gubad Ibadoglu, head of the Economic Research Center, a Baku-based non-governmental organization, said that "a need still exists to identify how the revenues will be spent" and added that the strategy is developed due to the pressure from IMF, however is not submitted to adequate public discussion.⁴

The use of the revenues must account the government expenditure capacity that takes into the account the effective and transparent use of the public money. The article sites Gubad Ibadoglu as opposing the idea of investing in infrastructure projects "unless large-scale corruption is first eliminated".

⁴ Wanted: Investment Strategy For Azerbaijan's Oil Money
Rovshan Ismayilov: 4/14/06, <http://www.eurasianet.org/departments/business/articles/eav041406.shtml>

V. ALTERNATIVE STRATEGIES

Our life could be different without oil. Oil affects and changes our priorities and the others' priorities concerning us. And we would run our economy differently without relying on oil resources. However, oil being a short-term resource only cannot be part of our national values and interests that are long-term, and ideally, permanent. Then there remains a room for oil for being instrumental only. Oil is short-term, but the fund is long-term, and the effective management of the fund, shouldn't depend on the oil, and should behave as there is no oil at all. The experience of analogous fund in Norway (Norwegian Pension Fund) can be an example to that. Oil revenues are isolated from the society, or put in another way, the society is isolated from the oil revenues as there is no that sector. The strategy of the Oil Fund needs to be at least as efficient. That strategy must flow from the purpose and mission of the fund. If we want to ensure an intergenerational balance, or save the money for the future, then let's do it, not use for the short-term or any other non productive program and save the maximum, which should mean all the oil money at least. Why *at least*? Because, the fund may also generate money and that money can be partially accumulated in the fund.

Imagine, no Oil Fund, economy should still be able to stay alive, then it should be even better with the assistance coming from the fund, but we should never let the popular programs to eat the seed corn too.

The main thing in the oil fund strategy can be divided into the decision of whether to transfer to the budget or not, and for the money that remains in the fund, how to invest. The principles of the modern finance can be applied to get closer to the best investment strategy. Diversity is the rule of thumb to lessen the risks: investing the oil wealth among a wide range of allocations diversified through many lines (countries, industries, businesses...) may guarantee a high return with lower risk. An index fund, where the weight for an each company invested is proportional to its market value, can be used as an instrument for diversifying. But the rule of diversifying works well only with realistic and prudent approach in every investment decision. Expert advice and some skepticism are necessary, the pitfalls and underlying risk beyond seemingly high returns need to be carefully analyzed. Neither intuition, nor the astrology can be a good advisor. By the same token, non-transparent management is likely to lead to satisficing behavior and inefficient investment decisions. For the management of a public fund, such as the Oil Fund, a methodology needs to be

prepared, where the investment decisions will account not only the risks and returns from investments, but also brokerage and investment charges. Looking a better investment options are often exemplified as a trade-off between the good dinner and the good sleep. This is to say that a big number of more risky investments need to be made to increase the overall return for an investment portfolio, but then the group responsible for investments needs to have permanent control and keep the track of ups and downs to change the investment decisions in a timely manner. However, the good sleep can be guaranteed with government bonds that are often inflation indexed and have lower return and lower risks involved.

The following alternative possibilities of the uses of the oil money will be analyzed in this paper:

1. How much to allocate to the Fund, i.e. what portion of the money earned due to the petroleum industry needs to be saved in the Fund
2. How much liquidity we can expect from the Fund's savings
3. How much of the saving and the stabilization functions should the Fund assume and what will be the implications of that in the Fund's asset management strategy
4. Whether to invest domestically or abroad only, and how much of the Fund can be invested domestically and under which circumstances
5. Whether to invest in corporate equities or in government T-bills and bonds, how much of the Fund's assets can be allocated in each and, how much of the Fund's assets can be allocated in the corporate equities
6. What should be the Fund's strategy in diversifying the assets (how much ceiling for investments, and how that ceilings wil depend on the Fund's overall assets)
7. The other issues to be considered, such as the countries, businesses and companies the Fund can invest, and other ethical principles to guide the Fund's investment strategy

5.1. The Budget or the Fund

Meral Karan provides information on how to use SOFAZ resources by the state agencies, and treat it as a secondary state budget. But this will conflict with the mission and purpose of, and the benefit expected from the fund.⁵

Let's look and compare the international experience first. The table below compares the growth of expenditures in several countries. "After the boom" is a relative terminology, since the countries in the list still produces oil, and here the boom refers to the rise in the production, but not to the production itself.

Table 3: Average annual growth of budget expenditures

Country	Prior to the boom	Oil boom period	After the boom
Azerbaijan	12.9	46.2	-
Saudi Arabia	27.5	112.5	30
Nigeria	29.6	70	-3.0
Norway	12.7	32	17.2

Source: IMF. International Financial Statistics. 2006

Norway's economy is widely considered to be the most successful to translate the oil money into the sustainable development of the country. The Norwegian government's intention of spending the oil revenues smoothly is considered the key for the success of the Norwegian economy to overcome the pitfalls associated with the oil boom.

For that, Norway established the Petroleum Fund, the prototype of the Oil Fund in Azerbaijan where accumulated all the oil money. This money then was transferred into the bonds and corporate equities to generate the more stable income not dependent on the rate of the current oil production in the country. Later the fund's functions were integrated with the national insurance

⁵ Fighting the resource curse: The Azerbaijan response
Meral Karan

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scheme, and the fund continued to function under the name of the Pension Fund. The strategy of sterilizing the economy from oil money did not change however. The amount of the money the government may withdraw for the budget purposes from the Fund is not again the function of the country's current oil production, but the function of the growth rate of the Fund separate from the current oil revenues. However, there were cases when the non-oil deficit of the budget was over the estimated annual non-oil growth of the Fund.⁶

Ulrich F.W. Ernst characterizes Norway's strategy in managing the oil revenues in the following areas:⁷

1. Sterilizing the Norwegian economy from oil revenues; fund reserves are entirely invested abroad.

Exchange rate between the krone (local currency) and other European currencies kept stable through economic rather than the monetary policies.

The name of the fund has been changed to better reflect its image and mission.

However, there is some emerging sensitivity to "domestic" arguments since the capital flowing out of the country becomes large while the fund also grows and becomes the largest single-managed fund in the world.

2. The investments are made in both fixed incomes and equity instruments - since 1998, up to 50% of total reserves are allowed to be invested in stock markets (foreign only). Now the investments in foreign market total to some 40 percent.

The issue is to determine whether 50% ceiling, and the current 40% of investments in equity market is enough or too large. This is more a debate over how much risk can be afforded versus the return expected.

Now the fund is spreading investments across industries and regions for diversifying reasons as a measure to reduce the risk. And the management guidelines limit the fund's investments to 5 percent of the capital of any given company (the limit was 3% before 2006). The fund's exposure in the companies it has invested now averages to 0.3 percent.

3. Ethics involved in the investments:

⁶ Bjorn Taraldsen. 2007. Management of the Norwegian Government Pension Fund. Norwegian Central Bank. Norway.

⁷ Foiling the resource curse: Norway's Petroleum Fund
Ulrich F.W. Ernst

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How to avoid conflicts of interest. How to make the fund allocations internationally responsible and not to invest in businesses involved unpeaceful and environmentally bad practices.

If applied in Azerbaijan, this will exclude some countries and some businesses and particular companies in other countries from the list of the investment options for SOFAZ.

The first consideration of alternatives is about how much of the oil money to save, i.e. accrue in the fund, and how much to consume, i.e. allocate for the state budget expansion. This is not a *consume or invest?* question, because the elements of the state budget may also suggest the investments in the future. Instead, this is a question of how much money from the current economy needs to be taken and saved in the Fund. This is an analysis of where that money provides the long-term benefit for the society.

The following rules for SOFAZ recommended will be further developed in this paper.

1. “Revenues from post-Soviet oil fields flow into Oil Fund; revenues from older fields into the state budget”. In this paper we will argue in favor of accumulating of all oil money from all fields in the oil fund. And will clearly identify what is meant by the oil money.
2. “In any given year, Oil Fund outflows cannot exceed inflows” – in this paper we will elaborate this rule further to more precise arguments and to better reflect the long-term interests of the society that owns it.

Governments increase their budget expenditures during the oil boom but later they get pressureized by the need of the tightening the expenditures. To prevent that the economy needs to be isolated from the short-term effects, such as oil production, and tied to the long-term benefits such as the income generated from investments. The fund may perform this function without loosing any of the resources.

This is not to say that the economy will be fully isolated from oil production, because many oil companies and their subcontractors operate and generate employment, taxes and other benefits only during the production period. Therefore the other newly emerged sources for the increase of

the budget, separate from the oil rent, exist during the production, and there is little the government can do and no efficient mechanism in place to even and smooth those benefits through the upcoming years. However, once the saving all the oil rent money strategy adopted, Oil Fund can become an instrument that will isolate and save the economy from the huge portion of the unevenly changing oil money (increasing, and then decreasing at the end of the oil production period), and provide the fiscal foundation for the sustainable growth.

This will also save the economy from the deadweight losses associated with the inflation and non-sustainable development.

Another argument for the sake of the saving the oil money is the lack of the capacity of the economy to efficiently consume the increasing revenues. The economy need to develop the capacity for the efficient use of the resources. And this capacity of the government needs to be tied to the development of the non-oil sector, the Fund included, and be adequate with the development of the private sector, excluding the oil.

The amount the government may withdraw from the Fund needs also be correlated with the expected growth rate of the population, not to lessen the Fund resources per capita, and needs to account the overall inflation in the currencies invested.

Once the strategy is designed with savings in mind it may limit the fund's potential for stabilization.

5.2. Saving or public investments

The next question analyzed is about determining whether to save the oil money in the fund, or invest the money in the social and economic life of the country. This will serve to make the analysis more comprehensive, since not all the public investments are made through the State Budget, and some public investments are regularly made from the extra-budgetary organizations, including SOFAZ. Thus, in addition, to the above discussions on whether to consume or to save, and whether to allow the transfers into the State Budget or not, the separate analysis need to be conducted on whether to allow some of the oil money into public investments, and what rules and limitations can apply in here.

The public investments made from SOFAZ, besides the resources spent for investments, have an opportunity cost of the regular dividends earned by the portfolio investment of the fund. Meaning, the public investments generating the public good will decrease the fund's resources and the capacity to generate the income for the future generations. The basic cost-benefit approach will advise to compare the benefits of the public good from an investment with the cost of the resources spent. However, the cost in this case, as it will be discussed below, may be different from the opportunity cost of the invested money.

The benefits will generally include the public good as a result of an investment (bridge, vaccination, application of standardization,...), increased employment during the implementation stage and the transfers to the State Budget (e.g. in the form of taxes), while the costs may include the increased inflationary pressure due to the oil money flowing into the economy. There exists however the threat of the overestimation of financially unmeasurable benefits. The extent of this threat is linked to the size of the corruption and the gaps in the investment project preparation and appraisal capacity of the government. Thus the more straightforward cost-benefit comparison where the benefits are expressed in the financial values need to be introduced to consider the public investments using the SOFAZ resources. This rules out the majority of infrastructure, institutional, environmental and other investments. Instead, the investments in the productive sector and loans to the private sector can be considered.

Even in that, the explanation must be provided on why the investment cannot be made using the State Budget. The size of the investment may serve as a justification for the investment not to be included in the annual State Budget, i.e. the public investment project needs to be so large (i.e. have a such a great cost) that one project alone will bring the substantial incremental change into the budget on the expenditure side that cannot be balanced by the revenue side.

However, such a large investment will also decrease the fund's portfolio that is capable to generate annual revenues for the State Budget. Then the additional explanation is needed on why the project cannot be implemented in the future

All these are to say that the proposed investments will have the goal of the development of key industries where the expected returns will outweigh the returns from the SOFAZ's

corresponding portfolio investments. The rule may be the borrowing from the SOFAZ's resources, rather than the use of it. And the borrowings may only be consulted by an individual project rather than by the State Budget or any sector in general. The rule of the borrowing may guarantee the investments to have the expected return greater than the corresponding return generated by SOFAZ's portfolio investments. However, from the SOFAZ's perspective these investments can be considered as the fund's investment in the domestic economy, that is discussed in the further subchapters. And since, as discussed above, the strategy needs to serve to the maximization of overall profits, the conclusions made in the following subchapter may be applied in here too.

5.3. How much liquidity

Overall strategy needs to consider how the investments are liquid, i.e. how easily and to what extent the investments can be retrieved for a better reallocation among the investment alternatives. Then, it will consider the flow of money into the Oil Fund: this is the inflow, outflow and the net flow for a period between investment decisions.

The portfolio, during the oil production in the country, can also be constructed to as an investment that will hedge the changes in the oil prices, i.e. the incomes they generate will be negatively correlated with the oil revenues of the country. This is to say, that holding currency from the countries heavily relying on oil exports is a bad hedging, since their currencies appreciate or depreciate roughly in parallel with manat and the budget income and consumption.

How much illiquidity can the fund afford for a particular investment vis-à-vis the expected returns from an investment? The answer will provide the range of the currencies of various countries to be considered as investment options. There might be no rigid answer, but rather correlations with amount of the fund resources, the net inflow of the money from all sources and the liquidity of other investments made.

The overall liquidity of the fund investments need to be correlated to the short-term use of the fund, i.e. to its stabilization function. I.e. the amount to be retrieved from the fund will depend on the fluctuations in the consumption needs.

However, since the current budget very much relies on the oil revenues it will also be sensitive to the fluctuations of the oil prices in the international market. There are two ways and their combination to protect the budget from oil price fluctuations. One is to sterilize the domestic economy and the other is to use the fund as a budget stabilization mechanism.

5.4. Saving or stabilization

The traditional literature suggests that the budget in the oil-producing countries depend on the oil prices in the international market, thus the Oil Fund needs to include the stabilization function, i.e. filling the budget deficiencies in the recession years. This paper argues and takes as a basis for further analysis that (1) it is not the oil price but overall oil revenues that matter (the latter includes many other factors, including the amount of oil production) for the decisions between the budget and the fund, and (2) it is not the budget but overall income that depends on oil revenues; budget often as a result of political processes and decisions are linked to short-time oil revenues, but the fund can eliminate that link and make it dependent on the long-term and secure incomes.

Stabilization shouldn't protect from fluctuations in the oil prices but be negatively linked to the overall revenues, and make the budget transfers linked to the spending capacity of the government (i.e. how much of the government expenditures reach the beneficiaries, generate the benefits and translates into the sustainable development).

However, the stabilization can be codeword for the short-term government to deploy the nation's long-term resources. So, the entire functionality needs to be redefined.

While the oil production brings enough income, the budget can be stabilized using the oil revenues (this will substantially decrease the inflow of oil money into the fund); and when the oil production is over the economy will not that depend on oil prices and the fund loses its stabilization function. But since the revenues go all the time down, the fund gets deployed and becomes as a support mechanism.

Taking into consideration the above arguments we recommend the growth portfolio management strategy with liquidity considerations in mind. Liquidity expectations cannot be more than the

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annual withdrawals for the budget purposes. And the withdrawals cannot be greater than the net income generated by the fund, and some more considerations we will discuss below. This is to say that there is no need to have liquidity expectations greater than the portfolio growth rate.

The considerations mentioned in the paragraph above are as below:

- The portfolio growth rate is expected to be over the inflation rate calculated using the several currencies. The expected growth rate needs to be established to safely account the inflation rate.
- Another coefficient needs to be applied to the fund's expected growth to safely account the population growth rate, and to make sure that the saving per capita is not decreasing.

The rationale in the ruling out the stabilization function as related to oil production is to provide the fund with long-term mission and relevant strategy.

The investment strategy for an Oil Fund can be further broken down into the investment strategies for a stabilization fund and for a saving fund. While the saving fund can be regarded and managed as a growth portfolio, the investment strategy for a stabilization fund can in some ways be different from an investment strategy for a growth portfolio. The overall investment strategy will depend on how much the Oil Fund is regarded as a stabilization fund, and how much as a saving fund. In other words, the overall strategy will depend on the share and the weight the government will assign to each function of the fund within its expected overall functionality.

Kalyuzhnova, Yelena more focuses on the stabilizing role of the oil funds, and thus provides analyses and recommendations on how to protect the economy from the sharp changes in the oil prices.⁸

She sees the role of an oil “as formalizing--or giving institutional focus to--a set of fiscal rules”. And evaluates the effectiveness of the fund as deriving from this role: how it reflects in the policy rules, and market expectations to buffer the economy from price shocks. In that she admits that “history provides many illustrations, where stabilisation policies relating to commodities collapsed

⁸ Overcoming the curse of hydrocarbon: goals and governance in the oil funds of Kazakhstan and Azerbaijan. 01-DEC-06 Comparative Economic Studies. Kalyuzhnova, Yelena

with the rapid exhaustion of finance”, and argues that the stabilizing approach should be pragmatic and there is no confident set of management techniques to make that function optimal.

The other conclusion she makes is that the fiscal policy of the oil-producing state must account the size of oil revenues in the economy.

John Wakeman-Linn and Paul Mathieu and Bert van Selm conclude that oil funds improve coordination between monetary and fiscal policy and the best of the fund is received when it can be separated from the state budget and cannot be easily deployed by the state agencies. The authors excludes the stabilization function of the fund and argue that the “Shortfalls in state budget must be made up through changes/improvements in the state budget”⁹

The standard macroeconomic literature suggests the real exchange rate appreciation will be accompanied with the increase in oil revenues. Generally, the oil revenues increase the wealth of the overall country and consumers that lead to the increase in the aggregate demand. The latter has several effects:

- exports go down for the reason people consume more
- imports go up for the same reason
- exports go down again due to the negative effects of the oil money running into the domestic market; the local productivity goes down for every tradable good except the oil, due to the decrease in the competitiveness of the local production

Jeffrey Davis, Rolando Ossowski, James Daniel, and Steven Barnett justify oil funds on political economy grounds: “Such funds may help the government to resist spending pressures if there are constraints on borrowing. These may reflect explicit fiscal rules or may arise from political difficulties in issuing debt.”¹⁰

⁹ Oil Funds in Transition Economies: Revenue Management
Azerbaijan and Kazakhstan

John Wakeman-Linn, Paul Mathieu and Bert van Selm, October 16, 2002

¹⁰ Stabilization and Savings Funds for Nonrenewable Resources
Experience and Fiscal Policy Implications

Jeffrey Davis, Rolando Ossowski, James Daniel, and Steven Barnett
2001 International Monetary Fund, April 13, 2001

Center for Economic and Social Development (CESD), Azerbaijan

As for the stabilization functions, the authors justify it for the case when there is instability in fiscal revenue – this complicates fiscal management, budgetary planning, and the efficient use of public resources: sharp cuts in expenditure, can be disruptive and costly; and increases in revenues can be a temptation to raise spending to unsustainable levels.

Large fluctuations in resource revenues may give rise to real exchange rate volatility, and increases in these revenues may lead to "Dutch disease." There are also sometimes concerns that large revenue inflows may be misused or otherwise subject to poor governance.

However, while the stability of incomes from investments provides the sense of assuredness, it cannot serve as an only criterion for an investment decision. The main criteria are the expected growth and minimizing the risk.

In addition, the revenue from deploying the nonrenewable resources represents a depletion of wealth that could be saved for the future generations, and it is not sustainable for the long-term, and in that it differs from other revenue types.

5.5. Abroad or home

Investments: prioritization between foreign markets and domestic investments. The fund is not an extraordinary budget and domestic investments should not replicate the function of the budget. Domestic investments – business sector only, no budgetary spending, and not for development of any business, but as a credit at market prices only.

The Pension Fund in Norway, the most exemplary use of oil revenues by most authors, is treated as a saving fund only, and manages as an investment portfolio.

Strategy will include allocation of financial resources of the fund, selection and prioritization of investments, preparation of investment policy and ethic guidelines, reporting to the public, continuous analysis of the current investments vis-à-vis with an investment market and production of regular recommendations for the future behavior.

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The current law specifies AZN 585 million (same as in 2006) to be transferred in 2007 into the State Budget from the Oil Fund.

We will look at two cases:

1. “strong case” - placing the fund's assets abroad only
2. “weak case” – allowing the domestic investments

5.6. Corporate equity or bonds and T-bills

Investing in only bonds and T-bills issues by foreign companies and governments can be safest investment strategy in the sense that incomes from investments are more fixed and liquid. This is the buy and hold strategy relying on the dividends the investments will generate. In that the fund is interested to invest in currencies that are internationally more liquid and the rate relative to others will remain positive or the expected inflation rate will be smaller to enough to be compensated by the incomes the investments generate. E.g. buying the corporate debt should not be considered.

5.7. How much risk

The overall risk is the function of the diversification. Monte-Carlo portfolio management principles can be applied to arrive to the optimal allocation where the overall return from investments are maximized taken into the account the expected returns from each investment and probabilities (risk factor) associated with each investment.

The overall risk can also be alleviated by applying the hedging principle, where systematic risks are minimized by allocating the money in the assets having the negatively correlated growth rates. This will account the systematic risks rather than the individual assessment of risks associated with per investment. This will increase the level of the risk the Fund can afford with each individual investment option. And since, there exists a positive correlation with the expected return rate and the risk associated in the investment options in the stock market, the strategy is also expected to increase the overall returns.

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The diversification level, ceilings and numbers as a function of the Fund's overall assets, once determined, need to become a principle rather than a mere methodology, and be reflected in the Fund's operational guidelines

5.8. Other issues to be considered in investment decisions

The operational asset-management guidelines need to be prepared to govern the allocation of the fund's resources. The guidelines need in the first place to adhere the fund's strategy which in its turn should be commensurate with the fund's mission and objectives. To ensure that, it needs to be ensured that the guidelines are free from political interference and are disclosed to the public.

VI. CONCLUSION

The efficiency gap in the management of oil money in Azerbaijan is enormous. The improvements need to be implemented in the oil money accumulation, saving and spending processes to make the short-term national resource to better serve the long-term development need's of the nation. The necessary changes include the Oil Fund redefining and streamlining, in parallel with improvements in the budgetary and public investment work.

The sustainable long-term development needs to be a major focus and only criterion with the use of oil money, as with any public resource. The short-term availability of this resource, however, makes the issue more subtle and brings additional concerns. The need for sustainable long-term development makes the macroeconomic concerns priority. This is to say that the nation's strategy for the use of oil money needs to focus on the growth of GDP in the long term, fiscal stability and independence, and monetary concerns to avoid inflations and account the capacity of the public sector and implications for corruption. The strategy must clearly delineate the share and dynamics of national consumption, public investments, government expenditures and trades with other countries with the hydrocarbon resources deducted, and oil money added to the national assets. The good strategy will measure and use the oil money not as a separate consumption expenditures or investment projects, but in line with all public spending, while accumulating and saving that oil money separately.

The macroeconomic development strategies flow into the financial strategy of the Oil Fund as an institute accumulating and saving that money. Once the extent of the application of oil money (i.e. what exactly need to be accumulated in the Fund) is determined to reflect the nation's the most long-term interests, the strategies for portfolio investments, for transfers to the State Budget and to the public investment projects (if the strategy finds it appropriate) must be adopted and implemented.

The recommended improvements addressing the development of institutional and legal framework will address and make the implementation of the proposed financial strategy for the Oil Fund possible. This will include the development of instructions, guidelines and standards for portfolio investments and the rules and standards for the transfers to the State Budget and other domestic

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public and private uses. The recommended institutional and legal improvements are on the other hand based on the existing situation and current practices and have political feasibility implications for the suggested changes, more extensively discussed in the analysis section of the paper.

The strategy is important to create the rules for the effective management, and having the strict rules is no less important in saving the nation's resources from the short-term and populist programs, as well as from the corruption. And the presence of the clear efficiency criteria and the strict rules along with the level of development of the civil society makes the transparency in the management more possible. Reciprocally, that transparency becomes a guarantee of the fund's effective management and growth in the society's wealth, and increases the sense of ownership and the level of civil society along with democracy.

VII. RECOMMENDATIONS

The following is the list of recommendations by this paper for the management of oil money in Azerbaijan:

- The amount of transfers from the Fund into the State Budget in any year, shouldn't be above the Fund's average (calculated for the several past years) portfolio profits that will additionally account the fluctuations, population change (that would change the Fund's assets per capita) and the inflation and the overall depreciation the Fund's assets in all invested currencies.
- The Fund resources should initially be invested abroad only; the domestic investments will be allowed after the new management principles adopted and evaluated through several years, and the extent of the rules limiting the domestic investments will also be a function of the level of domestic corruption as evaluated as an extrapolation of results from the reports from several external independent sources.
- The diversification principle need to be prepared to illustrate the ceilings expressed in percentages of the Fund's resources can be allocated in each country, in each currency, each type of the business, and each company, as well as ceilings expressed in percentages of the invested company's assets.
- All the oil rent money need to be isolated from the rest of the economy, and accumulated in the Oil Fund.
- No direct transfers should be allowed from the Fund into any public investment project or program.
- The Fund shouldn't be regarded and treated as an extraordinary budget and/or replicate any of the functions of the State Budget.
- The Fund should select the saving function only and employ the smooth distribution function at the expense of the stabilization function.
- The ethical standards need to be prepared to outline the countries, the businesses and the companies to be excluded from the list of potential investment allocations.
- The correlation needs to be determined, where the more the Fund grows, and the more the Fund's management evolves, the more the percentage share of it can be invested in equity shares rather than in the T-bills.
- The relationship between the risk, expected return, number of investments and overall Fund resources needs to be determined for the investors to serve the maximization principle, sticking to the Fund's rules but not on their own discretion that may have a goal not fully overlapping with the Fund's goal.

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- Principles need to be developed for the future possibilities in investing in the domestic business sector, in the form of the separate bank that would expect the return for the Fund from the investing in the local business higher than from the investment abroad.
- Develop a long-term, diversified investment strategy. With a longer-term spending policy in place, SOFAZ can then shift its investments to a longer-term horizon and be able to diversify from the highly liquid but low-yield investments it made in 2001.
- The fund's investment decisions, as well the management strategy need to be transparent; there are efficiency implications in the transparent management and strategy.
- The allocation report needs to be prepared for the every portfolio investment by the Fund. The report will replace the feasibility study, as a justification of selection based on transparent criteria and methodology, as well as the appraisal document that would explain why the selection is made vis-à-vis with other possible allocations.
- Clarify the SOFAZ mission and objectives. The decree establishing the Oil Fund explains that it can be used for the “socio-economic progress of the country” and for “solving the most important national problems.” Detail mission and objectives are recommended to be settled on.
- Develop flexible strategy to provide higher returns on investment.
- Apply benchmark indexes for each class of assets and each active management mandate. The actual return for each asset class is then compared to the benchmark for that class.
- Develop long-term investment strategy which considers investment in both equity and securities, and set limits to the various asset classes.
- The regular (at least, annual) evaluation of the Fund's management needs to be conducted where the Fund's performance (profit, risks, ethical standards and administrative management) will be evaluated against the allocation reports prepared, and the average expectations in the market.
- The transparent selection criteria to be prepared, and the selections reports, as well the annual evaluations to be transparent to the public.
- The investment methodology needs to be prepared and discussed attracting the experts. This methodology, need to be evaluated and updated annually from the perspective of the Fund's mission only.
- The standards (financial and ethical) and administrative principles (such as preparation of the allocation report and appraisal, and evaluation principles) need to be developed based on the recommendations here and/or of different expert groups.
- The portfolio investment guidelines and the instructions for the investment group need to be prepared based on the methodology and recommended administrative principles, and applied.

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