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### PATH TO SUSTAINABILITY. TROUBLED GRADUALISM OF THE UNFINISHED COAL MINING REFORM IN UKRAINE

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**Abstract.** This paper examines the reforming process in the coal mining industry in Ukraine and analyses reform outcomes which a gradualist approach adopted to recover the industry has delivered. Ukraine's gradualist approach is addressed in the paper narrowly through the lens of rent seeking, established in the coal industry in Ukraine in the 1980s, which persisted and stretched across the highest tiers of the government after the country gained independence. By now, reform achievements turned to be much less fruitful than in other countries - proponents of gradualism, first of all CEE and FSU countries. Detailed analysis of strategic documents which define development of the coal mining sector, reveal inconsistencies all of which lead us to the conclusion that the recent reform attempts are not purposed, in fact, towards implementation unlike declared. Strategic documents are not timely consistent when it comes to defining stages of the coal mining reform and a clear implementation timeline, not speaking about agreement on all major reforming steps to be undertaken.

**Keywords:** coal mining industry, Ukraine, gradualism, rent-seeking, reforms

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## 1. Introduction

Ukraine is a country with long coal mining traditions going back to the pre-Soviet times. It was an essential backbone of Soviet industrialization which converted some eastern regions of the country into a powerful industrial hub of the Soviet Union with many key industrial enterprises relying upon coal consumption. Gradual switch to oil and gas in the Soviet time resulted in a neglect of the coal mining industry. After decades of depletion when this industry suffered under-investment and exhaustion of relatively easy-accessed coal deposits, Ukraine inherited a largely unreformed coal mining industry at the beginning of the 1990s.

Like other former Soviet Union (FSU) and Central and Eastern European (CEE) countries, Ukraine was challenged in the early 1990s to establish market economy, starting off economic and political transition. Significance of the coal mining industry as fuel supplier for decisive or “high profile” industries, - e.g. for a heavy industry, regarded in the Soviet Union as “more productive” in terms of added value generation, made a reform in this sector a critical but also an uneasy task. As of today, Ukraine lags far behind CEE and many FSU countries in reforming the coal mining sector.

Until recently, this sector in Ukraine has employed up to 248 thousand people what is more that the total num-

ber of the employees in the industry in all EU countries (DTEK 2012: 45). As a matter of comparison, the Polish coal sector employs 130 thousand people, demonstrating at the same time higher coal production results, whereas state-run mines in Ukraine alone give jobs to 156 thousand people. In terms of labour productivity, US miners are 58.7 times more productive than Ukrainian miners. While the UK produced 57.9 percent of the total output of coal mined in Ukraine, only 3.8 percent of the miners were enough to do the job (Van Zon 2003: A20). Without many additional details - be it drastic decline in production or quality of coal deposits in Ukraine, these examples are illustrative enough to describe the still heavily unreformed coal mining industry. This affects in particular thermal power plants which are important for electricity and heat production in the country. As such, unreformed coal mining sector poses a challenge for the national energy security.

At the beginning of the 1990s, the coal mining industry was in so bad condition in Ukraine that the World Bank has determined it as the source of macroeconomic instability and support of reforms of the international financial institutions (IFIs) was largely focused upon recovery of this industry. The World Bank indentified the UK as a successfull model for Ukraine in terms of the industry's rationalization to emulate (Swain 2006: 217). However, colaboration between IFIs and the Ukrainian government did not lead to a positive result. This is mainly so because initially transition theory did not give enough consideration to interdependency between economic reforms and institutional setup which frames reforms. As a result, IFIs endorsed reforms however many institutions and patronage networks were preserved from the Soviet time.

Reform pace and reform outcomes within the coal mining industry have varied across FSU and CEE countries. Reasons of different reforming outcomes are manifold, and we may search for appropriate answers in transition strategies, these countries pursued. The answer varies depending upon whether those countries were more ardent proponents of either big-bang approach or shock therapy approach (see e.g. Sachs 1994; Dehejia 2003), or gradualism in reform matters.

In terms of early reform strategies, Ukraine has been generally ranked as a country which adopted a gradualist approach towards reforms (Havrylyshyn 2007: 6). While taking a closer look, Ukraine was rather a big banger when it comes to liberalization (shock therapy approach adopted in 1994) but a proponent of gradualism in privatization, launched in 1994 (Roland 2000: 15).

Detailed analysis of why the gradualist approach was favoured in the case of Ukraine would require an in-depth investigation of determining factors, many of which are not a focal point of this paper, - be it informal institutions which persisted in the new political system and their compatibility with an established institutional setup; traditional economic behavioural patterns and so forth - aspects which we could broadly refer to as "cultural approach to economics" (Goldschmidt 2006; Goldschmidt *et al.* 2006).

This paper is not purposed to provide an analysis of *why* gradualist approach prevailed in the Ukrainian context from the onset of reforms. At least, this aspect would be touched upon only in passing. In this respect, this paper takes a sectoral view on the reforming process rather than adopting a comprehensive stance towards reform enforcement. Instead, the aim is to analyze implications of the gradualist approach in reforming the coal mining sector; analyze further reform plans as they have been articulated for the time being and explore how consistent they are towards intermediate reform outcomes and declared overall reform objectives. In doing so, the paper outlines briefly the most frequently cited advantages and disadvantages of gradualism, as they manifested themselves in reforming the coal sector in Ukraine.

Gradualist approach in the coal mining industry in Ukraine will be addressed narrowly through the lens of rent seeking issue which is one of explanations of a chronic reform delay. Methodologically this paper in handled in qualitative terms. It is based upon content analysis method focusing on sectoral state programs, energy strategies and legal acts. It is complimented by an analysis of secondary sources which include mainly energy reports and law review articles. Additionally, a process tracing method is utilized to evaluate the sequence of events, unfolded in the coal mining industry since the reform's commencement and their causal interrelations in the scope necessarily to meet the research purpose.

Of course, to analyze a reform pace in a particular industry is not an easy undertaking if the general reforming context is disregarded. To this end, general reforming progress in Ukraine will be referred to only in the scope necessarily to explain the reform stages in the coal mining industry; or the situation will be contrasted with the nearest neighboring states - mainly Russia, which provides the most meaningful comparison, but also with e.g. China in order to make reforming achievements and failures in the Ukrainian coal sector more vivid.

To be noted, coal has been traditionally mined in Ukraine not only in its eastern part - the Donbas region. Also Lviv-Volyn coal basin in western Ukraine and Dniprovsky coal basin in the central and partly southern Ukraine take a stake in the coal industry, however a minor one. This paper focuses in many aspects more on Donbas region which supplies a lion share of the total coal output in Ukraine. The latest developments in the coal sector after the outbreak of an armed conflict in the Donbas region are not considered. Seized coal mines and disrupted rail infrastructure as well as ruined parts of energy infrastructure in the war-torn region have impacted the whole industry dramatically. As the situation deteriorates further, it is not possible to evaluate the overall effect at present. To be also noted, all names of coal mining enterprises are spelled in Ukrainian in this paper, despite many of them could be more often spotted in Russian or they are translated into English originally from Russian - as e.g. DTEK Pavlogradugol.

The paper starts with a brief analysis of gradualism and big bang approaches as two alternatives of economic transformation into market-oriented economy, summing up which factors determine a success or failure of each of these approaches and how rent-seeking practices hamper a transformation process. The following chapters consider the reform efforts in the 1990s and 2000s, marking up major cornerstones of the coal mining reform. As a separate matter analysis of the strategic documents which guideline the industry's reform is conducted and anticipated reform steps are made clear and compared in terms of consistency. The last chapter concludes.

## **2. Transition paths and rent-seeking: gradualist vs. big-bang approaches**

Despite the fact, CEE and FSU countries as well as many others from the different parts of the world, embarked on transition to market economy within the last decades; no universal recipe is existent as for the speed of adjustment and the optimal sequencing of reforms (Woo 1994)<sup>1</sup>. Transition strategies delivered mixed results in practice. Some countries turned to be more successful in pursuing reforms than others. China is usually modeled as an example of successful gradualist transformation while Poland is portrayed as a successful case of reforms according to a big-bang approach.

Under a big-bang approach macroeconomic stabilization and liberalization as well as institutional transformation are undertaken simultaneously whereas gradualism advocates a phased approach. Many scholars investigated the effects of the pace of reforms upon transitional economies - be it Fischer, Gelb (1991), Sachs (1996), or Popov (2007). Predominantly scholars focused on GDP growth; while others concentrated on studying of the productivity performance and other facets of sustainable and secure development (Deliktas, Balcilar 2005; (Lankauskienė 2014; Raudeliūnienė *et al.* 2014; Vasiliūnaitė 2014; Jefremov, Rubanovskis 2015; Balitskiy *et al.* 2014; Baublys *et al.* 2014; Vosylius *et al.* 2013; Miškinis *et al.* 2013; Čepėnaitė, Kavaliūnaitė 2013).

Irrespective of what kind of economic parameter is a focus of a research, it is commonly agreed that initial economic conditions matter greatly. Thus, China is seen as having a great advantage at the onset of reforms back in 1978 (Sachs and Woo 1994; Sachs *et al.* 1999) as the country was able to transfer labour to the industrial sector, while e.g. Russia and Ukraine were deprived of this potential at the beginning of the 1990s. Major labour force has been already employed in those post-Soviet countries in the industry on the eve of reforms; predominantly at state-owned enterprises, many of which were heavily subsidized.

Conventionally, gradualist approach is viewed as more sustainable in a sense it enables mid-course corrections which smooth out negative economic effects and prevent social tension. Big-bang model, instead, makes an

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<sup>1</sup> For examples of different reform sequencing and reform outcomes see Woo's "The three lessons of reform are wrong" (pp. 281-290) in "The Art of Reforming Centrally Planned Economies: Comparing China, Poland and Russia" where he analyses reform templates in China, Indonesia, Russia etc.

emphasis on economic benefits of the transformation process becoming sooner achievable, even knowing that an initial stage of reforms results in a significant reduction in living standards. In addition to economic benefits, big-bang approach claims as advantageous because rapid changes help overcome political resistance, which appears as soon as reform results prove to be not as prompt and beneficial as initially expected. Rapidness in reform undertaking enhances coordination between reforming authorities (Murphy *et al.* 1992); and increases credibility in the reform process (Funke 1993). In a similar fashion, gradualism provides equally strong argument to pursue phased reforming process, supported by ample empirical evidence. In particular, gradualist approach poses fewer threats to political sustainability of reform (Pei 2006: 22). This is so as the ultimate number of losers from a gradual reform is limited and the state is capable to accumulate means to compensate their losses.

Irrespective of what has been postulated by both approaches, transition experience of many countries has demonstrated a rather widespread practice to combine big-bang and gradualist aspects during the transition period. In view of this, scholars started looking for explanations beyond the reform matrix: radical and comprehensive transformation vs. gradualist approach with a possibility for mid-course adjustments. In short, we could only note that “aggregate uncertainty” as Roland (2000: 12) put it about reform outcomes always accompanies reforming process and is part of an answer of why such mixed results have been produced in practice. Transformation process always implies an amount of aggregate uncertainty about reform outcomes, coupled with, according to the latter, a question of complementarities between reforms, and political constraints.

It is understandable that constraints to reform efforts are many on the way of implementation; however what, to a greater degree, determines success of a reform is whether these efforts provide for structural integrity over time, - in other words, whether they are sustainable. Structural integrity reconfigures political dynamics and may, as a result, preserve rent-seeking interests from reasserting themselves (Patashnik 2008: 2-3). Exactly for these reason, unsustainable reform efforts often fail to upset existing power monopolies and at the end unravel.

No matter which of reform alternatives is more preferable in a particular context, the question of a period of time necessarily to accomplish reforms comes to the fore. Time span for reforms under the big bang approach is clearly short. The gradualist reforming path takes much longer. In some instances, necessarily reforms are delayed for uncertain period of time, increasing adjustment costs. This is one of the key factors which together with income distribution and political cohesion conditions reform realization (Alesina 1994: 49-50).

Scholars argue that economic transition can hardly be finished if constitutional rules do not undergo a major change simultaneously (Sachs *et al.* 1999). In this case, the risk is great that reforms will be stuck at the point when further reforming steps will clearly lead to reduction of rent seeking opportunities. However, empirical evidence demonstrates that this may not be the case if for example extracted rent is low before the reform commences. Nevertheless, this effect is obvious only in the short run and under certain circumstances. For example, Chen (2008) illustrates it with Chinese agricultural reform. Since agriculture was the poorest sector of the economy that provided little rent for the government, resistance to reform was insignificant because the anticipated loss of rent was small. Besides, reform undertaking was launched in poor provinces which also has its stake in explaining why resistance to the reform was low.

As often observed, in certain cases big bang approach may be more favorable if rent seeking traditions are strong in a particular country pursuing a reform agenda. In this case, big bang reforming model reduces political resistance because the speed of reforms gives little chance for reform opponents to get organized (Krueger 1993). Otherwise reform rollback is highly possible as resistance is growing. It is the reality in many FSU countries, not in the last turn because rent-seeking traditions are more deeply rooted there than in central or eastern Europe (for comparative analysis of rent-seeking practices see e.g. Åslund 1999).

As it is often the case, private actors get involved in rent-seeking relations with governments in countries where property rights are insufficiently protected and law enforcement practice is low. In such a way, they try to reduce the risk of potential expropriation by governmental officials. In addition to avoidance of expropriation risks,

established political connections and rent-seeking ties provide an access for them to state subsidies and secure avoidance of discretionary charges (Chen *et al.* 2011: 240). As observed, incentives to engage in rent-seeking relations do not take place exceptionally in countries where encroachment of private property is a widespread occurrence. This is also attributed to the amount of existent checks and balances deemed to restrain power of local officials.

Besides country's law enforcement capability, the level of political centralization is admitted as an important factor to regulate rent seeking relations. Despite of what some scholars claim (e.g. Khan, Sundaram 2000) that not all types of rents have negative effect upon economy, a kind of a referee is needed to counterbalance governmental agencies and limit an amount of rent which they extract. For this reason, political centralization is put in interrelation with success or failure of reform outcomes. Through these lens, Blanchard, Shleifer (2001) explained for example why China gained superiority in reform performance over Russia. Strong central Chinese authority was able to set rules by which local authorities had to abide and acted as a referee alleviating the externalities between governmental agencies. This helped limit utility of rent extracting mechanisms so that private enterprises did not fall below unprofitability level. This condition was lacking in the case of Ukraine, as Chen noted (2008: 177), noted and that is why the country delivered unsuccessfull reforming outcome.

### **3. Why a coal mining industry reform has stuck in the 1990s?**

As already noted, aggregate uncertainty which accompanies transition, makes a road map in transition period, hardly feasible. Because of this fact, the pace of reform turns to be attributed substantially to a range of domestic factors. In the first half of the 1990s Ukraine was probably the only country in Europe among coal-producing countries which had not undertaken the slightest reforming effort. This occurred only in 1996 with a presidential decree "On Coal Industry Restructuring" which mandated the reforming process. That is because the mere fact of creating the Ministry of Coal Industry back in 1994 did not change the situation significantly. Before it happened in Ukraine, a start was given to the restructuring process in Russia, known as corporatization period of 1992-1994.

Like in other countries, institutional crisis precipitated the early stage of transition in Ukraine. Absent or only rudimentary developed institutions and lack of skilled bureaucracy were primary tasks to deal with while enabling transition to the market-oriented economy. Ukraine was hardly dealing with these challenges. As a final result, old bureaucracy persisted and establishment of new institutions was slow. The situation looked much better in Russia. What is equally important to note, Russian early experience in introducing radical reforms, termed as aborted big-bang (Havrylyshyn 2007: 6), was perceived as not appropriate for Ukraine; seen as "incompatible with Ukrainian peacefulness and moderation" (Åslund, De Menil 2000: 7).

In somewhat simplified manner, this could be also interpreted as confusion and lack of understanding from where to start a reforming process. What is often forgotten, economic science was more progressive in Russia<sup>2</sup>. There had been no critical mass of economists in Ukraine to launch reforms quickly. Another reason lies in the political dimension and could be interpreted as lack of consensus in the political establishment about the further political course and more strategically about the destination point - the future of the country.

In an attempt to explain why e.g. Poland or the Czech Republic did not opt for the gradualist path of economic reforms, Woo (1994: 279) argued that strategically political elites in those countries saw their future in the united Europe. Thus, they were interested to benefit from the reforms as soon as possible, conducting them quickly. In contrast to them, divergence of views existed between Stalinists and the reformers in China as for the future shape of the country. Gradualist approach was a matter of compromise promising to bring prosperous future; while a strategic consensus was hoped to be reached later. This resembles the situation in Ukraine with the only difference that Ukraine has remained a politically crisis-ridden country where this strategic consensus has never been reached, and impetus to conduct reforms was largely absent. In view of this, sectoral reforms,

<sup>2</sup> To illustrate the state of economic science, Åslund, De Menil (2000: 6) note that in Ukraine with a population of 52 million that time, there had been published only one economic journal. What is more, it was dominated by a communist doctrine

including the coal mining reform, were not a priority within 1991-1995.

### ***3.1. Selecting priorities in the light of scarce funds: restructuring and privatization***

Once the coal industry reform was launched, it targeted in the first instance closure of unprofitable mines en masse. Notably, as of 1990 there were altogether 268/6 mines/pits in Ukraine; where as a decade later their number reduced to 197/3 (Griffiths 2000: 20). Closure of mines was a rather controversial issue. Instances were not rare when mines were closed only on paper while in reality coal was continually mined. Possibilities to do so were diverse - be it transfer of mines to local municipalities which were prone to subsidize production while extracting rents, or linking of underground facilities of several neighboring mines (Swain 2006: 220). For this reason, the issue with active mines was not transparent; and the number of active mines has never been absolutely clear. This is so as mining activities could be ceased but nevertheless those coal mines remain considered as active mines. That is why, often in Ukraine while analyzing statistical data it is indicated additionally whether mines are open and in operation or not. However to obtain these data is practically impossible.

Notwithstanding how simple it might seem to close unprofitable mines, this was not the case, as a great number of mines was unprofitable but with a potential to regain profitability. And the key question was how to stimulate recovery of profitability. Finally, coal mines were put into several categories according to the production output. Some authors admit that mines were allocated into four categories depending upon economic viability while some other speak about three categories (Lovei 1998). The difference in approaches depends upon whether mines which were subjected to close with an immediate effect be considered as a separate group of mines or be put together with those whose closure was decided to be due over a medium term.

Altogether, they were 76 profitable mines placed under the first category. They were all intended to privatization. Greater part of all mines (105 altogether) with a potential to regain profitability were labeled as mines of the second category with a given one year postponement to improve performance and to be ranked as mines of the first category. Others were mines subjected to closure. The only difference was in time schedule. Around 20 mines were subjected to immediate closure while other 75 mines were intended to closure within the 3-5 years (Lovei 1998: 3-4). These are the mines of the third category which could also absorb mines of the second category if failed profitability is regained.

The closure of badly performing mines was less controversial step unlike a dilemma with mines seen as potentially profitable. That was a cornerstone where the reforming effort was renegotiated and postponed, and finally produced a series of less consequent actions in the sector. Great number of loss making mines and a fear of massive social unrest were among reasons of why so much needed reforming measures were continually postponed. To overcome resistance or, in other words, to ensure ex ante acceptability of reforms - among reformers and the population, the practice of compensating transfers is usually seen as justifiable during the transformation period (Roland 2002: 32). What this viewpoint does not count with largely is that such transfers could be a huge burden for the state budget because economic imbalances can be so heavy and would have implied great number of recipients of transfers.

Because of these unacceptable high social costs of a coal sector reform and a big number of potential recipients of transfers in a form of social payments and subsidies, one might assume, gradualist approach was opted for by many countries, including Ukraine. Even twenty years after the proclaimed independence, Ukrainian mines have remained city-forming<sup>3</sup> for 120 towns, as it has been admitted by the state (State target economic program "Ukrainian coal" for 2010-2015 (Draft) 2010), and thus still bear huge social burden.

Preliminary, the coal sector reform in Ukraine went in a direction of corporatization and creation of state-owned mining enterprises which absorbed coal mines. However, no relief came with creation of holding companies,

<sup>3</sup> For more details see - Kryvoi, Y. (2008: 232). To be noted, the so called city-forming enterprises were not necessarily built in remote areas in the Soviet Union working for natural resources or defence industries, unlike Y. Kryvoi states. At least the coal mining sector in Ukraine reveals a bit different picture with a majority of mines located in the densely populated and industrially powerful regions in eastern Ukraine, producing thereby no mismatch between production and demand centres

started in 1996. The logic of creating holding companies was not always clear. Certain mines and supportive mining enterprises were not included into the holding companies. By doing so, coal mine building segment was facing a real threat of disintegration. Coal enrichment plants were incorporated into the holding companies in a way that their loading capacity turned to be not fully in use varying from 9 percent till 90 percent (Parliamentary meeting thirty five 1997). On the average they functioned at one third of their overall capacity, according to Tatarinov<sup>4</sup>. In connection to this, he as well as other experts referred to coal industry restructuring as to not economically grounded process.

Looking back, decision makers and experts provide different explanations of why the reform has been stuck. One of them is a failure to set up clear terms and procedures of privatization, according to, in particular, Leonid Baysarov, one of the former Chairmen of the Subcommittee for Sector Development Strategy and Investments<sup>5</sup> (Melnyk 2003: 38). As he noted, Russia was able to address the problem in proper terms and much earlier than Ukraine.

Privatization in Ukraine was based upon the dispersed ownership. Empirical evidence proved that for example in case of CEE countries enterprise restructuring has been more effective if rapid mass-privatization is taking place based upon the concentrated ownership (Pohl *et al.* 1997). Unlike it, privatization of dispersed ownership type produces the situation of state capture when those having access to insider information benefit from this kind of privatization and orchestrating privatization outcomes in their favor.

By the time the coal industry reform has been launched in Ukraine in 1996, Russia had gathered experience in conducting voucher auctions and later on the so called specialized cash auctions, which were preconditioned by a required market-based evaluation and defined floor price of coal assets (Artemiev, Haney 2002: 20). These preconditions were an obligatory requirement during privatization process of the coal industry. As a result, coal mining assets passed quickly to private hands in Russia.

This process has taken up longer in Ukraine and privatization process was not prompted. As a matter of comparison, such mining companies as Krasnoyarskugol or Kuzbassrazrezugol with significant coal production output were privatized in 1997/98 and 2000 respectively, which together delivered up to 30 percent of the total coal output as of the end of 2001. To the contrast, one of the most productive mining companies Pavlogradvuhillya was privatized in Ukraine only in 2004 whereas two other mines with high output rate were given in concession in 2011. They are Rovenkyanthracite and Sverdlovanthracite.

While ownership restructuring occurred, however not in so prompt manner as in Russia, the laws lagged behind failing to provide the legal framework which the post-privatization reality required. Major flaw of early privatization wave in Ukraine was absence of legislative basis to carry out appraisal of property. The respective law<sup>6</sup> came into force only in 2001. For this reason, the price scale for purchase of coal mining enterprises was often much below their real market value in the 1990s. This gave, however not this factor alone, a free room to establishment of rent seeking mechanisms in the coal mining sector.

### ***3.2. Rent-seeking practices: quickly established and deeply rooted***

The question of why the reform was not advanced, at least at its initial stage, could only mistakenly be attributed to the turmoil occurred after dissolution of the Soviet Union and numerous challenges, inter alia of institutional character, which required a simultaneous and prompt response. Prior to it, in the 1980s a network of intermediate structures with many of them being semi-criminal was formed in the Ukrainian coal sector, purposed for rent-seeking (Melnyk 2003: 7). They appeared in the coal sector and in the adjacent industries - first of all in metallurgy and mining equipment industry.

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<sup>4</sup> Deputy Head of the Commission of the Verkhovna Rada of Ukraine for Fuel and Energy Complex, Transportation and Communication in the 1990s

<sup>5</sup> Parliamentary Committee on Fuel and Energy Complex, Nuclear Policy and Nuclear Safety

<sup>6</sup> Law "On appraisal of property, property rights and professional appraisal activity in Ukraine", No. 47, 2001

The realities of the early 1990s fostered persistence of those structures. As justly observed, relaxed reforming process creates opportunities for rent-seeking (Wei 1997: 1235). In other words, a slow pace of reforms under gradualist strategy gives time to old and new elite groups to mobilize and, if not strangle reforms, then at least to utilize reform efforts for their own ends. This reflects the reality of Ukraine where political decision making quickly became dominated by so called red directors - top managers of large-scale enterprises from industrially powerful eastern regions.

Leonid Kutchma as a representative of this group of highly ranked state officials was a prime minister in 1993-1994. Prior to his appointment he was a director of the largest Soviet missile plant “Yuzhmash”, located in Dnipropetrovsk. Notably during his time in office, governmental decrees acquired the force of law. The government was empowered to conduct legislative regulation in the sphere of ownership and tax issues, entrepreneurship, state customs policy, etc. (Law of Ukraine No. 2796-XII, 1992). In such a way Kutchma enjoyed much greater authority than any of succeeding prime ministers.

Hardly to believe that similar rent-seeking groups were not likewise rooted in the post-Soviet Russia as the government faced outright resistance from the side of regional state authorities, linked with lobby groups with a background in coal industry<sup>7</sup>. This notwithstanding, the government managed to push, step by step, the reform through, emphasizing a strong commitment to reform the industry. Ukraine has failed to remain strongly committed to the reform. Partly this is because resistance to early reform efforts of the coal industry was really strong among different interested groups tied with bureaucratic apparatus.

Cumbersome bureaucracy become another hindrance to the coal industry reform, administrated by the sector ministry. Besides, the persisted old-style bureaucratic logic or in other words “overabundance of continuity in the Ukrainian establishment” (Åslund, De Menil 2000: 6) was a general characteristic of the country. Instead of pushing for a reform, the ministry was intended to keep operational authority over the sector and did not favor its shrinking. That’s why, to give reform leverage fully to the hands of the ministry, has been widely seen as a mistake (Lovei 1998: 7).

Every new step in reorganization of the coal industry was done with almost every new state official appointed on higher positions in the sector in order to ensure appointment of loyal management of mining companies. Compounded by this fact, the structure of coal mining enterprises was repeatedly reshuffled. As many experts admit, this has also helped cover up financial crimes easily. The fact they took place gets confirmed by the audit results of the Accounting Chamber of Ukraine embracing the years 1996-2002. According to the released audit report, the total amount of illegally spent budget funds in the coal sector equaled UAH 154.5 million, while additional UAH 157.7 million were declared as ineffective spending (Partach 2004: 6). This is a clear evidence of a deeply rooted rent seeking in the industry which with years has only exacerbated.

Starting with the 1990s, rent seeking practices stretched across the highest tiers of the government. To confirm this, one could mention at least the fact that Yukhym Zvyagilsky, one of the top managers in the coal sector from Donetsk region, was a vice prime minister in 1993 and an acting prime minister within September 1993-June 1994<sup>8</sup>. Afterwards he has been a member of the parliament of all convocations till presently. For many years already, he is known as an unofficial or shadow mine manager of Zasyadko coal mine which gives up to 30 percent of the total output of coking coal in Ukraine. What is more, Y. Zvyagilsky is considered to be one of the most influential and reputed persons of Donetsk region; one of the founders and informal leaders of the so called “Donetsk clan”.

Under unofficial or shadow management meant here is the established phenomenon of the so called “curators”, who de facto maintain control over state-owned coal mining enterprises and who are tied with top-level bu-

<sup>7</sup> In connection to this, Artemiev and Haney provide an illustrative example of the creation of the company Vostsibugol back in 1992 which was planned to consolidate surface mines in several Russian regions (2002: 13). Irkutsk oblast administration, which was a stakeholder in one of the mines scheduled for consolidation, managed to delay the process until December 2000

<sup>8</sup> In autumn 1994 he was accused of embezzling state funds. To avoid prosecution he had been living out of Ukraine until 1997



reocracy or are themselves part of the bureaucratic apparatus. One of the most frequently cited example is Luganskvuhillya coal mining enterprise which for many years wins state tenders in a consortium with companies, affiliated with Olexander Efremov (Ryasnoy 2014), who started his political career in eastern Ukraine. He was Deputy Head of Donetsk Oblast governor in 1997-1998, and headed the Donetsk Oblast State Administration within 1998-2005<sup>9</sup>. Such examples are plenty. All similar cases point to the fact that rent seeking has become deeply rooted in the coal sector in Ukraine. The way the situation with a reforming process developed brings us to a conclusion that many players on the coal market have been more interested to maintain the status quo rather than to conduct a reform striving for transparency in the coal sector.

In a situation like that, it was not an easy task to push the reform through with a multitude of highly influential interested parties backed up politically, eager to absorb attractive state assets, or at least profit from them, while they remain state property. Unsurprisingly, manageability of the coal sector was difficult. Donbas-based mine directors, trade union leaders and local authorities sided to resist the reform. These local networks were so strong that Regional Associations in the industry assumed the role of the planning and price regulation authority. They had the upper hand in controlling the industry while the Donetsk Oblast Administration had nothing else but to acquiesce (Swain 2006: 219).

Only partly synchronized action between state authorities empowered to conduct a reform jeopardized the situation in the coal industry further. As a final outcome of tough negotiation process between the government and the parliament, a drop in originally planned financing was not a rare occurrence. Reduced flow of state funds for closure of unprofitable mines exemplifies this statement vividly. One of estimates says Ukrainian coal sector required UAH 8.799 million in order to close down mines and pits in 1995-2002 but only UAH 3.188 million was disbursed (Partach 2004: 6).

This managerial approach has not evolved much with time, and the coal sector continued suffering from the chaotic fiscal policy. Output volumes and coal prices for power generating companies had been subject to strict state regulations. To somehow stabilize the situation, barter transactions were allowed and soon became a widespread practice in the coal industry. The share of barter operations in the coal sector alone was reported to reach 80 percent and within some mining companies - up to 90 percent (Parliamentary meeting thirty five 1997). This situation has been observed for years, however a major change occurred after the reform of the electricity sector in the early 2000s which was also suffering from the non-transparent barter deals. In what follows, we will analyze whether the 2000s have been more fruitful and consistent in terms of reform outcomes.

#### **4. Stumbling reform attempts in the 2000s**

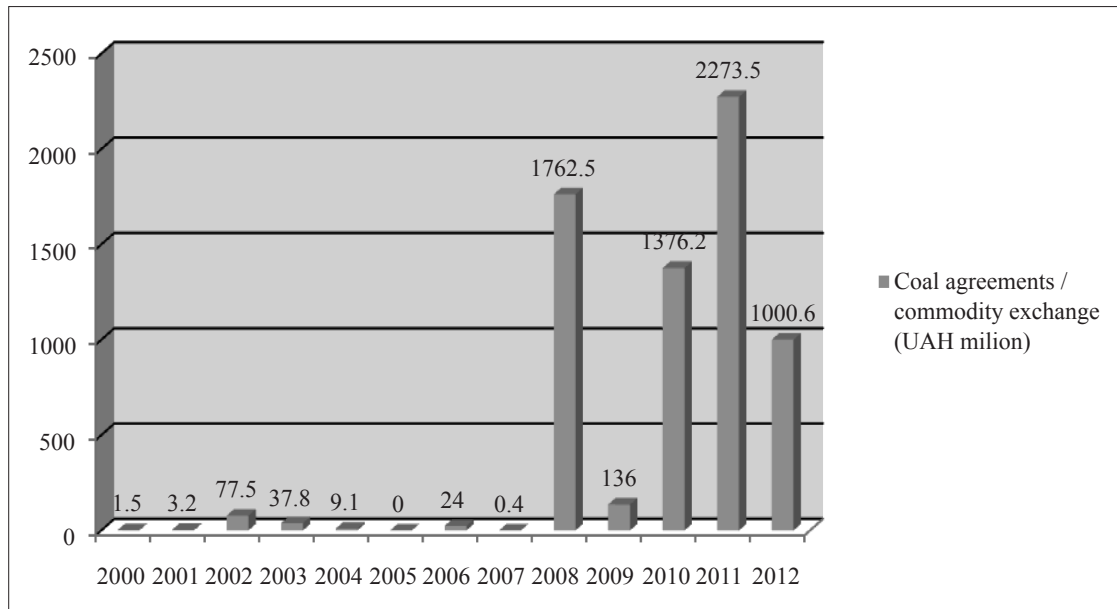
Ongoing efforts to establish transparent and competitive environment in the coal sector were continuously taken in the early 2000s, articulated, first of all, in the State Program "Ukrainian Coal". This program has set priorities for the industry up to 2010; nonetheless it has never been implemented or funded in the full scope. At least this was an attempt to provide a strategic vision and a consistent plan of action in terms of concrete measures to reform the industry. Later enacted legal acts introduced changes in the course and pace of the industry's reforming, initially defined by this program. Generally seen, functioning of the coal sector has never been fully in line with the existing legislation which put into question law enforcement in the country.

For example, barter transactions were continuously spread at the beginning of the 2000s. As of 1999, barter transactions accounted for 46.8 percent whereas in 2003 they were reduced until 9.8 percent (Ministry of Energy and Coal Industry of Ukraine 2003). This notwithstanding, barter deals were used for a while even after they were abolished by law. Unlike expected, subsequent abolishment of barter transactions did not trigger development of the commodity exchange system in Ukraine in the 2000s (Figure 1); and the role of the commodity exchange remained modest.

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<sup>9</sup> He has been a member of the parliament since 2006. After V. Yanukovich was elected president of Ukraine in 2010, O. Efremov has become the head of the Party of Region's fraction in the parliament

Like in the 1990s, the 2000s delivered half-baked reform measures. In autumn 2000 Yushchenko-headed government tried to spread positive results of energy sector reforming over the coal mining sector, however, with very limited success. The Vice Prime Minister Yulia Tymoshchenko blamed “shadow clans” as a major resisting force to conduct a reform (Egorov 2003: A36). In a final outcome, reform measures were characterized by vague preparation and an unrealistic time schedule.



**Fig. 1.** Coal agreements concluded at the commodity exchange (2000-2012)

*Source:* author’s compilation based upon Statistical yearbooks: “Ukraine in figures 2007” (p. 157), “Ukraine in figures 2010” (p. 157) and “Ukraine in figures 2012” (p. 154), State Statistics Committee of Ukraine

The idea to subgroup all mines into profitable and potentially profitable, which could be subject to further asset consolidation within coal mining enterprises, was revived. However, with corporatization be finished within 6 months or in other words, be over in early January 2005, one could argue, this plan has set unrealistic implementation terms anew (Presidential decree No. 752, 2004). Disregarding previous unsuccessful experience in terms of meeting deadlines, one may conclude, the decision concerning the future of loss making coal mining enterprises was hastily taken.

The same presidential decree prescribed closure of unprofitable coal mining enterprises is due within the following 2 years - by July 2006. Later on, closure of mines was accelerated (Resolution of the Cabinet of Ministers of Ukraine No. 1427, 2004), and a more unfeasible deadline was set - the end of 2005. In this way, scheduled closure was shifted for a number of mines 6 months earlier before the original timeline (Partach 2004: 8).

Not rarely taken decisions were controversial and were revoked, once the government was reshuffled. This was also not a rare occasion that every new governmental reshuffling led to a new setup of central executive authorities. One more reorganization occurred in 2005, when the Ministry of Coal Mining Industry was created (Presidential Decree No. 1123, 2005), having been previously part of the Ministry of Fuel and Energy. Assumingly, one of the pursued purposes was to improve effectiveness of coal industry restructuring. Development and implementation of the Energy Strategy until 2030 (hereinafter, Energy Strategy) analyzed below, is the best illustration of how successful, if at all, this plan has become.

Frequent revoking of taken decisions signalizes clearly lack of political succession. Thus, for example, in 2001, Kinakh’s government introduced substantial changes to the program “Ukrainian Coal”. It was a lasting bargaining until the program was approved. More than that, the new government stopped the program of auctions, proposed by the former prime minister V. Yushchenko. All these changes were closely linked with reshuffling

in the Ministry of Fuel and Energy. Thus, in particular, the position of the Donetsk clan was significantly strengthened after Mykhailo Krasko, director of Makiyevvuhillya coal mining company, was appointed the Head of the Coal Department of the Ministry (Egorov 2003: A37-A38).

More than that, for the last ten years reference to “predecessors”<sup>10</sup> became a well established tradition in Ukraine, meaning refusal of top ranked politicians and top-level bureaucrats to take over responsibility and an intention to blame the previous political force in power of all ongoing hardships. This takes so hypertrophied forms as an articulated need to start reforming efforts (almost) from the scratch, declaring steps of the previous government as wrong or unhealthy for the economy.

Little change has been observed till presently. As one of the reputed media in Ukraine remarked while commenting on the forecast of economic and social development of Ukraine in the years to come, released by the government in the summer 2014: “In a course of time other people come to power and simultaneously genius heritage of “predecessors” is discarded. In a while the same people (and who else?) start preparing new programs and forecasts. Yatsenyuk-headed government demonstrates adherence to [these] long-lasting traditions” (Kalatchova, Lyamets 2014).

A rather fresh example from the coal industry of when political decisions are not a matter of consensus, but are guided by some other rationale, is the wholesale market operator “Coal of Ukraine”. In 2013, this state enterprise was announced for liquidation which was to be due by 2015. This decision was revoked in 2014, after the new government was appointed as a compromise of the enduring political crisis. Addressing the liquidation issue, it was explained as a step which would put coal mines deeper below the profitability level, if the decision is not revoked. This is so because some private companies “close to the previous political force in power” were claimed to have penetrated the coal market in a couple of last years thereby profiting immensely from coal deals buying coal at possibly low prices and reselling it to power generating companies (Obozrevatel 2014).

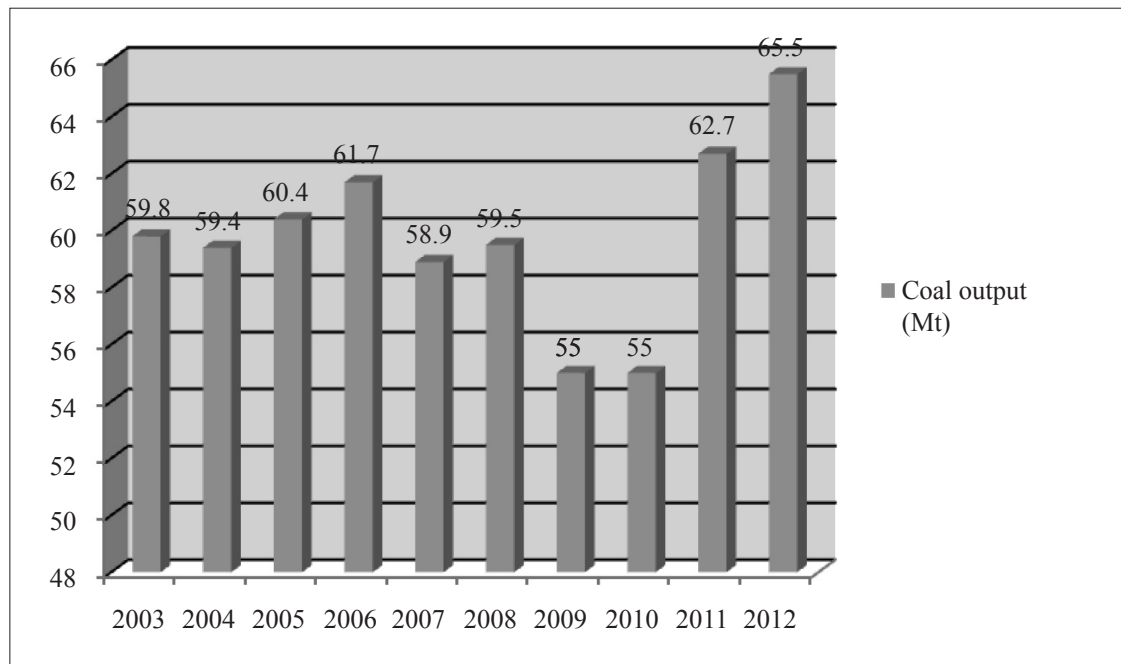
#### ***4.1. Ongoing privatization of coal mining assets***

Ineffectiveness of the unreformed coal mining sector has been further increased during the 2000s. The coal output in the 2000s fluctated (Figure 2). The output increased in the recent years after the downfall in 2009-2010, when economy was severely hit. As an illustration, the level of ineffectiveness of state-owned mines becomes more pronounced if compared with for example only mines owned or taken into concession by DTEK, one of the largest players in the post-Soviet coal market and the European anthracite market, which are 31 altogether. As of 2013, market share of DTEK in the coal mining sector in Ukraine was 47.8 percent and the coal output totalled 41.4 Mt (DTEK 2013: 11). As of 2012, the market share was slightly less - 46.1 percent while coal output equalled to 39.7 percent (DTEK 2012: 10). In other words, 31 mines produce almost the half of the total country’s coal output compared to over one hundred mines, owned by the state.

Independent evaluation of assets and privatization were continually required at the beginning of the 2000s as a systemic measure to progress with a reform. However, taken measures appeared not to be sustainable and privatization prompted criticism. Insufficiently advertising of tenders, suspicions for bias nomination of bidders and subsequent unfair selection of bidders did not play in favor of privatization process to be regarded as transparent. These were the concern raising issues not only in the first half of the 2000s. During the second half of the 2000s, at the time of premiership of Yulia Tymoshenko, a new tender procedure was introduced. Namely, tenders with one pre-selected participant become possible. This enabled the government to favor the preferred companies and distribute contracts to them. In 2008 alone, almost half of all tenders with a total amount of up to 10 USD billion were conducted under this procedure (Nayem, cited in Kudelia 2012: 425) with the Industrial Union of Donbas being one of major beneficiaries.

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<sup>10</sup> Written in Ukrainian but pronounced with wrong Russian accent - “paperedniki”. This is a kind of a mockery over Russian speaking Ukrainian politicians with poor command of Ukrainian



**Fig.2.** Coal output in Ukraine (2003-2012)

*Source:* author's compilation based upon Statistical yearbooks "Ukraine in figures 2007" (p. 71) and "Ukraine in figures 2012", State Statistics Committee of Ukraine (p. 68)

This is a matter of question, whether the interested parties struggle over who will be able to privatize coal mining assets or the purpose was to retain them seeking while maintaining control over those assets until they remain state property. In many instances the second option is a more attractive scenario in view of imposing no obligations upon management or requiring no significant investments to upgrade the mines. Many coal mining enterprises in present-day Ukraine are state owned but this is only *de jure*. *De facto* they have been maintained for years by the so called "curators", as already mentioned. Another prominent example, besides Luganskvuhillya mining company, is the state-owned coal mining company Lvivvuhillya which have not fully transparent relations with System Capital Management (SCM)<sup>11</sup> - Ukraine's largest diversified business group while supplying coal to thermal power plants owned by SCM. State-owned coal mining enterprise Makiyevvuhillya cooperates closely with the Donetsksteel Group, a major producer of high-rank coking coal concentrate, coke and metal products, of Viktor Nusenkis (Ryasnoy 2014).

Besides numerous cases of political tension during the 2000s when the coal sector was largely abandoned to its miserable fate despite some taken steps, another explaining factor might be non-crystallized interests of Ukrainian private energy companies by the mid 2000s to acquire coal mining assets in Ukraine. The example of SCM is more than illustrative. In order to secure a position on the metallurgical market, SCM Chief Executive Officer Oleg Popov articulated purchase of coal mining capacities abroad as a necessary step. Intended to do so, the company was not ready to report back in 2005, whether expansion plans will focus on Ukraine, Russia or far abroad - such as Australia. Mr. Popov openly admitted that as of 2005 the company's coal market strategy was not finalized (Maskalevych 2005).

This, however, should not be interpreted as reluctance of domestic investors to privatize the most lucrative Ukrainian assets in the coal industry. The most profitable coal mining enterprises as Pavlohradvuhillya and Krasnodonvuhillya were privatized by companies of SCM. Pavlohradvuhillya (10 mines) is one of the biggest coal mining enterprises in Ukraine (thermal and coking coal). It was privatized by DTEK, SCM-owned company. In 2013 Pavlohradvuhillya mined 18 Mt of coal (DTEK 2013: 13). Krasnodonvuhillya which alone pro-

<sup>11</sup> Business portfolio of SCM covers mining and metals, energy, finance, telecommunications, media, real estate and some other sectors of the economy. The group operates in Ukraine, Russia, USA, Italy, Great Britain, Switzerland and Bulgaria

duces 25 percent of coking coal in Ukraine, was privatized by Metinvest<sup>12</sup> - a subsidiary company of SCM. The fact of non-finalized coal market strategy as of 2005 had rather raised a question about the portion of foreign assets in the prioritized business model in order to secure the so called “backward integration”.

While analysing e.g. the Chinese steel sector, experts give an example of the backward integration in the former Soviet Union, which was a widely accepted practice there. Based upon the latest trends on the coal market in China, experts point out to an intention of steel companies to secure the backward integration relying upon secured supplies from abroad. Willing to have a free hand instead of being seen as just toll smelters, squeezed between customers and suppliers, Chinese companies strive to secure access to coking coal and iron ore abroad (International Council on Mining and Metals 2012: 12-13).

Pushed by the similar fear, Ukrainian steel companies favoured the same strategy, one could conclude, in particular Metinvest which acquired the United Coal Company (UCC)<sup>13</sup> in 2009 located in the central Appalachian region of the U.S. Thereby, UCC provided Metinvest with an access to coking and thermal coal outside Ukraine. This, however, does not necessarily indicate little interest of domestic investors in coal mining assets in Ukraine. But rather it speaks of securing an access to high quality coal because the coal market in Ukraine is characterized by a deficit of less sulphur coking coal. Or better to say, coking coal of the kind which meets quality demands of metallurgic plants.

Low-pace of the coal sector reform and non-transparent conditions of privatization coupled with general uneasiness to do business in Ukraine, led to acquisition of huge coal assets by handful domestic market players. In Ukrainian realities, the biggest private companies owning coal mining assets are the same having metallurgic plants. When it comes to the electricity generation market, similar reasons produced a situation of a monopolistic position with a lion share of electricity generation capacities ended up in the same hands.

Owning metallurgical capacities, private investors are interested to acquire coking coal producing mines. They are equally interested to purchase electricity generation capacity in order to have control over electricity tariffs. Facts are more than illustrative. Six major energy generating companies represent the thermal coal sector. Jointly they account for 95 percent of the country’s total thermal electricity generation capacity. Five of them are owned by DTEK. They are Skhidenergo, Dniπροenergo, Zakhidenergo, Kyivenergo, and Donbasenergo (DTEK 2013: 54). Privatization of Centrenergo, slated for 2013, was postponed.

#### ***4.2. State interventions: price regulation and quotas***

The state dominates both the thermal and coking coal market through, in particular, price regulation. “Coal of Ukraine” - a state-owned trading company which acts as a price regulator, and is in charge of purchase and subsequent distribution of thermal and coking coal from state-run mines to power generation plants. Price regulation results in subsidies to unprofitable mines at the expense of profitable ones. The key question remains how to expand profitability rate of mining companies in view of generally unfavorable geological conditions and needed extensive upgrade of technical equipment which most likely won’t keep prices low enough and avoid misalignment of coal prices and power tariffs.

In addition to price regulation, the government in Ukraine tries to improve financial standing of the state-owned mining companies while intervening on the coking coal market through introduction of import quotas. For instance, in 2013 Ukraine introduced import quotas for coking coal in the amount of 11.2 Mt. Similar initiative to limit coking coal imports in order to protect domestic producers was discussed for the year 2014, however quotas were not introduced in the final end. This measure was criticized as a potential trigger which might worsen trading relations with Russia, major importer of coking coal to Ukraine. Coking coal from Russia is more expensive for Ukrainian steel producers as Ukrainian coal is subsidized. A clear evidence of that is initi-

<sup>12</sup> Metinvest is an international vertically integrated steel and mining company owning assets in Ukraine, Europe and USA

<sup>13</sup> UCC is ranked the 6th among the leading producers of thermal coal in the United States, according SCM. Total production capacities of UCC amount to approximately 9.2 Mt per annum. For more information visit [http://www.metinvestholding.com/en/activity/raw\\_iron](http://www.metinvestholding.com/en/activity/raw_iron)

ated, upon request of Russian metallurgic companies, an anti-dumping investigation regarding supply of some steel products from Ukraine, launched by the Eurasian Economic Commission in 2013 (Remazhevskaya 2014).

Protectionism measures to improve financial standing of the state-owned mining companies are only one side of the coin. The other side is a coal quality issue. As noted, Ukrainian coal market is characterized by a deficit of coking coal. Metallurgic plants are the biggest consumer of coking coal and need around 30Mt of coking coal per annum, while domestic producers provide less than 20 Mt. Insufficient volume of coal supplied by Ukrainian mines is not the only problem for metallurgic industry in the country, but its quality. Ukrainian coking coal is high-sulphur and worsens steel quality, if used. Pulverized coal injection method, which has been recently installed at many steel plants, because of high gas prices, requires coking coal of better quality; otherwise steel products are less competitive on the global market. This puts steel plants in a deeper trouble after demand of steel products had decreased globally.

## 5. Strategic mismatch: official documents about the coal sector reform

Throughout the 2000s, the coal mining reform has not progressed much until adoption of the Energy Strategy of Ukraine until 2030 in 2006. This was a clear benchmark for the industry's reforming. At least, in terms of setting priorities of the industry's development and taking into account trends on the European and Russian coal markets what the state program "Ukrainian Coal" was deprived of. The conclusion that trends in the coal sector on the global or at least regional scale received not enough consideration with the government in Ukraine, is drawn based upon the general analysis of Ukraine's policy making in the coal industry; but also it finds written confirmations in Ukrainian strategic documents. For example, a justification to update the Energy Strategy of Ukraine until 2030, originally developed in 2006 and revised in 2013, was given as a rather superficial approach towards developments on the global coal market and a failure "to consider them in the full scope" while drafting the Energy Strategy (2013: 4-5).

Before proceeding with an analysis, it should be noted that the process of enactment of the updated Energy Strategy is an attention calling issue. Despite the fact, public hearings were organized to discuss the draft; one might conclude the Energy Strategy was adopted hastily as it was approved by the governmental order instead of having been approved by the governmental decree or by the law, thus being submitted to the parliament. In contrast, for example the General State Program of Mineral Raw Material Development until 2030 was enacted by the law. Undeniably, the Energy Strategy is not less relevant.

What is also eye catching in relation to this, is the fact that external experts were involved to draft the Energy Strategy. They are experts of McKinsey&Company<sup>14</sup> and experts of the Effective Management Foundation (EMF).<sup>15</sup> This fact in itself might be regarded as a wish to gain better energy market expertise and thus it is nothing extraordinary but a common practice. This could be seen in this way; if not the fact that the role of EMF, established by Rinat Akhmetov, shareholder of SCM, was more ambitious while the foundation overtook supervision over the drafting process of the Energy Strategy, as the Energy Strategy itself reports (2013: 6). This is especially notable because Akhmetov's company SCM has been a major beneficiary of the coal industry privatization process. Also, SCM is highly interested in acquiring energy generating assets, having a major stake on this market already.

This having said, we could consider it as a clear indication of incapable bureaucracy to undertake this task. Often blamed for being focused on the input rather than delivering results, we could conclude that to make an input is a kind of problematic for Ukrainian bureaucrats too, in a case of an ambitious assignment - such as drafting of the strategic document projecting developments of the key sectors of the economy for two decades ahead. In this regard it is also worth noting that the president Leonid Kuchma instructed to develop the Energy

<sup>14</sup> Experts of this company were involved in drafting process as mentioned in the Energy Strategy. To be said, the same company partook in developing of the program of economic reforms for 2010-2014 "Wealthy society, competitive economy, effective state" of the Committee of economic reforms under the President of Ukraine

<sup>15</sup> The Foundation was closed down in early 2014. It has developed other strategies and concepts of economic development of Ukraine. For more details visit [http://news.liga.net/news/politics/959245-akhmetov\\_zakryl\\_fond\\_effektivnoe\\_upravlenie.htm](http://news.liga.net/news/politics/959245-akhmetov_zakryl_fond_effektivnoe_upravlenie.htm)

Strategy until 2030 back in 2001. It took 5 next years until the strategy was finalized in 2006. Whatever the reasons, this is a clear indication of the fact, energy security has not been a priority, if only declared one, of the Ukrainian state.

Also, the earlier version of the Energy Strategy was said to be outdated because a greater majority of programs of modernization and extension of power generating capacities, anticipated in 2006, were not realized (The Energy Strategy of Ukraine until 2030, 2013: 5), and required implementation dates be moved forward or priorities shifted. This concerns not only the Energy Strategy. The state program “Coal of Ukraine” anticipated in 2001 to diminish dependence upon imported coal and gas; increase total coal output to 110 Mt in 2010. As for imported coal, it was planned to stop imports as soon as in 2002, as Uryadovy Kurier reported (cited in Egorov 2003: A38), what did not happen as it was clearly a miscalculation, incoherent with the market situation. In view of this, one could hope not to come across miscalculations of this kind in the updated version of the Energy Strategy. This was not the case, however, starting even with the most general parameters.

In overall, Ukraine’s share of total world’s proved reserves is rather modest being not more than 4 percent. Its total proved coal reserves are estimated to be 33873 Mt or exactly 3.8 percent of total global proved reserves (BP Statistical Review of World Energy 2014: 30) at the end of 2013. Notably, only 6.1 Bt<sup>16</sup> of coal are reserves of active mines (DTEK 2013: 42). It is of a note, the Energy Strategy treats figures in a somewhat different manner.

Instead of giving the amount of economically minable reserves, the Energy Strategy indicates only the total coal resources, estimated at 56 Bt which will be enough to last Ukraine for over 400 years at a current production rate (The Energy Strategy of Ukraine until 2030, 2013: 64). More than that, the Energy Strategy also includes the forecasted resources in the amount of 117.5 Bt, not being specific about what kind of resources are included into this estimation.

The Energy Strategy relies upon these figures in projecting development trends of the coal sector in the country for the coming almost 2 decades. This could be interpreted as nothing else but a refusal to face the reality. Not being objective enough even about proved reserves estimations might be a starting point for other miscalculations as for the perspectives of the Ukrainian coal sector under the given market conditions.

The Energy Strategy envisages three scenarios ranging from a pessimistic and baseline to a positive one. Optimistic scenario predicts 6.4 percent of GDP growth whereas baseline scenario counts with 5 percent and a pessimistic scenario - with 3.8 percent of annual GDP growth (The Energy Strategy of Ukraine until 2030, 2013: 7). At this point, it is clear that already now Ukraine performs even below the pessimistic forecast (Table 1).

Of course, on the one hand, GDP growth is important to be taken into consideration in order to project economy’s demand for energy resources. But on the other hand, it is equally important to take a look at restructuring measures because unreformed economy could dwindle down positive effect from any GDP growth and slow down this growth itself. As Martin Raiser, head of the World Bank mission to Ukraine, straightway observed, while commenting on the comprehensive program of economic reforms, released in 2010 touching upon also the coal industry, “Targets such as GDP [...] however, not directly controlled by the government, and are rarely used in Western European countries. It is important to look at operational targets which the government controls” (Stack 2010).

Operational targets in terms of overall coal output range between 86.2 Mt to 114.5 Mt in 2030, depending upon a scenario. Remarkably, output figures are the same for thermal coal and coking coal in baseline and optimistic scenarios (except for the output of thermal coal in 2020 and 2025) however they presuppose different rate of GDP growth. Besides, priority is given to development of coal-based technologies in view of high gas prices.

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<sup>16</sup> Of these reserves, 3.5 Bt are steam coal and 2.6 Bt coking coal

At the same time it is noted, all the elaborated scenarios count with a positive effect from de-shadowing of economy. This is one more point which raises skepticism as similar targets have been announced many times already but having brought no visible results. Besides, seriousness of this intention might be called into question, because fighting of the illegal coal mining is neither articulated in the Energy Strategy as a goal to reach, nor there is any mentioning of this problem at all. But this problem is well known. Each year illegally mined is roughly 6.5 Mt (what makes about 10 percent of officially mined coal) and is available for sale in Ukraine (Crag 2013). This topic is in the focus of many reputed Ukrainian and foreign media. Many industry experts comment on the coal-mining racket and illegal mining regularly (Cragg 2013). These notwithstanding, state authorities turn a blind eye on the problem.

**Table 1.** Forecasted coal output until 2030

Balance sheet item	2010	Forecast (Mt)			
		2015	2020	2025	2030
<i>Baseline scenario</i>					
Overall coal output, including:	75	<b>85.1</b>	99.8	106.1	<b>114.5</b>
- Coking coal	24	<b>27.3</b>	<b>31</b>	<b>35.2</b>	<b>40</b>
- Thermal coal	51	<b>57.8</b>	68.8	70.9	<b>74.5</b>
<i>Pessimistic scenario</i>					
Overall coal output, including:	75	81.1	88.4	87.8	86.2
- Coking coal (коксування)	24	24.4	24.3	25.6	26.6
- Thermal coal	51	56.7	64.1	62.2	59.6
<i>Optimistic scenario</i>					
Overall coal output, including:	75	<b>85.1</b>	97.1	103.9	<b>114.5</b>
- Coking coal (коксування)	24	<b>27.3</b>	<b>31</b>	<b>35.2</b>	<b>40</b>
- Thermal coal	51	<b>57.8</b>	66.1	68.7	<b>74.5</b>

*Source:* Author's compilation based upon the Energy Strategy of Ukraine until 2030 (pp. 18-19)

This hardly correlates with an intention to be consequent in order to attract investors. However, the need to provide potential investors with the full information about the general condition of the coal mining sector and particularly to inform them about geological and economic conditions of mining companies and well as their credit history is directly articulated in the Energy Strategy (2013: 68). Besides this, even such basic thing as the exact number of state-owned active mines in Ukraine is a matter of question. The Energy Strategy evades answering the question. Reliable statistical data is hardly available because many mines are under liquidation procedure or out of operation de facto. At least industry experts, e.g. head of the Independent Trade Union of Miners Mykhailo Volynets relies, according to him, upon the statement of the Head of the State Property Fund – Olexander Ryabcheno who admitted in 2013 that there are 113 state-run mines in Ukraine (Ganus 2012).

At the same time, privatization of mines is widely seen in the Energy Strategy as the only recovery measure for the industry. In view of this, the state is not able to ensure sufficient capital investments. As a matter of illustration, the total amount of investment into the industry was USD 53.8 million in 2013 (compared to USD 56 million in 2012); whereas capital investment into DTEK's coal assets reached USD 527 million in 2013 (DTEK 2013: 23).

Despite privatization is seen as a major way out for the industry's recovery, because, as already said, the state is not able to keep the existing mines operational as well as provide capital expenditure for new mining capacity, privatization is regarded differently in strategic documents. For example, the Energy Strategy anticipates restructuring of the coal sector and privatization of coal mines irrespective of their profitability level by the end of 2015 (2013: 73-74); while the program of economic reforms for 2010-2014 "Wealthy society, competitive economy, effective state" (hereinafter, the Program of Economic Reforms of 2010) outlined privatization



process of potentially profitable mining companies to be completed by 2014 (2010: 64).

The same program plans restructuring of unprofitable coal mines, which have no chances to regain profitability, by 2016, unlike the Energy Strategy which stipulates this category of unprofitable mines to be closed by 2015 (2013: 73). At the same time, the Energy Strategy points out to the budget deficit while designating preparation period of no less than 5-7 years for the liquidation procedure and closure of loss making mines. Keeping in mind, that the Energy Strategy was approved by the government in 2013, restructured coal industry by 2015 seems to be a highly unrealistic objective.

Subsidies to the coal mining sector are one more controversial issue, differently addressed in strategic documents in terms of projected restructuring plans. Whereas the Energy Strategy envisages subsidies be reduced at least by 20 percent annually with no support from the state budget in 5 years (p. 69), the Program of Economic Reforms of 2010 predicts reduction of subsidies to the state coal mining enterprises by 80 percent until 2014 (2010: 64). Again, the Energy Strategy was enacted in 2013. Reduction of subsidies by 80 percent will take place in 2017, whereas the Program of Economic Reforms of 2010 has set the deadline for 2014.

Besides, inconsistencies between strategic documents in terms of the amount of gradual reduction of subsidies, the rules to qualify for state subsidies were a subject to a frequent change, favoring, as one could conclude, different rent seeking groups. What is striking, the procedure of spending state funds to cover losses of coal mining enterprises was many times revised even within the short period of time. Only during 2011 the aforementioned procedure was amended 7 times.<sup>17</sup>

## Conclusions

At the beginning of the 1990s Ukrainian coal mining sector was largely economically unviable sector with high social liabilities and decisive steps were urgently needed to reform the industry. This notwithstanding, they did not follow quickly. Partly the reason is that consequences of shock therapy measures in the neighboring Russia distracted Ukraine from quick transformations and found more supporters of the so called “go-slow” approach. As a result, Ukraine adopted a gradualist approach to the coal sector reform.

Certainly, some reforming steps were taken, but there has been no sustainability in the reform steps and as a result no breakthrough in terms of making the industry healthier, getting rid of the burden, - in many aspects inherited from the previous decades. This led to a further increase of the gap between Ukraine and other gradualist countries in the region in terms of reform achievements in the coal mining sector. Not in the last turn, it is proliferated rent-seeking which delivered rather modest reforming results. With rent seeking traditions having been traditionally strong in Ukraine, the gradualist approach to the coal mining reform resulted in this country in what scholars predicted (Krueger 1993) - rent seeking groups used a chance to get organized and start exercising political resistance to profound reforming effort in the coal sector.

The way the reform has unfolded, however having been by far not finished, delivered more and more arguments which permit to regard Ukraine’s approach towards a coal mining reform, at least by now, as an unreformed status quo rather than to term it continuously a gradualist approach. As Roland (2000) advices, we should speak of “an appropriate period of time” which is enough to see reform results. More than two decades is plenty of time to witness certain reform outcomes, which however are by large not in place.

As an analysis of the industry related strategic documents reveals, stalemate is obvious not only in the realm of implementation, but also during the planning stage. Reforming process is cumbersome that is often marked with controversy; not being purposed towards removal of rent seeking opportunities in the industry. What has been originally planned becomes many times fine tuned and implementation dates have been frequently moved further. That is why the reforming process lacks so much needed predictability, demonstrating inconsistencies between set priorities and unrealistic targets. It concerns, for instance, lack of consistency between the Energy

<sup>17</sup> Amendments to the parliamentary resolution (No. 153, 23 February 2011) which detail this procedure were introduced in March, April, July, September and 3 times in October within only 2011

Strategy, the Program of Economic Reforms of 2010, the state sectoral program “Coal of Ukraine” which anticipates privatization plans and in overall restructuring of the coal industry not coherently.

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