

Russian-Ukrainian Gas Conflict Case Study

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ABSTRACT

The following paper examines the ongoing gas conflict between Russia and Ukraine. Europe have become collateral damage, as large part of the natural gas destined for the EU pass through Ukraine. Numerous precursors preceded the crisis; nevertheless, some countries have not taken steps in advance to mitigate consequences. Failing to adopt a wide perspective, both timely and structurally wise, can lead to major crises. This research analyzes the lifecycle of this crisis and focuses on the evolution of crisis' variables. Causal Loop Diagrams are built to represent the structure that possibly originated this crisis. The information gathered here could also be used as an input for future modeling and simulation exercises.

1- Introduction

The following research gathers a set of variables (cultural, legal, economic, etc) that have direct relationship with the ongoing Russia-Ukraine gas conflict. This paper aims to shape the patterns of events that could potentially be used for preventing future conflicts or minimizing their consequences.

In this particular crisis, the involved agents focus on particular events such as gas cut-offs ignoring the evolution of variables such as the friction between parties or the vulnerability of the system. We present the existing interdependencies between Russia, Ukraine and EU in the gas sector and analyze how failing to adopt a wide perspective, both timely and structurally wise, can lead to major crises.

This paper relates this ongoing conflict with the crisis lifecycle proposed by Coombs (Coombs, 2007). Coombs defines the lifecycle of crises through a three stages approach: *Pre-Crisis*, *Crisis* and *Post-Crisis*. The first one is a period when warnings

and signals take place before the Crisis phase. The second one concerns a series of events which provoke a critical change. Finally, during the last phase the safety level must be restored and managers should learn to improve their future crisis management.

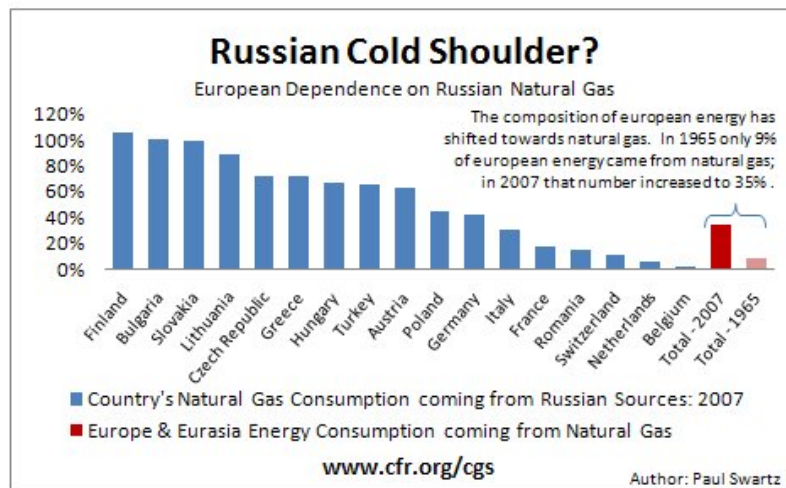
The graphical representation of the crisis lifecycle of this conflict eases the understanding of the evolution of different events which occurred during a period of 17 years.

The aim of this paper is not to make a real simulation of the conflict but to highlight the aspects that should be analysed in following studies. Some of these aspects are described next: cross borders' issues, cultural issues, interdependences between countries, the relevant variables' evolution such as friction and government tendency (the interaction between them), etc.

2- Gas Sector Interdependence

According to the *Laboratoire d'économie de la production et de l'intégration Internationale (LEPII)* (Finon & Locatelli, 2008) the gas distribution industry is a heavily dependent sector. 40% of the gas imported to Europe in 2006 was acquired from Russia, while Russia is expected to export 71% of its gas to the European Union in 2010. Figure 1 shows additional facts that illustrate the dependency that European countries have on Russian natural gas. For example, Finland, Bulgaria and Slovakia depend nearly 100% on Russian gas. Further complicating the picture, 80% of the gas sold by Russia to the European Union crosses Ukraine.

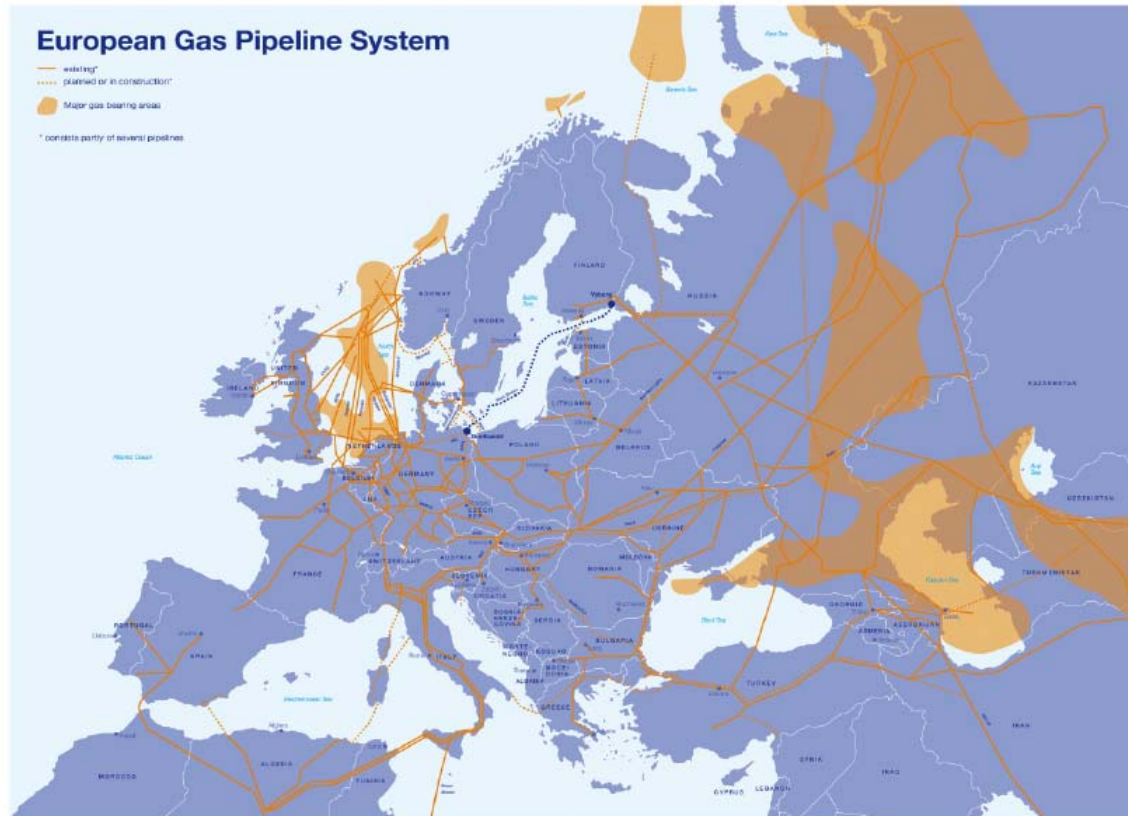
Figure 1: Dependency on Russian Natural Gas



Taking into account the facts mentioned above there is not doubt that the gas industry constitutes a network of interdependent entities in which variables such as friction between countries as well as cultural, political and economic differences could have widespread and unanticipated consequences, impacting other dependent countries, and possibly transcends borders. In this particular case, the conflict between Russia and Ukraine occasioned gas cut-offs that affected European countries.

As it can be observed in figure 2 (Müller and Vasilyeva, 2009), Europe has an extended pipeline network reaching 7,000 kilometers and its routes are continually expanding. However, its dependency on Russian gas is still really high.

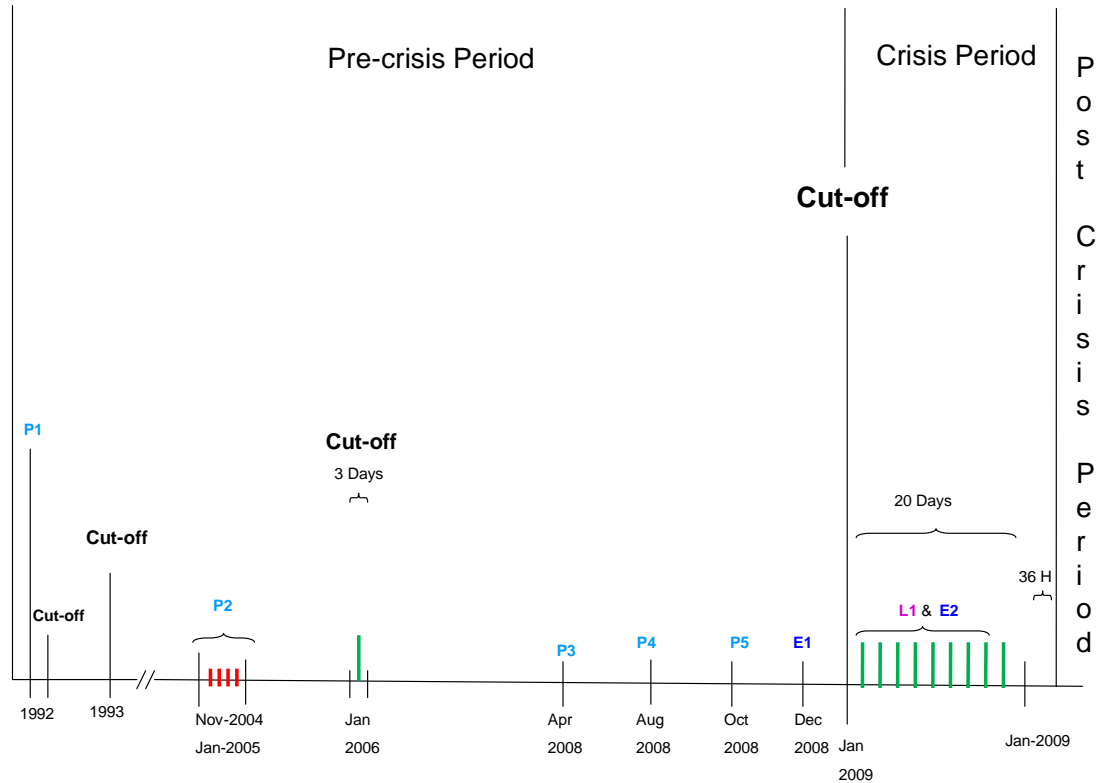
Figure 2: Existing and propose pipeline in Europe



3- Background and Analysis of the Conflict

Figure 3 presents the *pre-crisis*, *crisis event* and *post-crisis* of the Russian-Ukraine gas conflict, focusing on the main factors that caused friction between both countries. As it will be seen throughout this research, crisis precursors could be of the same nature (cutoffs) or from different nature (political, cultural, economic or legal) issues. Furthermore, while some precursors are easily perceived and associated with the impact of the crisis, there are others that are undetected and/or ignored.

Figure 3: Evolution of events



Political precursors

P1 USSR Collapse (January 1992)

P2 “Orange Revolution” movement during Ukraine Presidential elections, where Yushchenko, a pro-European candidate, was poisoned at the end of segment 2

P3 Russian Government refused Ukraine NATO bid (April 2008)

P4 Ukraine supported Georgia in Russia-Georgia conflict (August 2008)

P5 Ukraine denied renewing the leasing of Crimean port in October 2008, where the Russian fleet stays for more 200 years

Legal precursors

L1 Russia accused, no formally, Ukraine of stealing gas

Economical precursor

E1 Ukraine’s debt with Russia (2 billion dollars)

E2 Gas Price disputes

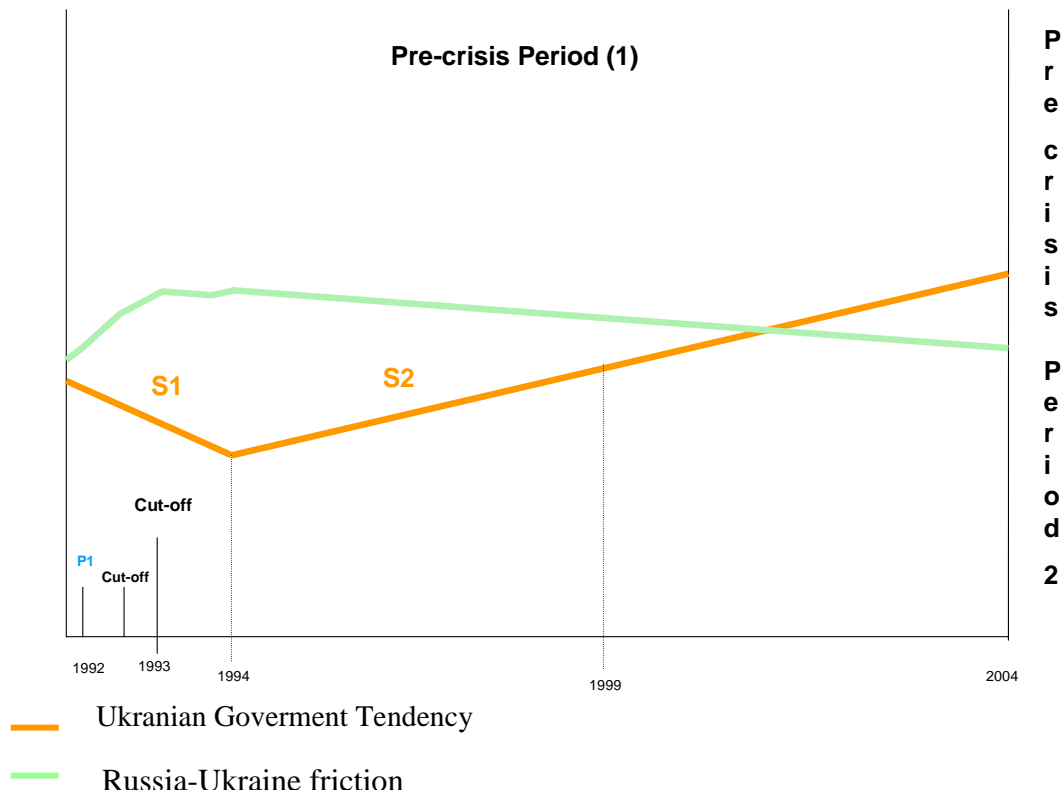
3.1- Pre-Crisis Phase (1992-2009)

This conflict’s pre-crisis phase includes the series of events from 1992 when the USSR collapsed and the Ukrainians voted a pro-European government (Ukraine’s Central Election Commission, 1994-2004), to the 1st of January 2009 when Russia cut the gas supply to Ukraine. This pre-crisis phase has been divided in 3 segments to a better understanding due to the large number of events.

Segment 1 (Fig. 4): Represents the period between the collapse of the USSR and the Presidential elections of 1994, when Leonid Kuchma, Leader of the Communist party (pro-Russian) won.

Figure 4 shows the three major events that took place in this period. First, the collapse of the USSR entailed the independence of Ukraine from the former Soviet Union, moving away from Russia and increasing the friction between these two countries. The other two important factors were 2 cut-offs in 1992 and 1993. Thus, there could be some correlation between the independence of Ukraine which increases the friction between countries and the two interruptions of gas supply.

Figure 4: Pre-Crisis Period 1 (1992-2004)



Political precursors

P1 USSR Collapse (January 1992)

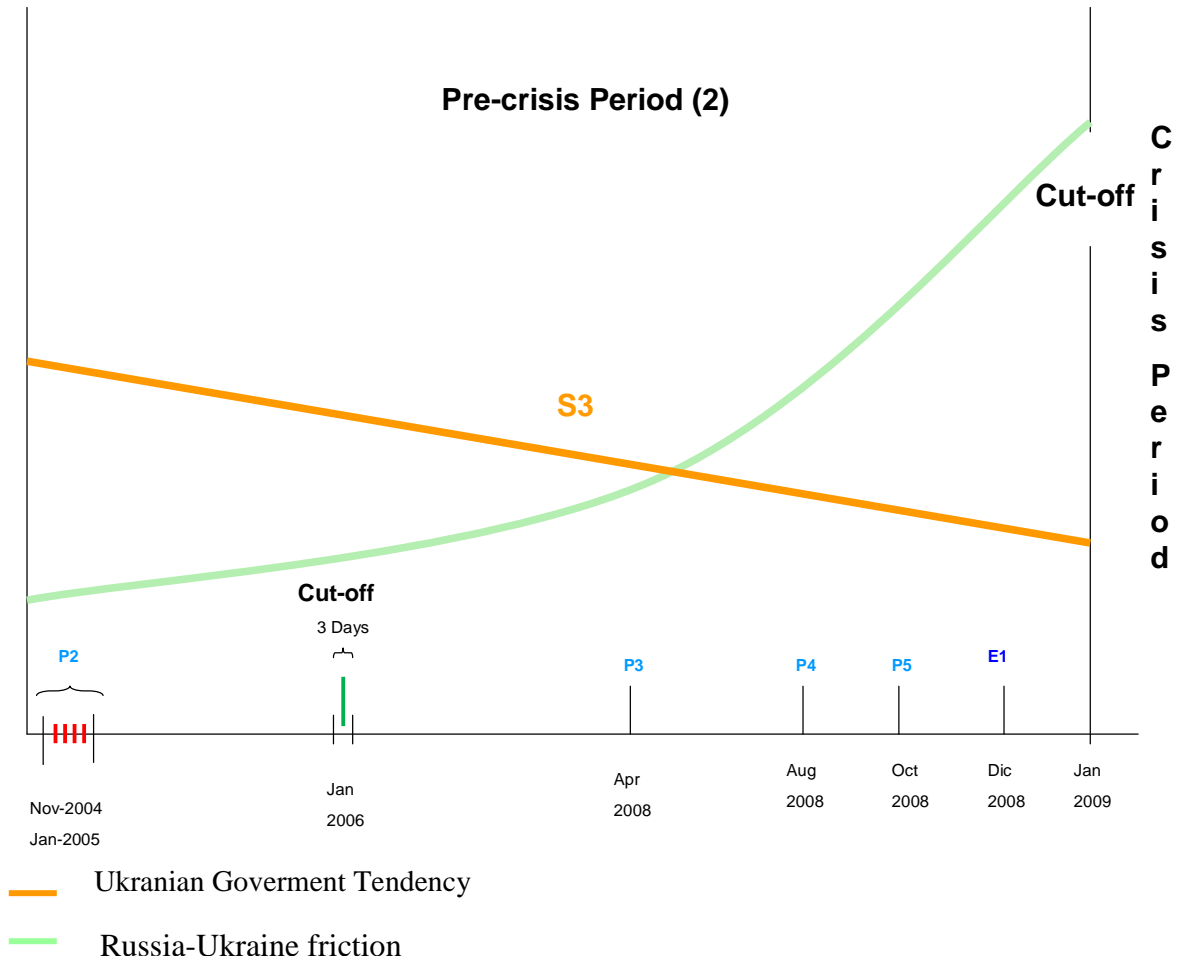
S1 Ukrainian “Pro-European” Political party on command (down meaning closer to Europe)

S2 Ukrainian “Pro-Russian” Political party on command (upward meaning away from Europe)

Segment 2 (Fig.4): Represents the period between the elections of Leonid Kuchma in 1994 and 2004 when Yushchenko was elected. During this period of time (segment 2 in figure 4), Leonid Kuchma was re-elected in 1999 and there are no records of important events that indicate friction between these two countries. This absence of events makes us think that the friction stayed somehow stably and slightly decreasing over time.

Segment 3 (Fig. 5): Represents the period between the elections in 2004 and the present day, as no new elections have taken place. The president of Ukraine is Viktor Yushchenko, a pro-European candidate.

Figure 5: Pre-Crisis Period 2 (2004-2008)



Political precursors

- S3 Ukrainian “Pro-European” Political party on command (down meaning closer to Europe)
- P2 “Orange Revolution” movement during Ukraine Presidential elections, where Yushchenko, a pro-European candidate, was poisoned at the end of segment 2
- P3 Russian Government refused Ukraine NATO bid (April 2008)
- P4 Ukraine supported Georgia in Russia-Georgia conflict (August 2008)
- P5 Ukraine denied renewing the leasing of Crimean port in October 2008, where the Russian fleet stays for more 200 years

Economical precursor

- E1 Ukraine’s debt with Russia (2 billion dollars)

During this period Ukraine had political instability. The “Orange revolution” (P2 in figure 5) is a perfect example in which political events, such as voter intimidation and corruption created chaos. During the 2004 elections, the actual president was poisoned. Ukrainian instability was not merely political. As mentioned by The Guardian (Quinn-Judge, 2004), Ukraine is divided in two, not only from a political perspective but also in matters such as religion and language. For instance, while the Easter zone is pro-Russian and the language spoken is Russian, the residents of western zone speak Ukraine and follow Greek Catholicism (Stephen, 2004), (Granados, 2007).

These cultural differences inside the country contributed to increase the friction with Russia. In fact, one year after the 2004 elections, the actions taken by the Ukrainian president (getting closer to Europe), caused the third cut-off of gas supply to Ukraine.

It was not until April 2008 when the next important event occurred. As an European approach, Yushchenko decided that it was an opportunity for its country to join the North Atlantic Treaty Organization (NATO) (P3 in figure 5). According to *The Times*, Russia severely opposed Ukrainian NATO membership and threatened with nuclear missiles if this country joined it. The organization, pressured by Russia, halted the process and did not offer the MAP (Membership Action Plan) to Ukraine (Halpin, 20 November 2008).

Four months later, in August 2008, Russia entered in war with Georgia (P4 in figure 5). According to *The Economist* (Economist reporter, 7 January 2009), Ukraine supported Georgia in the conflict with Russia. This fact did not go unnoticed for the Russian Government, who accused Ukraine of supplying weapons to Georgia.

Another problem between both countries is related with the Black Sea Fleet. Russia has been established in Crimean port (Sevastopol, Ukraine) for more than 200 years. The period of leasing of the harbor will be ended in 2017, and Russia is seeking to renew it, as the Russian Minister of Defense, Sergei Ivanov stated (Franchetti, 18 October 2008 and RIA Novosti reporter, 27 January 2009). The Sevastopol people, who consider themselves Russian, want the fleet to continue in Crimean port, and if this does not happen they are prepared to take up weapons to prevent it; however the Ukrainian government wants to recover it and denied the renewal in October 2008 (P5 in figure 5).

In December 2008, as explains *RIA Novosti* (31 December 2008) Ukrainian was accused of owing Russia 2 billion dollars for the supplied gas. E1 in figure 5 represents the fines for delays in the payment. Naftogaz, the Ukrainian gas company, paid 1.5 billion dollars but denied to pay more. It caused that Russia threatened to cut-off the gas supply. These events made the accumulated tension and friction so high that on January 1st of 2009 the conflict provoked a major gas supply cut-off.

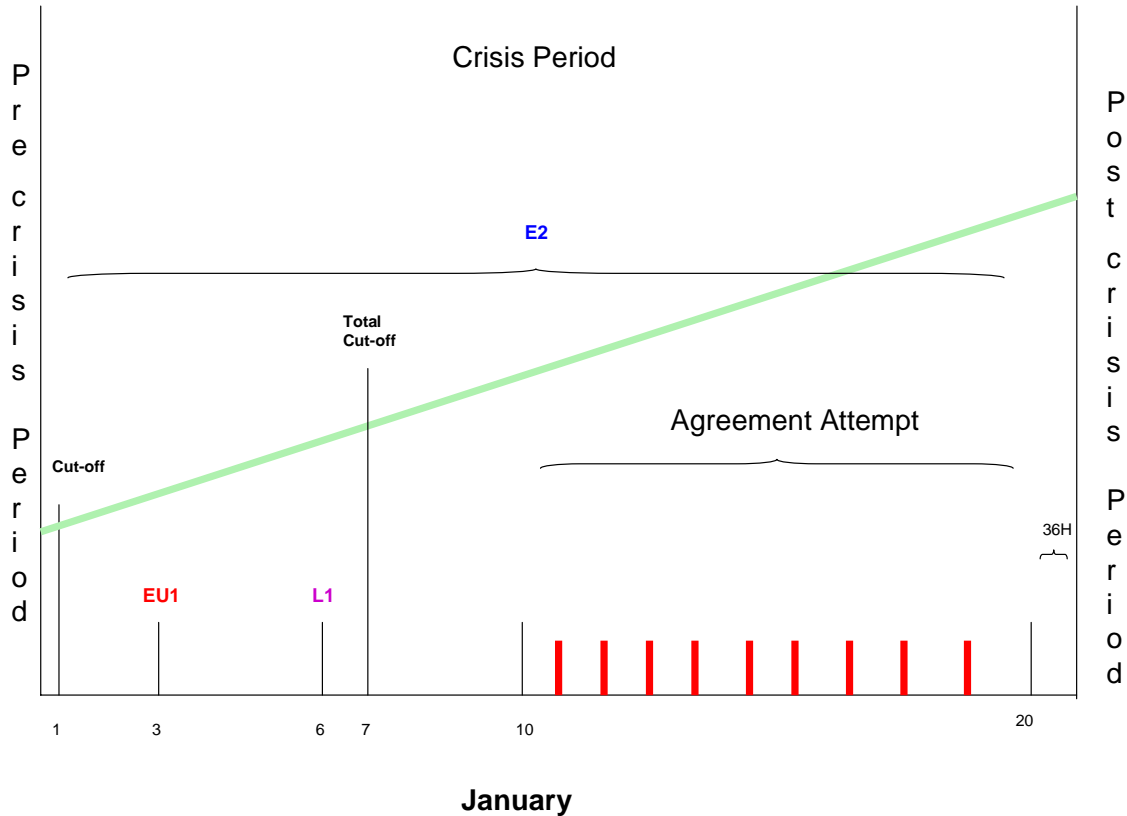
3.2- Crisis Period

This period covers the first 20 days of January of 2009 when the gas supply was cut. On January 1st of 2009, Gazprom (Russian gas' company) cut the gas supply to Ukraine assuring that Europe was not going to notice it. However, the 3rd of January, Central European countries (EU1 in figure 6) complaint that less gas was reaching their countries. Russia and Ukraine blamed each other on this reduction. Moreover, three days later, Russia accused Ukraine of stealing gas addressed to the European countries; Kiev denied the accusation mentioning that Moscow wanted to discredit its reputation as a gas transit country (L1 in figure 6). Some days later, 7th of January, Russia cut the whole gas supply and Europe decided to enter as a mediator.

European observers checked the gas supply in both countries, and an agreement was signed although Ukraine denied paying the debt. In fact, the gas price arrangement is

one of the biggest disagreements between Russia and Ukraine (E2, in figure 6). Two aspects have to be taken into account when fixing gas prices. The first aspect is the gas itself and the second one is the transit rate. Due to the dependence that Russia has on Ukraine, 80% of the gas to Europe flows through that country, being the prices that its neighbor country pays rather cheaper than market price.

Figure 6: Crisis Period (January 2009)



— Russia-Ukraine friction

The gas price in 2008 between these two countries was fixed in \$179.50 per 1000 cu meters, and \$1.7 per 1000 cu meters per 100 kilometers for the transit of gas. However, on January 1st, Ukraine insisted on an increase in the transit tariff from 1.7 to 2 dollars and a price of \$201 in the gas. On the contrary, Russia wanted a price of \$250 per 1000 cu meters without increasing the transit tariff (The Economist Intelligence Unit ViewsWire, 5 January 2009).

After several meetings with European countries, the 20th of January of 2009 the gas supply started flowing. 36 hours later, the European countries began to receive the gas, meaning the end of the conflict. The gas price was finally arranged in \$228.8 per 1000 cu meters and no rise in the transit tariff (\$1.7 per 1000 cu meters per 100 kilometers) (Ukrainian News Agency, 20 January 2009).

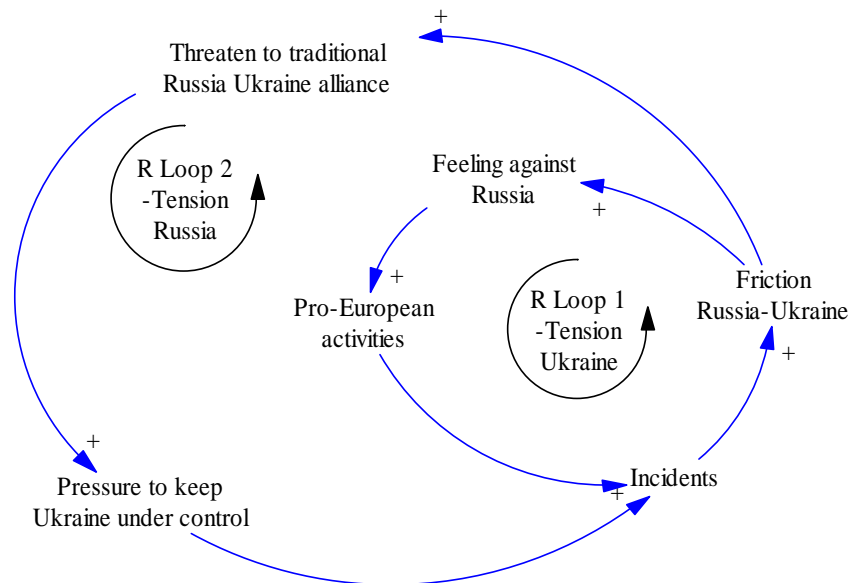
3.3- Post-Crisis Period

The post-crisis period began the 20th of January 2009 when the gas supply was restored. According to the former Russian deputy energy minister, Vladimir Milov, the European Union, has began to reduce the gas consumption in favor of coal (Sokolov, 8 January 2009). Furthermore, Europe is planning to build a new pipeline (Nabucco project) that neither will depend on Russia nor Ukraine. In Alexander Narbut’s opinion (Ukrainian energy expert) the winner of the gas conflict is Turkey (Euroactivs researcher, 23 January 2009 and RIA Novosti reporter, 24 January 2009) since the Nabucco pipeline will join Central Asia to Europe through Turkey, Bulgaria, Hungary and Austria. It is planned to begin in 2010, however Turkmenistan, one of the biggest gas producers in Central Asia, does not support the plan.

On its own, Russia is looking for alternative ways to supply gas without crossing Ukraine. One way is the construction of the North Stream pipeline which will join Germany with Siberia under the Baltic Sea. The other one is the South Stream which will link Balkans with Europe.

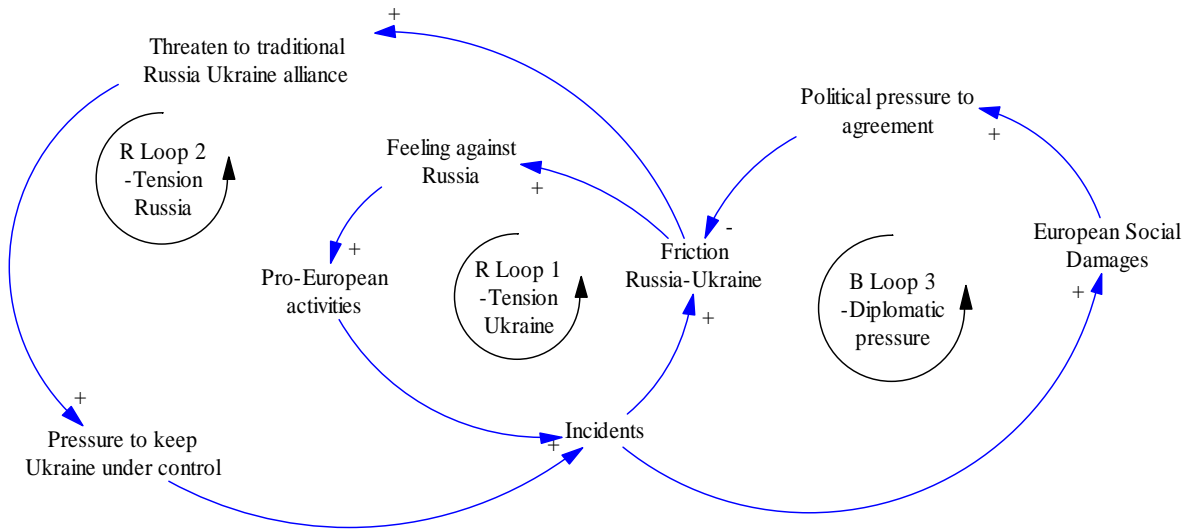
4- Understanding the Structure of the Conflict

Ukrainian Pro-European activities such as the NATO bid increases the *friction Russia-Ukraine*, reinforcing the *feeling against Russia* (R loop1).

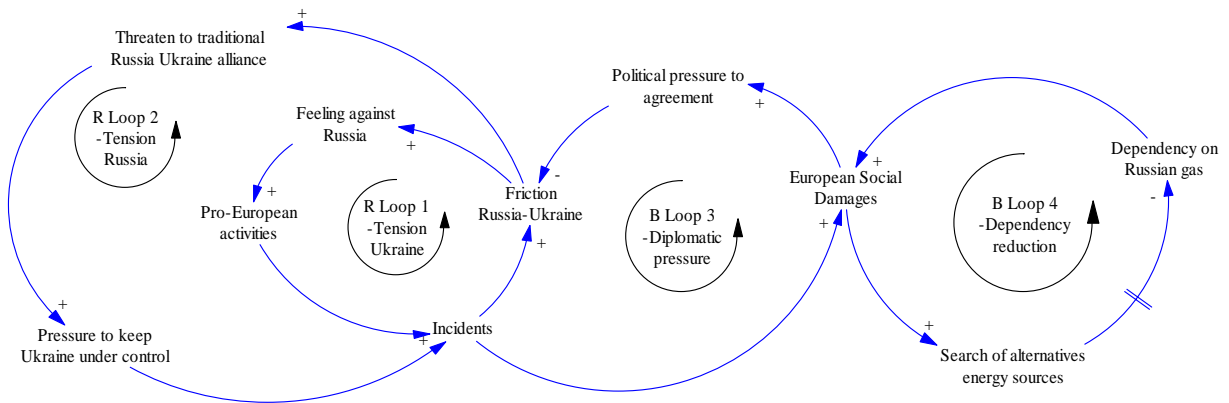


The increment of the friction between both countries threatens the *Traditional Russia-Ukraine Alliance* resulting on Russia trying to *keep Ukraine under control*, making the movement towards Europe more difficult for Ukraine. The rise of pressure increases the incidents rate causing instabilities such as cut-offs (R loop 2).

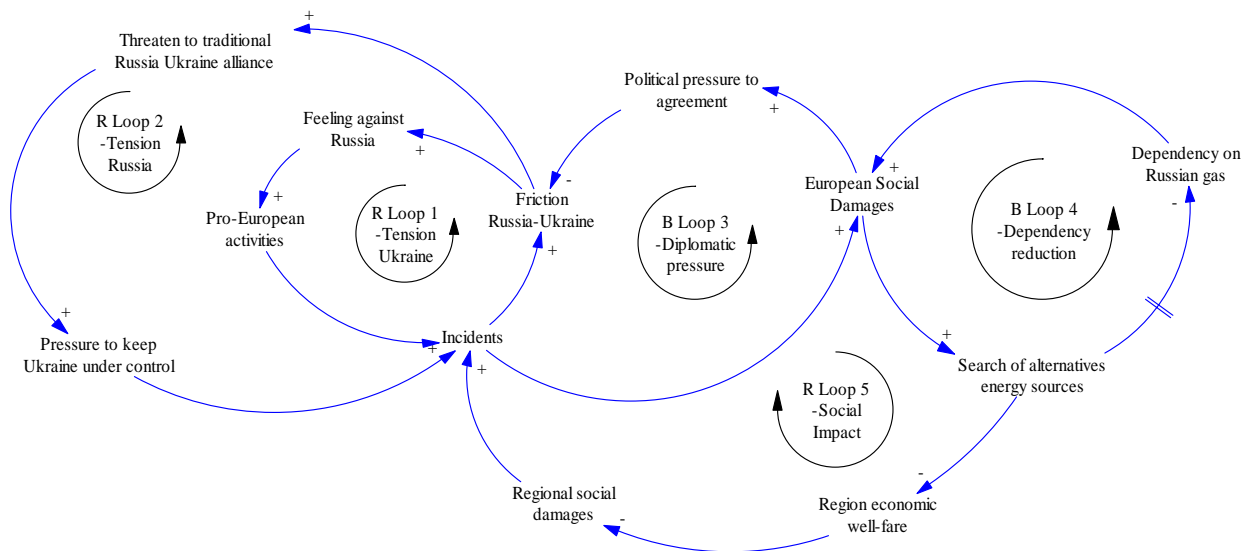
These gas cut-offs cause *European Social Damages* which make EU mediators to raise *Political Pressure to Agreement* lowering the friction between both countries.



Increasing the *political pressure to agreement* (B loop 3) can be understood as a short term mechanism to minimize the crisis effects. Taking into account a long-term solution one can say that the *search of alternatives energy sources* could, in the long run, minimize the dependency of EU on Russian gas avoiding future social damages (B loop 4).



Searching for alternatives energy sources could, at first glance, seem to be an optimal solution. However, an intended solution could also carry out collateral damage. For example, this new energy sources could make the gas incomes to decrease which in the long run decreases the welfare of Russian-Ukrainian region. The aggravation of this *Region's Economic Well-fare* could provoke Social damages in the region creating disputes between both countries reinforcing the friction once again (R loop 5).



5- Conclusion

This Russia-Ukraine case study constitutes a complex case in which several types of variables interact. The goal of this paper is based on the identification of the aspects that should be analysed so later simulation models can be built. The contribution of this paper relies on two pillars: Firstly, the paper presents the evolution over time including events that happened long time before the “big explosion” of the problem. Secondly, through Causal loop diagrams we also present a holistic picture of the problem that includes not only the problem and its solution but also, some other potential solutions and their unexpected consequences.

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