International conflicts, energy crises and rail transport.

Motti Francesca[1]
[1]*University of Naples, Federico II*
francesca.motti@unina.it

Abstract

The oil crises of the 1970s, as well as the current one, were triggered by wars, either as a contributory factor or as a consequence. These crises had and still have massive repercussions on the transport sector and thus on the mobility of goods and people.

From a military point of view, immediately before the 1973 crisis, new military regimes emerged as a result of coups: Libya (1969), Sudan, Syria and Iraq (1968). In 1973, this led to a crisis in a very important economic sector: energy and oil.

Subsequently, in 1979, there was a second oil crisis with dynamics very similar to that of 1973-74: a sharp increase in the price of oil, due to a political event in the Asian area (the coming to power of Khomeyni in Iran and the subsequent war with Saddam Hussein's Iraq).

Both events led to a sharp drop in oil production. In the space of three years (1979-82), the economic policy responses to these numerous crises, originating in the Anglo-Saxon world and then spreading throughout the West, profoundly changed the planet's economic orientation.

The combination of these responses led to the spread of neo-liberalism and the decline of the state as a director and actor in economic development.

Today, following Russia's recognition of the people's republics of Lugansk and Donetsk and the invasion of Ukraine by Russian armed forces, a new energy crisis has arisen, one that is capable of throwing into panic the European markets that depend to a large extent on Russian gas and oil.

There is therefore a major problem in reducing energy consumption and finding other sources of supply. This current energy crisis, like previous ones, affects the transport sector.

The contribution therefore aims to analyse the energy crises from the 1970s to the present day and their impact on the transport sector from a historical perspective, emphasising the importance that rail transport has had and continues to have as a valid alternative to other forms of energy-intensive mobility.

Indeed, increased use of rail over short and long distances helps to counter the emerging global energy crisis. If we add to this the fact that railway stations are mainly located in the centre of cities, the use of rail becomes not only a way to counter the current energy crisis but a fundamental choice for the ecological transition in the mobility sector.

Keywords: Conflicts, Energy crises, Rail transport,

The energy crises that characterised the 1970s

With the outbreak of the Russian-Ukrainian conflict, Europe was faced with fears of possible problems in the supply of gas from Russia and the outbreak, therefore, of a real energy crisis. This has made many people think back to what happened in the 1970s, when European countries, but also the United States, had to face two major energy crises, a few years apart.

The end of the Bretton Woods economic system, which had characterised financial relations from the post-war period onwards, the growing protectionist drive of the United States, and the opening up to China - which was beginning to be seen as a new geopolitical horizon - were some of the elements that characterised the 1970s, a historical period rich in social, political, economic and institutional transformations that defined and changed the structure of the main European countries.

The late 1960s and early 1970s were also the stage for numerous uprisings and coups that led to the emergence of new military regimes such as Libya, Sudan, Syria and Iraq. These conflicts were identified as political upheavals that were initially assumed to be progressive in nature and would bring about a turning point, a decisive moment in the end of old and monarchical regimes.

The beginning of the 1970s, again, marked the end of the *golden age*, a historical period of rapid and sustained economic growth during which the undisputed protagonist was oil, an energy source increasingly used to ensure the proper functioning of industry and transport, sectors essential for ensuring the growth and economic development of territories.

The need for the supply of an increasingly important resource such as oil, known as "black gold" in those years determined the economic and political arrangements between the countries that were able to exploit their own oil fields and thus be autonomous and the countries that, on the other hand, were heavily dependent on oil imports, such as the European states. [1]

Between 1948 and 1973 the consumption of black gold increased dramatically and at least until 1971 crude oil prices tended to remain stable.

The oil market in the 1970s was dominated by the large multinationals, defined by Enrico Mattei [1] as the "Seven Sisters". Of these multinationals, five were American: Standard OIL of New Jersey, the largest of them all, which in 1973 became Exxon, descendant of John D. Rockefeller's empire; Mobil; Gulf, controlled by the Rockefellers' great rivals, the Mellons; Standard Oil of California, after its merger with Gulf in 1984 took the name Chevron; finally, Texaco [2].

They were joined by British Petroleum, the only industry whose shareholders included the British government, and Royal Dutch Shell, the largest after Exxon.

An important role in the management of Middle Eastern resources, despite not being part of the "Seven Sisters", was also played by the Compagnie Française de Pétrole, today known as Total [3].

The "Seven Sisters" also played an institutional role in foreign policy within their home countries, being able to freely negotiate relations with exporting countries and in particular with Middle Eastern countries [4].

In an attempt to create a united front of producing countries that could limit the power and economic weight of the "Seven Sisters", OPEC - *Organisation of the Petroleum*

Exporting Countries - was then formed in 1960 by Iraq, Iran, Saudi Arabia, Kuwait and Venezuela.
The emergence of this new organisation, together with the entry of new producers onto the markets, seemed, at first, not to upset the balance that had hitherto held and ensured the proper functioning of the oil market. Indeed, there continued to be high profits for producers and low costs for consumers. [1]
Initially, the multinational oil companies were not inclined to recognise OPEC as the main interlocutor and continued to want to negotiate supplies with the individual states until they were forced, under pressure from the OPEC countries, to accept an agreement that provided for an increase of 35 US cents per barrel and an increase of 5 cents per year for the following five years, plus an adjustment based on inflation [5], causing a profound change in the oil industry and the end of the old world of concessions.
The historical framework that led to the first energy crisis of the 1970s was also characterised by a decisive military event that caused the price of oil exports to rise: the outbreak of the Yom Kippur War. In this case, the US decided to intervene to support Israel, provoking an Arab reaction.
The Arab members of OPEC decided to reduce monthly oil production by 5 per cent until the territories occupied in the Six-Day War were liberated, to increase the taxes to be paid by importing countries, and the embargo on all Israel-supporting countries, in particular the US and the Netherlands. This decision was not applied to countries considered neutral, i.e. almost all states in the western world, except France and Spain. [6]
What happened caused the price of oil on the global market to soar from around $3 per barrel to $12 in early 1974, and triggered the "oil rush" produced by non-Arab countries.
The main oil-importing countries, among them the states that were part of Europe but also Japan and the United States, were forced to enact measures to limit energy consumption in order to cope with the energy crisis that had been triggered.
Not many years after this first energy crisis, European countries were faced with a new emergency. The second oil crisis of the 1970s emerged with dynamics seemingly similar to those that had characterised the 1973 crisis.
Khomeyni's seizure of power in Iran and the subsequent war with Saddam Hussein's Iraq led to a new sharp drop in oil production, which led to a significant reduction in the supply of this fuel on the international market and a relative increase in price.
Crude oil prices rose by 300 percentage points, obviously affecting the price of petrol and bringing to light the problem of energy supplies.
The various countries dependent on oil imports were therefore forced to face a new crisis and abandon hopes of a possible recovery.
It was only in 1985, with the end of the clashes between the Opec countries and the West, that the first signs of recovery began to be seen. The real turning point only came, however, in 1990 when the producing countries started to work efficiently again, meeting often to take decisions on the price of oil, which remained constant, fluctuating between 22 and 28 dollars per barrel. [7]
The second crisis of the 1970s, i.e. that of 1979 certainly had less of a communicative impact than the crisis of the early 1970s, but it left even deeper traces in the economic policies of the following thirty years.

Europe’s fragile energy dependency

The European Union is today heavily dependent on imports of fossil fuels necessary for the proper functioning of the production systems of the various countries.
According to Eurostat data, in fact, the European Union cannot produce enough energy to be defined as autonomous and, therefore, is forced to import as much as 58 per cent of its energy consumption. [8]
Russia’s invasion of Ukraine on 24 February not only gave rise to a conflict that has and continues to threaten the security of the entire European continent, but also marked the beginning of what could be described as a new and imminent European energy crisis, causing a reduction in fossil fuel supplies and a vertiginous increase in gas and energy prices in general.
Energy crisis that seems to have similarities with those of the 1970s.
In fact, just as in the early 1970s the advent of the oil crisis put an end to a season of economic development, today’s crisis imposes a slowdown on the timid economic growth that Europe was experiencing after the experience of the Covid-19 pandemic.
In the 1970s, the energy crisis also concerned oil, which rose from $3 a barrel at the beginning of the decade to around $40 a barrel at the end of the 1970s. An increase that sent the Fordist economic system into an irreversible tunnel.
Today we are faced with an energy crisis that is not about oil but about gas. But it is precisely gas that has replaced oil as the main source of energy, so it can be said that even today we are faced with a market managed in monopolistic terms.
In order to understand what is happening today, however, it must be remembered that relations between Europe and Russia on energy supply date back to the late 1950s, when the first agreements governing the supply of crude oil by Russia were signed. Then, in the late 1970s, new agreements were signed governing the supply of gas.
From those years onwards, the volume of European supplies gradually increased as Russia was considered an important and reliable interlocutor and trading partner, a reliability that was called into question by Putin’s rise to power and his strategic choices. [9]
The dramatic events that are profoundly marking the history of 2022 and the relations between Russia and Ukraine have thus highlighted how Europe has underestimated the problem of energy dependence and supply diversification in recent years.
In an economy that is still based on the extreme use of fossil fuels, the gradual increase in the supply of Russian gas over the years has made this very important resource a tool of pressure in the hands of Russia.
According to Eurostat data, almost 40% of Europe’s imported natural gas comes from Moscow and Ukraine is an important transit route for Russian gas to Europe, a transit that allows Russia to fulfil its contractual obligations towards its European partners. [9]
The Soyuz pipeline, for example, supplies Hungary, Austria, Slovakia, Romania and Italy [10]. However, neither Russia nor Ukraine, due to the recent armed clash, are today able to guarantee the safety of the facilities located in the occupied territories, as well as the quantities of gas flowing through them. Separatists and invading troops could, in fact, easily access supplies and take gas to be diverted to the occupied cities, effectively stealing European supplies for which Ukraine is responsible.
On 11 May 2022, therefore, the Ukrainian energy company Gtsou, due to the Russian occupation, decided to block the Sokharanivka junction and the Novopskov border compressor station on the Soyuz pipeline, causing transit flows to drop considerably in a few days. [11]

The continuation of the conflict between the two powers and the European Union's, questionable, responses are also leading to a souring of relations between the various powers at play and a tendency on Russia's part to reduce gas exports to Europe as a response to European sanctions.
The ongoing war on the one hand and the European Union's strong energy dependence on Russia on the other, is therefore severely affecting the European economy and that of the individual states, massively affecting not only the industrial fabric, but also the transport sector, which is heavily dependent on oil, and the quality of life of citizens.
The European Union and individual states are, therefore, now forced to rethink their economic strategies, emphasising the need to diversify their supply methods.
The European Commission has, in fact, drawn up the *Repower EU* plan, with the ambitious goal of reducing European dependence on Russian gas by two-thirds by the end of 2022.

Energy crises and the transport sector: the key role of rail transport

Energy crises, as pointed out earlier, have a strong impact on the transport sector - still heavily dependent on oil - with negative effects on the economic development, but not only, of individual countries.
The energy crises of the 1970s, which led to an increase of around 70 per cent in the price of oil per barrel, forced consumer countries, among them Europe and Japan, to develop and introduce a series of measures to drastically reduce the consumption of black gold.
The transport sector was strongly affected, with strong consequences on the production and market of the car, one of the universal symbols of economic growth [12].
European states, in fact, adopted policies to encourage a decrease in the use of road and air transport to curb excessive fuel consumption.
Therefore, the attentions of politicians in the major European countries were turned to rail transport, a mode of transport capable of combining high quality performance with low energy consumption.
Thus, in order to cope with the energy emergency for the citizens of western countries, measures were imposed to curb energy consumption that affected their daily lives, albeit for a limited period [12].
The Italian government headed by Mariano Rumor [13], supported by the Christian Democratic Party, the Socialist Party, the Democratic Socialist Party and the Republican Party, like the other European governments, in 1973 decided on a series of forced consumption restraint measures to respond to the crisis in the availability of energy resources that affected the transport sector.
A ban on motorised vehicles on all public holidays was first introduced throughout Europe. This measure also included private planes and boats.
For travel, European citizens could use trains, planes, ships, taxis, as well as public or licensed vehicles for hire.
To ensure compliance with these measures in Italy, petrol stations were also required to remain closed from 12 noon on the day before the holiday until midnight on the public holiday.
Italian citizens, in this time of crisis, opted to use rail transport, in fact, passenger traffic soared in the last two months of 1973: this was partly due to the ban on motor vehicles, and partly to the high price of fuel. [14]

For both passenger and freight traffic, the trend was decidedly upwards until the mid-1970s, accompanied by a convincing relaunch of the strategy implemented by the Azienda Autonoma Ferrovie dello Stato.
According to reports by Ferrovie dello Stato, commuter traffic in 1973 amounted to approximately 500,000 people, who used the train to travel from their homes to their workplaces. In order to implement better planning of commuter train schedules, however, it became necessary for the railway company, local authorities, and regional bodies to work together. Through this valuable collaboration, it was possible to implement a better distribution of train traffic, and thus to calibrate service adjustment programmes. [14]
At the end of 1974, the single-track lines in operation totalled 10,876 km, of which 7,719 km were non-electrified, and 3,157 km electrified. At the end of 1974, double-track lines, on the other hand, totalled 5,066 km of which 282 km were non-electrified, and 4,784 km electrified. In total therefore, at the end of 1974, the Italian railway network consisted of 15,942 km of lines. [14]
In the crisis years, however, freight transport reached an insufficient level in absolute terms for several reasons.
First of all, there were the ongoing works on the lines and in the railway stations to modernise the networks, which had to be able to transport more and more people and connect different parts of the country, but, more importantly, the difficulties for freight transport during the oil crises of the 1970s were due to the dizzying increase in demand for passenger transport from the public, which led to the thickening of traffic, especially on short and very short routes, and led to the saturation of passenger trains. [14] In order to meet the increased demand for passenger transport, it became necessary to adapt goods trains and use them for passenger transport.
As a result of this surge in passenger demand, however, rail fares also increased in 1974: by 35 per cent for Travellers in 1st Class, and 25 per cent in 2nd Class; by 12 per cent for commuters, state employees and students; and by 23 per cent for freight fares.
In order to support the changed operating conditions and the construction of new, more efficient railways, various economic interventions were also necessary in the 1970s, interventions that were only possible thanks to the changed attitude of politicians and business circles towards the railway system, an attitude that until then had only been favourable and proactive towards road transport. [15]
It must be emphasised, however, that in the 1970s the Italian railway system, although it managed to play a decisive role in remedying the energy crises, was not prepared and ready to respond to the exponential increase in demand for passenger transport that occurred.
Despite the funding and programmes to revalue rail transport that were introduced at that time, rail transport experienced years of decline at the end of the 1970s, as it was no longer able to represent an efficient transport alternative, both passenger and freight.
The strategic role of the rail transport system is, however, back on the agenda today.
The increasing focus on the protection and preservation of the environment and, therefore, air quality, but also the energy crisis triggered by the Russian invasion of Ukraine, which has led to a disproportionate increase in fuel costs for road, air and sea transport, has rekindled attention to the need for a rethink of transport modes in favour of rail transport.
As also emphasised by the International Energy Agency, it is now necessary to implement a series of measures to reduce the use of oil, and the main sector that exploits this resource is the transport sector. For this reason, the IEA, too, proposes encouraging the use of the train, which, thanks to the progressive electrification of rail networks and/or the use of

alternative fuels to petrol such as hydrogen, is the most ecological and efficient means of transport.

The railway sector is, therefore, a strategic element in responding to the energy crisis, a sector on which political decision-makers must focus their investments not only from a local perspective, but also and above all from a European perspective to ensure the completion of the European railway network, potentially able to connect the different territories and major markets, thus triggering virtuous processes of territorial and economic growth.

References

[1] Francesco Petrini (2012), La crisi energetica del 1973. Le multinazionali del petrolio e la fine dell'età dell'oro (nero), in Contemporanea, pp. 445-473

[2] A. Sampson (1985), The Seven Sisters. The Great Oil Companies and the World They Made, Sevenoaks, Hodder and Stoughton, p.209

[3] E.T. Penrose (1968), The Large International Firm in Developing Countries. The International Petroleum Industry, London, George Allen and Unwin, pp. 54-70

[4] R.M. Grant (1991), The Oil Companies in Transition 1970-1987, Milano, FrancoAngeli, p. 99

[5] L. Maugeri (2006), L'era del petrolio. Mitologia, storia e futuro della più controversa risorsa del Mondo, Milano, Feltrinelli, p.104

[6] Colin Campbell e Jean H. Laherrère (1998), The end of cheap oil di Scientific American, pp. 80-83

[7] A. HARRISS (1978), Crisi energtica, che ci riserva il futuro?, in Selezione dal Reader's Digest, p. 29

[8] Eurostat (2022), EU energy mix and import dependency

[9] Comitato Parlamentare Per La Sicurezza Della Repubblica (2022), Relazione sulle conseguenze del conflitto tra Russia e Ucraina nell'ambito della sicurezza energetica, Comitato Parlamentare per la sicurezza della repubblica pp. 6-14

[10] Eugenio Di Rienzo (2015), Il conflitto russo-ucraino: Geopolitica del nuovo dis(ordine) mondiale, Rubbettino Editore, pp. 50-75

[11] Senato della Repubblica (2022), Servizi affari internazionali, La guerra tra Russia e Ucraina, pp. 2-16

[12] Valerio Castronovo (1999), Fiat 1899-1999. Un secolo di storia italiana, Milano, Rizzoli, pp.

[13] Edmondo Berselli (2005), Quando l'austerity spense la luce all'Italia di Rumor, la Repubblica, 18 settembre

[14] Italo BRIANO (1997), Storia delle Ferrovie in Italia, 1° - 2° - 3° Volume, Milano, Editore Cavallotti, p. 225

[15] Andrea GIUNTINI (1992), Alta Velocità. Il secondo dopoguerra e la ricostruzione, Il Treno, p.19