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Title: International Strategies in Italian Enterprises: the new energy market scenario.

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Purpose

The aim of the research is to describe widely the European and the Italian energy market scenarios of the last decade, analyzing specific topics (such as the European energy dependence, the liberalization of the electricity and gas sectors and the obstacles to the competition in the emerging markets) and the strategic approach of Italian enterprises.

Design/methodology/approach

The research was developed through a five month study of the Energy sector, using sources of information as Eurostat, AEEG and GME data. The present research is a qualitative and quantitative description of the scenario, reporting numerical data and trends of the sectors and describing the possible evolution of the gas and electricity markets in the near future.

Findings

The main finding of the research is that there will not be a real competitive energy market until some obstacles are removed: the trend toward market concentration and the residual market power of incumbents (such as ENI or ENEL in Italian markets) are just few of these obstacles. Moreover the European energy market players must aim at diversifying energy sources and suppliers. Depending on countries like those of the FSU or Middle East is the main reason why prices of energy are still high in European countries.

Originality/value

The research's value is that it aims at being an easy but exhaustive description of the dynamics of the new energy markets and of the strategic behaviour of Italian enterprises.

Keywords: Energy, Liberalization, Electricity and Gas Markets, Italian Energy Market.

1. The energy markets: trends and obstacles to the development in Europe and Italy

During the last 15 years the energy sector underwent a deep mutation. This market slowly moved from a monopolistic toward a liberalized system, though this passage didn't had the expected success because of a series of obstacles.

Infrastructures problems and trend toward market concentration make the transition to competitive markets extremely hard and slow, moreover energy market's operators are facing many difficulties due to oil's price oscillation and geopolitical instability in supply countries.

We will try to show the dynamics that make this transition to the new energy markets so complex in an approachable way, deeply analyzing all the events and the peculiarities of the contemporary gas and electricity sectors.

1.1. European Scenario

Worldwide energy demand is growing with a very fast rate mostly because of the Asian and developing countries' needs.

In recent years the exploitation of almost every energy source (renewable, natural gas, coal) has grown rapidly, except for nuclear energy. Natural gas seems to be the main energy source for electricity generation, while oil remains the major one in the transport sector. Anyway oil's exploitation seems to be slowing down, while natural gas and coal's utilization is growing fast.

On the supply side, combustibles stocks seems to be able to satisfy worldwide demand for the next few decades although the exploitation of existing ones is hardly hindered by geopolitical obstacles: being almost 56% of oil stocks located in Middle East and 40% of gas ones in FSU and ME, it is clear that energy sources supply is still concentrated in a few areas around the world.

So the energy consuming countries, including the European ones, have to face a difficult situation also due to the elusive behavior of suppliers: OPEC is reluctant to invest in new oil production capacity as exporters find it easier to keep higher prices thanks to growing demand. Empowering production capacity would lead to a rise in the supply of oil and this would also force Middle East suppliers to reduce prices.

AEEG (Italian Gas and Electricity Authority) believes that, through proper investments, Iraq could raise its production from 2,3 millions oil drums a day to more than 5 millions in the next five years and this could be a way to gain enough wealth to restore the whole country's uneasy conditions.

It is also important to notice that the OCSE countries' oil stocks are diminishing day by day and this strengthens the OPEC supplier position. Moreover Brent¹ is produced only in a few areas of the planet and it is very rare. Otherwise heavy oils are easier to be found and they are overproduced but they are not used for gasoline production.

It also seems quite clear that every energy source stock has grown very slowly in the last few years, while on the contrary, the consumption of the exporters has grown very fast (this trend has been observed in countries like Iran and Russia).

For what concerns renewable energy sources, only the 18,6% of total electricity generation has been produced through the use of these sources, but in 2006 hydroelectric generation still counts for 90% of total RES generation.

The three main European trends to be considered to deeply understand the energy sector situation are Dependency, Production and Consumption.

Eurostat Data (2005-2007) show that European consumption remained almost constant while production diminished: the result of these two trends is that dependency has grown.

For example 2006 data show that EU25 energy production dropped by 4,2% implicitly causing a 4,5% rise in import energy. This brought European energy dependency from 54 to 56% (EU 25). In particular, in the period 2004-2006, oil net imports raised by 2,9% while gas net imports raised by 9,2%.

2008 data uphold these findings as EU27 data consumption remained stable while production slowed down augmenting European dependency from 53 to 54% (EU27).

In other words the general trend shows that in between 1997 and 2006 European energy production was reduced by 9%, consumption raised by 7% while dependency raised by 29%.

Almost every country raised its net imports like Italy and UK. Only Denmark could reduce its own with a 22% net imports reduction.

It is easy to understand that Europe, as the rest of the world, is almost completely dependent from those export areas like FSU and Middle East for what concerns oil and gas exports and to completely understand the energy market scenario it is important to consider that oil and gas prices deeply affect electricity production and gasoline prices.

For example oil's price oscillation bias electricity prices on the European markets (like Italian IPEX or French Powernext). The impact of these variations on the electricity markets usually happens after a short period of time and the size of this impact also depends on the amount of oil (or gas²) used for electricity generation (for example the Italian market, which depends almost completely on oil and gas, suffers most these oscillations).

So as oil and gas prices recently suffered numerous turbulent variations, caused by speculative and opportunistic behavior of suppliers, the energy prices consequently underwent strong rises and downturns.

This is one of the main reasons why Europe is aiming at diversifying its own energy sources and its own suppliers. Excessive dependency on supply countries like Russia and Middle East's ones brings Europe to deeply suffer combustible prices oscillations caused by strong players in the markets.

One of these players is the Russian colossus Gazprom. First of all this company recently suffered strong political influences that caused unbalances throughout all Europe that led to the "gas war" between Russia and Ucraina in 2006. Moreover Gazprom is expanding its control upstream and downstream over other minor companies. The aim of the player is to strengthen its export capacity over Europe in the next future: through M&As operations Gazprom is trying to acquire control over Asian stocks as internal ones are going to exhaust oneself. This way the Russian player is going to rule the gas market for a long time.

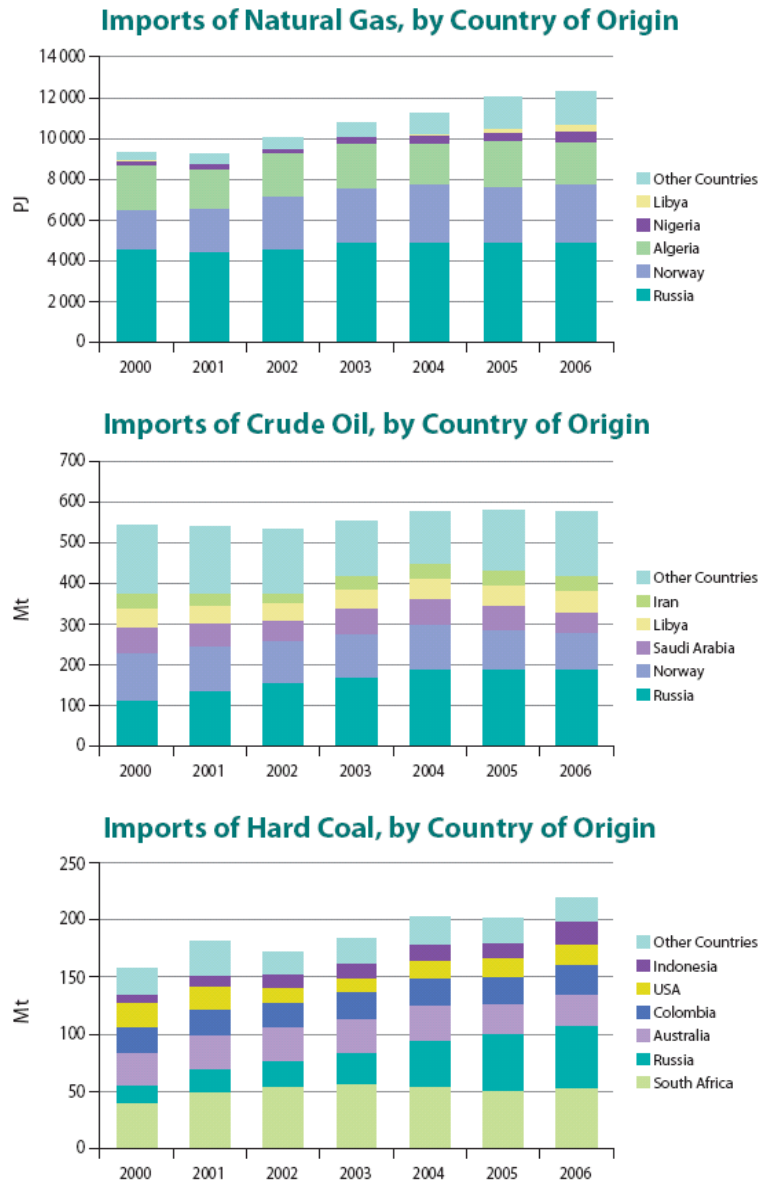


Figure 1 Source: Eurostat (2008)

One way to avoid this situation could be the development of LNG (liquified natural gas) Terminals, but this technology needs huge investments in special infrastructures (Italy is investing and developing this kind of technology thanks to the efforts of ENI). The creation of a LNG market with all the necessary transportation, storage and terminals infrastructures could lead to a deep reduction of concentration in the field of gas import.

In light of these considerations Europe is aiming at two main purposes by 2020: secured procurements and climate sustainability. To face these two hinders EU is trying to strengthen market liberalization, sources diversification, RES exploitation and Energy Efficiency programs development although many studies state that Energy efficiency and renewable energy sources will not be the real answer to procurements reliability until at least a 50 years time.

The European Commission believes that in the mid term the only solution will be nuclear energy. First of all this technology is the cheapest to consent CO2 reduction nowadays and at the same time it could guarantee procurements reliability for a long time. The only obstacle to the development of this technology is the necessity to invest in plants security.

1.2. Market liberalization

Liberalization throughout the European national markets began almost 10 years ago and it has reached a fairly good result but the path toward a completely competitive market seems not over yet.

At the beginning of the 80's many European countries experienced a progressive opening toward liberalization of their markets. One of these was the energetic one. This kind of market is characterized by the presence of a transport net which was usually managed by the monopoly that also offered the electricity generation and production so that the same operator could offer the distribution service too³. As the realization of a second transport net could cost huge investments to any potential new entrant, the electricity generation and distribution services remained State owned for a long time.

Many operators anyway amortized the costs of the transport net during the 80's and the 90's and let new entrants join the net exploitation. After a few years, with the liberalization of the market the transport net management has been transferred to a new independent company (in Italy this new company is called Terna). Although many countries started the liberalization process very early in the 80's (as it happened during Thatcher's mandate in England), the real European process started in the mid 90's with directive 96/92/EC.

This directive let new entrants in the market access the transport net. The main aims of EU to be reached by the tool of liberalization were the security of procurements and competitive prices. Moreover every country had to institute an authority whose main task is to lookout the market operators and their behavior.

In 2001 new measures have been introduced to reinforce the liberalization process and in 2003 the European Council and the European Parliament approved two new directives (2003/54 and 2003/55) to complete the realization of a European market and a Regulation (1228/2003) to enforce crossborder energy exchanges.

The directives anyway were also meant to safeguard obligations as the "universal service" and procurements security, consumerism, market transparency, information diffusion and competition. The antitrust authorities tried also to avoid abusive behavior by the incumbent (as ENEL in Italy) which often maintain a dominating role in the market.

The last and maybe the most important passage in the path toward market liberalization is the introduction of complete liberalization which happened in many countries the first of July 2007.

Looking forward to 2020, liberalization safeguard is one of the main aim of EU, together with climate sustainability. To assure energy service quality to citizens and companies in fact are just two of the achievements to be reached in a perfectly reinforced and integrated market.

Anyway many scholars think that the liberalization process isn't to be considered over yet: the market opening in EU hasn't been an easy task for many reasons. First of all every European country has had an heterogeneous energy policy due to the consequences of the oil crisis of the 70's. This lead to a very low crossborder competition as incumbents mainly acted in their own country.

Moreover the energy market structure is highly complex. The electric market, for example, is structured in this way: generation, transmission, distribution, selling and not only it is easy to find fragmentations inside it but it is also very usual to find vertical integrations among players⁴.

Another feature of the market liberalization is that incumbent players often maintained high market shares thanks to perceived switching costs: in the British market for example, customers rarely changed supplier because they did not have access to information about the new services offered by new entrants. This is one of the reason why there are only six major players in the British market and British Gas is still the market leader. Something very similar happened in France, Italy and many other European countries too.

All these features slowed down the liberalization process in recent years.

Eurostat data also confirm a concentration trend in the electric sector: in Italy only five companies produce 70% of the whole country's electric generation. In Germany four companies produce over 75% of the whole production.

BCG studies sustain that the energy market future is going to be dominated by a strong concentration although it is more than a decade since the liberalization process has been started. Among the drivers

of this consolidation process (and so, on the opposite, among the obstacles to new entrants) we can find in first place the high investments requested which are necessary to join the market.

REF studies on concentration in the energy markets show the importance of mergers and acquisitions too: in between 2003 and 2006 M&As operations trebled compared to the 1998-2002 period, with over 100 operations in between 2003 and 2004. Back to 2006 a deep rise in the crossborder operations has been observed.

In the 2003-2006 period the M&As operations in the electric market raised from 55 to 64, while in the gas market they raised from 17 to 42 (this was mainly caused by the aggressive behavior of the Russian gas operator Gazprom).

Moreover in the electric market the majority of M&As operations involve players in the generation phase, while in the gas sector the players involved mainly act in the distribution and selling phases but many M&As were also developed in the procurement stage.

Scholars believe that these trends show a particular evolution of the entire market toward an European oligopoly: big players as Russian Gazprom, Italian ENI, French GDF, exploited the market opening to expand their operations crossborder. This is going to lead to a new arrangement of the European market in which a few big players will be the competing leaders while all the other companies will only have a residual market share. So major companies will be able to benefit from their incumbent position in their own market, stronger contractual power in the procurement phase and solid economies of scale thanks to the presence in other countries.

In the first period of concentration (1998-2002) the main driver of M&As operations was horizontal integration. On the contrary, since 2005, new drivers brought to a new wave of mergers and acquisitions:

- **Vertical Integration:** major players aim to enlarge their own business but not only. They also aim at diversifying their own procurement strategies, in particular for what concerns natural gas supply.
- **Gas/Electricity Business Joint:** the constitution of an integrated Gas/Electricity business portfolio gives major players the opportunity to reinforce their own market position (through final customer “dual offers” and CCGT plants better exploitation). Nowadays it seems quite clear that to be competitive in the electricity generation is fundamental to have a low cost access to gas supply and that is why players which act in both the markets are favored.
- **Financial Resources availability:** bigger players own huge financial resources thanks to high gas and electricity prices that bring substantial cash flows. This boosts companies’ investments.
- **Diversification of regulatory risk:** various EU members adopted different laws and regulations to rule their own internal market and this leads, for example, companies interested in nuclear power plants to expand themselves in countries where this kind of plants are not banned.

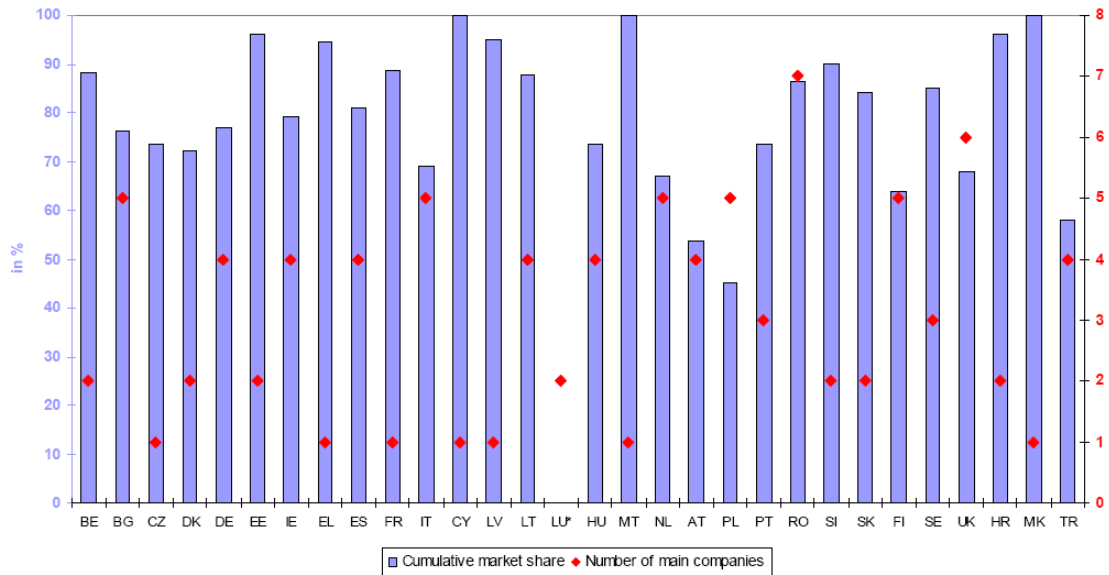
Anyway the new wave of European M&As in the field of energy markets has to face the strengthening of European Commission controls over merging operations that could damage competition increasing the opposite effect of concentration. This means that the role of European Commission is going to be relevant in the future shaping of the entire energy market.

The oligopolistic structure reinforcement also poses a problem about final consumers protection and market efficiency. Transnational groups presence could slow down the competition development and the increasing conditions for an internationally competitive market. Moreover though gas/electricity business joint is a tool to increase the companies wealth and power, this could lead to a limitation of the number of new entrants in both the markets. In the end we can assert that even though the

electricity and gas markets are formally liberalized, these still suffer huge limitations to competition as a few big groups dominate the European scenario.

Figure 2 Source: Eurostat (2006)

Graph 1: Number of main electricity generating companies and their cumulative market share, 2006



* Information on market shares in generation non available.

Table 2: Number of main electricity generating companies and their respective market share in generation and their installed capacity, 2006

	BE	BG	CZ	DK	DE	EE	IE	EL	ES	FR	IT	CY	LV	LT	LU
Number of main companies	2	5	1	2	4	2	4	1	4	1	5	1	1	4	2
Share in generation (%)	88.1	76.2	73.5	72.0	77.0	96.0	79.1	94.6	81.0	88.7	68.9	100.0	95.0	88.0	:
Share in installed capacity (%)	87.6	59.8	69.4	66.0	62.0	94.0	83.2	95.3	80.0	86.0	74.3	100.0	92.0	74.8	:

	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	HR	MK	TR
Number of main companies	4	1	5	4	5	3	7	2	2	5	3	6	2	1	4
Share in generation (%)	73.4	100.0	67.0	53.7	45.0	73.5	86.4	90.2	84.4	64.0	85.0	67.9	96.0	100.0	58.0
Share in installed capacity (%)	72.2	100.0	60.0	51.4	36.9	71.3	74.2	90.6	83.8	57.0	79.0	59.9	98.0	100.0	:

2. Italian dependency

Various sources (AEEG, ENEA, Eurostat, Acea Electrabel) argue that Italy relied on natural gas and oil more heavily than other EU27 countries in recent years. Almost 70% of electric generation has been produced exploiting these sources, even if in Italy the exploitation of oil is progressively diminishing being substituted by gas as in almost every European country.

Interesting and encouraging data on Italy are the use of geothermic source that, even if very low, is almost completely absent in every other European country and the great exploitation of hydroelectric sources (almost 13% of the whole electricity generation) that is superior to the European average.

Anyway Italy still suffers a negative pay off (12,5% of energy is imported from foreign countries): Italy imported almost 48000 GWh in the last years and exported only 3000 GWh. The country in particular experienced a rise in the Swiss import rate.

The general condition is characterized by a huge energy dependency on combustibles like oil and gas (86,8 % Eurostat 2008).

Moreover Italy is facing the gradual reduction of the monopolistic power of its main incumbent operator (ENEL) as many other European countries after the beginning of the liberalization process, but ENEL anyway still remains the main player in the market⁵.

In 2007 new electric generation capacity has been installed, in particular numerous thermoelectric plants have been realized by the main market operators like ENEL and Edison.

The first one is also the main RES exploiter although other companies are investing in the fields of photovoltaic, biomass (A2A S.p.A.) and eolic (International Power).

An important feature of Italian market is the electricity price:

the average price to consumers in Italy is around 74€/Mwh (January 2009 GME), that is higher than the average European price due to the high Italian dependency.

The price of electric energy can be divided as follows:

- 64,6% Production costs;
- 18,1% Taxes;
- 17,3% Transportation costs.

Figure 3 Electricity price structure in Italy (Source: Acea Electrabel 2008)

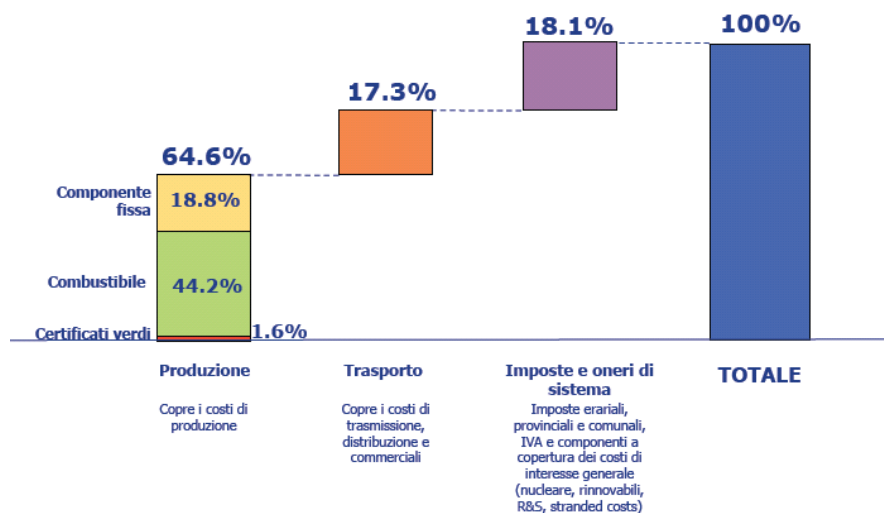


Figure 4 Natural Gas Market Share (Source: AEEG 2008)

SOCIETÀ	M(m³)	QUOTA %
Gruppo Eni	7.875	86,2
Gruppo Edison	674	7,4
Gruppo Royal Dutch Shell	340	3,7
Gruppo Gas Plus	236	2,6
Altri	6	0,1
TOTALE	9.132	100,0
TOTALE (Fonte: MSE)	9.706	-

COUNTRY	€/100kWh	INDEX
Latvia	7,3	30,67227
Hungary	13	54,62185
Bulgaria	7,2	30,2521
Estonia	7,9	33,19328
Poland	13,8	57,98319
France	12,1	50,84034
Finland	11,5	48,31933
Lithuania	8,7	36,55462
Croatia	9,8	41,17647
Sweden	16,1	67,64706
Denmark	24	100,8403
Greece	9,8	41,17647
Slovenia	11,2	47,05882
Austria	17,4	73,10924
Czech Republic	10,6	44,53782
Spain	14	58,82353
Romania	11,4	47,89916
Portugal	15,6	65,54622
Belgium	16,8	70,58824
Malta	9,9	41,59664
Netherlands	17,2	72,26891
Slovakia	13,7	57,56303
Germany	21,1	88,65546
United Kingdom	14,8	62,18487
Italy	23,8	100
Cyprus	15,7	65,96639
Ireland	19,2	80,67227
Luxembourg	15,9	66,80672

Figure 5 Source: Eurostat (2008)

For what concerns natural gas, Italy drastically diminished its production in recent years; the main producer and importer is ENI with an 80% market share, followed by Edison. Our country import this combustible mainly from Algeria and Russia.

2.1. Companies' strategies in the new energy market: effects of liberalization in Italy

Liberalization in Italy hasn't had the expected success yet and the same discreet result has been experienced by other countries in Europe. The main reasons for this unsuccessful development are to be searched in the birth of a "hybrid system".

We can define hybrid system the one in which, although the numerous efforts made by EU through laws and other interventions to introduce a competitive mechanism in the energy markets, both the Gas and Electricity sectors stay dominated by a leading player (ENEL in the electricity market, ENI in the gas Market), on which the political influence has still a big impact.

Furthermore is quite curious to notice that many companies, also the smallest ones, remain State owned or controlled by local government and consequently suffer political pressure.

The two main players were involved in many M&As operations upstream but also downstream (in the distribution and selling sectors) making it hard in particular to potential new entrants to join the market.

That's one of the reason why the Italian market (and not only the Italian one) remains an oligopoly. The space that was given to competition is only a "formal" space. In other words the market has been regulated with new interventions and laws with the intent of opening it to competition, but remains still dominated by a few operators whose control is in great part in the hands of the State and the main consequence is that the price often depends on the behavior of these incumbent companies which do not seem to care that much about market efficiency.

An interesting feature in fact is that bigger players under State control don't seem to pursue public wealth, of course not as the main purpose. The Italian Antitrust authority already acted against ENI in particular for suspected abuse of market power.

So although the numerous laws introduced since the Bersani decree, it doesn't look like the transparency has grown in the energy sector.

These features damage the final costumers who find themselves paying energy prices which are not the result of a competitive and efficient market structure.

REF scholars claim that in Italy we can find competitions elements put side by side with residual monopolistic characteristics and privately owned enterprises whose control is still mainly in the hands of the State (Saraceno e Scarpa, 2006). One reason why it is easy to find hybrid structures in many European countries could be the States' behaviors which aim at enlarging their energy companies international presence⁶. This could be one of the reason why the Italian government too did not completely gave up its control over ENI and ENEL.

An AGICI 2007 research claims that Italy was characterized by many concentration operations in between 2005 and 2006: the M&As in the country raised from 76 to 93. The main actors of this phenomenon were, on the one hand, bigger players as ENI, ENEL and Edison which reinforced their crossborder expansion and, on the other hand, local utilities which aimed, on the contrary, at reinforcing their local position. AGICI research sustains that the strategic driver which brought to these numerous M&As operations is the horizontal integration intent. Vertical integrations, which are often pursued by bigger players, were not particularly frequent even if local utilities too exploited this tool to obtain access to generation capacity. Many scholars believe that V.I. upstream could increase companies' efficiency and this enables them to face stronger competitors.

More than 60% of the operations involved utilities in the north of the country. Moreover ENEL expansion activity seemed very interesting as it recently acquired Slovenske Elektrarne, reopening its way toward nuclear power.

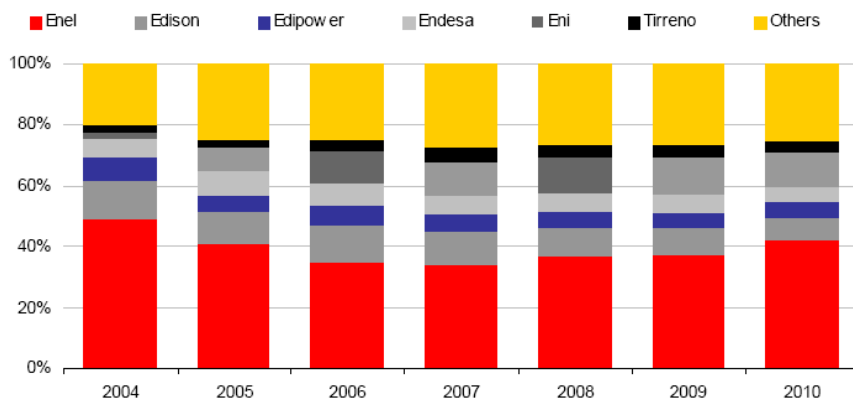
Foreign companies are pursuing Italian market penetration too: E.ON extended its influence with the acquisition of a utility in Veneto, while British Gas joined the electric business acquiring thermoelectric plants from Edison.

So the national trend doesn't seem so different from the general one: concentration and aggregation are going to increase in a market where ENEL, that remains the main operator, seems more interested in expanding itself abroad.

Anyway it looks like Italy is one of the countries that most reduced (at least in the electric sector) its main operator power over the market thanks to the breaking down of 3 Generation Companies (Gen. Co.).

On a strategic basis, the market liberalization brought companies to pursue two main aims: production mix optimization and cost reduction.

Figure 6 Electricity Generation Market Share Scenario (Source: REF 2006)



All the companies went through an increase of their electricity generation with a contemporary cost reduction thanks to a better generation mix and a better cost management (in particular HR costs). The electricity sector in fact is the one in which the employment rate has grown less.

ENEL was subjected to a market power reduction but it remained the main market player thanks to a series of expedients. First of all ENEL is the company which most reduced its personnel. Moreover it increased its own generation capacity thanks to the investments in new plants and improved its generation mix (increasing in particular the hydroelectric quota) reducing the average cost of combustibles exploited to produce electricity.

This success had a great impact on stockholders: the pay out ratio in fact has been very high in recent years and the State gained two billion euro dividends while at the end of the 90's, when it owned 30% more stocks, it gained "only" 990 millions euro.

Other companies did not benefit as much as ENEL from the generation mix change as they could not exploit the same economies of scale. All the companies anyway reduced their personnel and increased their production thanks to increased production efficiency and installed capacity.

Edison has been involved in many M&As operations and capacity increasing projects. ENEL on the contrary reduced its efforts in expanding the installed capacity (also not to exceed the generation limit imposed by the Antitrust authority⁷) but invested in repowering projects.

New entrants and local utilities were less involved in this kind of operations.

Anyway, in conclusion, the huge gains of the companies enabled them to increase their investment in capacity increase. We should keep in mind that Italy suffer of a big negative import-export imbalance and investments in generation plants are the main tools against dependency.

ENI is similar to ENEL. The two companies share many features but the main difference is the sector in which the two lead. Although in fact both are involved in the gas and in the electricity markets, while ENEL is leader in the electricity one, ENI is leader in the gas field.

ENI gained huge profits during the last decade that brought it to pay substantial dividends to all of its stockholders, including the State that at the end of the 90's started selling 60% of ENI's stocks.

The selling of these stocks reduced the Debt/PIL rate by 2,2%.

Anyway, ENI dividend policy was definitely less overstated than ENEL's, but it is to be noticed that in the gas field ENI has had the highest pay out ratio compared to every other European player.

ENI's organization is structured in Divisions and the profits increase is to be attributed to two of these in particular: Exploration & Production and Gas & Power. The first one works in the field of research and production of hydrocarbon internationally, while the second works in the field of procurement,

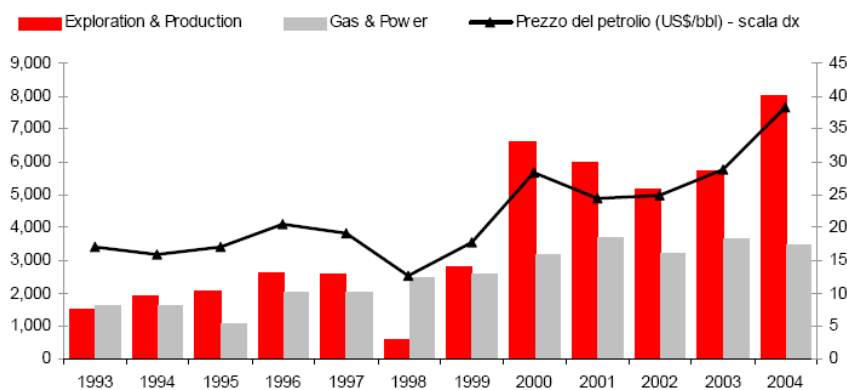
transport, distribution and selling of gas. The contribution of E&P business has grown exponentially in the last decade while the G&P suffered some changes among which the new entrants joining the market.

ENI group enacted many measures to face the increasing competition since 2000, almost like ENEL did in its own market. First of all, ENI too began expanding itself abroad. This strategic choice brought ENI to raise its gas selling market share and its involvement in the international transports of gas. To achieve this success ENI reinforced its relations with many foreign companies and started acquiring many other players. These choices allowed ENI to strengthen its upstream position. Nowadays it controls prices and international infrastructures access.

The strengthening of the main gas player was also accomplished by strategic choices made inside the Italian borders as the acquisition of Italgas.

Moreover although this put ENI in big difficulty with the Italian Antitrust Authority, ENI started an “innovative selling policy”: this means that ENI started selling gas to other importers at the Italian borders, tricking the generation and procurement limits imposed in our country. This strategic choice damaged seriously the development of competition in the sector, but it is also important to consider that the ENI group developed the best commercial and marketing initiatives toward companies clients after the market opening.

Figura 7 Evolution of G&P and E&P Profits (Source REF 2006)



Diversification was another tool through which the company increased its competitiveness and its profits. ENI in fact expanded itself in the electricity generation market through the creation of a new unit: Enipower.

In conclusion we can say that ENI exploiting its dominant position and its superior profitability to reinvest in new opportunities, didn't suffer the market liberalization effects.

So a final overview of the whole energy markets makes it possible to say that in Italy, as in many other European countries, new entrants and minor companies suffer the vertical integration of incumbents and their market power.

In the gas market different laws and interventions make it even harder to pursue a competitive market structure. For example the authority did not decide to separate the control of the transport net from the supply of gas with dangerous consequences on the development of infrastructures and procurement security.

Experiences like this are the perfect example of a hybrid structure like the one we can observe in Italy: imposing limits to the gas selling and imports was not a concrete choice and didn't have the wished effects being the vertical integration of ENI left untouched.

Another demotivating feature for new entrants is the longevity of procurement contracts in the gas sector. These contracts last for 15 years or more making it harder to new players to join the upstream. So it is enough clear that the procurement stage in the gas sector is very difficult to join for new entrants.

Only the downstream stage seems easier to access for new entrants.

What we can say about the future of the market is that the critical phase of procurement shortage should be over at the end of the decade if there won't be delays in the realization of new infrastructures like le TAG and TTPC. Enlarging the infrastructure capacity could bring to an effective competitive structure in the gas market with good effects on the price. Moreover it could reduce ENI's market share increasing Edison's and ENEL's ones and it could reduce de geopolitical risk including new supply countries like Egypt and Qatar.

In conclusion the gas market could become a competitive market only if ENI will reduce its control over the transport infrastructures. The Italian geographic position could also represent an enormous opportunity for the gas market. Increasing its infrastructures could allow the players in the market to work as European Hubs for gas supply.

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¹ Brent is a light crude oil. Being good for making gasoline and middle distillates, it is the most demanded.

² Gas prices are index linked to oil prices.

³ In Italy this “double service” was offered by ENEL.

⁴ This also happens in the Gas market.

⁵ We will broaden this topic in the paper.

⁶ It is exactly what we showed in the market liberalization paragraph.

⁷ Players must not produce more than 50% of the whole Italian electricity generation.