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'Measuring the Economic Effects of Competition Law Enforcement'

The assessment of the impact of antitrust intervention by the Italian Competition Authority

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Introduction

In recent times growing attention has been paid to a pair of relatively novel topics in European Antitrust environment: private litigation concerning anticompetitive behaviour and impact assessment of antitrust policy. These are two separate issues, but in fact they are the two sides of the same coin. In private litigation we must quantify the damage caused by anticompetitive conduct, leading from a competitive environment to a less competitive one. The goal of an impact assessment of an antitrust decision means doing the return journey: a quantification of the impact of going back to a competitive environment.

The growing interest in these topics emerges from documents¹, conferences² and from concrete initiatives³. At the moment these two novelties still play a

* Italian Competition Authority. The views expressed in the article are those of the author and do not involve the responsibility of the Italian Authority. I want to thank Fabio Massimo Esposito for comments and suggestions.

¹ The study carried out by LEAR on "Ex-post Review of Merger Control Decisions" for the European Commission and the Green paper on "Damages actions for breach of the EC antitrust rules" by the European Commission.

² Conference in Bruxelles on "Cartel enforcement and antitrust damages actions in Europe" (March, 2007). The impact of antitrust intervention was discussed in the CCE ECN meeting in Stockholm (Fall 2006) and in the Unctad meeting in last July. The ACLE conference on "Forensic Economic in Competition Law Enforcement (Amsterdam, March 2006) also dealt with these topics. Last July ICA organized a workshop, held by Professor Hal White, on methodological issues. Next to speak of this conference and the workshop to be held in Budapest next December.

secondary role on the stage, even if, when the impact assessment of antitrust policy is concerned, Europe now seems more active than the US, where the practice originated during the Reagan administration. With the consolidation of these two changes, major consequences will be seen in European competition policy by forcing all the players of the “antitrust game” to focus on the economic effects of both anticompetitive behaviour and antitrust intervention.

In an antitrust decision, the role which must be played by effect evaluation of alleged anticompetitive behaviour is a very controversial issue in Europe, in particular regarding the abuse of dominant position. It is a recurrent mantra that the European enforcement of antitrust law has been very formalist and that it has shown reckless neglect of the effects of unilateral conduct of firms. Whether this opinion is correct or not as far as past decisions are concerned, is a matter of debate. What is less disputable is the present growing role of economic analysis in the European decision process of an antitrust case, which quite naturally leads more attention to be paid to the effects of law infringements. Clear evidence of this can be seen in the recent establishment of the position of “Chief Economist” in many European competition authorities. The present debate on art.82 is also another sign of this change of attitude. One obvious reference is to the document by EAGCP “An economic approach to article 82” and to the discussion it triggered, which had an influence on the Staff Discussion Paper prepared by the European Commission on exclusionary conduct. The same shift of focus can be traced back to the enforcement of merger control, which is now deeply rooted in the economic analysis of the (forecasted) effects, at least as far as the unilateral effect of horizontal mergers is concerned.

This is the environment in which the recent interest regarding the effect assessment of an antitrust decision and private litigation arose and this is the process that these two new initiatives are going to reinforce. Because of private litigation, law firms have an additional motivation for demanding more economic analysis on the effects of anticompetitive behaviour from antitrust authorities⁴. This analysis is rather crucial at the stage of private litigation, as the quantification of damages is the crux of the matter. Things are much easier when, in the investigation run by an antitrust authority, the impact of the anticompetitive behaviour has already been ascertained. If this is not the case, it might be difficult for consumers or firms to prove damages directly at the litigation stage. For example, several damage litigations, triggered by an important Italian case in the insurance sector, were aborted

³ Not only new initiatives carried on by the two incumbents in this field (UK and Netherlands) but also by the new entrants (e.g. France, Ireland, Italy).

⁴ Antitrust authorities themselves have the same motivation as they are interested in the well functioning of private litigation process, because of its repercussion on deterrence.

as a consequence of the “no effect based” approach followed at that time by ICA. Consumers seeking damages were unsuccessful because they were unable to establish (and to quantify) a connection between the anticompetitive practice, which was ascertained by the ICA, and the damage they incurred, which was not.

Impact assessment of past decisions will also contribute to the redirection of competition policy towards a wider utilization of economic analysis. Quite inevitably ex post assessment will provide some pointers regarding how markets work. In particular, it will show whether the application of the “theory of harm” was in line with the ex post evolution of the market. This will prove extremely valuable with reference to cases of abuse of dominant position: we can check, for example, whether the abandoning of exclusionary conduct made entry into the market easier and if this entry had a beneficial effect on competition. As an inevitable consequence, lawyers inside competition authorities will be forced to take notice of the economic consequences of those decisions they make.

In brief, the impact assessment of past decisions and private litigation represent a strong commitment by antitrust practitioners working in law firms as well as in antitrust institutions in favour of an extensive use of economics in competition policy. This is the long term effect of effect assessment.

When we start thinking about impact assessment a preliminary question arises: where do the effects of antitrust enforcement come from? This question is strictly interconnected with the types of mistakes which can be made by competition authorities. We can identify three different changes associated with antitrust cases: 1) in the market structure; 2) in the behaviour; 3) in information available to the market.

The first change is typically generated by a merger and is due to a decision made by merging firms. In this case the aim of the ex post assessment is to check whether the antitrust authority wrongly cleared the merger, thus allowing this structural change to occur. Therefore the assessment of the impact of structural change is generally directed towards ascertaining if an error of type 1 has been made by the competition authority.

A change in behaviour is associated with cases of anticompetitive agreements or abuse of dominant position. Here the scope of the assessment is to reveal possible errors either of type 1 or of type 2. The impact assessment applied to a change in behaviour can also show that, although correct in principle, the decision proved totally ineffective in practice. I suspect that this happens rather frequently as antitrust intervention is only indirect and, in order to be effective, it needs some sort of market interaction, which does not always occur.

The last change (in information) is a by-product of an investigation. An antitrust investigation does not take place in a laboratory and therefore the effects on the economic environment are not only those occurring as a result of the final decision. In the course of an investigation many economic (sometimes also econometric) analyses are employed and these increase the quantity of information used by economic agents when choosing their strategies. This information disclosure

can have positive as well as negative effects. For example, it might be the case that disclosing information makes consumers more reactive, favouring more competitive conditions in the market. One of the two cases I am going to present in the second part of this paper, refers to this type of change. On the other hand, as a consequence of merger control activity, cases may also arise in which the new evidence jeopardizes competition by making firms aware of their mutual dependency, leading to a modification in their behaviour in an opposite direction with respect to competition policy purposes.

Almost all documented and public studies on ex post assessment refer to checking for type 1 errors. That is understandable, as many of these exercises are run by, or on behalf of, the same antitrust authority which was responsible for the case. An open discussion on type 2 errors associated with past decisions would probably be embarrassing and therefore unlikely. As consequence, almost all known studies about ex post assessment concern mergers and therefore deal with structural changes.

In this paper, following some introductory information on the effect assessment at the Italian Competition Authority, some preliminary results of two important cases are discussed, both regarding milk: formula baby milk and fresh milk.

Effect assessment at the Italian Competition Authority

Only recently, since the spring of 2006, has the Italian Competition Authority started paying attention to the evaluation of the impact of its decisions, by establishing a new unit in charge of this task. This decision was a part of wider change of policy towards an action more focussed on consumer protection. On the one hand, the ICA expanded its scope over activities more directly addressed to consumer protection. A recent law, implementing EU Directives 2006/114/EC and 2005/29/EC, empowered the ICA with supervisory powers regarding unfair commercial practices, which complement our existing powers related to misleading and comparative advertising. This legislative innovation brings our institution more in line with other more consolidated antitrust authorities (e.g. FTC, OFT), at least in scope. On the other hand, the ICA wanted to emphasize the benefits which could be obtained by consumers from the implementation of competition policy in order to help spreading a “culture of competition” which Italy too often lacks. The decision to pay specific attention to the impact of its actions was consequential. It must be stressed, however, that it was not forced by law or by governmental pressure: it was a genuine autonomous decision by the ICA. The origin of this activity also explains the reason why impact assessment is run autonomously by the ICA and not by an external third party institution.

We are at a very preliminary stage and up to now we have devoted our very scarce resources to a few cases and to a partial evaluation of advocacy activity. We have paid due attention to methodological issues. Last June we organized a workshop with the participation of expert working at European competition authorities. Professor Hal White, who held this workshop provided, as expected, a number of relevant insights on econometric methods to be applied to this field. In particular, he showed a clear scepticism with respect to the use of the traditional dummy variable approach which is not able to create a valid “counterfactual” against which to ascertain the effects of antitrust intervention. The workshop was also a good opportunity for sharing interesting experiences on the works currently done in Europe.

Before providing some details on our current activity, I want to emphasize that the task of our unit is an estimation of the consumer surplus due to ICA intervention. This is probably what other antitrust institutions also do. But it is not what economists would generally suggest, as they would advocate recourse to total welfare as a goal of antitrust intervention. It must be remembered that, as far as the impact assessment of a past decision is concerned, there is an extra motivation in favour of the utilization of total welfare standard, rather than consumer surplus. The recourse to the consumer surplus standard has been also suggested as a “tactical” target for antitrust action, not because of its own intrinsic appropriateness, but as a way to reach, through a bargaining process with firms, the maximization of total welfare⁵. It follows that, even if the target of an antitrust activity is that of consumer surplus, the evaluation of its impact should be extended to the total welfare standard, which, according to this approach, is the long term target of the policy. There is, however, a very convincing practical motivation for adopting the consumer surplus standard. In order to calculate the impact on consumer surplus, all you need are prices (and quantities); with the total welfare standard you must also provide an estimation of cost changes, which is not simple.

Ex ante assessment

The rationale of ex ante assessment is twofold. On one hand, it can prove extremely valuable for the decision process. On the other hand the ex ante assessment of the impact of the ICA intervention during a certain period (for example, one year), is the piece of information you must provide for accountability purposes. Unfortunately, this is extremely unreliable. The average is strongly influenced by a few non merger cases, the impact of which is very difficult to forecast. For example, last year we concluded two investigations on energy markets (electricity and gas) whose total turnover was approximately € 24 billion. A tiny percentage of

⁵ J.Farrell, “Negotiation and Merger Remedies: Some Problems”, in “Merger Remedies in American and European Union Competition Law” ed. F.Léveque-H.Shelanski, Edward Elgar, 2003

this figure has a huge impact on the projection of total impact of antitrust action for the whole year. But the expected effect from our decision regarding energy markets is highly unpredictable. In the case of the electricity market, weather conditions and additions to transmission and production capacity eased supply constraints and therefore reduced the possibility of exercising market power due to “pivotality”, that this measure was intended to challenge. In the other case the ICA imposed the widening of the pipeline connection used for importing gas from Tunisia given the forecasted strong increase in demand for gas. How this measure will affect the internal gas price depends on how much extra gas will effectively be imported. At the moment we only know that the extra import will be provided directly by Sonatrach, the Tunisian state owned company which sells the raw material. Should it increase its buying position against Italian importers?

The recourse to conventional percentages (to be applied to turnover), which are used by some antitrust authorities, does not seem to be a good solution and is probably a worse option with respect to the simple disclosure of the total turnover of markets affected by our intervention.

For all this the reasons ex ante assessment must be released with cautious. It could probably be sensible to split the cases up according to the quality of the forecasts. Only the reliable ex ante assessment should be released. As to the second group, referring to cases difficult to assess ex ante, it should be better to provide only the figure referred to the turnover involved. In this field, international cooperation to find a common standard, based on very conservative assumptions, can prove very useful for certifying the estimation run by the single competition authorities, as they are provided for accountability purposes. A “certification” that the estimate was produced following some international standards, seems appropriate to the exercise.

Ex post assessment

The aim of ex post assessment is to check the quality of the analysis applied to past decisions and the effectiveness of the eventual measure imposed by the ICA. This is probably the most interesting and fruitful part of our activity because it allows us to improve our knowledge of how markets work in practice. We are presently running several analyses, two of which will be presented in the second part of this paper.

Data collection is the real bottleneck of this sort of exercises which must be done on the basis of two sets of data: 1) the data collected during the investigation (which we use to describe the market before the intervention); 2) the ex post data set (which is taken into account for assessing the change due to the intervention). Both sets, however, can be unsuitable for the task.

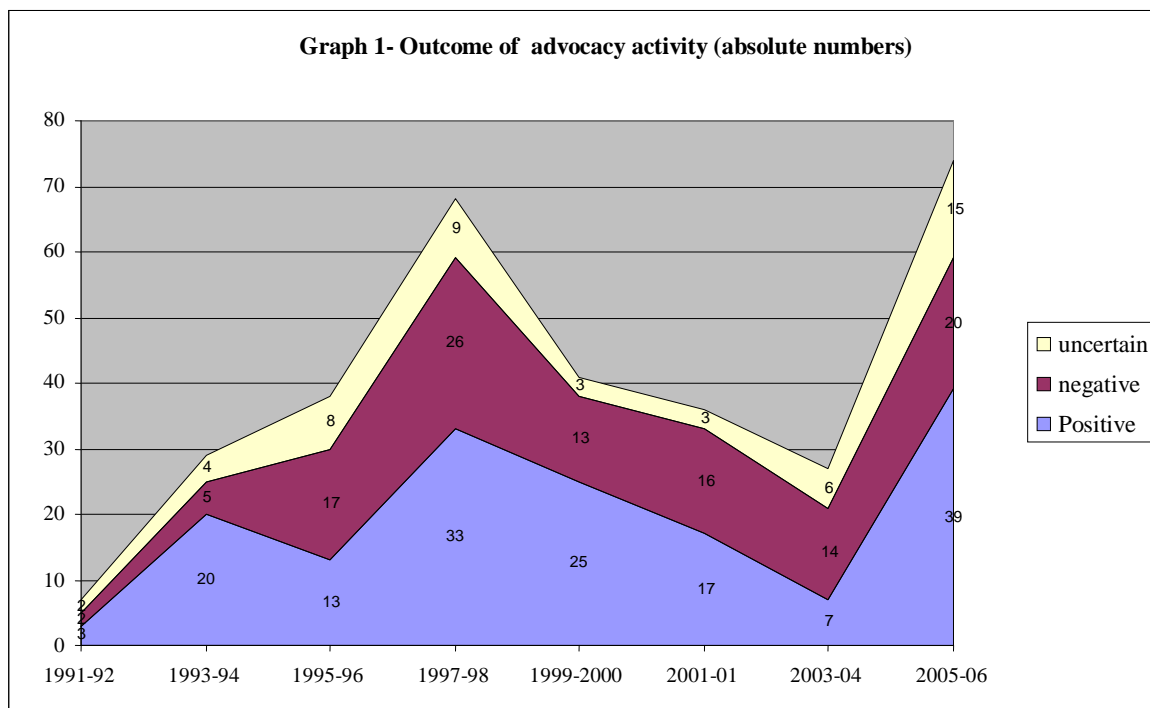
Data used for an investigation could be useless for ex post assessment. It is collected for other purposes (to describe market structure, to assess demand elasticity, etc.). In particular, it is generally cross section or panel data with a very limited time

span instead of time series data, which would be needed to create a suitable counterfactual. Furthermore, sometimes there is no reason to estimate a complete model to assess the influence of all major factors, during the course of an investigation. But these elements are paramount when you must separate the effects of an antitrust intervention from other causes. Recent data could be obtained from firms involved in the case but third parties cannot be forced to deliver their own data. Only data on consumer goods can be bought on the market (Nielsen, IR-infoscan) but, due to budget constraints, an antitrust authority is reluctant to do this, when it is not using it in a formal investigation. This is the reason why we can run our exercises only on a subset of cases, generally those regarding consumer goods or regulated markets (in this case data is collected by the regulators on a regular basis).

Assessment of advocacy

Since the very beginning of its activity, which goes back to 1990, ICA has been very active in advocacy. Last year we started a project, with the co-operation of Bocconi University, aimed at assessing the effectiveness of this activity. In this project by “effectiveness” we mean only the degree of acceptance of our suggestions. The assessment of the impact of accepted suggestions on consumers is another exercise we still have to do. Following the results of this research, we have some idea regarding how many times and why we were able to influence the legislative or the normative process. A paper, by two colleagues of mine, showing the main results of this research project will be released soon⁶. The number of cases when the advocacy activity was successful (graph. 1) shows some variability which basically depends on the number of our interventions. In particular in the last two years the ICA was very active in this field. Here, I only want to mention a couple of interesting results.

⁶ Arisi, E.- Esposito, F. (2007), “Advocacy by the Italian Competition Authority.”



The success rate of advocacy activity by the ICA – which averages to 45 per cent (considering total or partial successes) - is strongly influenced by the proximity of lobbies to the political body addressed by the ICA. We are quite convincing with governments (independently whether right or left), less so with respect to Parliament, and even less still with respect to local authorities: this finding seems in line with public choice prescriptions.

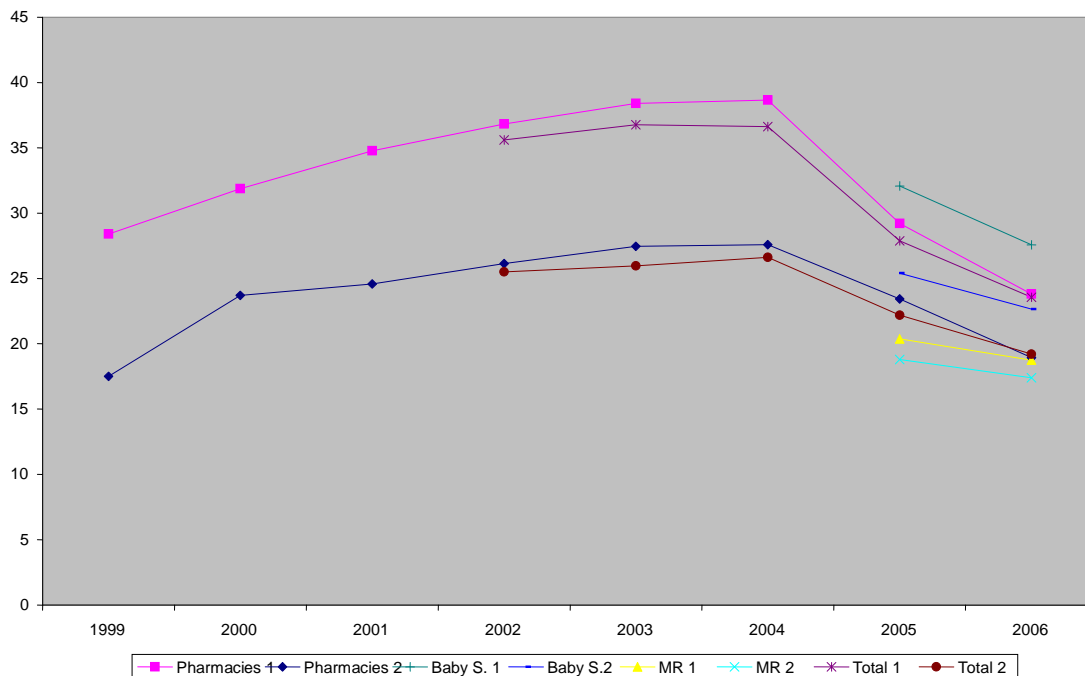
The success rate seems also associated to the competitive concern of the ICA. When the addressed problem referred to pro collusive acts or regulations, such as the ones regarding professions, the probability of success is low. When instead ICA advocated the lowering of barriers to entry in markets dominated by one firm, the chances of acceptance are higher. That is, in order to be successful, the advocacy activity must be backed not only by consumers but also by firms who find new opportunities in the change of regulation.

The formula baby milk case

Urged by prices much higher than the other EU countries, the ICA devoted considerable resources to the goal of enhancing competition in the baby milk market. At the end of the 90s prices of this product were more than double compared to other European countries, as the market was very concentrated and practically all products were distributed through expensive and high margin channels (pharmacies

and baby stores). Between 1999 and 2005 the ICA launched three investigations, two concerning anticompetitive agreements and one related to a merger. The first investigation (concluded in 2000) revealed a coordination by firms not to distribute products through the modern retail sector (supermarkets and hypermarket) and to rotate supply to hospitals. The second investigation (concluded in 2005) showed a collusive exchange of information among the main producers. A concomitant investigation on the merger between two major producers (Numico/Mellin) led to the imposition of very severe, and unusual, measures for the merger to be cleared. The effect of all these initiatives was patchy. The first ruling proved totally ineffective while the other two had an impressive impact. Prices which had soared until 2005 fell by almost 40 % in the following two years (graph. 2).

Graph 2 – Prices of baby milk: start milk (1) and follow on milk (2)



The first investigation provided strong evidence of the determination of main producers to boycott the modern retail (MR) channel. In this way they could maintain a stronger bargaining position with the distribution sector (pharmacies and baby stores have weak negotiation power) and more effective control on final prices. Due to this behaviour, the ICA decided to fine firms € 3 million (1% of producers' turnover), a decision which was backed by Administrative Courts. This intervention proved to be totally ineffective. Prices continued increasing and the modern retail channel maintained a marginal role in distribution: in 2004, only 15% of total sales were channeled through it. Despite high prices, consumers were stuck with the well known and expensive brands because: 1) they were perceived as higher quality and

reliable products; 2) mothers were reluctant to experiment with milks different from those tried at hospitals or prescribed by pediatricians, many of whom warned against low cost entrants. A new unbranded product, launched in 1998 and sold only through supermarkets, did not succeed and maintained in that period a meager share of less of 1% of the total market.

The second investigation was launched in July 2004 based on the motivation that prices were still very high in comparison to international standards. At that time consumer associations had started to target producers of baby milk for their greedy price policy, bringing the problem to the attention of the Government. What the ICA provided on that occasion was “technical assistance” to the “voice” of consumers. From the very beginning of the investigation, not only at the final stage when the ruling of the ICA was disclosed, the ICA made it clear in public speeches and informal documents that there were no apparent justifications for the high prices of artificial baby milk. Its production is centralized in a few European plants serving all European countries. Production costs being the same in all countries, it is difficult to justify the fact that in Italy prices were more than double compared to other countries. Neither could product characteristics provide any explanation for the high prices of branded goods. The intrinsic quality of all products is rather homogeneous, as baby milk sold in Europe must pass very strict health controls.

The combination of the activity of consumers associations, Government attention and ICA intervention produced a change in the demand for these products. People started paying more attention to price, independently of the notoriety of the associated brand. This change of attitude paved the way to the successful entry of two private labels both in the modern retail distribution channel and in the pharmaceutical channel. At the end of November 2004 a private label (COOP) was launched in the MR at the price of € 10. At that time the MR average prices of *start* milk (Milk 1) and *follow on* milk (milk 2) were respectively of € 29 and € 22. The impact of this entry was remarkable: after one month COOP milk gained 17 % of the MR market share, which approached 25 % after 3 months. This entry triggered the reaction of pharmacies who launched their own private label in February (at the same price of €10). This milk also proved to be very successful, rapidly conquering 20 % of the market share of this channel. As a consequence of the two entries, the price of milk1 dropped by 30 % in the MR channel and more than 18 % in the pharmaceutical channel.

At the end of 2005 the second investigation ended revealing a coordinated behaviour among most of big producers of baby milk, who were fined €11 million. In particular, the ICA ruled that the communication of recommended consumer prices by producers was unlawful and distorted competition by making the price choice of each firm recognizable by its competitors. However, even before the end of the investigation, firms had already stopped this practice. We are unable to assess the

impact of this change which presumably would have made mark up of distributors more differentiated as the relevant data (production and consumer prices of single products) are not available and we don't know exactly when firms refrained from this practice. However the assessment of the impact of this change is no longer of interest as the "quite life" environment broke for other reasons (the entry of private labels).

During the second investigation, a merger between Numico and Mellin, two of the main baby milk producers, was notified to the ICA. Quite understandably the merger was analyzed bearing in mind the collusive environment which the concomitant investigation for collusive conduct was revealing. The post merger firm would have commanded a market share of more than 25 %, becoming the biggest firm in the market. Considering the collusive environment of the market, the ICA expressed concerns over the risk of strengthening a joint dominant position. In order to overcome these concerns, the buyer (Numico) proposed to decrease its supply price to MR and baby stores distributors by a percentage undisclosed to the public and to increase the share of product sold through supermarkets. The ICA accepted this proposal: therefore, in June 2005 the merger was cleared by imposing these two measures which would expire by a certain date, also undisclosed to the public. The imposition of a price decrease as remedy for a merger is unprecedented, under all international standards, and probably an unrepeatable decision. However it must be evaluated under the light of the specific economic and legal context of that time.

The effect of this measure clearly depended on many elements, only a subset of which could have been forecasted at the time of the decision. We could have made some predictions on the reactions of competitors and on the behaviour of distributors. But we certainly could not foresee the whole strategy which the merging firms might have adopted.

For confidentiality reasons I cannot disclose all the information we now have. But quite a clear picture of what happened can be seen by looking at public information, as collected by Nielsen. In order to do so we can observe the consumer price change in the period following the end of the merger investigation (the fact that the measure was implemented with a delay of few months does not make a great difference).

The short and long term impact on prices of the measure does not seem insignificant. Numico's consumer price dropped significantly in a range between 10-30%, depending on the kind of milk, the brand and the distribution channel. As a consequence, the average price of milk 1 decreased by 15.1 % (tab.1) in the period June 05-January 06 and by 16.9 % in the period June 05-December 06 (the last period for whom we have data). The price of milk 2 decreased by 14.3 % in the period June 05-January 06 and remained stable in the following period.

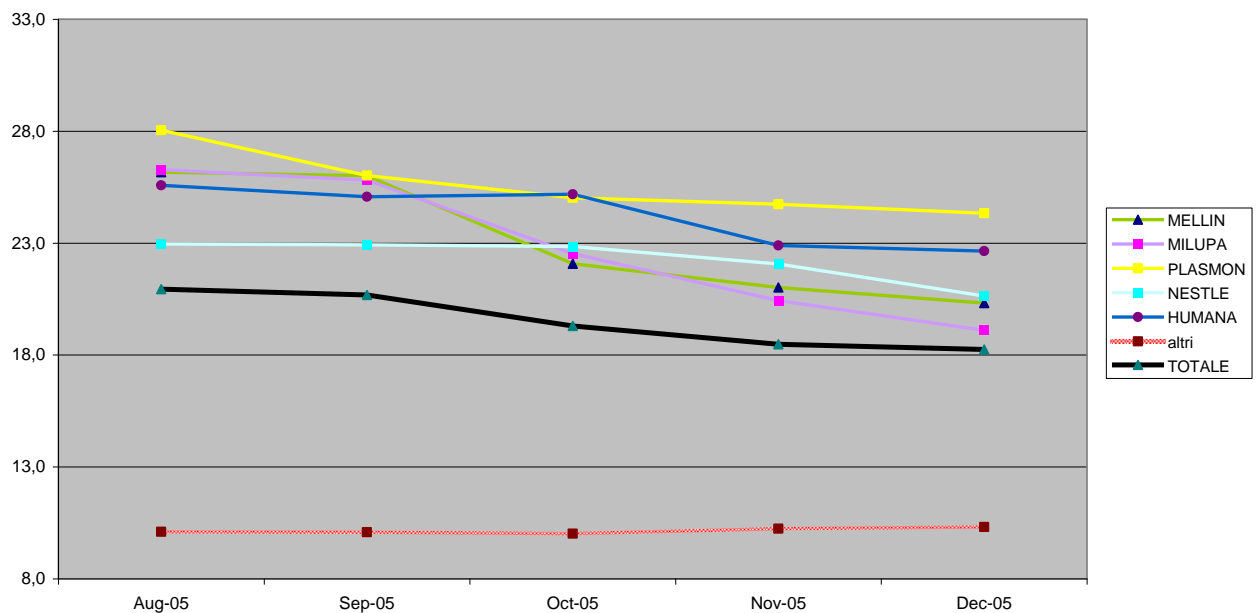
Tab.1 – Consumer prices of start milk (milk1) and “follow on” milk (milk 2)

Source: Nielsen

Milk 1	Jun-05	Jan-06	Dec-06	Jun05-Jan06		Jun05-Dec06	
				Δ	%	Δ	%
Pharmacies	30,2	25,2	23,9	-5,0	-16,6	-6,3	-20,9
Baby Stores	32,3	27,9	26,0	-4,4	-13,6	-6,3	-19,5
MR	20,9	18,2	18,8	-2,7	-12,9	-2,1	-10,1
<i>Total</i>	<i>27,8</i>	<i>23,6</i>	<i>23,1</i>	<i>-4,2</i>	<i>-15,1</i>	<i>-4,7</i>	<i>-16,9</i>
Milk 2							
Pharmacies	22,8	19,2	19,0	-3,6	-15,8	-3,8	-16,7
Baby Stores	25,8	22,7	21,5	-3,1	-12,0	-4,3	-16,7
MR	19,0	16,8	18,0	-2,2	-11,6	-1,0	- 5,3
<i>Total</i>	<i>22,4</i>	<i>19,2</i>	<i>19,2</i>	<i>-3,2</i>	<i>-14,3</i>	<i>-3,2</i>	<i>-14,3</i>

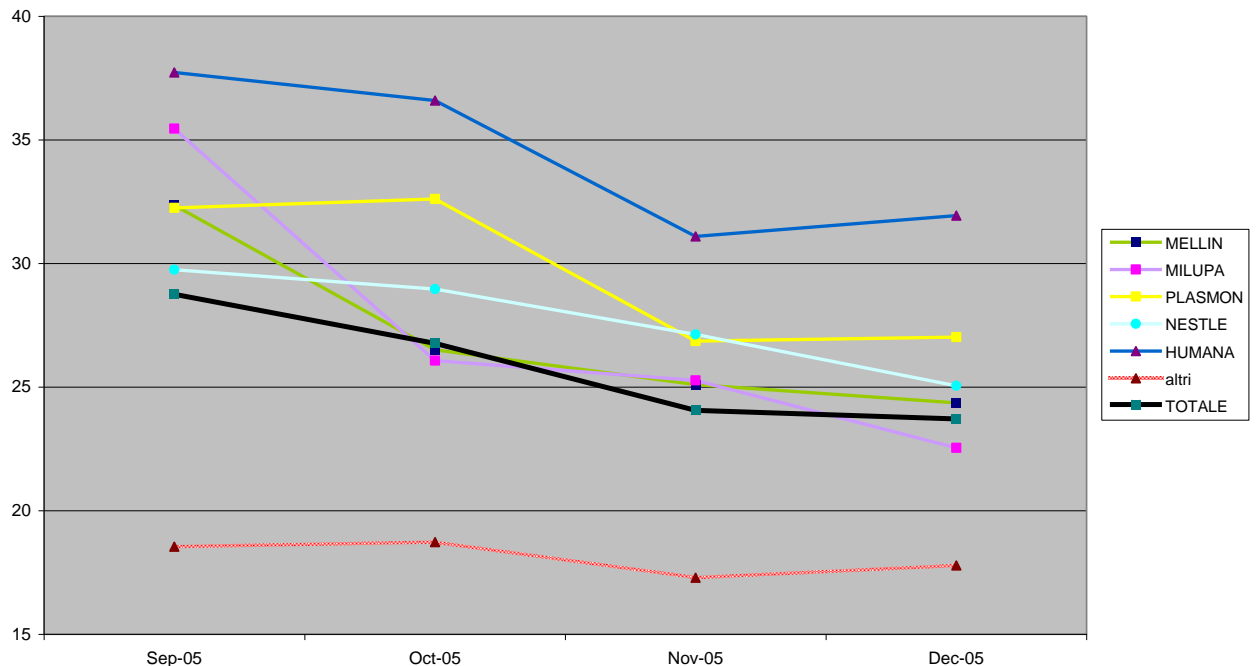
The fact that the highest decrease in prices (of both milk 1 and 2) materialized in the pharmaceutical channel, which was not affected by the measure, is unexpected. In practice this happened because Numico autonomously decided to cut the price of its baby milks (Milupa and Mellin) also to the pharmaceutical sector. Numico’s consumer price, which also depends on the reactions of distributors, decreased more in the pharmaceutical sector than in the MR (Graph 3 and 4, referred to milk 1).

Graph 3 - Start milk sold through supermarkets and hypermarkets: Prices



The different reactions of competitors in the MR and in pharmaceutical sector should also be emphasized. In MR, competitors did not follow (or only partially followed) the price cut of Numico. The branded good producers did so because of the risk of attracting consumers away from the richer pharmacy channel; COOP milk was already sold at a minimum. Therefore Numico market share in this channel increased and the average price showed (in the period June 05-December 2006) a modest contraction of 10 % and 5 %, respectively in milk 1 and 2. On the contrary competitors reacted vigorously in the pharmacy channel (graph 4), more than they did after the entry of the private label. In this case they felt threatened by a direct and close competitor and by dropping their prices they were able to maintain their market shares. The average price decreased by more than 15 % in both milk varieties. By December 2006 the average price of start milk had decreased by 20%, compared to June 2005.

Graph 4 - Start milk sold through pharmacies: prices



How can we be sure that the change in price is genuinely dependent on the measure imposed by ICA? First, when the remedy was implemented prices seemed to be quite stable, after the large drop caused by the entry of the two private labels. Second, there are no other major changes in this period. Casual observation of other national markets in 2005 and 2006 does not reveal any significant price change (only a very modest increase in some markets).

We are now able to calculate the impact of ICA policy in 2004 and 2005. In order to do that, we consider the price change due to the two entries (that is the

price change in the period Nov 2004-June 2005) and the price change due to the merger (only in the period June 05-Jan 06). The total impact is equal to € 56 million, almost half of this dependent on the impact of the two entries.

This is only an estimation of the distributive effect of our policy. We know that in the period 2003-2006 the consumption of artificial milk per new born baby increased from 11.6 to 14.8 kg. We decided not to consider this change for the assessment of the impact of our action for the following reasons. First, it is not clear how much of this change is due to the price variation (we have not yet estimated a regression model explaining baby milk consumption). Second and more important, it is not clear how to evaluate this possible effect on quantities. Assuming it depends on a change of consumption by women, who, for natural or economic reasons, cannot breast feed their babies, the increase in quantity, caused by lower prices, has the usual beneficial effect on the welfare (because now babies drink more milk). Assuming, instead, that a woman is uncertain whether to breast feed or not her baby, the very same increase in quantity, due to price decrease, must be considered in a negative way because it materializes at the expense of natural milk - a fact which negatively affects the health of a new born baby.

Let me add a few final remarks on these cases. Cartels don't break simply because you uncover them as they may continue as "well established" rules. This seems to be the moral of the first investigation regarding the collusive behaviour of milk producers. We can also ask ourselves whether the prolonging of a collusive outcome can be explained by the low level of fines. I suspect the answer is no (or not completely). The economic rationale of fines is rooted in the belief that firms are reluctant to enter a new cartel because of the risk of being fined if they behave in a unlawful manner. But if the uncovered cartel can be sustained without the prohibited behaviour, firms may maintain their quiet life, until an exogenous event (entry, technical change, regulatory change) modifies the environment. Fines only change the incentives of firms adopting a clear unlawful behaviour.

The second point concerns the demand side effects from an antitrust intervention. This is generally neglected, but, as this case clearly reveals, it might prove to be paramount. Only the demand side effect can explain the different reactions of consumers to entry episodes in 1998 and in 2005. Of course, because this effect basically rests on information disclosure, it can also be negative.

Last but not least, the story regarding the merger shows how unpredictable the impact of remedies can be. The effect of the measure was substantial in this case but mainly arose from an unexpected source. The story is not finished yet. Sometime in the future the remedy on price change will expire and....

Fresh milk merger

I have chosen this example because it casts some light on what is, I believe, a recurrent pattern in effect evaluation. I refer to the fact that an antitrust intervention triggers several events, each eligible for a specific assessment. On the one hand, they are strictly interconnected so that a unified analysis is required. On the other hand, each of them has its own characteristics and timing and therefore deserves a specific analysis.

In July 27th 1999 the ICA cleared a merger between Cirio and Parmalat, on the undertaking that they sell several brands of fresh milk and three plants located in different Italian regions. At that time Cirio and Parmalat were respectively the first and third producers of fresh milk in Italy. It must be emphasized that the undertaking was proposed (and accepted by the ICA) by the merging firms when they re-notified the merger. The first notification was withdrawn as the ICA expressed some concerns. The merging firms did not comply with our ruling, a fact that we discovered at a later stage in 2004, following the fraud investigation into Parmalat. It appeared clear at that time that the company Newlat (owner of the assets to be divested) which was supposed to have been sold by Parmalat to Mr Caiola and subsequently to Mr Buffa and finally by Mr. Buffa to Mr. White (a quite appropriate name for the sector involved), in fact never split from the Parmalat group. This was confirmed by the lack of any monetary compensation for Parmalat in exchange for the first sale of this chain⁷. Therefore we can check if the merger between Parmalat and Cirio, not compensated by the prescribed disinvestment, affected negatively the fresh milk market .

Following the merger, the price of fresh milk in Italy had initially a modest increase. By June of the following year, consumer prices had increased by 2.5%. After this date farmers increased prices of the raw material, which represents approximately 30% of the cost of milk industrial price, by 2.8%. By December 2000 consumer price of fresh milk had increased by an additional 3 % (compared to June of the same year). Therefore, we are wondering whether the merger - by having left the national market with only two major companies competing in all regions - weakened competition, causing prices of fresh milk in Italy to increase. In the case of an affirmative answer, we also wonder whether the remedy imposed by the ICA was appropriate to the circumstances.

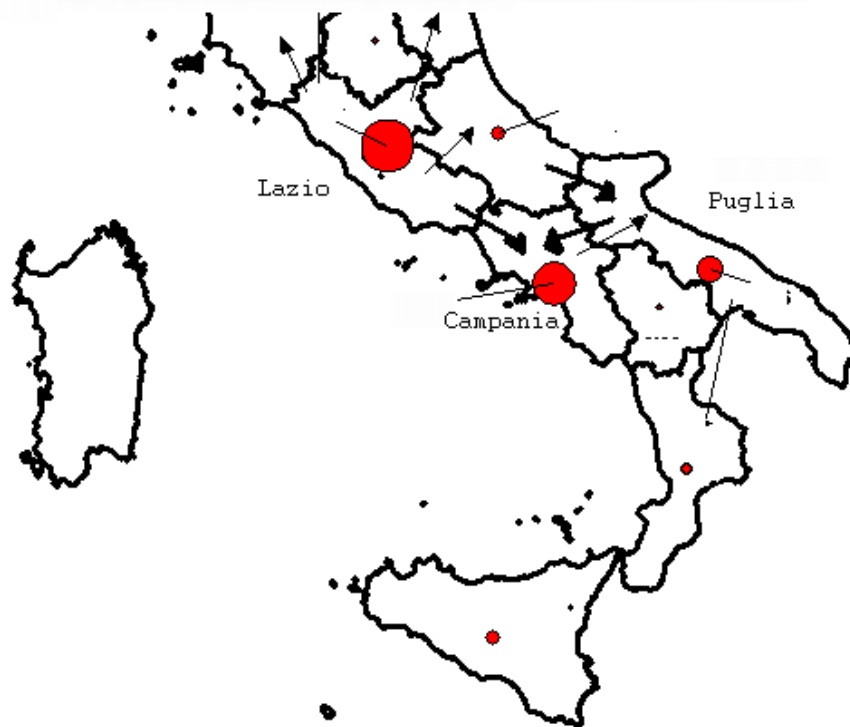
It must be considered that the relevant geographical milk market was regional at the time of the merger. Therefore likely effects from the merger must be assessed at regional level. As only minor effects can be noticed in the northern regions, where

⁷ The fact that Caiola, Buffa and White were foreign citizens or resident abroad did not allow us to have a real idea of what was happening.

most of the national production is located, it would be better to focus on the centre-south regions and, in particular, Lazio, Campania and Puglia (Chart 1), the geographic areas which seem to have been most affected by the merger. It can be noticed that all these three regions are quite large markets and, in particular, Campania and Lazio account for the highest consumption levels of fresh milk in

Chart 1 - Regions of centre and south of Italy

Consumption of milk is indicated by the dimension of red disks



Italy.

The price change observed in each region after the merger cannot be explained only in terms of demand or cost shocks. We also notice some differences among these regions, as prices increased in Campania more significantly than in the other areas (Tab.2). It cannot be excluded therefore that the merger had some negative consequences on competitive conditions.

Tab.2 - Prices of fresh milk in Lazio, Campania and Puglia

	July1999	June 2000	December 2000	$\Delta\%$ Jul99-Jun00	$\Delta\%$ Jul99-Dec00
Lazio	1.09	1.09	1.15	0	5.5%
Campania	1.08	1.10	1.16	2.0%	7.6%
Puglia	1.16	1.18	1.22	2.0 %	5.5%

Source: Nielsen

Our menu of possible explanations is rather rich. First, we can start by looking at the market structure and at a possible justification for unilateral or coordinated effects. A second possible explanation refers to the vanishing of potential competition which, before the merger, exerted a discipline on the functioning of the milk market of Campania. Finally, we can focus on the effects of the strategy of asset depletion which seems to have been adopted by Parmalat as a way to circumvent the ICA ruling.

Internal competition

Looking at the structure of single regional markets, this merger did not appear capable of producing major consequences on competition, as far as unilateral effect was concerned. Cirio was very strong in those regions where Parmalat was virtually absent. The only significant overlapping was in Puglia (and Basilicata), a geographic area where the merger led to an almost duopoly with Granarolo (tab. 3).

Tab. 3 – Market shares of the three main producers in Lazio, Campania and Puglia/Basilicata

	Parmalat	Cirio	Granarolo
Lazio	1.9	56.5	10.2
Campania	1.9	69.5	12.1
Puglia/Basilicata	17.8	13.3	48.2

Source: data provided by firms

To assess the unilateral effect of the merger, we simulated it with a simple PCAIDS, using the market shares and demand elasticity of the time of the merger. This exercise, which we carried out only recently and not in 1999, revealed expected price changes in the range of what we observed in the year following the merger (in particular, Lazio: +0.8% and Campania: + 2.4%). However, the subsequent price increase is substantially unexplained which makes us think that there are other explanations missing.

Also the coordinated effect of the merger should be considered. With only two major competitors remaining in the Italian market, it is not implausible that this effect might have played a role in the functioning of markets. The uneven presence of these two firms in several regional markets is also consistent with models of multi-market collusion (e.g. Barnheim-Winston,1990)⁸. The very fact that the price increase in the raw material, which materialized in the middle of 2000, had such a large impact on the consumer prices all over the regions is revealing. At the moment we are still working on this possible explanation. In order to obtain solid results we

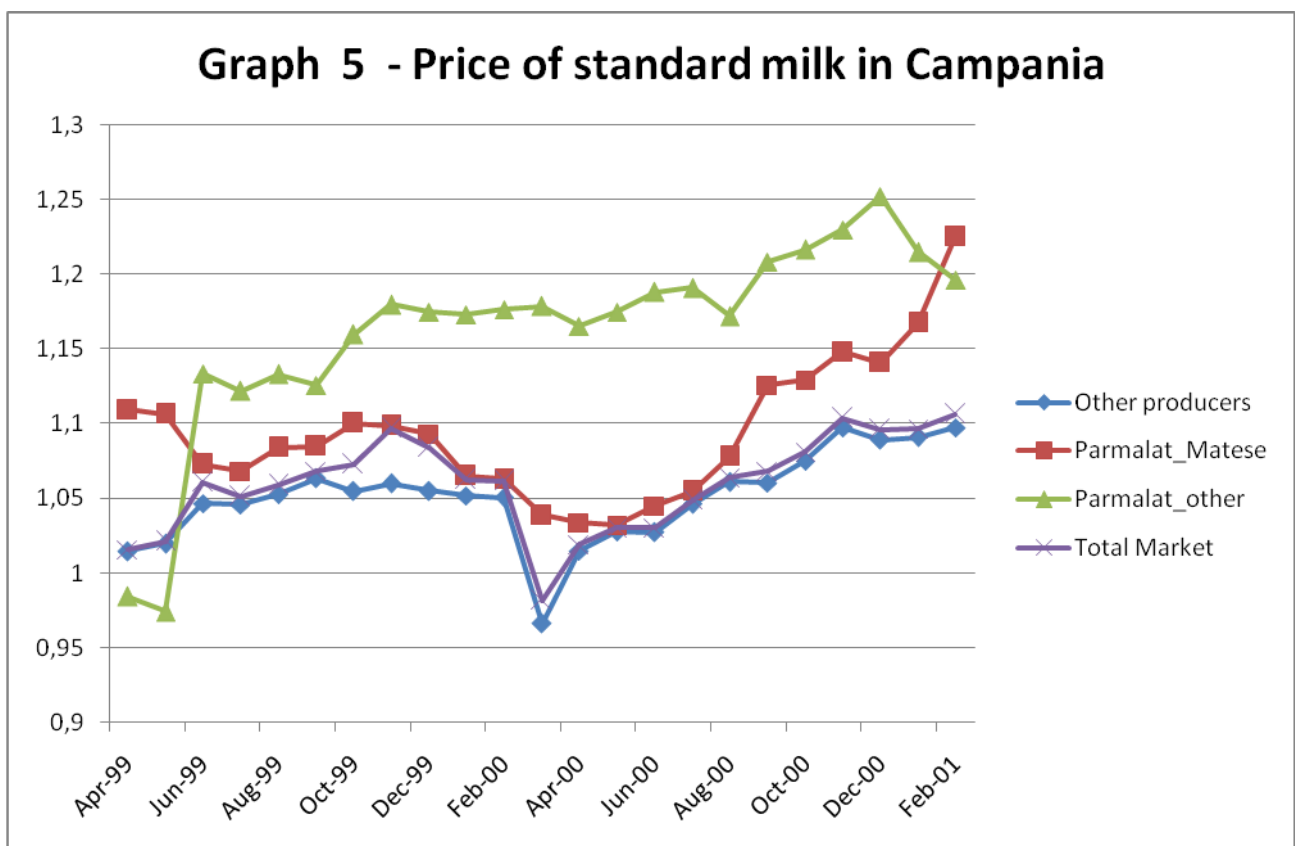
⁸ Bernheim, B.D. - Winston, M.D. (1990), Multimarket Contact and Collusive Behaviour, RAND Journal of Economics, Vol.21, N.1, pp.1-26

must show if and why the merger, by changing the balance between the two remaining global competitors, created those conditions which have made it allegedly easier for them to start and sustain a (tacit) cartel. If this hypothesis is correct, we should find a structural break in the relationship between costs and prices at the moment of the merger, a fact which can be tested.

Potential entry

Before the merger, Parmalat represented an entry threat for the incumbents in the fresh milk market of Campania. This firm, with a meagre share of 1.9 %, could not be considered an effective competitor in this market. At the same time its share of 17.8 % in the neighbouring market of Puglia/Basilicata was a binding constraint for pricing policies by Granarolo and Cirio not only in Puglia but also in Campania⁹. When Parmalat bought Cirio, becoming the main operator in Campania, this threat vanished and the milk sellers in Campania got rid of this constraint.

The commercial policy followed by Parmalat/Cirio now appears quite clear. This firm considerably increased prices of standard milk in Campania in order to push consumers towards the more lucrative high quality milk segment. It is interesting to notice that this strategy was implemented in Campania even before the merger was cleared (Graph 5). A fact which must be considered when assessing the

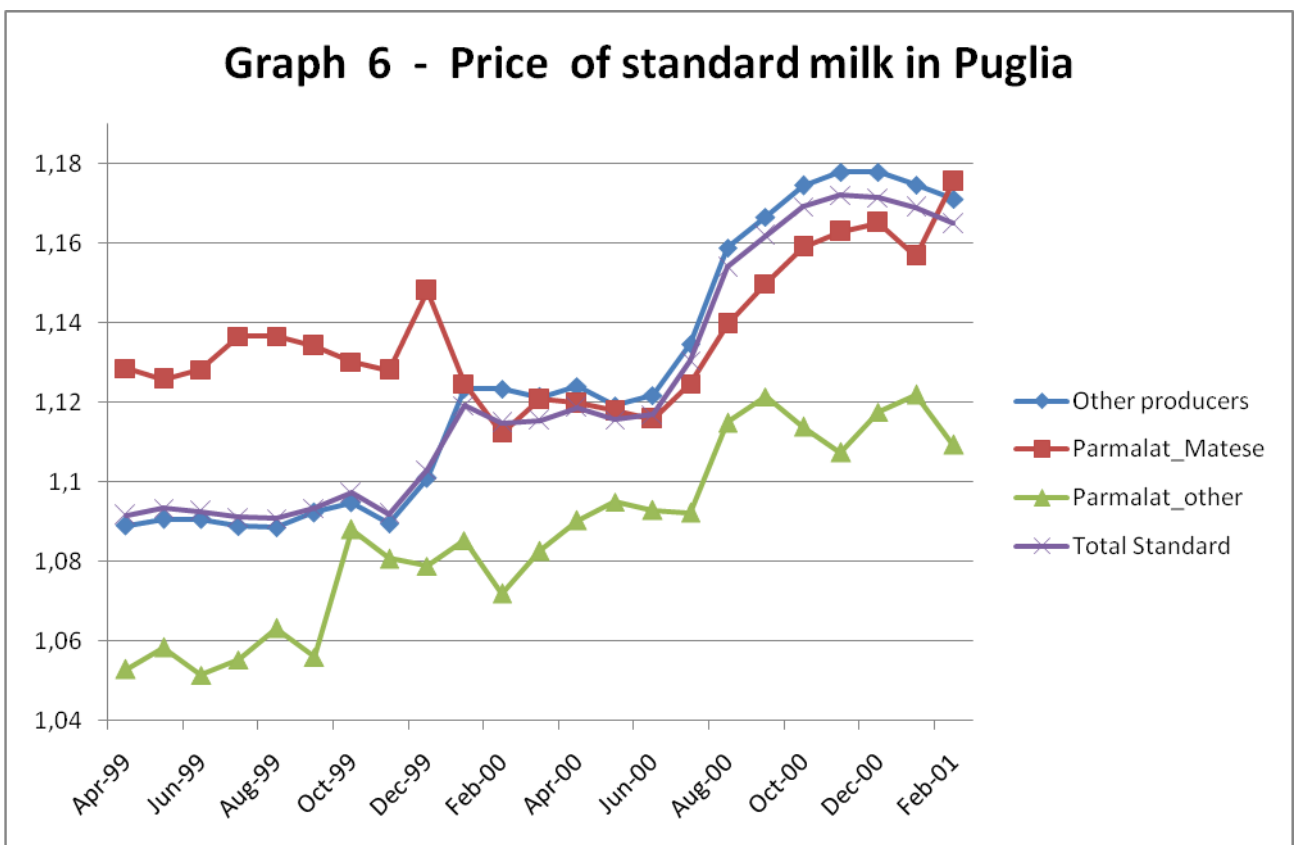


⁹ It must be considered that the threat of entry was credible also because Parmalat was, and still is, the leading Italian producer of UHT milk, and therefore already had a distribution network in Campania

true effect of this merger (implying almost one more percentage point in the relevant price change).

This strategy was quite successful, as the share of high quality milk consumed in this region increased substantially in the following period. A consequence of this forced demand for high quality (HQ) milk can be ascertained looking at the increase in its price, which was remarkable. Before the merger the price of HQ milk in Campania was much lower compared to the other regions of Centre-South. After the merger, this was no longer the case and the price HQ milk in Campania was approximately the same as we could observe in the neighbouring regions.

Parmalat increased the prices of standard milk also in Puglia (Graph 6), a move which was quickly followed by Granarolo, the leader in that market. This change could be a sign that also the Campania market condition represented a constraint for milk sellers in Puglia. But the change in the price of standard milk does not seem to have affected the HQ segment, which was already at a very high level before the merger.



Asset depletion

Parmalat clearly did not want to sell the brands or plants indicated in the ICA ruling, although it had proposed this measure when the merger was notified. The fact that it did not comply with the ICA ruling does not imply, however, that it could use the assets mentioned in that ruling in the same way as it used the rest of its plants or

brands. What Parmalat wanted to achieve was a shift in the market share of the brands it was forced to sell in favour of those brands it could retain. The same policy was implemented for the plants which had to be sold. Parmalat transferred the production facilities to other plants, leaving them with almost empty buildings.

As a matter of fact, the two main brands (Matese and Torre in Pietra) which, according to the ICA ruling, had to be sold by Parmalat in the centre-south regions, lost almost half of their original market share. In the period 1999- 2004, the share (in quantity) of the Matese brand of Campania and Puglia markets shrank to 6% (from 15.3) and to 8.6 % (from 13 %) respectively.

A large part of the strategy implemented by Parmalat was probably enforced with some sort of quantity rationing, although prices also played a role as, for example, can be ascertained from the price of the Matese brand. It started climbing very fast from the middle of 2000: the standard milk of this brand was priced at almost the same price of high quality milk of other brands. A by product of this deprivation strategy was therefore an additional price increase due to the brands which had to be sold.

Conclusion

It seems that the merger between Parmalat and Cirio caused prices to increase in excess of what could be considered justifiable on the basis of cost and demand conditions. If this is the case, we are uncertain of the causes. We have identified three different explanations: coordinated effect, the end of potential competition and depletion strategies, each able to produce effects on prices. All these explanations are coherent with different factual evidence. The coordinated effect story implies that prices should have changed at the same rate in all regions. On the contrary both the potential entry and the depletion hypothesis are coherent with different price changes. In particular, we should have observed a stronger effect in Campania (where potential competition was effective before the merger and where the main asset to be sold was located) compared to other regions. The fact that we have noticed rather homogeneous price increases in all regions, with the exception of Campania, where increases were higher, might be a clue that all these explanations are, at least partially, correct.

These explanations have different implications both for the appropriateness of the ICA decision process and for the way in which it was implemented. Broadly speaking, the coordinated effect explanation involves a possible mistake in the decision process, while the third explanation raises questions about the correct way to implement decisions. The second explanation is in between and could imply errors both in the decision process and in the implementing measures.

If we conclude that the coordinated effect arose and its risk should have been detected in advance, then the reason for the mistake is in the fragmented way we analyzed this merger. Focussing on the regional markets is probably not the correct

way to detect the risk of collusion of national sellers. The lesson from the possible mistake related to the potential entry story is clear: we must pay attention to this sort of competition. It is less obvious how to do it. I suspect that enlarging the market delineation so as to include also potential entrants is still an inadequate solution, although better than nothing. A potential entrant implies a competitive constraint which is different in nature from the one due to incumbent competitors. The third possible mistake (not contrasting the circumventing tactics by merging firms) is the easiest to remedy for an antitrust authority. In the case of measures forcing a company to divest some assets, it should appoint an independent manager in charge of those assets, before a new owner is found.