Merger Enforcement at the FTC
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I. Introduction

Good afternoon. It's an honor and a pleasure to have the opportunity to appear here today. I have been back at the FTC as Director of the Bureau of Competition for almost a year and a half now, so it is a good time to take stock of our recent merger enforcement activities.

First, I would like to place our current merger enforcement efforts in historical perspective, both in terms of basic philosophy and in terms of enforcement statistics. Our philosophy is to continue the merger enforcement program pursued by the previous administration and aggressively enforce Section 7 of the Clayton Act. The enforcement statistics confirm that this is indeed our philosophy. In fact, the voting patterns of the Commission on merger cases have been virtually unanimous on matters where Chairman Muris or I have been involved.

Second, I want to discuss a few of the Commission's recent merger investigations and how the agency's decisions in those matters confirm our consistency in merger enforcement with prior administrations. The Commission voted to challenge Cytyc's proposed acquisition of Digene, and to close its investigations of the Synopsys/Avant! and cruise line transactions. In those cases, we applied the same mainstream merger analysis utilized by our predecessors, and the decisions all turned on a thorough review of the facts present in each case.

Finally, I will share with you some of our recent breakthroughs in international merger coordination.

II. Overview

Before I say another word, allow me to give the usual disclaimer: my comments this morning represent my own views, and not necessarily those of the Commission or any individual Commissioner.

A. Philosophical Overview

When President Bush was elected, many people predicted that the new administration would be much less aggressive in its antitrust enforcement than the Clinton administration had been. There were predictions that President Bush would appoint a Chairman who would just wave mergers on through. Even though the staff of the Commission might still want to challenge mergers, the Chairman and the Bureau Director would stifle that urge.

Those were the predictions. In reality, what is the basic philosophical difference on antitrust matters between the Bush and Clinton administrations? The answer may disappoint some of you.

There is not much difference. And there is no place where this is more clear than in the mergers arena.

The Merger Guidelines that we use today are essentially the same ones introduced in 1982. Although we now view the Guidelines as a force enabling consistency and stability in merger analysis, it is worth remembering that, in 1982, the Guidelines were met with tremendous criticism.(1) First, critics claimed that the new market definition test would result in overly broad markets that would make markets look much less concentrated and, consequently, would dramatically reduce enforcement.(2) That criticism was clearly unfounded. Product markets have remained narrow when the facts warrant it. For example, the Commission has defined separate markets for premium gin and popular-priced gin, and a separate market comprised of soda-lime glassware for the foodservice industry.

Second, critics complained that the Guidelines made unrealistic, academic assumptions that would allow mergers to monopoly.(3)This was simply not true; and the Guidelines were subsequently clarified to ensure that this would not be the case.

Third, critics complained that the Merger Guidelines, especially their approach to market definition, were too theoretical and not operational.(4) To the extent that was true in 1982, it certainly is not true now. I personally believe that the Guidelines were operational even when initially proposed; but also, application of the Guidelines has developed significantly over the last twenty years in ways that substantially improved the Guidelines' workability.(5) Market definition today is a fairly rigorous and data-intensive exercise. There is no question that market definition under the Guidelines is more rigorous than applying the old *Brown Shoe* criteria.

As a result of consistent application of the Merger Guidelines through both Republican and Democratic administrations, merger policy has remained unaltered in its fundamentals for the past twenty years. For those who may not have seen Commissioner Thomas Leary's speech on the essential stability of U.S. merger policy, I recommend it to you.(6) Commissioner Leary describes a significant change in merger policy in the early 1980's (foreshadowed before the 1980 presidential election by various court decisions), followed by gradual adjustment at the margins since.(7) He traces the evolution of merger policy from early in the century, through the adoption of the first merger guidelines in 1968, a number of Supreme Court cases during the 1970's injecting more economic analysis into antitrust, and the passage of the HSR amendment to the Clayton Act in 1976.(8)

Although we have seen improvements to the Merger Guidelines in 1984, 1992, and 1997, the foundation of the analytical method remains intact. As Commissioner Leary points out, the changes were in a few specific areas (*e.g.*, in market definition,(9) incorporating a distinction between "committed" and "uncommitted" entrants(10)) which do not change the basic enforcement approach.

Commissioner Leary also reviewed statistical data on merger enforcement over the past two decades. In particular, he examined the hypothesis that a lax merger enforcement program during the 1980's became more rigorous in the 1990's. Although the available data are imprecise and thus somewhat inconclusive, the data do *not* support the theory that merger enforcement policy has shifted back and forth from more rigorous to more lax and vice versa depending on the party in control of the White House.(11)

Today, we continue to rely on the same principles, use the same Merger Guidelines, applied in the same way, and reach conclusions which, in aggregate, would be unlikely to differ from conclusions the Commission likely would have reached two or three years ago, or even 10 or 15 years ago.

B. Level of Merger Activity

Current data on levels of enforcement activity relative to overall merger activity support this hypothesis of fundamental consistency. After a decade of exceptional growth in the number of mergers and the dollar value of merger transactions, merger activity began to ease in fiscal years 2001 and 2002. The Commission's merger enforcement statistics show consistency over periods with similar levels of merger activity.

One way to measure overall merger and acquisition activity in our economy is to look at the dollar value of such activity, as a percentage of GDP. This measure makes it clear that merger activity spiked in Fiscal Years 1998, 1999 and 2000. Activity in FY 2001 and 2002 was down around 1996 and 1997 levels.

So it should come as no surprise that metrics of the Commission's enforcement activity show lower numbers now than for the years 1998 through 2000. However, if we compare current enforcement activity(12) to 1996-97, when our economy as a whole saw equivalent levels of merger activity, the numbers look very similar. In FY 2001 and 2002, we had 23 and 24 merger enforcement actions, respectively. In 1996 and 1997, the Commission had 27 merger enforcement actions each. With that perspective, it becomes clear that the Commission's enforcement statistics are commensurate with the merger activity in the economy as a whole; they do not, in themselves, indicate any shift in enforcement philosophy.

This conclusion is confirmed by even a superficial review of the Commission votes on merger enforcement matters since Chairman Muris and I returned to the agency. Of the over 30 Commission votes on merger matters that the Chairman or I have been involved with, all have been unanimous except for the cruise matters. So no matter how you slice the numbers, the statistics show constancy in merger enforcement.

III. A Look at Some Key Recent Merger Decisions

A. Cruises

Beyond the raw numbers of litigated cases, second requests, and enforcement actions - in other words, qualitatively rather than quantitatively - it is also clear that the substance of the Commission's review demonstrates continuity with the analytical paradigms employed in the past. The Commission's October 4 decision to close its investigation of the cruise line mergers,(13) while it has been singled out by some commentators as signaling a shift in enforcement philosophy,(14) instead provides a compelling illustration of the fundamental stability of merger analysis at the FTC.

1. The Raw Numbers: Cruising and Concentration

The cruise mergers involved simultaneous investigations of two rival deals: the non-reportable (at the time) friendly proposed alliance between Royal Caribbean and Princess, in a "Dual-Listed Company" or "DLC" structure, and Carnival's reportable competing hostile tender offer for Princess.

This investigation was handled by the staff of our Northeast Regional Office in New York, along with, of course, the Bureau of Economics.(15) The investigation involved a tremendous document production - roughly 2000 boxes - as well as a very large number of interviews, investigational hearings, and other "traditional" components of our merger review. Of particular significance, this investigation was highly data-intensive. We obtained enormous amounts of data on, among other things, capacity utilization and actual transaction prices, from the merging parties and others, and financial data, and used those data for extensive empirical analyses of the industry. The extensive data analyses - which, incidentally, consisted of very large but straightforward reviews of prices and similar information, not complex, technical econometric work - were very important in my recommendation and in the ultimate Commission decision.(16) This extremely thorough investigation ultimately resulted in a unanimous recommendation, from the New York staff, the Bureau of Economics staff, and the management of both the Bureau of Competition and the Bureau of Economics, to close the investigation without challenging either transaction. On October 4, the Commission then voted 3-2 to follow those recommendations and close the investigation.

The Commission issued a lengthy and detailed statement discussing its decision, accompanied by a lengthy dissent. Some commentators noted that issuing such a detailed statement was quite unusual in the context of a decision to close, and that the statement could be particularly helpful in providing guidance to counsel and parties for that precise reason. That may well be the case - it seems obvious that explaining why the Commission decides not to take action in a particular case may well provide at least as much useful information as an explanation of why the Commission decides to take action in other cases. But it is important to bear in mind, as the Commission noted, that each merger involves highly individualized facts, and each investigation will turn on those specific facts.

Assuming that cruising is a market - which I'll discuss further in a few minutes - the cruise mergers presented a merger of two of the four major competitors in an industry with high concentration. However, the mere fact that the Commission voted not to challenge such a merger in itself represents no shift in enforcement policy. Not including health care cases, the Pitofsky Commission closed without challenge its investigations of at least seven mergers with concentration indices and market shares of the merging parties equal to or higher than those of the merging parties in the cruise matters.(17)

Plainly, then, the fact that the Commission closed its cruise investigation despite the relatively high HHIs and the four-to-three nature of the transaction represents no departure from past practice.(18) Moreover, a close examination of the rationale for the Commission's cruise decision shows that, far from representing a philosophical change, the cruise decision resulted from a straightforward application of the Merger Guidelines to the facts. To explore this point, I will talk briefly about market definition, then in more detail about competitive effects.

2. Market Definition Issues

Carnival is the largest cruise company in the world, Royal Caribbean is the second largest, and Princess is the third. Thus, it was obvious from the outset that if the market were limited to cruises we would be quite concerned. On the other hand, cruising is a very small subset of the overall U.S. vacation "market" - about 4%. If the market were broader than cruises, we would not have been concerned at all. As a result, market definition was a key threshold issue, particularly because there were very strong indications that the market was in fact broader than cruises. The Commission ultimately concluded that ocean cruising was a viable market, and although I do not plan to address every component of that decision, I do want to highlight some of the most challenging issues.

Cruising's high demand elasticity presented perhaps the most challenging question for market definition. The analyses conducted by staff as well as by the parties found that industry elasticities were very high relative to the Critical Loss. The industry's "Critical Loss" - the number of customers which would have to be lost to make a price increase unprofitable - is extremely low. Because of the high industry elasticity relative to the Critical Loss, an across-the-board price increase would clearly not be profitable.

The evidence also indicated that, in addition to a relatively high overall industry elasticity of demand, there were many customers with very high elasticities of demand. A large fraction of customers in any given year were cruising for the first time and even repeat cruisers cruise only infrequently. Cruise lines market themselves against other vacation options and seek to expand their share of the "vacation market." Industry capacity has grown substantially (over 100%) in the past decade, with only modest reductions in prices(19) and stable load factors. In fact, in one year in the Caribbean, capacity increased by over 20%. In that year, prices decreased by a much smaller amount, and load factors remained stable. In general, as cruise lines have added capacity, cruising's share of the vacation industry has grown rapidly. This suggests there is a substantial pool of highly elastic potential customers who decide among cruises and other alternatives.

Normally, these results would suggest that the proposed market is not valid under the Merger Guidelines. Certainly, any across-the-board price increase would fail, which not only renders market definition problematic, but also has serious implications for effects theories. However, in this case the Commission concluded that the cruise lines' yield management techniques likely could enable a hypothetical cruise *monopolist* to impose targeted price increases without surpassing the Critical Loss, and that cruising could therefore be considered a viable market.(20)

It is worth noting that, contrary to some news reports, the cruise lines' use of yield management was not viewed by the Commission as a factor mitigating the possible exercise of market power. Rather, it was a very important factor in the threshold determination that cruising could constitute a relevant market. In addition, as I will discuss in a moment, yield management kept certain competitive effects theories alive long after they would normally have been considered dead and buried.

Once you conclude that cruising is a market, the next obvious question is, who competes in that market? This was not a three-to-two merger; rather, by any definition, Star Cruises of Hong Kong, with its North American subsidiary Norwegian Cruise Lines ("NCL"), is a strong number four competitor, at present with a market share about equal to Princess in North America. NCL recently announced that it intends to add at least one, and possibly two, large ships to its North American fleet. To treat this as a three-to-two merger is to assume NCL does not exist or is fading away. Both of those assumptions are counter-factual. Additionally, there are other small cruise lines in North America (some of them owned by formidable companies such as Disney) which were included in the market, though riverboat cruises and the like were not. How to treat the European cruise lines and the parties' European operations was more difficult. Ultimately, they were included to the extent that they were marketed to North Americans.

In any event, with a cruise market, we were faced with a four-to-three (plus a fringe) merger with high HHIs. Against that backdrop, I now turn to the critical part of the analysis - competitive effects.

3. Competitive Effects

Under the Merger Guidelines, concentration indices in the range of those present in the cruise investigation create a presumption that the mergers "are likely to create or enhance market power, or facilitate its exercise."(21) However, that "presumption may be overcome by a showing that" various factors "make it unlikely that the merger will create or enhance market power, or facilitate its exercise."(22)Moreover, the factors which made market definition difficult also impact the strength of the presumption.(23) In other words, effects analysis is not neatly compartmentalized from the analysis of market definition; rather, the factors affecting one determination may impact the other. In this case, the evidence concerning the nature of the market and of competition in the cruise market developed during the ten-month investigation overcame the presumption of anticompetitive effects.

a. Unilateral Effects

I would like to start by discussing unilateral effects - the danger that, post-merger, the merged entity would unilaterally be able to raise price or reduce output profitably. The relatively brief discussion of this issue in the Commission's statement does not suggest that unilateral effects issues were given short shrift in the investigation. Rather, the evidence developed during the investigation indicated that, in this case, the risk of coordinated interaction significantly outweighed the risk of unilateral effects - a point with which both the Commission and the dissent agreed. In order to provide some additional clarity on this point, I'll spend a few minutes on unilateral issues.

Either merger would have created a firm with a share of the North American market of just under 50%. Given this high share, we considered whether the merged firm would be able to act as a dominant firm and either raise prices or reduce capacity. Our detailed review of the evidence indicated that neither was likely. With regard to price, as I discussed above, an across-the-board price increase even for a hypothetical monopolist would not be profitable given the high elasticities of demand relative to the Critical Loss. Thus, a unilateral across-the-board price increase by the merged firm at existing capacities would also not be profitable. However, we believed that a hypothetical monopolist might be able to engage in price discrimination, raising prices to less elastic customers while maintaining (or possibly reducing) prices to more elastic customers in order to increase *average* prices. The key to this strategy would be to achieve a pricing methodology, possibly through the use of yield management, that segregated the more elastic from less elastic customers.(24)

It is important to note that when increasing prices to inelastic customers, the hypothetical monopolist would not, by definition, have to worry about losing these customers to other cruise line competitors. By contrast, the merged firm, even with close to a 50% market share, would continue to face substantial competition and thus risk losing its inelastic customers to other competitors. While these customers may be "inelastic" with regard to cruising, at least some significant fraction would be much more "elastic" among cruise line competitors. There is little brand loyalty among cruise lines.

The cruise lines' goal is to try to find as many "high value" customers as they can and then attempt to fill their remaining capacity with "lower value" customers. If the merged firm left some "high value" customers on the table by keeping prices high, competitors would have the incentive to take those customers. Suppose, for example, that the dominant firm decides to hold its prices of $1000 (for a given type of cabin on a given cruise) longer than it would have, pre-merger, with the hope that more people will end up paying $1000 rather than a lower price. Because the dominant firm faces significant competitors who are actively trying to sell their berths, the people who might have eventually paid $1000 if they had to wait, will not have to wait - other competitors will probably sell them at a price below $1000. Thus the waiting will have been counterproductive for the dominant firm, because the dominant firm will have lost sales that it would have been perfectly happy to make at, say, $950.

Competitors would not only have the incentive to capture the relatively inelastic customers: they would also have plenty of capacity for this purpose. The cruise lines carry a mix of elastic and inelastic customers and thus could increase supply to inelastic customers by selling to fewer elastic customers. That is, the "fringe" of all other competitors has a very elastic supply for this purpose. In a homogeneous product dominant firm model, if the remaining competitors have a sufficiently elastic supply, the dominant firm cannot raise price. That is the case here, and thus the merged cruise line would not be able to act as a "dominant firm" with regard to price.

The evidence also does not support a differentiated product unilateral effects theory. To begin, we again run into the high elasticity/low Critical Loss problem. Given that problem, a unilateral effects analysis would have to be based on a price discrimination theory targeting those customers who see two cruise lines as relatively close competitors. However, there is no way for the cruise lines to identify such consumers.(25)

Further, in addition to the absence of brand loyalty in the cruise industry, none of the merging parties is a particularly close competitor relative to any other cruise line. Each offers numerous highly differentiated but overlapping cruise products (defined by brand, itinerary, amenities, etc.), and each product faces a number of relatively close competitors: across-the-board competition from the major cruise lines, and overlap from the smaller cruise lines at various points on the spectrum. To make matters more complicated, each ship offers highly differentiated products. Thus, an upper-deck suite on one vessel may well overlap with a balcony cabin on a more upscale vessel, which may overlap with a basic outside cabin on an even fancier ship.

We also considered whether the merged firm could anticompetitively raise prices through reducing capacity by redeploying ships outside of the geographic market. However, given the relatively high industry elasticities, the merged firm would have to reposition a very large portion of its fleet to obtain even a slight industry price increase. Our financial analyses indicated that such a shift would be unprofitable because the costs of such a strategy would be significant (the redeployed ships would earn lower revenues and the redeployment could impact the profitability of ships already operating in the redeployed area) and the (gross) gains modest (a slight increase on remaining ships which would now represent substantially less than 50% of North American capacity). This conclusion was buttressed by the fact that if prices were raised in conjunction with a substantial shift of ships by the merged entity, the other competitors would find it profitable to shift some of their ships to take advantage of elevated prices, which would undermine the merged entity's incentives to attempt the maneuver. Finally, such a radical capacity deployment strategy by Carnival/Princess or Royal Caribbean/Princess could leave its major competitor in a position to become the market leader in North America - an unlikely strategy for either to employ.

A theory of unilateral reduction in total capacity also is not viable. As with redeployment, it would require a very substantial reduction of the merged entity's total fleet. Furthermore, the industry - and each individual competitor - has already placed firm orders that will very substantially increase industry capacity over the next few years. History has shown that ships that are built will sail, even when purchased by what turns out to be a bankrupt cruise line. Throughout the course of this investigation, firms have continued to announce new ship builds. There is a reason for this: building new ships is highly profitable, even when one takes into account the impact of increased capacity on prices and thus on the revenues of the existing fleet. Our financial analyses indicated that the merged firm would also find building new ships to be profitable. If the merged entity unilaterally reduced capacity in order to elevate prices, the other competitors' (including Royal Caribbean or Carnival, whichever does not win the bid for Princess) incentives to build new ships would become even stronger. For all these reasons, a capacity reduction strategy is unlikely to succeed and, knowing this, the merged entity has little incentive to attempt it.

b. Coordinated Interaction

After determining that the unilateral theories were not sustainable, the Commission then considered the viability of coordinated interaction theories of either price discrimination, capacity reduction or reductions in amenities. The Commission concluded that the evidence was not consistent with any of these theories. I discuss the theories of price discrimination and capacity reduction here.(26)

Price Coordination

Because of the high elasticities and low Critical Loss, it was clear that the parties could not impose an across-the-board price increase. As a result, our investigation focused on determining whether the parties could implement a coordinated price discrimination scheme, raising prices to less elastic customers while keeping prices lower for elastic customers.

There are two possible scenarios for such a coordinated, discriminatory price increase: (1) a coordinated increase targeted at a less elastic customer segment that could theoretically be identified in advance by some observable characteristic, such as geographic origin, "repeat cruiser" status, cabin type or some other criterion; or (2) a coordinated increase targeted at an inelastic customer segment that could not be identified by otherwise discernible characteristics, but would exhibit a sufficiently stable purchasing pattern to permit price increases to focus on their buying patterns, such as time of booking.(27)

Cruise Pricing In General

Before I discuss these two price discrimination theories, let me say a word about cruise pricing in general. The cruise industry has a very complex pricing structure. This by itself, of course, does not mean that coordination is not feasible. However, it does require either that there be discernible categories of prices that can be subject to coordination or that there be systematic patterns within the complex pricing structure that would simplify price coordination.

If you think for a minute about the products the cruise companies sell, the reasons for the complexity of cruise pricing become apparent. First, "cruises" are heterogeneous - even those offered by a single cruise line. Cruises differ by time, itinerary, and ship. Accommodations vary within and across ships. Off-ship services and amenities vary across itineraries, and onboard services and amenities vary over ships. Each cruise line has several different classes of ship, each of which has somewhat different features. Any given ship may have as many as 20 cabin categories, each of which may be priced differently from the others at any given point in time.

Each cruise line also offers many different itineraries at many different prices. This complexity is compounded by the fact that there are numerous cruise lines, with numerous brands. Each cabin, for each ship, for each sailing, for each cruise line, may have a different price, resulting in a large number of prices in the market at any particular moment.

Our extensive analyses of actual transaction prices also established that cruise prices not only vary tremendously based on what cruise "product" is being sold, but also vary based on when sales occur. Cruise lines typically offer at least two to three prices for each cabin class immediately when they announce the itinerary for a particular sailing, usually twelve to eighteen months in advance. Then, depending on demand and how the cruise is booking relative to historic levels, they begin adjusting the prices on each cabin class, by raising or lowering prices for all of the cabins in the class, or by offering specials through particular travel agents or in particular areas, or in any number of other ways. Further complicating matters is the fact that, because cruises are offered for booking up to eighteen months before sailing, the same itinerary may be available on several departure dates at different prices, because prices for each departure date may be adjusted independently.(28)

The variable nature of cruise prices is heavily influenced by the particular economics of the industry. When a cruise ship sails, every empty cabin is wasted. Further, the marginal costs of additional passengers are quite low, and could even be negative (because the passengers spend money on board). Thus, the cruise lines have very strong financial incentives to try to fill their ships. Demand for any given sailing, however, is highly variable. Different sailings of the same itinerary for the same ship near the same point in time can book at very different rates and have quite different patterns of pricing. Thus predicting the "correct" prices for a given sailing is very difficult. As a result, cruise lines are constantly adjusting their prices to try to fill their ships. Although there is an overall average trend across all sailings for prices to fall through the booking period, there is very substantial variation in the pattern of prices throughout the booking period across itineraries. In fact, prices often increase as sailing approaches.

The third important characteristic of cruise industry pricing is that the prices are not transparent. While the initial "brochure" rate - by which I mean the prices contained in the pretty glossy brochures the cruise lines publish a year or more in advance - can be obtained fairly easily, essentially no customers actually pay that price. The actual transaction prices consist of numerous particular prices offered each day by travel agents scattered all over the country - because roughly 95% of cruises are sold through the nation's roughly 10,000 travel agents. Each of those prices may factor in a number of specific features - a particular global discount or price increase from the cruise line, particular cruise line discounts to which each individual travel agent may or may not have access (such as discounts to high volume agents, discounts to agents in particular regions, "block" discounts to agents who commit to selling groups of cabins, and others), air fare benefits, "free" cabin upgrades, gifts such as bottles of wine, and the travel agent's own discounts, such as rebated commissions. There is no reasonable technique to track on a regular basis all, or even a large portion, of these ad hoc, constantly fluctuating prices, although the cruise lines do attempt to gather as much information as they can about each other's pricing. Even if the cruise lines obtained a snapshot of all of the prices in the market at a particular moment, many would change by the next day - if not sooner - in unpredictable ways.

Targeted Price Discrimination

The industry's complex and relatively opaque pricing structure complicates any coordinated price discrimination theory. One possible price discrimination theory would involve discriminating against identifiable customer groups such as "repeat cruisers," customers in higher-end cabins or other customers identifiable by some unifying characteristic such as age or geographic origin. However, the evidence refuted this theory. First, the evidence does not support a conclusion that those classes of customers differ significantly from others, on average, in their price elasticity of demand or the variability of the prices they paid. In addition, the cruise lines know little or nothing about the passengers booking any particular cruise at the time they book, in large part because the vast majority of cruises are booked through travel agents.

Let me discuss, as one example, whether customers who purchased higher-end cabins might have less elastic demand and thus be a potential target of price discrimination. The hypothesis was that because such customers were willing to pay more for a cruise, they might be less price elastic (of course, it was also plausible that such customers simply were willing to pay more for vacationing generally and were just as elastic vis-a-vis cruising as customers booking lower-end cabins). As it turned out, the evidence did not support the theory that customers booking higher-end cabins were less price elastic than those who book lower-end cabins. Our extensive data analyses showed that the prices for higher and lower-end cabins exhibit similar variability. In addition, prices for higher and lower-end cabins exhibit similar volatility over time. Thus, the evidence did not indicate that pricing for higher-end cabins exhibits a stable, systematic pricing pattern that might be subject to coordination.

"Self-Selecting" Price Discrimination and the Role of Yield Management

Since no definable group of cruise passengers could be targeted for coordinated price discrimination, we considered the possibility that the cruise lines could engage in price discrimination against self-selecting customers. This would involve setting and/or keeping some prices higher longer for some category of accommodations or itineraries. One theory would be that the cruise lines would raise prices early (or delay implementing tactical discounts), capture the inelastic customers, then employ aggressive discounting under their yield management systems to fill their ships with the more elastic customers.

For this to be plausible, there must be systematic pricing and booking patterns that would enable coordination over early prices to lead to higher overall average prices. That is, there must be a systematic relationship between list or "early" prices and the actual transaction prices paid and a systematic pattern in the timing of bookings so that one can expect a significant fraction of current "early" bookers to continue to book "early" even if early prices rise relative to later prices. The extensive empirical analyses provided no support for such a theory. Pricing and booking patterns for similar ships sailing from the same port at the same time with comparable itineraries vary substantially across months and across ships. The same is true even for multiple back-to-back sailings by the same ship.

The prices paid by early bookers relative to later bookers vary substantially and non-systematically. On average, prices are lower for later bookers than early bookers - but in many cases the opposite occurs (i.e., prices rise over time) and even when prices fall, the size of the decreases varies significantly across sailings, as does the timing of both bookings and price changes. Thus, there is no mechanism for a coordinated price increase predicated on self-selection by inelastic consumers. Raising initial prices, or delaying discounts, would not reliably increase actual prices or revenues; the effects would be random and unpredictable, sometimes resulting in higher and sometimes in lower transaction prices.

Summary: Price Coordination Under the Guidelines

Two final points on price coordination merit consideration. First, because cruise prices exhibit so much unsystematic variation, detecting cheating would be very difficult even if the coordinating cruise lines had immediate access to all of each other's prices. Even if price changes could be detected, the cruise lines could never be sure whether they were mandated by a legitimate need to respond to demand changes, or instead constituted attempts to cheat on the price coordination.

When competitors are unable to detect cheating and demand fluctuations are frequent and large, coordination is likely to be very difficult.(29)

Second, either of the proposed mergers would have left several rivals in place with strong incentives to "cheat" in order to take advantage of any attempted coordination by stealing potentially higher-paying customers by offering somewhat lower prices. Either Carnival or Royal Caribbean - whichever one does not merge with Princess - will remain a formidable competitor. Norwegian also possesses substantial capacity and would be strongly motivated to deviate from any price coordination (particularly since cheating would be undetectable). While not as large as Norwegian, Disney and other cruise lines may also be able to respond to and disrupt price coordination. Given the elasticities and low Critical Loss, it would not take much response to render unprofitable even ostensibly successful coordination - which in turn, as I noted above, is implausible on its face.

As a result, theories of coordinated price increases - including coordinated price discrimination using yield management - failed each aspect of the Guidelines' test. Coming to a consensus on pricing would be difficult; market conditions are hostile to detecting and punishing deviations; and competitive response to elevated prices is likely.(30)

Capacity Coordination

The other avenue of possible coordination we explored was some form of reduction in capacity, either by redeploying existing assets out of the market or by canceling or not building future ships. However - in large part as a result of the relatively high industry price elasticity relative to the Critical Loss, and because of particular factual problems with the various capacity coordination scenarios in which the cruise lines might theoretically engage - the evidence did not support a theory predicated on a coordinated reduction in capacity.

Capacity coordination was discussed extensively in the Commission's statement. I will add only a few comments here. The analysis is similar to that discussed in the unilateral effects section. However, the coordinating parties would control more North American capacity than the merged firm would alone. As a result, it was conceivable that the coordinated group could profitably restrict capacity even though the merged firm alone could not. As I discuss below, though, the facts ultimately demonstrated that this would not be the case. Even assuming perfect coordination among the group, capacity restrictions would most likely be unprofitable.

Coordinated Redeployment is not Feasible

Given relatively high elasticities in the industry, in order to achieve a 5% price increase in North America the coordinating cruise lines would have to move a very large fraction of their capacity out of the market. Accomplishing such a large scale coordinated shift in capacity would be difficult without explicit collusion leading to a transparent and radical redeployment of the North American fleet. Extensive financial analyses indicated that the profitability of such an action would be marginal, at best, and made worse by cheating or by expansion or entry by noncoordinating cruise lines.

Effectuating a "North American" price increase would require ships to be deployed in far smaller markets. Even the largest alternative market, Europe, is currently less than half the size of the North American market. Thus, shifting North American capacity to Europe would increase capacity there by a multiple. This means that the coordinating cruise lines - who have significant presences in Europe - would incur large price decreases in Europe - on the redeployed ships and all other ships operating in Europe - in order to obtain a 5% price increase in North America. Shifting capacity to markets smaller than Europe is even more problematic.

Furthermore, redeployment, particularly of otherwise profitable ships, is itself costly. A redeployed ship requires some downtime and a "repositioning cruise," and such cruises are typically very unprofitable by comparison. Not only would the cruise lines forego substantial revenues from the cruises the redeployed ships would otherwise have offered, but also, in some cases, ships would need some reconfiguration to better attract customers of different nationalities. Additionally, redeploying ships requires educating travel agents about the ship's new location and itinerary, a process that is costly in itself and still more costly in the form of slow bookings until the new information disseminates through the travel agency community. Additionally, the evidence indicates that there is some value to maintaining a consistent and sizeable presence in the major markets. To the extent this is true, moving large numbers of ships would have a negative impact on the coordinating cruise lines' market position and travel agent perceptions.

Finally, any potential gains from redeployment would be vulnerable to entry or expansion, both of which appeared reasonably likely in light of the evidence developed during the investigation.(31) In addition to simply shifting existing ships in response to redeployment - which could well be attractive to European cruise lines facing serious price pressures in their home markets from a large scale redeployment of Carnival, Princess, and Royal Caribbean ships - there is a substantial likelihood that the other cruise lines may build even more ships. While a new ship takes roughly four years to build, a cruise line can begin selling its cruises two years in advance, and it can announce that it intends to build new ships and deploy them on new routes with little lead time. Thus, any repositioning could be met virtually immediately by announced new builds. While it is unlikely that other cruise lines would match the magnitude of the coordinating parties' redeployment, a much smaller response would erode the already questionable profitability of redeployment.

A Coordinated Reduction in Overall Capacity Is Unlikely

We also investigated the possibility that the mergers would enable the parties to coordinate a reduction in the number of ships they build. However, the evidence demonstrated that any such coordinated behavior would probably be unprofitable for the parties and could not be sustained in the face of expansion and entry.

The cruise lines, in aggregate, are already committed to a large capacity expansion over the next four years in North America. That being the case, it appeared that, to achieve a 5% price increase, the coordinating parties would have to find a mechanism to cancel the majority of the ships they have on order. It is difficult to conceive of such an event occurring without explicit collusion (not to mention litigation by and liability to the shipyards, and the obvious transparency of the outcome). Further, as I discussed earlier, adding ships continues to be highly profitable for each cruise line even taking into account the fact that new capacity seems to reduce industry prices to some extent. New ships (with new designs and features) stimulate new demand for cruising, and are a primary means by which the cruise lines attempt to differentiate themselves from their rivals. Because the cruise industry may have very substantial growth prospects, the cruise lines continue to have strong incentives to add ships to grow the market and to stimulate demand. A coordinated capacity reduction would entail freezing the existing status quo, both among the cruise lines, and in terms of cruising's position in the overall vacation industry - a result unlikely to be acceptable to any of the parties.

In sum, there are strong unilateral incentives for each player in the hypothetical conspiracy not to "pull its weight" in overall capacity reduction. In the jargon of oligopoly theory, reaching consensus is likely to be difficult. In addition, "punishment" theories are problematic, since cheating results in ships that will not "go away," and "punishment" would seem to require the construction of even more ships. Further, any coordinated scheme to reduce new builds would be even more vulnerable than coordinated redeployment to entry and expansion by the smaller competitors. Finally, the long time frames involved in building ships mean that the full price effect of the reduction would not be felt for many years. The magnitude of the reduction appears to represent considerably less in profits to the cruise lines than they would realize by building and deploying the ships in an expanding market.

4. Conclusion

The ultimate lesson of the cruise investigation is that the Guidelines mean what they say. High concentration creates a presumption of problems - but that presumption can be rebutted by the facts in a specific matter. Here, the facts - particularly quantitative and financial analyses - rebutted the presumption.

B. Vertical Mergers

The Commission has also continued its aggressive scrutiny of vertical mergers. For example, in Cytyc/Digene, the evidence showed that consumers were likely to be harmed, and so the Commission voted to sue to block the deal (which the parties then abandoned). On the other hand, of course, when the facts do not support a theory of competitive harm, we do not challenge mergers. In Synopsys/Avant!, a month after Cytyc/Digene, we carefully examined the evidence and concluded that the facts simply did not support any theory of competitive harm. As a result, the Commission voted to close that investigation without challenge. The outcome in each case was dictated by the facts, not by any predisposition towards or against vertical mergers.

Digene is the only company in the U.S. selling a DNA-based test for the human papillomavirus (HPV), which is believed to cause nearly all cervical cancer cases. Cytyc's products account for 93% of U.S. liquid-based Pap tests, which are the most widely used sensitive primary screening tool for the detection of cervical cancer. It is vitally important for manufacturers of liquid Pap tests to have viable access to Digene's HPV test. By purchasing Digene, Cytyc would have been in a position to limit its only existing competitor by limiting access to Digene's HPV test. In a similar manner, it could also have thwarted the entry of other firms that had planned to begin selling liquid Pap tests in the near future. The proposed acquisition would also have eliminated future competition from Digene's HPV test itself, both in conjunction with Pap testing and later on a stand-alone basis to test for cervical cancer. Therefore, the potential for consumer harm was very real, and the Commission voted to block the merger.(32)

In the *Synopsys* merger, the situation was quite different. The merger involved software that is used in the design of computer chips. Synopsys had a nearly 90% share of "logical synthesis" or "front-end" tools for chip design, and Avant! had a share of about 40% of so-called "place and route" or "back-end" tools. The major issue was whether the merger would give Synopsys the ability and incentive to enhance the back-end competitive position of the formerly independent Avant!, by making it harder for competing back-end products to communicate with Synopsys's dominant front-end product.

In contrast to *Cytyc/Digene*, customers supported the *Synopsys* merger because it was viewed as an important potential solution to a pressing industry need. Customers hoped it would speed the development of a relatively seamless integration between the front-end and back-end tools, resulting in a vastly improved product. Such integration is required in order to develop ever-shrinking chips economically. Also, while there were plenty of *theories* of competitive harm, at bottom there just was not enough evidence that Synopsys would have either the incentive or the ability to foreclose competitive products sufficiently to harm consumers. The Commission took a hard look at all the facts, put its theoretical concerns aside, and voted unanimously to allow the merger.(33)

IV. International Merger Coordination

Let me turn to an increasingly important topic: merger analysis in a global economy. U.S. firms and the U.S. antitrust agencies regularly interact with our antitrust agency counterparts in other countries. These interactions raise a multitude of procedural and substantive issues. As transactions having effects in multiple jurisdictions increase, and as antitrust regimes continue to proliferate worldwide, cooperation and convergence are increasingly essential. Accordingly, the Commission is giving increasing attention to international issues by:

- Continuing and intensifying our cooperation and coordination with foreign antitrust enforcement authorities to promote the effective handling of particular matters involving multiple jurisdictions;
- Pursuing bilateral discussions with foreign counterparts to establish a consensus on "best practices" in process and substantive analysis; and
- Participating actively in multilateral efforts to encourage streamlined merger review based on sound analytical principles.

On the multilateral level, let me take a few moments to discuss some important steps that the International Competition Network (ICN) has recently taken to promote convergence toward best practices in merger review.

Formed in October 2001, the ICN comprises seventy-four competition agencies located on six continents. Unique among existing fora, the ICN consists exclusively of antitrust agencies, and encompasses developed and developing countries - as we like to say, the ICN is "all antitrust all the time." The ICN also draws heavily on input from the private sector - representatives of the business, legal, consumer, and academic communities are involved in all phases of the work, although decisions are taken exclusively by agency members. The ICN promotes best practices through concrete, non-binding recommendations.

One of the ICN's two initial projects was to address issues in multijurisdictional merger review. The Mergers Working Group, chaired by the U.S. Department of Justice, comprises three subgroups - Notification and Procedures, chaired by the FTC, Analytical Framework, and Investigative Techniques. At its first annual conference last month, the ICN adopted a set of Guiding Principles and endorsed a set of Recommended Practices for merger notification and review.(34) These documents address many of the key issues that the business community has identified as being of paramount importance in improving the functioning of multi-jurisdictional merger review - e.g., ensuring that there is a sufficient nexus between the transaction and the reviewing jurisdiction, and that notification thresholds are clear and objective. We are hopeful that the ICN's work will promote convergence toward sound and efficient merger review among a wide array of jurisdictions in the foreseeable future.

The subgroup on analytical framework, chaired by the UK Office of Fair Trading, has issued a report on the substantive tests for merger review,(35) and will now begin work on merger guidelines. The subgroup on investigational techniques, chaired by the Israel Antitrust Authority, will hold a conference this November to share experiences on methods of and tools for conducting merger investigations.(36)The Advocacy Working Group, chaired by Mexico, has issued a study addressing the role and importance of competition advocacy, particularly in developing countries. The ICN has just established a working group on capacity building, under the leadership of the EU and South Africa.

The US antitrust agencies also continue to play an active role in other multilateral bodies, such as the OECD, WTO, and UNCTAD, that deal with competition policy issues.

On the bilateral level, the United States has entered into antitrust-specific cooperation agreements with eight of our major trading partners,(37) and we cooperate with many others pursuant to the OECD's Recommendation on antitrust cooperation among its thirty members. Other jurisdictions have entered similar bilateral and multilateral cooperation arrangements.(38) These agreements provide an important framework for working together to achieve efficient and effective merger reviews. They have also proven to be an important vehicle to foster analytical convergence.

Case-specific cooperation among antitrust enforcers remains strong. Two recent cases involving the FTC are illustrative:

First, the *Solvay/Ausimont*(39) transaction raised concerns in the world market for polyvinylidene fluoride (PVDF), a fluoropolymer used in a wide variety of applications. The EC shared the FTC's concern that the merger could make coordinated interaction among the remaining producers of PVDF more likely. The parties submitted a divestiture proposal that was acceptable to both the EC and FTC, and we are now in the process of implementing that relief.

Second, *Bayer/Aventis CropScience*(40) raised concerns on both sides of the Atlantic in markets for certain insecticides and herbicides. Although the geographic market for such products was limited to national boundaries, the limited number of market participants led to similar competitive effects across national boundary lines. Accordingly, a common remedy made sense from the point of view of both the parties and the enforcers, and, through a high degree of cooperation, a common remedy was achieved.

The outcomes in these cases continue a trend of coordinated consistent outcomes in multijurisdictional merger reviews. Other examples of such cases are *Boeing/Hughes*,(41) in which parallel FTC and EC settlements were announced the same day;*CVC/Lenzing*,(42) where the EC press release acknowledged its close cooperation with the FTC; and the detailed reviews of the*Hewlett-Packard/Compaq* merger(43) as well as the competing bids to acquire the Princess cruise lines.(44) In the cruise lines cases, the FTC cooperated with the EC with respect to Carnival's bid and with the United Kingdom's Office of Fair Trading and its Competition Commission with respect to the Royal Caribbean bid. Notably, confidentiality waivers by the parties facilitated the information sharing that allowed the agencies to conduct parallel analyses and arrive at compatible solutions to the competitive issues. These cases demonstrate our continued commitment to work with our enforcement partners and the parties to achieve consistent enforcement outcomes.

It is also important to remember that cases in which agencies reach different results do not necessarily signal a failure of cooperation or convergence. Most often, they reflect different competitive effects in geographic markets that were national or regional, rather than worldwide, in scope. For example, in *Air Liquide/Air Products/BOC*, the EC cleared the part of the merger over which it had jurisdiction (subject to substantial conditions), but the parties abandoned the transaction in the face of likely opposition from the FTC. But the different outcomes were based on differing market conditions in the U.S. and Europe, prompting the EC to specifically note in its press release that its "decision . . . [did] not prejudice the outcome of the assessment in the United States."(45) The same can be said concerning Diageo and Pernod's acquisitions of Seagram's drinks business assets(46) and Nestlé's acquisition of Ralston-Purina.(47)In those cases, the differences in remedy reflected the differences in the competitive effects found in the numerous geographic markets affected by those deals.

Where there are true differences in enforcement approaches that can result in incompatible outcomes across jurisdictions, it is our duty to try to address them in order to try to eliminate the difference or minimize its impact.(48)

In Fall,1999, the U.S. antitrust agencies and the EC established a working group to pursue greater convergence in our procedures and in our substantive analysis of mergers. In September, 2001, following the US and EU *GE/Honeywell* decisions, the FTC, the Antitrust Division, and the EC Competition Directorate committed to intensifying the work of this group, and established task forces to examine and address differences in our merger review procedures and in our analyses of tying and bundling issues in conglomerate mergers. Staff members and officials re-examined theories and actual cases and conducted numerous tele-conferences, video-conferences, and face-to-face meetings to come to a clearer understanding of the laws under which each side operates and the theories of competitive harm that they apply under those laws. These efforts have increased mutual understanding of each other's policies, which we hope ultimately will yield greater support for consistent merger policies based on principles of economic efficiency and consumer welfare.

V. Conclusion

I'll close this program by thanking all of you who came today. I appreciate your keen interest in the Commission's merger enforcement program. I hope I've been able to give you a little insight into the issues we are dealing with and the efforts we are making on behalf of consumers.

Endnotes:

1. *See generally*, *Symposium: 1982 Merger Guidelines*, 71 Cal. L. Rev. 280, 280-648 (1983).

2. *See, e.g.*, Robert G. Harris and Thomas M. Jorde, *Market Definition in the Merger Guidelines: Implications for Antitrust Enforcement*, 71 Cal. L. Rev. 464 (1983); Kenneth M. Davidson, *The Competitive Significance of Segmented Markets*, 71 Cal. L. Rev. 445 (1983).

3. *See, e.g.*, Robert G. Harris and Thomas M. Jorde, *Antitrust Market Definition: an Integrated Approach*, 72 Cal. L. Rev. 1, 7-8, 20-31 and especially 21 n.66 (1984); Louis B. Schwartz, *The New Merger Guidelines: Guide to Governmental Discretion and Private Counseling or Propaganda for Revision of the Antitrust Laws?*, 71 Cal. L. Rev. 575 (1983); Stephen M. Axinn, *A Lawyer's Response*, 52 Antitrust L.J. 643 (1983).

4. *See*, *e.g.*, George J. Stigler and Robert A. Sherwin, *The Extent of the Market*, 28 J. L. & Econ. 555, 582 (1985); Harris and Jorde, *supra*note 2, 71 Cal. L. Rev. at 476-493; Thomas W. Dunfee, Louis W. Stern and Frederick D. Sturdivant, *Bounding Markets in Merger Cases: Identifying Relevant Competitors*, 78 N.W. U. L. Rev. 733, 754 (1983).

5. *See* David Scheffman, Malcolm Coate, and Louis Silvia, *20 Years of Merger Guidelines Enforcement at the FTC: An Economic Perspective* (June 2002), available at http://www.usdoj.gov/atr/hmerger/11255.htm.

6. Thomas B. Leary, *The Essential Stability of Merger Policy in the United States*, Remarks Before the Berkeley Center for Science and Technology, University of California at Berkeley School of Law and Escole Nationale Superieure des Mines de Paris (Paris, France Jan. 17, 2002), *available at* </speeches/leary/learyuseu.htm>., 70 Antitrust L.J. 105 (2002).

7. *See id*. at 107.

8. *Id*. at 107-111.

9. *Id*. at 116.

10. *Id*.

11. *Id*. at 121-26.

12. Merger enforcement actions include complaints authorized, consent orders accepted for public comment and transactions abandoned after initiation of a full phase investigation.

13. *See Statement of the Federal Trade Commission Concerning Royal Caribbean Cruises, Ltd./P&O Princess Cruises plc and Carnival Corporation/P&O Princess Cruises plc.*, FTC File No. 021 0041 (Oct. 4, 2002), *available at* </os/2002/10/cruisestatement.htm>.

14. Before October 4th, there was a great deal of inaccurate information in the media surrounding the staff's investigation and the Commission's pending decision. Another unusual element in this investigation was the extensive effort that competitors made to oppose the mergers. As the Commission noted in its statement, competitors can often provide useful information about conditions in the industry but we always take account of their self-interest and treat their arguments with a healthy dose of skepticism. Opposition to a merger from a competitor often indicates that the transaction will increase - rather than decrease - competition.

15. I would like to give special thanks to the staff of the Northeast Regional Office and its Director, Barbara Anthony, as well as other staff attorneys from the Bureau of Competition; our honors paralegals; Bruce Hoffman, the Bureau of Competition’s Associate Director for the Regions; Robbie Robertson, the Bureau of Competition’s Senior Litigation Counsel; Jerry Swindell from the Bureau of Competition; and the staff and management of the Bureau of Economics, for conducting an outstanding investigation. I would also like to thank Alice Detwiler of the Bureau of Competition for her assistance in drafting these remarks.

16. This has been true in a number of other cases, in some of which the analyses have provided important evidence supporting a recommendation to challenge a transaction.

17. It should be noted that the D.C. Circuit had earlier refused to enjoin a merger that entailed an even greater increase in concentration.*United States v. Baker Hughes Inc.*, 908 F.2d 981, 982 n.3 (D.C. Cir. 1990) (merger raised the Herfindahl-Hirschman Index from 2878 to 4303); *see also id.* at 984 ("[e]vidence of market concentration simply provides a convenient starting point for a broader inquiry into future competitiveness") (opinion by Judge, now Justice, Thomas; joined by Judge, now Justice, Ginsburg).

18. While I characterize this case as a 4-to-3 merger, as I discuss further below, there are also a number of significant fringe competitors, as well as considerable competitive interaction with alternatives outside the defined market.

19. While expanding capacity, the industry has also lowered costs by improved technology and other means.

20. Yield or revenue management refers to the practice of using estimates of predicted load factors relative to actual load factors as a basis to determine when and how a firm should change

its prices. This practice is used extensively in the hospitality and airline industries, and its use does not immunize an industry from antitrust scrutiny. At the same time, the use of yield management does not necessarily indicate the exercise of substantial market power.

21. Horizontal Merger Guidelines, § 1.51(c).

22. *Id.*

23. *Id.* at § 1.52.

24. As I will discuss below, identifying such customers is quite complicated. This has important implications for a coordinated effects analysis.

25. This is not to say that firms cannot currently price discriminate to some degree. Clearly they do. However, the question is whether either transaction would allow the merged firm to raise prices to a targeted set of customers.

26. The analysis of a coordinated reduction in amenities is provided in the Commission statement and I do not elaborate on it further here.

27. Airline "business" travelers are a classic example of such a customer segment.

28. Another complicating factor in the industry is that most of the bookings do not "stick." That is, most bookings are subsequently cancelled and thus the cruise lines must book the same cabins several times in order to fill the ships. Finally, a substantial percentage of cruise customers are upgraded, and cruises are sold both bundled and unbundled with air travel.

29. Horizontal Merger Guidelines, § 2.12.

30. *Id.* at §§ 2.11, 2.12.

31. For example, there have been instances of entry into North America of otherwise European cruise lines.

32. See Press Release, Federal Trade Commission Seeks to Block Cytyc' Corporation's acquisition of Digene Corporation, FTC File No. 021-0098 (June 24, 2002), *available at* /opa/2002/06/cytyc_digene.htm

33. See Press Release, Federal Trade Commission Votes to Close Investigation of Acquisition of Avant! Corporation by Synopsys, Inc., FTC File No. 021-0049 (July 26, 2002), *available at* </opa/2002/07/avant.htm>. As three Commissioners noted in their separate statements, the Commission intends to watch this market closely in the future, and we have not ruled out the possibility of seeking relief in the future if market effects prove to be more harmful than was apparent in advance of the merger. Statement of Commissioner Thomas B. Leary, *Synopsys Inc./Avant! Corp.*, File No. 021-0049 (July 26, 2002), *available at* </os/2002/07/avantlearystmnt.htm>; Statement of Commissioner Mozelle W.

Thompson, *Synopsys Inc./Avant! Corp.*, File No. 021-0049 (July 26, 2002), *available at*</os/2002/07/avantthompsonstmnt.htm>; Statement of Commissioner Sheila F. Anthony, *Synopsys Inc./Avant! Corp.*, File No. 021-0049 (July 26, 2002), *available at* </os/2002/07/avantanthonystmnt.htm>.

34. *See* <http://www.internationalcompetitionnetwork.org/wg1_principles.html>; <http://www.internationalcompetitionnetwork.org/wg1_practices.html>.

35. *Available at* <http://www.internationalcompetitionnetwork.org/wg1_analytical_framework.html>.

36. *Available at* <http://www.internationalcompetitionnetwork.org/invtech.doc>.

37. Australia (1982), Brazil (1999), Canada (1995), European Communities (1991), Germany (1976), Israel (1999), Japan (1999), Mexico (2000).

38. A compilation of bilateral and multilateral agreements on competition law enforcement is found in annexes to: United Nations Conference on Trade and Development (UNCTAD). Experiences Gained So Far on International Cooperation on Competition Policy Issues and the Mechanisms Used, TD/B/COM.2?CLP/21/Rev.1 (19 April 2002), available at<http://www.unctad.org/en/docs/c2clp21r1.en.pdf>.

39. *Solvay/Montedison-Ausimont*, Case No. COMP/M.2690, European Commission decision of 9 April 2002, *available at*<http://europa.eu.int/comm/competition/mergers/cases/decisions/m2690_en.pdf>; *Solvay S.A.*, File No. 021-0067, Docket No. C-4046, FTC press release of May 2, 2002, with link to settlement documents available at </opa/2002/05/ solvayausimont.htm>. The case raised a separate issue, exclusive to Europe, in the market for persalts, used in the production of detergents, that was addressed by a separate divestiture commitment between the parties and the EC.

40. *Bayer/Aventis CropScience*, Case No. COMP/M.2697, European Commission press release IP/02/570 of 17 April 2002, *available at*<http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.getfile=gf&doc=IP/02/570|0|RAPID&lg=EN&type=PDF> (public version of decision not yet available). *Bayer AG, and Aventis S.A.*, File No. 011 0199, Docket No. C-4049, FTC press release of May 30, 2002, with link to settlement documents available at </opa/2002/05/bayeraventis.htm>.

41. *In the Matter of the Boeing Company*, FTC Press Release (Sept. 27, 2000), FTC Complaint, Consent Agreement, Decision and Order, and Analysis to Aid Public Comment, available at </opa/2000/09/boeing.htm>; *Boeing/Hughes*, Case No IV/M.1879, European Commission Decision, *available at* <http://europa.eu.int/comm/competition/mergers/cases/decisions/m1879_en.pdf>.

42. *See* European Commission Press Release IP/01/1436, *Commission prohibits CVC's acquisition of Austrian fibre company Lenzing*(17 Oct. 2001), *available*

at <http://europa.eu.int/rapid/start/cgi/guesten.ksh?p_action.gettxt=gt&doc=IP/01/1436|0|RAPID&lg=EN>;*CVC/Lenzing*, Case No. COMP/M.2187, European Commission Decision, *available at*<http://europa.eu.int/comm/competition/mergers/cases/decisions/m2187_en.pdf>.

43. *See* FTC press release, FTC closes Hewlett-Packard/Compaq investigation, March 6, 2002, with link to a separate statement by Commissioner Thompson, *available at* </opa/2002/03/hpcompaq.htm>; *Hewlett-Packard/Compaq*, Case No COMP/M.2609, European Commission decision of 31 January 2002, *available at*<http://europa.eu.int/comm/competition/mergers/cases/decisions/m2609_en.pdf>.

44. *See* FTC press release, FTC closes Cruise Line Merger Investigations, Oct. 4, 2002, with links to statements by the Commission majority and the dissenting Commissioners, *available at* </opa/2002/10/cruiselines.htm>; *Carnival Corp./P&O Princess*, Case No COMP/M.2706, European Commission decision of 24 July 2002, *available at*<http://europa.eu.int/comm/competition/mergers/cases/decisions/m2706_en.pdf>; *P&O Princess Cruises plc and Royal Caribbean Cruises Ltd: A report on the proposed merger*, Competition Commission of the United Kingdom, summary and full text of report*available at* <http://www.competition-commission.org.uk/reports/468p&o.htm>.

45. *See* European Commission Press Release IP/00/46, *Commission approves the acquisition of parts of BOC (UK) by Air Liquide (France) subject to conditions* (18 Jan. 2000); *Air Liquide/BOC*, Case No COPM/M.1630, European Commission Decision, *available at*<http://europa.eu.int/comm/competition/mergers/cases/decisions/m1630_en.pdf>.

46. *Compare Pernod Ricard/Diageo/Seagram Sprits*, Case No COMP/M.2268, European Commission decision of 8 May 2001,*available at* <http://europa.eu.int/comm/competition/mergers/cases/index/by_nr_m_45.html#m_2268>, *with In the Matter of Diageo PLC and Vivendi Universal S.A.*, FTC Dkt No. C-4032, press release and decision documents *available at* </opa/2001/12/diageo.htm>.

47. *Compare Nestlé/Ralston Purina*, Case No COMP/M.2337, European Commission decision of 27 July 2001, *available at*<http://europa.eu.int/comm/competition/mergers/cases/index/by_nr_m_46.html#m_2337> *with In the Matter of Nestle Holdings, Inc., and Ralston Purina Company*, FTC Dkt. No C-4028, press release and decision documents available at </opa/2001/12/nestleralston.htm>.

48. *See*, e.g., *Agreement between the European Communities and the Government of the United States of America Regarding the Application of Their Competition Laws*, Sept. 23, 1991, *reprinted in* 4 Trade Reg. Rep. (CCH) ¶ 13,504, and OJ L 95/45 (27 Apr. 1995),*corrected at* OJ L 131/38 (15 June 1995), *available at* http://www.usDOJ.gov/atr/public/international/docs/ec.htm, a major purpose of which is "to lessen the possibility or impact of the differences between [us] in the application of [our] competition laws."