

General Electric/Honeywell — An insight into the Commission's investigation and decision

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On 3 July 2001, the European Commission declared the proposed merger between the U.S. companies General Electric ('GE') and Honeywell incompatible with the common market. This decision came at the end of an in-depth investigation which resulted in the finding that the combination of the leading aircraft engine maker with the leading avionics/non-avionics manufacturer would create/strengthen a dominant position in various relevant markets in which the merging companies are active. One of the critical factors of the competitive assessment of the case was the combination of GE's financial strength and vertical integration into aircraft purchasing, financing and leasing with Honeywell's leading positions on various markets such as corporate jet engines, avionics and non-avionics products.

The General Electric Company is a diversified industrial corporation active in fields including aircraft engines, appliances, information services, power systems, lighting, industrial systems, medical systems, plastics, broadcasting (through the NBC media channel), financial services and transportation systems. Honeywell is an advanced technology and manufacturing company serving customers worldwide with aerospace products and services, automotive products, electronic materials, speciality chemicals, performance polymers, transportation and power systems as well as home, building and industrial controls.

The proposed merger affected two broad categories of industrial sectors, namely aerospace products and industrial systems. The product markets affected in the aerospace sector were the markets for jet engines, avionics, non-avionics and engine starters. The product market affected in the industrial systems sector was the market for small marine gas turbines.

Jet Aircraft Engines and Related Markets

The Commission examined three categories of jet engines markets, namely jet engines for large commercial aircraft, jet engines for regional jet aircraft and jet engines for corporate jet aircraft, as well as their related markets for maintenance, repair and overhaul ('MRO'). Buyers of aircraft

(airlines, leasing companies, etc.) place orders for the type of aircraft they wish to acquire and, when possible, they separately chose the engine as well as the other systems (avionics, non-avionics) that will equip the aircraft.

The investigation showed that engines for large commercial aircraft could be considered as constituting a single product market, whereas engines for regional and corporate aircraft can be subdivided into distinct markets, namely for large and small regional jets as well as for light, medium and heavy corporate jets. The concentration did not create any horizontal overlap in the market for jet engines for large commercial aircraft. However, it created such overlaps in the markets for jet engines for large regional aircraft and for medium corporate aircraft. All the above markets were deemed to have a worldwide dimension.

Market Shares

In order to calculate market shares, the Commission assessed the installed base of jet engines as well as the order backlog of engine suppliers. The installed base is an indication of the current incumbency positions of engine suppliers, whereas the order backlog is an indication of their immediate future incumbency. Owing to the benefits of engine commonality, incumbency of engine suppliers is better assessed in terms of the installed base of engines on aircraft that are still in production. Nevertheless, to the extent that the revenue streams that engine suppliers can use to finance future engine developments, and thus future competition in the market, derive from the engines in service today, the overall installed base of engines was assessed (i.e., including engines on aircraft both still and no longer in production). The Commission also calculated market shares on the basis of the number of platform competitions won by each engine manufacturer.

Large Commercial Aircraft Engines

The three major engine suppliers in this market are GE, Pratt & Whitney (P&W) and Rolls-Royce (RR). They manufacture engines either independently or within joint ventures that include sub-

contractors (such as SNECMA, MTU, etc.). To the extent that such sub-contractors have no independent manufacturing capability and presence in the market, the market shares of joint ventures were attributed to the prime contractors. This is the case for the 50:50 joint venture between GE and SNECMA that is responsible for manufacturing the CFM56 engine that powers, among others, the best-selling aircraft of all times, the Boeing 737. Several factors supported this allocation of market shares. Although in legal terms GE and SNECMA jointly control CFMI, the only meaningful attribution of market shares for the purposes of analysing the transaction could only be made to GE, to the extent that SNECMA is not an independent supplier of civil jet engines for large commercial aircraft. The analysis of the joint venture and of SNECMA's participations in other GE engine programmes indicated that SNECMA would act jointly with GE as a profit maximising entity. This analysis has been confirmed by GE and Honeywell's own documentation, public and private, in which they characterise CFM engines as GE engines. As a consequence, the Commission allocated the market shares of CFMI to GE, whereas the market share of IAE was equally split between the independent prime contractors, that is RR and P&W.

On the market for large commercial aircraft engines, GE was found to hold by far both the largest *installed base* of engines on large commercial aircraft still in production as well as the largest *order backlog*. The *evolution of the installed base* over the last five years indicated that GE had displayed the highest growth rate, which resulted in widening the gap with its competitors. GE also was found to account for the largest part of the revenue streams derived from the *overall installed base* of engines. This indicated that GE was expected to generate more revenues from its overall installed base than its competitors. For the reasons outlined below, GE was found to hold a dominant position in this market.

Large Regional Aircraft Engines

GE and Honeywell are the only engine suppliers whose engines have been certified for large regional jets that are still in production. There are four manufacturers of large regional jets, namely Embraer, Bombardier, Fairchild-Dornier and BAe Systems. This market is the fastest growing of all the jet markets and the parties forecast sales of over 4 000 aircraft over the next 20 years. Through the combination of factors described below, GE

won all the recent engine competitions held for new platforms and secured 90% of the orders of engines for large regional jet aircraft. As indicated above, Honeywell is the other supplier to that market. Together the two companies therefore accounted for the totality of this market.

Medium Corporate Jet Aircraft Engines

Honeywell is already the leading player, well ahead of GE, P&W and RR. The merger would have created a horizontal overlap. As far as medium corporate jet engines are concerned in particular, Honeywell's leading position would have been strengthened.

Factors Contributing to GE's Dominance

GE's current dominant position on the markets for engines for both large commercial and large regional jet aircraft results from the combination of a series of factors. These are, inter alia, GE's consistently high and increasing market shares, its vertical integration into aircraft purchasing, financing and leasing, its financial strength through GE Capital, its financial arm, as well as its strong position on the aftermarket services.

Besides its high market shares, GE can be characterised as a unique company. In addition to having the world's largest market capitalisation ⁽¹⁾, GE offers a combination and range of complementary products and services to customers. Indeed, GE is not only a leading industrial conglomerate active in many areas including aerospace and power systems, but also a major financial organisation through *GE Capital*. GE's financial arm contributes around half of the GE Corporation consolidated revenues and manages over USD 370 Bio, more than 80% of GE's total assets. If GE Capital were an independent company, it would, on its own, rank in the Top 20 of the Fortune 500 largest corporations.

GE Capital offers the GE business enormous financial means almost instantaneously and enables GE to take more risk in product development programmes than any of its competitors. The Commission's investigation confirmed that this ability to absorb product failures in an industry characterised by long term investments is critical.

GE has also taken advantage of the importance of financial strength in this industry through the use of heavy discounts on the initial sale of the

⁽¹⁾ Market capitalisation of USD 480 Bio as of 1 June 2001 (far greater than any other company active in the commercial aircraft market such as Boeing with around USD 56 Bio, UTC with USD 39 Bio and RR with USD 5 Bio).

engines. This practice has resulted in moving the break-even point of an engine project further away from the commercial launch of a platform. Given its enormous balance sheet, GE has been in a position to increase rivals' funding cost by delaying their inception of cash flows and consequently increasing their need to resort to external financial means further raising their leverage (debt/equity ratio) and resulting borrowing costs ⁽¹⁾. By entertaining this situation, GE has managed to make its competitors very much vulnerable to any down cycle or strategic mistake.

Furthermore, the Commission's investigation revealed that thanks to its financial strength and incumbency advantages as an engine supplier, GE can afford to provide significant financial support to airframe manufacturers under the form of platform-programme development assistance that competitors have not been historically in a position to replicate. GE has indeed used this direct financial support to obtain exclusivity for its products on those airframes that it has financially assisted ⁽²⁾, thereby depriving competitors from access to such airframes.

GE's enormous financial capacities also contribute to further grow and strengthen its position on the very lucrative part of the engine business by investing massive amounts of money for several years into the aftermarket through the purchase of a significant number of repair shops all over the world.

Another factor contributing to GE's dominance is its vertical integration into aircraft purchasing, financing and leasing activities through GE Capital Aviation Services ('GECAS'). *GECAS* is the largest purchaser of new aircraft, ahead of any individual airline or other leasing company. It has the largest single fleet of aircraft in service, as well as the largest share of aircraft on order and options.

Unlike any other independent leasing company, *GECAS* does not select equipment on the aircraft that it purchases in accordance with market demand. As a result of *GECAS*' policy of selecting only GE engines when purchasing new aircraft, 99% of the large commercial aircraft ordered by *GECAS* are GE-powered ⁽³⁾.

The Commission's in-depth investigation indicated that *GECAS* has the incentive and the ability

to enhance the market position of GE Aircraft Engine division ('GEAE') through several means. As a launch customer ⁽⁴⁾, *GECAS* can influence the aircraft equipment selection by the airframe manufacturers and therefore constitute, in combination with other GE features, the element that can tilt the balance in favour of GE as equipment and service supplier. *GEAE*'s competitors are unable to guarantee these purchases and therefore to offer launch or boost orders to airframe manufacturers. The role of *GECAS* as a launch or boost customer has proven particularly effective in obtaining access/exclusivity to new aircraft platforms as illustrated by GE's exclusive position on the Boeing 777X. In addition, *GECAS* has also proven a very effective tool in strengthening GE's position with airlines on those platforms where there is engine choice.

The market investigation further showed that *GECAS* has the ability to standardise fleets around GE-powered aircraft and convince an airline that would not otherwise have leased a GE-powered aircraft to accept such an aircraft. Finally, the ability of *GECAS* to shift market shares by seeding airlines with GE-powered aircraft has, given the existence of commonality, a multiplying effect in that those airlines will continue to purchase its engines in the future, therefore multiplying GE's engine sales.

Unlike any other engine manufacturer, GE can afford to encourage and pay for exclusivity and capture aftermarket, leasing and financial revenues. From an airframe manufacturer's perspective, selecting GE allows the airframe manufacturer to access the largest customer base of airlines and secure a significant, either launch or boost, order of its aircraft by *GECAS*. No other engine manufacturer has the size, financial strength or vertical integration to replicate such offers. By using the purchasing leverage of *GECAS*, GE has been able to shift jet engine market shares to the benefit of *GEAE*.

The Commission could not share the contention that the influence of *GECAS* could be replicated easily and rapidly by GE's competitors through, inter alia, the setting-up of their own aircraft leasing subsidiaries. The Commission's investigation confirmed that such a counter-move on behalf

⁽¹⁾ One illustration of this significant competitive advantage enjoyed by GE over its industrial rivals resides in its AAA credit rating which extends to all its subsidiaries and enables them to raise finance cheaper and quicker than competitors.

⁽²⁾ GE has secured a total of ten exclusive positions out of the last twelve that were granted by airframe manufacturers. GE did not take part in the other two.

⁽³⁾ The remainder is accounted for by 8 Boeing 757s for which GE has no engine on offer.

⁽⁴⁾ *GECAS* is one of the two leasing companies that operate as launch customers as these companies can order multiple aircraft at one time, and wait the extra time for delivery of a new airframe.

of competing engine manufacturers could not constrain GE's leadership on the engines markets.

The vertical integration of GE also extends to other aerospace business segments. Through its GE Engine Services ('GEES') subsidiary, GEAE also has a global network of MRO shops servicing its own large commercial engines as well as those of other Original Equipment Manufacturers ('OEM') on a worldwide basis. GEAE also sells turboprop and turboshaft engines and related replacement parts for use in military and civilian aircraft. Finally, GE's aircraft engines are also used as the basis of derivatives for industrial and marine gas turbines.

As far as customers are concerned, the market investigation revealed that GE's financial strength is particularly critical in an industry where raising external finances can prove very difficult especially for smaller customers that are limited by their balance sheet and own financial performance. Even larger airlines, especially those that are already important purchasers of GE products and services are not likely to exert countervailing buying power. This is for instance the case of those airlines that depend heavily on GE to carry out their activities. Such customers (essentially the bulk of European airlines) would equally not run the risk of jeopardising a specific commercial relationship with GE and end-up at a competitive disadvantage as compared to their direct airline competitors.

As for airframe manufacturers, they are all subject to the airlines' derived demand for aircraft and engines and cannot disregard such a demand. Furthermore, especially when developing new platforms, airframe manufacturers are always in need for financial assistance, which GE has been able to provide on several occasions. Finally, airframe manufacturers cannot afford to disregard the possibility of GECAS placing large orders for their products and therefore of contributing to their industrial and financial viability. As a consequence, GE is in a position to influence the ability of airframe manufacturers to compete on the sales of aircraft to airlines. This affects seriously their incentives to exercise countervailing power with a view to favour competing engine manufacturers.

Given the nature of the jet engines market, characterised by high barriers to entry and to expansion, GE's incumbent position with many airlines, its incentive to use GE Capital's financial power with customers, its ability to leverage its vertical inte-

gration through GECAS, the limited countervailing power of customers and the weak position of competitors, GE was considered to be in a position to behave independently of its competitors, customers and ultimately consumers and thus to be a dominant firm on the markets for large commercial jet aircraft engines and for large regional jet aircraft engines.

Avionics and Non-Avionics Markets

Avionics products relate to the range of equipment used for the control of the aircraft, for navigation and communication as well as for the assessment of flying conditions. The avionics markets were previously analysed in the AlliedSignal/Honeywell decision ⁽¹⁾ and can be subdivided into avionics for large commercial aircraft, on the one hand, and for regional/corporate aircraft, on the other hand. Non-avionics products relate to a variety of (sub)systems such as, among others, auxiliary power units ('APU'), environmental control systems ('ECS'), electric power, wheels and brakes, landing gear and aircraft lighting, all of which are key to the operation of an aircraft.

Depending on their selection process, avionics and non-avionics products can be divided in buyer-furnished equipment ('BFE'), supplier-furnished equipment ('SFE') and SFE-option. BFE is equipment that can be selected by the buyer of the aircraft at the moment of the purchase. SFE is equipment selected by the airframe manufacturers at the moment of the development of a new platform. As opposed to BFE, SFE is selected on an exclusive basis and remains on the aircraft for its entire life cycle. As far as SFE-option is concerned, airframe manufacturers obtain certification for several product makes while giving the buyer the option of the final selection.

The markets for avionics products are highly concentrated with three players accounting for more than 90% of the market. Another 35 manufacturers are small and specialised and may qualify as niche players. Overall, Honeywell accounts for over half of the worldwide sales of avionics and holds particularly strong market positions on a number of 'key' avionics products. Rivals such as Rockwell Collins, primarily a BFE supplier, and Thales, share the remainder.

Honeywell is also the leading supplier of non-avionics products (accounting for between 40% and 70% of each product line), followed by Hamilton Sundstrand ⁽²⁾. Other suppliers such as

⁽¹⁾ See Case COMP/M.1601 – AlliedSignal/Honeywell.

⁽²⁾ Hamilton Sundstrand belongs to United Technology Corporation and is therefore a sister company of P&W.

BF Goodrich, SNECMA and Liebherr compete on a limited product range.

Following the creation of its range of products after its merger with Allied Signal, Honeywell is in a position to offer all avionics and non-avionics products, either independently or as part of strategically targeted or integrated packages.

The market investigation showed that no individual competitor is able to replicate complete offerings as those put together by Honeywell. The merging parties' contention that competitors could team up in order to offer equally performing solutions was not confirmed by the market investigation. Past teaming-up attempts to compete against Honeywell's breadth of products and services have either failed or not materialised. The lack of economic integration among the members of the team and the practical difficulty to implement cross-subsidisation and to share profits made rivals' teaming-up a more expensive strategy and therefore an unattractive solution for customers.

Engine Starters

Honeywell holds a particular position in the market for engine starters, an essential input to jet engines. Hamilton Sundstrand is the other main engine starter manufacturer. However, Hamilton Sundstrand was not considered as a competitor of Honeywell since its starters were found to be used exclusively on P&W engines and were therefore not made available to the market. Excluding Hamilton Sundstrand's captive sales, Honeywell remained as the only large independent supplier of engine starters. Although GE is not active in these markets, the merger would have created a vertical relationship stemming from GE's dominant position in the downstream market for jet engines and Honeywell's leading position in the upstream market for engine starters.

Small Marine Gas Turbines

Gas turbines are derived from aerospace engines and provide power for industrial and marine applications. Distinct markets were identified on the basis of power output and final applications. The small marine gas turbine market is a concentrated market on which P&W Canada, RR/Allison, Honeywell and GE compete. Honeywell is the leading supplier of small marine gas turbines and GE is its closest competitor. The merger would have combined the two strongest players in the market, creating an entity four to five times larger than the second player. In addition to this horizontal overlap, Honeywell's leading position

would have been strengthened by its combination with GE's financial strength and vertical integration in financial and aftermarket services. Finally, as Honeywell is a supplier of key components to marine gas turbine projects that are in competition with GE, the merged entity would have had an important stronghold further up in the supply chain.

THE COMPETITIVE EFFECTS OF THE PROPOSED MERGER

The proposed merger would have led to the creation/strengthening of dominant positions on several markets as a result of horizontal overlaps between some of the parties' products and the combination of Honeywell's leading market positions with GE's financial strength and vertical integration in aircraft purchasing, financing, leasing and aftermarket services. The merged firm's incentive and ability to foreclose competition through, inter alia, bundling/tying and other anti-competitive means would have also contributed to the creation/strengthening of dominant positions on several of the relevant markets.

Following the proposed transaction the merged firm would have become dominant on the markets for BFE, SFE and SFE-option avionics and non-avionics markets as well as on the market for corporate jet aircraft engines. GE's existing dominant positions on the markets for large commercial and large regional jet aircraft engines would have also been strengthened. The following paragraphs set out in detail the various relevant product markets where dominance was either created or strengthened.

SFE Avionics & Non-Avionics

Creation of A Dominant Position

Foreclosure through the Vertical Integration of Honeywell with GE

The main effect of the proposed transaction on the markets for SFE avionics and non-avionics products would have been the combination of Honeywell's activities with GE's financial strength and vertical integration into aircraft purchasing, financing and leasing as well as into aftermarket services.

SFE are products selected on an exclusive basis by the airframe manufacturer and supplied as standard equipment for the life cycle of an aircraft. Consequently, for a supplier of SFE, its initial selection on a platform can guarantee a long-term

source of revenues. Following the proposed merger, Honeywell would have immediately benefited from GE Capital's incentive and capability to secure exclusive supply positions for its products.

In addition to that and similarly to GE engines, as a result of the proposed transaction, Honeywell's products would have also benefited from the role of GECAS as a significant purchaser of aircraft and from its business practices to promote GE products and services. Post-merger, GECAS would indeed have had a strong incentive to extend its GE-only policy from engines to avionics and non-avionics.

Furthermore, thanks to GE's strong generation of cash flows resulting from the conglomerate's leading positions on several markets, following the merger, Honeywell would have been in a position to benefit from GE's financing surface and ability to cross-subsidise its different business segments, including the ability to engage in predatory behaviour.

In the light of the above, the strategic use by GE of the market access enjoyed by GECAS and of the financial strength of GE Capital in favour of the products of Honeywell would have positioned Honeywell as the dominant supplier on the markets for SFE avionics and non-avionics where it already enjoyed leading positions.

By the same token, rival avionics and non-avionics manufacturers would have been deprived from future revenue streams generated by the sales of the original equipment and spare parts. As already explained, future revenues are needed to fund development expenditures for future products, foster innovation and allow for a potential leap-frogging effect. By being progressively marginalised as a result of the integration of Honeywell into GE, Honeywell's competitors would have been deprived of a vital source of revenue and see their ability to invest for the future and develop the next generation of aircraft systems substantially reduced, to the detriment of innovation, competition and thus consumer welfare.

Foreclosure through Bundling/Tying of GE and Honeywell Products and Services

As it will be explained below, the above-described situation would have been compounded by the new entity's ability to engage into a number of foreclosure practices vis-à-vis airframe manufacturers (see next paragraph on BFE and SFE-option).

BFE (and SFE-option) Avionics & Non-Avionics

Creation of A Dominant Position

Foreclosure through Bundling/Tying of GE and Honeywell Products and Services

Given the parties' dominant and/or leading positions in their respective markets, and the wide combination of complementary products that it could have offered, the merged entity could have engaged in a number of foreclosure practices. Sales of BFE and SFE-option products are made to airlines on a regular basis, in particular each time an airline replaces or complements its fleet of aircraft. On each of these occasions, the merged entity could have foreclosed the selection of Honeywell's competing BFE and SFE-option products by selling its own products, for instance, as part of a broader package comprising engines and GE's ancillary services such as maintenance, leasing, finance, training, and so forth.

The sale of complementary products through packaged deals may take several forms. It may include, for instance, mixed bundling whereby complementary products are sold together at a price which, owing to the discounts that apply across the product range, is lower than the price charged when they are sold separately. It may also take the form of pure bundling whereby the entity sells only the bundle but does not make the individual components available on a stand-alone basis. Pure bundling may also take the form of technical bundling, whereby the individual components only function effectively as part of the bundled system, and cannot be used alongside components from other suppliers, that is to say, they are made incompatible with the latter components.

As a result of the proposed merger, the merged entity would have had the financial and technical ability as well as the economic incentive to price its packaged deals in such a way as to induce customers to buy GE engines and Honeywell BFE and SFE-option products over those of competitors, thus increasing its combined share on both markets. This would have occurred as a result of, inter alia, the ability of the merged entity to cross-subsidise discounts across the products composing the packaged deal.

The incentives for the merged entity to sell bundles of products could have evolved over the short to medium term. For instance when new generations of aircraft platforms and aircraft equipment would be developed, the merged entity could have also

been expected to engage in technical bundling – that is, to make its products available only as an integrated system that is incompatible with competing individual components.

In the short term, the merger would have affected suppliers of BFE and SFE-option products. As BFE products are sold and purchased on a regular basis, the merged entity's packaged offers would manifest their effects immediately after the consummation of the merger. Because of their lack of ability to match the bundled offers, rival component suppliers would lose market shares to the benefit of the merged entity and experience an immediate damaging profit shrinkage. As a result, the merger was likely to lead to market foreclosure on those existing aircraft platforms and subsequently to the elimination, or a substantial lessening, of competition in these areas.

Foreclosure through the Vertical Integration of Honeywell with GE

In addition to the implementation of bundling on the markets for BFE avionics and non-avionics products, the combination of Honeywell with GE's financial strength and vertical integration in aircraft purchasing, financing and leasing as well as in aftermarket services would have contributed to the foreclosure effect already described for SFE avionics and non-avionics.

Engines For Large Commercial Aircraft

Strengthening of A Dominant Position

Foreclosure through Bundling/Tying of GE and Honeywell Products and Services

Given the complementary nature of the GE and Honeywell products and services and their either dominant or leading respective market positions, the merged entity would have had the ability to engage in foreclosure practices, such as the bundling of engines, avionics and non-avionics products as well as related services towards airlines. On the market for engines, the proposed transaction would therefore have had the effect of strengthening GE's existing dominance.

In addition, GE could have strengthened its dominant position through, inter alia, bundling or tying vis-à-vis airframers. The foreclosure of GE's competitors through their inability to counter GE's success in obtaining any platform exclusivity was expected to increase and could have occurred as early on as the launch of the next aircraft platform.

Foreclosure through the Vertical Integration with Honeywell Engine Starters

Quite apart from the above mentioned foreclosure effects, the proposed transaction would have strengthened GE's dominant position on the market for large commercial aircraft engines as a result of the vertical foreclosure of the competing engine manufacturers that would have resulted from the vertical relationship between GE as an engine manufacturer and Honeywell as a supplier of engine starters to GE and its competitors.

The merged entity's incentive and ability to profitably raise the price or limit the output of engine starters as a result of this vertical relationship would raise the costs of rival engine manufacturers and would therefore contribute to their further foreclosure from the market for large commercial aircraft engines, thus strengthening GE's dominant position.

Engines For Large Regional Jet Aircraft

Strengthening of A Dominant Position

Horizontal Overlap on Existing Platforms

The first effect of the proposed transaction on the market for large regional jet aircraft engines was to create a horizontal overlap between GE's and Honeywell's products that would have led to the strengthening of GE's already dominant position on that market.

With regard to competition between existing platforms in production, the combination of GE and Honeywell as the only engine suppliers currently on the market for large regional jet aircraft would have prevented customers from enjoying the benefits of price competition (e.g., in the form of discounts) between suppliers.

Effects on Future Platform Competitions

Similar to the market for large commercial aircraft engines, the market for large regional jet aircraft engines would have been affected by the proposed merger through the implementation of package offers or cross-subsidisation by the merged entity.

As a result of their inability to put together competing bundled offers to those proposed by the merged entity or to cross-subsidise as between engines and avionics or non-avionics, either independently or with other component manufacturers, the rivals' chances of placing engines on future

large regional jet airframes would have significantly declined.

As a direct consequence of the foreclosure effect, rivals in the market for large regional jet aircraft engines would have most probably been forced to reassess the opportunity, both in commercial and financial terms, to continue competing and investing on that specific market. Following their inability to compete on the merits with the merged entity and in the absence of any financial return from that market, the most likely outcome for rivals would have been to withdraw from the manufacturing and marketing of engines for large regional jet aircraft.

Engines For Corporate Jet Aircraft

Creation of A Dominant Position

Horizontal Overlap

The immediate effect of GE's proposed acquisition of Honeywell on the market for corporate jet aircraft engines was to create a horizontal overlap that would have led to the creation of a dominant position.

Foreclosure through the Vertical Integration of Honeywell with GE

Together with the creation of the horizontal overlap, the proposed merger would extend the benefit of GE's financial strength and vertical integration into aircraft purchasing, financing and leasing as well as into aftermarket services, to Honeywell's activities as an engine supplier for corporate jet aircraft.

In addition to that, as a result of the proposed transaction, Honeywell's engines and related services would have also benefited from GE's aircraft leasing and purchasing practices to promote GE's products and services as well as from its instrumental leverage ability to secure marketing and placement of GE products. The proposed transaction would indeed bring together the leading engine supplier, Honeywell, with GE's corporate jet aircraft leasing company GE Capital Corporate Aircraft Group ('GECCAG').

The effect on rival corporate jet engine manufacturers could have been expected to be in the range of what had already taken place, by the effect of GE alone, on the market for large regional jet aircraft engines. Foreclosure and inability to invest in the development of the next generation of corporate jet aircraft engines was likely to result from the integration of Honeywell with GE.

Foreclosure through Bundling/Tying of GE and Honeywell Products and Services

The foreclosure effect identified above on the market for corporate jet aircraft could have been increased by the implementation of foreclosure practices by the merged entity.

Following their inability to replicate, rivals would have progressively lost their capacity to secure platform exclusivity for their engines and be foreclosed from that market as soon as future platforms would have been developed. As their cash flows would have dried out and financial return dropped, the shareholders of those suppliers would have had to make the rational decision to stop investing and competing on the market for corporate jet aircraft engines.

UNDERTAKINGS PRESENTED BY THE PARTIES

On 14 June 2001 (i.e., the legal deadline for the submission of remedies), GE proposed a number of undertakings, including the divestiture of certain BFE and SFE avionics, APUs for small aircraft, the European ECS related to corporate and regional aircraft, the divestiture of a regional aircraft engine under development and certain behavioural undertakings on GECAS and bundling. The Commission considered these undertakings as insufficient to remove the competition problems identified. The scope of the divestitures was insufficient to address the vertical and the conglomerate effects of the merger. In addition, the market investigation indicated that the assets proposed for divestiture could not constitute viable and stand alone businesses. Some behavioural commitments proposed would have been a mere promise not to abuse the dominant positions that the proposed combination of GE and Honeywell would have created or strengthened and were considered, in any event, extremely difficult to be effectively implemented. The remedial package was therefore considered insufficient, especially in the absence of a structural undertaking on GECAS, which could have significantly reduced the need for the divestiture of Honeywell assets.

On 28 June 2001, two weeks later and well beyond the deadline for the submission of undertakings, GE proposed a new set of remedies. Apart from the fact that these remedies were not adequate to deal with the competition concerns, they were submitted at a very late stage in the procedure and continued to present a series of technical shortcomings. Indeed, according to the Commission's

Notice on remedies acceptable under the Merger Regulation, the Commission can only accept modified commitments when these solve the competition concerns in a clear and straightforward manner without the need for a further market test. The offer submitted by GE on 28 June did not meet this condition.

The remedies proposed post-deadline were not sufficiently clear-cut to solve the identified competition concerns in a straightforward manner and could therefore not be accepted. As a result of the above procedure, the Commission declared the proposed merger incompatible with the Common Market.