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## **AUTOMAKERS IN THE SECOND CENTURY OF THE AUTOMOBILE: THE ROADS AHEAD**

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### **Abstract**

Are lean production and globalization the conditions of success for the automobile firms in the next decade? The performances of firms depend on profit strategy relevance and productive system coherence, and not on implementation of principles and methods supposed to be effective anywhere. In the past, there are been more than one high-performing industrial model, there is more than one now, and there probably will be more than one in the future. The paper exposes the possible ways for automakers at the turning point of century.

### **1. Introduction**

Are lean production and globalization the necessary conditions for future success of car industry firms, as affirm numerous commentators and experts, or is it possible to discern several paths possible? To answer this question, it would be fitting to look back upon the history of automobile firms since the beginning of the 1970s.

Contrary to what the authors of the book *The Machine that Changed the World* stated, lean production was not the only successful production system. Actually, it corresponded to no existing model, since it has resulted in an amalgamation of two industrial models, which, even though they can be seen in Japan, are completely different both conceptually and practically (Shimizu, 1998, Mair, 1998, Boyer, Freyssenet, forth coming). Not any more than there was a single model in the past (handicrafts at the beginning of the century followed by mass production), neither has there been one best way in the recent period.

It was thus for two reasons: not only did automakers have to find original solutions because of market and labor instability different from which they had to face in their own areas, but even more so they pursued, when they found themselves in the same areas different strategies and industrial means to avoid competing directly with one another. The plurality of industrial models is not only a reality due to the diversity of economic and social contexts, but it also is a necessity when firms change in the same framework. These general conclusions result from an international research program called “Emergence of New Industrial Models in the Automobile Industry,” carried out from 1993 to 1996 by an international network of social science researchers—GERPISA—that we led and coordinated.

The three industrial models that were identified thanks to this program for the 1974-1992 period (Boyer, Freyssenet, forthcoming) are less important than models that other firms must adopt but which had not up to the present time. These three models met effectively in the first half of the 1990s with major difficulties which led the firms that created them to make them evolve, or even change them. Does this therefore mean that there are no more benchmarks for the future? On the contrary, the comparative analysis of firms’ history and geography as seen in this report (Freyssenet, Mair, Shimizu, Volpato, 1998; Boyer, Charron, Jurgens, Tolliday, 1998, Lung, Chanaron, Fujimoto, Raff, forthcoming, Durand, Castillo, Stewart, 1998) allows for understanding of the external and internal conditions of profit strategy possibilities which the different industrial models implement. At that point, it is possible to judge the future importance of these profit strategies, taking into account the current trends for reshaping worldwide economic and political areas, and the transformations of growth modes and redistribution of product income in the different spaces.

In actual fact several cases confront each other today. It is possible to see a generalized freeing of trade and homogenization of competitive forms and the workforce employment conditions, the formation of regional poles having their own growth and income redistribution mode, or even the affirmation of new countries as vast and populous as regional groups which are trying to form. The auto markets and types of workforces which result from these three scenarios are very different (Freyssenet, Lung, 1996). The most likely to prevail is actually a combination of the three, at least in the next decade. There is uncertainty about their respective proportions. The naïve vision of a beginning of the 21st century characterized by globalized firms using lean production in a generalized free trade world can now be given up.

The present article develops the preceding ideas in three sections. The first characterizes the three industrial models of the 1970s and 1980s and the reasons for their performance. The second exposes the turning point which is the 1990s. The third evaluates the possible paths in the framework of reshaping under way in the world space.

## **2. There never was a ‘one best way’. Three successful industrial models existed during the 1970s and 1980s**

Both historical and statistical analyses demonstrate that three industrial models in the automobile sector were profitable and successful in the period from 1974 to 1992, and not just one as the authors of *The Machine that Changed the World* proclaim, or the commonly held adage stating that only one solution can exist for a given problem. The three models reached their limit at the beginning of the 1990s, and were forced to

change. They embodied three specific profit strategies. These strategies are defined as the combination of different proportions of eight possible profit sources: economies of scale, diversity of supply, product quality, equipment level, pertinent commercial innovation, productive flexibility, technical change, and permanent cost reduction at constant volume (Belis-Bergouignan, Lung, 1994, Boyer, Freyssenet, Jetin, forthcoming).

The non-specialist firms having the most regular and profitable results for their automobile activity during the 1974-1992 period were: Volkswagen, Toyota, and Honda. Each firm had its own specific profit strategy, product policy, productive organization, worker salary relationship, and company governance compromise. Volkswagen established a profit strategy which emphasized "volume and diversity" by efficiently applying the Sloanian model within the slow growth market of the time. Toyota preferred to give priority to the "permanent cost reduction at constant volume" under all circumstances, and invented a production system in order to achieve this: the Toyota model. Honda focused on innovation and flexibility by designing an industrial model which allowed it to limit risks inherent to this type of strategy and profit from it as much as possible: the Honda model.

The only characteristics that these three firms shared were in their choice in profit strategy, which took into account the macro-economic, social, and competitive environment surrounding them to build up a company governance compromise between the main players, allowing it to make product policy, productive organization, and employment relationships coherent with the profit strategy chosen. Their performance level thus emanated from the combination of external relevance and internal coherence, and not from their excellence in one or the other area, mistakenly considered as the direct and universal expression of competitiveness.

During this period, all other non-specialist firms experienced at least one major financial crisis and a break even point, which on several occasions surpassed the value added, either because their profit strategy was not compatible with the environment (Ford, GM, Chrysler, Fiat, Renault, PSA, Mazda, Mitsubishi), and/or because their product policy, productive organization, and employment relationships did not coincide and/or were not coherent with the adopted strategy (Nissan, Mazda, Mitsubishi).

All other non-specialized firms experienced at least a major financial crisis and "break even point" going beyond the product added value several times, or because their profit strategy was not or was no longer pertinent in the environment which was theirs (Ford, GM, Chrysler, Fiat, Renault, PSA, Mazda, Mitsubishi) and/or because the relationships between corporate actors did not allow for their product policy, their productive organization and their payroll relationship to become more coherent via the strategy pursued (Nissan, Mazda, Mitsubishi).

The Sloanian model, allowing for the application of a "volume and diversity" strategy, was considered as having been discredited by the recession and changes affecting the market and labor from the beginning of the 1970s. Nonetheless, it was successfully adopted by Volkswagen from 1974 on. As we all know, this model combined economies of scale thanks to the commonization of platforms, the effects of a commercially useful product range, and margins resulting from products whose quality was superior to the average at only a slightly higher price. In the context of a slow growth market, two prerequisites exist: the pursuit of economies of scale thanks to a consistently increasing commonization of platforms, and/or gains in market shares, and/or the firm's external growth; a worker's compromise indexing payroll costs to

export competitiveness. Volkswagen admirably fulfilled these two conditions, first by rapidly commonizing platforms to their two makes (Volkswagen and Audi), then taking over Seat and Skoda, and gaining market shares, and secondly by signing an agreement with the union which protected jobs by privileging internal mobility, versatility, and work sharing as opposed to salary increases. This profit strategy and the means to apply it were compatible with German growth, already an expansive one for quite some time, and characterized by loose salary redistribution structures linked to export competitiveness and not to internal productivity growth as was the case up to the 1980s in France, Italy, and the United States. The Volkswagen model addresses a consumer market essentially made up of the middle class, and must face moderate interest rates and avoid too much diversity. It must also maintain control of payroll costs and the evolving value of the automobile product. Because of “bubble economy” and German reunification, Volkswagen lost control of these two parameters. The 1993 recession accentuated the resulting consequences. Regenerating company governance compromise with the union as well as vigorous action on the supplier front stabilized the situation (Jurgens, 1998). Once again, Volkswagen successfully embodied the "volume and diversity" model.

The fundamental philosophy of the Toyota model, which emphasizes the profit strategy of “permanent reducing costs at constant volume,” essentially states that definitively nothing is ever really sure. Even in periods of growth, reducing costs permanently at constant volume is recommended since things could change unexpectedly; the failure of a model, an error in management, variations in exchange rates, or political and social upheavals are always possible. Other sources of profit emanate in essence from additional elements : volume—if the market and self-financing permit it—diversity and quality, if demand requires it and only if the products are commercially useful. Product-innovation, on the other hand, is not an object unto itself because of its intrinsic risks. However, it is rapidly duplicated or purchased in patent form once validated by the market. This profit strategy was particularly pertinent in a country having made export price competitiveness of certain industrial branches—of which the car industry—a keystone in its growth mode. Reducing costs (time, wages, capital, material, energy) permanently at constant volume is obtained by Toyota thanks to continual contribution towards this objective on the part of workers and suppliers. Despite resulting constraints, worker participation was made possible through job and career security and through a salary system which linked monthly pay to each team's effort to reduce work time. Suppliers’ participation was made possible by order guarantees, negotiated sharing of profits, and financial links with the builder. This industrial model contributed to exceptional growth at Toyota. Nevertheless, as with any model, certain conditions can disappear. Even at Toyota, limits were reached precisely during the great “speculation bubble”: recruitment difficulties in a tense labor market because of working conditions judged to be too hard, impossibility to increase workers overtime hours further in order to satisfy increased demand, tension with suppliers, economic opposition from competitors, and political hostility from countries involved. Toyota thus had to significantly modify its productive organization and worker salary relations: adopting a more "classical" salary and work week system, assembly line sectioning, distancing from suppliers, etc.(Shimizu, 1998). Only the future will reveal whether or not Toyota has found a new way to have its workers participate and its suppliers associate.

The Honda model applies an "innovation-flexibility" approach which consists in responding to latent expectations or to newly emerging demands by launching makes with a striking personality or particularity compared to others. These models are built immediately if demand confirms the creator's intuitions, and naturally before they are copied by competitors. From a historic standpoint, this strategy allowed new builders to make a profitable place for themselves among those already dominating the market. Such was Honda's case, which was the last firm to go on to the auto building market in Japan, and who today has risen to the second spot. However, the history of the automobile industry is also one of firms going bankrupt because of such a strategy. The risks are obvious: an innovation which fails in its encounter with the public, over or underestimating demand, losing the capacity to innovate at the right moment and in the long term, investors turning their backs, the temptation to act like one of the majors after an initial success. The characteristics of the Honda model are precisely designed with the goal of avoiding these risks or reducing their effects. Insofar as the capacity to innovate is concerned, inventiveness is highlighted through an "expert" branch working alongside the more classical branch, and by contests for new ideas, studies organized around several axes, and engineers submitting projects to a commission when, if chosen, are given a budget and the opportunity to create their own work team. In addition, salespersons are asked to perceive expectations and new trends among clients in general. Unlike the Toyota model which underlines the value of the group, this model emphasizes individuality, both among workers and customers. In order to carry out these projects, some of which appear very risky to outside shareholders and bankers, the firm must maintain its financial independence and not be financially linked to suppliers. It must be prepared to deal with eventual failures through a weak integration level and a very low "break even point." Finally, it must be very flexible on the production end so as to respond to a demand whose volume is difficult to predict. Worker salary compromises are based on recognizing and rewarding talents as well as good employment and working conditions. This is the method Honda was able to build up, contrary to Chrysler in the 1970s-1980s, or Citroën before 1974 which had adopted the same profit strategy. Nevertheless, Honda also experienced as Volkswagen and Toyota some hard times during the "speculative bubble". It believed that demand in a long-term growth context would be for more and more luxurious and sporty automobiles, completely neglecting the budding demand for minivans and recreational vehicles (RVs). Only recently was Honda able to modify its product policy successfully with the launch of the much appreciated RV.

As one may see, these three models are different from both a conceptual and pragmatic point of view. "Lean production" is a mixture of characteristics from the Toyota and Honda models, though much tends to point to their structural incompatibility. A look at history seems to verify the conclusion of this analysis. No example exists where a firm or a group was able—except in a very marginal manner—to have models one or two work along with model three, even in the form of distinct branches. Indeed, it is apparently impossible to do everything at the same time. Put another way, one cannot simultaneously be Einstein and Carl Lewis.

### **3. The turning point of the 90s. Reshaping world space and new income growth and redistribution modes**

The beginning of the 1990s was a turning point. The relationships between firms in the automobile industry changed, as well as the national contexts and international environment. (Boyer, Freyssenet, 1996, Freyssenet, Lung, 1996). The gaps in competitiveness between builders were reduced. Competition between them began once more, but in different conditions from the 1970s. The same was true in the relationships between countries. Whereas the confrontation of the 1970s had been between countries who redistributed their income according to internal productivity gains and those who did the same in relation to their external competitiveness, the confrontation of the 1990s is between countries where redistribution has remained institutionalized and coordinated or centralized, and those where it has become competitive and decentralized. These changes in national growth modes and redistribution of income contributed, along with the emergence of newly industrialized nations and the implosion of communist regimes to the start of the process of reshaping of the global economic and political space, of which some are contradictory. Automobile demand was quantitatively, qualitatively and geographically transformed, making firms reconsider their profit strategy or at least the means used to implement it. In a word, the future once again is open.

Financial troubles, which non-specialist automobile firms other than Volkswagen, Toyota and Honda had experienced not only made but allowed them to change their employee relationships, to reorganize their production, or even to adopt a new product policy. The indexing of salaries to the growth of national productivity was abandoned and flexibility of employment made easier. The break even point was lowered through immediate and drastic economic measures. Debt was reduced through the sale of non-essential activities. The positive effects of these measures on financial results were augmented by strong growth in the automobile sector in the second half of the 1980s thanks to the oil counter-shock and “speculative bubble”. Firms that had been in difficulty once again found the path to profits and improved competitiveness.

But did they actually find the conditions for lasting performance, that is a pertinent profit strategy in their new economic and social context and the coherent means to implement it? Companies like GM and Fiat reactivated their “volume and diversity” strategy by increasing the commonization of their models’ platforms, by regaining control of the value-added chain through the transformation of their equipment subsidiaries, and by developing staff versatility. Nissan on the other hand was not able to regain a proper level of diversity. PSA tried to implement a strategy of “permanent cost reduction at constant volume”, but had to give it up following employee industrial action. It went back to its former “volume and diversity” strategy. Ford, which pursued the same strategy, shifted it towards a “volume” strategy by trying to design and sell world cars, with their own platform. Chrysler, after having sought its way, clearly oriented its profit strategy towards “innovation and flexibility”. It doted itself with an adapted product policy, productive organization and also probably salary relationships. Mitsubishi tried to do the same; but its chronic debt took its toll on the firm’s independence and the necessary initiative margins. Renault and Rover played the quality card, by trying to position themselves in the upmarket half of each market segment. Renault then placed the accent on successful innovation and progressively discovered what each implied in terms of complete corporate reorganization.

But the above-mentioned builders do not seem to have built up a company governance compromise which would guarantee them the coherency and long-lastingness of the means used. Weakened and on the defense, employees and unions made numerous concessions in terms of job forms, working time and salaries. They accepted new work and production organization. Yet at the beginning of the 1990s, they began to make it known around them that they considered that they had not been properly compensated for their efforts: jobs were continuing to be cut but wages did not increase proportionally. The conflicts that broke out here and there reminded everyone involved that no company governance compromise had really been made. As history now shows, performance is only durable if compromise exists by right or *de facto*, fear of unemployment cannot constitute sufficient guarantee of involvement in work and social harmony.

Whereas firms formerly in recession regained relatively good financial health, companies which had continually been profitable in turn ran into difficulties at the beginning of the 1990s which made them change their industrial model or reestablish the coherence that they were losing. Because of the oil counter-shock and “speculative bubble” - which brought about a brutal rise in demand at the end of the 1980s and beginning of the 1990s, notably in Japan and Germany - the company governance compromise was destabilized at Toyota, workers refusing an increase in their overtime and their work load; the capability for anticipation of new customer expectations and innovations which were commercially useful for Honda was blamed, and in the end, the control over payrolls and prices asked for by suppliers was momentarily lost by Volkswagen.

In the final outlook, gaps in competitiveness were reduced, and even more significantly so that variations in exchange rates played to the Japanese and German firms’ detriment. Competition between firms was therefore set off again, but on a basis and in a context different from the 1970s. It was even more important, considering that automobile demand at the same time changed quantitatively, qualitatively and geographically.

Until 1974, the main automobile markets could be found in countries—the U.K. excepted—where an institutionalized and moderately hierarchically-organized redistribution of national income were in force, which was accomplished in relation either to internal productivity gains (as in the U.S., France and Italy), or in external competitiveness (through prices in Japan and product specialization in Germany). Automobile demand, though having a high specificity according to the country, shared some important common traits. They were organized hierarchically from down to upmarket, according to a continuum allowing households whose income grew with job experience to go from one segment to another. The “volume and diversity” profit strategy was particularly pertinent in such a context.

The energy crisis of 1974 made all countries compensate for the brutal rise in their energy expenses by greater exports. It favored Japan and Germany, which already had a national labor compromise allowing them to set wages in relation to their external competitiveness. On the other hand, the United States, France, Italy and the U.K. had to change their rules for redistributing national income to in turn become competitive, but not without labor conflicts and political tension. They began being more competitive in the second half of the 1980s, but by different means. If these four countries deregulated, privatized and decentralized wage negotiations, weakened unions and modified state intervention, they did it to very different extents and in very different ways. American

and British workers had to adapt themselves to the demands of firms who became freer in their supply. Unemployment was thus reduced, but the gap in income was significantly increased. France and Italy maintained large public service sectors and solidarity rules for people deprived of jobs and resources. At the same time, Japan and Germany lost part of their advantage. The explosion of the “speculative bubble” particularly effected Japan and the “reunified” Germany. The value of the mark and yen further reduced the gap in competitiveness between countries.

From this point on the national growth and redistribution modes were once more in a state of confrontation. Yet this time the conflict was between countries in which distribution of wealth had become deregulated and governed only by the law of local labor supply and demand (United States, U.K.), and the countries who kept institutionalized and coordinated forms nationally (Japan, Germany, and to a lesser extent France and Italy).

Contrary to what may be believed by a rapid overview, there is no convergence towards the same modes of growth and redistribution of income, and in consequence towards a same type of market and production conditions. Finally, hierarchically organized markets which characterized the essential of automobile demand—because of redistribution of moderately hierarchically organized national income—tend to be replaced by a variety of markets, some marked by the emergence of new demand, others stratified, polarized, balkanized or even unstabilized.

To the modification of relationships between industrialized countries and the diversification of their automobile markets can be added the emergence of newly industrialized countries in Latin America and southeast Asia and the rapid growth in car demand in these countries. These countries’ economic growth did not have the same origin for everyone. For a long time southeast Asian countries benefited from the U.S. policy aiming to contain Soviet or Chinese expansionism. It let them develop sheltered from tariff barriers, while at the same time giving their products an outlet on its domestic market. The implosion of the eastern European communist regimes and the changes in China radically modified the situation. Apart from the promise of new markets and investment possibilities, the transformation of these countries led the U.S. to call into question the customs protection that they had formerly accepted. The widespread pressure for freeing of exchanges that the U.S. had been exerting on Europe and Japan was thus spread to all of these countries. But this trend was partially blocked by two others: the forming of regional groups, and the affirmation of major countries, such as China, India or Russia, each making up its own proper region in the world.

**4. What will the important profit strategies be during the next decade? What will the available means and company governance compromises possible be to implement them? What will the forms of internationalization appropriated for them?**

None of the scenarios of global space reshaping will be exclusive of the others, except through an accident of history. In order to avoid economic and political instability, generalized free trade presupposes worldwide rules and means to make them respected. However, it could be thought that these rules would require many years before being part of a sufficient and satisfactory agreement for all parties. Neither are there enough countries who are powerful enough to impose them on others in a foreseeable future. This is why the countries who already maintain major trade exchanges seek (mainly or



by default) to make up free trade zones, the rules of which being less difficult to work out and the immediate benefits easier to spread to a limited territorial scale. In this case either a satellitization of emerging countries by powerful industrialized countries—as is already the case in NAFTA—or accords between emerging countries who dispose of certain autonomy will be seen, as the MERCOSUR countries are attempting to do. These free trade zones will either be steps to worldwide free trade, or if the latter is revealed to be utopian or impossible, towards the formation of regional economic and political poles. The scenario of a multi-polar world made up of countries grouped together according to region whose economic growth would once again be self-centered and regulated would also only be possible partially in the best of cases. The formation of such political and economic poles is a long and winding path with many potholes, as the experience of European Union construction has shown. In a medium term, one or two of these poles are possible. In the end the preceding trends will not stop the fact that independent nations last and expand either because they make up regions by themselves, or continents through the size of their population, natural resources and industrial and financial means; or because of their very independence they fill the role in the international economic system that other countries do not wish to see disappear.

Would it not therefore be because of their varied modes of insertion in the international system that the different world spaces of the future could not have the same means for growth and redistribution of income, and consequently the same market and labor uncertainty to manage? The hypothesis of homogeneization of car-owner expectations and competition conditions are therefore highly improbable, without counting on the cultural differences which, far from waning, are gaining permanence in other forms. In these conditions, what are the chances for different profit strategies possible for automobile firms?

The “volume and diversity” strategy, as is known, needs two conditions: growth in volume and acceptance by customers of a diversity between closely related models which is limited to surface and equipment. Growth in volume can today be obtained by locating commercially and if necessary industrially in emerging countries; on the other hand, by absorbing other builders and commonizing platforms. The “volume and diversity” strategy would thus be fully pertinent in the framework of a world where car owners would globally have basically common expectations and would only differentiate regionally or nationally on secondary aspects. This is the wager that General Motors notably is making. Worldwide commonization of platforms for regional models belonging to the same market segment will ensure the necessary economies of scale. Regional diversity will be limited to apparent aspects, to take local tastes and rules into account. But this strategy presupposes - on the condition of similar automobile use - a mode of income redistribution organized along a moderately hierarchical level in each of the spaces so that the limited differentiation between models will be accepted by buyers, and on the other hand, that real wealth rifts between concerned countries will also be moderated. It would hence be necessary that the formation of regional poles according to modes of growth and regulated redistribution prevails, and that these poles evolve economically and socially in a parallel manner. Yet, both between poles as well as within them, the differences in income is rising and the cultural differences becoming deeper. Is it possible to invent a new form of commonization which would allow them to get over this difficulty? As observed at GM, the worldwide reorganization implied in this strategy provokes internal tension: regional

subsidiaries, who designed and manufactured their range up to then refused to lose control of their product policy.

The strategy of permanent cost reduction at a constant volume, which theoretically implies the lean production model is one which appears at a glance to be the best in an uncertain and unstable world. Such would still be the world to come, so numerous are the recompositions and forms of growth possible in the worldwide space. But it has already been mentioned that the conditions to be required to implement such a strategy are quite exceptional, to the extent that the only firm to have succeeded in doing it for around forty years was made to seek more acceptable means at the beginning of the 1990s, the preceding having been rejected by employees and suppliers, as well as by competitors and the countries concerned. Has Toyota succeeded in rebuilding a company governance compromise around new means, meaning definitively a new industrial model? Would it not also be changing its profit strategy, if its attempts to design innovative automobile models are judged?

The innovation and flexibility strategy is pertinent in a context of the emergence of new population strata, which have their own new expectations about the automobile. These strata appear in societies which are different economically and socially: either because their highlight initiative and new knowledge - notably financial - or because the different sharing out of national wealth between extant social categories modifies the demand qualitatively. The most competitive redistribution of income in many countries today can favor the emergence of new strata or the modification of demand in existing categories. It must however not lead to social instability through excess competition, preventing truly new expectations to form. The innovation and flexibility strategy thus implies very fine attention to qualitative changes in different markets, but also markets vast enough so that new demand represents sufficient volume. The scenario of the making up of regional poles adopting a competitive mode of income redistribution is favorable to this profit strategy, as it offers both innovative demand and necessary volume. In this hypothesis, a builder implementing the “innovation and flexibility” strategy would not necessarily need to spread itself out on a worldwide basis and be perfectly profitable on a regional scale. It could be thus for Honda, Chrysler and Renault, each being the “innovation and flexibility” firm in its region of the world. A global firm pursuing this strategy is nevertheless conceivable. But it would be necessary for it to be able to design and produce innovative vehicles adapted to the new social strata which appear in the different spaces, and not to content itself to trying to sell innovative models elsewhere designed in its home zone. Other builders today are trying to innovate to meet new demands, believing that they can do it by complementing their usual strategy. The proof remains to be seen that this is possible. For the moment, all evidence looks to the contrary.

The recomposition of the global economic and political space and the transformation of the modes of growth and redistribution of income could thus give new importance to profit strategies which had practically disappeared: the strategies of volume, diversity and flexibility.

The policy of world cars - one per major market sector, each having its own platform - would regain pertinence in a world where the parties are converging toward the same forms of competition and the same means of income redistribution. This being improbable as seen above, does it necessarily mean that it is totally unthinkable? It can be viable under two conditions. The first is sufficient freedom of exchanges between main countries so that customs duties and exchange rate variations do not prevent

worldwide concentration and specialization of production sites, an essential element of a strategy for economies of scale. The second is that a fraction of the customers on the main markets privileges low sales prices and only average quality. Is that not the hypothesis that Ford seems to be positing, by trying to specialize each of its three world design and manufacturing poles in a market segment? But it can be seen that the probable future conditions are not fully optimal for this strategy. It would also be necessary to permit European and Japanese subsidiaries to be specialized in a market segment, or even a particular car, whereas up to now they have designed and built a complete range. The tension provoked by this policy in all likelihood shows divergences in the analysis of demand change in the different parts of the world.

The “diversity and flexibility” strategy could also find justification once again. The competitive mode of income redistribution could generate balkanized markets through consequential economic, cultural and labor cuts, each social and professional category bitterly defending its prerogatives and distinctive characteristics. Such was the change in the British market up to the 1960s. This strategy consists of designing and producing as many families of models as there are social groups having strongly distinctive expectations and being flexible enough to face the inevitable variations in demand from each of these groups.

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